

BETTER TRIPS
for **BETTER LIFE**



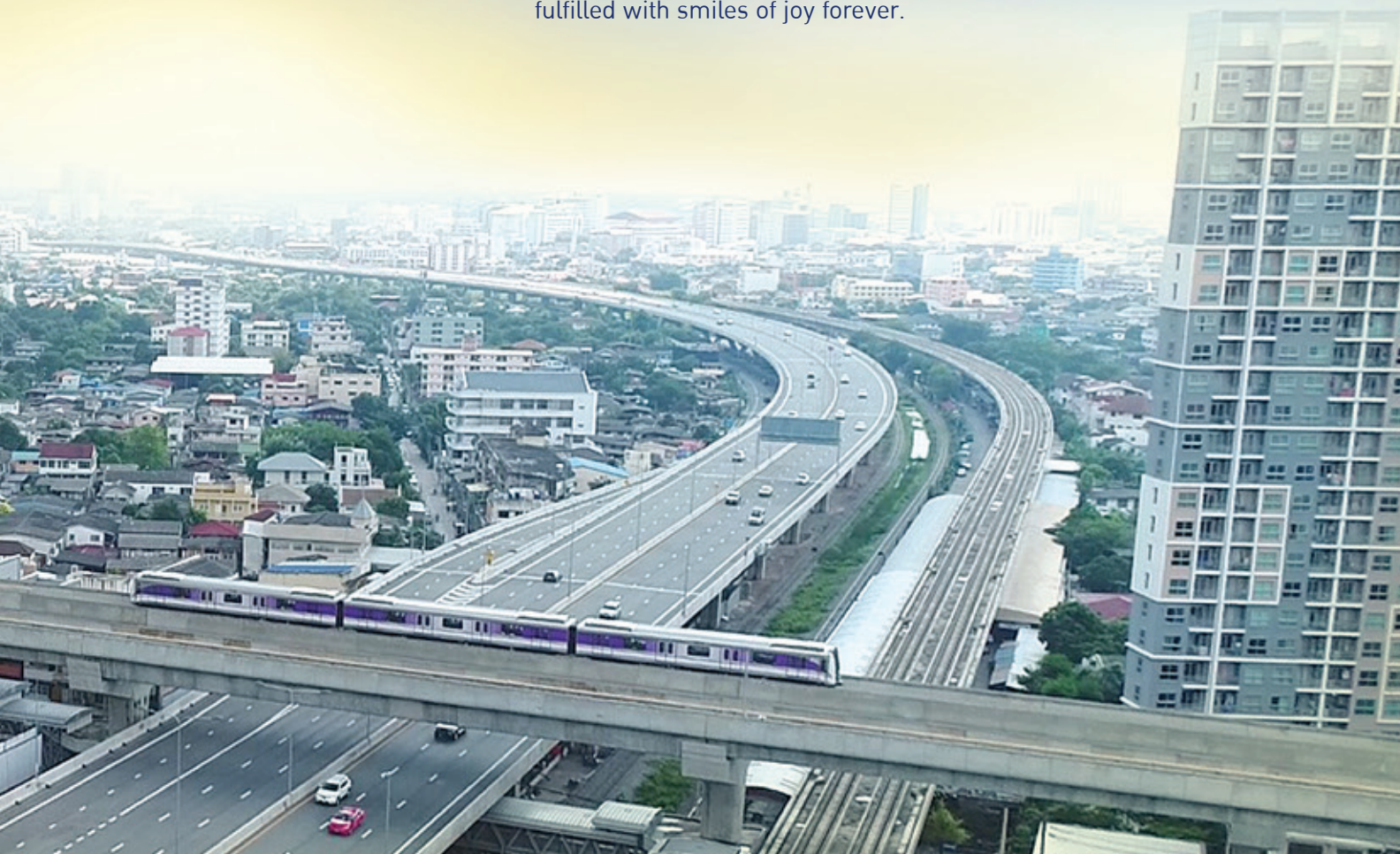
BEM
BANGKOK EXPRESSWAY AND METRO

Bangkok Expressway and Metro Public Company Limited

BETTER TRIPS for BETTER LIFE



Bangkok Expressway and Metro Public Company Limited or BEM determines to be a leading service provider of the integrated transportation system of Thailand and ASEAN with its administration under corporate governance and social responsibility. BEM's businesses consist of Expressway service, Mass transit system, and also Commercial development, which expands its business through infrastructure in forthcoming service providing networks. Throughout its business administration, BEM has delivered good and efficient service to expressway and metro users for their convenience, quickness and safety. BEM also has had a vital role in elevated civic quality of life and alleviated traffic congestion for building pleasant society, fulfilled with smiles of joy forever.



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FINANCIAL SUMMARY

Financial Summary of the Consolidated Financial Statements of Bangkok Expressway and Metro Public Company Limited and its Subsidiaries

Financial Highlights

Unit : Million Baht

Financial Position (As at December 31)	2017	2016
Total assets	98,919	82,786
Total liabilities	67,740	53,003
Shareholders' equity	31,179	29,783

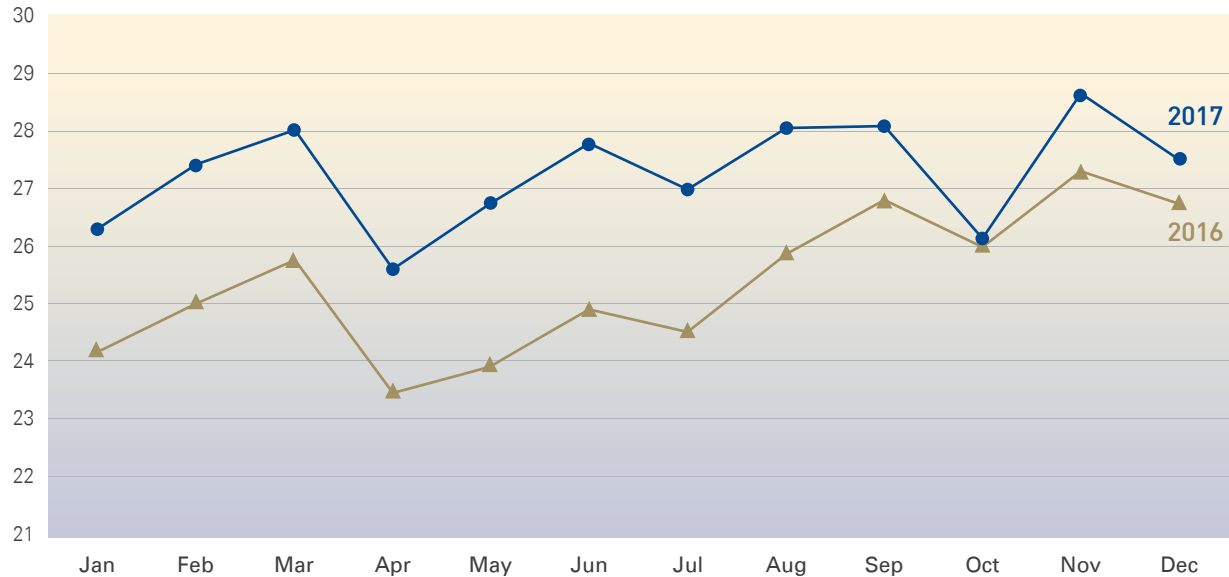
Operating Results (For the year ended December 31)	2017	2016
Revenue from expressway business	9,957	9,301
Revenue from rail business	4,521	3,230
Revenue from commercial development business	676	573
Total revenues	15,393	13,233
Gross profit	5,947	5,110
Net profit attributable to the Company	3,123	2,606

Financial Ratios	2017	2016
Net profit margin (%)	20.45	19.69
Return on equity (%)	10.31	8.87
Return on total assets (%)	3.75	3.25
Debt to equity ratio (times)	1.75	1.78
Interest bearing debt to equity ratio (times)	1.38	1.31
Book value per share (Baht)	2.03	1.94

Average Daily Toll Revenue : Chalerm Mahanakorn, Si Rat, Udon Ratthaya Expressway and Si Rat - Outer Ring Road Expressway

↑ 2017 increase from 2016 **7.36%**

(Million Baht / Day)

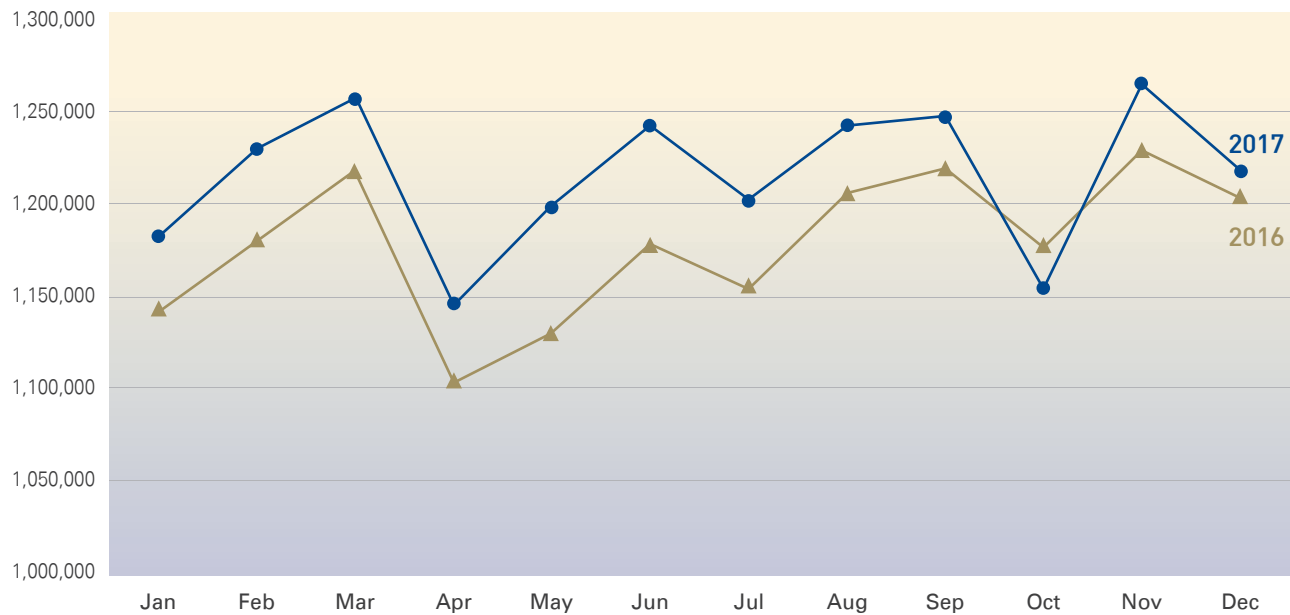


● AVG Daily Toll Revenue 2017: **27.28** Million Baht/Day ▲ AVG Daily Toll Revenue 2016: **25.41** Million Baht/Day

Average Daily Traffic : Chalerm Mahanakorn, Si Rat ,Udon Ratthaya Expressway and Si Rat - Outer Ring Road Expressway

↑ 2017 increase from 2016 **3.07%**

(Trips / Day)

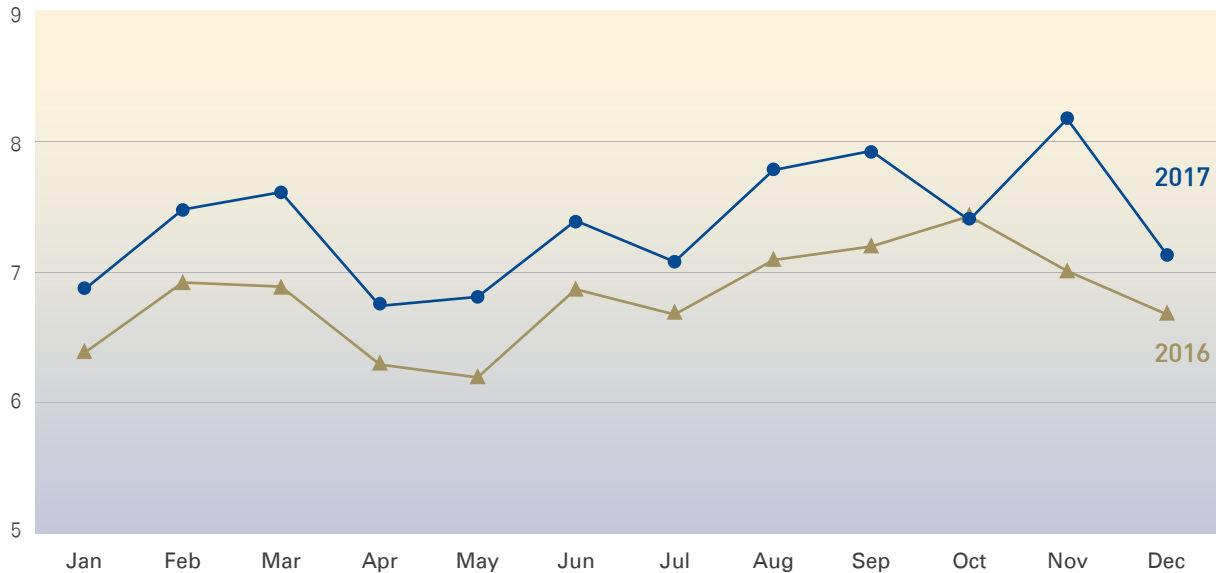


● AVG Daily Traffic 2017: **1,214,028** Trips/Day ▲ AVG Daily Traffic 2016: **1,177,917** Trips/Day

Average Daily Fare Box Revenue : the MRT Blue Line

↑ 2017 increase from 2016 **8.68%**

(Million Baht / Day)



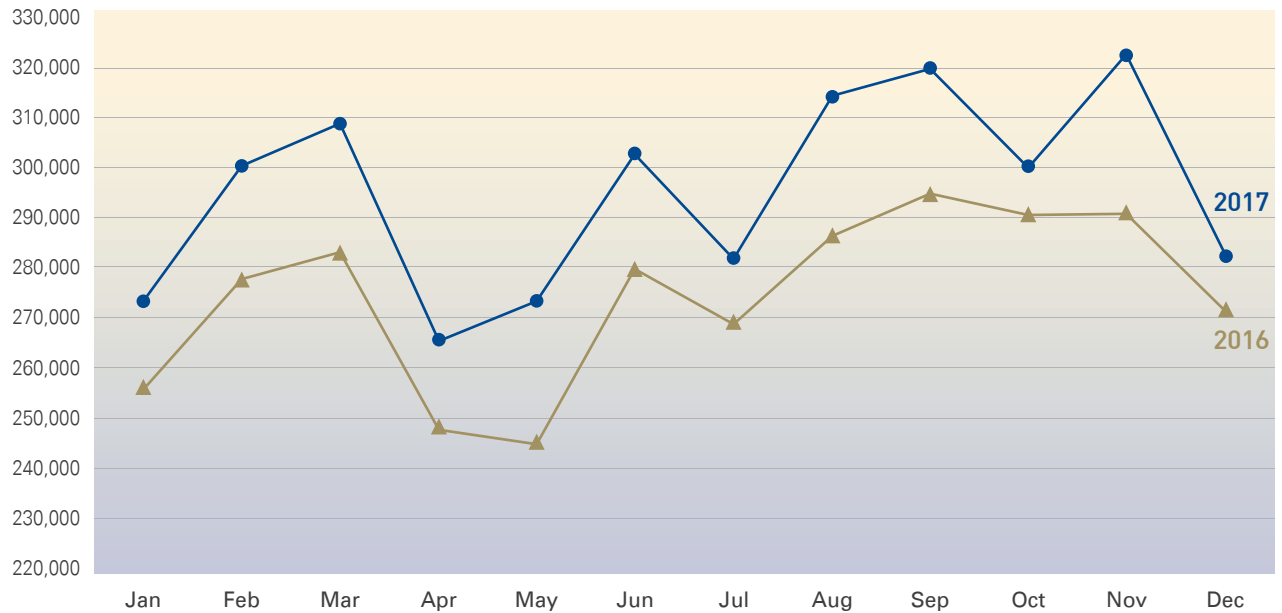
● AVG Daily Fare box Revenue 2017: **7.39** Million Baht/Day

▲ AVG Daily Fare box Revenue 2016: **6.80** Million Baht/Day

Average Daily Ridership : the MRT Blue Line

↑ 2017 increase from 2016 **7.83%**

(Trips / Day)



● AVG Daily Ridership 2017: **295,792** Trips/Day

▲ AVG Daily Ridership 2016: **274,302** Trips/Day

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS



Bangkok Expressway and Metro Public Company Limited or BEM, as the expressway and metro service provider, is committed to developing the fully-integrated transportation system network to facilitate the people's travelling and help alleviate traffic problems in Bangkok and its surrounding provinces through delivery of the services with efficiency, safety, convenience and rapidity, under the management based on the corporate governance, with our continuing commitment to the social and environmental responsibilities. For that reason, BEM was announced as one of listed companies in the Thailand Sustainability Investment (THSI) 2017. Likewise, with the successful amalgamation between Bangkok Expressway Public Company Limited and Bangkok Metro Public Company Limited, representing the transaction conducive to changes and benefits for the capital market, BEM received the Best Deal of the Year Award 2017 from the Stock Exchange of Thailand.

For the operations in this year, BEM has been provided the opportunity by the government sector to be awarded by the Mass Rapid Transit Authority of Thailand the concessions for the MRT Blue Line Project, comprising the M.R.T. Chaloem Ratchamongkhon Line Project (Hua Lamphong Station - Bang Sue Station) currently in service; and the MRT Blue Line Extension Project (Hua Lamphong Station - Lak Song Station and Bang Sue Station - Tha Phra Station), whereby Tao Poon Station - Bang Sue Station of the MRT Blue Line Extension Project has been opened for service, connecting the train operation among the M.R.T. Chaloem Ratchamongkhon Line (the existing MRT Blue Line), the MRT Blue Line Extension, and the M.R.T. Chalong Ratchadham Line (the MRT Purple Line) to ensure the Through Operation on August 11, 2017. Furthermore, the Company has constructed the connection between the Si Rat - Outer Ring Road Expressway Project and the Si Rat Expressway, heading to Chaeng Watthana, which started in August 2017, and it was scheduled to be opened for service in 2018.

With regard to the results of operations of the Company and its subsidiaries for 2017, the net profit was Baht 3,123 Million. The Board of Directors of the Company resolved to propose that the Shareholders Meeting approved the dividend payment for the second half period of 2017 at the rate of Baht 0.07 per share. During the year, the Board of Directors of the Company resolved to approve the interim dividend payment for the first half period to the shareholders at the rate of Baht 0.06 per share, and as such, the total dividends paid in 2017 were at the rate of Baht 0.13 per share.

We would like to extend our thanks to all stakeholders for your supports; to the government sector for giving us the opportunity to operate and manage the transportation systems; to our shareholders, counterparts and financial institutions for continued supports to our businesses; to the expressway and metro users for your trust in our services; and to all our staff for concerted efforts, contributions and foundation for our sustainable success. Rest assured that Bangkok Expressway and Metro Public Company Limited will always be committed to the code of ethics, integrity and transparency in our business operations, including compliance with the good corporate governance principles with social and environmental responsibilities to attain the sustainability for our business as well as delivering the good and efficient services.



(Dr. Virabongsa Ramangkura)

Chairman of the Board of Directors

REPORT OF THE AUDIT COMMITTEE

The Audit Committee of Bangkok Expressway and Metro Public Company Limited, as appointed by the Company's Board of Directors, comprises four independent directors, namely, Mr.Vitoon Tejatussanasoontorn, as the Audit Committee Chairman, General Chetta Thanajaro, General Sampao Choosri and Dr.Annop Tanlamai, as the Audit Committee Members. The Audit Committee Chairman and Dr. Annop Tanlamai specialize in accounting and finance, and the General Manager of Internal Audit Office serves as secretary to the Audit Committee.

The Audit Committee has performed its duties within the scope, duties and responsibilities as assigned by the Board of Directors in line with the requirements of the Stock Exchange of Thailand. In 2017, the Audit Committee held six meetings for discussion and sharing of opinions with the management and internal auditor, and a meeting with the auditor without the management's presence, for independent discussion on the essence in the preparation of the financial statements and the annual audit plan.

The key performance of duties of the Audit Committee may be summarized as follows:

1. Review of Financial Report: The Audit Committee reviewed the financial statements of the Company and its subsidiaries, including changes in the accounting policy, the adjustments which materially affected the financial statements, and correct and complete disclosure of information, by receiving clarifications from the auditor, management, and internal auditor to its satisfaction that the financial statements were prepared in accordance with the legal requirements, the generally accepted accounting standards and the financial reporting standards, with correct and sufficient disclosure of information in a timely manner for the benefit of shareholders or information users for making an investment decision, and therefore approved such financial statements, as audited and reviewed by the auditor, representing a report on an unqualified opinion.

2. Review of Internal Control System: The Audit Committee reviewed the assessment result of the internal control by using the Internal Control Adequacy Evaluation Form under the practice guidelines as specified by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to ensure the efficient and effective performance in all work units in order to meet the specified objectives and targets, compliance with various laws and requirements, and sufficiency in order to control and prevent corruption. The Internal Audit Office independently examined and evaluated the sufficiency of the internal control, as well as reporting directly to the Audit Committee, taking into consideration the operations, resource utilization, property management, risk prevention and minimization, and reliability of financial report, and focusing on the internal control of the information system, subject to further review and monitoring by both internal auditor and the auditor.

3. Supervision of Internal Audit: The Audit Committee reviewed the Internal Audit Unit to ensure its independence, with a duty to report directly to the Audit Committee, by approving the annual internal audit plan, and reviewed the operations as per the approved work plan, considered issues as a result of the audit and useful suggestions in order to enhance the efficiency of the internal audit system, and regularly followed up the operational results under the suggestions, as well as approved the consideration for appointment, transfer or termination of employment of Head of the Internal Audit Unit.

4. Review of Good Corporate Governance: The Audit Committee reviewed the Company's operations to ensure that its business operations was carried out under the corporate governance principles in compliance with the law on securities and exchange, rules and regulations of the Office of the Securities and Exchange Commission, requirements of the Stock Exchange of Thailand, and other laws relating to the business operations, including obligations which may arise from agreements executed with third parties, and found that the Company duly and properly complied with the relevant laws and requirements in a timely manner.

5. Review and Provision of Opinions on Connected Transactions or Transactions which might give rise to conflicts of interest, including Disclosure of Information on such Transactions: The Audit Committee reviewed and provided opinions on connected transactions or transactions which might give rise to conflicts of interest in compliance with the applicable laws and requirements of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand, and found that the Company executed such transactions with transparency, justification, and benefit to the Company's business operations and shareholders as a whole, together with correct disclosure of information in a timely manner.

6. Consideration for Selection and Nomination of the Auditor and Determination of Remuneration for the Auditor for 2018: The Audit Committee had the duties to consider selecting, nominating, re-electing, or terminating the engagement of the auditor, and consider the remuneration for the auditor, by taking into account the auditor's independence, knowledge, experience, previous audit performance, reasonableness of the auditing fee, and was of the view that the auditor from EY Office Limited was independent, knowledgeable, capable and experienced regarding the audit, provision of advice on the accounting standards, certification of the financial statements in a timely manner, and concluded that the auditing fee was reasonable. Therefore, it proposed the matter to the Board of Directors to consider and seek approval of the meeting of shareholders for appointment of the auditor from EY Office Limited as the Company's auditor for 2018, with the remuneration in an amount not exceeding Baht 3,830,000 per year.

In summary, the Audit Committee fully performed its duties under the responsibilities as assigned by the Board of Directors, by applying various fields of knowledge and abilities in response to the business operations with due care, prudence, independence in line with those as specified in the Audit Committee Charter as approved by the Board of Directors, in providing opinions and suggestions for the fair benefit of all interested parties. It was of the view that the Company's report on financial information and operations was correct in compliance with the generally accepted accounting standards and the financial reporting standards, that the risk management was sufficient, with effective and proper internal control system and internal audit, and that the business operations complied with the good corporate governance principles, as well as applicable laws, rules and requirements relating to the business operations in all respects.



A handwritten signature in black ink, consisting of stylized, flowing letters.

(Mr. Vitoon Tejatussanasoontorn)
Chairman of the Audit Committee

REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE



The Board of Directors of Bangkok Expressway and Metro Public Company Limited appointed the Nomination and Remuneration Committee by having General Chetta Thanajaro as Chairman of the Nomination and Remuneration Committee, Mr. Plew Trivisvavet, Mr. Vitoon Tejatussanasoontorn and Mr. Supong Chayutsahakij as Nomination and Remuneration Committee Members, with the duties to nominate and consider remuneration for directors and Managing Directors to ensure transparency and fairness.

In 2017, there were a total of two Nomination and Remuneration Committee's Meetings to consider various matters. The essence of the performance of duties can be summarized as follows:

1. Considering and selecting qualified persons to hold the position of the Company's directors in accordance with the Company's criteria and procedures for nomination by:

- 1) Nominating persons to be appointed as directors to replace those directors who retire by rotation in the ordinary general meeting of shareholders.

The Board of Directors considered the qualifications and roles in performance of duties in the previous year of directors who retired by rotation and proposed the 2017 Annual Ordinary General Meeting of Shareholders to re-appoint them for another term.

- 2) Nominating persons to be appointed as directors to replace those directors who vacate office.

The Board of Directors considered the qualifications of persons to be nominated as the Company's directors to replace two directors who vacate office, by proposing the Board of Directors' Meeting to appoint persons having knowledge, ability and experience which would be beneficial to the Company, and having qualifications in line with that of directors in listed companies.

2. Considering determining criteria on consideration of remuneration for directors and Managing Directors.

The Board of Directors considered reviewing the criteria on consideration of remuneration for directors and Managing Directors and was of the opinion that the Company's criteria remained appropriate.

3. Considering determining remuneration for directors and proposing the same to the shareholders' meeting for consideration and approval.

The Board of Directors considered determining remuneration for directors for 2017 and was of the opinion that the criteria on consideration of remuneration for directors was appropriate for and in line with the scope of duties and responsibilities of each director; remuneration stayed at the same rate as that of the same industry to attract and retain knowledgeable and qualified directors to perform duties for the Company; elements of remuneration were clear, transparent and easy to understand, by proposing the same to the shareholders' meeting for consideration and approval.

In conclusion, the Nomination and Remuneration Committee has fulfilled their duties as specified in the Nomination and Remuneration Committee's Charter which has been approved by the Board of Directors, by employing their knowledge, ability with due care and independence as sufficient to provide the opinions and suggestions for the overall benefits of the Company.

General 

(Chetta Thanajaro)

Chairman of the Nomination and
Remuneration Committee

REPORT OF THE CORPORATE GOVERNANCE AND RISK MANAGEMENT COMMITTEE

The Board of Directors of Bangkok Expressway and Metro Public Company Limited has realized the significance of compliance with the good corporate governance principles and risk management and thus appointed the Corporate Governance and Risk Management Committee by having General Sampao Choosri as Chairman of the Corporate Governance and Risk Management Committee, Mrs. Vallapa Assakul, Mr. Phongsarit Tantisuvanitchkul, Dr. Sombat Kitjalaksana and Mrs. Payao Marittanaporn as Corporate Governance and Risk Management Committee Members, with the duties to formulate policies and directions of operations in respect of the good corporate governance of the Company to ensure performance of duties with transparency and independence in compliance with the guidelines of the good corporate governance, consider risk management plan, risk management process, as well as monitor, inspect and review the Company's overall risks to stay at an acceptable level.

The Corporate Governance and Risk Management Committee has performed its duties as assigned by the Board of Directors and in 2017, convened its three meetings with the high-ranking management team to consider reviewing policies and follow up progress of compliance with the good corporate governance principles and risk management plan of the Company. The essence of the performance of duties can be summarized as follows:

1. Monitoring to ensure the Company's compliance with the good corporate governance principles.

The Board of Directors followed up and reviewed the good corporate governance guidelines by proposing the Board of Directors' Meeting to consider the appropriateness in adopting it as guidelines for the Company's operations. In this regard, the Board of Directors considered reviewing and improving the good corporate governance policy relating to shareholders' rights; treatment towards shareholders and stakeholders; disclosure of information; and the Board of Directors' responsibility in line with the requirements of the Stock Exchange of Thailand. In 2017, the results of the Company's corporate governance survey were shown at the very good level and the results of assessment of the 2017 Annual Ordinary General Meeting of Shareholders were shown at the excellent level, let alone the fact that the Company was announced as one of 65 listed companies on the Thailand Sustainability Investment 2017 and also received the Best Deal of the Year Award at the SET Awards 2017.



2. Risk management.

The Board of Directors, in association with the high-ranking management, considered the annual risk management plan, reviewed and followed up the risk management every quarter to follow up movement, tendency for review of the risk management plan and risk management strategies to deal with risks to stay at an acceptable level as appropriate in a timely manner for the ongoing changing situations and in line with the Company's work plan.

In conclusion, the Corporate Governance and Risk Management Committee is certain that the Company has complied with the good corporate governance principles and guidelines and has continuously and efficiently conducted risk management, as well as making all-around preparedness in advance for enabling the Company to carry out operations uninterruptedly and continue to exist sustainably.

General

A handwritten signature in black ink, appearing to read 'S. Choosri'.

(Sampao Choosri)

Chairman of the Corporate Governance and
Risk Management Committee

THE BOARD OF DIRECTORS



Dr. Virabongsa Ramangkura

• Chairman of The Board of Directors

Academic Achievement

- Doctor of Law (Honorary), Webster University, St. Louis, USA
- Ph.D. (Economics), University of Pennsylvania, USA
- M.A. (Economics), University of Pennsylvania, USA
- B.A. Political Science (First Class Honors), Chulalongkorn University
- National Defence Course for the Joint State Private Sector, National Defence College
- Director Certification Program (DCP), Thai Institute of Directors Association

Mr. Plew Trivisvavet

- Vice Chairman Of The Board Of Directors
- Chairman Of The Executive Board
- Nomination And Remuneration Committee Member
- Authorized Signatory Director

Academic Achievement

- Honorary Doctorate (Civil Engineering), Kasetsart University
- Honorary Doctorate of Engineering, Civil Engineering, Rajamangala University of Technology Isan
- Honorary Doctorate of Engineering, Thai-Nichi Institute of Technology
- M.Sc. (Electrical Engineering), Osaka University, Japan
- B.Sc. (Electrical Engineering), Osaka University, Japan
- National Defence Course for the Joint State Private Sector, National Defence College
- Director Certification Program (DCP), Thai Institute of Directors Association
- Director Accreditation Program (DAP), Thai Institute of Directors Association
- Finance for Non-Finance Directors (FND), Thai Institute of Directors Association
- Capital Market Academy Leader Program, Capital Market Academy





Mr. Vitoon Tejatussanasoontorn

- Director
- Chairman Of The Audit Committee
- Nomination And Remuneration Committee Member

Academic Achievement

- B.A. in Commerce, Thammasat University
- Director Certification Program (DCP), Thai Institute of Directors Association
- IOD Chartered Directors, Thai Institute of Directors Association
- Audit Committee Program (ACP), Thai Institute of Directors Association
- Advanced Audit Committee Program (AAP), Thai Institute of Directors Association
- Role of the Compensation Committee (RCC), Thai Institute of Directors Association

General Chetta Thanajaro

- Director
- Chairman Of The Nomination And Remuneration Committee
- Audit Committee Member

Academic Achievement

- Master of Arts (Political Science), Ramkhamhaeng University
- Bachelor of Science, Chulachomklao Royal Military Academy
- Infantry Basic Officer Leadership Course, United States Army Infantry School
- The Royal Thai Army Command and General Staff Course
- The Joint State-Private Sector Regular Course, National Defence College
- Director Certification Program (DCP), Thai Institute of Directors Association
- Finance for Non-Finance Directors (FND), Thai Institute of Directors Association
- Board & CEO Assessment, Thai Institute of Directors Association



General Sampao Choosri

- Director
- Chairman Of The Corporate Governance And Risk Management Committee
- Audit Committee Member

Academic Achievement

- Chulachomklao Royal Military Academy
- Royal Military Academy (Saint Cyr), France
- The Army Command and General Staff College
- National Defence Course for the Joint State Private Sector, National Defence College
- Director Accreditation Program (DAP), Thai Institute of Directors Association



Dr. Annop Tanlamai

- Director
- Audit Committee Member

Academic Achievement

- Ph.D. Engineering Management, University of Missouri, USA
- M.B.A (Quantitative Business Analysis), Indiana University, Bloomington, USA
- M.S. in Engineering Management, University of Missouri, USA
- Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University
- Director Certification Program (DCP), Thai Institute of Directors Association



Mrs. Vallapa Assakul

- Director
- Corporate Governance And Risk Management Committee Member

Academic Achievement

- Master of Economics, University of Detroit, USA
- Bachelor of Economics (Second Class Honors), Chulalongkorn University
- Audit Committee Program (ACP), Thai Institute of Directors Association
- Director Certification Program (DCP), Thai Institute of Directors Association
- Director Accreditation Program (DAP), Thai Institute of Directors Association
- Role of the Compensation Committee (RCC), Thai Institute of Directors Association



Mr. Supong Chayutsahakij

- Director
- Nomination And Remuneration Committee Member
- Executive Director
- Authorized Signatory Director

Academic Achievement

- Honorary Ph.D. (Management Science), Phranakorn Rajabhat University
- Master of Political Science (Politics and Government), Sukhothai Thammathirat Open University
- Executive Master of Business Administration, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Master of Engineering (Electrical), University of Tokyo, Japan
- Bachelor of Engineering (Electrical), University of Tokyo, Japan
- Director Certification Program (DCP), Thai Institute of Directors Association
- Audit Committee Program (ACP), Thai Institute of Directors Association



M.L. Prasobchai Kasemsant

- Director

Academic Achievement

- M.S. (Civil Engineering) and M.S. (Operations Research), Stanford University, USA
- B.S. (Civil Engineering, Mathematics), Virginia Military Institute, Virginia, USA
- Thailand Energy Academy Course for Management
- National Defence Course, National Defence College
- Director Certification Program (DCP), Thai Institute of Directors Association



Mr. Phongsarit Tantisuvanitchkul

- Director
- Corporate Governance And Risk Management Committee Member
- Executive Director
- Authorized Signatory Director

Academic Achievement

- Master of Engineering (Construction and Management), University of Michigan - Ann Arbor, USA
- Bachelor of Engineering (Mechanical Engineering), Kasetsart University
- Director Certification Program (DCP), Thai Institute of Directors Association
- Finance for Non-Finance Directors (FND), Thai Institute of Directors Association
- Understanding the Fundamental of Financial Statements (UFS), Thai Institute of Directors Association



Mr. Werapong Suppasedsak

• Director

Academic Achievement

- Master of Economics (Financial Economics), National Institute of Development Administration
- Bachelor of International Economics, Ramkhamhaeng University
- TLCA Executive Development Program (EDP) Thai Listed Companies Association
- Director Accreditation Program (DAP), Thai Institute of Directors Association
- Executive Development Program (ELDP) Fiscal Policy Research Institute Foundation (FPRI)



Mr. Panit Dunnvatanachit

• Director

Academic Achievement

- M.B.A. (Finance), Washington University, St. Louis, USA
- Bachelor of Arts & Science, Washington University, St. Louis, USA
- Board and CEO Assessment Program, Thai Institute of Directors Association
- Director Certification Program (DCP), Thai Institute of Directors Association
- Capital Market Academy Leader Program, Capital Market Academy
- Broadcasting Executive Forum, Office of the National Broadcasting and Telecommunications Commission
- Thailand Energy Academy Course for Management, Thailand Energy Academy



Mr. Yuttana Yimgarund

• Director

Academic Achievement

- Master of Public Administration, National Institute of Development Administration
- Bachelor of Laws, Ramkhamhaeng University
- Sukkarak School Graduate Diploma, Customs Department
- Graduate Diploma in Public Law, Thammasat University
- Capital Market Academy Program (CMA)



Mr. Prasit Dachsiri

- **Director**

Academic Achievement

- Master of Development Administration, National Institute of Development Administration
- Bachelor of Political Science, Ramkhamhaeng University



Dr. Sombat Kitjalaksana

- **Director**
- **Corporate Governance And Risk Management Committee Member**
- **Executive Director**
- **Managing Director**
- **Authorized Signatory Director**

Academic Achievement

- Dr. Techn. in Soil Mechanic, University of Innsbruck, Austria
- Bachelor and Master of Engineering (Civil), Chulalongkorn University
- Director Certification Program (DCP), Thai Institute of Directors Association
- Finance for Non-Finance Directors (FND), Thai Institute of Directors Association
- Director Accreditation Program (DAP), Thai Institute of Directors Association

Mrs. Payao Marittanaporn

- **Director**
- **Corporate Governance And Risk Management Committee Member**
- **Executive Director**
- **Managing Director**
- **Authorized Signatory Director**

Academic Achievement

- M.B.A., Chulalongkorn University
- Higher Diploma in Auditing, Thammasat University
- Bachelor of Accountancy, Chulalongkorn University
- Director Certification Program (DCP), Thai Institute of Directors Association
- Role of the Compensation Committee (RCC), Thai Institute of Directors Association
- Capital Market Academy Leader Program, Capital Market Academy



MANAGEMENT TEAM



Dr. Sombat Kitjalaksana
Managing Director



Mrs. Payao Marittanaporn
Managing Director



Mr. Sanguan Kunatinun
Deputy Managing Director
Expressway Engineering



Mrs. Sudruthai Prommart
Deputy Managing Director
Expressway Operation



Miss Panan Tosuwanthaworn
Deputy Managing Director
Finance



Mr. Witoon Hatairatana
Deputy Managing Director
Railway System Operation and
Engineering



Mr. Alvin Gee
Deputy Managing Director
Operation Support



Dr. Vites Techangam
Deputy Managing Director
Technology and E-Business

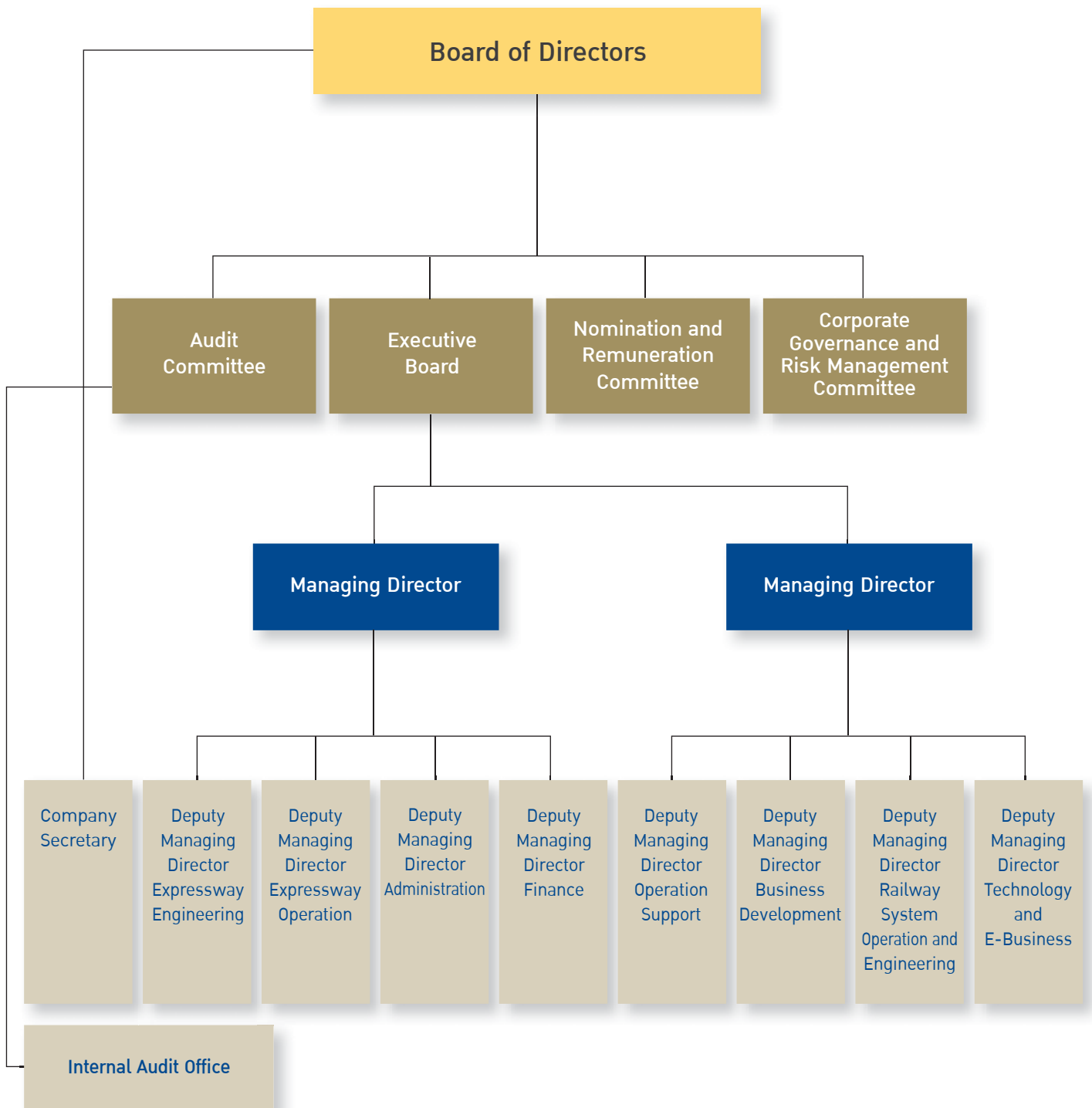


Mr. Anawash Suwanarit
Deputy Managing Director
Business Development



Mr. Phakpoom Thaweewittayarut
Deputy Managing Director
Administration and
Company Secretary

ORGANIZATION STRUCTURE



BEM RECEIVED THE BEST DEAL OF THE YEAR AWARD 2017



Mr. Plew Trivisvavet, Chairman of the Executive Board of Bangkok Expressway and Metro Public Company Limited or BEM, received the **SET Awards 2017 in the category of the Best Deal of the Year Award** from Dr. Chaiyawat Wibulswasdi, Chairman of the Stock Exchange of Thailand, as a result of the success of the amalgamation between Bangkok Expressway Public Company Limited (BECL) and Bangkok Metro Public Company Limited (BMCL), representing a transaction conducive to changes and benefits for the capital market.





SET AWARDS 2017



BEM was selected for and listed in Thailand Sustainability Investment 2017 or THSI 2017 in the capacity as listed company engaging in the sustainable business by taking into account the environmental, social and governance responsibility.



THE SI RAT - OUTER RING ROAD EXPRESSWAY



Connecting of the Si Rat - Outer Ring Road Expressway (Heading to Chaeng Watthana)

The Project of the Connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway (Heading to Chaeng Watthana) was implemented by cooperation between the Expressway Authority of Thailand or EXAT and Bangkok Expressway and Metro Public Company Limited or BEM to expand expressway network and facilitate users' travelling. Such Project would connect the Si Rat - Outer Ring Road Expressway with the northern area of Bangkok heading to Chaeng Watthana, as well as connecting the Udon Ratthaya Expressway heading to Bang Pa-in, which would help shorten the distance of the people's travelling and alleviate traffic problem on roads. Such connection had no toll plaza available for toll collection in access to the expressway system.

Project Descriptions

The Project is a grade-separated interchange in a form of elevated connection with 1-2 lanes, at a height of 12-18 meters from the ground level to the road surface, starting point of connection separating from the Si Rat - Outer Ring Road Expressway (inbound) at the area of Bang Sue interchange, at EMU Depot, turning left northward to meet the Si Rat Expressway (outbound) heading to Chaeng Watthana, at a distance of approximately 360 meters.

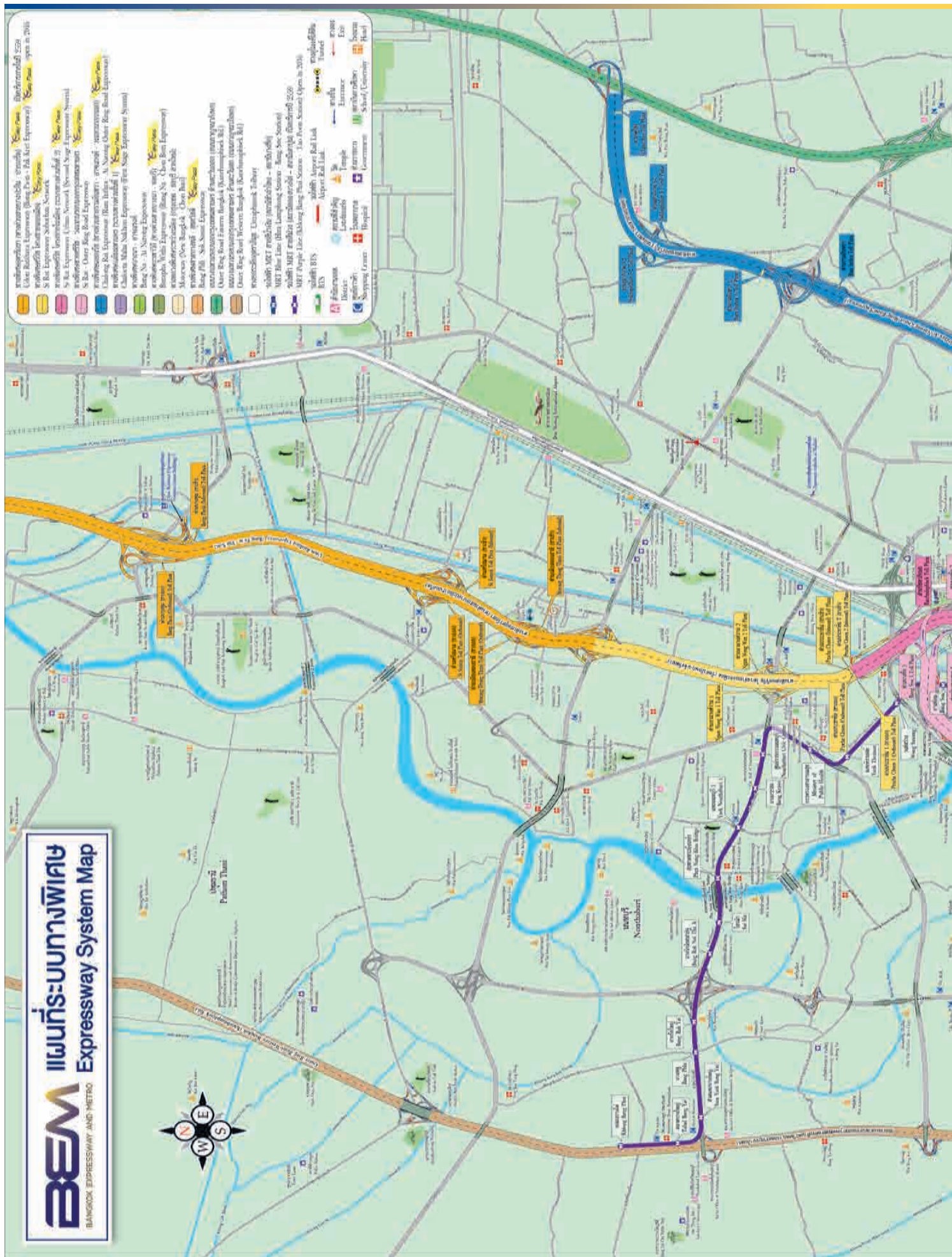
The total road surface area is approximately 3,600 square meters comprising approximately 3,300 square meters for the Project's road surface and approximately 300 square meters saved for the Missing Link. for connecting with Utrapimuk Elevated Toll Road (Don Mueang Tollway) with the distance of 300 square meters.

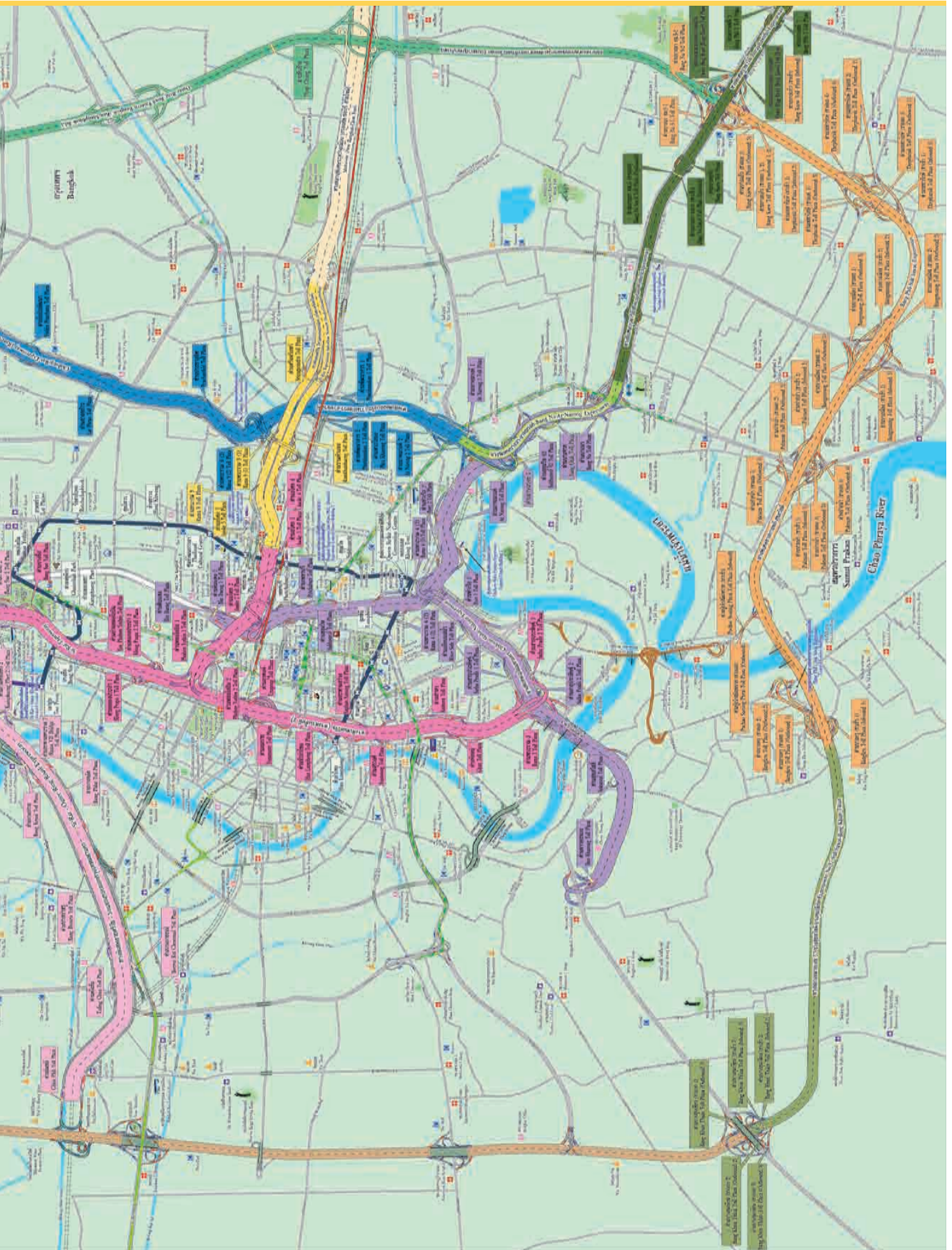
The lower-part expressway structure is designed for using barrette piles to avoid the SRT projects, with 13 reinforced concrete foundations and 13 reinforced concrete columns, while the upper-part expressway structure is designed for using pre-stressed concrete I-Girder with 12 spans; road surface is paved with asphaltic concrete.



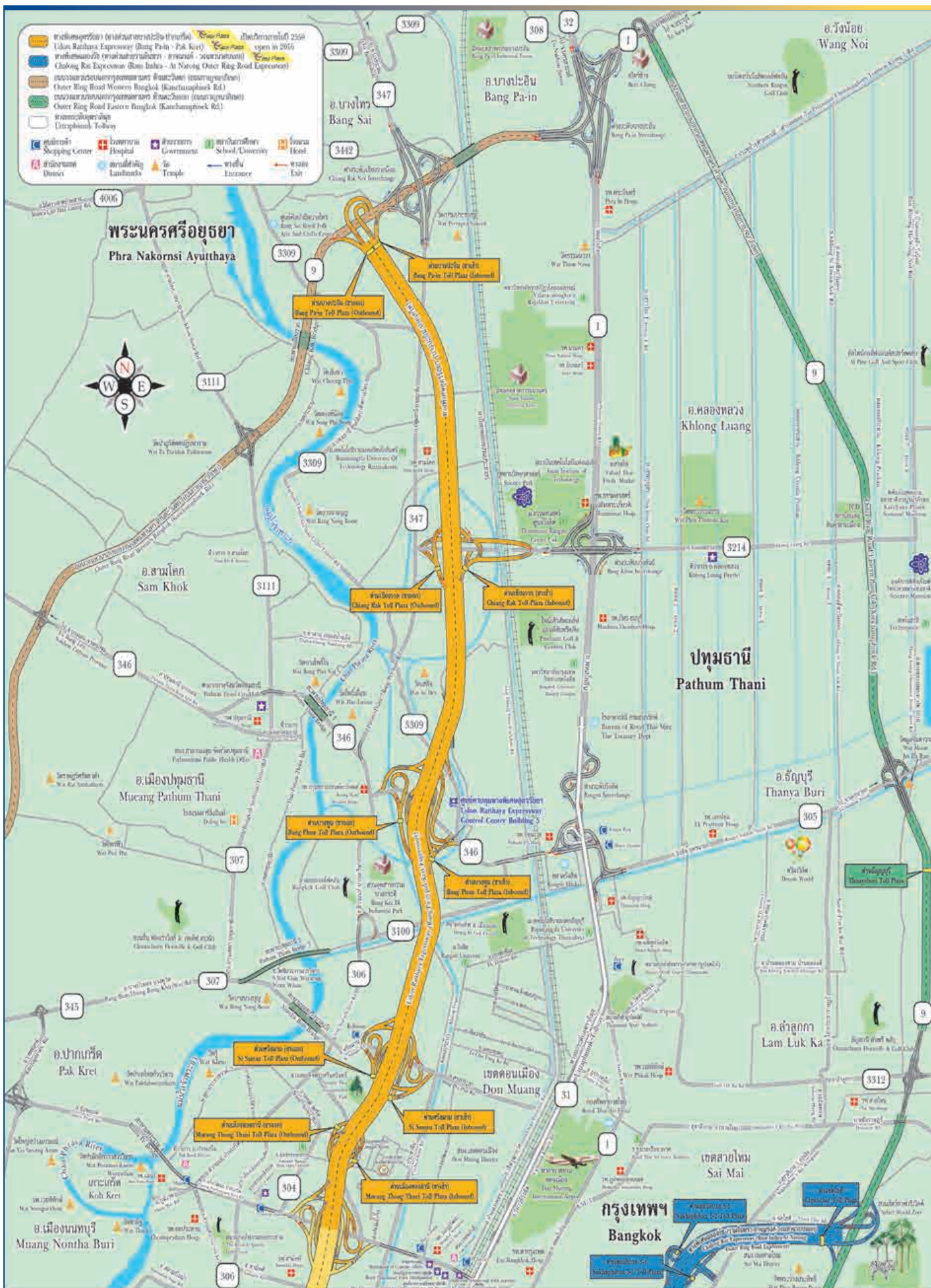
BEM held the groundbreaking ceremony, in association with EXAT, for the Construction Project of the Connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway (Heading to Chaeng Watthana) on August 17, 2017, which was honored by General Wiwat Suchart, Chairman of Board of Governor – EXAT; Mr. Plew Trivisvavet, Chairman of the Executive Board; and the management from EXAT and BEM.

EXPRESSWAY SYSTEM MAP





EXPRESSWAY SYSTEM MAP



FIRST CLASS EXPRESSWAY SERVICES

Services on the Expressway are the core of BEM's management, therefore, over the past period, The Company has been determined to develop and enhance the efficiency of its services so as to ensure that motorists will be impressed by the convenience, rapidity and cost-efficiency of the services. In regards to the first class services, BEM provides various services as follows:

1. Communications and Facilities



Communications and Facilities

The Company established the expressway system control centers by having communication staff to coordinate with the rescue operation units as well as police officers on the expressway and at the ground level roads so as to service the motorists 24 hours a day. The communications facilities comprise:

- **Closed-circuit Television (CCTV)**

Closed-circuit televisions are installed at intervals throughout the Expressway to monitor traffic flow and various events on the Expressway, hence, motorists can be assured of prompt assistance should there be any emergency.

- **Emergency Telephones (ETS)**

Emergency telephones are installed at intervals of every 1 kilometer on the Expressway so as to enable motorists to contact communication staff at the control centers by pressing the metal shaft or green button to call the center, then the communication staff pans the closed-circuit television which is nearest to such SOS telephone to the location of such telephone. This enables the communication staff to monitor the calling site and simultaneously, sound and video recorders record the conversation between the motorist and the communication staff.

- **Variable Message Sign (VMS)**

The Company publicizes various information on traffic flow and significant events to motorists by VMS which are installed prior to various intersections on the Expressway.

Traffic Management

Traffic management is a routine operation that the Company coordinates with the Traffic Division, EXAT and the police officers at the Si Rat Expressway Police Station so as to ensure rapid and safe passage for motorists, especially at on-off ramps or at any areas with heavily congested traffic. The traffic management facilities comprise:

- **Traffic Signs**

The Company has installed traffic signs to ensure the motorists' safe and careful use of the Expressway, namely, speed limits on the Expressway when it is raining or traffic direction indicators.

- **Weighing Stations**

The Company takes into account the safety of motorists by providing weighing station so as to control the weight limits in accordance with the legal standards. Any truck loaded in excess of the weight limit will not be allowed to enter the Expressway.

2. Traffic Management



3. Rescue and Trailer Services



Rescue and Trailer Services

Should any motorist encounter any accident or engine trouble on the Expressway, the rescue staff will help repair the engine to working condition or if it is unable to be repaired, the staff will help tow such vehicle on the Expressway to exit at the nearest off ramp without any expense, except for:

• Fuel Cost

Should the vehicle be out of gas, the staff will refuel the vehicle to enable such vehicle to exit the Expressway and reach a gas station whereby the rate of gas to be charged at the market rate which is merely approximately Baht 100.- on average.

• Chemical Powder Cost

Should any vehicle encounter any problem causing oil to leak onto the road, it is necessary for the staff to apply chemical powder to clean up such oil spill for the safety of other motorists.

Useful Telephone Numbers

Accident / Breakdown Car / Traffic Information	Tel.	1543 / 66 (0) 2664 6400
Chalerm Mahanakorn Expressway Control Center	Tel. / Fax.	66 (0) 2240 0709
Si Rat Expressway Control Center	Tel.	66 (0) 2664 6400 / 66 (0) 2248 7574-6 / 66 (0) 2641 4611 ext. 7007
	Fax.	66 (0) 2247 1994
Si Rat - Outer Ring Road Expressway Control Center Building (CCB7)	Tel.	66 (0) 2555 0255
	Fax.	66 (0) 2555 0281
Chalong Rat Expressway Control Center	Tel.	66 (0) 2319 9730-9 ext. 4610-11
	Fax.	66 (0) 2319 9730-9 ext. 4623
Udon Ratthaya Expressway Control Center	Tel.	66 (0) 2567 5700 ext. 7171 / 66 (0) 2567 5680
	Fax.	66 (0) 2567 5700 ext. 7155
Buraphawithi Expressway Control Center	Tel.	66 (0) 2746 9800-4 ext. 5501 66 (0) 2746 9799
	Fax.	66 (0) 2746 9799
Kanchanaphisek Expressway Control Center (Bang Phli Suk Sawat)	Tel.	66 (0) 2442 0876-7
	Fax.	66 (0) 2442 0899
Chalerm Mahanakorn Expressway Police Station	Tel.	66 (0) 2249 8007
	Fax.	66 (0) 2249 8007 / 66 (0) 2240 0147
Si Rat Expressway Police Station	Tel. / Fax.	66 (0) 2248 6891-5
Si Rat - Outer Ring Road Expressway Police Station	Tel.	66 (0) 2555 0275
	Fax.	66 (0) 2555 0281
Udon Ratthaya Expressway Police Station	Tel.	66 (0) 2567 5682-3
Bangkok Expressway and Metro Public Company Limited Branch Office (1) Expressway Business	Tel.	66 (0) 2641 4611
	Fax.	66 (0) 2641 4610
Expressway Authority of Thailand	Tel.	66 (0) 2579 5380-9 / 66 (0) 2558 9800
	Fax.	66 (0) 2561 2984 / 66 (0) 2579 8737

The MRT Blue Line Extension Project, Hua Lamphong - Bang Khae Section and Bang Sue - Tha Phra Section

This is the Project which makes a travelling connection between Phra Nakhon side and Thonburi side with the M.R.T. Chaloen Ratchamongkhon Line, Hua Lamphong - Bang Sue Section, to ensure the through operation service for widespread coverage and to improve the quality of life for the people. This Project has a total length of 27 kilometers, divided into Hua Lamphong - Bang Khae Section (Lak Song Station) of approximately 14 kilometers in length, with 4 underground stations and 7 elevated stations; and Bang Sue - Tha Phra Section of approximately 13 kilometers in length, with 8 elevated stations.

Section 1

1

Bang Sue - Tao Poon Station,
Opened in August 11, 2017.

Section 2

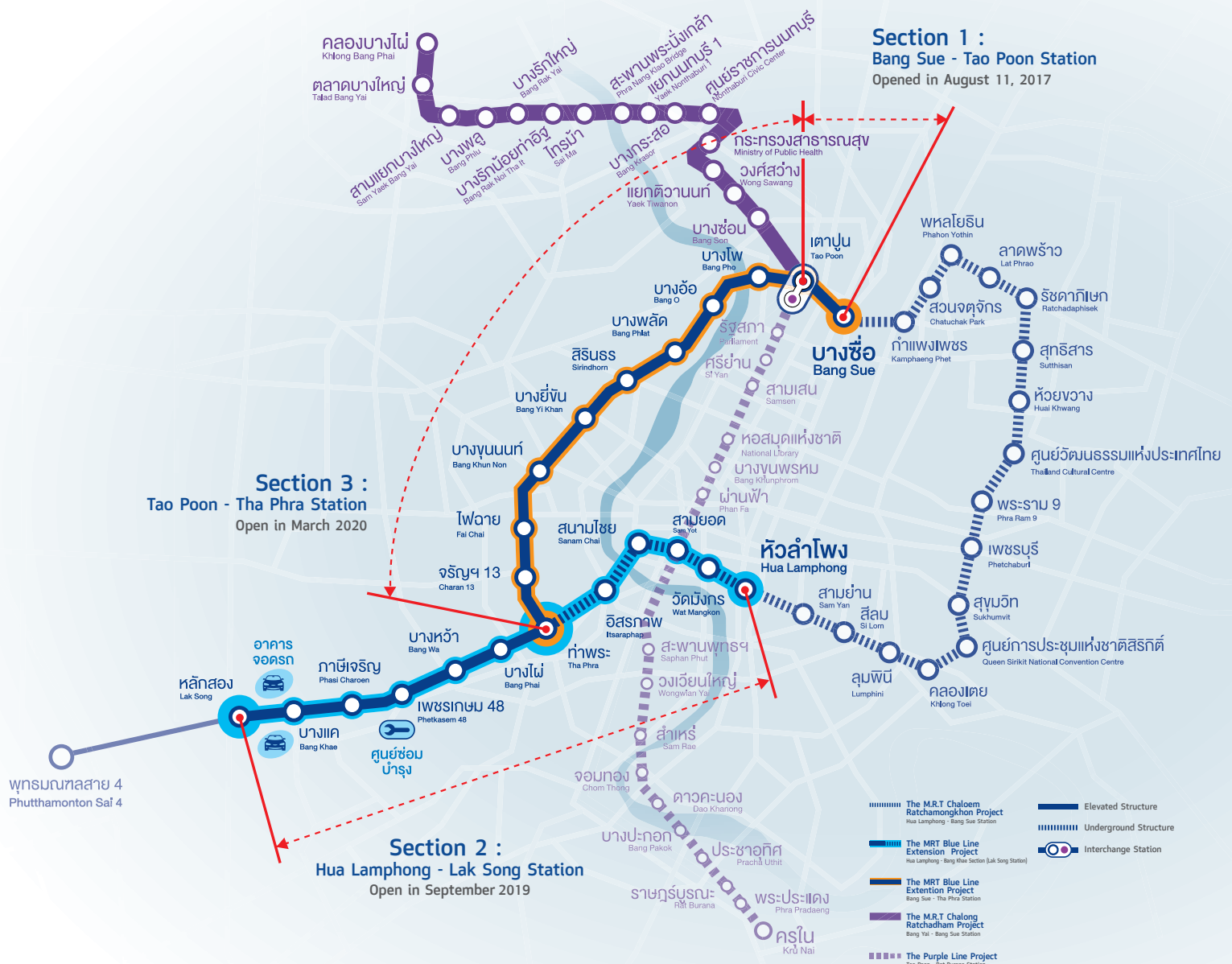
2

Hua Lamphong - Lak Song Station,
Open in September 2019.

Section 3

3

Tao Poon - Tha Phra Station,
Open in March 2020.





On February 16, 2017,

Bangkok Expressway and Metro Public Company Limited and Mass Rapid Transit Authority of Thailand (MRTA) attended the signing ceremony of the Agreement to supply of M&E Systems and O&M Services of the MRT Blue Line Project, Tao Poon - Bang Sue Section, for a distance of 1.2 kilometers.



On March 31, 2017,

Bangkok Expressway and Metro Public Company Limited and Mass Rapid Transit Authority of Thailand (MRTA) attended the signing ceremony of the MRT Blue Line Extension Project Concession Agreement.



On August 11, 2017,

General Prayuth Chan-o-cha, the Prime Minister, graciously presided over the opening ceremony of the MRT Blue Line Extension Project, Tao Poon - Bang Sue Section, for the distance of 1.2 kilometers, under the concept of “Come Together to Integrate Happiness for People”. This Project was implemented to enable passengers to change their travelling in one line to another line at Tao Poon Station. Moreover, General Prayuth and his entourage made a visit to the MRT Blue Line Extension Project at Sanam Chai Station and Itsaraphap Station.



MRT SAFETY CAMPAIGNS

According to the passengers' accident statistics from using the MRT system for 2017, there is a tendency for passengers of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) and the M.R.T. Chalong Ratchadham Line (MRT Purple Line) accidents to increase, most of which were accidents on escalators, mainly resulting from improper use of the MRT system and negligence of passengers which caused their injuries, for instance, passengers carrying many heavy belongings without holding an escalator handrail, leaning against the handrail, walking/running and slipping while stepping on and off an escalator, including physical health of passengers, etc.

Therefore, safety activities were regularly organized to acquaint passengers on safe use of the MRT Blue Line and the MRT Purple Line, comprising:



- The “Safety Share Safety All On Tour 2017” activity which was held within the stations to help urge passengers to become aware of safety and proper use of the MRT system for ensuring passengers' access to the information furthest, with an aim of minimizing risks from accidents in using the service, by means of public relations to emphasize how to safely use escalators, beware of pickpockets while boarding the trains and within the stations, as well as encouraging reduction of the use of mobile phones while using the MRT system.

- **Improvement of media within the stations** to make it more clear and provision of public relations media in forms of infographic and animation for dissemination via Facebook, Twitter, and Passenger Information Displays (PIDs) within the stations and trains to ensure broader public relations and enhance the understanding of passengers in using the MRT system.

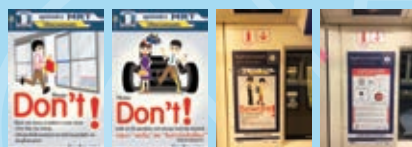
Examples of Infographic



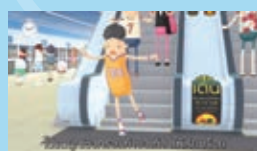
PIDs on Platforms and inside the Trains



Posters within Stations and Trains



Animation on how to use escalators, baby strollers and board the trains



7-Format Animations on Digital Media on areas of BMN



Animation on reduction of the use of mobile phones while boarding the trains



- **How to safely use the MRT system** was educated to the youth, as well as organizing the social activities, through participation by personnel from agencies inside and outside the Company. This was considered as another channel of communication accessible to the service users the most.

Suggestion on Safe Use of the MRT Purple Line in association with MRTA



Safety on use of the MRT system was educated to Wat Chatkaewchongkolnee School students with CSR Division.

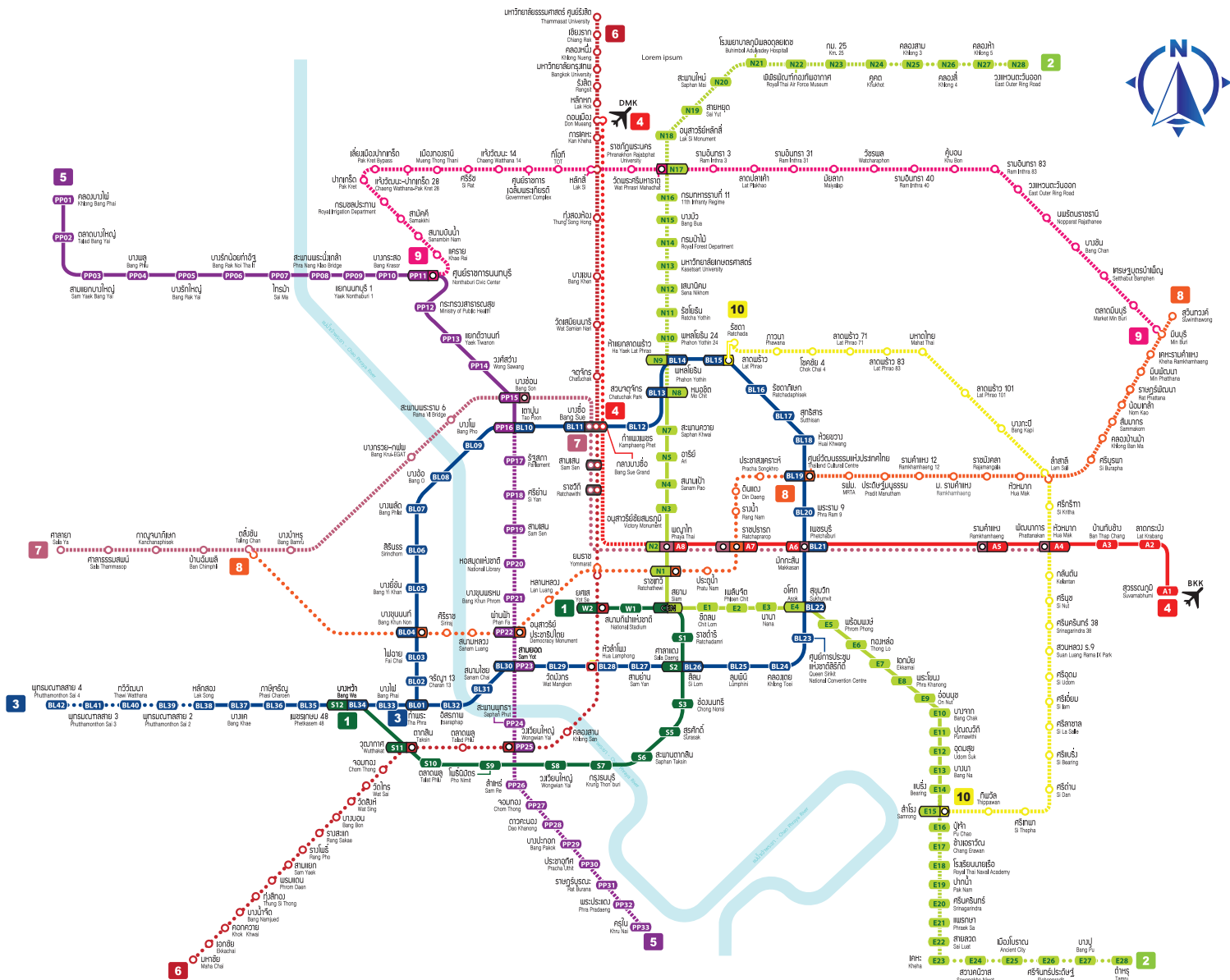


Safety on use of the MRT system was educated in the M Care activity with CSR Division.



To ensure the Company's readiness in response to any potential emergencies in the MRT system, in the previous year, the Company participated in the Crisis Management Exercise 2017 (CMEX -17) with the Office of National Security Council (NSC) and the Counter Terrorist Operations Center (CTOC).

MASS RAPID TRANSIT NETWORK



สัญลักษณ์ Legend

- 1 รถไฟฟ้า สายสีเขียวเข้ม Dark Green Line
- 2 รถไฟฟ้า สายสีเขียวอ่อน Light Green Line
- 3 รถไฟฟ้า MRT สายสีน้ำเงิน Blue Line
- 4 รถไฟฟ้า สายแอร์พอร์ต เรล ลิงก์ Airport Rail Link
- 5 รถไฟฟ้า MRT สายสีม่วง MRT Purple Line
- 6 รถไฟฟ้า สายสีแดงเข้ม Dark Red Line
- 7 รถไฟฟ้า สายสีแดงอ่อน Light Red Line
- 8 รถไฟฟ้า MRT สายสีส้ม MMT Orange Line
- 9 รถไฟฟ้า สายสีชมพู Pink Line
- 10 รถไฟฟ้า สายสีเหลือง Yellow Line

สถานีเชื่อมต่อ Interchange Stations



สถานะ Status

- เปิดให้บริการ Currently in Service
- อยู่ระหว่างการก่อสร้าง Under Construction
- แผนงาน Planned



MRT Tickets

Faster and More Convenient Travelling with MRT Tickets

MRT tickets are available to passengers in each group, with discounts offered according to ticket categories, in a form of stored value card for travelling with the MRT system, comprising:

- Adult Card
- Student Card
- Elder Card
- Child Card

In addition to the above, there are also cards available for corporate customers; this is to build the uniqueness for the business and the royalty, whereby other functions can be introduced into each card to offer multiple functions on a single card, comprising:

- Business Traveler Card
- Co-brand Card

*** To apply for cards for corporate customers, please contact the Customer Relations Section, Customer Relations and Communications Division, Bangkok Expressway and Metro Public Company Limited.*



Privileges for MRT Cardholders

You are offered not only privileges surrounding the MRT route, but also more special privileges.

MRT Club

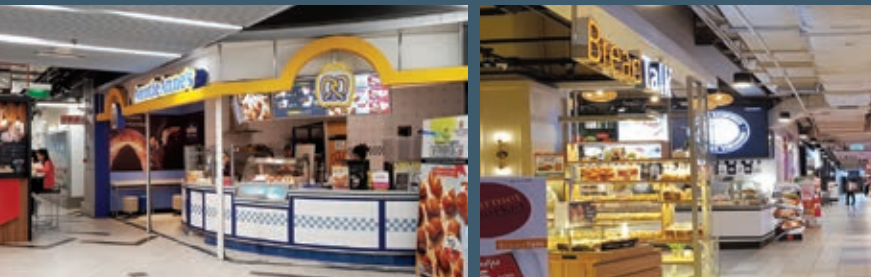
MRT cardholders can apply for membership for free to get exclusive privileges such as watching gala movies or enjoying fun activities free of charge, including getting discounts on M Shop goods.

More than 150 shops
available within the space of ▶
Metro Mall



Metro Mall

Metro Mall is opened for service at 8 MRT stations, Situated within Kamphaeng Phet Station, Chatuchak Park Station, Phahon Yothin Station, Phra Ram 9 Station, Thailand Cultural Centre Station, Sukhumvit Station, Phetchaburi Station, Khlong Toei Station, Working hours is normally from 6.30 AM - 9.00 PM Besides, Latphrao Park & Ride (Basement Level) at Latphrao station where Gourmet Market Is opened for service from 7.00 AM - 9.00 PM.



- Recreation Places many brand shops and Free wifi access are available for all passengers. ◀
- Great Fair with special price. ▼

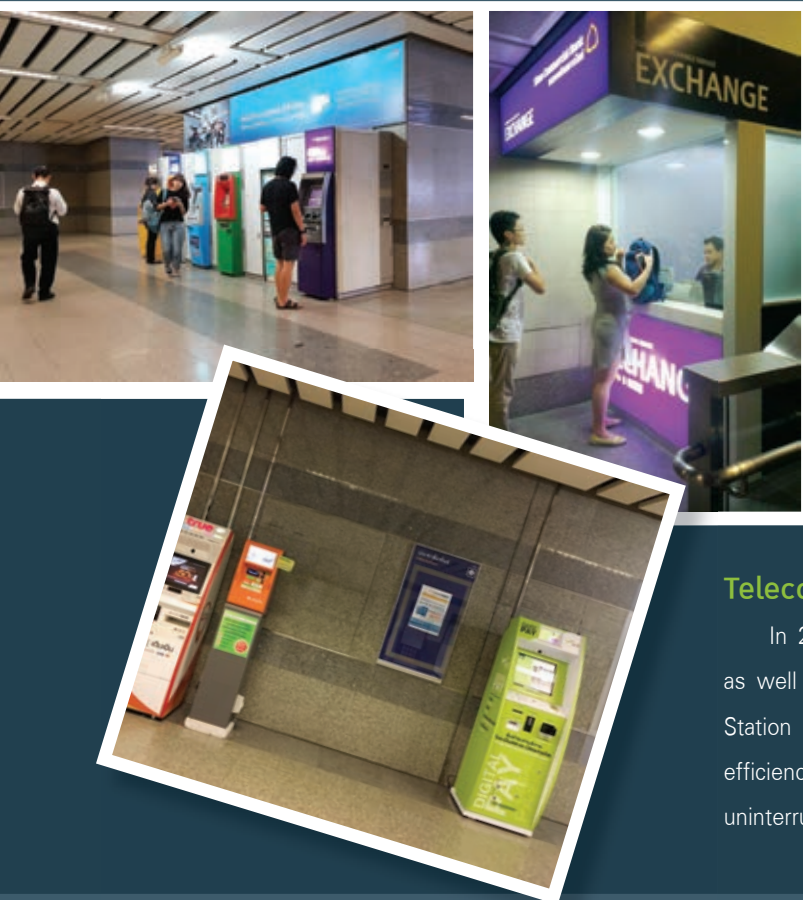


FACILITIES WITHIN MRT STATIONS

M Shop for MRT Souvenirs

You can make an order to purchase cute MRT souvenirs at the website www.bemplc.co.th and M Shop booth displays within MRT stations.

For more information about M Shop goods, email: mshopinfo@bemplc.co.th.



Automated self-service machines

More than 200 automated self-service machines has been installed within 18 MRT stations. For example, ATM, cash deposit machines, bill payment machines, including foreign currency exchange booths to serve passengers within the MRT system.

Telecommunications

In 2017, 3G and IRDN 3G were upgraded for all 18 stations as well as mobile phone network installation between Bang Sue Station and Tao Poon Station to create a better communication efficiency and to enable passengers to contact and communicate uninterrupted within the MRT system.

MRT Channels



To catch up with every shot, you will never miss any daily updates.



MRT BANGKOK METRO



To keep you up to date with all news, both contents and good events.



MRT BANGKOK METRO



To bring you all information about MRT.



WWW.BEMPLC.CO.TH



To offer every aspect and spread distinctive lifestyle wide.



MRT_BANGKOK



To navigate your way to all Easily plan your journey along MRT route.



BANGKOK MRT APP.



Information Service Center is available to answer all incoming phone calls.



0 2624 5200

THE PROMOTION AND CAMPAIGN ACTIVITIES FOR USING THE MRT SYSTEM IN 2017



National Children's Day

The “MRT Share Happiness by Giving Free MRT Ride for Children” activity was held on the occasion of the National Children's Day 2017 for children not taller than 140 centimeters to take the MRT rides for free on January 14, 2017 throughout the service hours.



Songkran Day

Activities on the Songkran Day, the National Elderly Day, and the Family Day, comprising two activities as follows:

- The “Celebrating Songkran Day with MRT” activity was held to provide MRT passengers an opportunity to make merit under the Thai tradition during April 10-15, 2017 for blessing by performing a bathing rite for Buddha images. At MRT Blue Line for 9 stations, namely, Hua Lamphong Station, Si Lom Station, Sukhumvit Station, Phra Ram 9 Station, Thailand Cultural Centre Station, Lat Phrao Station, Phahon Yothin Station, Chatuchak Park Station, Bang Sue Station, and MRT Purple Line in 16 stations.
- “Free MRT ride for Elderly (60+)” activity was held on April 13-15, 2017 by providing free MRT rides for elders aged 60 or over throughout the service hours.



National Mother's Day

The “12 August, Free MRT riding for Mom” activity was held to provide mothers with free MRT journeys on August 12, 2017 throughout the service hours.



National Father's Day

The “5 December, Free MRT riding for Dad” activity was held to provide fathers with free MRT journeys on December 5, 2017.

New Year's Day

The “MRT Extended Service Hours on New Year's Day until 2 AM” activity was held on the occasion of the New Year's Day, whereby service hours were extended from 06.00 a.m. on December 31, 2017 until 02.00 a.m. of January 1, 2018.



The Royal Cremation Ceremony for His Majesty the Late King Bhumibol Adulyadej

The “MRT Free Ride” activity was held to facilitate travelling of the people who wished to take part in the royal cremation ceremony.

- The MRT Blue Line was opened for free rides on October 26, 2017 from 06.00 a.m. until 02.00 a.m. of October 27, 2017; and
- he MRT Purple Line was opened for free rides during October 25 - 27, 2017 from 05.30 a.m. until 12.00 a.m. and only on October 26, 2017, opened for free rides until 02.00 a.m. of October 27, 2017.



CORPORATE SOCIAL AND ENVIRONMENTAL ACTIVITIES

The Company has a policy and is determined to continuously take care of every sector of society in respect of management of improved operational results, and creation of value added to shareholders, and giving priority to nearby communities as well as taking care of both nearby and remote communities. In 2017, the Company organized the corporate social and environmental contribution activities as follows:

GOOD Family Relationships



"Moms & Kids Strengthen Relationships with BEM to Create Works of Art in Nakhon Pathom"

was held on the occasion of the National Mother's Day, as a special family day to allow them to express affection and concern between each other, in which the Company played a part in strengthening family relationships by inviting 14 families of the expressway users, to travel on the Si Rat - Outer Ring Road Expressway heading for the Little Tree Garden in Nakhon Pathom Province to experience a shady atmosphere of the riverside park next to the Tha Chin River as well as joining activities to strengthen family relationships and preserve environment through natural indigo dyeing and decoration of plants in terrariums.



“Strengthening Relationships of Dads & Kids with BEM to Visit Rice Paddies in Suphan Buri”

was held to strengthen family relationships on the occasion of the National Father’s Day, the Company then organized the BEM Invites Dads & Kids to Visit Rice Paddies in Suphan Buri activity by inviting 10 families of the expressway users, to travel on the Si Rat - Outer Ring Road Expressway heading for the Lifestyle and Spirit of Thai Farmers Learning Center (Here Chai Riceseed) in Suphan Buri Province to jointly learn the farmers’ lifestyles; and all of such families were allowed to transplant paddy sprouts in the demonstration fields to engage deeply with the natural surroundings, as well as making Fish Roe Sweet, a Thai local dessert showcase of Suphan Buri Province.



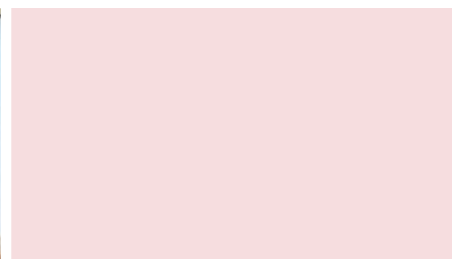
GOOD

Relationships with Shareholders

With the Company's commitment to operating the business in accordance with the Corporate Governance Code, taking care of all stakeholders and always allowing them to have access to information on an equitable basis, the Company then organized the site visit activities for its shareholders, as follows:

Visit to the Si Rat - Outer Ring Road Expressway with BEM

activity, by inviting shareholders to pay a visit to the project in respect of traffic report and emergency call at the Si Rat - Outer Ring Road Expressway Control Center as well as leading them to see the route and see function of the toll collection system, toll revenue inspection at Borom Ratchonnani Toll Plaza.



Analyst Meeting together with Visit to MRT Sanam Chai Station

activity, by inviting a group of analysts, fund managers and long-term share investors to enhance an understanding of relating to the Company's businesses in the MRT Blue Line Extension Project also to appreciate the picturesque of MRT Sanam Chai Station.





Visit to MRT Sanam Chai Station with BEM

activity, by inviting three groups of shareholders to listen to a lecture on important information regarding construction of the MRT Blue Line Extension Project (Hua Lamphong - Bang Khae Section) as well as paying a visit to the exquisite MRT Sanam Chai Station.



Splendorous architectural style of MRT Sanam Chai Station is derived from early Ratanakosin era, which was designed by the National Artist in Visual Arts, Associated Professor Dr.Pinyo Suwankiri, to resemble a Ratanakosin-style room.



Visit to Operation Control Center of the M.R.T. Chalong Ratchadham Line (MRT Purple Line) and One-Station Connection Point

Between the MRT Blue Line and the MRT Purple Line (Bang Sue - Tao Poon) for travelling to Khlong Bang Phai Station activity, by inviting shareholders to pay a visit to the main Depot together with the train operation control room and train driving simulator.



AWARENESS of Environmental Preservation



Let's Love Environment with BEM

To sustainably maintain the balance of nature, and the environmental preservation is of great importance to everyone and requires active participation, the Company then organized the program titled Lets Love Environment with BEM to instill awareness of environmental preservation by taking a group of management and staff to participate in the Siam Weed Elimination activity to ensure more plant and food areas for wild animals at Khao Yai National Park in Nakhon Ratchasima Province



RETURN the Metro Cards for MRT Lucky Draw

Return the Metro Cards for MRT Lucky Draw

which campaigned for passengers' greater recognition of the Return the Metro Cards for Environmental Protection and Sustainable Social Development project by distributing metro card envelopes to passengers who purchased or showed their 1-Day Pass, 3-Day Pass or 30-Day Pass, filling in their names-addresses on the envelopes, inserting the expired 1-Day Pass, 3-Day Pass or 30-Day Pass in the envelopes, and then dropping them into the metro card boxes at all 18 stations of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) for lucky draw.



GOOD

Relationships with Related Authorities



The cooperation for provision of good services to meet the utmost satisfaction of the expressway users is regarded as a key goal of the three collaborating authorities, namely, staff of the Company, staff of EXAT, and police officers of the Expressway Police Station 2. To strengthen relationships among them in order to ensure unity and maximum efficiency of the services, the Company organized activities, as follows:

Watch Movie with Expressway

was an event where families of staff of EXAT and police officers of the Expressway Police Station 2 as well as families of the Company's staff were invited to meet, enjoy games, and watch the 3D movie "Beauty and the Beast" at Esplanade Cineplex to enhance family relationships and strengthen relationships among the three authorities.

PROMOTION of Youth Learning



Education represents a key foundation for youths' sustainable development of knowledge, abilities, thoughts and values in order to become decent and quality citizens of society. The Company continues to encourage and support youth education every year through various activities as follows:

Scholarships to Adjacent Schools

The Company organized the BEM Grants Scholarships to Underprivileged Students with Good Academic Records and Funds for Development of 10 Schools adjacent to the Si Rat Expressway, the Udon Rattaya Expressway and the Si Rat - Outer Ring Road Expressway activity, to raise morale of the youth in studying hard and grow up as a quality adult in the country's development in the future.



SUPPORT for Outdoor Learning Experience

Outdoor experience is an opportunity for children to fully gain first-hand experience, which will help them understand various things clearly and comprehensively, and apply the gained knowledge to their life in the future. The Company thus organized outdoor learning experience activities as follows:

Sufficient Happiness

An activity on the occasion of the National Children's Day for 2017 was held to remind children to follow the notable teachings delivered by His Majesty the late King Bhumibol Adulyadej through activities of the Father's Nine Teachings, among of which included endeavor, sufficiency, honesty, etc., as well as joining DIY activities: kids savings, growing vegetables for Dad, and enjoying funny games and getting a substantial reward, in which a number of staff's children, students from nearby schools and neighboring residents participated.

MRT Happy Childen's Day

The Company organized an activity on the occasion of National Children's Day 2017 by presenting gifts and delivering happiness to children at both MRT lines, i.e., the M.R.T. Chaloom Ratchamongkhon Line (MRT Blue Line) at Phra Ram 9 Station, and the M.R.T. Chalong Ratchadham Line (MRT Purple Line) at Nonthaburi Civic Center Station, holding an activity to enhance children's outdoor learning, with a good participation by kids and their parents.

Let's Learn History at Coin Museum Thailand

The Company invited a group of teachers and students from Wat Soi Thong School, adjacent to the Si Rat - Outer Ring Road Expressway, to visit the Coin Museum Thailand to broaden their experience in learning evolution of coins extending from ancient times until the present, see an exhibition of the late Father's collection of coins, as well as enjoying a 4-D oral history recording exhibition about way of life, society, and art and culture.

The Company invited a group of teachers and students from Wimuttayarampittayakorn School, adjacent to the Si Rat - Outer Ring Road Expressway to visit Pipit Banglamphu History Museum and Coin Museum Thailand to learn the history of Banglamphu community with the racial and cultural diversity in the early Rattanakosin era, including learning of the evolution of coins extending from ancient times until the present.



Share2Child Activity

The Company invited children from the Foundation for the Welfare of the Crippled under the Royal Patronage of Her Royal Highness the Princess Mother, Nonthaburi, (Srisangwal School) to learn how to use facilities for children with disabilities and take a free ride on the M.R.T. Chalong Ratchadham Line (MRT Purple Line) and watch an animated movie Despicable Me 3, to allow children to gain knowledge about proper utilization of the MRT system and make them happiness and smile.

Moreover, the Company invited a group of teachers and students from Wat Chatkaewchongkolnee School, Bang Phlat District, Bangkok, to take a free ride on the M.R.T. Chaloei Ratchamongkhon Line (MRT Blue Line) connecting to the M.R.T. Chalong Ratchadham Line (MRT Purple Line) to learn how to properly and safely use the MRT system as well as visiting the Depot for broadening their experience and inspiring their imagination.



Give Books Get Back with MRT

MRT passengers were invited to jointly donate books for children and youth, both new and second-hand books, at four stations, Phahon Yothin Station, Phetchaburi Station, Sukhumvit Station, and Si Lom Station, for further distribution to educational institutions in the project "Development Learning Center for Kids by MRT".





BEM Launched the Project of Development Learning Center for Kids

BEM development the library of Wat Chatkaewchongkolnee School, Bang Phlat District, Bangkok, under the project Development Learning Center for Kids.



The Development Learning Center for Kids project was organized to improve the quality of life in terms of education for children and youth in educational institutions nearby the MRT route by way of collecting second-hand books jointly donated by the MRT passengers for development of the library at Wat Chatkaewchongkolnee School, together with learning and teaching equipment, such as, computer, television, and DVD player, etc., as well as holding an activity for educating them about use of the MRT system, essay writing contest, painting contest for winning scholarships on the subject MRT in my mind. Furthermore, in the event, there were recreation activities via games to enhance kids' knowledge, as well as sponsoring luncheon to the participants. Each activity would be volunteered by BEM staff to educate the students from Wat Chatkaewchongkolnee School and bring them happiness throughout the event.



ACTIVITY

for Development
of Quality of Life on
Public Health

M Care Activity

The Company, in association with its partners, organized an exhibition booth to provide information on health, safety, and free health checkups for MRT passengers and residents surrounding the MRT routes and nearby communities, as follows:

- **Exhibitions on health care and checkup** by hospitals to provide knowledge relating to proper and safe use of the MRT service such as, warning of pickpockets, safety in using escalators.
- **Health checkup service** by Hua Chiew Traditional Chinese Medicine Clinic, by health care suggestion, initial health checkup under traditional Chinese medicine, teaching how to make cold-relief aroma sachets with diverse herbs.
- **Health checkup service** by Thai Traditional and Complementary Medicine Hospital for initial medical assessment together with initial remedial massage under the medical physician's disease diagnosis with traditional Thai medicine.
- **Health checkup service** by Bangpo Hospital for testing of fasting blood glucose, blood pressure, initial assessment of disease risk, health consulting service by registered nurses.
- **Health checkup service** by Yanhee Hospital for initial health checkup, initial suggestions on skin, body shape and beauty, including distribution of its vitamin water to the participants.
- **Health checkup service** by Metta Pracharak Hospital for initial eye measurement with advice on eyes by the ophthalmologists.
- **Educating on initial exercise for the elderly** by the Division of Physical Activity & Health, Department of Health, Ministry of Public Health, with an accurate practical demonstration given by the officials.





The exhibition displayed royal duties and talents of His Majesty the King Bhumibol Adulyadej at MRT Hua Lamphong and Phra Ram 9 Stations.



RESPECTFUL activities for Dad

Company harmoniously planted abundant Marigold at both Company's branch offices and Toll plazas.



ACTIVITY for Promotion of Other Public Benefits



BEM Joined Public Benefit Activity in Honor of King Rama 10 with Bang Kruai Municipality

The Company took part in the public benefit activity with Bang Kruai Municipality to jointly clean and improve the landscape in the areas along the railroad tracks from Thoet Phrakiat Road intersection to the entrance of Rama 7 Road in honor of His Majesty King Maha Vajiralongkorn Bodindradebayavarangkun on the occasion of his 65th birthday anniversary.



Buddhist Monk Robe Offering Ceremony for 2017

The Company, in association with communities surrounding the expressway project route, the MRT route and the MRT passengers, together with a group of management and staff, hosted the Buddhist Monk Robe Offering Ceremony for 2017 (Thod Katkathin Ceremony) at Wat Bang Pho Omawat Temple, Bang Sue District, Bangkok, to participate in making merit for renovation of Vihara Luang Pho To, in the total amount of Baht 1,049,999.

Happy Smile Happy the Elderly

The Company, in collaboration with Nonthaburi Municipality, organized the activity "Happy Smile Happy the Elderly" to continue the traditional Thai customs with pouring water on the hands of the revered elderly for blessing, as well as delivering a lecture on how to safely use the MRT system, and joining recreation activities to make the elderly happiness at the Multipurpose Building, Wat Chaeng Siri Samphan Temple, Nonthaburi Province.



1. Business Policy and Overview

Bangkok Expressway and Metro Public Company Limited (the “Company”) was incorporated from the amalgamation, pursuant to the Public Limited Company Act, between Bangkok Expressway Public Company Limited (“BECL”) and Bangkok Metro Public Company Limited (“BMCL”) on December 30, 2015, and the Company has assumed all assets, rights, duties and responsibilities of both companies by operation of law. As at December 31, 2017, the Company’s registered and paid-up capital amounted to Baht 15,285,000,000, divided into a total of 15,285,000,000 ordinary shares, at the par value of Baht 1 per share.

The Company’s main businesses are the provision of the expressway and metro services, including commercial development relating to the expressway and metro systems, which will lay a foundation for business expansion through future extension of the routes and the service network, both in the expressway and metro systems, thereby enabling the Company to be a leading mass rapid transit and transportation service operator in Thailand and in the region. In addition, the Company may extend its businesses to other fast-growing businesses with good returns, such as, other infrastructure projects, commercial development or real estate development, both at home and abroad, etc.

1.1 Vision, Mission, Goals, Business Strategies and Overview of Business Operations

Vision

The Company’s vision is: “To become a leading, fully-integrated transportation service provider in Thailand and ASEAN.”

Mission

The Company is committed to:

1. Providing services of the expressway and metro systems with safety, convenience, rapidity, reliability, punctuality and efficiency, in order to improve the quality of people’s life;
2. Improving the quality and efficiency of the modern and full service transportation network in order to alleviate traffic problems, preserve the environment, and improve society and the country;
3. Creating value added and utmost benefit to shareholders based on fairness to all stakeholders.

Goals and Business Strategies

To achieve the Company’s objectives and mission, the Company has formulated major strategies in its business operations, as follows:

1. To invest in the transportation system projects, expressway and connecting road projects, metro system projects, and related projects under the government policy for public private partnership (PPP) in respect of infrastructure, including related business, such as, various commercial development, taking into consideration the projects which are beneficial to society and the country, with reasonable business yields;
2. To strengthen the businesses by generating revenues for continued growth, and managing costs and expenses efficiently, in order to maintain good financial standing;
3. To build relationships with stakeholders through the corporate social responsibility process and communicate with internal and external personnel about it;
4. To develop personnel ready for provision of quality services of the expressway and metro systems;
5. To build social recognition of the corporate good image.

Business Overview of the Company

The Company is committed to being a leading, fully-integrated transportation service provider, which builds up good journey for a better living. The Company's businesses comprise the provision of the expressway and metro services, including commercial development directly related to the main businesses. The Company's business overview is divided into 4 main businesses, as follows:

1.1.1 Expressway Business

The Company and one of its subsidiaries, namely, Northern Bangkok Expressway Company Limited ("NECL"), have been granted concessions for construction and operation of a total of four expressways, comprising:

1) The Si Rat Expressway

The Si Rat Expressway (Second Stage Expressway) under the Second Stage Expressway Agreement with the Expressway Authority of Thailand ("EXAT") for a concession period of 30 years from March 1, 1990; and the Si Rat Expressway, Sector D, under the Agreement for the Extension of the Second Stage Expressway System, Sector D, with EXAT for a period of 30 years from April 22, 1997.

The Company and EXAT jointly invested in the expressway system in Bangkok and its vicinity. The Company was responsible for investment in the construction and operation of the Si Rat Expressway, comprising 4 Sectors, namely, Sector A (Rama 9 - Ratchadapisek), Sector B (Phayathai - Bangkhlo), Sector C (Ratchadapisek - Chaeng Watthana) and Sector D (Rama 9 - Srinagarindra), covering a total distance of 38.5 kilometers. EXAT invested in the construction and operation of the Chalem Mahanakorn Expressway (First Stage Expressway), covering a total distance of 27.1 kilometers.

As for toll collection, expressway users shall pay tolls at the booths around the on-ramps of the Expressway. EXAT is responsible for the collection of all tolls and shares such toll revenue with the Company as specified in the Second Stage Expressway Agreement with effect from the Priority Component Opening Date. The toll revenue from the Chalem Mahanakorn Expressway and the Si Rat Expressway shall be encompassed and shared as per rules of area zoning. This is to say that in the urban network, for the first nine years, the Company and EXAT shall receive the revenue sharing at 60 percent and 40 percent, respectively. For the last nine years, the Company and EXAT shall receive the revenue sharing at 40 percent and 60 percent, respectively. As for the period between the first nine years and the last nine years, the Company and EXAT shall receive the revenue sharing at 50 percent each. For the suburban network, namely, Sector C and Sector D of the Si Rat Expressway, all toll revenue shall belong to the Company throughout the period of the Agreement.

2) The Si Rat - Outer Ring Road Expressway

The Si Rat - Outer Ring Road Expressway under the Concession Agreement for Investment, Design, Construction, Operation, Service and Maintenance of the Si Rat - Outer Ring Road Expressway Project, with EXAT for a concession period of 30 years from December 15, 2012.

The Company shall have the duty in design and construction, supply and installation of various equipment and systems, including the operation, service and maintenance of the expressway, together with toll collection, whereby the Company shall be responsible for investment and all operating expenses throughout the concession period, and share consideration with or provide benefits to the State to be agreed upon in the Concession Agreement.

The project is an elevated expressway with six traffic lanes, for a distance of 16.7 kilometers, with 10 toll plazas. The route starts from the Outer Ring Road (Kanjapisek Road around Mahasawat Water Treatment Plant) heading eastbound along the right of way of the existing Southern railway, crossing the Chao Phraya River around the Rama VII Bridge, ending around Bang Sue Grand Station (Chatuchak), connecting with the Si Rat Expressway around the Bus Terminal (Mo Chit 2), and running down to at-grade level around Kamphaeng Phet 2 Road.

In management of this project, the Company is responsible to collect tolls and shall have the right to receive all toll revenue and other revenues (if any) throughout the concession period, whereby the toll rates and revisions shall be agreed upon in the Agreement. This expressway was opened for service on August 22, 2016.

3) The Udon Ratthaya Expressway

The Udon Ratthaya Expressway (Bang Pa-in - Pak Kret Expressway), operated by NECL under the Bang Pa-in - Pak Kret Expressway Agreement with EXAT for a period of 30 years from September 27, 1996.

NECL constructs and operates the Udon Ratthaya Expressway, comprising 2 Stages, namely, Stage 1, Chaeng Watthana - Chiang Rak, and Stage 2, Chiang Rak - Bang Sai, connecting to the Si Rat Expressway around Chaeng Watthana Road, covering a total distance of 32 kilometers. As for the inbound route, expressway users shall pay tolls at the booths around the on-ramps of the expressway while in respect of the outbound route, expressway users shall pay tolls at the off-ramps. EXAT is responsible to collect and deliver all tolls to NECL. All toll revenue in respect of the Udon Ratthaya Expressway shall belong to NECL.

1.1.2 Rail Business

The Company has been granted concessions for operation of two mass rapid transit rail system projects from the Mass Rapid Transit Authority of Thailand (“MRTA”), namely:

- 1) The MRT Blue Line Project, comprising the M.R.T. Chaloeem Ratchamongkhon Line Project (Hua Lamphong Station - Bang Sue Station), which is the first underground metro project of Thailand, covering a total distance of 20 kilometers, with 18 underground stations, opened for train operation service on July 3, 2004; and the MRT Blue Line Extension Project (Hua Lamphong - Lak Song and Bang Sue - Tha Phra Sections), covering a total distance of 27 kilometers, comprising 5-kilometer underground track and approximately 22-kilometer elevated track, with 20 stations, 4 of which are underground stations and 16 of which are elevated stations, with a connection to the M.R.T. Chaloeem Ratchamongkhon Line Project at Bang Sue Station and Hua Lamphong Station, and a connection to the MRT Purple Line Project at Tao Poon Station.

As for the MRT Blue Line Extension Project, the operations during supply and installation of the M&E Equipment for opening for service are divided into 3 phases, namely, Phase 1: Bang Sue Station - Tao Poon Station, was opened for service on August 11, 2017; Phase 2: Hua Lamphong Station - Lak Song Station, by September 2019; and Phase 3: Tao Poon Station - Tha Phra Station, by March 2020.

The Company is entitled to fare box revenue and undertake activities and commercial development, including advertising, leasing space and telecommunications services in the metro stations and in the trains of the MRT Blue Line Project, for a period of 30 years from the date of opening for service of the whole route; and

- 2) The M.R.T. Chalong Ratchadham Line Project or the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section (Klong Bang Phai Station - Tao Poon Station), Contract 4: Concession for Supply of M&E Systems and O&M Services, on a PPP Gross Cost basis, whereby MRTA invests in all civil works and the Company invests in the M&E Systems and the rolling stocks, as well as provides the operation and maintenance services in accordance with the specified service standards. MRTA is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and MRTA shall make a gradual repayment of the M&E Equipment to the Company on a monthly basis for a period of 10 years, and shall engage the Company for the O&M Services throughout the concession period of 30 years from September 4, 2013.

The M.R.T. Chalong Ratchadham Line Project is an elevated metro project, for a distance of 23 kilometers, with 16 stations and a connection to the MRT Blue Line Project at Tao Poon Station of the MRT Purple Line Project, which was opened for service on August 6, 2016.

1.1.3 Commercial Development Business

The Company and one of its subsidiaries, namely, Bangkok Metro Networks Limited (“BMN”), operate the commercial development business of the MRT Blue Line Project, as follows:

- 1) Procurement and/or production of advertising media of various forms in the trains and metro stations;
- 2) Lease of retail spaces in the MRT Blue Line stations and spaces in the basement level of the Lat Phrao park and ride facility;
- 3) Provision of service and maintenance of telecommunications system equipment inside the metro stations.

In addition, as for the expressways, the Company and NECL allowed private entities and individuals to use spaces for commercial operation for installation of Intelligent Traffic Signs and various advertising boards, including retail spaces around toll plazas, and other business activities, such as, the use of the expressway areas for installation of 3G signal boosters, etc.

1.1.4 Investment in Other Companies

The Company invests in the companies operating the public utility businesses, as follows:

- (1) CK Power Public Company Limited (“CKP”) operates its core business by holding shares in other companies (Holding Company) operating the energy business;
- (2) TTW Public Company Limited (“TTW”) operates the business of production and distribution of tap water to the Provincial Waterworks Authority and invests in companies which operate the business of other public utilities; and
- (3) Xayaburi Power Company Limited (“XPCL”) carries out construction and operation of the Xayaburi Hydroelectric Power Project.

1.2 Significant Changes and Developments

The Company was incorporated from the amalgamation, under the Public Limited Company Act, between BECL and BMCL on December 30, 2015. It operates the businesses of construction and operation of the expressways and operation of the metro system, including commercial development relating to the expressway and metro systems, whereby such businesses were transferred from BECL and BMCL by operation of law.

Significant Changes and Developments prior to the Amalgamation

- BECL registered its incorporation on December 23, 1987 and was listed on the Stock Exchange of Thailand (“Stock Exchange”) since August 31, 1995. Prior to the amalgamation, BECL’s registered and paid-up capital amounted to Baht 7,700,000,000, divided into 770,000,000 ordinary shares, at the par value of Baht 10 per share.
- On December 22, 1988, BECL entered into the Second Stage Expressway Agreement with the Expressway Authority of Thailand (EXAT) for construction and operation of the Si Rat Expressway for a concession period of 30 years from the construction commencement date, namely, March 1, 1990.
- On September 25, 1996, BECL established Northern Bangkok Expressway Company Limited (NECL), whereby NECL entered into the agreement with EXAT for construction and operation of the Udon Rattaya Expressway (Bang Pa-in - Pak Kret Expressway) for a period of 30 years from the execution date of the agreement, namely, September 27, 1996.
- On April 17, 1997, BECL entered into the Agreement for the Extension of the Second Stage Expressway System, Sector D, for construction and operation of the Si Rat Expressway, Sector D, with EXAT for a period of 30 years from the construction commencement date, namely, April 22, 1997.
- On September 14, 2012, BECL entered into the Concession Agreement for Investment, Design, Construction, Operation, Service and Maintenance of the Si Rat - Outer Ring Road Expressway Project with EXAT for a concession period of 30 years from the date of EXAT’s Notice to Proceed, namely, December 15, 2012.
- BMCL registered its incorporation on February 18, 1998, and was listed on the Stock Exchange since September 21, 2006. Prior to the amalgamation, BMCL’s registered and paid-up capital amounted to Baht 7,585,000,000, divided into 20,500,000,000 ordinary shares, at the par value of Baht 0.37 per share.
- BMCL entered into the Agreement for the M.R.T. Chaloem Ratchamongkhon Line Project with MRTA on an AOT (Acquire, Operate and Transfer), PPP Net Cost basis, whereby BMCL was entitled to fare box revenue and undertaking activities and commercial development, including advertising, leasing space and telecommunications services in the metro stations and in the trains for a period of 25 years, from July 2, 2004 to July 1, 2029. Under such Agreement, BMCL was obliged to make payment of remuneration from fares and commercial development to MRTA at the rates as mentioned in the Agreement.
- On February 25, 2009, BMCL established Bangkok Metro Networks Limited (BMN) for operating the commercial development business, by the amalgamation of three companies, namely, BMCL Network Limited, Metro Mall Development Limited, and Triads Networks Co., Ltd. BMN accepted the transfer of all three companies’ businesses, as well as all rights, duties, assets, liabilities and staff.

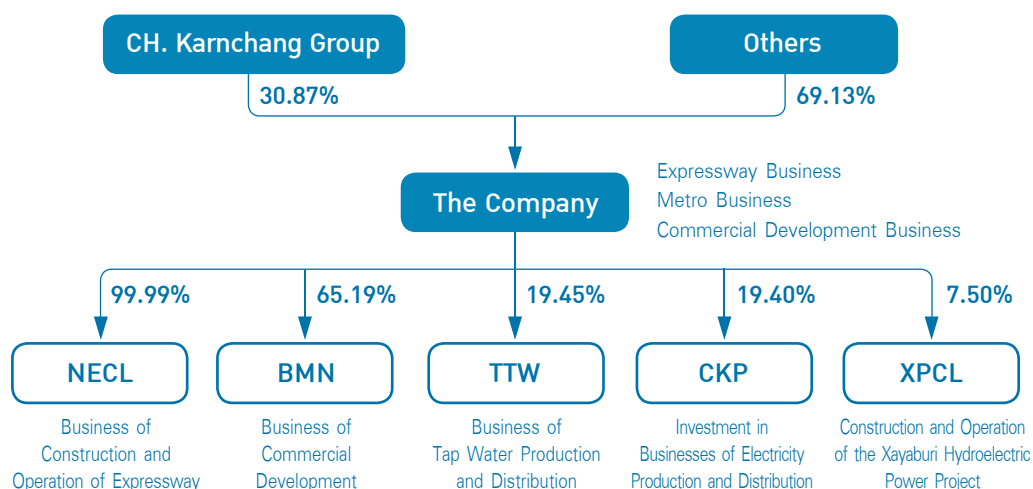
- On September 4, 2013, BMCL entered into the Agreement for the MRT Purple Line Project with MRTA for a period of 30 years on an ATO (Acquire, Transfer and Operate), PPP Gross Cost basis, namely, MRTA invested in all civil works and BMCL invested in the M&E Systems and the rolling stocks, provided that MRTA shall make a gradual repayment of the M&E Equipment to BMCL, and BMCL shall provide the O&M services in accordance with the service provision standards as specified in the Agreement. In this regard, MRTA is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and MRTA shall make payment to BMCL in the form of service fee for the O&M Services from the date of BMCL's operation service until the end of the Concession Agreement.

Significant Changes and Developments of the Company in 2017

February 27, 2017	The Company was granted the Issuer of the Year 2016 Award by the Thai Bond Market Association as the outstanding private-sector debenture issuer in the bond market fund raising in 2016, which met the demands of the Company and investors in an appropriate time, with operations pursuant to the good corporate governance principles, ensuring confidence of both debenture holders and shareholders.
March 31, 2017	<p>The Company entered into the Concession Agreement for the MRT Blue Line Project with MRTA, for a period of 33 years, on a PPP Net Cost basis, divided into 2 phases, as follows:</p> <p>Phase 1: Supply, installation, and testing of the M&E Equipment for the MRT Blue Line Extension Project, for a period of 3 years;</p> <p>Phase 2: Provision of train operation service for the M.R.T. Chaloem Ratchamongkhon Line Project and the MRT Blue Line Extension Project as Through Operation, for a period of 30 years.</p> <p>The MRT Blue Line Project comprises the M.R.T. Chaloem Ratchamongkhon Line Project (Hua Lamphong Station - Bang Sue Station), currently in service; and the MRT Blue Line Extension Project (Hua Lamphong Station - Lak Song Station and Bang Sue Station - Tha Phra Station), for a total distance of 47 kilometers, with 38 stations, whereby the Company is entitled to fare box revenue and to commercial development throughout the concession period.</p>
June 21, 2017	The Company received a credit rating at “A”, with “Stable” outlook from TRIS Rating Co., Ltd.
July 19, 2017	The Company executed the Amendment (No. 2) to the Concession Agreement for the Si Rat - Outer Ring Road Expressway Project with EXAT for construction of a connection between the Si Rat - Outer Ring Road Expressway and the northern part of the Si Rat Expressway (heading to Chaeng Watthana), with the value of Baht 275,000,000, for a construction period of 18 months, commencing in August 2017.
August 11, 2017	The Company opened the MRT Blue Line Extension Project for service, Tao Poon Station - Bang Sue Station, under the concept of “Come Together to Integrate Happiness for People”, linking the train operation among the M.R.T. Chaloem Ratchamongkhon Line (the existing MRT Blue Line), the MRT Blue Line Extension, and the M.R.T. Chalong Ratchadham Line (the MRT Purple Line) as a through operation, in order to ensure more rapid, convenient and safe commute between Bangkok and its surrounding provinces, whereby this linked route covers a distance of 1.2 kilometers.
September 7, 2017	The Company issued and offered the debentures No. 1/2017, with a maturity of 5-7 years, in the amount of Baht 5,000 Million, at the fixed interest rates of 2.65 percent to 3.10 percent per annum, for use in project investment and for use as working capital.
October 11, 2017	The Company was announced by the Stock Exchange to be in a group of the listed companies that sustainability operate their businesses by taking into account with Environmental, Social and Governance (ESG) or Thailand Sustainability Investment of the group of listed companies on the Stock Exchange with market capitalization of more than Baht 100,000 Million.
November 28, 2017	The Company was granted the Best Deal of the Year Award for 2017 by the Stock Exchange and Money & Banking Magazine in the “SET Award 2017” event, as a result of the amalgamation between BECL and BMCL.

1.3 Shareholding Structure of Company Group

Chart of Shareholding Structure and the Company's Shareholding Percentage as at December 31, 2017



Remark : CH. Karnchang Group comprises 1) CH. Karnchang Public Company Limited 2) CH. Karnchang-Tokyu Construction Company Limited,

1.3.1 Investment in Subsidiaries and Other Companies

The Company has a policy on investment in businesses of infrastructure or businesses supporting the Company's operations and creating opportunity and long-term yields to the Company. The Company's investment as at December 31, 2017 was as follows:

(1) Names of Companies invested by the Company and its Shareholding Percentage

Unit: Million Baht

Names of Companies	Nature of Business	Registered Capital	Paid-up Capital	Shareholding Percentage	Investment Value at Cost
Subsidiaries					
Northern Bangkok Expressway Company Limited	Construction and operation of the Udon Rattaya Expressway	6,000	5,250	99.99%	2,604
Bangkok Metro Networks Limited	Operation of the commercial development business	254	254	65.19%	166
Other Companies					
CK Power Public Company Limited	Investment by holding shares in other companies (Holding Company) operating a business of electricity production and distribution	9,240	7,370	19.40%	3,223
TTW Public Company Limited	Tap water production and distribution	3,990	3,990	19.45%	4,277
Xayaburi Power Company Limited	Construction and operation of the Xayaburi Hydroelectric Power Project	26,861	22,065	7.50%	1,238

(2) Details of Companies Invested by the Company

Expressway Business

1. Northern Bangkok Expressway Company Limited ("NECL")

NECL's registered capital amounts to Baht 6,000 Million, divided into 294 million ordinary shares and 306 million preferred shares, at the par value of Baht 10 per share, with the paid-up capital of Baht 5,250 Million. As at December 31, 2017, the Company's shareholding was 99.99 percent of its registered capital. NECL entered into the Agreement with EXAT for construction and operation of the Udon Rattaya Expressway for a period of 30 years from September 27, 1996. The Udon Rattaya Expressway is northbound and continues from the Si Rat Expressway around Chaeng Watthana Road and passes Bang Phun, Chiang Rak and ends at Bang Sai.

Commercial Development Business

1. Bangkok Metro Networks Limited (“BMN”)

BMN has a total registered capital of Baht 254 Million, divided into 25.4 million ordinary shares, at the par value of Baht 10 per share, with the paid-up capital of Baht 254 Million. As at December 31, 2017, the Company’s shareholding in BMN was 65.19 percent of its registered capital.

BMN was established by the amalgamation of three companies, namely, BMCL Network Limited, Metro Mall Development Limited, and Triads Networks Co., Ltd. BMN accepted the transfer of all three companies’ businesses, as well as all rights, duties, assets, liabilities and staff.

BMN currently operates the business of procurement and production of advertising media of various forms in the metro stations and trains, lease of retail spaces in stations of the M.R.T. Chaloom Ratchamongkhon Line Project and at the basement level of the park and ride facility at the Lat Phrao Station, as well as providing service and maintenance of telecommunications system equipment in the stations and tunnels.

Other Infrastructure Businesses

1. CK Power Public Company Limited (“CKP”)

CKP is a listed company on the Stock Exchange, operating its main business by investing in other companies (Holding Company) which operate the business of electricity production and distribution. CKP has a total registered capital of Baht 9,240 Million, divided into 9,240 million ordinary shares, at the par value of Baht 1 per share, with the paid-up capital of Baht 7,370 Million. As at December 31, 2017, the Company’s shareholding was 19.40 percent of its registered capital. CKP invests in companies operating the business of electricity production and distribution from three types of energy, namely, hydropower business, by investing in SouthEast Asia Energy Limited and Xayaburi Power Company Limited; thermal power business (cogeneration system), by investing in Bangpa-in Cogeneration Limited; and solar power business, by investing in Bangkhenchai Company Limited, Nakhon Ratchasima Solar Limited, and Chiangrai Solar Limited.

2. TTW Public Company Limited (“TTW”)

TTW is a listed company on the Stock Exchange, having a total registered capital of Baht 3,990 Million, divided into 3,990 million ordinary shares, at the par value of Baht 1 per share, with the paid-up capital of Baht 3,990 Million. As at December 31, 2017, the Company’s shareholding was 19.45 percent of its registered capital. TTW operates the business of production and distribution of tap water to the Provincial Waterworks Authority in the areas of Nakhon Pathom Province and Samut Sakhon Province, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority for a period of 30 years from July 21, 2004. In addition, TTW invests in Pathum Thani Water Co., Ltd., representing 98 percent of its registered capital, which operates the business of tap water production and distribution in the areas of Pathum Thani and Rangsit, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority for a period of 25 years from October 15, 1998, and also invests in Thai Water Operations Company Limited, which operates the business of management and operation of tap water production and distribution systems and water treatment system, as well as invests in the energy business by holding shares in CKP representing 25 percent of its registered capital.

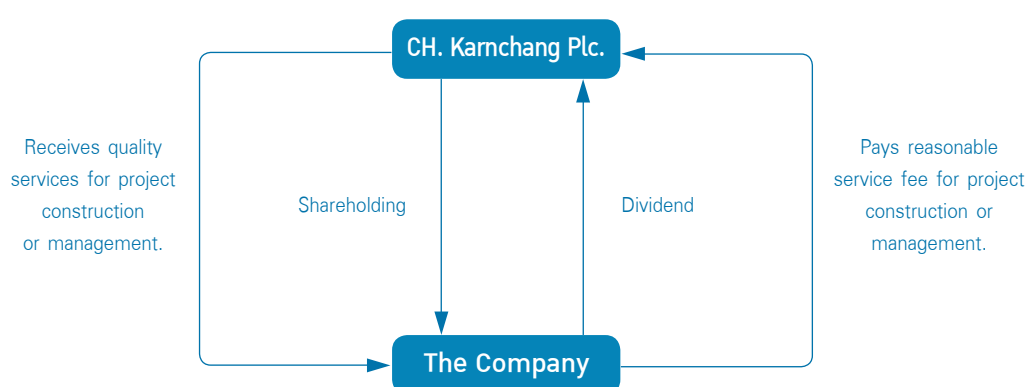
3. Xayaburi Power Company Limited (“XPCL”)

XPCL’s total registered capital is Baht 26,861 Million (at the exchange rate of USD 1 to Baht 34), with the paid-up capital of Baht 22,065 Million. As at December 31, 2017, the Company’s shareholding was 7.50 percent of its registered capital. XPCL’s main business is to operate the Xayaburi Hydroelectric Power Project, located on the Mekong River. The Xayaburi Hydroelectric Power Project is a run-of-river hydroelectric project, without water diversion from the Mekong River and without water impounding like other reservoir dams.

1.3.2 Relationship with Business Alliance of Major Shareholder

CH. Karnchang Plc. is the Company's major shareholder. As at December 31, 2017, CH. Karnchang Plc. was holding 4,582,121,829 shares in the Company, representing 29.98 percent of the Company's paid-up capital. From the past until the present, the Company engaged CH. Karnchang Plc. for construction and operation of various projects, as CH. Karnchang Plc. is a large construction company in Thailand, with potential, knowledge and expertise, and is familiar with the civil infrastructure of the expressway and metro projects, as well as M&E Equipment. In addition, CH. Karnchang Plc. has experience in the operation on a Lump Sum Turnkey basis, which enables it to deliver quality works timely, and is also the Company's strategic investment partner, and as a result, CH. Karnchang Plc. has responsibility and commitment to operating the projects with success. Therefore, in the future, it is possible that the Company will engage CH. Karnchang Plc. for project construction or management. However, in the execution of transactions with CH. Karnchang Plc., which may have a conflict of interests, the Company will comply with its policy on execution of connected transactions per details as disclosed in Item 12. Connected Transactions.

Chart of Relationship with Business Alliance of Major Shareholder



2. Nature of Business Operations

The Company and its subsidiaries have operated the businesses as concessionaires awarded by the government sector, as follows: 1) concessionaires for the expressway construction and operation, namely, the Si Rat Expressway, the Si Rat - Outer Ring Road Expressway and the Udon Ratthaya Expressway; 2) concessionaires for operation of the MRT Blue Line Project and the MRT Purple Line Project. Other than serving as the concessionaire, the Company has also operated the commercial development business pursuant to the relevant Concession Agreements. Currently, the revenue structure of the Company and its subsidiaries is set forth below.

(Unit: Million Baht)

Total revenue structure	Operated by	Shareholding Percentage of the Company	Consolidated Financial Information					
			For Year Ended December 31, 2017		For Year Ended December 31, 2016		For Year Ended December 31, 2015 ⁽¹⁾	
			Million Baht	%	Million Baht	%	Million Baht	%
Revenue from expressway business			9,957	64.7%	9,301	70.3%	8,815	67.3%
Toll revenue	Company		8,573	55.7%	7,978	60.3%	7,606	58.0%
Toll revenue	Subsidiary (NECL)	99.99 ⁽²⁾	1,384	9.0%	1,323	10.0%	1,209	9.3%
Revenue from rail business			4,521	29.3%	3,230	24.4%	2,374	18.1%
Fare box revenue and metro operation service charges	Company		4,521	29.3%	3,230	24.4%	2,374	18.1%
Commercial development revenue			675	4.4%	573	4.3%	549	4.2%
Commercial development revenue	Company		75	0.5%	78	0.6%	81	0.6%
Commercial development revenue	Subsidiary (BMN)	65.19	600	3.9%	495	3.7%	468	3.6%
Gain on investments ⁽³⁾			42	0.3%	31	0.2%	1,298	9.9%
Other income ⁽⁴⁾			198	1.3%	98	0.8%	69	0.5%
Total revenues			15,393	100%	13,233	100%	13,105	100%

Remarks : ⁽¹⁾ Pro forma consolidated financial information.

⁽²⁾ The Company (formerly BECL) acquired additional shares in NECL in November 2015, as a result, the Company's shareholding in NECL increased from 53.33 percent to 99.99 percent of its registered capital.

⁽³⁾ Gain on investments includes gain on sales of investment in BMCL, TTW and CKP.

⁽⁴⁾ Other income comprises interest income, gain on fair value adjustment of investment, and flood compensation.

2.1 Expressway Business

2.1.1 Nature of Services

The Company and one of its subsidiaries, i.e., NECL, construct and operate the expressways, namely, the Si Rat Expressway, the Si Rat - Outer Ring Road Expressway, and the Udon Ratthaya Expressway, as per the following details:

1) The Si Rat Expressway

The Si Rat Expressway is the first large-scale construction project in Thailand on the basis of public private partnership to help alleviate the traffic congestion problems in Bangkok and its vicinity. This project is implemented on a BTO (Build Transfer Operate) basis, namely, the Company (formerly BECL) invested in the design, construction and operation of the Si Rat Expressway, comprising 4 Sectors, namely, Sector A (Rama 9 - Ratchadapisek), Sector B (Phayathai - Bangkhlo), Sector C (Ratchadapisek - Chaeng Watthana), and Sector D (Rama 9 - Srinagarindra), covering a total distance of 38.5 kilometers. In this regard, the title to various

permanent constructions pertaining to or useful for the Si Rat Expressway shall be vested in EXAT. EXAT invested in the construction and operation of the Chalem Mahanakorn Expressway (First Stage Expressway), covering a total distance of 27.1 kilometers. The Company has the right to receive toll revenue sharing in respect of the Chalem Mahanakorn Expressway and the Si Rat Expressway in such proportions as specified in the Second Stage Expressway Agreement for the concession period of 30 years from March 1, 1990, and the Agreement for Extension of the Second Stage Expressway (Sector D) for the concession period of 30 years from April 22, 1997.

2) The Si Rat - Outer Ring Road Expressway Project

The Company has the duties to carry out design and construction, supply and installation of various equipment and systems, together with operation and maintenance of the expressway, including toll collection, in consideration of the right to receive toll revenue and other revenues (if any). This expressway starts from Kanjanapisek Road and connects to the Si Rat Expressway at the North of the Mo Chit 2 Bus Terminal, for a total distance of 16.7 kilometers. In this regard, the Company is responsible for investment and all operating expenses, and share returns with or provides benefits to EXAT as specified in the Agreement, for the concession period of 30 years from December 15, 2012. The project was opened for service on August 22, 2016.

On June 27, 2017, the Council of Ministers' Meeting resolved to approve the construction of a connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway in the north (heading to Chaeng Watthana) to solve the problem of the people's travelling from the Si Rat Expressway - Outer Ring Road Expressway to the north side of the Si Rat Expressway. In this regard, the Company signed with the EXAT on July 19, 2017 to effect the construction of such connection, for the construction period of 18 months. The route is an elevated connection with 1-2 lanes, starting at the off-ramp from the Si Rat Expressway - Outer Ring Road Expressway on the inbound side in the area of Bang Sue at EMU Depot, turning left northwards to connect with the Si Rat Expressway on the outbound side heading to Chaeng Watthana, covering a distance of approximately 360 meters. The Company expected that it would be completed by 2018.

3) The Udon Ratthaya Expressway

The Company holds shares in NECL, which engages in the business of construction and operation of the Udon Ratthaya Expressway, connecting to the Si Rat Expressway at Chaeng Watthana Road and ending at Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province, covering a total distance of approximately 32 kilometers. This project is implemented on a BTO (Build Transfer Operate) basis like the Si Rat Expressway, namely, NECL invested in the design, construction, and operation of the Udon Ratthaya Expressway, whereby the title to various permanent constructions pertaining to or useful for the expressway shall be vested in EXAT, and EXAT is responsible to collect and deliver all tolls to NECL as specified in the Agreement, for the concession period of 30 years from September 27, 1996.

The details of the expressway network connections are as follows:

Expressway Systems	Length (kilometers)	Constructed and Operated by
1. Chalem Mahanakorn Expressway (First Stage Expressway) (Bang Na - Din Daeng - Dao Khanong)	27.1	EXAT
2. Si Rat Expressway (Second Stage Expressway) 2.1 Urban Network (Prachachuen - Phayathai - Bangkhlo - Asoke) 2.2 Suburban Network (Prachachuen - Chaeng Watthana and Asoke - Srinagarindra)	38.5	Company
3. Udon Ratthaya Expressway (Bang Pa-in - Pak Kret)	32.0	NECL
4. Uttaraphimuk Elevated Way (Don Muang Tollway)	28.0	Don Muang Tollway Public Company Limited

Expressway Systems	Length (kilometers)	Constructed and Operated by
5. Chalong Rat Expressway including its Extension (Ramindra - At Narong and Ramindra - Outer Ring Road)	42.4	EXAT
6. Burapha Withi Expressway (Bang Na - Chonburi)	56.7	EXAT
7. Kanjanapisek Expressway (Bang Pli - Suksawad) and Highway No. 37 (Suksawad - Bang Khun Thien Section) including a connecting road to the Industrial Ring Road	42.3	EXAT
8. Si Rat - Outer Ring Road Expressway	16.7	Company
8.1 Connection of the Si Rat - Outer Ring Road Expressway with the Si Rat Expressway in the north (heading to Chaeng Watthana)	0.36	Company
Total Length	284.06	

2.1.2 Toll Revenue Sharing

Effective from March 1, 2011, the Company and EXAT have received the toll revenue sharing in respect of the urban network at 40 percent and 60 percent, respectively, while the Company has received all toll revenues for the suburban network, in accordance with the terms of the Agreements.

Expressway	Network	Length (km.)	Opening Date	Revenue	Revenue Sharing Company : EXAT
Chalerm Mahanakorn Din Daeng - Port Bang Na - Port Port - Dao Khanong	Urban Urban Urban	8.9 7.9 10.3	January 4, 1981 January 17, 1983 August 8, 1987	Company and EXAT	- 60:40 for the first nine years - 50:50 for the period between the first nine years and the last nine years - 40:60 for the last nine years
Si Rat Sector A: Rama 9 - Ratchadapisek Sector B: Phayathai - Bangkhlo	Urban Urban	12.4 9.4	September 2, 1993 October 6, 1996	Company and EXAT	- 60:40 for the first nine years - 50:50 for the period between the first nine years and the last nine years - 40:60 for the last nine years
Sector C: Ratchadapisek - Chaeng Watthana Sector D: Rama 9 - Srinagarindra	Suburban Suburban	8.0 8.7	September 2, 1993 Section 1 December 2, 1998 Section 2 March 1, 2000	Company	- 100 : 0
Si Rat - Outer Ring Road	Suburban	16.7	August 22, 2016	Company	- 100 : 0
Udon Ratthaya Chaeng Watthana - Chiang Rak Chiang Rak - Bang Sai	Suburban Suburban	22 10	December 2, 1998 November 1, 1999	Subsidiary (NECL)	- 100 : 0

2.1.3 Toll Rates

Expressway/Toll Plaza	Toll Rates (Baht/Trip)		
	4 wheels	6-10 wheels	More than 10 wheels
Chalerm Mahanakorn Expressway (First Stage Expressway)	50	75	110
Except: At Narong 1 Toll Plaza (to Bang Na)	40 *	65 *	100 *
Si Rat Expressway (Second Stage Expressway)	50	75	110
Except: Srinagarindra / Ramkhamhaeng Toll Plazas Rama 9 / Asoke 3 Toll Plazas Rama 9-1 Toll Plaza (Si Rat)	25	55	75
Prachachuen Toll Plaza (inbound)	60	90	140
Prachachuen Toll Plaza (outbound)	10	15	30
Prachachuen 1 Toll Plaza (from Prachachuen Road) Prachachuen 2 Toll Plaza (to Prachachuen Road) Ngam Wong Wan 1 Toll Plaza (outbound) Ngam Wong Wan 2 Toll Plaza (inbound)	15	20	35
Si Rat - Outer Ring Road Expressway	50	80	115
Udon Raththaya Expressway	45	100	150
Except: Muang Thong Thani Toll Plaza	35 **	90 **	140 **
Bang Pa-in Toll Plaza	55	120	180

Remarks : * This is the rate after Baht 10 discount for all types of vehicles.
 ** This rate is the rate after Baht 10 discount for all types of vehicles.

The revision of the toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway is in accordance with the Second Stage Expressway Agreement, which shall be made every five years, and the calculation and revision shall be based on the most recent increase of the Consumer Price Index of Bangkok as issued by the Ministry of Commerce. Each increase shall be rounded up to the nearest whole multiple of Baht 5, provided that such revision shall not increase by more than Baht 10 during the first 15 years of the Contract Period. If there is an unusually high rate of inflation or an occurrence of Force Majeure or Exceptional Event, the Company and EXAT shall consider the toll revision as appropriate. The most recent toll revision was made on September 1, 2013 and the next toll revision is scheduled to be made on September 1, 2018.

The revision of the toll rates of the Si Rat - Outer Ring Road Expressway is in accordance with the Concession Agreement for Investment, Design, Construction, Management, Operation and Maintenance of the Si Rat - Outer Ring Road Expressway Project, which shall be made every five years from the date of service operation of the project for five years, at the rates of Baht 15, Baht 25 and Baht 35 for four-wheeled vehicles, six-wheeled to ten-wheeled vehicles; and more than ten-wheeled vehicles, respectively, as specified therein.

With respect to the Udon Raththaya Expressway, the revision of toll rates every five years shall be based on the most recent increase of the Consumer Price Index of Bangkok as issued by the Ministry of Commerce. Each increase shall be rounded up to the nearest whole multiple of Baht 5, provided that such revision shall not increase by more than Baht 15 during the first 15 years of the Contract Period. The first toll revision was made on November 1, 2003 and the latest toll revision was made on November 1, 2013. The next toll revision is scheduled to be made on November 1, 2018.

Despite EXAT's issuance of the Notifications of the Ministry of Transport for toll revisions with approval of the Deputy Minister of Transport in charge, namely, the toll rates for the Chalerms Mahanakorn Expressway and the Si Rat Expressway were revised on September 1, 2013 and the toll rates for the Udon Rattaya Expressway were revised on November 1, 2013, the Company and one of its subsidiaries (NECL) were of the view that the revised toll rates under the said Notifications did not comply with the provisions of the relevant Agreements.

2.1.4 Marketing and Competition

2.1.4.1 Customer Characteristics and Target Customers of the Expressway Business

Target customers of the Chalerms Mahanakorn Expressway, the Si Rat Expressway, the Si Rat - Outer Ring Road Expressway and the Udon Rattaya Expressway refer to those motorists who desire a convenient and rapid transportation or who desire to shorten the traveling distance to their destinations as well as to avoid the traffic congestion along the normal roads in Bangkok and its vicinity. The customers by the types of vehicles using the expressways may be divided into four-wheeled vehicles; six-wheeled to ten-wheeled vehicles; and more than ten-wheeled vehicles, which in 2017, accounted for 97.79 percent, 1.78 percent and 0.25 percent, respectively. The traffic volume during January 1 to December 31, 2017 using the expressways may be described by areas as follows:

Expressway Systems	Average Traffic Volume (trips/day)	%
1. Chalerms Mahanakorn Expressway (First Stage Expressway) (Bang Na - Din Daeng - Dao Khanong)	373,218	30.74
2. Si Rat Expressway (Second Stage Expressway)		
2.1 Urban Network (Prachachuen - Phayathai - Bangkhlo - Asoke)	325,873	26.84
2.2 Suburban Network (Prachachuen - Chaeng Watthana and Asoke - Srinagarindra)	378,842	31.21
3. Udon Rattaya Expressway (Bang Pa-in - Pak Kret)	86,154	7.10
4. Si Rat - Outer Ring Road Expressway (opened for service on August 22, 2016)	49,946	4.11
Total Traffic Volume	1,214,033	100

Given the fact that the provision of the expressway services is considered a form of public service for motorists requiring convenient, rapid and safe traveling, as target customers of the expressway systems, customers are broad depending on their destinations, residences and workplaces. In this respect, the revenue of the expressway systems will not depend on any particular group of customers.

2.1.4.2 Marketing Policy and Strategies

Marketing Strategies

The marketing highlight is that the Si Rat Expressway is designed to respond to the transportation needs through the expressway network which connects to and covers major areas in Bangkok, whether from the Chalerms Mahanakorn Expressway and the Si Rat Expressway, as well as the Chalong Rat Expressway (Ramindra - At Narong) which cover the areas from the North to the South and from the West to the East of Bangkok. Motorists may use the expressway to connect to the Burapha Withi Expressway (Bang Na - Chonburi), and the Chalerms Mahanakorn Expressway and the Chalong Rat Expressway, thereby rendering the service of the expressway systems to become more complete for users to reach their destinations more conveniently and rapidly than using at-grade roads.

On August 22, 2016, the Company opened for service the Si Rat - Outer Ring Road Expressway, a route connecting between Bangkok - Thonburi sides, starting at the off-ramp from the Second Stage Expressway at Mo Chit (Chatuchak) and across the Chao Phraya River at the Rama VII Bridge, and continuing along in parallel to the Southern railway via the districts of Bang Phlat, Bang Bamru, Taling Chan, connecting to the Boromarajonani Elevated Road passing Ratchaphruek Road, and ending at the Outer Ring Road (the West). As such, such route enables motorists to conveniently and rapidly commute from and to Bangkok-Thonburi sides.

The marketing disadvantage is the physical limitation which prevents the release of traffic around the expressway exits during rush hour, which depends on the traffic on at-grade roads, representing an uncertain factor beyond the Company's control. However, the Company continuously coordinates with traffic police in police stations of such areas, including linking video signal from CCTVs on the expressways to police stations of such areas, to provide assistance in releasing and facilitating traffic flow in the expressway systems by improving various on-ramps and off-ramps for motorists to save time and facilitate motorists with more convenience and better quality of living in their commute in the downtown. Motorists should then appreciate these benefits over price factor.

In view of various marketing strategies, the Company has proceeded as follows:

1) Products and Services Strategies

- The prime location and connections to major roads in the city allow the expressway network to respond to the transportation needs of motorists to reach their desired destinations. In this regard, the Company has improved the quality of the routes and its services and given priority to the customers' needs, which will be integrated as key strategies to efficiently accommodate the traffic volume flowing in the system.
- The feasibility study on improvement of the on-ramps and off-ramps of the expressways serves as another measure to facilitate the traveling and to continually maintain the quality of the expressways in terms of engineering safety to meet international standards.
- The Company has continuously monitored the traffic volume statistics to enhance the efficiency of its Easy Pass service as appropriate in order to improve the service provision and accommodate the increased volume of expressway users. The Company has added Easy Pass lanes at various Toll Plazas on the Si Rat Expressway and the Si Rat - Outer Ring Road Expressway to accommodate the increased volume of Easy Pass users. In addition, the Company has moved the Easy Pass lanes for more convenience and safety of the Easy Pass service users and to minimize the cross traffic between the cash lanes and the Easy Pass lanes, which will mitigate the traffic congestion at the front of the toll plazas.
- The study on new routes in response to the urbanization in the future, particularly in Bangkok, as well as the study on traveling behavior of motorists are conducted to prepare for the expansion of the scope of the expressway services, and serve well as additional channels of services in response to needs of the motorists in the future.
- The Company has added communication channels on traffic information via Smart Traffic and Variable Message Signs (VMS) to keep motorists informed of the traffic conditions on expressways, as well as suggesting routes on expressways for more convenience and rapidity.
- The Company has also improved signboards regarding the expressway usage on the at-grade main road and various alleys in Bangkok and its vicinity so as to facilitate motorists and boost confidence to access and use the expressways. To this effect, the Company focuses on introducing such landmarks adjacent to the on-ramps and off-ramps of the expressways on the website and various public relations media to ensure that customers, as the expressway users, would travel more conveniently and rapidly.

2) Price Strategies

- Toll rates are agreed upon and specified in the Agreements, including the calculation for revisions of toll rates ahead of time. It is mutually agreed that the rates are considered reasonable and based on the feasibility study for investment of each project. Under the Second Stage Expressway Agreement, the Agreement for the Extension of Second Stage Expressway (Sector D), and the Bang Pa-in - Pak Kret Agreement, toll rates shall be revised at every five years interval in accordance with changes in Consumer Price Index of Bangkok as announced by the Ministry of Commerce, which serves as the basis of calculation for the intrinsic value of the toll rates during the given periods under the Agreements. Furthermore, the revision of the toll rates of the Si Rat - Outer Ring Road Expressway is in accordance with the Concession Agreement, which shall be made every five years from the date of service operation of the project at the rates specified therein.
- The Company continues to provide discount on tolls on certain routes for a limited period of time to attract motorists to increasingly use the expressway services, especially such routes with connections between the expressway systems, e.g., At Narong 1 Toll Plaza (from the Chalong Rat Expressway to enter the Chalm Mahanakorn Expressway around Bang Na), and Muang Thong Thani Toll Plaza of the Udon Ratthaya Expressway, which the Company, together with EXAT, continued to provide discount.

3) Selling and Distribution Channels Strategies

- Payment of Tolls
 - Users of the Chalm Mahanakorn Expressway and the Si Rat Expressway may choose to use the expressway services from various on-ramps and off-ramps covering major areas in Bangkok throughout the total distance of 65.6 kilometers. Expressway users shall pay tolls at the on-ramps of toll plazas, totaling 52 locations, 20 toll plazas of the Chalm Mahanakorn Expressway (e.g., Din Daeng, Bang Na, Dao Khanong, Sukhumvit, Rama 4 Toll Plazas, etc.) and 32 toll plazas of the Si Rat Expressway (e.g., Asoke, Rama 9, Srinagarindra, Yommaraj, Surawong, Hua Lamphong, Khlong Prapa, Yan Phahon Yothin, Prachachuen, Rama 3, etc.). Users may pay tolls in two channels, in cash, or via Easy Pass.
 - Users of the Udon Ratthaya Expressway which connects to the expressway system towards the North of Bangkok has a total distance of 32 kilometers, with 10 toll plazas, shall pay tolls at the on-ramps for the inbound direction and at the off-ramps for the outbound direction. There are five on-ramps and five off-ramps. Users may pay tolls in cash or via Easy Pass
 - Users of the Si Rat - Outer Ring Road Expressway which connects to the Si Rat Expressway System towards the West of Bangkok has a total distance of 16.7 kilometers, with 9 toll plazas, shall pay tolls at the on-ramps in cash or via Easy Pass.
- Electronic Toll Collection System

The Company, in association with EXAT, introduces the Electronic Toll Collection system in the toll collection, in order to serve as an alternative channel for motorists and facilitate and speed up the toll payment at the front of the Toll Plazas during rush hour, as well as accommodating the increasing traffic volume in the future. Currently, there are Easy Pass users representing approximately 38.32 percent.

In the interest of convenience to the Easy Pass users, the Company has arranged for the Easy Pass Fast Service, including film cutting service for Easy Pass installation and testing, whereby the expressway users are able to bring their cars to use the services at the Easy Pass Fast Service, free of charge, at the Si Rat Expressway Control Center, Asoke - Dindaeng Road, every day during the office hours from 9:00 - 17:00 hours.

To ensure more benefits of the Easy Pass users, the Company, in association with EXAT and the Department of Highways, improved the efficiency of the toll collection via the Electronic Toll Collection System by way of integration between the Easy Pass system and the M-Pass system to enable the service users to pay tolls with only one pass for seven expressway routes and two of the Intercity Motorway Projects (Motorways) of the Department of Highways from November 1, 2016.

4) Sales Promotion and Public Relations Strategies

The Company provides discount on tolls on certain routes within a limited period of time, aimed at attracting target customers to continue to use the expressway services and eventually become regular customers. In 2017, the Company continued to provide a discount on the Udon Raththaya Expressway of one of its subsidiaries (NECL), to motorists at Muang Thong Thani Toll Plaza.

Furthermore, during the remarkable festivals, such as, Songkran Festival and New Year's Festival, the Company also holds activities promoting the use of the expressways for motorists by cooperating with EXAT to distribute souvenirs to motorists, including arranging for motorist service points, which demonstrated our positive image and relationship with motorists under the theme that we provide the best services to customers throughout the routes, as well as educating them about applicable traffic laws during Songkran Festival. In addition, on the occasion of the New Year's Eve, the Company jointly supported the EXAT to offer discounts on application fee for Easy Pass to encourage the expressway users to use more Easy Pass, thereby reducing traffic congestion at the front of the toll plazas.

The Company, as a private company that provides the expressway services, responds to the government policy to promote the “No Phone While Driving”, “No Drowsing Driving” and “No Drunk Driving” campaigns for drive safety, campaigns for keeping safety belt fasten at all times while driving, including campaigns for giving way to ambulances to save lives of accident victims and emergency patients.

The Company also implemented public relations to convince target customers of the convenient, rapid, economical and safe usage of the expressways; various quality services on the expressways; and various sales promotion of the Company, such as, special activities for lucky motorists, discount on tolls, dissemination of expressway network map, connections between the expressways and various routes to facilitate motorists.

The channels of public relations used by the Company to disseminate information comprise documentary programs on radio and television, radio spot, leaflets, Variable Message Signs (VMS), and our website: www.bemplc.co.th, as well as social media (www.facebook.com/bangkokexpresswayandmetro), including Si Rat bimonthly newsletters as a medium for sharing information and news between the Company and motorists, and to educate, satisfy and attract new customers to use the services more, as well as organizing various social activities throughout the year to ensure the positive attitude of our services towards customers and society.

2.1.4.3 Industrial Outlook and Competition

In 2017, Thai economic situation started to gain positive momentum; income of consumers of certain groups rose as a result of an increase in minimum labor wage; and the government's projects highly expanded, particularly when the financial institutions started to become less strict with extending credit, sales of the Thailand automobile industry were then slightly rising. At this point, if it was divided into regions, the automobile industry was more growing in the northern and the southern regions than other regions, resulting from adjustments of the agricultural and tourism sectors, and meanwhile, in Bangkok, the overall automobile industry was thus expanding, both personal and commercial vehicles, thanks to the government's infrastructure projects, (Thansettakij Newspaper, December 28, 2017 Issue).

As a result of the aforesaid factors, Bangkok and its surrounding provinces had encountered traffic congestion problems. Currently, there were 10 million registered vehicles but there were only 5,500 kilometers of roads in Bangkok, resulting in accumulated traffic congestion problems in all areas of Bangkok, not to mention the fact that construction of the government's infrastructure projects, including other significant construction, caused the volume of vehicles in excess of the road capacity in Bangkok. In addition, others factors, for instance, heavy rain and flooding, led to slow traffic flow, reducing the average speed of vehicles on Bangkok's roads. According to the summary information of the Office of Transport and Traffic Policy and Planning (OTP), the average speed of vehicles on Bangkok's roads reduced, particularly on main roads and inner ring roads, by 0.3 kilometer/hour during rush hours in the morning or 1.9 percent, and by 2.3 kilometers/hour in the evening or 12.8 percent (Prachachat Newspaper, January 5, 2018 Issue), thereby affecting the growth of traffic volume on the expressways as a whole.

2.1.5 Procurement of Products and Services

2.1.5.1 Nature of Procurement of Products

EXAT is an authority responsible for the construction of expressways to provide service for convenient, rapid and safe traffic, as well as to mitigate traffic problems. EXAT invited interested parties to submit investment proposals; the Company then conducted feasibility study and submitted its proposals for investment in projects with appropriate return and conditions.

The expressway projects under the Second Stage Expressway Agreement, the Bang Pa-in - Pak Kret Expressway Agreement, the Agreement for Extension of the Second Stage Expressway (Sector D), and the Concession Agreement for the Si Rat - Outer Ring Road Expressway Project are implemented on a BTO basis. According to the essence of the Agreements, EXAT shall have the duty to determine the characteristics of the expressways, expressway routes and areas to be used for construction and arrange for land expropriation for delivery to the Company for construction within the time specified in the Agreements. Thereafter, the Company would carry out construction in accordance with the designs approved by EXAT, subject to the supervision of the quality of construction work by EXAT's Consulting Engineer, Independent Certification Engineer and Independent Design Checker. Upon completion of the construction, the Independent Certification Engineer shall inspect the work and issue Certificate of Completion to evidence that the construction work is completed in accordance with the specified standards and is ready for service, at which time, the Company shall be entitled to obtain toll revenue under the conditions of the Agreements. In the previous constructions, the Company engaged project managers to carry out construction and operate the Expressway Projects on a lump sum turnkey basis. This was due to the fact that the expressway projects are large-scale projects, which may sustain cost overrun issues and delayed completion of the construction. The lump sum turnkey engagement is intended to prevent such risk. In the engagement of project managers, the Company will select specialists with experience to act as project managers and construction contractor to ensure the accomplishment of quality work on time.

With respect to the Si Rat - Outer Ring Road Expressway Project, the Company and EXAT executed the Concession Agreement for Investment, Design, Construction, Operation, Service and Maintenance of the Project on September 14, 2012, for a concession period of 30 years from December 15, 2012 to December 15, 2042, and with a construction period of not exceeding 48 months. EXAT shall determine the expressway route and areas to be used for construction and arrange for land expropriation for delivery to the Company within the specified time. The Company shall have the duty to carry out the design and construction in accordance with the designs approved by EXAT, subject to the supervision of the quality of construction work by EXAT's Engineer and Independent Certification Engineer. Upon completion of the construction, the Independent Certification Engineer shall inspect the work and issue Certificate of Completion to evidence that the construction work is completed in accordance with the specified standards and is ready for service. The Company engaged CH. Karnchang Public Company Limited, which specializes and has extensive experience in construction and management of all expressway projects under the concessions of the Company, to act as project manager and construction contractor as well as operator of the project on a lump sum turnkey basis.

Under this Concession Agreement, the Company shall have the right to manage and provide service, e.g., toll collection, rescue operation and maintenance, whereby the Company shall be entitled to receive all tolls throughout the concession period.

2.1.5.2 Environmental Impact

The Company and its subsidiaries have been environmentally responsible in operating its expressway business, and will continue to adhere to the practices of the Company and its subsidiaries. The business guidelines can be summarized as follows:

In the construction of the expressways, the Company and its subsidiaries complied with the measures to prevent pollution in accordance with the regulations of the National Environment Committee and other relevant laws, which form an integral part of the Agreements. The Company and the subsidiaries implemented the measures and procedures as appropriate for the construction carried out in the urban areas with high populations. In so doing, the Company employed the Segmental Box Girder construction technique, which allowed it to complete the construction faster than other techniques in those days, so as to prevent any impact to nearby communities and affect the at-grade traffic at the least possible extent during the construction. Furthermore, the Company had no records of committing any environment-related offenses.

Even during the course of the operation of the expressway systems, the Company remained concerned about the eco-friendly business operations affecting the quality of life of staff, motorists and communities surrounding the expressways, including all groups of stakeholders. The Company improved and reviewed its internal procedures to conform to the environmental requirements to apply for the Certificate of ISO 14001 Environmental Management System. The Company's commitment to ensuring the environmental management in line with the following guidelines:

1. To give priority to pollution prevention and control by managing and maintaining the expressways to meet international standards and keeping in mind the environmental impact on motorists, staff and communities;
2. To instill and encourage our staff with an awareness of efficient use of energy and natural resources;
3. To comply with the environment-related laws and regulations;
4. To review the purposes and goals for continued improvement of the environmental management system;
5. To communicate our environmental policy to the public and all parties concerned.

Where by the Company obtained the certificates from SGS (Thailand) Limited for:

- ISO 9001 : 2015 Quality Management System
- ISO 14001 : 2015 Environmental Management System

In 2017, the Company continued to maintain the ISO 14001 Environmental Management System, by monitoring possible environmental issues, as well as optimizing the use of natural resources through its continued energy management measures. In so doing, the Company did change to use more efficient lamps on the expressways and around toll plazas, as follows:

1. The lamps in the Si Rat - Outer Ring Road Expressway Control Center Building were replaced by LED lamps as follows:
 - Replacement of canopy lights above toll booths with LED lamps, thereby saving up to 60 percent of energy.
 - Replacement of wheel-shine downlights at toll lanes with LED lamps, thereby saving up to 80 percent of energy.
2. The existing high pressure floodlight lamps were replaced by LED lamps at the front and back areas of toll plazas on the Si Rat - Outer Ring Road Expressway, thereby saving up to 40 percent of energy although such LED lamps were brighter than the existing lamps, as well as minimizing the dispersed light.
3. The pilot project to install solar cells on the Srisaman Toll Plaza (outbound), the Udon Ratthaya Expressway, thereby saving up to 20 percent of energy from the Metropolitan Electricity Authority.

With respect to the safety management, the Company had an engineering analysis agency comprising knowledgeable and skilled personnel in traffic engineering and safety on the expressways to conduct studies on impacts from various factors. A traffic simulation was made for study of the suitability in the improvement of physical characteristics at the front areas of toll plazas, as well as inspection of road safety; analysis of risk areas on expressways; study of features and patterns in the installation of safety equipment, in order to improve the expressways to ensure the maximum safety for motorists, as well as to minimize environmental impact. The Company applied such study results as follows:

- The safety on expressways was improved by inspecting and assessing the safety of the gore areas and installing safety equipment, e.g., crash cushions, cushion tanks, flexible guide posts, red-colored cold plastic road paint to alert for high accident risk areas.
- More Easy Pass lanes were added in response to the increased traffic volume in the Easy Pass lanes. After EXAT's policy on cancellation of the Easy Pass card deposit, the use of Easy Pass service has increased, which necessitates more Easy Pass lanes to accommodate the increased traffic volume, and as a result, motorists can save their commute time and fuels.
- Easy Pass lanes at Asoke Toll Plaza 4, Prachachuen Toll Plazas (inbound) and (outbound), were relocated to the farthest right lane for motorists to more efficiently and rapidly access the Easy Pass lanes.
- Easy Pass signboards were improved to provide convenient and rapid passage to expressway motorists through the Easy Pass lanes.
- All Easy Pass lanes on the Si Rat Expressway were improved as fast lanes to accommodate more rapid passage and minimize slow traffic in front of the Easy Pass lanes.
- As for the project to enhance the efficiency of Easy Pass lanes, the Company installed the second antennas in Easy Pass lanes to suit the convenience of the Easy Pass users in the event that a barrier gate is not opened despite their remaining credit adequate for passing through, in that case, the system will have the barrier gate opened without waiting staff to open it. Such system helps expedite the motorists' travelling, save time waiting in a queue and reduce traffic congestion in front of the toll booths, as well as minimizing air pollution. Such installation was made at all Easy Pass lanes of the Si Rat Expressway and completed on May 19, 2017.

The Company continued to provide training for staff and executives on know-how and techniques for environmental management in accordance with the ISO 14001 : 2015 Environmental Management System, as well as various activities to raise an awareness of environmental protection in the organization and social contributions in association with the communities nearby.

Moreover, the Company sets a policy to improve the toll collection system for control centers to ensure compliance with the standard of information security management system of the ISO/IEC 27001:2013 in order to tighten the information security of the toll collection system for the control centers, and to lay down a standard for management of significant information to ensure the continued business operations, enhancing the organization's worldwide reputation for reliability. For that reason, the Company did apply for accredited certification of the ISO/IEC 27001:2013 for development of process and information security management system (ISMS) in accordance with the ISO/IEC 27001:2013 for the toll collection system of the Si Rat Expressway Control Center (CCB2) and the Si Rat - Outer Ring Road Expressway Control Center (CCB7) as well as developing its personnel in line of information security management so that they were able to fulfill work under the process/system so developed.

2.2 Rail Business

2.2.1 Nature of Services

The Company has been granted concessions for two mass rapid transit rail system projects by MRTA, as per the following details:

- 1) **The MRT Blue Line Project**, comprising the M.R.T. Chaloem Ratchamongkhon Line (Hua Lamphong - Bang Sue Section) and the MRT Blue Line Extension Project (Hua Lamphong - Lak Song Section and Bang Sue - Tha Phra Section), under the Concession Agreement executed by the Company with the MRTA on March 31, 2017, for a period of 33 years from the MRTA's Notice to Proceed.

- (1) **The M.R.T. Chaloe M Ratchamongkhon Line Project** (Hua Lamphong - Bang Sue Section), covering the distance of 20 kilometers, with 18 stations. The Company is entitled to fare box revenue as well as undertaking activities and commercial development, including advertising, leasing space and telecommunications services in the metro stations and in the trains. Currently, there are 19 a total of 19 trains in service every day without holiday from 6.00 hours - 24.00 hours.
- (2) **The MRT Blue Line Extension Project (Hua Lamphong - Lak Song Section and Bang Sue - Tha Phra Section)**, covering the distance of 27 kilometers, with 20 stations, starting a connection from the M.R.T. Chaloe M Ratchamongkhon Line at Hua Lamphong Station and Bang Sue Station. The Company is responsible for investment, supply, installation, testing and commissioning of the M&E Equipment of the MRT Blue Line Extension Project, and provision of the service for the M.R.T. Chaloe M Ratchamongkhon Line Project and the MRT Blue Line Extension Project to ensure the Through Operation. The Company is entitled to fare box revenue and commercial development throughout the concession period. On August 11, 2017, the MRT Blue Line Extension Project, Tao Poon - Bang Sue Section, covering a distance of 1.2 kilometers, was opened for service, to ensure the Through Operation among the M.R.T. Chaloe M Ratchamongkhon Line (the existing MRT Blue Line), the MRT Blue Line Extension, and the M.R.T. Chalong Ratchadham Line (MRT Purple Line).

2) The M.R.T. Chalong Ratchadham Line (“MRT Purple Line Project”) Khlong Bang Phai Station - Tao Poon Station

The Company has been granted the concession for investment, supply of M&E Systems and O&M Services. MRTA invests in all civil works and the Company invests in the M&E Systems and the rolling stocks, as well as provides the operation and maintenance services in accordance with the specified service standards. MRTA is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and MRTA shall make repayment to the Company in the form of service fee for the O&M Services and the M&E Systems throughout the concession period of 30 years from September 4, 2013. Currently, Khlong Bang Phai Station - Tao Poon Station Section of the Project, covering a distance of 22 kilometers, with a total of 16 stations, has been in service. There are a total of 21 trains available every day without holiday, from 5.30 - 24.00 hours on Mondays - Fridays, and from 6.00 - 24.00 hours on Saturdays - Sundays and public holidays.

Projects	M.R.T. Chaloe M Ratchamongkhon Line Project (Hua Lamphong Station-Bang Sue Station)	MRT Blue Line Extension Project (Hua Lamphong Station-Lak Song Station and Bang Sue Station - Tha Phra Station)	The M.R.T. Chalong Ratchadham Line Project (Khlong Bang Phai Station-Tao Poon Station)
Concession Type	PPP Net Cost	PPP Net Cost	PPP Gross Cost
Concession Period	33 years (from MRTA's Notice to Proceed)		30 years (2013-2043)
Number of Stations	18 stations	20 stations	16 stations
Distance20 kilometers	27 kilometers	22 kilometers	

2.2.2 Revenue

The Company's revenues from the rail business can be divided into two categories, comprising fare box revenue and revenue from O&M services.

2.2.2.1 Fare box revenue

Pursuant to the Concession Agreement for the MRT Blue Line Project between the Company and MRTA, the Company has the right to operate the train and collect fare box revenue and undertake commercial development throughout the concession period. The Company is obliged to make payment of remuneration from fares and commercial development to MRTA at the rates as mentioned in the Concession Agreement.

The fare rates of the metro as of the commencement date would be in accordance with the basic reference fare rates in force at the time of the revenue service commencement date. Under the Concession Agreement, the reference fare rates would be adjusted every 24 months based on the actual changes of the Bangkok Non-Food Consumer Price Index compared to the basic reference fare rates.

The Company adjusted the fare rates under the terms of the Concession Agreement accordingly. The current fare rates in force were adjusted on July 3, 2016, which will remain in force until July 2, 2018.

2.2.2.2 Revenue from O&M Services

The Company receives service fees for train operation and maintenance from the MRT Purple Line Project Concession Agreement, Contract 4, Concession for Supply of M&E Systems and O&M Services (Khlong Bang Yai Station – Tao Poon Station), Phase 2 (for a period of approximately 27 years). The service opening commenced on August 6, 2016.

2.2.3 Marketing and Competition

2.2.3.1 Customer Characteristics and Target Customers

The Company's target customers can be divided into two groups, namely, residents nearby the metro routes and those who need to pass or head for other destinations along the metro routes, and categorized by purposes of journeys as follows:

1. Commute for work;
2. Commute to schools/educational institutes;
3. Commute by tourists/for leisure;
4. Commute for special activities, e.g., seminars or conferences; and
5. Commute for other purposes, e.g., business dealings.

2.2.3.2 Marketing Policy and Strategies

(1) Service and Product Strategies

(1.1) Creativity and Development of Convenient Services for MRT Passengers

At present, the MRT route starts from Hua Lamphong Station and ends at Tao Poon Station, covering a total distance of 21 kilometers, passing through central business districts (CBD), residential areas and connecting with other mass rapid transit systems which may increase the number of passengers, e.g., connection with the Green Line (BTS) at Chatuchak Park Station, connection with Airport Rail Link at Phetchaburi Station heading for Suvarnabhumi Airport, new connection with the MRT Purple Line Project at Tao Poon Station, and connections with Hua Lamphong and Bang Sue Railway Stations. Other connections between the metro stations and four buildings currently include 1) Chamchuri Square (residential, office and edutainment complex) at Sam Yan Station; 2) Union Mall at Phahon Yothin Station; 3) Interchange 21 Tower (office building) and Terminal 21 Tower (shopping center, hotel, office and residential building) at Sukhumvit Station; and 4) Central Plaza Grand Rama 9, G Tower with Phra Rama 9 Station.

Traveling behavior of service users mostly accounts for work, followed by schools, and they usually travel during rush hour, while other purposes account for off-peak journeys with potential higher number of trips. The Company thus strategically increases the number of off-peak journeys, which can be handled by the currently available capacity, to ease the passenger density on off-peak trains, with its effort to encourage passengers to adjust their travelling behavior to leave early to work through the “MRT Lucky Hour for Early Birds” activity, and promotes more journeys by passengers using the metro cards in order to increase revenues and the number of cardholder passengers. This strategy has been continuously implemented since 2013 in alliance with its partners along the routes by way of discounts or special benefits for metro card issuance or top-up, and information services by partners on highlighted events and destinations for the MRT passengers, e.g., Central Plaza Grand Rama 9, Queen Sirikit National Convention Center, etc.

(1.2) Quality Services

The Company focuses on quality services on the motto “Service above all else”, so that the MRT service becomes “lifestyle of Bangkok residents” under the Company’s professional operations. Various activities have been undertaken to promote image of the current MRT services and create value added to Bangkok residents’ lifestyle. Based on this policy, the Company sets out the following signs for quality services:

(1.2.1) Safety: The MRT passengers’ life and property safety is the Company’s top priority. All staff must be well aware of and expected to strictly follow the Company’s safety requirements. In the past, the Company conducted regular training on safety and supervised to ensure that the Company’s services meet Thailand’s safety standard requirements and comparable to those of the world’s leading mass rapid transit operators.

(1.2.2) Convenience: The Company takes care of all equipment and facilities in the MRT system to function properly, and proactively facilitates the passengers’ convenient commute during high seasons, such as, festival events and activities or exhibitions along the routes, by arranging for more ticketing points to best serve the passengers.

(1.2.3) Fast: The Company keeps the average train speed aligned with the timetable in response to passengers’ needs during different periods.

(1.2.4) Reliability: The Company maintains the trains and signaling systems in good conditions without any impact on its services.

(1.2.5) Punctuality: The Company keeps the timetable and stop time at every station punctual with the least possible deviations.

(1.3) Metro Cards for Everyone

The Company analyzes the customer characteristics and target customers, both regular and non-regular passengers, and then plans for and produces various styles of metro cards to suit every group of customers and to attract non-regular passengers to increasingly use the MRT service. These arrangements comprise keeping styles of metro cards modern to ensure conformity with technology and increase in efficiency of metro cards, including common utilization of metro cards with the MRT Purple Line; cooperation with financial institutions in issuing co-branded cards for financial transactions and MRT services, namely, in alliance with KASIKORNBANK Public Company Limited and Siam Commercial Bank Public Company Limited, including Chulalongkorn University, Chulalongkorn Hospital, and other institutions or agencies.

(2) **Price Strategy**

The Company collects distance-related fares in fairness to passengers according to different distance of their journeys, and provides discounts to school/college students, and children/elderly, by taking into account the fare rate collection of other mass rapid transit systems. The fare rates are adjusted in accordance with the relevant Concession Agreements.

(3) **Marketing Promotion Strategies**

The Company's classification of target customers is intended to draw up a strategy on sales promotion to effectively cover all target customer groups. As such, the Company's sales promotion and marketing plans based on target customers' lifestyle and settings are described as follows:

- (3.1) To promote the park and ride facilities to encourage more passengers to park their personal cars at the service locations and use the MRT service to commute to such business districts as Sukhumvit Road, Silom Road, Ratchadaphisek Road, in order to help alleviate traffic congestion and minimize global warming.
- (3.2) To accept credit card payments for passengers' convenience, collaborate with leading companies and banks, namely, AIS, KTC, Citibank, UOB, Bank of Ayudhya, KASIKORNBANK, Muang Thai Life Assurance, FWD Life Insurance, for providing discounts and cash back, including credit card reward points, in order to create value added to the MRT service, and offer special benefits to metro card holders with an aim to change passengers' behavior from using token to using metro cards for the sake of convenience and special benefits.
- (3.3) To increase the number of passengers or trips in the system through information services on highlighted events along the MRT routes, and offer various types of customized metro cards bearing specific logos or signs of agencies, organizations, office buildings or hotels both along and beyond the routes, for public relations and sales promotion, in order to distribute the metro cards to both current and new target customers.
- (3.4) To create the Customer Relations Management (CRM) and build a network compatible with the CRM process, which will serve as a central mechanism for loyalty marketing, focusing on efficient and effective response to ensure customers' satisfaction and creation of the MRT Club community for relationship building using social network and communication channels in the MRT stations to organize activities in alliance with partners on the win-win strategy through MRT Club memberships, for instance, watching gala movies with Major Cineplex Group, registering for a chance to win concert tickets from BEC-TERO, etc.
- (3.5) To create brand loyalty and awareness through various activities to promote marketing campaigns, rewards to customers and society, and corporate image towards young customers and passengers by creating value added collaboration on a regular basis, namely, building relationships with alliances to seek privileges for the cardholder passengers in a form of discounts on shops, restaurants, movie theaters or events surrounding the MRT route.

(4) Marketing Communication Strategies

- (4.1) To select effective channels of communication and public relations which are accessible to target groups of different marketing events through management of space and flows in the MRT system, e.g., standees within the stations, visual display on the token machines, event calendar media on monitors, digital media, social network media, including external public relations media from the alliances to provide service users with journey information in the MRT system. The Company also has emphasized development of the Mobile Application titled Bangkok MRT Application to accommodate travelling plans of the passengers.
- (4.2) To publicize news and information to new customers at exhibition booths, organize activities to introduce customers as to how to use metro cards, replacement of old-style metro cards with new ones, and various privileges by focusing on punctuality, convenience, fast journey, family time-saving, and definite timetable, in order to stimulate provision of information on services and benefits to the service users.
- (4.3) To create destinations via regular communication, public relations and journey information along the MRT routes, prepare event calendar, route maps with attractive destinations, e.g., office buildings, schools, hotels, shopping centers, tourist attractions and other landmarks, convenient and rapid links to other mass rapid transit systems via the website and Mobile Application.
- (4.4) To assure people of the safety of the MRT system through television, radio and other media, and organize safety-related activities at various venues, e.g., schools, office buildings, to present the safety of the MRT system to people for their understanding and confidence in the services.

(5) Development Strategy

The Company adopts a strategy for regular development of quality and its services to ensure service users' utmost satisfaction with convenience, rapidity and safety, which would attract more users of the MRT service. At present, the Company collaborates with financial institutions to hold single co-branded cards for multi-transactions.

(6) Distribution Strategies and Channels

The Company provides more sales outlets in addition to the ticket vending machines and ticket offices in the stations, by means of direct sales to various agencies, organizations, banks, schools, hotels and private sectors, etc., with customized cards on various occasions, such as, gifts for staff, customers or for brand promotion and public relations materials, as a result, the metro cards become even more flexible for various uses than just for the MRT service.

2.2.3.3 Industrial Outlook and Competition

Mass Rapid Transit Systems in Bangkok and its Vicinity

Bangkok is a large capital city, with a dense population and various modes of transportation systems, for example, personal cars, public buses, passenger vans, metro, micro buses, taxis. The traffic problem in Bangkok has extremely intensified due to the increase in population in urban areas and the rising travel demand of people, as a result, the traffic area capacity was not enough to accommodate such increase, which is considered a major problem which is not different from the problem in other highly populated capital cities around the world. Thus, the government adopts a policy focusing on development of various public transport networks to resolve the traffic problem to accommodate an increase in population and the economic growth of the country.

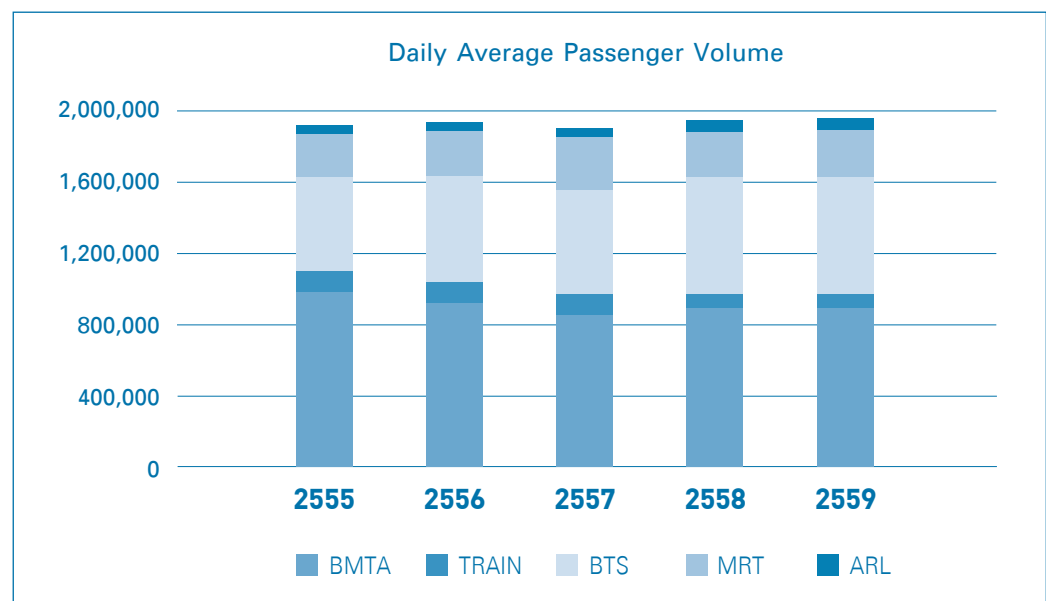
In this regard, traveling by residents in Bangkok can be divided into two modes of transport systems, namely, personal transport system and public transport system.

(1) Personal Transport System

People's residences in Bangkok and its vicinity are spread all over, traveling by personal cars thus is popular. The growing number of highly-paid or middle-class people and the inadequacy of the existing transport systems, and travelling expenses as compared with that of travelling by personal cars, as well as the service quality and safety, have also caused personal cars to become essential and convenient for traveling. In this connection, expansion of traffic area in Bangkok remained limited and inadequate to accommodate volume of vehicles.

(2) Public Transport System

As a result of the traffic congestion problem, particularly in peak hours, and the growth of the real estate projects surrounding the route, consumers' demand for the public transportation system of certain types was considerably high, especially for the metro system which was significantly expanding by reason of change in the urban people's behaviors of selection of residences and travelling by mainly focusing attention to convenience and rapidity in travelling.



Sources : Ministry of Transport, Bangkok Metro Public Company Limited, BTS Group Holdings Public Company Limited, and State Railway of Thailand.

- **Public Bus Service**

At present, there are various types of public buses for service at different service rates, but the number of public buses in service in Bangkok and its vicinity remained inadequate, owing to the fact that a certain number of buses were undergoing improvement and rearrangement of bus routes was made, and let alone the fact that there are more than 5,000 passenger vans, as another popular alternative for commuters because of the convenience and rapidity in travelling. As a result of ongoing traffic congestion on roads, especially during rush hours in the morning from 6:30 to 8:30 hours, and in the evening from 16:30 to 18:30 hours, traveling has become inefficient and time-consuming. In addition, passengers are also affected by safety issues and by pollution caused by the vehicle exhaust system.

- **Trains**

In the past, the State Railway of Thailand (SRT) provided train service in Bangkok at a special low rate and free train ride service in certain trains in order to serve low-income earners to travel from the outskirts of Bangkok to downtown in response to the government policy. On October 1, 2017, the SRT cancelled all of such free train tickets all over the country, the low-income earners were then allowed to use the government welfare smart card to which they were entitled instead, in a manner which the cardholders were able to use such card for taking buses, passenger vehicles served by The Transport Co., Ltd. and trains for free in the amount not exceeding Baht 500 per travelling mode per month. However, such train system service is rather inconvenient and unsafe in terms of train condition, non-air conditioning, limited routes which do not cover the entire city, and as a result, the SRT allocated budget for investment in development of dual track rail system for many routes; and a project for supply of 115 new model passenger buses for service, for the purpose of development of the Thai railway system in accordance with Thailand's transportation infrastructure development strategy. In this regard, the SRT's train service is not considered the Company's direct competitor due to different service routes, as the SRT aims to provide the service to suburban areas.

- **BTS**

BTS Skytrain was Thailand's first mass rapid transit rail system on the elevated dual tracks and directions. BTS opened for service on December 5, 1999 on 2 lines, namely, Sukhumvit Line and Silom Line, and currently, has a total distance of 37.9 kilometers, with 35 stations. In 2017, BTS Skytrain had the number of daily average passengers amounting to approximately 660,700 trips, an increase from that of the previous year by 2 percent. As such, traveling by BTS Skytrain was the convenient alternative for commuters. Moreover, BTS Skytrain is intended to provide service to the heart of the city, not to mention the real estate development around the routes and connection with the MRT system, which made it enormously popular, and thus, such factors caused an increase in service user volume.

- **ARL**

The Suvarnabhumi Airport Rail Link or Airport Rail Link or Airport Link is a special mass rapid transit rail system project, as part of the project for construction of suburban and commuter rail systems, carried out and operated by the State Railway of Thailand (SRT). The structure of the Suvarnabhumi Airport Rail Link is both underground and elevated, with the alignment accommodating journeys from the eastern and northern outskirts, and passengers from the Suvarnabhumi Airport, to the center of Bangkok at Phaya Thai Station, covering a total of 8 stations, with a distance of 28.6 kilometers. Airport Link was opened for service on August 23, 2010. For the current service provision, a plan was set up to develop, improve and increase the train capacity, including purchase of new trains, together with a plan to reduce passengers' waiting time for the next incoming train from 12 minutes per train to 10 minutes per train in order to boost efficiency in the service provision. In 2017, the daily average passenger volume was approximately 70,000 persons per day, which increased from 2016 by 10 percent, resulting from an ongoing increase in number of the public transport system service users, reflecting the change in travel behavior of residents in Bangkok and its surrounding provinces from using personal car to use the public transport system. This indicated the development in terms of convenience, rapidity, safety and the extended coverage areas of travelling to ensure transit in the through operation system at present. However, owing to the traffic congestion, air and noise pollution, and potential accidents, the transit rail system is then regarded as a significant milestone for change and development of the mass rapid transit systems in Bangkok and its vicinity, which will help alleviate traffic problems, ensure safe, convenient and rapid journeys of service users, and result in a positive effect on the economy and environment. Therefore, the mass rapid transit system represented a traveling mode, which helped improve the quality of life of urban people and reduce usage of national resources.

Industrial Outlook and Government Policy

Thailand's economic outlook in 2017 grew at approximately 3.9 percent, which was improved from 3.2 percent in the previous year. In 2018, it is expected to grow by 4.1 percent, significantly resulting from acceleration of disbursements and investments by the government sector on a continuous basis, and the stimulating growth of export of goods and services and the continued expansion of the private sector's consumption (Source: Office of the National Economic and Social Development Board).

The government prioritizes its strategic plans for transportation development, particularly investment projects in the metro system, to resolve traffic problems in Bangkok and its vicinity, and as such, speeds up the bidding process for these projects by establishing the Public Private Partnership (PPP) Policy Committee and setting up a PPP Fast Track team by focusing on infrastructure investments in accordance with Thailand's PPP Strategic Plan 2015-2019. There were five megaprojects for transportation infrastructure in the initial phase, which were invested, worth Baht 3.4 Billion. The three metro projects under the PPP Fast Track included the MRT Blue Line Extension, the MRT Pink Line and the MRT Yellow Line Projects, all of which had successfully passed the approval process within nine months only.

From the successful results of the PPP Fast Track in the initial phase, the Ministry of Transport then continued to accelerate the PPP Fast Track in the second phase for the budget year 2018, which would cover a total six projects, with the total value of Baht 6.13 Billion. The priority transportation projects which needed urgent action included Bangkok - Rayong hi-speed rail project (linking three airports, i.e., Don Mueang - Suvarnabhumi - U-Tapao); MRT South Purple Line Project; and MRT Orange Line Project. In this regard, the government sector's role in stimulating the economy through its expenditure and investment was considered the most crucial factor which would have an influence on the future economic situation. Giving priority to investment in infrastructure projects, particularly in transportation system, would help make travelling and transport of goods convenient, which would attract Thai and foreign investments from the private sector and strengthen the economy conducive to the sustainable growth in the future.

Real estate development around the metro routes

As a result of the continued economic growth in 2017, the real estate market was into recovery mode, especially the real estate market surrounding the metro routes which became more hugely popular. It was evidenced by a diverse selection of new condominium launches, particularly those which were around the MRT Blue Line Extension Project (Hua Lamphong - Bang Khae Section and Bang Sue - Tha Phra Section), which were currently attractive to investors. The development of the public transport system to cover the wide-areas of Bangkok and its surrounding provinces became a key factor in accelerating the real estate development in various forms, such as, condominiums, building offices, shopping centers, markets, most-visited tourist attractions, hotels, apartments, restaurants and supermarkets, to ensure that they were growing rapidly accordingly.

Project	Current Status of Project
<p>SRT Dark Red Line (North - South)</p> <p>Suburban railway system, divided into 4 phases, covering a total distance of 80.5 kilometers:</p> <p><u>Phase 1:</u> Bang Sue - Thammasat (Rangsit campus)</p> <p><u>Phase 2:</u> Bang Sue - Hua Lamphong</p> <p><u>Phase 3:</u> Hua Lamphong - Bang Bon</p> <p><u>Phase 4:</u> Bang Bon - Mahachai</p>	<p>Bang Sue - Rang Sit, with a distance of 26 kilometers</p> <ul style="list-style-type: none"> - SRT is proceeding with the following: <u>Contract 1:</u> Civil Work for Bang Sue Station and Depot, SRT executed the agreement for engagement of SU Joint Venture (Sino-Thai Engineering & Construction Public Company Limited and Unique Engineering and Construction Public Company Limited) on January 18, 2013. As at December 2017, the construction was completed by approximately 63.92%; <u>Contract 2:</u> Civil Work for Bang Sue - Rang Sit Section, SRT executed the agreement for engagement of Italian-Thai Development Public Company Limited on January 31, 2013. As at December 2017, the construction was completed by approximately 94.65%; <u>Contract 3:</u> M&E System, including supply of carriages As at December 2017, the construction was completed by approximately 19.57%. - On February 17, 2017, the SRT Board approved the suburban railway extension project, Rangsit - Thammasat University (Rangsit Campus) Section.
<p>SRT Light Red Line (West - East)</p> <p>SRT's suburban railway system, Bang Sue - Taling Chan, Taling Chan - Salaya, and Bang Sue - Makkasan - Hua Mak, covering a total distance of approximately 48 kilometers</p>	<p>Bang Sue - Taling Chan, with a distance of 15 kilometers</p> <ul style="list-style-type: none"> - SRT engaged Unique - Chun Wo Joint Venture to carry out the construction. The construction was 100% completed. - The project was opened for trial run during September 8 to November 30, 2012 for four trips per day (round trip) by diesel railcars in order to inspect the rail condition and systems relating to train operation. - It was opened for temporary service from December 5, 2012. <p>Taling Chan - Salaya, with a distance of 14.8 kilometers</p> <ul style="list-style-type: none"> - On February 17, 2017, the SRT Board approved the SRT Light Red Line Extension Project, Taling Chan - Salaya Section, with the construction expected to be completed by 2021. <p>Bang Sue - Phaya Thai - Makkasan - Hua Mak, with a distance of 19 kilometers</p> <ul style="list-style-type: none"> - On October 21, 2014, the Council of Ministers resolved to approve the project, with the bidding process for contractor expected to start in 2017. <p>SRT was making revisions to the detail drawings to ensure implementation and management of the train operation towards Hua Lamphong Station.</p>

Project	Current Status of Project
MRT Blue Line Extension	<p>Bang Sue - Tha Phra and Hua Lamphong - Bang Khae, with a distance of 27 kilometers</p> <ul style="list-style-type: none"> - The construction of the civil work by the contractor progressed by approximately 97.52%, (as at December 2017). - On December 2, 2014, the Committee under Section 13 requested BMCL to propose its technical plan to ensure connected transport for the greatest convenience of passengers. - On November 11, 2015, the Public Private Partnership (PPP) Policy Committee resolved to grant approval for the project to be incorporated in the PPP Fast Track measures, the first phase, so as to expedite the process. - On July 21, 2016, the National Council for Peace and Order (NCPO) rendered the Order No. 42/2016 by virtue of the Power of the Head of NCPO under Section 44 expediting negotiation on selection of the private entity to manage the train operation. - On March 28, 2017, the Council of Ministers resolved to approve the results of selection of the private entity. The Company entered into the Concession Agreement for the MRT Blue Line Project with the MRTA, under which the Company shall invest in the M&E Systems and O&M Services. - On August 11, 2017, the MRT Blue Line Extension Project, Tao Poon - Bang Sue Section, covering a distance of 1.2 kilometers, was opened for service. <p>Bang Khae - Phutthamonthon Sai 4 (with a distance of 8 kilometers)</p> <p>It was pending consideration of the Office of the National Economic and Social Development Board (NESDB), in preparation for proposal of the project to the Council of Ministers for consideration by 2018.</p>
MRT Green Line	<p>Mo Chit - Saphan Mai - Khu Kot, with a distance of 18.4 kilometers</p> <ul style="list-style-type: none"> - The construction of the civil works by the contractor progressed by approximately 53.31% (as at December 2017). - MRTA executed the civil work contracts, Contracts 1-4, on April 3, 2015, as follows: <u>Contract 1:</u> (Civil Works), Mo Chit - Saphan Mai, with a distance of 12 kilometers, operated by Italian-Thai Development Public Company Limited; <u>Contract 2:</u> (Civil Work), Saphan Mai - Khu Kot, with a distance of 7.5 kilometers, operated by UN-SH-CH Joint Venture (Unique Engineering and Construction Public Company Limited, Sinohydro Corporation Limited, and China Harbour Engineering Company Limited); <u>Contract 3:</u> (Depot and Park & Ride Facilities) operated by STEC-AS-3 Joint Venture (SINO-Thai Engineering and Construction Public Company Limited, A.S. Associated Engineering (1964) Co., Ltd.); <u>Contract 4:</u> (Design and Construction of Trackwork) operated by STEC-AS-3 Joint Venture (SINO-Thai Engineering and Construction Public Company Limited, A.S. Associated Engineering (1964) Co., Ltd.). <p>Bearing - Samut Prakan, with a distance of 12.8 kilometers</p> <ul style="list-style-type: none"> - The construction of the civil works by the contractor was 100% completed. - On April 1, 2017, one station, namely, Samrong Station, was opened for service. <p>It was pending the negotiation with BTSC as train operation contractor to ensure the uninterrupted commute. The service opening was expected to take place in 2020.</p>

Project	Current Status of Project
MRT Orange Line	<p>Thailand Cultural Centre - Min Buri, with a distance of 20 kilometers</p> <ul style="list-style-type: none"> - On December 9, 2017, the contract signing ceremony was held for the civil work construction of the MRT Orange Line Project between MRTA and contractors as winning bidders in Contracts 1, 2, 3, 4, 5 and 6, as follows: <u>Contract 1:</u> (Civil Work), Thailand Cultural Centre - Soi Ramkham haeng 12, operated by CKST Joint Venture (CH. Karnchang Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited); <u>Contract 2:</u> (Civil Work), Soi Ramkhamhaeng 12 - Hua Mak, operated by CKST Joint Venture (CH. Karnchang Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited); <u>Contract 3:</u> (Civil Work), Hua Mak - Khlong Banma, operated by Italian-Thai Development Public Company Limited; <u>Contract 4:</u> (Civil Work), Si Yaek Banma - Suwinthawong, operated by Unique Engineering and Construction Public Company Limited; <u>Contract 5:</u> (Civil Work), Depot and Park & Ride Facilities, in the area of the MRTA's office, Phra Ram 9 Road, operated by CKST Joint Venture (CH. Karnchang Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited); <u>Contract 6:</u> Design and Construction of Trackwork, operated by Unique Engineering and Construction Public Company Limited. <p>The construction of the civil works by the contractors progressed by approximately 4.66%.</p> <p>Taling Chan - Thailand Cultural Centre, with a distance of 17.5 kilometers</p> <ul style="list-style-type: none"> - It was pending study on the type of private-sector investment in construction and train operation, with the conclusion expected to be reached for proposal to the Council of Ministers for approval of the project by 2018.
MRT Yellow Line	<p>Lat Phrao - Samrong, with a distance of 30.4 kilometers</p> <ul style="list-style-type: none"> - On November 11, 2015, the Public Private Partnership (PPP) Policy Committee resolved to grant approval for the project to be incorporated in the PPP Fast Track measures, the first phase, so as to expedite the proposal of the same to the Council of Ministers for consideration, with the bidding process by 2016. - On July 6, 2016, MRTA commenced sale of bidding envelopes for the MRT Yellow Line, with the scheduled bid submission on November 7, 2016 and opening on November 17, 2016. - On May 30, 2017, the Council of Ministers resolved to approve the results of selection of the private entity and draft Concession Agreement for the MRT Yellow Line Project, in collaboration with BSR Joint Venture (comprising BTS Group Holdings Public Company Limited, Ratchaburi Electricity Generating Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited). - On June 16, 2017, MRTA signed the Concession Agreement with BSR Joint Venture.

Project	Current Status of Project
MRT Pink Line	<p>Khae Rai - Min Buri, with a distance of 34.5 kilometers</p> <ul style="list-style-type: none"> - On November 11, 2015, the Public Private Partnership (PPP) Policy Committee resolved to grant approval for the project to be incorporated in the PPP Fast Track measures, the first phase, so as to expedite the proposal of the same to the Council of Ministers for consideration, with the bidding process by 2016. - On July 6, 2016, MRTA commenced sale of bidding envelopes for the MRT Pink Line, with the scheduled bid submission on November 7, 2016 and opening on November 17, 2016. - On May 30, 2017, the Council of Ministers resolved to approve the results of selection of the private entity and draft Concession Agreement for the MRT Pink Line Project, in collaboration with BSR Joint Venture (comprising BTS Group Holdings Public Company Limited, Ratchaburi Electricity Generating Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited). - On June 16, 2017, MRTA signed the Concession Agreement with BSR Joint Venture.
Red Line (Airport Link)	<p>Suvarnabhumi Airport Rail Link Extension Project, Don Mueang - Bang Sue - Phaya Thai Section, with a distance of 21.8 kilometers</p> <ul style="list-style-type: none"> - On December 25, 2015, the Council of Ministers approved the royal decree on land expropriation in Ratchathewi District, Thung Phaya Thai Subdistrict, and Sam Sen Nai Subdistrict, for implementation of the Suvarnabhumi Airport Rail Link Extension Project, Don Mueang - Bang Sue - Phaya Thai Section, which has passed the environmental impact analysis (EIA) study. - SRT was pending review of the appropriateness of the drawings and construction method to ensure that it was suitable to seamlessly combine with the hi-speed rail project linking the three airports (Don Mueang - Suvarnabhumi - U - Tapao).

Sources : www.railway.co.th, www.mrta-purpleline.com, www.bts.co.th, www.bkkmrt.com, and sources collected by the Company.

2.2.4 Procurement of Products or Services

2.2.4.1 Nature of Procurement of Products

The mass rapid transit system projects are awarded to the Company by way of concessions from MRTA, a state agency established and existing under the “Mass Rapid Transit Authority of Thailand Act B.E. 2543 (2000)” to operate the mass rapid transit systems in Bangkok and its vicinity, including other designated provinces, with safety and efficiency. MRTA is a state enterprise under supervision of the Minister of Transport. The Company specializes in the metro business, conducts the project feasibility studies, and submits its investment proposals for such projects with appropriate returns and conditions. The existing concession projects were awarded for investment, supply of rolling stocks, operation and maintenance, whereby the government sector invests in all civil infrastructure, namely, stations and facilities, tunnels, ventilation systems and trackwork, etc., while the Company invests in the railway systems, namely, rolling stocks, signaling and operation systems, communications and SCADA systems, power supply, automatic fare collection, platform screen door, and depot workshop systems, etc.

The M.R.T. Chaloe M Ratchamongkhon Line (Blue Line) (Hua Lamphong Station - Bang Sue Station)

The Company engaged Joint Venture CKET as the project manager for the MRT project (Project Manager) (from August 2000 to July 2009) to manage technical operations, such as, procurement of the M&E Equipment as ordered from manufacturers and liaison with contractors and relevant authorities regarding the installation of the M&E Equipment. Upon expiration of the engagement agreement of CKET for project management, the Company was able to efficiently administer and manage the MRT Project, as well as improve and develop the efficient service provision on its own. In regard to the supply and maintenance of the M&E Equipment, the Company engaged Lincas and Siemens to manufacture the M&E Equipment. Lincas and Siemens are responsible for the design, manufacture, supply, installation, testing and commissioning of the M&E Equipment. The Company also engaged Siemens as contractor for maintaining the M&E Equipment for a period of 10 years (July 2004 to July 2014), which was extended for another 10 years (to end in July 2024).

The M.R.T. Chalong Ratchadham Line (MRT Purple Line), Bang Yai - Rat Burana, Bang Yai - Bang Sue Section, (Khlong Bang Phai Station - Tao Poon Station)

The Company executed the Concession Agreement for the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section, (Khlong Bang Phai Station - Tao Poon Station), with MRTA, on a PPP Gross Cost basis, namely, the government sector invests in all civil works and the Company invests in the M&E Systems and the rolling stocks. The government sector shall make repayment in installments to the Company for the costs of the M&E Systems after the delivery of the ownership. In this regard, the Company will provide the operation and maintenance services according to standards as specified in the Agreement. In addition, the government sector is entitled to all fare box revenue and commercial development revenue from the utilization of the civil infrastructure and the railway systems and the government sector shall make repayment to the Company in the form of service fee for the O&M Services, for a contractual period of 30 years, divided into two phases, namely, Works under Phase 1: Design, supply, installation, testing of the M&E Systems and other related systems, including trial run to ensure its readiness for public service until the commencement of the Operation Service, by means of engagement of CH. Karnchang Public Company Limited as Project Manager. As for the implementation of Works under Phase 1 of the Concession Agreement, the Company and CH. Karnchang Public Company Limited engaged MTJV (Marubeni-Toshiba Joint Venture) for supply of rolling stocks, power supply equipment, signaling system, control and communications systems, as well as maintenance service for a period of 10 years.

2.2.4.2 Environmental Impact

In respect of the metro business, the Company is committed to continuing its environment-related activities in accordance with ISO 14000 standards, by implementing pollution prevention and control measures, mitigation environmental impact and sustainable use of resources on the basis of three aspects of sustainable development, namely, society, economy, and environment. In addition, the Company reported its operational results in line with the index on the operational results regarding energy conservation and environmental preservation in accordance with the Energy Conservation Promotion Act (No. 2) B.E. 2550 (2007), the ministerial regulations on standards, criteria and procedures for energy management in designated factories and buildings B.E. 2552 (2009), as well as the energy management manual for sustainable development.

Regarding the energy conservation and environmental preservation in the metro business, the Company has strictly complied with the relevant laws governing energy conservation and the environment, and also adopted the Energy Management Systems - Requirements with guidance for use or ISO 50001. It has complied with the International Environmental Management System ISO 14001 since the opening of its MRT service, and organized activities for participation by and listening to related parties' opinions, to ensure proper understanding which will lead to sustainable development. It was for this reason that the Company received the standard management certifications as follows:

- ISO 9001:2015 Quality Management System;
- ISO 14001:2015 Environmental Management System;
- OHSAS 18001:2007 and TIS 18001:2001 Occupational Health and Safety Management Systems;
- Safety Management System from Lloyd's Register Rail.

In addition, the Company has been paying attention to the potential environmental impact from the MRT services on the environment, quality of life, and lives of people and nearby communities, by strictly monitoring, preventing and mitigating the environmental impact that may arise during the implementation of the MRT projects (Environmental Impact Mitigation Measures and Monitoring Program - EMP) in service, namely, the M.R.T. Chaloem Ratchamongkhon Line, the M.R.T. Chalong Ratchadham Line and the MRT Blue Line Extension, Bang Sue - Tao Poon Section, as well as submitting reports on its compliance with such measures to the Office of Natural Resources and Environmental Policy and Planning (ONEP) for consideration twice a year. The environmental quality measurements were conducted in key environmental issues as follows:

(1) Air Quality

The results of air quality measurement in atmosphere around the projects showed that the total suspended particulate (TSP), particulate matter (PM10) and carbon monoxide (CO), nitrogen dioxide (NO2), and the total hydrocarbons (THC) did not exceed normal level.

(2) Air Quality in MRT Stations and Trains

The results of air quality measurement in the MRT stations and trains, during both peak and off-peak hours, showed that the total bacterial and fungal volume, ventilation rate, temperature and relative humidity did not exceed normal level.

(3) General Noise Level

The results of general noise level measurement showed that the average noise did not exceed 70 dBA, with the maximum level not exceeding 115 dBA, which met the standard requirements.

(4) Vibration Level

The results of vibration level measurement did not exceed normal levels.

(5) Effluent Quality

The results of effluent quality measurement in stations, depot and administration building did not exceed normal levels. The wastewater treatment system could work efficiently according to its design.

In addition to the environmental quality measurements, maintenance vehicles used in the depot area meet the EURO IV Standard, an emission standard for vehicles, which provides assurance that the use of such maintenance vehicles and the maintenance operations will in no way give rise to pollution at a hazardous level.

2.3 Commercial Development Business

2.3.1 Nature of Services

Commercial Development Relating to Expressway Systems

As for the commercial development in the area of the expressway system, the Company and one of its subsidiaries, namely, NECL, allowed private entities and individuals to take on lease of spaces for commercial operation, as follows:

- **Installation of Intelligent Traffic Signs and Advertising Boards**
Private entities were allowed to install Intelligent Traffic Signs on the main routes and in front of toll plazas, and install advertising boards in various areas, such as, in front of toll plazas, toll booths, expressway columns, and expressway barriers, etc.
- **Retail Spaces around Toll Plazas**
Private entities and individuals were allowed to take on lease of retail spaces for providing service to expressway service users around Prachachuen, Srinagarindra, and Bang Pa-in Toll Plazas.
- **Other Business Operations**
Private entities were allowed use the expressway areas for installation of 3G signal boosters, etc.

Commercial Development Relating to Metro System

In regard to commercial development revenue from the M.R.T. Chaloem Ratchamongkhon Line Project, the Company has operated and granted the following rights to its subsidiary, namely, BMN:

- **Procurement and/or Production of Advertising Boards**
Procurement and/or production of advertising boards or media in all 18 stations and for all 19 trains (MRT metro), comprising advertising media of various forms and sizes, e.g., light boxes, sticker media, platform billboard, advertising media via the Passenger Information Display Systems (PIDs), and digital media. Moreover, a wide range of media has been developed and creative thinking, innovation and new technology have been employed to ensure conformity with change in passengers' commuting behaviors as well as creating lively travelling and beautiful environment within the MRT stations.
- **Lease of Retail Spaces in MRT Stations**
Lease of retail spaces in 11 MRT stations, comprising Khlong Toei Station, Queen Sirikit National Convention Centre Station, Sukhumvit Station, Phetchaburi Station, Phra Ram 9 Station, Thailand Cultural Centre Station, Ratchadaphisek Station, Lat Phrao Station, Phahon Yothin Station, Chatuchak Park Station and Kamphaeng Phet Station, and spaces in the basement level of the Lat Phrao park and ride facility, covering the total commercial lease spaces of approximately 19,490 square meters (spaces for retail shops and sale promotions). To date, the retail shops are opened in eight stations, namely, Sukhumvit Station, Phahon Yothin Station, Chatuchak Park Station, Kamphaeng Phet Station, Phra Ram 9 Station, Phetchaburi Station, Thailand Cultural Centre Station, and Khlong Toei Station, as a passport office for providing passport service to the public, through cooperation with the Department of Consular Affairs, Ministry of Foreign Affairs. In addition, on September 19, 2017, the spaces in the basement level of the park and ride facility at Lat Phrao Station were developed, in association with the Mall Group, to open for service of "Gourmet Market", the premium supermarket, to respond the urban life and suit the convenience of the MRT service users.
- **Provision of Service and Maintenance of Telecommunications System Equipment**
Provision of service and maintenance of telecommunications system equipment, particularly mobile phone network, inside the metro stations and tunnels, as well as Hi-speed Internet, the Wi-Fi services, and the telecommunications signal systems in the metro stations and tunnels. Currently, the telecommunications network service is also available covering the 850, 900, 1800 and 2100 MHz frequency bands.

2.3.2 Marketing and Competition

2.3.2.1 Customer Characteristics and Target Customers

As the commercial development in the M.R.T. Chaloe M Ratchamongkhon Line Project comprises procurement and/or production of advertising media of various forms in the metro stations and trains, lease of retail spaces, as well as providing service and maintenance of telecommunications system equipment, with different customer characteristics and target customers varying on service types, therefore, such commercial development can separate customer characteristics and target customers, as follows:

- Procurement and/or Production of Advertising Media of Various Forms

Procurement and/or production of advertising media of various forms serve to communicate information from owners of goods and services to the public, among whom the MRT service users, mainly comprise school and college students as well as office staff. In the public relations and advertising via various forms of media of the MRT system, the business sector that mostly spend budgets for public relations in the advertising industry business include not only consumer goods and commodities, telecommunications, financial institutions, etc., but also those businesses along the MRT routes, such as, real estate, insurance and life insurance, construction industry, etc., including other goods relying on the prominent locations of the metro stations near shopping malls, universities, to publicize goods and services to such specific target groups as movies, clothing and jewelry, tourism, etc.

- Lease of Retail Spaces in MRT Stations

Target customers are different in each station which is opened for service to match with the services users' behaviors. Therefore, the current customers who take on lease of areas diversify, including SME entrepreneurs, up to major brand products and the premium supermarket, with branch expansion in parallel to opening for service of new shop areas in the stations. Moreover, the Company jointly supported and promoted provision of the government sector's services to the public, by opening a passport office center in response to metro service users' lifestyle.

- Provision of Service and Maintenance of Telecommunications System Equipment

The customer characteristics in this group are mobile phone network operators, therefore, target customers are those licensed mobile phone network operators comprising AIS, DTAC, TRUE MOVE, TOT, CAT, etc., all of which are currently the Company's customers.

As for the commercial development in the expressway systems, private entities and individuals are allowed to take on lease of spaces for various business operations, therefore, target customers are operators of such businesses, such as, advertising media producers, telecommunications system service providers, and individual customers' retail shops.

2.3.2.2 Marketing Policy and Strategies

(1) Service and Product Strategies

Commercial Development Relating to Expressway Systems

- Intelligent Traffic Signs in the form of maps and text messages are provided to give traffic updates to expressway users, including advertising boards in front of toll plazas, barriers, expressway columns, and in front of toll booths, totaling 208 signboards.
- Shops and public restrooms are provided to expressway users in 4 toll plazas of the Si Rat Expressway and the Udon Rattaya Expressway, namely, Srinagarindra Toll Plaza, Prachachuen Toll Plaza (inbound), Bang Pa-in Toll Plaza (inbound), and Bang Pa-in Toll Plaza (outbound).

Commercial Development Relating to Metro System

The commercial development service is provided for facilitating and ensuring pleasant journeys for MRT service users, including people living in the areas adjacent to the MRT stations, and such commercial development service generates more revenue, as follows:

- Retail areas covering more than 25,000 square meters (including common areas), with retail shops and activity areas for almost 500 shops in 11 MRT stations, and at present, there are eight MRT stations with retail areas in service, comprising Sukhumvit Station, Phahon Yothin Station, Chatuchak Park Station, Kamphaeng Phet Station, Phra Ram 9 Station, Khlong Toei Station, Phetchaburi Station, and Thailand Cultural Centre Station, including the basement level of the park and ride facility at Lat Phrao Station where Gourmet Market has been available.
- Static media in various forms, light boxes and stickers, installed on walls of MRT stations from exit- and entrance-areas of stations up to platform floors and other areas, such as, columns, floors, ceilings, passenger elevators, etc., and in trains. Moreover, development of creative thinking has been made with owners of goods and services or media buying agents to design public relations advertising of customers to ensure dimensions and be more attractive by using 3D-4D, Big Campaign (Integrated Media), innovations and state-of-the-art technology, etc., the advertising media in the MRT system can then respond to the customers' requirements and ensure their good memories.
- Advertising media on hand grips in trains, benches on platform floors, escalator handrails.
- Dynamic media in form of digital display comprises Passenger Information Displays (PIDs) installed from exit- and entrance-areas of the stations up to platform floors and in trains, totaling 607 displays, and MRT-Digital media in different sizes depending on area of each station, and installed in tunnels, totaling 112 positions.
- Communication service, especially mobile phone network in both MRT stations and tunnels, to accommodate 3G-4G signals as currently available covering the 850, 900, 1800 and 2100 MHz frequency bands.
- Automatic Teller Machine (ATM) service, Cash Deposit Machine of banks, and other automatic machines, such as, mobile top-up vending machines of AIS Kiosk, True Kiosk, and mobile top-up vending machine of Boon-term Kiosk, etc.
- Currency exchange booth of Siam Commercial Bank at Phra Ram 9 Station, connection with Central Plaza Grand Rama 9.

(2) Marketing Promotion Strategies

To create brand loyalty and awareness through various activities to promote marketing campaigns, rewards to customers and society, and corporate image towards young customers and passengers by creating value added collaboration on a regular basis, for example, collaborations with alliances and the commercial development licensee (BMN) in organizing GAT Guideline Program by Khun Kru Somsri, under the "Getting Fit Beat GAT by MRT" Project since 2009, promoting the use of spaces and retail shops in Metro Nine at Phra Ram 9 Station, and "Cheewajit" Magazine in promoting various exercises, such as yoga, long-stick danced exercise, etc. In addition, the "M Care" activity was organized for free health checkups for passengers by leading hospitals and institutes, as well as the "Share 2 Child" activity for youths and schools surrounding the Company's MRT routes on a continuous basis. Furthermore, the Company, together with BMN, organized a variety of activities, e.g., educational support activities at the MRT Purple Line depot, etc.

(3) Distribution Strategies and Channels

Distribution channels vary by the forms of commercial development services, mainly by mixed presentation via the Company's strategic partners together with direct presentation to owners of goods and services.

2.3.2.3 Industrial Outlook and Competition

Advertising Media

Spending budget for buying the advertising media in 2017 was found lower than that of the previous year by six1 percent, due to a reduction of budget in main media in forms of TV, radio, newspapers, magazines, and Internet, resulting from a decline in purchasing power. In this regard, media which remained steady and able to grow perpetually included out-of-home media, in-store media, transit media, with the higher growth as compared to that during the same period in the previous year.

The growth of the transit media was up to 101 percent as compared to that of the previous year, reflecting change in behavior in daily life of people in Thai society, changing their lifestyles to getting start to spend less time at home but spending more time outside, especially spending too much time on commutes. Such adjustment in the people's behavior was an important factor which caused the business operators to turn their attention to advertising media in line with the consumers' everyday life, which preferred out-of-home media, particularly advertising media in the mass rapid transit system. As for mobile media, there were differences in terms of targeted group, route, and number of service users, for instance, MRT, BTS, airports and buses, etc.

The mobile media group had differences in target group, route and number of service users, for example, MRT media, BTS media, airport media and public bus media, etc. Therefore, the budget for purchase of media in each category varied according to objectives of owners of goods and services. Currently, passengers of the mass rapid transit system in form of electric train system continued to grow, including MRT passengers, together with the government sector's policy to promote and support travelling by the electric train system; the projects in service including the MRT Purple Line, and the MRT Blue Line Extension which would connect with the current routes in the future, thereby resulting in growing volume of MRT passengers, which would have a positive impact on the advertising media service in the future.

Source : ¹ The results of media industry survey conducted by The Nielsen Company (US), LLC.

Space for Lease and Service

Given the fact that consumers' behaviors had been changed rapidly and varied according to each consumer group, the retailers were then driven to adjust themselves at all times to reach each consumer group widely. Currently, Thai society started to be continuously developed to become an urban society, resulting in population density and traffic congestion problems, all of which changed consumers' lifestyle and demands which turned to give priority to convenience and rapidity, evidenced by the fact that ready meals became popular and demand for large-sized goods became less, but increase in purchase frequency. Therefore, the retail business had to adjust itself and develop a distribution channel pattern to harmonize with the people's livelihood or tactfully get involved in travelling behaviors of the urban residents, by way of, for instance, service provision of retail shops within the stations or grab and go roadside convenience stores which were more convenient and rapid for consumer spending, in order to increase distribution channel which directly reached the consumers and generate more sales for the retail business.

Furthermore, given change in consumers' behaviors to on-line shopping, available goods and services of certain kinds were affected and the space rental rate would be reduced accordingly. However, the retail space in MRT stations adjacent to the central retail district, department stores and connected points of the mass rapid transit system, remained attractive to both SME and Brand entrepreneurs, at the space leasing rate of more than 90 percent, such as, retail space at Sukhumvit Station, Phra Ram 9 Station, Chatuchak Park Station, etc.

2.3.3 Procurement of Products and Services

2.3.3.1 Nature of Procurement of Products

The Company and one of its subsidiaries (BMN) operate the commercial development business of the MRT Blue Line Project for 1) procurement and/or production of advertising media of various forms; 2) lease of retail spaces in the MRT stations; and 3) provision of service and maintenance of telecommunications system equipment.

With respect to the expressways, the Company and one of its subsidiaries (NECL) allowed private entities and individuals to take on lease of expressway areas for installation of Intelligent Traffic Signs and various advertising boards, including retail spaces around toll plazas, and other business activities, such as, the use of the expressway areas for installation of 3G signal boosters, etc.

2.3.3.2 Environmental Impact

The Company also cares for and takes into account the environmental impact on the retail shop floors in the MRT system in order to prevent any impact on the environment, quality of life, and livelihood of people and communities, per details in Item 2.2.4.2.

2.4 Works Pending Delivery

1. The Project of a Connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway in the north (heading to Chaeng Watthana)

The Company signed the Amendment (NO.2) to the Concessional Agreement for the Si Rat - Outer Ring Road Expressway Project with the EXAT on July 19, 2017 to effect the construction of the connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway in the north, for the construction period of 18 months, with the project value of Baht 275 Million. The route is an elevated connection with 1-2 lanes, starting at the off-ramp from the Si Rat Expressway - Outer Ring Road Expressway on the inbound side in the area of Bang Sue at EMU Depot, turning left northwards to connect with the Si Rat Expressway on the outbound side heading to Chaeng Watthana, covering a distance of approximately 360 meters. As at December 31, 2017, the project's progress was approximately 28.256 percent, which went according to plan, with the construction expected to complete by 2018.

2. The MRT Blue Line Extension Project

The Company entered into the Concession Agreement for the MRT Blue Line Extension Project (Hua Lamphong Station - Lak Song Station and Bang Sue Station - Tha Phra Station) with the MRTA on March 31, 2017, for the period of 33 years, with the project value of Baht 22,036 Million, on a PPP Net Cost basis, whereby work for supply and installation of the M&E System for service opening divided into three phases, namely, Phase 1: Bang Sue Station - Tao Poon Station Section as opened for service on August 11, 2017; Phase 2: Hua Lamphong Station - Lak Song Station Section to be ready for service by September 2019; and Phase 3: Tao Poon Station - Tha Phra Station Section to be ready for service by March 2020, covering the total distance of 27 kilometers, with 20 stations. The Company shall be entitled to fare box revenue and commercial development throughout the concession period.

3. Risk Factors

The Company realizes the significance of the management of risks from business operations under the changes of internal and external factors affecting its operational results. Risk management is considered a key instrument for business administration to ensure efficient and effective achievements and promote its competitiveness, as well as a key factor of the Good Governance. The Company thus arranges for the systematic risk management, monitoring and measures to minimize risks continuously. The Board of Directors has appointed the Corporate Governance and Risk Management Committee for policy-level consideration on the adequacy and appropriateness, with the Management to supervise the overall risk management process of the organization and perform daily routine work on behalf of the Corporate Governance and Risk Management Committee to monitor, evaluate and prepare a report on risk management to the Board of Directors for information.

In addition, the Company has also prepared an annual risk management plan and a risk management handbook as guidelines in the operations, and regularly monitor, evaluate and review risks to be in line with the ever-changing internal and external circumstances, including a backup plan in case of emergency, in order to ensure prompt action in solving problems and coordination with relevant units at all times. The risk management policy of the Company is as follows:

1. To adopt a risk management process in accordance with international standards or practices to ensure the efficiency of risk management, implementation and development in the same direction on an enterprise level in line with the business operation policy of the Company.
2. To treat the risk management as part of work, significant decision-making regarding management, and strategic planning to achieve the specified objectives, goals, missions and vision of the Company.
3. To carry out a proactive risk management to manage risks which may result in the Company's loss of interests and opportunities.
4. To delegate a risk management as staff's responsibility at all levels and manage risks within their work units and the organization to contain risks at adequate and appropriate level.
5. To determine guidelines for prevention or reduction of risks at a level acceptable to the Company in order to formulate plans to manage and control risks to at an acceptable level. All work units must consider the justification of expenses or costs to implement risk management measures in comparison with expected benefits.
6. To efficiently communicate the risk management within the Company for staff's effective learning, development and compliance.
7. To prepare an annual risk management plan subject to consideration and approval of the Corporate Governance and Risk Management Committee in respect of sufficiency and appropriateness to the current business circumstances.
8. To regularly follow up and assess the results of risk management to make sure that the risk management is duly and properly conducted.

Risk factors which may materially affect the Company's business operations are as follows:

3.1 Systematic Risk

3.1.1 Risk from Business Operations under Agreements with Government Sector and Government Policy

Given that the Company operates its businesses under the relevant Concession Agreements subject to the supervision of the government agencies, namely, MRTA and EXAT, differences in the contractual parties' interpretations on terms and conditions of the Concession Agreement may arise in various matters, such as, revisions of toll or fare rates, consideration to extend the concession periods under the Concession Agreements and responsibility for costs under the Agreements, which may require a certain period of time to come to a solution, and may impact the Company's business operations.

In addition, the political uncertainty and changes in government administration from the political party in charge may result in changes in policies, relevant laws or regulations, that possibly affect consideration to extend the concession periods under the Concession Agreements or terms and conditions stated, thereby rendering EXAT or MRTA unable to perform its obligations under the relevant Agreements or may require the Company to proceed beyond those specified in the relevant Agreements or undertakings.

The Company's core revenue is tolls under the Second Stage Expressway Agreement, which its term of 30 years will end in February 2020. Despite the conditions of the Agreement specifying that prior to the termination of the contract term of 30 years, the Agreement may be renewed twice of 10 years each, subject to the conditions to be agreed upon between EXAT and the Company, the political uncertainty or changes in government policies may affect the consideration to renew the Agreement. In such case, if the Company is not granted approval for renewal of the Agreement, the Company will lose such toll revenue. To minimize such risk, the Company has already submitted an application for renewal of the Second Stage Expressway Agreement, which is currently pending the consideration of EXAT.

In addition, the Company will establish a joint operation system with the government agencies both at the administrative and operation levels, by sharing sufficient information to ensure good understanding towards each other, as well as closely and regularly monitoring the political situations and changes in policies. The Company will review the strategies and operation plans to be reasonably suitable to the situations and for their mutual interest in the long run.

3.1.2 Risk Relating to Revenues less than Projections

As the Company provides both expressway and metro services, therefore, the Company's core revenues are tolls and fares, which may be affected by several external factors beyond the Company's control, such as, metro network expansion, improved feeder systems, fare rates of other available alternative transit systems, road traffic congestion, oil prices, and growth of real estate and condominium projects as well as other businesses surrounding the metro routes, which would serve as people's destinations, etc., all of which will affect the volume of service users. In addition, the Company generates commercial development revenue, which may vary depending upon the local and overseas economic conditions, competition in advertising media and retail space lease business, as well as the progress in opening of retail shops in the stations, several factors of which are beyond the Company's control. Therefore, should the Company's revenues differ from study results or projections, it may affect the liquidity and serviceability management with respect to the existing financial obligations, such as, interest expenses, scheduled repayment of loans, operating expenses under the Agreements, as well as compensation for expressway site acquisition cost or remuneration payable to MRTA, etc.

To minimize such risk, the Company will establish a unit to closely monitor any impact which may affect the initial factors, and formulate appropriate strategies. In addition, the Company can limit potential impacts from risk factors, such as, oil prices, road traffic congestion, and fare rates of other available alternative transit systems, due to the Company's full services of expressways and metro, both of which are considered substitute products. With respect to the commercial development, the Company will develop new advertisement media to increase its commercial development revenue, such as, advertisement media management via the Passenger Information Display System (PIDs), platform billboards, and digital media, including its plans to develop more retail space.

3.1.3 Risks from Interest Rate and Foreign Exchange Rate Fluctuations

Given that the Company remains obliged to service interest-bearing liabilities to lenders, and plans for future investment in several projects, therefore, it may require a large amount of long-term loans. Thus, interest expenses are considered the significant expenditures for the Company. The increased interest rates on loans may affect the Company's operational results due to the fact that the interest cost in respect of the certain credit facility was at the floating interest rate, thereby exposing the Company to a risk from interest rate fluctuation or increase in the money market. However, the Company will manage such risk from interest rate fluctuation, by arranging for the loan structure, divided into loans at floating interest rates and loans at fixed interest rates including plans to issue debt instruments or debentures as suitable to the economic conditions and the Company's view of the future interest rates.

The Company issued the debentures at the fixed interest rate, in order to arrange for the loan structure to ensure appropriate proportion of loans at fixed interest rate and loans at floating interest rates, and to minimize risk from interest rate fluctuation.

In 2017, the Company issued additional debentures in the amount of Baht 5,000 Million, with a maturity of 5-7 years, at the fixed interest rate, in order to invest in projects and for use as working capital. As at the end of 2017, the debt ratio at the fixed interest rate was 78.38 percent.

In addition, the Company incurred expenses in foreign currencies, for example, maintenance cost of the M&E Equipment, and insurance premiums, part of which had to be paid in foreign currencies. Thus, should the Baht value depreciate, the Company's expenses will increase accordingly. However, the proportion of the expenses in foreign currencies is low. Moreover, the Company will set up a policy to minimize risk from exchange rate, such as, negotiations for reduction of foreign currency expenses and buying forward, etc.

3.1.4 Risk from Serious Accidents, Public Unrest, or Natural Perils

The Company's businesses of both construction and management of the expressways and metro are exposed to an event or external factor which results in an emergency, namely, peril, serious accident, earthquake and such events which may be caused by terrorism or sabotage as bombing and riot, including gathering of activities for inciting public unrest, which may cause the Company to suspend its services and lose its revenues. For this reason, the Company has set forth emergency plans in response to any events which may suddenly occur, for example, removal of various significant and essential M&E equipment in the management of the expressways for storage at the safe place, and arranges for staff training to ensure that the staff in charge will be able to immediately take actions to resolve such emergency, for instance, emergency drills of all relevant units inside and outside the Company by way of simulation of such various situations as emergency in the metro stations from bomb threat and bomb blast in the metro stations, train breakdown and stop inside the tunnel, fire in the rolling stock, metro stations or tunnel, etc., as well as establishes a unit for monitoring, alerting and coordinating with relevant agencies to prevent the occurrence of any serious accident and to be ready for rescue operations.

The Company has taken out insurance against property all risks, business interruption, public liability, and terrorism in respect of the metro service business.

3.1.5 Risk in respect of Personnel

As the government realizes the significance for solving problems on traveling and traffic in Bangkok by using the mass rapid transit system, it is thus expedited to expand the metro network and the connecting system to other transportation systems. Therefore, it is highly possible that there will be governmental organizations or private agencies operating the mass rapid transit system business which requires an increase in personnel having knowledge, expertise and skills in the rail business. As a result, it is likely that the Company's main personnel will be enticed away from the Company.

The risk from shortage of competent personnel is considered one of the Company's main risks, as they are key factor to drive our organization to success. The Company gives priority to the personnel risk management, starting from the nomination and selection of good and qualified personnel suitable for the Company; continuous staff training courses to improve knowledge, skills and abilities in various fields necessary for performance of work based on each staff's position and designated duties; encouragement of the staff morale; consideration of appropriate and fair remuneration and welfare; review and revisions of the operation process and work system to ensure readiness at all times, as well as preparation of succession plan, whereby the Company has prepared the succession plan and appointment of a working group comprising high-level executives to set up guidelines in the selection of staff to ensure the availability of personnel, both in the executive and supervisor levels, in order to prevent the risk from shortage of personnel having knowledge, expertise and technical skills for specific work. The Company has arranged for collection of the body of knowledge for specific work and extended the results to the knowledge management program, in order to continuously improve the work process.

3.2 Corporate Specific Risk

3.2.1 Risk from Legal Disputes

The Company and NECL have a total of 11 disputes with EXAT on different interpretation of several matters, such as, adjustment of toll rates and responsibility for costs under the Agreements. The disputes were referred to the Arbitral Tribunal in accordance with the dispute settlement procedures under the Agreements and in the Administrative Court, divided into the disputes that the Company and NECL referred to the dispute settlement proceedings under the Agreements and demanded for damages with the total amount until the date of submission of the disputes of approximately Baht 28,179.8 Million; and the disputes that EXAT submitted claims for damages with the total amount until the date of submission of the disputes of approximately Baht 1,589.2 Million.

Most of the major claims for high value damages are made by the Company from EXAT. Therefore, the decision should not materially have any negative risk towards the Company's operational results.

3.2.2 Risk from Return on Investments in Companies less than Projections

The Company may be exposed to a risk from return on investments in companies less than projections should the operational results of such companies whose shares were held by the Company not meet the projections. To minimize such risk, the Company will take into account the proportion of investments in companies in line with the Company's investment policy, which would enable the Company to participate in setting out policies and monitor the operations of the invested companies.

3.2.3 Risks Relating to Fluctuation of Cost of Rail Business

Costs of rail business comprise cost of fare and cost of train service, which are deemed the main expenditure of the Company's business operations, comprising repair and maintenance costs for the metro and civil infrastructure, public utility cost, personnel cost, and payment of remuneration from fare revenue.

As for the maintenance costs under the M&E contract, the Company's contract is in foreign and Baht currencies, subject to adjustment based on the Consumer Price Index as specified in the contract. Given the long-term contract, the Company will be then exposed to risk due to changes in such indices.

The public utility cost mainly comprises the cost of electricity used at the metro stations and for train operations. The cost of electricity may be adjusted according to the electricity rates of the Metropolitan Electricity Authority, which may result in the Company's increased cost.

Therefore, the Company's costs of rail business in respect of cost of fare box vary according to the aforesaid costs. However, in the past, the Company was able to effectively control its cost of fare box. Besides, the cost of fare box is mostly fixed cost, not varying directly according to the increased volume of passengers, provided that there is no material change in the volume of passengers to the extent that the Company is required to add the number of trains for service to enhance the capacity to accommodate the passengers.

In the MRT Purple Line Concession Agreement, the service fees for the O&M Services payable by MRTA to the Company are calculated and based on the projections of operating expenses estimated by the Company, whereby such service fees may be adjusted only based on the actual inflation rate and electricity charge rate under the method specified in the Concession Agreement. Therefore, profits from the Operation Service will vary according to the Company's ability to manage the actual costs and expenses to mirror the specified projections. Should the actual costs and expenses be different from the projections, the Company's operational results may be affected since the Company is not able to request compensation or increase the service fees from MRTA.

However, with the expertise and experience in management of the MRT Blue Line Project, the Company is confident in its ability to efficiently manage costs and expenses for operations to be close to the projections.

3.2.4 Risk from Work Operations of Expressway Construction and Management Business

The Company takes into account the risk from operations of expressway construction and management business which may be resulted from primary factors, i.e., personnel, work system, operation system and external factors, which cause error or insufficiency of work procedures, employees, work system or information technology system, including employees' fraud and events or external factors, which may give rise to monetary and non-monetary damage, namely, damage to reputation or security of the Company. Therefore, it is greatly necessary to have a thorough supervision system with due care. The Company has then arranged for a specific unit having duties to monitor and maintain the routes and toll collection system in accordance with the operation standards, which can be assured by the experience and expertise of staff in charge from all divisions, thereby leading to the quality and availability of efficient, complete and continued service.

In addition, the Company has also established the preventive measure for the significant structures of the expressway systems so as to be available for full-time service by way of drawing up a plan for inspection of the structures of both the Si Rat Expressway, the Udon Rattaya Expressway, and the Si Rat - Outer Ring Road Expressway to be in line with the inspection by JMI Pacific Co., Ltd., a designing company with expertise in structural inspection. The monitoring, surveillance and maintenance were conducted to ensure that there would be no impact on the use of the expressways. With respect to the toll collection, communication and traffic control systems, which are important to its operations, the Company has provided the preventive maintenance as well as the data backup system, the standby power system and the management of purchase of spare materials.

Moreover, the Company may be exposed to the risk from non-functional toll collection system equipment which may arise by various causes, such as, non-functional electrical system due to power outage from the Metropolitan Electricity Authority, error processing by the operating system or computer virus infection in the system which destroys data in the operating system, including data and information hacks, thereby causing damage to the system, etc. In this regard, the Company gives high priority to such risk management by arranging for power backup system, security system for access to significant systems by third parties, determination of authorization levels of access to information and equipment, and installation of virus scan software and data backup in the operating system to ensure instant substitution.

3.2.5 Risks from Engagement of Outsourced Experts as Main Contractors for Supply and Maintenance of the M&E Equipment

The Company has accepted the transfer of the agreement for procurement of the M&E Equipment and an agreement for maintenance of the M&E Equipment with main contractors, namely, Siemens Limited, Thailand, and Japan Transportation Technology (Thailand). Thus, in the event that such outsourced expert group, as such main contractors, is unable to provide services under the agreements to the Company or there is any change in the maintenance agreement, the Company's business operation may be affected.

According to a study of information from members in the international federations of public transport operators, e.g., UITP, APTA, NOVA Group of Metros, as well as advice from Lloyd's Register Rail, the Company's highly experienced consultant, it is possible to select and procure M&E Equipment from other manufacturers which will be compatible with its existing system. In this regard, the Company has a policy to develop the quality of its personnel to have sufficient capabilities in working with local and overseas equipment manufacturers and contractors in the maintenance and repair of the M&E Equipment and the rail system to improve its efficiency without reliance on the sole existing manufacturer.

3.2.6 Risk from Delayed Construction and Operation of the Projects

On March 31, 2017, the Company executed the Concession Agreement for the MRT Blue Line Extension Project with the Mass Rapid Transit Authority of Thailand (MRTA), whereby the Company shall have duties in supply, installation, and test run and commissioning of the M&E Systems for the MRT Blue Line Extension Project, provided that such M&E Systems shall be connected with those of the M.R.T. Chaloem Ratchamongkhon Line Project in order to provide the train operation service in phases as planned, namely, Phase 1: Bang Sue Station - Tao Poon Station, opened for service by August 15, 2017; Phase 2: Hua Lamphong Station - Lak Song Station, to be opened for service within 30 months (September 2019); and Phase 3: Tao Poon Station - Tha Phra Station, to be opened for service within 36 months (March 2020).

The Company then managed such risk by entering into an agreement engaging CH. Karnchang Public Company Limited as Project Manager, as well as for supply, installation, and test run and commissioning of the M&E Systems for the Project, Phase 1 of which, Bang Sue Station - Tao Poon Station, was completed and opened for service on August 11, 2017. At present, the risk from operation of the MRT Blue Line Project, Phase 1, no longer exists. There remains the risk from operation of Phases 2 and 3, which currently progresses as planned.

3.2.7 Risk in Financing the MRT Blue Line Project

In the operation of the MRT Blue Line Project, the Company requires investment in the amount of approximately Baht 22,000 Million. As for management of risk relating to source of funds, the Company will use funds from internal source, i.e., cash flow as a result of debt repayment from NECL in the amount of approximately Baht 6,000 Million, and the remainder will be derived from the external source by way of taking out loans from financial institutions or issuance of debentures. The Credit Facility Agreement for the MRT Blue Line Project has been executed in January 2018.

4. Property Used in Business Operations

4.1 Main Assets

As at December 31, 2017, the Company and its subsidiaries had main assets used in business operations, per the following :

Unit: Million Baht)

Class of Assets	Net Book Value
1. Building and equipment	360
2. Rights to operate completed expressway sectors	38,449
3. Rights to use sites for expressway construction	719
4. Intangible assets under the Concession Agreement for the MRT Blue Line Project	25,954
Total	65,482

The main assets of the Company and its subsidiaries as indicated above can be classified into class of assets and companies, per the following :

4.1.1 Building and Equipment

As at December 31, 2017, the book value of the building and equipment as per the consolidated financial statements of the Company and its subsidiaries were as follows:

(Unit: Million Baht)

Company	Net Book Value	Ownership	Encumbrance
The Company	315	Owner*	None
NECL	32	Owner**	None
BMN	13	Owner	None
Total	360		

Remarks: * This refers to building, construction improvement and certain structures of the Second Stage Expressway System. Despite the fact that the title to such building is owned by EXAT, the Company is granted the right to use such building to operate the Second Stage Expressway Project under the conditions as specified in the Agreement. The Company takes on lease of a building for use as its head office located at No. 587 Sutthisarnvinitchai Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400. The lease is on a year by year basis at the rental rate of Baht 10,000 per month.

** NECL does not own any property, plant and equipment, but takes on lease of a building for use as its head office located at No. 587 Sutthisarnvinitchai Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400. The lease is on a year by year basis at the rental rate of Baht 10,000 per month. NECL uses the Bang Pa-in - Pak Kret Expressway Control Center Building, which is part of the Bang Pa-in - Pak Kret Expressway Project, to supervise the operations. Despite the fact that the title to such building is owned by EXAT, NECL is granted the right to use such building to operate the Bang Pa-in - Pak Kret Expressway Project under the conditions as specified in the Agreement.

4.1.2 Rights to Operate Completed Expressway Sectors

As at December 31, 2017, the book value of the rights to operate completed expressway sectors as per the consolidated financial statements of the Company and its subsidiary were as follows:

(Unit: Million Baht)

Company	Net Book Value
The Company	32,245
NECL	6,204
Total	38,449

The rights to operate completed expressway sectors are considered the costs of construction of the Si Rat Expressway, the Si Rat - Outer Ring Road Expressway, and the Udon Ratthaya Expressway, with the details as at December 31, 2017 comprising:

(Unit: Million Baht)

Class of Assets	Net Book Value	Ownership	Encumbrance
Si Rat Expressway, Sectors A, B and C	4,674	EXAT	None
Si Rat Expressway, Sector D	3,732	EXAT	None
Si Rat - Outer Ring Road Expressway	23,767	EXAT	Loan Security
Udon Ratthaya Expressway	6,204	EXAT	*
Project costs during construction	72		
Total Net Book Value	38,449		

Remark: * NECL provided the rights to operate completed expressway sectors under the Concession Agreement for the Udon Ratthaya Expressway Project as security to the Company to secure the loan repayment.

Given that the Expressway Agreements above are on a BTO (Build, Transfer and Operate) basis, the title to all expressways, including various permanent constructions in relation to or used in connection with the expressway systems, shall be vested in EXAT immediately upon construction by the Company and NECL. Upon opening for service, the Company and NECL are entitled to utilize such property and shall have the duty to keep such property maintained throughout the term of the Agreements. The Second Stage Expressway Agreement (Si Rat Expressway) has a term of 30 years from March 1, 1990 and may be renewed twice of 10 years each, subject to the conditions to be further agreed upon. The Agreement for the Extension of the Second Stage Expressway, Sector D, has a term of 30 years from April 22, 1997. The Si Rat - Outer Ring Road Expressway has a term of 30 years from December 15, 2012. The Bang Pa-in - Pak Kret Expressway Project Agreement (Udon Ratthaya Expressway) has a term of 30 years from September 27, 1996 and may be renewed twice of 10 years each. These Agreements require the Company and NECL to be responsible for expenses relating to toll collection, traffic management and rescue operation on the expressways, including the costs of maintenance of the expressways under the relevant Agreements throughout the term of the Agreements.

4.1.3 Rights to Use Sites for Expressway Construction

As at December 31, 2017, the book value of the rights to use sites for expressway construction as per the consolidated financial statements of the Company and its subsidiaries were as follows:

(Unit: Million Baht)

Company	Net Book Value
The Company	719

The rights to use sites for expressway construction are considered part of the rights to operate completed expressway sectors. The Company recorded the initial costs of the rights to use sites for expressway construction at the costs equivalent to the present value of the encumbrance in payment of compensation for site acquisition cost to EXAT under the Second Stage Expressway Agreement after initial recognition of the rights to use sites for expressway construction which showed the value at costs, less accumulated amortization. The Company amortized the rights to use sites for expressway construction as expenses in the income statement based on the volume of vehicles using service.

4.1.4 Intangible Assets under the Concession Agreement for the MRT Blue Line Project

As at December 31, 2017, the book value of intangible assets under the Concession Agreement for the MRT Blue Line Project as per the consolidated financial statements of the Company and its subsidiary were as follows:

(Unit: Million Baht)

Company	Net Book Value
The Company	25,608
BMN	346
Total	25,954

The intangible assets under the Concession Agreement for the MRT Blue Line Project are considered the costs of construction of the MRT Blue Line Project, with the details as at December 31, 2017 comprising:

(Unit: Million Baht)

Company	Class of Assets	Net Book Value	Ownership	Encumbrance
The Company	M&E Equipment	17,117	Owner	None
The Company	M&E Equipment and leasehold improvements, telecommunications system equipment, and advertising system equipment in metro stations	503	Owner	None
BMN	M&E Equipment and leasehold improvements, telecommunications system equipment, and advertising system equipment in metro stations	346	Owner	None
The Company	Project costs during construction	7,988	Owner	None
	Total Net Book Value	25,954		

4.2 Investments in Other Companies

4.2.1 Summary of Investments as per the Consolidated Financial Statements of the Company and its Subsidiaries

As at December 31, 2017, the book value of investments in other companies as per the Company's consolidated financial statements were as follows:

(Unit: Million Baht)

Company	Book Value under Cost Method	Portion of Investment in each Company (percent)	Paid-up Capital	Type of Investments	Nature of Business Operations
1. Northern Bangkok Expressway Company Limited	2,604	99.99	5,250	Subsidiary	- Construction and operation of the Bang Pa-in - Pak Kret Expressway Project
<u>Less: Provision for impairment of investments</u>	<u>(2,450)</u>				
Net investments	<u>154</u>				
2. Bangkok Metro Networks Limited	166	65.19	254	Subsidiary	- Development of lease retail spaces in the metro stations and the basement level of the park and ride facility
<u>Less: Provision for impairment of investments</u>	<u>(16)</u>				- Procurement of advertising boards or media in the metro stations and inside the trains
Net investments	<u>150</u>				- Provision of service and maintenance of telecommunications system equipment in the metro stations
3. TTW Public Company Limited	6,976	19.45	3,990	Associated Company	- Production and distribution of tap water
4. CK Power Public Company Limited	3,223	19.40	7,370	Associated Company	- Investment in other companies (Holding Company) operating the energy business
5. Xayaburi Power Company Limited	1,655	7.50	22,065	Other Company	- Construction and operation of the Xayaburi Hydroelectric Power Project

4.2.2 Policy on Investment and Management in the Subsidiaries

The Company has a policy to invest in businesses which are related, similar, or beneficial, and support the Company's business operations, in order to provide opportunities and long-term yields, and strengthen the Company's stability and operational results. The investment policy shall be as follows:

1. To invest in projects or acquire ordinary shares in project operators, in a manner of long-term investments;
2. To invest up to the minimum proportion to allow the Company to participate in setting out policies, monitoring and reviewing operations of such companies so invested;
3. Not to invest in any project giving rise to environmental impact or contrary to the good moral of the society.

As at December 31, 2017, the Company invested in subsidiaries and other company, as follows:

1) Northern Bangkok Expressway Company Limited (“NECL”)

The Company established NECL in 1996, by holding 99.99 percent of its shares. The benefits to be derived shall be in the form of dividend from investment in shares of NECL. Due to the impact on NECL from the government policy for construction of the competing road, NECL’s revenue did not meet its projection. In this regard, NECL’s operational results continued to sustain loss to the extent that the accumulated loss exceeded its equity, resulting in shareholders’ deficit. In 2003, NECL therefore increased its registered capital by Baht 3,000 Million to become the registered capital of Baht 6,000 Million. At present, NECL called for share payment of 75 percent of the increased registered capital of Baht 3,000 Million. However, NECL’s operational results have started to generate profits since 2013 until present. The Company provided a large amount of loans for NECL and also is the major creditor of NECL, the Company has therefore assigned its five executives to be members of NECL’s board of directors, from a total of six directors of NECL. In case NECL would take any actions which may significantly affect the Company, NECL would be required to seek prior approval from the Company’s Board of Directors’ Meeting. Furthermore, the Company is also the service provider for all operations of NECL.

As at December 31, 2017, NECL’s registered and paid-up capital was Baht 5,250 Million. The Company’s shareholding in NECL was 99.99 percent of its registered capital.

2) Bangkok Metro Networks Limited (“BMN”)

The Company established BMN on February 25, 2009 to operate the businesses of procurement and production of advertising media of various forms in the metro stations and inside the trains, lease of retail spaces in the MRT Blue Line stations and spaces in the basement level of the Lat Phrao park and ride facility. To date, the retail shops are opened in nine stations, namely, Sukhumvit Station, Phahon Yothin Station, Chatuchak Park Station, Kamphaeng Phet Station, Phra Ram 9 Station, Thailand Cultural Centre Station, Khlong Toei Station, Lat Phrao Station, and Phetchaburi Station. In addition, BMN also provides service and maintains telecommunications system equipment inside the metro stations. As at December 31, 2017, BMN’s registered and paid-up capital was Baht 254 Million, whereby the Company holds shares in BMN representing 65.19 percent of all BMN’s shares sold, together with 34.81 percent of shares held by other investors having experience and expertise in the businesses of advertising media, marketing, real estate, and telecommunications technology.

As for the policy on future investment in BMN, the Company continues to maintain its shareholding in BMN of not less than 50 percent of all shares in BMN. The Company will receive the return on investment in the form of revenue sharing and dividend income from investment in BMN. The Company has a control policy or participates in setting out the significant policies on the business operations by assigning its three representatives to be members of BMN’s board of directors, from a total of six directors of BMN.

3) TTW Public Company Limited (“TTW”)

The Company invested in TTW which operates the business of production and distribution of tap water to the Provincial Waterworks Authority in the vicinity of Nakhon Pathom Province and Samut Sakhon Province, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority with a 30-year contract term from July 21, 2004. TTW invested in Pathum Thani Water Co., Ltd., representing 98 percent of its registered capital, whereby such company operates the business of production and distribution of tap water in the vicinity of Pathum Thani and Rangsit, under the Water Purchase and Sale Agreement with the Provincial Waterworks Authority with a 25-year contract term from October 15, 1998. TTW also invested in Thai Water Operations Company Limited which operates the business of operation and management of tap water production and distribution systems and wastewater treatment service provision, whereby TTW holds shares representing 68.50 percent of its registered capital. In addition, TTW invested in the energy business by holding 25.31 percent of shares in CK Power Public Company Limited, a company investing in other companies operating the energy business. The benefits to be derived by the Company from investment in TTW shall be in the form of dividend income.

The Company, as a shareholder, assigned its representative to be a member of the board of directors of TTW. As at December 31, 2017, the Company held shares in TTW representing 19.45 percent of its registered capital.

4) CK Power Public Company Limited (“CKP”)

The Company jointly invested in the establishment of CKP, which operates core business by investing in other companies (Holding Company) operating the business of production and distribution of electricity from various types of energy. As at December 31, 2017, CKP invested by holding shares representing 56 percent in SouthEast Asia Energy Limited; 30 percent in Nakhon Ratchasima Solar Limited; 30 percent in Chiangrai Solar Limited; 100 percent in Bangkhenchai Company Limited; 65 percent in Bangpa-in Cogeneration Limited; and 30 percent in Xayaburi Power Company Limited. The benefits to be derived by the Company shall be in the form of dividend from investment.

The Company, as a shareholder, assigned its representative to be a member of the board of directors of CKP. As at December 31, 2017, the Company held shares in CKP representing 19.40 percent of its registered capital.

5) Xayaburi Power Company Limited (“XPCL”)

The Company invested in XPCL, a company which was awarded the concession from the Government of the Lao People’s Democratic Republic for design, development, construction and operation of the Xayaburi Hydroelectric Power Project, with a 29-year concession period from the Commercial Operation Date. The expected benefits to be derived by the Company shall be in the form of dividend from investment.

The Company, as a shareholder, assigned its representative to be a member of the board of directors of XPCL. As at December 31, 2017, the Company held shares in XPCL representing 7.50 percent of its registered capital. All ordinary shares in XPCL held by the Company have been pledged as security of long-term loan of XPCL.

5. Legal Disputes

5.1 Disputes with Expressway Authority of Thailand (“EXAT”)

The Company and the subsidiary had a total of 11 disputes with EXAT, which were referred to the Arbitral Tribunal in accordance with the dispute settlement procedures under the Agreements and in the Administrative Court. The essence of each dispute was as follows:

5.1.1 Disputes submitted by the Company and the subsidiary claiming for damages in 8 disputes, with the total amount until the date of submission of the disputes of approximately Baht 28,179.8 Million

1. Priority Component Opening Date under the Second Stage Expressway Agreement

The Company submitted a statement of claim requiring EXAT to compensate for the deficient revenue with interest in the amount of Baht 3,831.4 Million, due to different opinions as to which date was the Priority Component Opening Date, which affected the commencement of the toll revenue sharing with the Company under the Agreement.

The Arbitral Tribunal rendered its arbitral award on the dispute requiring EXAT to pay the toll revenue sharing including interest under the Agreement as required by the Company. EXAT subsequently issued a letter refusing to comply with the arbitral award.

And, on April 20, 2009, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award or order refusing to enforce compliance with the arbitral award, and on October 19, 2011, the Company submitted a petition to the Central Administrative Court requesting a judgment to enforce compliance with the arbitral award. The interest was calculated up to the date on which the Company submitted the petition to the Court, amounting to Baht 1,189.7 Million, with the total disputed amount of Baht 5,021.1 Million.

On September 13, 2013, the Central Administrative Court adjudged to dismiss EXAT’s petition requesting the Court to revoke the arbitral award and adjudged to enforce the Company’s petition.

On October 11, 2013, EXAT lodged an appeal against the Central Administrative Court’s judgment with the Supreme Administrative Court.

At present, it is pending the Supreme Administrative Court’s scheduling of the hearing date for the reading of the judgment.

2. Competing road with the Udon Rathaya Expressway

The subsidiary submitted a statement of claim requiring EXAT to compensate for the deficient revenue, based on the ground that the Government granted permission for construction of the Extension of the Don Muang Tollway Project, from the National Memorial to Rangsit Section, which constituted a competing road under the Agreement, and affected the financial position of the subsidiary, thereby rendering such damages until the date of submission of the dispute (excluding interest) to Baht 1,790 Million.

The Arbitral Tribunal rendered its arbitral award on the dispute requiring EXAT to compensate for the deficient revenue with interest under the Agreement as required by the subsidiary. EXAT then issued a letter to the subsidiary refusing to comply with such arbitral award. And, on March 3, 2009, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

On September 1, 2011, the subsidiary submitted a petition to the Central Administrative Court requesting a judgment to enforce compliance with the arbitral award, with the disputed amount of Baht 3,296.7 Million.

On May 3, 2013, the Central Administrative Court adjudged to dismiss EXAT's petition requesting the Court to revoke the arbitral award and the Central Administrative Court also issued a judgment to enforce compliance with the arbitral award.

On May 31, 2013, EXAT lodged an appeal against the Central Administrative Court's judgment with the Supreme Administrative Court.

At present, it is pending the Supreme Administrative Court's scheduling of the hearing date for the reading of the judgment.

3. Issuance of variation orders by EXAT

The Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by EXAT's issuance of additional variation orders for certain construction work of the Si Rat Expressway in the total amount of Baht 209.1 Million (excluding interest).

The Arbitral Tribunal unanimously rendered its arbitral award requiring EXAT to pay the construction costs and expenses as per the Notice of Variation in the total amount of Baht 382.5 Million, including interest under the Agreement.

On February 4, 2014, EXAT issued a letter refusing to comply with the arbitral award. And, on March 26, 2014, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

On October 21, 2016, the Company submitted a petition for enforcement of the arbitral award to the Central Administrative Court.

At present, it is pending the Central Administrative Court's consideration.

4. Revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for the year 2003

The Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for 2003, which was not in accordance with the Agreement, thereby causing the damages, including interest, in the total amount of Baht 4,368 Million.

The Arbitral Tribunal, by the majority of votes, rendered its arbitral award requiring EXAT to compensate the Company for damages in the amount of Baht 4,368 Million, including interest under the Agreement.

EXAT then issued a letter refusing to comply with such arbitral award. And, on May 30, 2016, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

On November 4, 2016, the Company submitted its answer to the petition to the Central Administrative Court. At present, it is pending the Central Administrative Court's consideration.

5. Revision of toll rates of Sector D of the Si Rat Expressway for the year 2003

The Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates of Sector D of the Si Rat Expressway for the year 2003, which was not in accordance with the Agreement, in the total amount of Baht 1,048.2 Million.

At present, it is in the process of the Arbitral Tribunal's preparation of the arbitral award.

6. Revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for the year 2008

The Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates (of the Chalerm Mahanakorn Expressway and the Si Rat Expressway) for the year 2008, which was not in accordance with the Agreement, in the total amount of Baht 9,091.8 Million, together with interest under the Agreement.

At present, it is pending the arbitration proceedings.

7. Revision of toll rates of Sector D of the Si Rat Expressway for the year 2008

The Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates of Sector D of the Si Rat Expressway for the year 2008, which was not in accordance with the Agreement, together with interest calculated up to May 31, 2013, in the total amount of Baht 4,062.8 Million, including interest under the Agreement.

At present, it is pending the arbitration proceedings.

8. Revision of toll rates of the Udon Ratthaya Expressway for the year 2003

The subsidiary submitted a statement of claim requiring EXAT to compensate the subsidiary for damages, together with interest, caused by the revision of toll rates of the Udon Ratthaya Expressway for the year 2003, which was not in accordance with the Agreement, in the amount of Baht 908.7 Million, together with interest under the Agreement.

At present, it is pending the arbitration proceedings.

5.1.2 Disputes submitted by EXAT claiming for damages in 3 disputes, with the total amount until the date of submission of the disputes of approximately Baht 1,589.2 Million

1. Cost of arrangements of the entrance - exit and resolution of complaints

EXAT submitted a statement of claim requiring the Company to be responsible for the cost of arrangements of the entrance - exit claimed by complainants, and the cost of free flow drains, in the total amount of Baht 0.4 Million, which the Arbitral Tribunal rendered its arbitral award ruling that EXAT had no right to claim for such costs.

On May 7, 2014, EXAT submitted a petition for revocation of the arbitral award.

On August 30, 2017, the Central Administrative Court rendered the judgment revoking the arbitral award, only in respect of the Arbitral Tribunal's acceptance for consideration of the second dispute in case of free flow drains, as EXAT submitted the statement of claim after the statute of limitations of such dispute had expired.

On September 29, 2017, the Company lodged an appeal against the Central Administrative Court's judgment with the Supreme Administrative Court.

At present, it is pending the Supreme Administrative Court's consideration.

2. Construction of the Udon Ratthaya Expressway, Phase 2

EXAT submitted a statement of claim requiring the subsidiary to complete the construction of the Udon Ratthaya Expressway, Phase 2, in accordance with Clause 8.5 a. of the conditions of the Bang Pa-in - Pak Kret Expressway Agreement, and compensate in the amount of Baht 1,587.7 Million, together with interest under the Agreement. The Agreement specifies that although the conditions under the Agreement have been completed for construction commencement, but should EXAT breach the Agreement that gives rise to the subsidiary's serious financial impact, and as a result, the subsidiary is not yet required to commence the construction. In this regard, EXAT breached the Agreement on the competing road and the revision of toll rates, the subsidiary then shall have the right not to commence the construction yet, and EXAT shall not have the right to claim for any fines.

At present, it is pending the arbitration proceedings.

3. Cost of utilization of the Control Center Building (Bang Phun)

EXAT submitted a statement of claim requiring the subsidiary to be responsible for the cost of utilization of the Control Center Building (Bang Phun) in the amount of Baht 1.1 Million, which the subsidiary was of the view that such cost claimed by EXAT was not within its scope of responsibility under the Agreement.

At present, it is pending the arbitration proceedings.

Given that the disputes are pending the consideration, the Company and the subsidiary therefore have not yet recorded such entries in the financial statements.

6. General Information and Other Significant Information

6.1 General Information

(1) General information of the Company

Company Issuing Securities	: Bangkok Expressway and Metro Public Company Limited (“BEM”)
Business Operation	: Construction and management of the expressways and the rail mass rapid transit system projects, including other related businesses
Company Registration No.	: 0107558000491
Registered Capital	: Baht 15,285 Million, which is fully paid up.
Head Office	: 587 Sutthisarnvinitchai Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
Telephone	: 0 2641 4611 and 0 2354 2000
Fax	: 0 2641 4610 and 0 2354 2040
Website	: www.bemplc.co.th
Branch Office (1)	: 238/7 Asoke-Dindaeng Road, Bangkapi Subdistrict, Huai Khwang District, Bangkok 10310
Telephone	: 0 2641 4611
Fax	: 0 2641 4610
Branch Office (2)	: 189 Rama IX Road, Huai Khwang Subdistrict, Huai Khwang District, Bangkok 10310
Branch Office (3)	: 189/1 Rama IX Road, Huai Khwang Subdistrict, Huai Khwang District, Bangkok 10310
Branch Office (4)	: 189/2 Rama IX Road, Huai Khwang Subdistrict, Huai Khwang District, Bangkok 10310
Telephone	: 0 2354 2000
Fax	: 0 2354 2040

(2) Legal entities in which the Company holds 10 percent of shares or more

Company Issuing Securities	: Northern Bangkok Expressway Company Limited (“NECL”)
Business Operation	: Construction and management of the Udon Rattaya Expressway
Head Office	: 587 Sutthisarnvinitchai Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
Registered Capital	: Baht 6,000 Million, Baht 5,250 Million of which is paid up.
Shareholding Percentage	: 99.99 percent
Telephone	: 0 2641 4647
Fax	: 0 2641 4646

Company Issuing Securities : Bangkok Metro Networks Limited (“BMN”)

Business Operation	: 1. Lease of retail spaces in the metro stations and the basement level of the Lat Phrao park and ride facility 2. Procurement and/or production of advertising media in the metro stations and inside the trains 3. Provision of service and maintenance of telecommunications system equipment in the metro stations
Head Office	: 832 Sutthisarn Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
Registered Capital	: Baht 254 Million, which is fully paid up.
Shareholding Percentage	: 65.19 percent
Telephone	: 0 2690 8200
Fax	: 0 2690 8212
Website	: www.bmn-mrt.com

Company Issuing Securities : TTW Public Company Limited (“TTW”)
 Business Operation : Production and distribution of water supply to the Provincial Waterworks Authority and investment in companies operating the business of other public utilities
 Head Office : 30/130 Moo 12, Buddhamonthon 5 Road, Tambon Rai Khing, Amphoe Samphran, Nakhon Pathom Province 73210
 Registered Capital : Baht 3,990 Million, which is fully paid up.
 Shareholding Percentage : 19.45 percent
 Telephone : 0 2811 7526
 Fax : 0 2420 6064
 Website : www.ttwplc.com

Company Issuing Securities : CK Power Public Company Limited (“CKP”)
 Business Operation : Investment by holding shares in other companies (Holding Company) operating the business of production and distribution of electricity from various types of energy
 Head Office : 587 Viriyathavorn Building, 19th Floor, Sutthisarnvinitchai Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
 Registered Capital : Baht 9,240 Million, Baht 7,370 Million of which is paid up.
 Shareholding Percentage : 19.40 percent
 Telephone : 0 2691 9720
 Fax : 0 2691 9723
 Website : www.ckpower.co.th

(3) Reference

Securities Registrar : Thailand Securities Depository Company Limited
 The Stock Exchange of Thailand
 93 Rachadapisek Road, Dindaeng Subdistrict,
 Dindaeng District, Bangkok 10400
 Telephone : 0 2009 9382
 Fax : 0 2009 9476

Auditor : EY Office Limited
 193/136-137 Lake Rajada Office Complex, 33rd Floor, New Rajadapisek Road
 Klongtoey District, Bangkok 10110
 Telephone : 0 2264 0777
 Fax : 0 2264 0789

Legal Advisors : The Legists Group
 990 Abdulrahim Place, 9th Floor
 Rama IV Road, Silom Subdistrict
 Bangrak District, Bangkok 10500
 Telephone : 0 2636 1111
 Fax : 0 2636 0000

Financial Advisor : Advisory Plus Company Limited
 1550 Thanapoom Tower, 10th Floor
 New Petchburi Road, Makkasan Subdistrict
 Ratchathewi District, Bangkok 10400
 Telephone : 0 2652 7858-64
 Fax : 0 2652 7867

Debenture Registrars	: Siam Commercial Bank Public Company Limited 1060 New Petchburi Road, Makkasan Subdistrict Ratchathewi District, Bangkok 10400 Telephone : 0 2544 3924 Fax : 0 2937 7783
	: Krung Thai Bank Public Company Limited 977/2 Phaholyothin Road, Samsen Nai Subdistrict Phayathai District, Bangkok 10400 Telephone : 0 2298 0831 Fax : 0 2298 0835
Regularly Contacted Financial Institutions	: Krung Thai Bank Public Company Limited 35 Sukhumvit Road, Khlong Toei Nuea Subdistrict Wattana District, Bangkok 10110 Telephone : 0 2208 4631-9 Fax : 0 2256 8619
	: Siam Commercial Bank Public Company Limited 9 Ratchadaphisek Road, Chatuchak Subdistrict Chatuchak District, Bangkok 10900 Telephone : 0 2256 2323
	: TMB Bank Public Company Limited 3000 Phaholyothin Road, Chom Thong Subdistrict Chatuchak District, Bangkok 10900 Telephone : 0 2299 2511-2 Fax : 0 2299 2752

6.2 Other Significant Information

Key Summary of Agreements in the Company's Businesses

6.2.1 Expressway Business

6.2.1.1 The Second Stage Expressway Agreement

Execution Date	December 22, 1988
Party	The Expressway Authority of Thailand ("EXAT")
Key Summary	The Company is obliged to carry out construction and operation of the Si Rat Expressway (Second Stage Expressway), as well as related businesses under the Second Stage Expressway Agreement, for a concession period of 30 years from March 1, 1990 until February 29, 2020. The Second Stage Expressway System comprises Sector A (Rama IX - Ratchadapisek), Sector B (Phayathai - Bangkhlo), and Sector C (Ratchadapisek - Chaeng Watthana), covering a total distance of 29.8 kilometers. The Company shall be entitled to receive the toll revenue sharing in respect of both the Si Rat Expressway and the Chaler Mahanakorn Expressway (First Stage Expressway), as constructed and operated by EXAT, throughout the concession period.

6.2.1.2 The Agreement for the Extension of the Second Stage Expressway System (Sector D)

Execution Date	April 17, 1997
Party	The Expressway Authority of Thailand (“EXAT”)
Key Summary	The Company is obliged to carry out construction and operation of the Si Rat Expressway (Second Stage Expressway) for the extension of the Second Stage Expressway System, Sector D (Rama IX - Srinagarindra), covering a distance of 8.7 kilometers, for a concession period of 30 years from April 22, 1997 until April 21, 2027. The Company shall be entitled to receive all toll revenues throughout the concession period.

6.2.1.3 The Concession Agreement for Investment, Design, Construction, Operation, Provision of Service and Maintenance of the Si Rat - Outer Ring Road Expressway Project

Execution Date	September 15, 2012 (and amendments)
Party	The Expressway Authority of Thailand (“EXAT”)
Key Summary	<p>The Company is obliged to carry out design, construction and operation of the Si Rat - Outer Ring Road Expressway, with the route starting from Kanjanapisek Road and connecting to the Si Rat Expressway around the North of the Mo Chit 2 Bus Terminal, covering a total distance of 16.7 kilometers, for a concession period of 30 years from December 15, 2012 until December 14, 2042. The Company shall be entitled to receive all toll revenues throughout the concession period.</p> <p>On July 19, 2017, the Company executed the Amendment Agreement with EXAT for construction of a connection between the Si Rat - Outer Ring Road Expressway and the northern part of the Si Rat Expressway (heading to Chaeng Watthana), for a design and construction period of not exceeding 18 months.</p>

6.2.1.4 The Bang Pa-in - Pak Kret Expressway Agreement

Execution Date	September 27, 1996
Parties	Northern Bangkok Expressway Company Limited (“NECL”) and the Expressway Authority of Thailand (“EXAT”)
Key Summary	NECL is obliged to carry out construction and operation of the Udon Rattaya Expressway (Bang Pa-in - Pak Kret Expressway), connecting to the Si Rat Expressway around Chaeng Watthana Road and ending at Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province, covering a total distance of 32 kilometers, for a concession period of 30 years from September 27, 1996 until September 26, 2026.

6.2.2 Rail Business

6.2.2.1 The Concession Agreement for the MRTA Initial System Project - Chaloem Ratchamongkhon Line

Execution Date	August 1, 2000
Party	The Mass Rapid Transit Authority of Thailand (“MRTA”)
Key Summary	The Company shall have the duties in design, manufacture, supply, installation, test run and commissioning of the M&E Equipment, including operation and maintenance of M&E Systems throughout the concession period of the M.R.T. Chaloem Ratchamongkhon Line, which covers a total distance of 20 kilometers, with 18 stations. The Company has the exclusive right to collect fare box revenue and undertake any and/or all activities and commercial development as specified in the Agreement, including advertising, retail space leasing in the project and telecommunications services in the metro stations and in the trains. And from March 31, 2017 onwards, this Concession Agreement shall be deemed as integral part of the Concession Agreement for the MRT Blue Line Project.

6.2.2.2 The Concession Agreement for the MRT Blue Line Project

Execution Date	March 31, 2017
Party	The Mass Rapid Transit Authority of Thailand (“MRTA”)
Key Summary	<p>The Company is obliged to supply, install and test the M&E Equipment for the MRT Blue Line Extension Project, provide train operation service for the M.R.T. Chaloem Ratchamongkhon Line Project and the MRT Blue Line Extension Project as Through Operation, and the Company is entitled to fare box revenue and to commercial development throughout the concession period, whereby the Company shall be responsible for all investments and operating costs throughout the concession period, with benefits or interests sharing to the MRTA as agreed upon in the Agreement for a period of 33 years from the date of the MRTA’s Notice to Proceed (NTP), divided into:</p> <p><u>Phase 1</u> : Supply, installation, and testing of the M&E Equipment for the MRT Blue Line Extension Project, and trial run, for an operating period of 36 months from the date of MRTA’s Notice to Proceed;</p> <p><u>Phase 2</u> : Operation and maintenance of the MRT Blue Line Project, for a period of 30 years, from the date of service commencement which generates revenue from the whole line of the MRT Blue Line Project.</p> <p>The MRT Blue Line Extension Project is connected with the M.R.T. Chaloem Ratchamongkhon Line Project at Bang Sue Station and Hua Lamphong Station, divided into two sections, covering a total distance of 27 kilometers, namely, Hua Lamphong - Lak Song Section and Bang Sue - Tha Phra Section.</p>

6.2.2.3 The Concession Agreement for the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section (Khleng Bang Phai Station - Tao Poon Station), Contract 4: Concession for Investment, Supply of M&E Systems and O&M Services

Execution Date	September 4, 2013
Party	The Mass Rapid Transit Authority of Thailand (“MRTA”)
Key Summary	This Agreement is a concession agreement for investment, supply of M&E Systems, and O&M services, for a concession period of 30 years from September 4, 2013 to September 3, 2043, on a PPP Gross Cost basis, or a joint investment between the government sector and the private sector, whereby the government sector invests in all civil works and the private sector invests in the M&E Systems and the rolling stocks, including the O&M Services according to standards as specified in the Agreement. The MRTA is entitled to fare box revenue and commercial development revenue. In this regard, the MRTA shall gradually make repayment of the M&E Equipment costs to the Company on a monthly basis within a period of 6 years, and shall engage the Company for the O&M Services throughout the concession period.

6.2.2.4 The Maintenance Contract for the Maintenance of the M&E Equipment and Additional Equipment for the MRT Blue Line Project

Execution Date	September 7, 2017
Party	Siemens (Thailand) Limited (“Siemens”)
Key Summary	Siemens is obliged to carry out repair and maintenance of the M&E Equipment and Additional Equipment, supply and installation of necessary spare parts for the M&E Systems, planning for inspection for safety, storage and procurement of spare parts, recruitment of necessary personnel for the Company’s maintenance unit, and storage and delivery of adequate spare parts for one-year operation to the Company after the end of the Maintenance Contract, which will expire in December 2029.

6.2.2.5 The Project Management Agreement for Maintenance Service on Civil Infrastructure and M&E Systems for the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section (Khleng Bang Phai Station - Tao Poon Station)

Execution Date	November 17, 2015 (and amendments)
Party	CH. Karnchang Public Company Limited (“CH. Karnchang Plc.”)
Key Summary	CH. Karnchang Plc. has main duties under this Agreement as follows: <ul style="list-style-type: none"> • To maintain the civil infrastructure, including stations, elevated structures and depot; to maintain the M&E Systems inside stations, elevated structures and depot; to maintain elevators and escalators inside stations and depot; to supply equipment, tools, spare parts, and personnel for maintenance work. Such maintenance service shall be provided for eight years, ending in October 2023, for the contract value not exceeding Baht 1,520 Million. • To maintain the civil infrastructure and M&E Systems at Tao Poon Station - Bang Sue Station for the contract value of Baht 155 Million for a period of seven years, whereby the Agreement will expire in October 2023.

6.2.2.6 The Project Management Agreement for Maintenance Service on Civil Infrastructure and M&E Systems for the M.R.T. Chaloem Ratchamongkhon Line Project (Hua Lamphong Station - Bang Sue Station)

Execution Date	November 17, 2015
Party	CH. Karnchang Public Company Limited (“CH. Karnchang Plc.”)
Key Summary	<p>CH. Karnchang Plc. has main duties under this Agreement as follows:</p> <ul style="list-style-type: none"> • To maintain the civil infrastructure, including stations, tunnels and depot; • To maintain the M&E Systems inside stations, tunnels and depot; • To maintain elevators and escalators inside stations; • To supply equipment, tools, spare parts, and personnel for maintenance work. <p>CH. Karnchang Plc. shall provide such maintenance service for eight years, ending in October 2023, for the contract value not exceeding Baht 1,270 Million.</p>

6.2.2.7 Agreement for the Project Management, Supply, and Installation of M&E Equipment for the MRT Blue Line Project

Execution Date	June 20, 2017
Party	CH. Karnchang Public Company Limited (“CH. Karnchang Plc.”)
Key Summary	<p>CH. Karnchang Plc. has main duties under this Agreement as follows:</p> <ul style="list-style-type: none"> • To design, supply, and install the M&E Equipment for the MRT Blue Line Project, including but not limited to the rolling stock, signaling system, power supply system, SCADA, communication system, automatic fare collection system, platform screen doors, and depot workshop equipment, etc.; • To connect the M&E Systems for the MRT Blue Line Extension Project with those for the M.R.T. Chaloem Ratchamongkhon Line Project and for the MRT Blue Line Project, Bang Sue Station - Tao Poon Station, including commissioning to ensure compliance with the provisions in the Concession Agreement for the MRT Blue Line Project; • To inspect, test run, and commissioning the M&E Systems for the MRT Blue Line Extension Project in association with the Company. <p>CH. Karnchang Plc. shall be the project manager, as well as supply and install the M&E Equipment within a period of time as specified in the Concession Agreement for the MRT Blue Line Project, which the Company executed with the Mass Rapid Transit Authority of Thailand dated March 31, 2017, in the amount of Baht 19,643 Million.</p>

6.2.3 Commercial Development Business

6.2.3.1 The Agreement for Granting of Right for Commercial Development to Bangkok Metro Networks Limited

Execution Date	March 11, 2005 (and amendments)
Party	Bangkok Metro Networks Limited (“BMN”)
Key Summary	<p>BMN has the right for commercial development in the M.R.T. Chaloem Ratchamongkhon Line Project, as follows:</p> <ul style="list-style-type: none">• Right for development of spaces in 11 metro stations and the basement level of Lat Phrao park and ride facility;• Right for commercial development for procurement and/or production of advertising media in various forms, such as stickers, light boxes of various sizes, platform billboards, in the metro stations and trains;• Right for provision of telecommunications service in the metro stations and trains, as well as IRDN (Integrated Radiating Distributed Network) service, to accommodate the communication service of all mobile phone systems, including other telecommunications service of all types in the future;• Right for management of the Passenger Information Display installed in the metro stations and trains.

7. Information on Securities and Shareholders

7.1 Number of Registered Capital and Paid-up Capital

7.1.1 The Company has the registered capital of Baht 15,285 Million, comprising 15,285 million ordinary shares at the par value of Baht 1 per share, Baht 15,285 Million of which has already been paid up, divided into 15,285 million ordinary shares at the par value of Baht 1 per share.

7.1.2 As at December 29, 2017, the Company’s 985,977,726 ordinary shares were used as underlying securities for issuance of Non-Voting Depository Receipt or NVDR, representing 6.45 percent of all shares in the Company. Such shares entitle their holders to receive dividends from investment in NVDR in the same amount as such dividend received by Thai NVDR Company Limited from the Company, provided that NVDR holders shall not be entitled to vote at any shareholders’ meeting of the Company. Investors may check the number of NVDR from the Stock Exchange of Thailand’s website at www.set.or.th/nvdr.

7.2 Shareholders

7.2.1 List of Major Shareholders

As at September 8, 2017, which is the latest closing date of the share register book, the major shareholders were as follows:

No.	Major Shareholders	Number of Shares (shares)	Shareholding Percentage (percent)
1	CH. Karnchang Group ⁽¹⁾	4,718,781,781	30.87
2	Mass Rapid Transit Authority of Thailand	1,256,259,584	8.22
3	Krung Thai Bank Public Company Limited	1,047,025,175	6.85
4	Thai NVDR Company Limited	794,559,521	5.20
5	Mr. Wichai Wachiraphong	379,545,048	2.48
6	Bangkok Bank Public Company Limited	323,453,209	2.12
7	Social Security Office	260,453,600	1.70
8	Mr. Min Tieworn	200,000,000	1.31
9	STATE STREET BANK EUROPE LIMITED	167,604,034	1.10
10	Mrs. Walaiporn Sompakdee	159,832,189	1.05
11	CHASE NOMINEES LIMITED	145,170,998	0.95
12	UOB KAY HIAN (HONG KONG) LIMITED - Client Account	140,533,500	0.92
13	HSBC (SINGAPORE) NOMINEES PTE LTD	133,044,004	0.87
14	GIC PRIVATE LIMITED	94,182,254	0.62
15	Mr. Phawat Chuengsapphaisan	80,000,000	0.52
	Total	9,900,444,897	64.78
	Others	5,384,555,103	35.22
	Grand Total	15,285,000,000	100.00

Remarks: The Stock Exchange of Thailand's disclosure on www.set.or.th for shareholders with more than 0.5 percent shareholding.

- (1) CH. Karnchang Group's shareholding in the Company represented 30.87 percent of the registered capital, with the details as follows:

<u>CH. Karnchang Group</u>	<u>Number of Shares</u>	<u>% of Paid-up Capital</u>
1. CH. Karnchang Public Company Limited ⁽²⁾	4,582,121,829	29.98
2. CH. Karnchang-Tokyu Construction Company Limited ⁽³⁾	136,659,952	0.89

- (2) CH. Karnchang Public Company Limited ("CH. Karnchang Plc.") operates the general construction business, with Trivisvavet Group holding shares of 34.38 percent of the paid-up capital (information as at September 29, 2017), with the details as follows:

<u>Trivisvavet Group</u>	<u>Number of Shares</u>	<u>% of Paid-up Capital</u>
1. Mahasiri Siam Co., Ltd. ⁽⁴⁾	293,012,365	17.30
2. CH. Karnchang Holding Co., Ltd. ⁽⁵⁾	171,396,530	10.12
3. CK. Office Tower Co., Ltd. ⁽⁶⁾	86,048,212	5.08
4. Mr. Plew Trivisvavet	13,631,497	0.80
5. Mrs. Saikasem Trivisvavet	5,061,142	0.30
6. Mrs. Pranee Tongkittikul	4,464,342	0.26
7. Mr. Nattavut Trivisvavet	2,405,785	0.14

<u>Trivisvavet Group</u>	<u>Number of Shares</u>	<u>% of Paid-up Capital</u>
8. Miss Supamas Trivisvavet	1,700,000	0.10
9. Mr. Sittidej Trivisvavet	1,550,000	0.09
10. Mr. Puwanet Trivisvavet	1,023,255	0.06
11. Miss Sawanya Trivisvavet	835,225	0.05
12. Mrs. Korakot Trivisvavet	680,250	0.04
13. Miss Sunan Trivisvavet	269,100	0.02
14. Mr. Prasert Trivisvavet	154,285	0.01
15. Mr. Kamthorn Trivisvavet	102,775	0.01

Shareholders may refer to additional information of CH. Karnchang Plc. in the Annual Registration Statement (Form 56-1) on the website of the SEC Office (www.sec.or.th) or the Stock Exchange of Thailand (www.set.or.th).

- (3) CH. Karnchang-Tokyu Construction Company Limited operates the business of construction of all types, having a total of 1,000,000 shares, with 549,996 shares representing 55 percent held by CH. Karnchang Plc.
- (4) Mahasiri Siam Co., Ltd. operates the investment business, having a total of 9,000,000 shares, with 8,378,787 shares representing 93.10 percent held by Trivisvavet Group.
- (5) CH. Karnchang Holding Co., Ltd. operates the investment and consultation business, having a total of 8,400,000 shares, with 2,100,000 shares representing 25 percent held by Mahasiri Siam Co., Ltd., and 5,250,000 shares representing 62.5 percent held by Trivisvavet Group.
- (6) CK. Office Tower Co., Ltd. operates the business of office building lease and service, having a total of 3,000,000 shares, with 750,000 shares representing 25 percent held by Mahasiri Siam Co., Ltd., and 2,250,000 shares representing 75 percent held by Trivisvavet Group.

7.2.2 The Company's Free Float Percentage

According to the report on shareholding distribution of strategic shareholders as at March 9, 2017, as submitted to the Stock Exchange by the Company, the percentage of the non-strategic shareholders was 53.99 percent of all issued and paid-up shares.

7.3 Issuance of Other Securities

7.3.1 Long-Term Loans

In 2017, the Company made repayment of the long-term loan in the amount of Baht 3,150 Million, and NECL executed the long-term loan agreement with a financial institution in the amount of Baht 5,700 Million, at the floating interest rate based on the 6-month fixed deposit interest rate, and made a loan drawdown during the year in the amount of Baht 500 Million, and as a result, as at December 31, 2017, the Company and its subsidiary had long-term loans amounting to Baht 16,434 Million.

7.3.2 Debentures

In 2017, the Company issued debentures at the total value of Baht 5,000 Million, for use in the investment in the projects and for use as the Company's working capital. As at December 31, 2017, the Company's outstanding debentures were as per the following details:

Details of Debentures	Debentures No. 1/2016 Series 1	Debentures No. 1/2016 Series 2	Debentures No. 1/2016 Series 3
Debenture Symbol	BEM196A	BEM216A	BEM236A
Total Value of Debentures	Baht 5,000 Million	Baht 1,615 Million	Baht 2,000 Million
Type of Debentures	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative
Number of Debentures	5,000,000 units	1,615,000 units	2,000,000 units
Par Value per Unit	Baht 1,000	Baht 1,000	Baht 1,000
Interest Rate per annum	2.22%	2.52%	3.00%
Maturity	3 years	5 years	7 years
Issue Date of Debentures	June 24, 2016	June 24, 2016	June 24, 2016
Maturity Date	June 24, 2019	June 24, 2021	June 24, 2023
Registrar	SCB	SCB	SCB
Early Redemption Right	- None -		
Repayment of Principal	The issuer of debentures shall repay the principal in full on the maturity date.		
Rating	A	A	A

Debentures (continued)

Details of Debentures	Debentures No. 1/2016 Series 4	Debentures No. 1/2016 Series 5	Debentures No. 2/2016
Debenture Symbol	BEM266A	BEM286A	BEM286B
Total Value of Debentures	Baht 3,335 Million	Baht 2,750 Million	Baht 500 Million
Type of Debentures	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative
Number of Debentures	3,335,000 units	2,750,000 units	500,000 units
Par Value per Unit	Baht 1,000	Baht 1,000	Baht 1,000
Interest Rate per annum	3.30%	3.61%	3.61%
Maturity	10 years	12 years	11.9 years
Issue Date of Debentures	June 24, 2016	June 24, 2016	August 11, 2016
Maturity Date	June 24, 2026	June 24, 2028	June 24, 2028
Registrar	SCB	SCB	SCB
Early Redemption Right	- None -		
Repayment of Principal	The issuer of debentures shall repay the principal in full on the maturity date.		
Rating	A	A	A

Debentures (continued)

Details of Debentures	Debentures No. 3/2016 Series 1	Debentures No. 3/2016 Series 2	Debentures No. 3/2016 Series 3
Debenture Symbol	BEM200A	BEM250A	BEM270A
Total Value of Debentures	Baht 2,500 Million	Baht 2,500 Million	Baht 3,000 Million
Type of Debentures	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative
Number of Debentures	2,500,000 units	2,500,000 units	3,000,000 units
Par Value per Unit	Baht 1,000	Baht 1,000	Baht 1,000
Interest Rate per annum	2.62%	3.78%	3.95%
Maturity	4 years	9 years	11 years
Issue Date of Debentures	October 21, 2016	October 21, 2016	October 21, 2016
Maturity Date	October 21, 2020	October 21, 2025	October 21, 2027
Registrar	SCB	SCB	SCB
Early Redemption Right	- None -		
Repayment of Principal	The issuer of debentures shall repay the principal in full on the maturity date.		
Rating	A	A	A

Debentures (continued)

Details of Debentures	Debentures No. 1/2017 Series 1	Debentures No. 1/2017 Series 2
Debenture Symbol	BEM229A	BEM249A
Total Value of Debentures	Baht 2,000 Million	Baht 3,000 Million
Type of Debentures	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative	Unsubordinated and unsecured debentures bearing names of the holders without a debenture holder representative
Number of Debentures	2,000,000 units	3,000,000 units
Par Value per Unit	Baht 1,000	Baht 1,000
Interest Rate per annum	2.65%	3.10%
Maturity	5 years	7 years
Issue Date of Debentures	September 7, 2017	September 7, 2017
Maturity Date	September 7, 2022	September 7, 2024
Registrar	KTB	KTB
Early Redemption Right	- None -	
Repayment of Principal	The issuer of debentures shall repay the principal in full on the maturity date.	
Rating	A	A

7.4 Policy on Dividend Payment

The Company has a policy to pay dividend at not less than 40 percent of the net profit of each year, taking into account the operational results, financial structure and obligations, investment, as well as regular payment of dividend to shareholders.

In this regard, the Board of Directors may pay interim dividend to shareholders when it is of the view that the Company has sufficient profit and cash flow to pay dividend. Once the dividend payment has been made, such dividend payment shall be reported to the following shareholders' meeting.

The Company's dividend payment in the previous year was as follows:

Dividend from Operations	Dividend Declared (Million Baht)	Dividend per share (Baht)	Net Profit (Million Baht)		Percentage of Dividend to Net Profit	
			Separate Financial Statements	Consolidated Financial Statements	Separate Financial Statements	Consolidated Financial Statements
2016						
- First half	764	0.05	1,218	1,206	62.50%	63.29%
- Second half	917	0.06	1,345	1,400	68.18%	65.22%
Total in 2016	1,681	0.11	2,563	2,606	65.48%	64.71%
2017						
- First half	917	0.06	1,442	1,425	63.83%	64.52%
- Second half ⁽¹⁾	1,070	0.07	1,533	1,698	70.00%	63.06%
Total in 2017	1,987	0.13	2,975	3,123	66.67%	63.73%

Remark: ⁽¹⁾ This is put on the Agenda of the 2018 Annual Ordinary General Meeting of Shareholders to be held on April 20, 2018.

7.5 Policy on Dividend Payment of the Subsidiaries

The subsidiaries, which are NECL and BMN, does not have a policy on dividend payment other than that specified in the Articles of Association which specifies that the subsidiaries must appropriate to a reserve fund, at each dividend payment, at least one-twentieth (1/20) of the profits, until the reserve fund reaches one-tenth (1/10) of the capital of the subsidiaries. The board of directors may from time to time pay to the shareholders such interim dividends as it appears to the board of directors that the subsidiaries has sufficient profits to do so. If the subsidiaries sustains a loss, no dividend shall be paid until such loss has been made good.

8. Management Structure

The Company has established and reviewed the Company's management structure by realizing the organizational leadership roles and responsibilities of the Board of Directors in achieving the sustainable value creation for the business. The Company has also assigned the Board of Directors to ensure that all directors and executives discharge their duties with duty of care and duty of loyalty and to ensure that the Company's operations have been carried out in compliance with applicable laws, articles of association and resolutions of the shareholders' meeting. Currently, the Company's management structure comprises the Board of Directors and another four subcommittees, namely, the Audit Committee, the Executive Board, the Nomination and Remuneration Committee, and the Corporate Governance and Risk Management Committee.

The structure of the Board of Directors has been reviewed as to scale, composition, proportion of independent directors, skill, experience, education, capability and character traits, together with gender and age as appropriate and necessary to lead the organization to meet the objectives and goals specified by the Company, consisting of 17 qualified persons, namely, five executive directors, six independent directors and six non-executive directors. This is to ensure that the entire Board of Directors has suitable qualifications, can understand and satisfy the needs of stakeholders, as well as enabling the Board of Directors to carry out operations conducive to exercise of their discretion to make decisions independently.

The lists of names of the Board of Directors, the four subcommittees and executives were described as follows:

8.1 Board of Directors

The Board of Directors comprised 16 directors who were acknowledgeable, competent and experienced in varied fields of business; whose names, as at December 31, 2017, were listed below:

No.	Name-Surname	Position	Category	Attendances/ Number of Board of Directors' Meetings
1	Dr. Virabongsa Ramangkura	Chairman of the Board of Directors	Independent Director	7/7
2	Mr. Plew Trivisvavet	Deputy Chairman of the Board of Directors Chairman of the Executive Board Nomination and Remuneration Committee Member	Executive Director	7/7
3	Mr. Vitoon Tejatussanasoontorn	Chairman of the Audit Committee Nomination and Remuneration Committee Member	Independent Director	7/7
4	Gen. Chetta Thanajaro	Chairman of the Nomination and Remuneration Committee Audit Committee Member	Independent Director	5/7
5	Gen. Sampao Choosri	Chairman of the Corporate Governance and Risk Management Committee Audit Committee Member	Independent Director	7/7
6	Dr. Annop Tanlamai	Audit Committee Member	Independent Director	6/7
7	Mrs. Vallapa Assakul	Corporate Governance and Risk Management Committee Member	Independent Director	7/7
8	Mr. Supong Chayutsahakij	Executive Director Nomination and Remuneration Committee Member	Executive Director	7/7

No.	Name-Surname	Position	Category	Attendances/ Number of Board of Directors' Meetings
9	M.L. Prasobchai Kasemsant	Director	Non-executive Director	2/7
10	Mr. Phongsarit Tantisuvanitchkul	Executive Director Corporate Governance and Risk Management Committee Member	Executive Director	7/7
11	Mr. Werapong Suppasedsak	Director	Non-executive Director	7/7
12	Mr. Panit Dunnvatanachit	Director	Non-executive Director	6/7
13	Mr. Yuttana Yimgarund	Director	Non-executive Director	6/7
14	Mr. Prasit Dachsiri ⁽¹⁾	Director	Non-executive Director	1/1
15	Dr. Sombat Kitjalaksana	Executive Director Corporate Governance and Risk Management Committee Member	Executive Director	6/7
16	Mrs. Payao Marittanaporn	Executive Director Corporate Governance and Risk Management Committee Member	Executive Director	7/7

Remarks: Directors' profiles appear on pages 202 to 207.

⁽¹⁾ Mr. Prasit Dachsiri was appointed as director on November 22, 2017 to replace Mr. Dumkerng Pankam who resigned his office on October 24, 2017.

Authorized Directors

The Company has determined five directors authorized to sign and bind the Company, comprising Mr. Plew Trivisvavet, Mr. Spong Chayutsahakij, Mr. Phongsarit Tantisuvanitchkul, Dr. Sombat Kitjalaksana, and Mrs. Payao Marittanaporn, whereby two of these five directors shall jointly sign and affix the Company's seal.

Independent Directors

The Board of Directors of the Company comprises six independent directors or representing more than one-third of the total number of directors of the Company. The Company specifies the qualifications of its independent directors in compliance with the notifications of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand, as follows:

Qualifications of Independent Directors

1. Holding shares of not exceeding 0.5 percent of the total number of voting shares of the Company, its parent company, subsidiaries, associated companies, major shareholder or controller of the Company, including shares held by any related persons of each independent director;
2. Not being or having been a director having involvement in the management, an employee, a staff member, an advisor receiving a regular salary or a controller of the Company, its parent company, subsidiaries, associated companies, subsidiaries of the same tier, major shareholder or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date, provided that such prohibited characteristics shall not apply to an independent director who was a public servant or an advisor to a government authority which is the Company's major shareholder or controller;
3. Not being a person having relationship by blood or by legal registration in the capacity as parent, spouse, sibling and offspring, including spouse of the offspring of other director, executive, major shareholder, controller or person to be nominated as director, executive or controller of the Company or its subsidiaries;
4. Not having or having had any business relationship with the Company, its parent company, subsidiaries, associated companies, major shareholder or controller of the Company in a manner which may prevent the exercise of his or her independent judgment; and not being or having been a substantial shareholder or controller of any person having a business relationship with the Company, its parent companies, subsidiaries, associated companies, major shareholder or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;

The aforesaid business relationship shall include any transaction in the ordinary course of business for lease of immovable property, any transaction relating to assets or services or grant or receipt of financial assistance through receiving or extending any loan, guarantee, providing assets as collateral, including any other similar action, which causes the Company or contractual party to be subject to indebtedness payable to the other party in the amount of three percent or more of the Company's net tangible assets or in the amount of Baht Twenty Million or more, whichever is lower. Such indebtedness shall be calculated according to the calculation method of connected transaction value under the Notification of the Capital Market Supervisory Board, Re: Rules on Connected Transactions, mutatis mutandis. However, the consideration of such indebtedness shall include the indebtedness incurred during the course of one year prior to commencement of business relationship with the same person;

5. Not being or having been an auditor of the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company; and not being a substantial shareholder, controller, or partner of an audit firm which employs the auditor of the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;
6. Not being or having been a professional service provider, including legal advisor or financial advisor which receives an annual service fee exceeding Baht Two Million from the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company; and not being a substantial shareholder, controller, or partner of such professional service provider, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;
7. Not being a director appointed as representative of the Company's director, major shareholder or shareholder who is a related person of the major shareholder;
8. Not engaging in any business of the same nature as and in material competition with the business of the Company or its subsidiaries; or not being a substantial partner in a partnership or a director having involvement in the management, an employee, a staff member, an advisor receiving a regular salary or holding more than one percent of the total number of voting shares of another company engaging in any business of the same nature as and in material competition with the business of the Company or its subsidiaries;
9. Not having any other characteristics preventing provision of independent opinions on the Company's operations.

8.2 Management Team

8.2.1 List of Names of Management Team

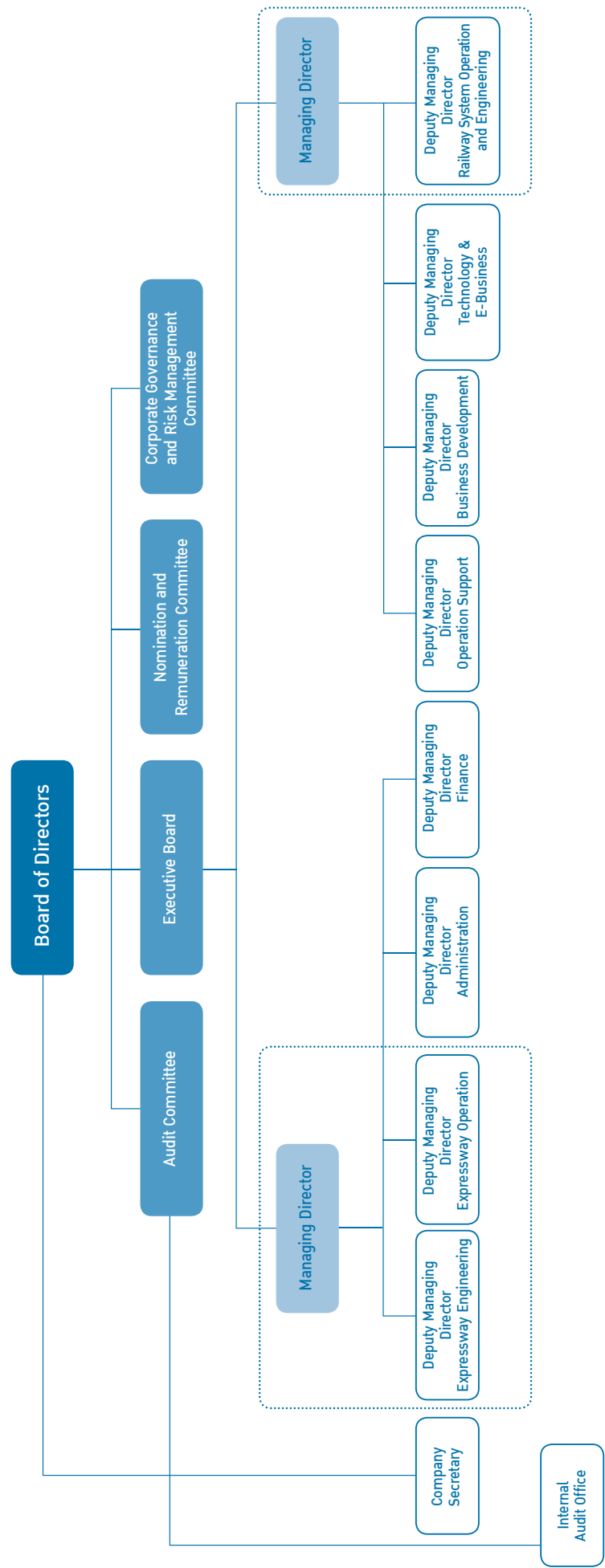
The Management Team under the structure as at December 31, 2017 comprised 9 persons as listed below: (information of executives appears on pages 207 to 208).

No.	Name	Position
1.	Dr. Sombat Kitjalaksana	Managing Director
2.	Mrs. Payao Marittanaporn	Managing Director
3.	Mr. Sanguan Kunatinun	Deputy Managing Director Expressway Engineering
4.	Mrs. Sudruthai Prommart	Deputy Managing Director Expressway Operation
5.	Mr. Phakpoom Thaweewittayarut	Deputy Managing Director Administration
6.	Miss Panan Tosuwanthaworn	Deputy Managing Director Finance
7.	Mr. Witoon Hatairatana	Deputy Managing Director Railway System Operation and Engineering
8.	Mr. Alvin Gee	Deputy Managing Director Operation Support
9.	Dr. Vites Techangam ⁽¹⁾	Deputy Managing Director Technology and E-Business

Remark: ⁽¹⁾ was appointed to hold the office on October 1, 2017.

8.2.2 Management Structure of the Company

Organizational Chart of Bangkok Expressway and Metro Public Company Limited



8.2.3 Structures of the Boards of Directors of Subsidiaries

1) Northern Bangkok Expressway Company Limited

As at December 31, 2017, the Board of Directors of Northern Bangkok Expressway Company Limited comprised six directors as follows:

1.	Mr. Plew Trivisvavet	Chairman of the Board of Directors
2.	Mr. Supong Chayutsahakij	Director
3.	Mr. Phongsarit Tantisuvanitchkul	Director
4.	Dr. Sombat Kitjalaksana	Director
5.	Mr. Prasit Dachhiri ⁽¹⁾	Director
6.	Mrs. Payao Marittanaporn	Director

Remark: ⁽¹⁾ was appointed to hold the office on March 15, 2017 to replace Mr. Wichan Ekarintrakul who resigned his office on March 14, 2017.

Authorized Directors

Northern Bangkok Expressway Company Limited has determined five directors authorized to sign and bind the subsidiary, comprising Mr. Plew Trivisvavet, Mr. Supong Chayutsahakij, Mr. Phongsarit Tantisuvanitchkul, Dr. Sombat Kitjalaksana and Mrs. Payao Marittanaporn, whereby two of these five directors shall jointly sign and affix the subsidiary's seal.

2) Bangkok Metro Networks Limited

As at December 31, 2017, the Board of Directors of Bangkok Metro Networks Limited comprised six directors as follows:

1.	Mr. Phongsarit Tantisuvanitchkul	Chairman of the Board of Directors
2.	Dr. Sombat Kitjalaksana	Director
3.	Mr. Witoon Hatairatana	Director
4.	Mrs. Thipsuda Yimwilai	Director
5.	Miss Panan Tosuwanthaworn	Director
6.	Mr. Nattavut Trivisvavet	Director

Authorized Directors

Bangkok Metro Networks Limited has determined six directors authorized to sign and bind the subsidiary, namely, either Mr. Phongsarit Tantisuvanitchkul or Dr. Sombat Kitjalaksana or Mr. Witoon Hatairatana or Miss Panan Tosuwanthaworn and either Mrs. Thipsuda Yimwilai or Mr. Nattavut Trivisvavet, totaling two persons, shall jointly sign and affix the subsidiary's seal.

8.3 Company Secretary

The Board of Directors has considered appointing the qualified person as Company Secretary. On December 30, 2015, the Board of Directors appointed Mr. Phakpoom Thaweewittayarut, who was knowledgeable and capable in the fields of accounting, law, and audit, as well as fully understanding rules, regulations and criteria applicable to listed companies, to serve as the Company Secretary (details of his profile appear on page 207, No. 19), with the duties and responsibilities as follows:

1. Providing suggestions to directors relating to provisions of laws, relevant rules and regulations.
2. Arranging for orientation and providing information necessary for performance of duties to the current and new directors.
3. Monitoring the Company to ensure its compliance with laws, Articles of Association, relevant regulations and the good corporate governance principles.
4. Convening meetings as stipulated by laws and Articles of Association, preparing and keeping minutes of meetings, as well as coordinating to ensure efficient performance in compliance with resolutions passed by the Board of Directors or the shareholders' meetings.
5. Preparing and keeping the following documents:
 - a) Directors' register;
 - b) Notices, minutes of the Board of Directors' meetings and annual reports of the Company;
 - c) Notices and minutes of the shareholders' meetings.
6. Keeping reports on interest filed by directors or executives.
7. Monitoring to ensure disclosure of information and information memorandum to regulatory units in compliance with relevant laws, rules and regulations.
8. Contacting and communicating with shareholders and relevant regulatory units, whereby shareholders may inquire or request any information as needed by contacting at Tel. 0 2641 4611 or sending questions via email to companysecretary@bemplc.co.th.
9. Promoting provision of various training courses and providing information useful for performance of duties of new directors.
10. Making other arrangements as announced by the Capital Market Supervisory Board.
11. Proceeding with other matters as assigned by the Board of Directors.

8.4 Remuneration of Directors and Executives

The Company has a policy to pay remuneration for directors and executives, by providing reasonable remuneration in accordance with the following Criteria :

Remuneration for Directors and Managing Directors

1. Remuneration shall be appropriate for and in line with the scope of duties and responsibilities of each director, e.g., as Chairman of the Board of Directors, chairman of each subcommittee and member of the Executive Board, the Audit Committee, the Nomination and Remuneration Committee and the Corporate Governance and Risk Management Committee, who shall receive additional remuneration for such position.
2. The level of remuneration of directors and the Managing director shall be sufficient to attract as well as retain knowledgeable and qualified directors to efficiently perform duties for the Company to lead the organization to achieve the long-term and short-term goals.
3. The elements of remuneration are clear, transparent and easy to understand.
4. The remuneration shall be considered by the Nomination and Remuneration Committee to ensure that the remuneration is suitable, competitive and stays at the same level as that in the same sector and is adequate to retain the directors and the Managing Directors who possess the qualifications that are inline with the business goals of the Company.

Remuneration for Executives

Remuneration for executives, excluding the Managing Directors, shall be considered in accordance with the criteria and policy specified by the Executive Board, corresponding to the Company's operational results and each executive's performance evaluation results through the Performance Management System (PMS).

In 2017, the Company paid remuneration for directors and executives as follows:

- (1) Monetary remuneration
 - (1.1) Remuneration for directors of the Company comprised annual remuneration, meeting allowance, and bonus. In 2017, the total remuneration for directors of the Company amounted to Baht 36,529,182, in line with the resolution of its 2017 Annual Ordinary General Meeting of Shareholders which approved the remuneration for directors in the total amount not exceeding Baht 37,250,000, namely, bonus for directors for 2016 in an amount not exceeding Baht 19,250,000 and remuneration for directors for 2017 in an amount not exceeding Baht 18,000,000.

- (1.2) In 2017, the Company paid remuneration comprising salary and bonus for its executives at the levels of Managing Director downwards to Deputy Managing Director, totaling nine persons, in the total amount of Baht 83,304,700.
- (1.3) In 2017, NECL paid remuneration for its directors, comprising annual remuneration, meeting allowance, and bonus, in the total amount of Baht 3,129,368, in line with the resolution of its 2017 annual ordinary general meeting of shareholders which approved the remuneration for directors in an amount not exceeding Baht 4,250,000, namely, bonus for its directors in 2016 in an amount not exceeding Baht 1,400,000 and remuneration for its directors for 2017 in an amount not exceeding Baht 2,850,000.
- (1.4) In 2017, BMN paid remuneration for its directors, comprising annual remuneration and meeting allowance, in the total amount of Baht 726,000, in line with the resolution of its 2017 annual ordinary general meeting of shareholders which approved the remuneration for directors for 2017 in an amount not exceeding Baht 876,000.
- (2) Other remuneration
- (2.1) Other remuneration for directors
- None -
- (2.2) Other remuneration for executives
- The Company establishes a provident fund, which provides long-term benefits upon termination of employment or retirement, whereby executives pay savings at the rate of 5-10 percent of his/her salary according to his/her service years and the Company pays contributions at the same rate to the fund. In 2017, the Company paid contributions to the provident fund for nine executives in the amount of Baht 4,589,340.
- The contribution rate paid by the Company is in accordance with the resolution of the Board of Directors' Meeting, taking into consideration the Company's profitability and the Company's operational results.

8.5 Personnel

8.5.1 Number of Staff

As at December 31, 2017, the Company had a total of 3,233 staff, per the details as follows:

Expressway business: there were a total of 1,034 staff, comprising personnel in two main functions, namely, Operation and Engineering, representing 79.6 percent of all staff, and personnel in supporting functions, namely, Administration, Finance and Corporate Governance, representing 20.4 percent of all staff.

Rail business: there were a total of 2,199 staff, comprising personnel in main functions, namely, Project Management and Development Group, Engineering & Maintenance Group, Train Operation Group, Strategy Group, representing 86.0 percent of all staff, and personnel in supporting functions, namely, Technology & E-Business, Business Development Group, Human Resources Group, General Affairs Group, Safety and Quality Group, Law and Compliance Division, representing 14.0 percent of all staff.

As at December 31, 2017, the Company had its staff in main functions (excluding executives) as follows:

Main Functions	Staff (persons)
1. Main functions	2,705
2. Supporting functions	528
Total	3,233

NECL has no employment of executive and permanent staff, but operates the Udon Ratthaya Expressway by means of a service agreement with BEM.

As at December 31, 2017, BMN had its staff in each work unit (excluding executives) as follows:

Departments	Staff (persons)
Marketing and Business Development Department	49
Accounting, Finance and Administration Department	24
Operation Department	54
Total	127

Significant Change in Number of Staff over the Past Three Years

- None -

Significant Labor Dispute over the Past Three Years

- None -

8.5.2 Personnel Development Policy

The Company is determined to be a leading, fully-integrated transportation service provider in Thailand and ASEAN, with its social mission to provide the transport service with convenience, rapidity and safety by engaging in the business with its commitment to social and environmental responsibility, attainment of value added creation and optimum benefits for all stakeholders with fairness and sustainability.

Currently, the Company continues to undergo changes and business competition, and, to enable the Company to create the “Path to Happiness for Better Travelling Mode”, the Company then realizes the significance of personnel development to ensure that they have preparedness and capability to not only create value for the Company, but also value for the society as a whole.

Personnel is regarded as a key feature in moving the business forward with sustainability, the Company has thus clearly incorporated the practices for staff's compliance into the Company's Codes of Conduct. In this regard, the Company is committed to development of efficiency of its staff to meet quality of work and quality of life of staff by fostering conceptions and values relating to quality policies, comprising personnel development, teamwork, creation of quality, working environment, and accountability of executives and staff, including formulation of clear policies on safety and hygiene along with ensuring environment and hygiene in the workplace with safety to life and property of personnel and the Company.

The Company firmly believes that qualified staff is a key factor in bringing the sustainable growth and success to the organization, it has thus clearly formulated the personnel development policy, as follows:

1. The Company establishes a policy on nomination, development and retention of its personnel by means of provision of remuneration in the form of salary, welfare, and other remuneration which are competitive in the same industry.
2. The Company regards its staff as valuable resources, that is, human resources are one of the major factors to the Company's development and competitiveness as well as achievement of the Company's objectives. The Company realizes the significance of internal personnel development and improvement by way of regular training and performance review, including local and overseas study visits and training, particularly the awareness and training in respect of service safety. The Company's staff must strictly comply with the Company's safety rules and international standards.
3. The Company arranges for the efficient personnel management system based on fairness, equality and opportunity for staff development and exercise of competency at full capacity.
4. The Company gives priority to morale and a sense of pride in work performance of staff by determining remuneration and career advancement based on knowledge, competency and fairness, as well as arranging for the reasonable welfare system, together with development of staff lifestyle in order to retain the Company's valuable human resources.
5. Retention of the Company's competent personnel

The Company ensures that highly capable and competent staff advance in their career paths.

The Company is ready to create the path to happiness, by starting from the “Source of Happiness”, which signifies the Company’s personnel. To ensure that the Company’s personnel can provide the quality service, particularly in respect of safety, the Company has then encouraged the sphere of safety at work with a commitment to fostering and creating awareness of occupational safety and health to its personnel at all levels and then to its business alliances, customers, together with nearby communities. In addition, the Company has integrated the social and environmental responsibility activities in processes related to safety, for that reason, the Company not only gives priority to the safety of the service users, but also to all persons throughout the value chain of the Company.

8.5.3 Benefits

1) Remuneration for Staff

In order to determine the appropriate and competitive remuneration to maintain the good and competent staff to work with the organization, the Company then participates in the survey of wages and remuneration to compare with labor market and other companies in the same sector as well as reviewing the starting salary for new graduates and base salary based on the value of work via the institute conducting wage survey on a regular basis. Therefore, it can be assured that the Company determines the fair and appropriate remuneration to the staff.

The Executive Board considers adjusting wages on a yearly basis by taking into account the Company’s operational results through the Competency KPIs and its payment coverage ratio.

Furthermore, the Company establishes a provident fund for long-term care of staff in order to motivate staff to work with the Company and to encourage staff’s saving habits to secure adequate retirement savings for a quality retirement life. Staff may apply for provident fund membership, whereby staff pay savings at the rate of 5 to 10 percent of his/her salary according to his/her ability to save and the Company pays contributions at the rate of 5 to 10 percent according to such staff’s service years and requirements of the fund. Staff who are fund members shall gain benefits arising from management in proportion to each staff’s savings in the fund. The Company also provides group life insurance benefits for staff so as to secure staff and staff family.

2) Staff Welfare

In addition to welfare required by law, the Company also provides staff with additional and appropriate welfare and encourages the roles of the Staff Welfare Committee, beginning with the arrangement for the legitimate election as required by law in order to jointly provide advice and suggestions to the Company on welfare benefits for its staff as a whole and monitor to ensure that the Company’s welfare benefits are properly provided to its staff, which lead to adjustment and improvement of the Company’s welfare in various aspects as appropriate according to the changing economic and social circumstances.

3) Labor Relations

The Company sets out a policy to take care of its staff via the line management through the human resources unit with the duties to provide advice to, support supervisors and provide them with regular training on personnel management and understanding of the work rules and regulations of the Company. The Company also sets out the investigation procedures with clarity in case of any disciplinary misconduct by staff to ensure fairness and solutions to prevent repeated misconduct, including clear and rapid grievance procedures. Furthermore, the Company yearly organizes the activities to strengthen relationships with and benefit its staff, comprising merit-making and food offering to monks activities on the occasion of New Year Day and merit-making to celebrate the Company’s anniversary, New Year’s Eve activity, Blood Donation to Thai Red Cross Society activity, Songkran Day activity, workout activity, mindfulness meditation activity, health and nutrition activity. In addition to the Company’s internal activities as mentioned above, the Company also encourages and supports budget for off-work activities by allowing staff who are interested in useful activities to form activity

group in the form of various clubs, such as, sports club, photo club and music club. The sports club arranges for activities all year round, i.e., football match, walking-jogging for good health, as well as participation in walking-running for charity in association with the government sector on various occasions; internal sports activity so as to encourage staff to work out and then select the Company's athletes to participate in sports competition with external organizations to gain more experience and strengthen good intercompany relationships. The music club regularly arranges for recreational activities every year to promote staff to show their artistic and performance talents, to perform their shows in various events of the Company, and to spread happiness to the society, particularly to the underprivileged communities.

4) Occupational Safety and Health

The Company gives priority to the occupational safety and health by setting out a policy to require each work unit to set out measures and practices relating to proper use of safety equipment as appropriate for each task, as well as providing budget support in improvement of the efficiency of such equipment to be ready for effective and sufficient use, including review of use of such equipment on a regular basis throughout the year and emergency simulation drill. Moreover, the Company also provides training to its staff on the awareness of safety at work, life, and assets of its customers.

5) Quality of Staff's Life

The Company realizes the significance of life quality of staff, including staff of construction and management of the expressways and the metro projects, together with motorists and the society along the expressway routes, and then sets out a policy on hygienic workplaces and routes:

- By adopting the ISO 14001 Environmental Management System. The Company was certified by SGS (Thailand) Limited in accordance with UKAS Standard of England and NAC Standard of Thailand on November 14, 2008, and through the commitments of the management and contribution of staff in realizing the significance and necessity as members of the world community with duty to preserve the environment, and as such, the Company continues to undergo a recertification audit of ISO 14001 Environmental Management System.
- By adopting the international standard safety management system as a guideline for operations, namely, OHSAS/TIS 18001, as well as engaging Ricardo Rail as safety consultant to provide suggestions on risk management and to devise new safety management techniques for improvement of the Company's work processes to ensure more safety.

6) Anti-Drug in Office Campaign

The Company realizes the country's drug problems which give rise to major impact on the economic and social stability, public order and morality, and then, in association with the Company's Welfare Committee, participated in the White Factory project (Drug Free Workplace Project) of the Department of Labor Protection and Welfare, by participating in activities in collaboration with external agencies, and cooperation for drug test of all the Company's staff. In such arrangements, the Company sets out a policy to confirm its commitment and practice, namely:

1. Giving priority to drug prevention and solution by educating its staff on the damage of drugs and organizing staff health check-up every year or on specific occasion.
2. Supporting and promoting all staff to take a role and participate in campaign for drug prevention and solution, and jointly monitor both inside and outside the Company for drug prevention in the Company.
3. Providing cooperation with the government agencies in respect of various measures for drug prevention and solution campaign.
4. Appointing the Welfare Committee to take responsibility for implementing the White Factory project (Drug Free Workplace Project) to meet the project's objectives in line with the drug prevention and solution policy in business premises.

In this regard, the Company authorized the Company's Welfare Committee to act as the ex officio "White Factory" Project (Drug Free Workplace Project) Committee to ensure the continued implementation, whereby the "White Factory" Project (Drug Free Workplace Project) Committee shall have duties and responsibilities as follows:

1. Providing suggestions and guidelines for drug prevention and solution;
2. Complying with policies and action plans for drug prevention and solution;
3. Promoting and supporting activities for raising the awareness and campaign on anti-drug in the Company;
4. Disseminating knowledge and understanding relating to drugs and drug prevention to its staff;
5. Following up and evaluating the implementation and report to the Company.

The Company as 1 of 150 business premises which were granted a Drug Free Workplace Certificate by the Department of Labor Protection and Welfare due to the Company's "Drug Management System in the Business Premises Ranking No. 1", from the total of 258 nominees, as a role model for other business premises in that the Company could encourage its staff to participate in anti-drug campaign in the business premises until they produced concrete results.

7) Anti-Corruption in All Operating Procedures

The Company designs its operating procedures on the basis of independent check and balance and adopts the SAP system to inspect every step of the operating procedures, including prevention of any potential unusual practices in the procedures.

The SAP system comprises sourcing and procurement, maintenance, inventory, accounting and finance modules, all of which are integrated in one system, to inspect every step of the operating procedures and cross-platform processing, including financial data tracking, which help prevent corruption efficiently.

8.5.4 Personnel Development and Improvement Policies in 2017

1) Creation of Organizational Culture

The Company has aimed to provide the expressway service and train operation service with efficiency and continuous development, it has therefore fostered the conceptions and practices in various aspects, whether it be awareness of safety or awareness of accountability and responsibility, which are communicated via the operating process and with support of supervisors until attaining the organizational culture. This is to rest assured of staff's practices and behavioral expressions in accordance with the Company's goals.

2) Management of Work Competency

Personnel is regarded as invaluable resource which will support the Company to endlessly evolve and have business competitiveness, and as such, the Company has planned to develop competency of staff at all levels by establishing core competency, performance competency and managerial competency of each work position, performance evaluation process and training provision as suitable for staff according to his/her work position, duties and responsibilities, to ensure staff's in-depth and extensive expertise, resulting in the Company's competency in moving its business forward to be a leading, fully-integrated transportation service provider in Thailand and ASEAN.

9. Corporate Governance

9.1 Corporate Governance Policy

The Board of Directors and management put their trust in and realize the significance of the Corporate Governance Code, comprising establishing organizational leadership role and responsibilities of the Board for creating value for the business to attain the sustainable business operations, strengthening effective management and internal control, implementing mechanisms for control and checks and balances intended to ensure the transparent and auditable management, respect for rights and equality of shareholders by encouraging and supporting participation and communication with shareholders, ensuring disclosure and maintaining financial integrity; and ensuring all groups of stakeholders-oriented management, as crucial factors in adding value and bringing the highest returns to the Company's shareholders with the long-term sustainability.

To boost confidence of all shareholders, investors and stakeholders and development resulting in the good corporate governance of the Company and its subsidiaries on a continuous basis, including understanding of the Board of Directors in the Company's business operations, expectations of stakeholders, opportunities and risks affecting the business operations, the Board of Directors shall regularly review the corporate governance policy on a yearly basis. In this connection, the Company has publicized the corporate governance policy on its website at <http://www.bemplc.co.th> to allow all shareholders, investors and stakeholders to acknowledge the practical guidelines and business operations of the Company based on the Corporate Governance Code. Moreover, the Company has informed and communicated to the Company's staff to acknowledge and adhere strictly to such policy.

By virtue of the performance with adherence to and compliance with the aforesaid Corporate Governance Code, the Company then received assessments and awards for the corporate governance in 2017, as follows:

- The Company received an “Excellent” rating in the assessment of the quality of the 2017 Annual Ordinary General Meeting of Shareholders (AGM Checklist 2017), with a score of 97.
- The Company was selected by the Stock Exchange of Thailand to be 1 in 65 of listed companies engaging in sustainable business with the environmental, social and governance (ESG) commitment or known as Thailand Sustainability Investment for SET-listed companies with market capitalization above Baht 100,000 Million.
- The Company was considered by the Stock Exchange of Thailand and Money&Banking Magazine to receive the Best Deal of the Year Award for 2017 in the “SET Award 2017” event resulting from the amalgamation between BECL and BMCL.
- The Company received a “Very Good” rating in the assessment of the corporate governance of Thai listed companies from the Thai Institute of Directors Association (IOD).
- The Company received the Issuer of the Year Award 2016 from the Thai Bond Market Association, in its capacity as private debenture issuer in 2016 with the outstanding fund-raising via bond market to satisfy the requirements of the Company and investors at the right time, including adherence to the good corporate governance principles which built up confidence of debenture holders and shareholders.

In 2017, the Board of Directors supervised and monitored to ensure development of the Company's corporate governance as well as summarizing the corporate governance activities held throughout the year 2017 covering and in compliance with the Corporate Governance Code for Listed Companies 2017, as follows:

9.1.1 Shareholders' Rights and Encouragement of Participation by Shareholders

The Board of Directors acknowledges and emphasizes on the significance of shareholders' fundamental rights as well as encouraging participation by shareholders and communication with shareholders, namely, share purchase, sale and transfer, entitlement to the Company's profit sharing, meeting attendance for exercising their rights to vote in the shareholders' meetings independently and equitably, participation in decision-making in the Company's important matters, appointment or removal of directors, determination of remuneration for directors, appointment of auditors, determination of remuneration for auditors, and rapid receipt of the Company's complete and sufficient information and news via easily accessible channels, whereby the Company encourages its shareholders to fully exercise their rights through the shareholders' meetings and refrains from taking any actions in violation of shareholders' rights or which deprive shareholders of their rights, as follows:

1. Shareholders' Meetings

1.1 Shareholders' participation in shareholders' meetings

The Company realizes and gives priority to shareholders' rights and encourages their participation, whereby the Board of Directors clearly sets out in the corporate governance policy that the Company must support all groups of shareholders, particularly minority shareholders, foreign shareholders, and institutional shareholders, to exercise their rights without limitation to only such rights provided by laws. In this regard, the Company must not take any actions in violation of shareholders' rights or which deprive shareholders of their rights and also promote shareholders' right to decide on significant changes. Furthermore, the Company prepares documents in both Thai and English versions for clear acknowledgment and understanding of all shareholders.

In case it is inconvenient for any shareholder to attend meetings in person, the Company prepares proxy forms for enabling shareholders to decide among themselves how they wish their votes to be cast, and nominates one independent director and/or audit committee member if there is execution of any transaction which may give rise to a conflict of interests, who may be appointed as proxy of shareholders for exercising the right to attend meetings and vote on each agenda item. Three available proxy forms under law are prepared, as follows:

- Proxy Form A is a general simple proxy form (for shareholders in all cases);
- Proxy Form B is a proxy form with specific details;
- Proxy Form C is used only by foreign shareholders who appoint a custodian in Thailand.

The Company makes these three proxy forms available on its website for shareholders to choose and use them as appropriate. Furthermore, the Company prepares duty stamps available for free for shareholders who appoint their proxies to attend meetings.

1.2 Shareholders' access to the Company's information

Notices of meetings which contain detailed explanations of and reasons in support of each agenda item, date, time, place, including details relating to the documents or evidence in support of participation in meetings, are prepared by the Company in both Thai and English versions for the benefit of foreign shareholders. The Company posts notices of meetings on the Company's website 30 days in advance. As for the 2017 Annual Ordinary General Meeting of Shareholders on April 11, 2017, the Company disseminated the notice of the meeting on its website since March 10, 2017 and also sent the notice of the meeting to Thailand Securities Depository Company Limited, as the Company's share registrar, for delivery to shareholders 21 days prior to the meeting, namely, March 20, 2017, so as to allow shareholders to have time to consider the details of each agenda item. Furthermore, the shareholders' meeting has been proceeded in accordance with the order of agenda as specified in the notice of the meeting without adding any agenda to the meeting without prior notice to shareholders in the meeting, so that shareholders have access to information in support of their consideration of each agenda item.

1.3 Facilitation to shareholders' exercise of their rights to attend meetings and vote

The Company facilitates shareholders' exercise of their rights to attend meetings and vote without any special conditions which may restrict shareholders' opportunity to attend meetings. The Company sets shareholders' meeting dates which do not fall on any long holidays or public holidays; and an appropriate meeting time which is not too early in the morning or too late in the evening. Meetings are held at venues which are convenient for commuting, such as, close to a metro station or expressway on-off ramp, and with sufficient parking area, together with meeting venue and travelling map. In 2017, the Company convened two the shareholders' meetings, namely, the 2017 Annual Ordinary General Meeting of Shareholders on April 11, 2017 at 14.00 hrs., and the Extraordinary General Meeting of Shareholders No. 1/2017 on June 12, 2017 at 14.00 hrs. at Plenary Hall 1-2, Queen Sirikit National Convention Center, 60 New Rachadapisek Road, Klongtoey, Bangkok, where shareholders could conveniently travel to by metro and by car.

1.4 Shareholders' opportunity to submit their questions in advance

To establish communication with shareholders and encourage their participation, the Company welcomes shareholders's submission of agenda items, questions or suggestions prior to meeting dates, subjected to rules and procedures detailed prescribed on its website at www.bemplc.co.th. Shareholders may send questions via the Company's website or e-mail address : companysecretary@bemplc.co.th, Telephone : 0 2641 4611, Facsimile: 0 2641 4610, or by post to the Managing Director Office, Bangkok Expressway and Metro Public Company Limited Branch Office (1) No. 238/7 Asoke-Dindaeng Road, Bangkok Subdistrict, Huai Khwang District, Bangkok 10310.

Answers to shareholders' questions may be given via appropriate channels, or further clarification at the ordinary general meetings of shareholders.

As for the 2018 Annual Ordinary General Meeting of Shareholders, the Company had allowed shareholders to submit agenda items or questions in advance via the website from October 1, 2017 to December 31, 2017, and also notified shareholders widely via the website of the Stock Exchange of Thailand.

2) Conduct of Shareholders' Meetings

The Company's reception staff facilitates shareholders' participation in meetings and provides information to shareholders both before, after and during meetings as well as serves refreshments to shareholders. In addition, the Company uses the following facilities and methods to conduct meetings:

2.1 Use of technology in meetings

The Company uses barcodes and computer systems for meeting registration and voting for the purpose of accuracy, convenience and rapidity, and as such, voting results can be displayed online immediately.

2.2 Directors' participation in shareholders' meetings

The Board of Directors gives priority to their participation in shareholders' meetings to answer questions and take suggestions of shareholders into consideration. In 2017, the Company convened two shareholders' meetings, one of which was the 2017 Annual Ordinary General Meeting of Shareholders on April 11, 2017. There were 15 directors from a total of 16 directors attending each meeting (representing 93.75 percent of attending directors), whereby the Chairman of the Board of Directors, Audit Committee Chairman, chairs of various subcommittees, Managing Directors, and the Management Team of the Company attended to answer shareholders' questions on various issues.

2.3 Rules on voting

The Company specifies that shareholders have one vote for each share held by them. Normally, a majority of votes of shareholders who attend the meeting and cast votes is applicable. Agenda items on determination of remuneration for directors must be passed by not less than two-thirds of all votes of the shareholders who attend the meeting. As for other issues, votes are in accordance with the Articles of Association, laws and relevant regulations. Agenda items for acknowledgement require no resolution.

2.4 Vote counting or examination in shareholders' meetings

To ensure transparency, compliance with the laws and the Articles of Association, the Company provides for a legal advisor and at least two independent persons as shareholders' representatives to count or inspect the counting of votes to ensure transparency and compliance with the laws and the Articles of Association. The Chairman of the Board of Directors who presides over shareholders' meetings introduces the examiners of vote counting to the meetings and has them recorded in the minutes of the shareholders' meeting. In casting votes on each agenda item, the Company uses the barcode system to record such votes to ensure that the voting results are expeditiously displayed to the meeting. In respect of voting results of the meetings, favorable, unfavorable, and abstaining votes, including voided voting cards would be also displayed. The Company discloses resolutions, together with voting results on each item to the meetings and disseminates such resolutions via the Stock Exchange's system as well as makes such resolutions and minutes of meetings available on the Company's website for the shareholders' information and examination of voting results.

2.5 Use of voting cards

1. Voting cards are provided for every agenda for those who attend the meetings in person or by proxy and have power to vote on each agenda item. The Company's officers facilitate the collection of voting cards in the meeting room. To ensure transparency, the Company has its legal advisor and the shareholders' representatives serve as examiners and witnesses in the counting of votes.
2. In case shareholders appointing their proxies have clearly voted for, against or abstained from voting on the respective agenda items, the Company collects and records such votes for computer processing in advance. The legal advisor and the shareholders' representatives examine the counting of votes by proxy.
3. To ensure that the conduct of the meeting in each agenda item is efficient and beneficial to shareholders as a whole and that the Board of Directors has sufficient time to clarify or answer shareholders' questions, the Company collects only the voting cards of the shareholders attending the meeting in person and intending to vote against or abstain from voting.
4. For the agenda item on appointment of directors in respect of which shareholders may vote on an individual basis, the Company collects the voting cards from all shareholders attending the meeting to ensure transparency in the counting of votes which can be requested for review at a later date.

2.6 Shareholders' opportunity to share opinions or ask questions

The Chairman of the Board of Directors who presides over shareholders' meetings allows and encourages shareholders to share opinions and ask questions concerning related matters to the meetings, based on the following practices:

1. To further share opinions or ask questions relating to agenda items during the meetings, after the end of report or presentation of each agenda item;
2. To further share opinions or ask questions relating to matters other than the agenda items after the meetings have proceeded in accordance with all agenda items.

In addition, the Company's staff facilitate shareholders' submission of questions to directors or posting of direct questions to directors during the meetings.

3) Preparation of Minutes of Shareholders' Meetings and Disclosure of Meetings' Resolutions

1. The Company discloses resolutions of shareholders' meetings on its website in addition to the disclosure to the Stock Exchange via SET Community Portal (SCP), within the shareholders' meeting day for information and review of voting results.
2. The Company prepares minutes of every shareholders' meeting with accuracy and completeness, comprising the following information:
 - The list of directors attending the meeting;
 - The number of shareholders/shares present at the meeting (in person/by proxy);
 - Brief explanation on material issues, such as, voting procedures and display of voting results, to the meeting prior to conducting the meeting;
 - Names of persons who ask/answer questions or share opinions in brief;
 - Resolutions of the meeting, with details of votes for, against, abstentions, and voided cards.
3. After the end of the shareholders' meeting, minutes of the shareholders' meeting is required to be completed within 14 days, provided that such minutes shall contain sufficient details for the shareholders absent from the meeting to review on the Company's website. Moreover, video presentation of the atmosphere of the shareholders' meeting is made available on the Company's website.

9.1.2 Equitable Treatment of Shareholders

The Board of Directors realizes the significance of supervision and monitoring to ensure the Company's equal and fair treatment of all shareholders, both major shareholders and minority shareholders, including foreign shareholders, and ensure the Company's prevention of usage or receipt of inside information which has not yet been disclosed to the public in a manner which such is done for personal interests or others' interests; which may take advantage of and cause damage to shareholders as a whole, all of which are considered unfair treatment in capital market. As a result, the Board of Directors formulates measures to prevent inside information usage and disclose information, as well as setting out fair criteria and methods for execution of transactions which may give rise to a conflict of interests, as follows:

1) Provision of Information prior to Shareholders' Meetings

The Board of Directors ensures that the Company gives notice of the meeting, together with agenda items and opinions of the Board on each agenda item, to the Stock Exchange in accordance with the rules on disclosure, and such notice is posted on the Company's website on the following business day; ensures that the Company prepares the notice of the meeting, together with details of each agenda item, both in Thai and English, for the convenience of foreign shareholders; and disseminates such notice of the meeting, together with details of each agenda item, on its website 30 days prior to the meeting date. The Board of Directors also ensures that the Company gives prior notice to shareholders on rules and regulations in the conduct of the meeting, voting procedures, including their voting rights.

2) Protection of Minority Shareholders' Rights

To enable shareholders to exercise their rights to propose any matters relating to the Company's significant changes, the Company therefore adopts a policy to fairly and equally allow all shareholders to exercise their rights to propose agenda items to the shareholders' meeting and to nominate qualified persons for appointment as directors via the Company's website. Shareholders may exercise such rights three months prior to the end of the accounting period. In this regard, the Board of Directors considers incorporating agenda items proposed by shareholders as appropriate. As for the persons nominated for appointment as directors, the management proposes such names to the Nomination and Remuneration Committee for further submission to the Board of Directors and the shareholders' meeting.

In addition, shareholders are allowed to exercise their rights to appoint directors on an individual basis in the agenda item of appointment of directors, in respect of which shareholders may vote on an individual basis.

3) Prevention of Inside Information Usage

The Board of Directors has set out written guidelines for protection and prevention of inside information usage, and informed all directors, executives, and staff of such guidelines for compliance. In this regard, directors and executives are required to report their own securities holdings, and those of their respective spouses and minor children who hold securities of the Company; and to report on every change in such securities holdings from purchase, sale, transfer or acceptance of transfer of securities, to the Office of the Securities and Exchange Commission in accordance with Section 59 of the Securities and Exchange Act B.E. 2535 (1992) within three business days from the date of purchase, sale, transfer or acceptance of transfer of securities, and the Company regularly reminds the Board of Directors thereof. Directors and executives are also required to report on their securities trading or holdings to the Board of Directors' Meeting on a quarterly basis. Moreover, directors and executives have also been informed of their duties and responsibilities as specified, including punishments under the laws. In addition, the Company prohibits its executives who have access to inside information from taking any actions contrary to the relevant laws, rules and regulations.

4) Interests of Directors and Executives

4.1 Report on interests of directors and executives

The Board of Directors imposes a duty on its directors and executives to report on their personal interests and disclose their holdings of directorships or executive positions in other legal entities, and their shareholdings in other legal entities in excess of 25 percent of total voting shares and this obligation applies to both reporters and their related persons. This is to ensure that the Board of Directors has information in support of its consideration and approval of execution of transactions of the Company and its subsidiaries with accuracy and transparency in compliance with the relevant rules and regulations.

The Company Secretary keeps such reports on interests of directors and executives, and provides copies of such reports to the Chairman of the Board of Directors and the Audit Committee Chairman within seven business days from the date of receipt thereof.

Report on securities holdings by directors and executives for 2017

Names of Directors/Executives	Amount of Ordinary Shares			
	As at December 31, 2016	Change in 2017	As at December 31, 2017	
			Amount	Percent (%)
<u>Directors</u>				
1. Dr. Virabongsa Ramangkura	-	-	-	-
2. Mr. Plew Trivisvavet	21,706,878	-	21,706,878	0.1420
Spouse	2,402,527	-	2,402,527	0.0157
3. Mr. Vitoon Tejatussanasoontorn	803,893	-	803,893	0.0053
4. Gen. Chetta Thanajaro	2,102,527	-	2,102,527	0.0138
5. Gen. Sampao Choosri	-	-	-	-
6. Dr. Annop Tanlamai	-	-	-	-
7. Mrs. Vallapa Assakul	-	-	-	-
8. Mr. Supong Chayutsahakij	-	-	-	-
9. M.L. Prasobchai Kasemsant	-	-	-	-
10. Mr. Phongsarit Tantisuvanitchkul	-	-	-	-
11. Mr. Werapong Suppasedsak	-	-	-	-
12. Mr. Panit Dunnvatanachit	-	-	-	-
13. Mr. Yuttana Yimgarund	-	-	-	-
14. Mr. Prasit Dachsiri ⁽¹⁾	-	-	-	-
15. Dr. Sombat Kitjalaksana	3,599,141	-	3,599,141	0.0235
16. Mrs. Payao Marittanaporn	-	-	-	-
<u>Executives</u>				
17. Mr. Sanguan Kunatinun	-	-	-	-
18. Mrs. Sudruthai Prommart	-	-	-	-
19. Mr. Phakpoom Thaweewittayarut	-	-	-	-
20. Miss Panan Tosuwanthaworn	-	-	-	-
21. Mr. Witoon Hatairatana	-	-	-	-
22. Mr. Alvin Gee	-	-	-	-
Spouse	144,272	-	144,272	0.00094
23. Dr. Vites Techangam ⁽²⁾	-	-	-	-

Remarks : ⁽¹⁾ Mr. Prasit Dachsiri

was appointed as director on November 22, 2017 to replace Mr. Dumkerng Pankam who resigned his office on October 24, 2017.

⁽²⁾ Dr. Vites Techangam

was appointed as Deputy Managing Director: Technology and E-Business on October 1, 2017.

4.2 Interested directors' participation in shareholders' meetings

The Board of Directors sets out a policy to prohibit its directors and executives who are connected persons or interested persons in relation to any agenda items to be considered from participating in the meeting and voting on such items. The Company Secretary gives prior notice to such directors and executives who are not allowed to participate in the meeting or vote on such item. In considering a connected person and interested person, the Board of Directors takes into account such reports on interests which all directors and executives have a duty to prepare and submit to the Chairman of the Board of Directors and the Audit Committee Chairman in accordance with the Board of Directors' policy requiring directors and executives to report on their personal interests.

5) Related Party Transactions / Connected Transactions

5.1 Policy on related party transactions / connected transactions

In case the Company executes a connected transaction under the definition of the Stock Exchange, the Company must comply with the rules and regulations of the Stock Exchange, as follows:

1. The Company shall comply with the rules and regulations of the Office of the Securities and Exchange Commission and the Stock Exchange, including the requirements on the disclosure of connected transactions as well as acquisition and disposition of significant assets of the Company or its subsidiaries and the accounting standards as prescribed by the Federation of the Accounting Professions. If there are transactions which may give rise to a conflict of interests in the future, such as, hiring a group of persons who may have a conflict of interests to carry out construction, project management, project maintenance, the Audit Committee shall jointly consider the necessity and justification of such transactions, including pricing and terms of the transactions, which must be based on the ordinary course of business. Pricing must also be compared with third party prices or market price. Interested persons will not be allowed to participate in the consideration and approval of the transactions.
2. The Company has no policy to extend or guarantee a loan for a person who may have a conflict of interests under the definition of the SEC Office.
3. Should the Board of Directors and/or the Audit Committee have no expertise in considering any particular related party transaction which may take place, the Company will arrange for an independent expert or the Company's auditor to give any opinion on such related party transaction to support the decision-making of the Board of Directors and/or the Audit Committee or the shareholders, as the case may be.
4. The Company will disclose the related party transactions in the notes to the financial statements that have been reviewed or audited by the Company's auditor.

5.2 Criteria on execution of connected transactions on arm's length basis

The Board of Directors approves in principle the Company's execution of connected transactions on arm's length basis, namely, transactions which involve commercial terms in a manner persons of ordinary prudence may enter into with general parties under the same circumstances, through commercial negotiation without any influence in the capacity as director, executive or related person, as to execution of such transactions between the Company and its subsidiaries with directors, executives or their related persons, as follows:

1. Engagement of any company or legal entity which is connected person for repair, improvement or additional construction of expressways and related equipment should such company or legal entity propose fair price and conditions to the utmost benefit of the Company.
2. Engagement of any company or legal entity which is a connected person for repair or purchase of materials or equipment, inclusive of labor, for maintenance of administration buildings and depots in the future, subject to the commercial conditions and other agreements which are not different from others.

3. Transactions between the Company and its subsidiaries with MRTA, as follows:
 - (1) Support of public relations and advertising activities to facilitate the metro service, in an amount not exceeding Baht One Million per year.
 - (2) Support of government policies to facilitate people's commute by the metro during the specified period from time to time by means of discounts or free rides, provided that MRTA will compensate for revenue during such period in accordance with appropriate and fair criteria.
4. Transactions in the manner of management or advisory service to any legal entity which is a connected person.
5. Leases of office building spaces for the Company and its subsidiaries from CH. Karnchang Public Company Limited.
6. Other transactions which are connected transactions on arm's length basis under the definition of the SEC Office or the Stock Exchange.

5.3 Prevention of a conflict of interests

1. Directors and executives must inform the Company of relationships or connected transactions in any business which may give rise to a conflict of interests;
2. Any connected transaction with directors which may give rise to a conflict of interests with the Company must be avoided. Any connected transaction which is necessary to be executed must be proposed to the Audit Committee to consider providing an opinion prior to proposing the same to seek approval from the Executive Board or the Board of Directors (as the case may be) in accordance with the Corporate Governance Code, and in compliance with the rules of the Stock Exchange and the SEC Office;
3. Executives and staff must strictly comply with the Articles of Association and the code of business ethics of the Company, in order to ensure the Company's reliability and trust for all stakeholders, and all staff's understanding and adherence to the same.

9.1.3 Role of Stakeholders and Responsible Business Operations

The Company has a clear policy which focuses on and realizes rights of every group of all stakeholders, whether inside, such as, staff and executives of the Company and its subsidiaries, or outside, such as, customers, business related persons, lenders, traders, society and communities where the Company is located, nearby schools, government sector, including competitors, and other relevant authorities. Any stakeholder wishing to contact or have any comments may directly contact directors or the Company Secretary. In addition, the Board of Directors has laid down the corporate governance policy that requires the Company to treat stakeholders based on their rights as specified by applicable laws without any actions in violation of stakeholders' right; and compensation measures in case any stakeholder sustains any damage arising from violation of the rights; as well as focuses on its operations with respect to human rights. The Company has continued to take care of stakeholders in accordance with the policies, as follows:

1) Policy on Treatment of Each Group of Stakeholders

- 1.1 **Customers** : The Company has a commitment to provision of quality, standard and reliable services as well as taking into account health, safety and fairness, keeping customers' information confidential, following up and evaluating customers' satisfaction for the purpose of development and improvement of services, together with advertisement, public relations and sales promotion, in response to customers' needs to have access to the mass transit system and routes which save their travelling time in Bangkok and its surrounding provinces. Work plans/programs are also continuously set out for improvement of the expressway and metro services for users to ensure a more rapid and convenient service with standard safety. Rules and regulations of service provision to which the Company has adhered are as follows:

1. Providing quality, safe and standard services to satisfy service users' expectations.
2. Ensuring prompt responses to service users' needs, without discrimination, and allowing and facilitating submission of any comments or suggestions for service improvement.
3. Providing accurate and timely information on services.
4. Organizing special activities to allow the service users to visit the operation and management of the expressways and metro under the Company's concessions, including regular promotion of the service usage by and marketing activities with customers.

1.2 Business counterparts : The Company strictly discharges its obligations under the Agreements with EXAT and MRTA in its capacity as contractual party, and fairly treats its business counterparts on the basis of equitable and impartial treatment, without discrimination. The Company also complies with conditions, rules, regulations, mutual practices, and promotes good relationships, which are clearly written in the Company's code of business ethics, along with the work procedures in accordance with ISO 9001 Quality Management System. This is to ensure its collaboration with EXAT and MRTA to provide the efficient and regular services. In this regard, the Company arranges for monthly performance satisfaction assessment in order to develop and improve the efficiency of the operations. According to the assessment results, both EXAT and MRTA are completely satisfied with the Company's collaboration.

Moreover, the Company organizes quarterly meetings between its operating staff and EXAT's personnel and monthly meetings with MRTA, which not only enhance the efficiency and results in the service users' satisfaction, but also minimizes conflicts or impacts which may give rise to disputes over joint operations between both parties.

1.3 Traders / Contractors : The Company has a commitment to procurement of standard goods and service, for the purpose of development and maintenance of sustainable relationships with traders, with the clear objectives in terms of quality of goods and service worth its value, technical standard and creditability. The Company therefore provides fair and equal procurement procedures for all traders and follows the procedures in a systematic way in compliance with the work procedures regarding procurement and conditions of contracts or agreements with fairness in accordance with the requirements of ISO 9001 Quality Management System, based on the practices, as follows:

1. Determining the criteria for selection of trade counterparts through a strict screening process to ensure fair business operations without violation of human rights.
2. Ensuring equal and fair competition on a database, without discrimination or preventing any trader from participating in business competition.
3. Preparing contracts or agreements in appropriate, fair and standard forms.
4. Arranging for management, monitoring, surveillance, including rechecking systems to ensure the full compliance with contracts or agreements and internal control system to prevent fraud and misconduct in all steps of the procurement procedures.
5. Paying consideration to traders on time in accordance with terms of payment as mutually agreed.
6. Not allowing directors and/or staff to accept any benefit from traders privately or by reason of personal relationship.
7. Evaluating traders on a yearly basis and informing them of the results of evaluation with suggestions for traders to continuously improve the quality of goods and services, and also allowing traders to contact the management to make any complaints if they are unfairly treated.
8. Refraining from seeking any trader's confidential information dishonestly or improperly, such as, bribing directors and staff of its competitors.
9. Refraining from making a serious accusation against traders without reasonable grounds.

1.4 Lenders / Debenture holders : The Company strictly complies with the conditions of credit facilities agreements, suretyship agreements, capital management to build up confidence of the financial institution lenders who provide financial support to the Company's projects, and refrains from breaching any conditions thereof as mutually agreed. The Company complies with and adheres to the following practices:

1. Strictly complying with the conditions of the credit facilities agreements as mutually agreed. Failure to comply with any condition must be informed to the lenders in advance for jointly seeking a solution.
2. Ensuring equitable and fair treatment towards all lenders, based on fair returns for both parties.
3. Reporting correct and reliable financial information to the lenders accurately, completely, timely and regularly.
4. Refraining from giving, soliciting, receiving, agreeing to receive or accepting engagement for any benefits fraudulently in commercial terms.
5. Disclosing information (if any) on giving, soliciting, receiving, agreeing to receive or accepting engagement fraudulently, to the lenders, and jointly resolving such problems with fairness and rapidity.

Debenture holders: The Company issues debentures in accordance with applicable requirements, laws and notifications of the SEC and strictly complies with policies, objectives and resolutions of the shareholders' meetings, and also realizes the significance of its responsibility to fulfill commitments in accordance with the requirements regarding the debenture issuer's rights and duties, including relevant contractual conditions.

1.5 Staff : The Company considers staff as a key resource behind its business movements and as a crucial factor to the Company's sustainable success and growth, and then clearly sets out the staff practices, as suitable for each work position, and has respect for human rights, for instance, determination of remuneration and other benefits with fairness, provision of welfare benefits not less than that provided by law or higher as appropriate, taking into account staff's hygiene and safety at work, provision of training, development of competency and support of career advancement, as well as providing staff opportunity to improve their important and essential skills in connection with working or in any other fields, etc. In this regard, the Board of Directors has authorized the management to follow up, evaluate and review work performance on a yearly basis.

1. Treatment of staff
 - 1) Establishing structures and providing fair and appropriate benefits to staff according to work competency, to which staff performance evaluation system (people assessment) has been applied, focusing on work competency assessment and capability measurement as principle for development of staff's skills and competency to suit work position and ensure the Company's growth, as well as clearly measuring their performance based on KPIs in all key activities for supporting consideration and assessment of staff's performance.
 - 2) Creating a participatory and teamwork environment by allowing staff to express their opinions on work performance.
 - 3) Ensuring that staff take pride in and engage with the organization by encouraging their career advancement.
 - 4) Ensuring equitable treatment, integrity and fairness in punishment, appointment, and transfer, including rewards, on the basis of staff's knowledge, capacities and qualifications.
 - 5) Giving priority to and promoting development of knowledge and capacities of staff at all levels, whereby the Company allows and encourages staff to attend training courses or further study in order to enhance their skills, knowledge and expertise, as well as fostering positive attitudes toward them. Such training would emphasize development of skills, knowledge and competency of staff, whether it be functional skills, core skills or leadership skills.

In 2017, the Company arranged for staff training averaging 45.97 training hours / person.

- 6) Respecting human rights in respect of nondiscrimination, provision of equitable opportunity for employment of female labor, disabled persons, underprivileged persons, youths, and the elderly.
- 7) Supervising and monitoring to ensure that staff strictly comply with laws and regulations relating to staff, including provision of suggestions and close monitoring in order to prevent any illegal action, whereby the Company supervises and encourages staff to ensure that they use lawful products without infringement of copyrights or intellectual property, along with support of their compliance with the operational guidelines and performance of duties with integrity, without involvement with corruption in any form, for the benefits and success of the Company.

2. Policy on safety and hygiene

The Company realizes and gives priority to the safety and hygiene of the business premises to ensure staff's quality performance and quality of life with safety and hygiene at work, by setting out the policy on safety and hygiene, as follows:

- 1) The Company formulates measures to prevent any work-related accident, injury and illness through sincere cooperation among all staff as well as restrict and cope with safety risks arising from undertaking work under the normal operating process.
- 2) The Company formulates measures to design tools and equipment, set out practices, provide for training and supervise operations by taking into account safety for life, hygiene and property of staff and that of the Company as a whole.

The Company not only provides the hygienic work environment at workplace for the sake of safety for life, hygiene together with property of staff and the Company, the Company also takes into account safety and hygiene of the service users, through provision of regular training to technical and engineering teams, including rescue and traffic management staff on the expressways, so as to ensure their efficient and safe performance; and in regard to the metro business, the Company also holds training to all staff on work safety and implements safety operations in accordance with the laws as well as local and international safety standards, i.e., TIS 18001 : 2001 and OHSAS 18001 : 2007, with the main aim of taking care of welfare in terms of safety, occupational health and work environment for staff related to the metro operations.

In 2017, the Company had one work-related accident on the expressways, without causing any loss of staff, and had no work-related accident in metro operations.

1.6 Supply chain : The Company deals with the supply chain in strict compliance with international standards, ISO 9001 Quality Management System, and ISO 14001 Environment Management System, by way of providing education and close monitoring and audits to ensure that the supply chain of traders in business association with the Company takes account of environmental impact, in the interests of the sustainability of their mutual business alliance.

1.7 Communities : The social and environmental impacts of its business operations, particularly impacts on the communities adjacent to the expressways, metro routes, or near the office where the Company is located are of concern to the Company, and therefore, the Company continues to organize special activities for providing benefits and building learning center for business and communities in the long run.

2) Anti-Corruption Policy

The Company realizes and gives priority to anti-corruption and fraud prevention and also adopts measures to prevent corruption, both inside and outside. The Company sets out guidelines and procedures for regular practices, monitoring, surveillance, review, risk assessment and training as suitable and up-to-date, to ensure that all directors, executives and staff of the Company have strictly adhered to and complied with such guidelines. In this regard, the Company formulates anti-corruption policy containing the key practical guidelines, as follows:

1. The Company's directors, executives and staff at all levels should carry out activities with fairness, integrity and transparency in business dealings with various agencies, provided that such activities must be proper in compliance with applicable laws, policies, Articles of Association, regulations, notifications or practical procedures.
2. The Company encourages and promotes fair treatment with integrity towards all its traders and compliance with any contractual commitments made with the Company's stakeholders.
3. The Company encourages and promotes directors', executives' and staff's awareness to ensure that they refrain from committing any fraud and realize negative impacts of corruption.
4. The Company encourages and promotes directors, executives and staff to refrain from receiving, agreeing to receive or offering any hospitality, gifts, and any other payments which are extravagant and inappropriate to those in business dealings with the Company.
5. The Company arranges for staff training to educate them regarding the anti-corruption policy, practices and guidelines.

In this regard, the Company has imposed the duty on the Internal Audit Unit to follow up, conduct surveillance, review, risk assessment and training for preventing/suppressing corruption.

3) Policy and Practices on Non-infringement of Intellectual Property

The Company respects and upholds the proprietary rights in others' intellectual property, whereby use of the intellectual property shall be subject to the prior consent of the intellectual property owner, and then, the Company formulates a policy to forbid any arrangements which infringe intellectual property of any kind, based on the following guidelines:

1. All staff have duty to protect and keep the Company's intellectual property confidential to ensure that such information must not be leaked out and exploited for personal gain or any other person's gain without permission.
2. All staff must respect and honor others' intellectual property and refrain from exploiting any of others' intellectual property, whether in whole or in part, without the owner's permission.

4) Policy on Respect of Laws and Human Rights Principles

The Company makes it mandatory for directors, executives and staff to comply with the laws and human rights principles or human dignity, regardless of race, color, sex, language, religion, social origin, property, birth, political opinion, or other status, as well as realizing their own rights, duties, and responsibilities towards society and others, based on the guidelines, as follows:

1. The Company strictly complies with the laws and human rights principles and does not support any business which violates the human rights.
2. The Company treats all staff equally, without discrimination in terms of employment, remuneration, training, promotion, termination or dismissal due to sex, race, color, religion, age, marital status, pregnancy, political opinion, or disability, etc.
3. The Company allows all staff to enjoy equal rights for work pursuant to rules, regulations, notifications and orders of the Company.

5) Policy on Corporate Social Responsibility and Sustainable Development

The Company is committed to operating its business with social and environmental responsibility as well as mainly focusing on coordination of benefits for all groups of stakeholders in every dimension as appropriate for the Company's sustainable business growth, as follows:

1. To lead the organization with the concept of sustainable development, through communication and exchange of best practices with all of the Company's stakeholders;
2. To incorporate the sustainable development concept into every aspect of the work and decision processes of the Company;
3. To promote training, learning and counseling, focusing on practices according to the sustainable development guidelines;
4. To support regional operation and cooperation to achieve a sustainable development.

It is the responsibility of every employee to seriously implement this policy as part of his or her own work processes for the sustainable growth of the Company and all groups of stakeholders.

Details of activities relating to the corporate social responsibility and sustainable development of the Company in 2017 appear on pages 162 to 176, Corporate Social Responsibility.

6) Environmental Policy

The Company is environmentally responsible for its service business. Therefore, the Company is committed to environmental management based on the following practices:

1. Giving priority to pollution prevention and control in compliance with international standards, taking into account environmental impacts of all groups of stakeholders;
2. Raising staff awareness and promoting the efficient use of energy and natural resources as well as providing staff with environmental knowledge and training;
3. Performing duties in compliance with environment-related laws and other environmental regulations as applicable;
4. Reviewing objectives and goals for improvement of the environment management system on a continuous basis;
5. Communicating the environmental policy to the public and parties concerned, as well as adopting a policy to select and encourage use of eco-friendly products.

It is the responsibility of all the Company's staff and contractors to seriously and regularly implement this policy.

7) Information System Security Policy

The Company becomes aware of and considers information technology security and threats caused by the use of information technology. Currently, technology has been not only progressing rapidly, but also posing a threat, which as days go by, continues to become significant and acute. In 2017, the Company applied ISO/IEC 27001:2013 for implementation and set out regulations governing information system security of the Company, to ensure that the Company has its information security system and information system.

8) Innovation Promotion Policy

This is to ensure the organizational culture which has promoted innovations for enriching the Company according to ongoing volatile surrounding factors, by, for instance, forming a service pattern to meet customers' requirements or conducting study and research for development of operating process or services, etc. The Company, based to the previous operations, did promote or initiate an innovation project, namely, Second Antenna project, as a convenience to the Easy Pass users in the event that a barrier gate is not opened despite their remaining credit adequate for passing through, in that case, the system will have the barrier gate opened without waiting staff to open it. Such system helps expedite the motorists' travelling, save time waiting in a queue and reduce traffic congestion in front of the toll booths, as well as minimizing air pollution.

9) Procedures and Channels of Complaints

9.1 Submission of complaints

The Company has arranged for channels for all groups of stakeholders to make complaints relating to matters which may cause damage to the Company or if they may find any behavior or event which may violate or be contrary to the code of ethics or policies, they may report or submit complaints directly to the Audit Committee Chairman or independent directors or contact the Company Secretary.

Audit Committee Chairman	:	Bangkok Expressway and Metro Public Company Limited
Independent Directors	:	No. 238/7 Asoke-Dindaeng Road, Bangkokpi Subdistrict,
Company Secretary	:	Huai Khwang District, Bangkok 10310
Telephone	:	0 2641 4611
E-mail	:	companysecretary@bemplc.co.th

9.2 Procedures upon receipt of complaints

1. Fact-finding

The independent directors will appoint and authorize a working group to make fact-finding and compile complaints.

2. Fact processing and screening

The authorized working group processes and screens such facts and then considers proposing appropriate steps and actions for handling such complaints.

3. Measures

The authorized working group proposes measures to deal with the violation or non-compliance with the code of ethics or policies to the Board of Directors' consideration so as to alleviate damage for those affected by such occurrence, taking the overall damage into account.

4. Report on results

The Audit Committee Chairman or independent directors or the Company Secretary reports to the Board of Directors for acknowledgment and reports on the results to the stakeholders who submitted such complaints, if the complainants can be identified.

9.3 Measures to protect the complainants or those who provide cooperation in the investigation

The complainants or those who provide cooperation in the investigation are protected in accordance with the following criteria:

1. The complainants or those who provide cooperation in the investigation of facts may choose to keep their identities undisclosed, in case such disclosure may jeopardize their safety or cause any damage.
2. In case their identities are disclosed, the Company will report on developments of the fact finding.
3. The Company may not disclose name-surname, address, photograph, or any other information which may identify the complainants or those who provide cooperation in the investigation of facts.
4. The person who accepts complaints must keep related information confidential and may disclose the same only to the extent necessary by taking into account safety and damage in respect of the complainants or those who provide cooperation in the investigation of facts, sources of information or related persons. If it is likely to cause damage or jeopardize safety, appropriate protection measures must be implemented.
5. Those who sustain damage will be compensated by way of appropriate and fair procedures.

9.1.4 Ensuring Disclosure and Maintaining Financial Integrity

- 1) The Board of Directors sets out a policy to disclose information and maintain financial integrity by formulating practical guidelines, including systems for financial reporting and disclosure of significant information to ensure correctness, adequacy, punctuality, equality on a timely basis, via appropriate channels, protecting confidential information and information which may affect securities price, as well as having the company-wide communication to make all staff have a common understanding that compliance with such policy is required in accordance with applicable requirements, standards and practices, in a transparent and auditable manner. This is to ensure that disclosed information is a matter of importance and is able to reflect practices and operations of the Company contributing to the sustainable value creation to the business.

Moreover, personnel related to preparation of the report and information disclosure are promoted and managed to ensure they have knowledge, skills and experience as suitable for their duties, responsibilities, and in an adequate amount for the Company's needs. Such personnel shall include the highest level executive in accounting and finance, accountant, internal auditor, Company Secretary, and investor relations. The Managing Directors have the power to approve information disclosure and ensure the accurate, complete, timely and transparent disclosure of both financial and non-financial, material information relating to the Company as required by the SEC Office and the Stock Exchange, via the equitably accessible channels.

- 2) The Company has established the Investor Relations Unit to represent the Company, with the duty in appropriately, equitably and timely communicating information useful to shareholders and other stakeholders, such as, debenture holders, investors, securities analysts, mass media, and relevant parties. The Company has also been a member of Thai IR Club, Thai Listed Companies Association. Interested investors may contact the Investor Relations Department at 0 2641 4611. Investors who find it inconvenient to visit the Company's Office No. 238/7 Asoke-Dindaeng Road, Bangkok Subdistrict, Huai Khwang District, Bangkok 10310, may contact to make a conference call or sign up for the news mailing list via the website or submit questions or e-mail to ir@bemplc.co.th.

Other than the mandatory disclosure pursuant to the practices and legal requirements, the Company also has a policy to rotate high level executives to participate in providing information and answers to investors' questions and to learn opinions and realize requirements of Thai and foreign investors in person, that is, the Managing Directors, the Deputy Managing Directors, the Assistant Managing Directors, and the Company Secretary, all of which regularly participate in the Company's Investor Relations activities.

- 3) The Company clearly sets out the authorization levels for information available to executives at each level, and their authorized access to such information for public disclosure, by means of communicating and ensuring proper understanding of information for investors, internal and external agencies of the Company, as well as contacting and coordinating with investors, collecting investors' opinions, and communicating with high level executives to staff at all levels, as follows:

3.1 Internal communications

Although the Board of Directors and high level executives may have full access to all information of the Company, the Managing Directors are appointed as the authorized persons to disclose such information to the Stock Exchange and answer questions from the public and the press, in accordance with the Company's disclosure policy.

The Board of Directors, executives, advisors and staff of the Company, who perceive information, are obliged to keep any undisclosed information strictly confidential. The Company formulates work rules and regulations to prohibit staff from disclosing the Company's confidential information to any third party or abusing their positions for personal gains or for the gains of others. Any violation is deemed a disciplinary misconduct liable to termination of employment. In the past, there has never been any occurrence of misuse of inside information for personal interests or for the gains of others.

Moreover, the Company has also developed a control system on use of the Company's information by adopting such information security systems as the restriction of access to the Company's information by authorization level of staff's access to the Company's information based on their responsibilities. To prevent executives' misuse of the Company's inside information for securities trading, the Company has policies and procedures for controlling the use of inside information by directors, executives and staff to prevent any occurrence of the use of inside information for personal interests or for the interests of others.

The Company's disclosure of information to staff must be the same as the public disclosure in terms of accuracy, frequency and timeframe. The Investor Relations Department prepares and submits to management monthly IR Reports, which collect and summarize investors' questions and opinions on the Company's business operations, in order to present useful suggestions or feedback of investors to management for further improvement of the Company's operations.

3.2 External communications

The Board of Directors adopts a policy that the Company's disclosure of material information follows the specified policy and requirements. The disclosure is prepared both Thai and in English and is made available via the Stock Exchange's channel and on the Company's website at www.bemplc.co.th. The Company regularly updates such information as annual report, annual registration statement (Form 56-1), practical guidelines for good corporate governance, the Company's profile and various policies, loan status, operational results, financial ratios, securities price, dividend history, together with other information, e.g., corporate social responsibility activities and public relations news. Such information and news are made available in support of investment decision-making by investors and relevant parties, together with monthly corporate presentations to investors, which are regularly updated, so as to be regularly and timely available to all investors and those who may interest in investment, on the website. Moreover, opinions and investment analysis of the Company by securities analysts from securities companies from www.settrade.com, which are compiled in the form of Analyst Consensus, are shared on the Company's website in order to assist investors in making their decisions to invest.

In the disclosure of financial reports, the Board of Directors prepares the Report on Responsibilities of the Board of Directors towards the Financial Report to be presented along with the Report of the Auditor, as detailed on page 195.

The provision of the Company's related information to securities analysts is also another main duty of the Investor Relations Department since the Company's information is made available in the Analyst Consensus to assist investors in making their decisions to invest. The Investor Relations staff are then assigned to provide such information to ensure correct understanding and maintain good relationships with securities analysts. Staff may review and clarify for the purpose of accuracy of the Analyst Consensus, as opposed to guiding or distorting the Analyst Consensus by securities analysts, or may revise only such facts which have been outdated or disclosed to the public, in which case, such revision is not treated as guiding investment.

Other than public disclosure, the Company also participates in various activities to serve as a disclosure channel to directly meet with investors and hear their opinions as well as create good relationships with investors via activities, such as, Roadshow, Opportunity Day, Company Visit, Analyst meeting, exhibition booths, etc. The Company's management staff are rotated to accompany the Investor Relations staff to communicate and provide better explanations in support of their decisions to invest.

In 2017, the Company organized Company Visits and Conference Calls, and Press Interviews, as well as participated in local and international Roadshows organized by various institutions for foreign investors, totaling 17 times, as follows:

Local	International
<ul style="list-style-type: none"> - "CLSA ASEAN Forum 2017", organized by CLSA Securities (Thailand) Ltd. - Money Expo 2017, in association with CH. Karnchang Public Company Limited, TTW Public Company Limited and CKP Power Public Company Limited. - Local Roadshow, organized by Maybank Kim Eng Securities (Thailand) Plc. 	<ul style="list-style-type: none"> - Non Deal Roadshow, organized by DBS Vickers (Thailand) Securities Ltd., in Singapore. - "Maybank Invest ASEAN 2017 Singapore", organized by Maybank Kim Eng Securities (Thailand) Plc., in Singapore. - "20th Asian Investment Conference", organized by Credit Suisse Securities (Thailand) Ltd., in Hong Kong.

Local	International
<ul style="list-style-type: none"> - “Asia Plus’s CEO Forum”, organized by Asia Plus Securities. - “Credit Suisse’s Infrastructure Day”, organized by Credit Suisse Securities (Thailand) Ltd. - “dbTISCO Thailand Transportation & Construction Corporate Day”, organized by dbTISCO (Thailand) Ltd. - “Thailand Focus 2017: Establishing the New Engine”, organized by the Stock Exchange of Thailand, Bank of America Merrill Lynch and Phatra Securities Plc. - “CNS Corporate Access”, organized by Capital Nomura Securities Plc. 	<ul style="list-style-type: none"> - “Maybank Invest ASEAN 2017 London”, organized by Maybank Kim Eng Securities Plc., in the United Kingdom. - “SET Thailand Corporate Day in London 2017”, organized by the Stock Exchange of Thailand and Maybank Kim Eng Securities (Thailand) Plc., in the United Kingdom. - “24th CLSA Investors’ Forum”, organized by CLSA Securities (Thailand) Ltd., in Hong Kong. - “Non Deal Roadshow”, organized by DBS Vickers (Thailand) Securities Ltd., in the United States of America. - Non Deal Roadshow, organized by Maybank Kim Eng (Thailand) Securities Plc., in Japan - “dbAccess Thailand SET Corporate Day”, organized by the Stock Exchange of Thailand and dbTISCO (Thailand) Ltd., in Singapore.

The foregoing events were opportunities for the Company to provide appropriate clarification on the operational results and progress of the investment projects and for management to answer questions to investors and the press equally and fairly to provide material, necessary and accurate information for investment decisions to the general public, including investors and institutional analysts.

The Company organizes the Company Visit program to allow shareholders to visit and meet its management. The Company also publishes Si Rat newsletter for disseminating business information, which has been regularly delivered to all shareholders and debenture holders of the Company. In addition, the Company surveyed opinions and requirements of analysts and investors in relation to quality of communication and Investor Relations activities in 2017 (BEM IR SURVEY) for further improvement. The survey revealed that the provision of service in such Investor Relations activities was satisfactory to 92.36 percent of those surveyed.

4) Rules on securities trading by inside information users

Other than the report on securities trading of directors and executives in accordance with the requirements of the SEC Office, other executives, along with staff, who are authorized to have access to or perceive the Company’s undisclosed material information which may influence securities price movements, are also emphasized and prevented from using such information in securities trading for personal interests and interests of others, or taking advantage of general investors, such as, information on capital increase or decrease, dividend payment, the Company’s operational results, joint investments, etc. In this respect, the Company requires its executives to report on their securities trading in accordance with the rules as required by the Stock Exchange, and all persons who perceive inside information should refrain from trading securities or should wait until the public has been informed of and have an adequate time to study such information.

9.1.5 The Board of Directors’ Responsibilities and Strengthening Board Effectiveness

The Board of Directors realizes its roles and responsibilities in setting out policies and monitoring to ensure the Company’s good management, covering its business objectives, goals, strategies, policies, important and adequate resource allocation to achieve the business objectives and goals, as well as monitoring, evaluating and ensuring the reporting on operational results in line with laws, the Articles of Association, together with resolutions of the shareholders’ meetings, to ensure the operations which pursue the sustainable value creation for the business.

The Board of Directors complies with the practical principles of the Corporate Governance Code for Listed Companies in various aspects, as follows:

1. The Board of Directors' Structure

- 1.1 The structure of the Board of Directors is considered by the Company in terms of size, composition, proportion of the independent directors, skill, experience, education, capability and expertise, together with gender and age as suitable and necessary for leading the organization to achieve the Company's specified objectives and goals, consisting of 17 qualified members, namely, five executive directors, six independent directors and six non-executive directors. This is to rest assured that the Board of Directors as a whole is qualified and is able to understand and respond to the stakeholders' needs, as well as enabling the Board of Directors to carry out operations conducive to exercising its discretion independently. In addition, three of six non-executive directors are directors as EXAT's and MRTA's representatives who have experiences in the Company's core businesses.
- 1.2 The Board of Directors includes six independent directors, in line with the number as required by the SEC Office, who are independently provide opinions on the Management Team's performance. The Company also determines qualifications of "independent directors" stricter than the minimum requirements of the SEC Office and the Stock Exchange.
- 1.3 Directors have a term of office of three years, and the retiring directors may be re-elected. At every annual ordinary general meeting of shareholders, one-third of the number of directors vacates their office and if the number of directors is not a multiple of three, then the number nearest to one-third must retire from office.
- 1.4 The Board of Directors has no policy to limit the number of companies in which each director may hold directorship since, after considering the matter; it is of the view that all directors devote their time to regularly attend meetings.

2. Performance of Duty of the Chairman of the Board of Directors and Managing Directors

The Chairman of the Board of Directors and the Managing Directors may not be the same person so as to separate between the policy making and supervisory duty and the regular managerial duty. The Board of Directors clearly determines powers and duties of the Chairman of the Board of Directors and the Managing Directors. The Chairman of the Board of Directors is an independent director by the definition of the Stock Exchange and has no relationship with management.

3. Subcommittees

The Company has established four subcommittees to closely monitor and supervise operations and regularly report to the Board of Directors, namely, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee, and the Executive Board. The Board of Directors has determined duties and responsibilities of each subcommittee as detailed on pages 151 to 154.

4. Role, Duties and Responsibilities of the Board of Directors

- 1) The Board of Directors has its role and duty in supervising to ensure the Company's good management, covering the vision, missions, strategies, targets, business plan, budget of the Company, important and adequate resource allocation, as well as supervising and monitoring to ensure the management's operations in compliance with the specified plans, for the sustainable value creation for the Company's business, conducive to the ethical business operations, with respect for rights and responsibility towards shareholders and stakeholders, provision of social benefits, environmental development or reduction of environmental impacts.
- 2) The Board of Directors has established the corporate governance policy, subject to review at least once a year, for directors, executives and staff of the Company to comply with, and also provides for mechanisms conducive to their real compliance therewith, as well as following up the results.
- 3) The Board of Directors approves preparation of the Company's code of ethics, subject to review at least once a year, prescribing the best practices of directors, executives and staff for treatment towards the Company, colleagues, third parties and society, to allow the Company to create and push ahead the ethical organizational culture.

- 4) The Board of Directors has its duty to ensure that the Company has adequate systems and mechanisms so that the Company's operations comply with applicable laws, Articles of Association, resolutions of the shareholders' meetings, together with policies or guidelines as specified, and also has approval process for significant matters, such as, any investment, transactions which materially affect the Company or any transactions which may involve a conflict of interests, in which case, interested directors may not attend nor vote on such matter at the meeting, etc., as required by law.
- 5) In respect of risk management, the Board of Directors follows up and acknowledges risk management plan of the Company from management's report on operational results in each Board of Directors' Meeting and from the Report of the Corporate Governance and Risk Management Committee.
- 6) The Board of Directors shall supervise and monitor to ensure that the management conveys and transforms a strategic plan into operational plan, including performance assessment, and supervise and monitor the group companies. In this connection, the management is required to report on performance, together with any significant matters, to the Board of Directors for acknowledgment in the Board of Directors' Meeting.

In addition, the Company provides for the annual survey on compliance with the Company's code of ethics for directors, executives and staff, in which they must sign to signify their responsibility for compliance with the Company's code of ethics. Moreover, the Company not only arranges for the annual training and test on the code of ethics by means of e-learning for the Company's executives and staff, the Company also continues to encourage high and middle executives to undergo corporate governance training on a yearly basis.

5. The Board of Directors' Meetings

The Company's Board of Directors' Meetings

Names of Directors	Attendances / Total Number of Meetings for 2017				
	Board of Directors	Executive Board	Audit Committee	Nomination and Remuneration Committee	Corporate Governance and Risk Management Committee
1. Dr. Virabongsa Ramangkura	7/7				
2. Mr. Plew Trivisvavet	7/7	11/11		2/2	
3. Mr. Vitoon Tejatussanasoontorn	7/7		6/6	2/2	
4. Gen. Chetta Thanajaro	5/7		5/6	1/2	
5. Gen. Sampao Choosri	7/7		6/6		3/3
6. Dr. Annop Tanlamai	6/7		6/6		
7. Mrs. Vallapa Assakul	7/7				3/3
8. Mr. Supong Chayutsahakij	7/7	11/11		2/2	
9. M.L. Prasobchai Kasemsant	2/7				
10. Mr. Phongsarit Tantisuvanitchkul	7/7	11/11			3/3
11. Mr. Werapong Suppasedsak	7/7				
12. Mr. Panit Dunnvatanachit	6/7				
13. Mr. Yuttana Yimgarund	6/7				
14. Mr. Theeraphan Tachasirinugune ⁽¹⁾	2/2				
15. Mr. Dumkerng Pankam ⁽²⁾	3/5				
16. Mr. Prasit Dachsiri ⁽³⁾	1/1				
17. Dr. Sombat Kitjalaksana	6/7	10/11			3/3
18. Mrs. Payao Marittanaporn	7/7	10/11			3/3

Remarks: ⁽¹⁾ Mr. Theeraphan Tachasirinugune

⁽²⁾ Mr. Dumkerng Pankam

⁽³⁾ Mr. Prasit Dachsiri

resigned from directorship on April 7, 2017.

resigned from directorship on October 24, 2017.

was appointed as director on November 22, 2017 to replace Mr. Dumkerng Pankam who resigned his office on October 24, 2017.

1) The Board of Directors' Meetings

The Company gives prior notice of the annual schedule of the Board of Directors' meetings, together with the main agenda, to directors so as to allow directors to be able to manage their time to attend the meetings. Pursuant to the Articles of Association, the Board of Directors must meet at least every three months; and a quorum consists of not less than half of the total number of directors. In 2017, the Board of Directors held its seven meetings.

The Managing Director Office will deliver the notice of each meeting and agenda as clearly pre-determined 7 days prior to the meeting date and deliver the supporting documents at least five business days prior to the meeting date, so as to allow the Board to review the same prior to the meeting.

The agenda is determined by mutual discussion between the Chairman of the Board of Directors and the Managing Directors. In addition, one meeting among non-executive directors and without management will be held in order for the directors to independently discuss and exchange their opinions and to efficiently follow up the performance of management. At every meeting, the Chairman of the Board of Directors presides over the meeting to ensure that each item is carefully considered and all directors are allowed to express their opinions and take part in discussions. In addition, the high level executives will attend the meeting to clarify the information in the capacity as persons directly relevant to the problems to the satisfaction of the meeting prior to passing resolution on each item.

Moreover, the Board of Directors sets out a policy to prohibit directors and executives who are connected persons or interested persons in relation to any items to be considered from attending the meeting or voting on such item, and management gives prior notice to such directors and executives who are not allowed to attend the meeting or vote on such item. In considering who is a connected person and interested person, the Board of Directors takes into account the report on interests which all directors and executives have a duty to submit in accordance with the Board of Directors' policy requiring directors and executives to report their personal interests in order to disclose such information to the Chairman of the Board of Directors and the Audit Committee Chairman.

2) Subcommittee meetings

The Board of Directors will monitor the implementation of the Company's policies and strategies by convening subcommittee meetings to consider various significant matters and preparing reports on work performance of every subcommittee for submission to each Board of Directors' meeting, as follows:

2.1 Audit Committee

The Audit Committee regularly meets at least every quarter with the internal auditor and management and executives responsible for accounting and finance, for review of financial statements on a quarterly basis, and meets with the auditor for review of the annual financial statements, and makes a report to the Board of Directors, or in case management executes any connected transaction or transaction relating to asset acquisition or disposal which must take into account appropriateness, justification and the utmost benefit of the Company, the Audit Committee Chairman may convene additional meetings.

In 2017, the Audit Committee held its six meetings and one meeting with the auditor without management. The Audit Committee reports quarterly to the Board of Directors on its performance and will yearly summarize its performance during the previous year via the Audit Committee's report. Moreover, in 2017, the Audit Committee considered executing three connected transactions.

2.2 Nomination and Remuneration Committee

The Nomination and Remuneration Committee will meet to nominate qualified persons for appointment as directors of the Company to replace the directors who are due to retire by rotation and directors who resign prior to the end of term; review remuneration of directors and annual bonus for submission to the annual ordinary general meeting of shareholders for approval; and consider remuneration for the Managing Directors in accordance with the results of performance evaluation for submission to the Board of Directors for approval. In this regard, the Nomination and Remuneration Committee will review the criteria for nomination and consideration of remuneration for directors every year to keep it aligned with the Company's business strategies, and ensure that the criteria for consideration of remuneration stay at the same standard as those of other companies in the same industry so as to appreciate and retain the qualified directors.

The Company schedules the Nomination and Remuneration Committee's meetings to be held at least twice a year.

In 2017, the Nomination and Remuneration Committee held its two meetings to nominate qualified persons for appointment as the Company's directors to replace those directors who vacated office; and consider scrutinizing remuneration for directors for 2016 for proposal to the 2017 Ordinary General Meeting of Shareholders for consideration and approval; and consider reviewing the criteria for nomination and consideration of remuneration for directors.

2.3 Corporate Governance and Risk Management Committee

The Corporate Governance and Risk Management Committee will meet to follow up and evaluate the results of performance in compliance with the Corporate Governance Code; improve the guiding practices in line with the corporate governance policy for listed companies under the guidelines of the Stock Exchange; consider risk management plan, risk management process; as well as monitor, inspect and review the Company's overall risks to stay at an appropriate level.

Furthermore, the Board has reviewed the Company's operations in compliance with the Corporate Governance Code for Listed Companies 2017.

In 2017, the Corporate Governance and Risk Management Committee held its three meetings to monitor and review the good corporate governance practices in respect of shareholders' rights; treatment towards shareholders and stakeholders; information disclosure; and the Board's responsibilities in risk management. The Board of Directors has considered the annual implementation of risk management plan and regularly reviewed risks and follow up risk management plan and found that the Company is able to conduct risk management to meet the targeted plan, without any material impact on the Company's business operations. Furthermore, the 2018 annual risk management plan is sufficient in line with the current business circumstances, together with proper action plan and risk management method.

2.4 Executive Board

The Executive Board of the Company meets to help provide suggestions and advice to the management, and review the operations in compliance with the Company's policies and work plans as well as to consider various matters within the scope of its authority and duties as assigned by the Board of Directors and to consider screening such matters to be proposed to the Board of Directors for consideration and approval.

In 2017, the Executive Board held its 11 meetings to consider scrutinizing the agenda items as proposed to the Board of Directors; consider approving transactions with a value not exceeding Baht 200 Million; and consider salaries and bonus for staff.

6. Board Self-Assessment

The Board of Directors have a policy to ensure the self-assessment of the Board of Directors and subcommittees at least once a year, including assessment of the performance in accordance with the Company's code of business ethics. In addition, the Managing Directors' performance must be assessed by the Board of Directors every year in accordance with the rules as specified by the Nomination and Remuneration Committee. Furthermore, the Board of Directors determines to review topics of assessment to ensure appropriateness and conformity to roles, duties, responsibilities, and its practices in accordance with the Corporate Governance Code.

Results of Board / Subcommittee Self-Assessment

In 2017, the Company delivered board and subcommittee self-assessment forms to each group of directors/subcommittee members to evaluate the overall performance of the Board of Directors and subcommittees, the results of which were proposed to the Board of Directors for consideration and improvement of performance. In this regard, most of opinions provided by directors/subcommittee members can be summarized as follows:

- 1) Structure and Qualifications of the Board of Directors / Subcommittees: The structure and qualifications of the Board of Directors and subcommittees are proper and suitable to the nature of business operations of the Company. The Board of Directors comprises personnel with sufficient knowledge and experiences in a variety of fields and performed their overall duties efficiently. Moreover, the Board of Directors appoints four subcommittees, namely, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee and the Executive Board, with the duties to help supervise and monitor the businesses; nominate qualified persons to be appointed as the Company's directors based on transparency and fairness and without influence of any person, and consider appropriate and competitive remuneration to retain competent directors; establish policies and directions of operations in respect of the good corporate governance of the Company, code of business ethics, including risk management; supervise and provide suggestions to management for the purpose of the Company's business operations pursuant to the good corporate governance.
- 2) Role, Duties and Responsibilities of the Board of Directors / Subcommittees:
 - The Board of Directors gives priority and contributes sufficient time to consider significant matters relating to the direction of the Company's business operations, reviews the good corporate governance policy of the Company, as well as ensures compliance with various policies, reviews the code of business ethics, and monitors to ensure that no conflict of interests arises from any connected transactions and transactions. The Board of Directors also follows the procedures as specified by taking into account the optimum benefit of the Company. Furthermore, the Board of Directors regularly reviews the internal control system to ensure good and sufficient internal control system and appropriate risk management, as well as follow up and monitor to ensure performance of duties of management in accordance with the policies as assigned by the Board of Directors.
 - The Audit Committee has ensured that the financial statements have been prepared in accordance with the generally accepted accounting standards; the internal audit tasks have been supervised and monitored for ensuring the appropriate and effective internal audit system; the execution of transactions which may have a conflict of interest has been considered under the specified procedures and for the utmost benefit to the Company; the Company has complied with the securities and exchange law and other applicable laws; and nomination of persons for appointment, determination of remuneration, and assessment of the auditor's performance are appropriate.
 - The Nomination and Remuneration Committee has ensured that the appropriate criteria for nomination of directors have been determined; the qualified persons have been considered and nominated for appointment as the Company's directors; the appropriate and transparent criteria for consideration of remuneration for directors have been determined; remuneration for directors has been considered under the specified criteria for submission to shareholders; the results of the Managing Directors' performance have been assessed under the specified criteria; and remuneration for the Managing Directors has been considered in line with the results of assessment.

- The Corporate Governance and Risk Management Committee has conducted studies and followed up movement, tendency and practice in respect of the good corporate governance; has improved and made suggestions on the good corporate governance policy of the Company, including the code of business ethics; has followed up and evaluated the results under the good corporate governance principles of the Company; has considered policies and work plans relating to risk management; has monitored and reviewed overall risk management of the Company, strategies for risk management and risk prevention system of all kinds; has reported on risks and actions taken to minimize risks to the Board of Directors.
 - The Executive Board has provided guiding policies, supervised, made suggestions and advice for the Managing Directors and management; has set up business plan, budget and managerial power of the Company as assigned by the Board of Directors; has inspected and followed up the compliance with the Company's policies and plans with efficiency; has conducted feasibility studies on new projects; has approved justifiable juristic acts; has approved the appropriate appointment, and determination of remuneration for executives.
- 3) The Board of Directors' / Subcommittees' Meetings: The results of assessment are satisfactory, namely that directors/subcommittee members are given prior notice of the annual schedule' meetings so as to enable them to manage time to attend every meeting; the number of the meetings and agenda are suitable to support the performance of its duties efficiently and to supervise and monitor the Company's business operations successfully; directors/subcommittee members are also given supporting documents prior to each meeting and sufficient time to read such information in preparation for each meeting; the supporting documents contain sufficient information for their decision making; the Board of Directors/ subcommittees can request any other necessary information in support of their decisions for the benefit to the Company; the atmosphere at each meeting allows all directors/subcommittee members to express constructive opinions without undue influence of any person; and directors/subcommittee members can fully discuss significant issues at each meeting.
- 4) Directors' / Subcommittee Members' Performance of Duties: The results of assessment are satisfactory, namely that directors/subcommittee members are well prepared and sufficiently study information prior to each meeting; have regularly attended the meetings; independently provide their opinions and impartially consider various matters and are independent in making decisions and passing resolutions; provide useful suggestions for the Company's operations, and understand the significance of each matter and properly contribute their time to consider such matters without wasting time on minor issues; and accept different opinions among them without conflict.
- 5) Relationship with Management: The results of assessment are satisfactory, namely that directors/ subcommittee members may straightforwardly discuss with the Managing Directors; maintain a good relationship with management; the Managing Directors can request directors'/subcommittee members' advice as necessary; the Board/subcommittees do not intervene with management's performance of duties; and the Board/subcommittees participate in solving problems as appropriate in case management's performance does not meet the specified plans and budget.
- 6) Self-Development of Directors/Subcommittee Members and Executives: The results of assessment are satisfactory, namely that directors/subcommittee members understand their roles, duties and responsibilities; directors/subcommittee members have sufficient knowledge and understanding relating to the Company's businesses; have paid attention to significant information or news relating to economic and industrial conditions, changes in rules and regulations and the status of competition, which allows them to efficiently perform their duties; all directors/subcommittee members undergo training to ensure their understanding of the performance of duties in their capacity as directors/subcommittee members; and in case of newly-appointed directors/subcommittee members, the Board monitors to ensure management provides documents or briefings for the new directors/subcommittee members to understand the businesses and ensure performance of duties as directors/subcommittee members; and a succession plan has been set out to ensure continued performance of duties as high level management of the Company.

7. Assessment of Performance in Compliance with the Company's Code of Business Ethics

The Board of Directors sets out the Company's code of business ethics as principles and goals of the Company's business operations, and guidelines for performance of all directors, executives and staff. Directors, executives and staff will assess their performance in compliance with the Company's code of business ethics every year. In this regard, the results of assessment can be summarized as a whole that directors and executives have complied with the Company's code of business ethics, as follows:

1. Compliance with the code of business ethics: Understanding and adhering to the guidelines as specified in the Company's code of business ethics.
2. Guidelines for business operations: Strictly complying with the laws applicable to the Company and the trading business under the desirable morality, including the Company's policies.
3. Conflict of interests: Not disclosing any confidential information of the Company to any third party; refraining from any act which will give rise to a conflict of interests between their own interest and the Company's interest; not involving in nor holding any share in any business which may have a conflict of interests with the Company.
4. Insider trading: Not disclosing any insider information which has not yet been disclosed to the public, which may affect the prices or trading of securities of the Company and its related companies.
5. Commitments to shareholders: Making an effort in best to create value added to the organization to ensure its capability to accommodate the business growth and expand its businesses with continuity and create value added to the shareholders in the long run.
6. Treatment towards counterparts and business contractual parties: Keeping counterparty's and contractual parties' information confidential for the purpose of fair and independent business operation; refraining from wrongful business operation between counterparts and contractual parties; refraining from offering any bribe to others or supplying them items in exchange for business benefits.
7. Responsibilities for executives and staff: Setting out guidelines and practices for taking care of working environment to ensure safety for their life and properties at all times.
8. Treatment towards business competitors: Complying with the business policies in a fair manner by the rules and laws relating to trading competition.
9. Commitments to communities, society, environment and government sector: Providing cooperation in making benefits for the communities, society, environment and government sector on an occasional and ready basis.
10. Gambling, drinking alcohol and drugs: Not possessing, purchasing-selling or drinking alcoholic beverages, drugs while being in the workplace or during doing businesses of the Company, except parties or other social gatherings held by the Company; and not playing or supporting all kinds of gambling activities during working times or in the area of the Company.
11. Disclosure of information and confidentiality: Complying with the policy to efficiently manage the Company's information; and disseminating necessary, correct and proper information to the public on an occasional basis; and not disclosing the Company's information which has not yet been disclosed to the public, including any personal information, nor using any information as known from performance of duties for their own interest.
12. The Company's assets: Setting out practices in taking care of the Company's assets to prevent them from loss, damage or misuse.
13. Gifts and parties: Setting out practices regarding giving of gifts and holding of parties by refraining from receiving any item or benefit from counterparts, contractual parties or persons who have connection with the Company's businesses, except during festival or according to custom, in which case, at the reasonable value as shall be considered by recipient;
14. Safety and hygiene: Strictly complying with the laws and regulations relating to safety and hygiene; and earnestly providing cooperation in preventing any accident, injury and illness.
15. Non-compliance with the code of ethics: Realizing and complying with the code of ethics of the Company by not committing any violence which may cause the violator to be held liable for punishments under applicable laws and disciplinary actions.

8. Assessment of Performance of the Managing Directors

All directors of the Company, except the Managing Directors, will constantly assess the performance of the Managing Directors on a yearly basis in accordance with the criteria specified by the Nomination and Remuneration Committee. The Nomination and Remuneration Committee is assigned by the Board of Directors to propose remuneration and other benefits as appropriate for the Managing Directors, taking into consideration the Corporate KPIs used in the annual assessment of performance in order to obtain the Board of Directors' approval.

9. Remuneration of Directors and Executives

- Remuneration for directors : The Company establishes a clear and transparent policy on remuneration for directors and the Managing Directors in line with the scope of duties and responsibilities of each director serving as chairman or subcommittee member, subject to review by the Nomination and Remuneration Committee. The remuneration is at the same level as that in the same industry and sufficiently high to retain the qualified directors.
- Remuneration for Managing Directors : The Nomination and Remuneration Committee considers remuneration for the Managing Directors in accordance with the Company's operational results under the Corporate KPIs and the Managing Directors' performance and propose the same to the Board of Directors for consideration each year.
- Remuneration for executives : Remuneration for executives, excluding the Managing Directors, is in accordance with the principles and policies determined by the Executive Board corresponding to the Company's operational results and performance of each executive.

Remuneration in 2017 is shown in the caption of Remuneration of Directors and Executives on pages 118 to 119.

10. Development of Directors and Executives

1) Directors and Executives Training

The Board of Directors has a policy to support and facilitate training and learning for its directors and executives to ensure their continued improvement and performance, involving both internal and external training courses. All directors must attend training for understanding of performance of their duties in their capacity as directors.

The Company's Board of Directors and high level executives realize the significance of their participation in training or seminars in various courses or development of their knowledge and skills. The Board of Directors attends training courses organized by the Thai Institute of Directors Association (IOD), namely, Director Certification Program (DCP), Director Accreditation Program (DAP), Board Performance Evaluation, The Role of Chairman (RCP), Audit Committee Program, Role of Compensation Committee (RCC).

In 2017, there was one director, namely, Dr. Annop Tanlamai, who underwent training of the Audit Committee's Role in Compliance and Ethical Culture Oversight.

2) Orientation for New Directors

The Board of Directors determines the operational practices for the Company to arrange for orientation for newly-appointed directors and to provide documents or briefings for the new directors to understand the business and performance of duties as directors. The Board of Directors assigns the Managing Directors, the Company Secretary and the Managing Director Office to arrange for orientation for newly-appointed directors by convening a meeting with the relevant directors and/or executives and/or officers for clarification and answering questions. In 2017, there one new director, whereby the Company has complied with such operational practices, by briefing the new director about the Company's information as well as preparing documents and summary information for the new director, such as, information relating to the Company, listed company director's handbook, the Corporate Governance Code, the Company's code of ethics, power and duties of the Board of Directors, and the annual schedule of the Board of Directors' meetings. Furthermore, the Company also has its directors attend a training course, as suggested by the SEC Office, conducted by the Thai Institute of Directors Association (IOD).

11. Succession Plan

The Board of Directors prepares and reports on succession plan for the positions of Managing Directors and the high level executives and in the primary line, taking into account the performance, potentials and readiness of each person. In this regard, the Company makes preparations for those potential successors in the development of their knowledge, competency and skills as required for their work positions for succession in the event that the Managing Directors or executives in the key positions are not able to perform duties.

The Company sets out a succession plan for the high level executives of the Company, particularly executives and work positions in the primary line, by emphasizing nomination from internal personnel, and the Company requires promotion to be considered every year under the specified criteria for development of personnel who have good performance and competency for their advancement to a higher position in accordance with the staff's line of command, both the middle level executives and staff. The consideration committee, comprising the Managing Directors and executives at the General Manager level or higher or the middle level executives, shall consider this matter in accordance with the clearly specified criteria. With regard to the implementation of strategy and succession plan of the high level executives, who may be changed or vacate office by rotation or retirement, the Nomination and Remuneration Committee's meeting shall review the criteria and select knowledgeable, competent and qualified persons, whereby the Board of Directors shall consider appointing candidates to hold the office of Managing Director, and the Executive Board shall consider appointing executives at the General Manager level or higher.

An executive who has been assigned to succeed to an office must not only be suitably qualified and experienced in such field, but must also have accepted transfer of knowledge and experience by rotation to other related work units, and have attended additional necessary training courses to be well prepared for performance of duties in a higher position in the future, and to ensure smooth succession and continued management. The Company sets up the human resource management system through adequate allocation, controlling, following up, performance assessment, that is, nomination process for qualified and knowledgeable persons as required, appropriate and fair remuneration, determination of duties and responsibilities, performance of personnel, performance standard, personnel development and efficient communication, to ensure that staff have knowledge and skills; and the Company's human resource management is efficient and suitable, emphasizing development of staff competency and ensuring clarity of the performance assessment in support of consideration of remuneration appropriate for their capabilities and performance.

9.2 Board Structure

The Board structure comprises the Board of Directors and four subcommittees, namely, the Audit Committee, the Corporate Governance and Risk Management Committee, the Nomination and Remuneration Committee, and the Executive Board.

Details of such four subcommittees, their powers and duties as well as the nomination procedures in accordance with their respective charters, are as follows:

9.2.1 Board of Directors as at December 31, 2017, comprising

1.	Dr. Virabongsa Ramangkura	Chairman of the Board of Directors	(Independent Director)
2.	Mr. Plew Trivisvavet	Vice Chairman of the Board of Directors	
3.	Mr. Vitoon Tejatussanasoontorn	Director	(Independent Director)
4.	Gen. Chetta Thanajaro	Director	(Independent Director)
5.	Gen. Sampao Choosri	Director	(Independent Director)
6.	Dr. Annop Tanlamai	Director	(Independent Director)
7.	Mrs. Vallapa Assakul	Director	(Independent Director)
8.	Mr. Supong Chayutsahakij	Director	
9.	M.L. Prasobchai Kasemsant	Director	

10. Mr. Phongsarit Tantisuvanitchkul	Director
11. Mr. Werapong Suppasedsak	Director
12. Mr. Panit Dunnvatanachit	Director
13. Mr. Yuttana Yimgarund	Director
14. Mr. Prasit Dachhiri	Director
15. Dr. Sombat Kitjalaksana	Director
16. Mrs. Payao Marittanaporn	Director

The Board of Directors' Authority and Duties

1. Monitoring and supervising the Company's operations to ensure compliance with laws, objectives and the Articles of Association, as well as resolutions of shareholders' meetings, and protecting the Company's interests based on the Corporate Governance Code, as well as complying with the rules and requirements stipulated by the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission.
2. Determining policies and operational directions of the Company as well as supervising, to ensure that management takes actions in compliance with the policies with efficiency and effectiveness to contribute to the economic value maximization for the business and the wealth maximization for shareholders.
3. Convening the annual ordinary general meeting of shareholders by no later than four months from the Company's year-end account closing date and convening extraordinary general meetings of shareholders as required.
4. Convening the Board of Directors' meetings on a quarterly basis; each meeting requires at least 50 percent of all directors. Decisions of each meeting are made by a majority of votes. In the case of an equality of votes, the chairman of the meeting has an additional casting vote.
5. Considering approval for budget for investment and the Company's annual business operations, including monitoring use of the Company's resources.
6. Providing complete, correct and sufficient reports on financial information, the Company's information and general information which are important for shareholders, and verifying information in the reports.
7. Introducing to the Company an internal control system, internal audit and efficient measures to manage risks, as well as following up on such matters on a regular basis.
8. Establishing subcommittees to ensure the good corporate governance.
9. Considering clearly determining and separating roles, duties and responsibilities among the Board of Directors, subcommittees and management, with regular communication regarding such roles, duties and responsibilities to the Board of Directors, subcommittees, management and staff of the Company.
10. Supervising the Executive Board to comply with the specified policies, whereby the Executive Board is authorized to approve any transaction binding upon the Company in an amount not exceeding Baht 200 Million per transaction, excluding those transactions giving rise to conflict or interest, including such transactions requiring approval from shareholders as per the regulations of the SEC Office and the Stock Exchange.
11. Appointing any persons to engage in the Company's business under the supervision of the Board of Directors, or, if applicable, authorizing such persons to have power for a period of time as the Board of Directors deems appropriate, provided that the Board of Directors may revoke, repeal, amend or change such authorization as appropriate.
12. Appointing the Company's authorized signatory directors.

The Chairman of the Board of Directors' Authority and Duties

1. Considering and setting out the business goals in conjunction with management.
2. Monitoring the administration by management.
3. Providing suggestions for the business operations through the Executive Board and the Managing Directors on a regular basis without interfering in the routine works under the responsibility of management. The Chairman of the Board of Directors also plays an important role in making decisions on the Company's policies.
4. Having a duty to preside over both the Board of Directors' meetings and the shareholders' meetings to ensure the efficiency and effectiveness in such meetings, by encouraging all directors to participate in each meeting and independently provide opinions.
5. Ensuring their strict compliance with the Corporate Governance Code and taking into account the shareholders' rights.

9.2.2 Audit Committee

The Board of Directors appoints the Audit Committee to assist in supervising the Company's businesses. Mr. Vitoon Tejatussanasoontorn, an independent director who has knowledge in the field of accounting and finance, was appointed to hold office as Audit Committee Chairman, and the General Manager of the Internal Audit Office serves as secretary to the Audit Committee. As at December 31, 2017, the Audit Committee comprises four independent directors as listed below:

- | | | | |
|----|---|--------------------------|------------------------|
| 1. | Mr. Vitoon Tejatussanasoontorn ⁽¹⁾ | Audit Committee Chairman | (Independent Director) |
| 2. | Gen. Chetta Thanajaro | Audit Committee Member | (Independent Director) |
| 3. | Gen. Sampao Choosri | Audit Committee Member | (Independent Director) |
| 4. | Dr. Annop Tanlamai | Audit Committee Member | (Independent Director) |

Remark: ⁽¹⁾ Mr. Vitoon Tejatussanasoontorn served as audit committee member with knowledge in the field of accounting and finance.

The Audit Committee's Authority and Duties

1. Reviewing to ensure that the Company's financial reports are accurate and adequate.
2. Reviewing to ensure that the Company's internal control system and internal audit system are suitable and effective, considering the independence of the internal audit unit as well as granting approval on consideration for appointment, transfer, termination of employment of head of the internal audit unit or any other unit responsible for the internal audit.
3. Reviewing to ensure the Company's performance in compliance with the securities and exchange law, requirements of the Stock Exchange and the laws relating to the Company's business.
4. Considering, selecting, submitting for appointment of a person who is independent to serve as the Company's auditor, and proposing remuneration and termination of employment of such person as well as meeting with the auditor without management at least once a year.
5. Considering connected transactions or transactions which may involve a conflict of interests in compliance with the laws and requirements of the Stock Exchange in order to ensure that such transactions are justified and of the utmost benefit to the Company.
6. Preparing report of the Audit Committee to be disclosed in the Company's Annual Report. Such report must be signed by the Audit Committee Chairman and comprise at least the following information:
 - (a) Opinions on correctness, completeness, and reliability of the Company's financial reports;
 - (b) Opinions on adequacy of the Company's internal control system;
 - (c) Opinions on compliance with the securities and exchange law, requirements of the Stock Exchange or laws relating to the Company's business;
 - (d) Opinions on appropriateness of the auditor;
 - (e) Opinions on transactions which may involve a conflict of interests;
 - (f) Number of meetings of the Audit Committee and attendance of each Audit Committee member;
 - (g) Overall opinions or observations by the Audit Committee from the performance of duties in accordance with the Charter;
 - (h) Other matters that should be informed to shareholders and general investors within the scope of the duties and responsibilities assigned by the Board of Directors.
7. Supervising and monitoring the internal audit tasks by reviewing missions, scope of works, independence and development plan and providing internal audit personnel training to catch up with the business changes and develop themselves on a continual basis, in order to accommodate the direction of the Company's operations and international standards, including consideration and approval of annual internal audit plans.
8. Performing any other activities as assigned by the Board of Directors to independently provide opinions and suggestions in line with the requirements and the best practice guidelines for audit committee of the Stock Exchange.

9. In performing its duties, should the Audit Committee find or should there be any doubt as to whether or not the following transactions or actions may have a material impact on the Company's financial position and operational results, the Audit Committee will report on its findings to the Board of Directors in order to improve and rectify the same within the time as the Audit Committee deems appropriate:
 - (a) Any transactions giving rise to a conflict of interests;
 - (b) Corruption or unusual occurrence or material fault in the internal audit system;
 - (c) Violation of the securities and exchange law, requirements of the Stock Exchange or laws related to the Company's business.

9.2.3 Nomination and Remuneration Committee

The Board of Directors appoints the Nomination and Remuneration Committee to perform the duty to nominate and consider remuneration for directors and the Managing Directors to ensure transparency and fairness, and General Chetta Thanajaro, an independent director, was appointed as Chairman of the Nomination and Remuneration Committee in accordance with the Corporate Governance Code which states that the chairman of each subcommittee should be an independent director. As at December 31, 2017, the Nomination and Remuneration Committee comprises four members as follows:

- | | |
|-----------------------------------|--|
| 1. General Chetta Thanajaro | Nomination and Remuneration Committee Chairman
(Independent Director) |
| 2. Mr. Vitoon Tejatussanasoontorn | Nomination and Remuneration Committee Member
(Independent Director) |
| 3. Mr. Plew Trivisvavet | Nomination and Remuneration Committee Member |
| 4. Mr. Supong Chayutsahakij | Nomination and Remuneration Committee Member |

The Nomination and Remuneration Committee's Authority and Duties

1. Considering criteria and procedures of nomination as well as selecting and proposing qualified persons to hold the position of the Company's directors to the Board of Directors so as to nominate them to the shareholders' meeting, or proposing the nomination to the Board of Directors for consideration and appointment.
2. Considering selecting and proposing qualified persons to hold the positions of the Managing Directors to the Board of Directors for consideration and appointment.
3. Considering and determining criteria for consideration of remuneration of directors and the Managing Directors.
4. Considering and determining remuneration of directors and proposing the same to the shareholders' meeting for consideration and approval.
5. Considering and reviewing salary rates and other remuneration for the Managing Directors and proposing the same to the Board of Directors for consideration and approval.
6. Proceeding with other matters as assigned by the Board of Directors.

9.2.4 Corporate Governance and Risk Management Committee

The Board of Directors appoints the Corporate Governance and Risk Management Committee to perform the duty to formulate policies and directions of operations in respect of the good corporate governance of the Company, including business ethics, and to ensure performance of duties with transparency and independence in compliance with the guidelines of the good corporate governance, consider risk management plan, risk management process, as well as monitor, inspect and review the Company's overall risks to stay at an appropriate level. To this effect, General Sampao Choosri, as independent director, was appointed as Chairman of the Corporate Governance and Risk Management Committee. As at December 31, 2017, the Corporate Governance and Risk Management Committee comprises five members as follows:

- | | |
|-------------------------------------|---|
| 1. General Sampao Choosri | Corporate Governance and Risk Management Committee Chairman
(Independent Director) |
| 2. Mrs. Vallapa Assakul | Corporate Governance and Risk Management Committee Member
(Independent Director) |
| 3. Mr. Phongsarit Tantisuvanitchkul | Corporate Governance and Risk Management Committee Member |
| 4. Dr. Sombat Kitjalaksana | Corporate Governance and Risk Management Committee Member |
| 5. Mrs. Payao Marittanaporn | Corporate Governance and Risk Management Committee Member |

The Corporate Governance and Risk Management Committee's Authority and Duties

1. Studying and following up movement, tendency and performance in respect of the good corporate governance for submission to the Board of Directors for consideration as to appropriateness for adoption as guidelines for the Company's operations.
2. Improving and proposing the good corporate governance policy of the Company, including business ethics, to the Board of Directors.
3. Following up and evaluating the results under the good corporate governance principles of the Company as well as reporting the same to the Board of Directors.
4. Considering policies and work plans relating to risk management for submission to the Board of Directors for consideration.
5. Monitoring and reviewing overall risk management of the Company, strategies for risk management and alert system of all kinds of risks in order to deal with risks to stay at an acceptable level to ensure compliance with the risk management policy of the Company.
6. Reporting on risks and operations for minimizing risks to the Board of Directors.
7. Proceeding with other matters as assigned by the Board of Directors.

9.2.5 Executive Board

The Board of Directors appoints the Executive Board to assist in providing advice and suggestions to management and make other arrangements as assigned by the Board of Directors. As at December 31, 2017, the Executive Board comprises five directors as listed below:

- | | |
|-------------------------------------|---------------------------------|
| 1. Mr. Plew Trivisvavet | Chairman of the Executive Board |
| 2. Mr. Supong Chayutsahakij | Executive Director |
| 3. Mr. Phongsarit Tantisuvanitchkul | Executive Director |
| 4. Dr. Sombat Kitjalaksana | Executive Director |
| 5. Mrs. Payao Marittanaporn | Executive Director |

The Executive Board's Authority and Duties

1. Delivering guidelines for policy, supervising, providing suggestions and advice for the Managing Directors and management.
2. Setting up business plan, budget and managerial authority of the Company as assigned by the Board of Directors.
3. Inspecting, following up to ensure compliance with the Company's policies and plans with efficiency.
4. Conducting feasibility studies on investment in new projects for business expansion and prospects.
5. Having power to approve any juristic act binding upon the Company in an amount not exceeding Baht 200 Million per transaction, excluding those transactions giving rise to a conflict or interests with the Company or its subsidiaries under the notifications of the Securities and Exchange Commission, including such transactions requiring approval from shareholders under the regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand.
6. Having power to approve, appoint, remove, and determine salary and other remunerations, including expenses and facilities of the Company's officers or staff in the position of General Manager or higher, but not including the Managing Directors.
7. The Executive Board or the Chairman of the Executive Board has the power to convene the Executive Board's meetings and/or determine rules and regulations of the meetings as it deems appropriate.
8. Reporting on the Company's operational results to the Board of Directors.
9. Proceeding with other matters as assigned by the Board of Directors.

The Managing Directors' Authority and Duties

The Board of Directors determines the Managing Directors' authority and duties as follows:

1. Controlling and managing main business of the Company.
2. Monitoring all activities of the Company to ensure compliance with resolutions and policies as assigned and suggested by the Board of Directors.
3. Conducting feasibility studies on new projects and having power to consider approving various projects as authorized by the Executive Board.

4. Having power to approve, appoint, remove, and determine salary and other remunerations, including expenses and facilities of the Company's officers or staff in the position of General Manager or lower (but not including Deputy Managing Director, Assistant Managing Director, and General Manager).
5. Having power to approve any juristic act binding upon the Company in an amount not exceeding Baht 5,000,000 (Five Million Baht Only) per transaction.
6. Having power to sign and affix the Company's seal on cheques and withdraw money from all accounts of the Company and utilize credit facilities available to the Company by all banks or financial institutions in the amount not exceeding Baht 5,000,000 (Five Million Baht Only) or equivalent per transaction, but not exceeding Baht 40,000,000 (Forty Million Baht Only) or equivalent per month.
7. Authorizing the Company's staff in the executive positions, namely, Deputy Managing Director, Assistant Managing Director, General Manager or equivalent to perform duties on behalf of the Managing Directors in certain matters (such as purchase order, procurement, payment order) as appropriate.
8. Appointing any Deputy Managing Directors or any other persons acting in place of the Managing Directors from time to time in the event that the Managing Directors are unable to perform their duties, whereby such acting persons shall have the same authority as the Managing Directors.
9. Having power to appoint any persons or groups of persons to engage in the Company's business under the supervision of the Managing Directors, or, if applicable, authorizing such persons to make arrangements as the Managing Directors deem appropriate and having power to change, amend, revoke and repeal such authorization.
10. Proceeding with other matters as assigned by the Board of Directors or the Executive Board from time to time.

In this regard, the Board of Directors regularly evaluates performance of duties of the Managing Directors for comparison with the target as determined on a yearly basis, and the Nomination and Remuneration Committee considers remuneration of the Managing Directors by assessing their performance in the previous year and proposing the same to the Board of Directors for approval under the criteria.

9.3 Nomination of Directors and Top Executives

(1) Nomination of Independent Directors

The Company requires that the Board of Directors comprises independent directors of at least one-third of all directors, but no fewer than three persons, whereby such independent directors can provide their opinions independently and perform the duty to safeguard benefits of the Company and shareholders at their best.

The Nomination and Remuneration Committee nominates directors who are qualified in terms of useful skills and experience for the Company and meet the qualifications of independent directors by the definition of the Company's independent directors, as follows:

1. Holding shares of not exceeding 0.5 percent of the total number of voting shares of the Company, its parent company, subsidiaries, associated companies, major shareholder or controller of the Company, including shares held by any related persons of each independent director;
2. Not being or having been a director having involvement in the management, an employee, a staff member, an advisor receiving a regular salary or a controller of the Company, its parent company, subsidiaries, associated companies, subsidiaries of the same tier, major shareholder or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date, provided that such prohibited characteristics shall not apply to an independent director who was a public servant or an advisor to a government authority which is the Company's major shareholder or controller;
3. Not being a person having relationship by blood or by legal registration in the capacity as parent, spouse, sibling and offspring, including spouse of the offspring of other director, executive, major shareholder, controller or person to be nominated as director, executive or controller of the Company or its subsidiaries;
4. Not having or having had any business relationship with the Company, its parent company, subsidiaries, associated companies, major shareholder or controller of the Company in a manner which may prevent the exercise of his or her independent judgment; and not being or having been a substantial shareholder or controller of any person having a business relationship with the Company, its parent company, subsidiaries, associated companies, major shareholder or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;

The aforesaid business relationship shall include any transaction in the ordinary course of business for lease of immovable property, any transaction relating to assets or services or grant or receipt of financial assistance through receiving or extending any loan, guarantee, providing assets as collateral, including any other similar action, which causes the Company or contractual party to be subject to indebtedness payable to the other party in the amount of three percent or more of the Company's net tangible assets or in the amount of Baht Twenty Million or more, whichever is lower. Such indebtedness shall be calculated according to the calculation method of connected transaction value under the Notification of the Capital Market Supervisory Board, Re: Rules on Connected Transactions, mutatis mutandis. However, the consideration of such indebtedness shall include the indebtedness incurred during the course of one year prior to commencement of business relationship with the same person;

5. Not being or having been an auditor of the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company; and not being a substantial shareholder, controller, or partner of an audit firm which employs the auditor of the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;
6. Not being or having been a professional service provider, including legal advisor or financial advisor which receives an annual service fee exceeding Baht Two Million from the Company, its parent company, subsidiaries, associated companies, major shareholder, or controller of the Company; and not being a substantial shareholder, controller, or partner of such professional service provider, unless such independent director has no longer been in such capacity for not less than two years prior to the appointment date;
7. Not being a director appointed as representative of the Company's director, major shareholder or shareholder who is a related person of the major shareholder;
8. Not engaging in any business of the same nature as and in material competition with the business of the Company or its subsidiaries; or not being a substantial partner in a partnership or a director having involvement in the management, an employee, a staff member, an advisor receiving a regular salary or holding more than one percent of the total number of voting shares of another company engaging in any business of the same nature as and in material competition with the business of the Company or its subsidiaries;
9. Not having any other characteristics preventing provision of independent opinions on the Company's operations.

(2) Nomination of Directors and Top Executives

(2.1) Nomination of Directors

(2.1.1) Criteria

The Nomination and Remuneration Committee considers nominating persons to be appointed as directors to replace those directors who vacate office, both resignations prior to the end of term and retirement by rotation, in accordance with the following criteria:

1. Having qualifications in compliance with the Public Limited Companies Act, the Securities and Exchange Act, rules of the SEC Office and rules of the Stock Exchange.
2. Having knowledge, ability and experience in a variety of fields which will be beneficial and add value to the Company.
3. Having characteristics supporting and promoting the corporate governance to create value to the Company, such as, independence, willingness to share opinions, initiative, and performance of duties with responsibility, due care, integrity and full-time contribution, etc.
4. In case of a director who retires by rotation, the Nomination and Remuneration Committee considers from his past records whether he performed duties as director with due care, integrity and full-time contribution.
5. In the nomination of directors, there should be consideration of the required qualifications taking into account necessary skills for the Board and qualifications in line with the Company's business strategies.
6. In case such vacancy is a director representing the Expressway Authority of Thailand or the Mass Rapid Transit Authority of Thailand under the conditions of the relevant Concession Agreements, the replacement director must be nominated by the said authority to fill the vacancy.

The Nomination and Remuneration Committee shall nominate such qualified persons to the Board of Directors for consideration for submission to the shareholders' meeting for appointment as directors.

(2.1.2) Nomination Procedures

The Board of Directors sets out the procedures for nomination of directors, and the Nomination and Remuneration Committee proceeds in accordance with the following procedures:

1. Nominating qualified persons to fill the vacancy.
2. Considering qualifications of the directors who represent EXAT and MRTA in accordance with the conditions as specified in the Concession Agreements.
3. Considering qualifications of persons nominated by minor shareholders according to the Company's policy to allow shareholders to propose their nominations in advance (if any).
4. Proposing the nominations to the Board of Directors for consideration and appointment (in case of interim vacancy).
5. Considering proposing the nominations to the Board of Directors for consideration and approval for submission to the annual ordinary general meeting of shareholders for appointment.

Pursuant to the Articles of Association, at every annual general meeting, one-third of the number of directors must vacate their offices. If the number of directors is not a multiple of three, then the number nearest to one-third must retire from office. Therefore, the directors have a term of three years, and a retiring director may be re-elected. In this regard, the Company does not fix the number of terms of holding office as director or the number of other listed companies in which the directors will hold office as directors, but considers the suitability of appointment of directors who are due to retire by rotation to resume office.

Pursuant to the Articles of Association, the criteria and procedures for appointment of directors by shareholders are as follows:

1. One shareholder has one vote for every one share held by that shareholder;
2. When electing directors, each shareholder shall exercise all of his or her votes to elect all directors to be elected on such occasion, or in case the shareholders' meeting deems it appropriate, the casting of votes is made to elect directors on an individual basis. In this regard, in casting votes, whether in the election of directors on an individual basis or the election of all directors, each such person elected by the shareholders must receive votes from shareholders according to the total number of shares held by each shareholder under 1, and no shareholder can allot his or her votes to any person in any number.
3. In case of the election of directors on an individual basis, persons receiving the most votes are those who are elected to be directors, in descending order, for the number of directors who are to be elected. If there is a tie for the last to be elected and this exceeds the said number of directors, the election shall be drawn by lots.

(2.2) Nomination of Managing Directors and Executives

1. The executives in the position of Managing Directors must be nominated by the Nomination and Remuneration Committee, which considers nominating qualified persons, namely, those who have knowledge and capacities and experience which are useful for management and operations to achieve objectives or targets as determined by the Board of Directors and have a good understanding of the Company's business, whereby the Nomination and Remuneration Committee shall propose the nominations to the Board of Directors for consideration and appointment.
2. For any executives at the level of General Manager or higher, the Managing Directors proposes the nominations to the Executive Board for consideration and appointment.

9.4 Supervision of Operations of Subsidiaries

To ensure that supervision of operations of the Company's subsidiaries is conducted in compliance with the business policy specified by the Board of Directors of the Company, in line with the corporate governance, and to safeguard investment benefits of the Company and its shareholders, the Board of Directors thus sets out criteria and guidelines for supervision and control of management of the subsidiaries as follows:

- 1) The subsidiaries are encouraged to comply with the Corporate Governance Code.
- 2) The selection of any persons as respective representatives of the subsidiaries is subject to approval of the Board of Directors of the Company, according to their respective shareholding percentage.
- 3) The subsidiaries shall be supervised through their respective representative directors and executives and in compliance with the policies specified by the parent company.
- 4) Any significant matters, such as, strategies, action plan, capital increase or reduction, company dissolution, including various important policies shall be considered. The guidelines for exercising the right to cast votes in the extraordinary general meeting of shareholders are also formulated.
- 5) The operational results shall be followed up through the management, executive board, for reporting to the Board of Directors of the Company.
- 6) The subsidiaries shall be monitored to ensure their compliance with laws, relevant regulations stipulated by the supervisory units, including generally acceptable accounting standards.
- 7) The Company requires its subsidiaries to yearly review the respective internal control systems to ensure adequacy and appropriateness, whereby the Internal Audit Office of the Company shall regularly review, follow up and evaluate compliance with the good internal control principles, which is specified in the annual audit plan.

In this regard, the Company has assigned the Managing Directors or his/her delegate(s) to monitor each of such companies, as shareholder. Currently, the Company appoints directors who are its representatives to supervise and monitor operations of the subsidiaries, as follows:

Northern Bangkok Expressway Company Limited (NECL), comprising seven directors:

- Five directors who are members of the Executive Board of the Company;
- One director who is a representative from EXAT;
- One managing director of NECL.

Bangkok Metro Networks Limited (BMN), comprising six directors:

- Four directors who are representatives from the Company;
- One director who is a representative from other shareholder;
- One managing director of BMN.

9.5 Control of Inside Information Usage

The Company determines its written control of inside information usage in accordance with the Corporate Governance Code, as follows:

Inside Information Usage Policy

- (1) Due to the fact that the Company is listed on the Stock Exchange of Thailand, any sale or purchase of the Company's securities by any of its directors, executives or staff in a manner which may take advantage of a third party by using information material to changes in the prices of the securities which have not yet been disclosed to the public and to which he/she has access in the exercise of his/her duty or position in the Company, is then considered as unfair securities trading practices, subject to a criminal penalty under the law.

Therefore, the Company has set guidelines to prevent the use of insider information. Such guidelines will be revised from time to time as appropriate, and all directors, management and staff of the Company will strictly adhere to these guidelines with accountability as well as causes and effects on a case by case basis. These guidelines or policies will be stricter than the provisions of applicable laws, and will apply to directors, management and staff, including related persons.

(2) Securities Sale and Purchase Using Insider Information

Persons who should not sell or purchase securities pursuant to the guidelines to prevent the use of insider information are as follows:

1. Directors and management of the Company;
2. Directors and management of the Company's subsidiaries, including its affiliates;
3. All staff of the Company and of the Company's subsidiaries, who have perceived insider information of the Company;
4. Spouses and minor children of the directors, executives and staff, who have perceived insider information of the Company; and
5. Relatives who live with the directors, executives and staff who have perceived insider information of the Company.

Securities refer to shares, share warrants, convertible debentures and transferable subscription rights issued by the Company.

General Practice

1. Any person who has perceived insider information of the Company should not sell or purchase the securities under any circumstances if such person knows or should have known the publicly undisclosed material information that may affect change in the market price of the Company's securities.
2. Any person who has perceived material insider information of the Company from their duties and positions as the Company's staff shall not disclose such information to any other person while such information has not yet been disclosed to the public, unless it is done in the performance of their duties to the Company.

Specific Guidelines

In addition to the general guidelines to prevent the use of insider information, persons who have perceived insider information of the Company shall also comply with the following guidelines:

1. Any person who has perceived insider information of the Company and is directly involved in the preparation of the Company's financial statements and balance sheet is prohibited from any purchase or sale from the commencement of such preparation until the end of the day immediately following the disclosure date of such financial statements.
2. Any director, management or staff who has received the draft financial statements as referred to above, is prohibited from selling or purchasing the Company's securities from the day that he or she receives the draft financial statements until the end of the dissemination date of the financial statements.
3. Any person who has perceived insider information of the Company and knows or should have known that the Company will disclose material information that may affect change in the market price of the Company's securities, is prohibited from selling or purchasing the Company's securities from the day that he/she knows or should have known such information until the end of the day immediately following the disclosure and dissemination date of such information.

(3) Report of Persons who have Perceived Insider Information of the Company

A. Duty to Prepare Reports

Directors, Managing Directors or persons who hold management positions as specified in the Securities and Exchange Act shall be required to prepare disclosure reports of their initial securities holdings, and changes in such holdings, pursuant to the relevant laws and regulations, together with such reports to the Company.

B. Reporting Procedures

Directors, Managing Directors or persons as specified in paragraph A. above who have the duty under law to disclose their securities holdings, their spouses' securities holdings, and their minor children's securities holdings to government agencies or regulators shall submit copies of such reports to the Company on the same day.

Protection and prevention of inside information usage

- (1) The Company has policies and procedures for controlling the use of inside information by directors, executives and staff to prevent any occurrence of the use of inside information for personal interests or the interests of others. The work rules and regulations of the Company prohibit staff from disclosing the Company's confidential information to any third parties or abusing their positions for personal gains or others. Any violation is deemed a disciplinary misconduct. In addition, this obligation has been specified as an important condition in new employment agreements, whereby staff must keep confidential information relating to the Company's business to which they have access, whether directly or indirectly, and must refrain from disclosing it to any third parties or other unauthorized persons. In this regard, the confidential information relating to the Company's business refers to financial information, marketing plan or business plan, wages, etc.

- (2) The Company has a control system for use of the Company's information by adopting such information security systems as the restriction of access to the Company's information by setting authorization level of staff's access to the Company's information to correspond to their responsibilities and setting user password for common use of data files with other persons via the computer system, provided that the password must be changed every three months.

At present, the Company has applied the ISO/IEC 27001:2013, which is the international standard that describes the best practices relating to information security system, to improvement of the toll collection system at the control center to ensure compliance with the standard, and the Company also lays down standard for management of significant information to ensure continued operations of the business, with an aim of enhancing the organization's worldwide reputation for reliability. For this reason, the Company did apply for accredited certification of the ISO/IEC 27001:2013 for development of process and information security management system (ISMS), as well as developing its personnel in line of information security management so that they can fulfill work under the process/system so developed.

- (3) The Company prohibits executives who have access to inside information from taking any actions contrary to Section 241, requiring that securities trading by using insider information for his own or another person's benefit is prohibited, under the Securities and Exchange Act, including relevant rules and regulations.

9.6 Remuneration for Auditor

The Audit Committee and management jointly consider the qualifications of the auditor in respect of the reliability, independence, knowledge and experience in audit services, advice on accounting standards and certification of the financial statements in a timely manner, and then propose this matter to the Board of Directors for submission to the annual ordinary general meeting of shareholders to consider approving the appointment of the auditor.

The proposed auditor shall have neither relationship with nor interest in the Company or its subsidiaries, executives, major shareholders or their related persons.

Remuneration for auditor is divided into two categories, namely:

- (1) Audit fee

The Company paid the audit fees for 2017 in the amount of Baht 3,350,000 to EY Office Limited. When compared to the average audit fees of other listed companies in the same sector, the Company's audit fee was reasonable.

The Company's subsidiaries, namely, Northern Bangkok Expressway Company Limited and Bangkok Metro Networks Limited, paid the audit fees for 2017 amounting to Baht 370,000 and Baht 1,070,000, respectively.

- (2) Non-audit fee

In 2017, the Company used any other services from EY Office Limited in the amount of Baht 835,000 as additional fees in auditing the financial statements from applying the SAP system.

9.7 Understanding and Application of the Corporate Governance Code for Listed Companies 2017

The Board of Directors has understood its roles, duties, benefits and principles of the Corporate Governance Code for Listed Companies 2017. That was, after the promulgation of such Corporate Governance Code, the Corporate Governance and Risk Management Committee, as a subcommittee with the duty to supervise and monitor to ensure the Company's compliance with the Corporate Governance Code for promoting and supporting the Company's business operations conducive to the sustainable value creation for the business, then reported to all members of the Board of Directors on the Corporate Governance Code for Listed Companies 2017, as stipulated and promulgated by the Office of the Securities and Exchange Commission (SEC). Therefore, the Board of Directors explicitly instructed the management to inform all staff of the Company for their strict compliance therewith, subject to evaluation at least once a year, whereby the Corporate Governance and Risk Management Committee was assigned to consider and evaluate the application of such Code for proposal to the Board of Directors for further consideration.

An overview of the understanding and application of the Corporate Governance Code for Listed Companies 2017 by the Company was as follows:

Principles of the Corporate Governance Code	Scope
1. Establishing Clear Leadership Role and Responsibilities of the Board, contributing to the sustainable value creation for the business	The Board of Directors acknowledged and studied the CG Code and then authorized the Corporate Governance and Risk Management Committee to evaluate the application of such principle to achieve a satisfactory outcome of compliance, per the details on pages 49, 52-53, 87-92 and 113-159.
2. Defining Objectives and Goals that Promote Sustainable Value Creation	The Board of Directors followed up to ensure implementation of the Company's strategies to carry out its operations for the interests of all shareholders and stakeholders, and also required the operational results to be reported to the Board of Directors' Meetings, per the details on pages 49, 113, 120-123 and 131-137.
3. Enhancing the Board Effectiveness	The Board of Directors was composed of 17 qualified persons, namely, five executive directors, six independent directors and six non-executive directors, in response to the requirements of stakeholders, as well as carrying out operations conducive to exercising their discretion independently. In addition, there were three executive directors as EXAT's and MRTA's representatives having experience in the Company's core businesses, per the details on pages 113-115 and 140-156.
4. Ensuring Effective CEO and People Management	The Company had the process for nomination and development of the Managing Directors, high level executives, to ensure that they had knowledge, skills, experience and qualifications necessary for the organization to meet the goals, had appropriate remuneration structure, and also followed up, took care of and developed its personnel to ensure that the Company had adequate personnel who had knowledge, skills, experience and motivates as appropriate, per the details on pages 120-123 and 154-156.
5. Nurturing Innovation and Responsible Business	The Company supported innovations creating value for the business and simultaneously benefiting all groups of stakeholders, and also operated the socially and environmentally responsible business, per the details on pages 66-72.
6. Strengthening Effective Risk Management and Internal Control System	The Company had the work-related risk management system in compliance with applicable laws, the Articles of Association, resolutions of the shareholders' meeting, along with policies or guidelines as specified, and also had the process for approval of significant transactions, such as, execution of any transactions which materially affected the Company, or execution of any transactions which might give rise to a conflict of interests, etc., per the details on pages 87-92, 129-131 and 176-177.
7. Ensuring Disclosure and Maintaining Financial Integrity	The Company prepared the financial reports and disclosed material information with accuracy, adequacy, punctuality, and equality via appropriate channels; protected confidential information and information which had an influence on the securities prices, to ensure that the disclosed information reflected the practices or contributed to the sustainable value creation for the business, per the details on pages 138-140, 157-159 and 186-201.
8. Ensuring Engagement and Communication with Shareholders	The Board of Directors gave priority to the fundamental rights of shareholders in such a way as allowing the shareholders to send their questions and nominate qualified persons as directors in advance, etc., and to receive information and news of the Company rapidly, completely and adequately via easily accessible channels, per the details on pages 124-131.

9.8 Compliance with the Corporate Governance Code in other Matters

The Company has fully complied with the Corporate Governance Code for Listed Companies 2017, except the following matters:

1. The Board of Directors consisting of 5-12 directors: the Company gives priority to the good corporate governance together with nomination of personnel who have knowledge and capability to conduct management. At this point, the Company realizes necessities and potential benefits from nomination of personnel who have appropriate qualifications, knowledge and capability to be appointed as additional directors. Currently, some directors serving on the Board of Directors are from the amalgamation between Bangkok Expressway Public Company Limited and Bangkok Metro Public Company Limited and from directors who are representatives from the Expressway Authority of Thailand and the Mass Rapid Transit Authority of Thailand in accordance with the conditions of the Concession Agreement, and as such, the Company has 16 directors from a total of 17 persons.
2. Determination of the number of terms of holding of office as director and independent director: The Board of Directors does not clearly determine any number of terms of holding of office as director. In regard to determination of a term of consecutive holding of office as independent director of not exceeding nine years, the Board of Directors considers and deems that the appointment of independent directors to resume office as directors will be useful for the Company and shareholders since the directors consecutively holding such office will have better knowledge and experience in the Company's business operations and create more value for shareholders. In this regard, no director serves on the Board of Directors for more than nine years.
3. Determination of the number of other companies in which each director will hold directorships: The Board of Directors has no policy to limit the number of other companies in which each director may hold directorships since, after considering the matter; it is of the view that all directors devote their time to regularly attend meetings.
However, in 2017, none of the Company's directors held office as directors in more than five listed companies.
4. Determination of the number of other companies in which the Managing Directors will hold directorships: The Board of Directors has no policy to limit the number of other companies in which the Managing Directors may hold directorships since, after considering the matter; it is of the view that the Managing Directors devote their time to conduct management and regularly attend meetings.

However, in 2017, the two Managing Directors represented the Company to hold directorships in one listed company invested by the Company.

10. Corporate Social Responsibility

Currently, it is undeniable that convenient and efficient access to the transportation systems is essential for urban lifestyle, whether it is road or rail systems, all of which play a key role in integrating livelihoods of the people in the society from one side of the city to the other side. For that reason, Bangkok Expressway and Metro Public Company Limited (the “Company”), as the expressway and metro service provider, with its commitment to being one vital component in development of the related transportation systems, is thus determined to establishing a connection of the fully-integrated transportation system to facilitate the people’s travelling and help mitigate traffic problems in Bangkok and its surrounding provinces. This is to upgrade the quality of life of the service users, whereby provision of safe, rapid and efficient services is always given priority to ensure delivery of services with modern transportation network and improved life quality to the people, through the business operations continuously based on the social and environmental responsibility, the guidelines to which the Company has always adhered for the sustainable business operations.

10.1 Policy Overview

The Company is committed to operating its businesses with particular emphasis on society and the environment in pursuit of the Company’s sustainable business growth. As such, the Company focuses on transparency and fairness in its operations with the aim of coordinating benefits and growing together with all groups of stakeholders. Therefore, the Company adopts and communicates its operating policy for sustainable development to all staff to ensure that they seriously implements and harmoniously incorporate it into their own work processes for sustainable growth of the Company and all its groups of stakeholders, as follows:

1. To be a leading organization for sustainable development through communication and exchange of best practices with all groups of the Company’s stakeholders;
2. To build up the culture and concept on the sustainable development for incorporation into every work process and decision-making process of the Company;
3. To promote training, learning and counseling, focusing on practices according to sustainable development guidelines;
4. To support the operations, disseminate the guidelines, and ensure collaboration at the regional level as well as transferring the body of knowledge to achieve sustainable development on a continuous basis.

10.2 Corporate Social Responsibility and Sustainable Development

The Company, as the expressway operator, is committed to fulfilling the people’s requirements for their travelling via the expressway network which has been connected and stretched to the central business districts of Bangkok. The expressway service is considered the transportation service provided to the expressway users who need convenience, rapidity and safety in their travelling. For that reason, the Company has continued to conduct the study and improvement of the expressways to ensure engineering safety in accordance with international standards; enhance efficiency in the service provision to the expressway users by way of addition of Easy Pass lanes, including relocation of the positions of the lane entrance gates to minimize traffic conflict points with the cash lanes, which will mitigate the traffic congestions in front of the toll plazas. Furthermore, the Company has conducted the study on new routes in response to the urbanization in the future.

With regard to the metro system, the Company has emphasized creativity and development of the modes of services to facilitate the passengers’ travelling both peak and off-peak hours based on the Company’s professional operations on the motto “Service above all else”. The Company then sets out the signs for quality services, namely, convenience, fast, reliability, punctuality, and above all, safety which is the top priority of which all staff have to be aware. Moreover, to create an atmosphere of safety throughout the service users’ travelling, staff shall strictly comply with the safety requirements of the Company, including public relations regarding safety via media and activities to ensure knowledge and understanding of the general people.

As for the commercial development business, it is considered the Company's non-core business to which the Company also gives importance other than its core businesses, thereby diversifying the Company's services which can fully satisfy the needs of the service users and those who live along the stations. In this regard, the Company has developed spaces for retail shops and sale promotions covering the total of 19,490 square meters. In the previous year, the Company did develop the spaces in the basement level of the Park & Ride Building at Lat Phrao Station, in association with the Mall Group, to made available to the supermarket of premium quality under the "Gourmet Market" brand name in order to fill a demand of the urban life, resulting in an opportunity for those who wish to start a business, as well as expansion of spaces to accommodate a growing volume of metro use in the future.

With the Company's competency of and commitment to provision of the expressway and metro services, the Company always gives priority to provision of convenient, rapid and safe services which meet standards to the service users, in which the Company believes that it will be able to play a part in completing daily life for all persons for good.

Summary on Social Performance

Human Capital Development

The Company is determined to be a leading, fully-integrated transportation service provider in Thailand and ASEAN, with its social mission to provide the transport service with convenience, rapidity and safety by engaging in the business with its commitment to social and environmental responsibility, attainment of value added creation and optimum benefits for all stakeholders with fairness and sustainability. Therefore, it is a clear policy of the Company to be responsible for rights of all groups of stakeholders, as follows:

1. Internal stakeholders, i.e., staff and executives of the Company and its subsidiaries;
2. External stakeholders, i.e., customers, business partners, lenders, counterparts, competitors, society, communities and schools located near the rights of way, including government sector and relevant authorities.

BEM's Human Resource Development

At present, the Company has to continue facing the ongoing changes and business competitions. To enable the Company to create the "Path to Happiness for Better Travelling Mode", the Company emphasizes development of its personnel to ensure their readiness and capabilities which will not only create value for the Company, but also for the society as a whole.

1. The Source of Happiness

The Company appreciates the value and importance of its staff, rest assured that the qualified staff is an essential factor in contributing to the organization's sustainable growth and success, as well as being a competitiveness indicating factor. Therefore, the Company is determined to look for talent and good persons and regularly and continuously support development and training of staff at all levels. The Company is also committed to fair treatment towards its staff under the nondiscrimination policy and provision of equitable opportunity for employment pursuant to the work rules and regulations and laws. The Company treats all staff equally regardless of gender, age, race, religion, work position or physical abilities.

The Company has always treated and cared for its staff at all levels in all respects, for example, job description, safety, occupational health and work environment, including training and development of skills in various aspects, together with career opportunity and advancement, fair consideration and welfare through the clearly specified criteria for career path, and fair and appropriate remuneration based on benchmarking with the same industry. Furthermore, the Company has promoted a participatory work environment and teamwork as well as organizing the workplace on the occupational safety and health basis, not to mention the fact that staff are also allowed to show off their abilities.

Realizing the significance and development of personnel, as mentioned above, is to satisfy staff to work for the Company to achieve the Company's goals, and with the Company's notion that staff are regarded as valuable resources and its strong belief in their inner potential in order to make staff proud and determined to perform works as well as improving their own performance on a continual basis.

“Source of Happiness”, the Company has regularly arranged for development of personnel in both main and supporting lines of work on a systematic basis. **“Career Opportunity and Advancement”**, the Company is determined to restructure its organization and the work positions, and career paths, and salary of staff to be more appropriate and fair to ensure staff career paths. Therefore, the human resources management has become absolutely essential and necessary, and the Company must establish more clear and concrete, appropriate and fair direction for the retention of existing personnel, and recruitment of new staff for business expansion, as well as development of knowledge and skills for both existing and new staff, and update of job descriptions, including transfer of staff according to their knowledge and abilities, and promotion for career advancement.

Particularly staff in main line of work directly related to services on the expressway and rail systems, where quality and safety are compulsory, in order to achieve its goal of providing excellent service to the utmost satisfaction and impression of the service users of the expressways and MRT system. The Company formulates training courses so that staff will have skills and ability to use equipment and devices for specific tasks, i.e., rescue operation, traffic management, toll collection and maintenance of the system and carriageway, including training courses relating to metro system, various relevant rules and regulations, especially knowledge regarding work safety.

Moreover, the Company has nurtured innovative development by allowing staff to provide suggestions and opinions which are useful for development of competency in work process as well as supporting varied studies and researches, which are striving for benefits and value creation for the business, on a community, social and eco-friendly basis.

“Staff Capacity Building”, the Company focuses on personnel training and development, both inside and outside the organization, to maintain core knowledge within the organization, and to prepare our personnel to become the international standard service operator, as well as conveying important knowledge in other aspects to enable them to further knowledge in the future. Training courses provided for staff are described below.

1) Knowledge Management: KM

The Company implements the knowledge management project as intermediate KM Roadmap, with the objectives to identify the body of core knowledge which is necessary and important for the organization, to ensure a systematic collection of knowledge for all staff to have wide access to the source of such knowledge, knowledge sharing for ensuring the optimum benefits, and furthering the Company’s corporate transition into a learning organization. Other than the management of core knowledge for the Company’s businesses, the Company also promotes a community of practices (CoPs) to ensure learning and sharing of work experiences, problem-solving, including solutions and improvement to work processes, in order to come up with the best practices.

2) Codes of Conduct and Business Ethics Training

This training course is intended to serve as guidance for all staff regarding their work responsibilities and duties and to ensure that they understand and follow the preliminary guidance described in the Company’s Codes of Conduct and Business Ethics handbook, which is in line with the Company’s vision, mission and corporate culture, in order to achieve goals for improved quality of work and life for staff. The Company also provides for refresher training to update staff’s knowledge by way of E-Learning & E-Exam, which all new staff are required to attend, including regular exams for the existing staff on a yearly basis.

3) Annual Training & Development

The Company puts into practice the idea of developing staff competency by improving the Training Roadmap for all levels of staff, namely, executives, supervisors and operating staff. The roadmap is intended to make sure that staff gain basic knowledge and skills required for their work performance, both technical and soft skills. These two types of skills are fostered in mandatory programs for new staff, e.g., an orientation program for new staff about the Company and about the **“Path to Happiness for Better Travelling Mode”**, including rules, regulations and requirements; a work safety program; and a quality management system program.

The existing permanent staff are given refresher training on knowledge every year. All of these training programs should enable staff to apply such knowledge to their work performance and adapt themselves to the corporate culture, so as to have a sense of pride and to conduct themselves properly and in line with the goals. Staff, who require technical skill, are also encouraged to be involved in such training programs.

Rescue Operation and Traffic Management

The Company, in association with the Expressway Authority of Thailand (EXAT), has conducted rescue operation drills and assistance in case of serious accidents on the expressways, with safety training every year, including training on use of the rescue operation vehicles on the expressways, traffic volunteer training and on the job training; and the Company has arranged for three-month new staff orientation prior to actual operation on the expressways, as well as service mind training.

Toll Collection Operation

The Company's personnel, who are in charge of this field, comprise personnel with the duty to collect tolls from the service users of the Si Rat - Outer Ring Road Expressway, whereby the Company provides the personnel training in toll collection to ensure that tolls are correctly and completely collected for facilitating the expressway users' toll payment to be made rapidly. The Company's personnel in charge of toll revenue operation are responsible to ensure that tolls are correctly, transparently and timely collected, in collaboration with the government sector, namely, EXAT, which has the duty to collect tolls from the expressway users. The Company provides internal on the job training regarding the role and responsibilities of toll collection controllers, emphasizing that tolls must be collected timely, and the counting of vehicles and collection records must be verified for accuracy.

In addition, the condition of toll collection equipment must be checked to be ready for full-time service and to ensure the accuracy of toll collection, which will help assure the Company's steady revenue streams and equally protect the interests of shareholders and stakeholders. The personnel in charge of this field will also attend overseas study visits on toll collection systems.

Structure Maintenance Operation

This is to ensure that the expressways will be ready and safe for service. The Company is internationally recognized as a company specializing in the inspection and maintenance of the Segmental Box Girder structures, with regular inspection, monitoring and surveillance all year round.

Train Control Officer and Train Operation Control Officer Training

The train control officer training takes at least 800 hours of training and the train operation control officer training takes at least 1,300 hours of training, which are provided in theory and in practice by way of actual train driving and train-driving simulator, training to use equipment in train operation control room, emergency response drills and exercises, including on the job training, where safety is given the top priority, whereby professional trainers are provided to closely monitor staff's training. Moreover, the Company's staff are given refresher training on a yearly basis to ensure that all trained staff will be able to discharge their duties in the metro service provision with safety, convenience, rapidity, reliability, punctuality, and efficiency in order to improve the quality of life of residents.

Enhancing Quality of Life

2. On the Path to Happiness

The expressway users and the MRT users are the heart of the Company. The Company is then ready to deliver and improve the expressway services to ensure the most efficiency as the **"Path to Happiness for Better Travelling Mode"** of rapid and safe transportation, uplifting the quality of life, and playing a role in developing Thai society. The Company appreciates innovations, which will help minimize the impact of the operations on society, environment and stakeholders from construction to repair and maintenance of the expressways to stand ready for service to users to ensure their convenience and safety both under normal and emergency situations.

To maintain the Path to Happiness, the Company emphasizes on taking care of delivery process and improvement of services in detail on a regular basis, as follows:

The delivery process and improvement of services in detail of the **expressway service**

- 2.1 Expressway Construction: The Company adopted the internationally recognized Segmental Box Girder technology, which meets the AASHTO (American Association of State Highway Transportation Officials) standards, and which was considered a sophisticated technology at the time it was adopted. As a result, the Company was able to minimize impact on at-grade traffic and dust and noise pollution during the construction. The construction was completed according to plan without any protests from society and nearby communities. The expressways are safe, meet standards and effectively respond to users' transportation needs.
- 2.2 Expressway Maintenance: The Company carries out regular inspection and maintenance of the main structures of the expressways, under the independent consulting engineer's supervision and quality assessment of the expressways. The expressways are in a stable condition, meet standards and safety requirements, and the expressway users are able to enjoy convenient, rapid and safe transportation to their destinations.
- 2.3 Expressway Services: The expressways, by physical characteristics, mostly are elevated and linked as a network with a total length of approximately 256 kilometers. The expressways have become effective strategic routes for sending aid to disaster victims, transporting equipment and supplies, and travelling by both public and private sectors, during the occurrence of any event or disaster which may impede the at-grade roads. Those events in the past have perfectly confirmed the strategic route status. Therefore, the Company, in its capacity as the operator of the Si Rat Expressway, the Si Rat - Outer Ring Road Expressway and the Udon Rattaya Expressway, sets out practical guidelines for dealing with unusual occurrences, so as to make the expressways available for service under emergency situations and return to normal as soon as possible. In this regard, the Company is ready to take various actions as follows:
 - (1) **Expressway Control Center:** The Company's communications staff in the Control Center monitor traffic condition on the expressways and provide travelling information to the expressway users. CCTV surveillance systems are installed on the expressways, along with radio-communications systems through the Control Center working 24 hours in close collaboration with other relevant authorities. The Company's rescue operation teams are patrolling the expressways at all times, and therefore, they are ready to instantly assist service users in any incident on the expressways. In addition, the teams also coordinate with police officers on duty on the expressways and at-grade roads in order to facilitate traffic management 24 hours a day. The traffic condition on the expressways is viewable by at-grade police officers from the video signals connected with the Company's CCTVs.
 - (2) **The automatic toll collection system or Easy Pass** was implemented by the Company's collaboration with the government sector beyond the terms of the relevant Concession Agreements, with the intention to improve services and minimize environmental impact from traffic congestion. This system has helped save travelling time and fuel for the expressway users, protected the environment, minimized pollution at the toll plazas, reduced fuel consumption, and improved the quality of life.
 - (3) **With respect to safety innovations**, the Company sets up a dedicated unit responsible for research and development (R&D) to regularly improve safety of the expressways by means of road safety audits. The audit results are used for the expressway improvements for greater safety.

The delivery process and improvement of services in detail of the **MRT service**

- 2.4 Value added to safety: The Company's business operations give priority to safety of passengers, staff, contractors, including everyone in the MRT system, as evidenced by the adoption of the international standard safety management system as a guideline for operations, namely, OHSAS/TIS 18001. Moreover, Lloyd's Register Rail (LR) is engaged as safety consultant to provide suggestions on risk management and to devise new safety management techniques for improvement of the Company's work processes to ensure more safety. As a result, the statistics of work-related accidents, including the statistics of passengers' injuries while using the MRT service, are likely to reduce. It is for this reason that the Company did receive the National Outstanding Awards 2013-2014 for Occupational Safety, Health and Environment.

- 2.5 Value added to convenience: As the metro is a mass rapid transit system with rapidity and definite service schedule for the service users' commute convenience as they can somewhat precisely anticipate the service schedules and set out their commute plans, the Company thus gives priority to value added in convenience in its services from making an entrance to the stations, utilization of services until leaving the stations. To this effect, the Company has made various preparations to suit the convenience of the passengers and the service users in all respects such as information services, common ticketing system and facilities within the stations.
- 2.6 Value added to rapidity: As the metro is a mass rapid transit system, which offers the rapid services, This is a main reason that people select to commute by the metro. Therefore, the Company supports other services from the passengers' entering into the stations until leaving the services with rapidity by means of development of the efficiency in service provision from where the passengers make an entrance to the stations and during the services, deletion of certain repeated steps which cause any unnecessary delay or increase in certain steps, which aim to impress more passengers, such as the passenger volume management system during rush hours on platforms, rapid services in the time when the passengers are so crowded or during the exhibitions, ticket issue or stored value card services are provided by staff who are active in providing clear suggestions, etc.
- 1) Value added to reliability: The Company is committed to the regular services of required standard to build the reliability in the metro system in respect of safety, convenience, and rapidity, whereby the Company continues to improve the quality of the services, for instance, maintenance and test of equipment are planned in a preventive and corrective manner, annual rehearsals for handling various emergency stimulations together with internal and external rescue agencies, improvement of safety system, ethical and equitable treatment towards passengers. Moreover, the Company accepts any comments or complaints from customers for further taking remedial actions to ensure improved services. The MRT service capability was assessed by Train Service Delivery, namely, the Company's MRT service capability was always more than 99 percent. In 2017, the Company's Train Service Delivery represented 99.88 percent from the target of 99.70 percent.
- 2) Value added to punctuality: The clear and punctual schedule of the MRT service enable passengers to manage their travelling time and do various activities more easily, not to mention that it results in their quality of life and mind health. The punctuality of the MRT service can be assessed by examining train punctuality with delays of not more than 5 minutes (Train Punctuality (Delay within 5 Min.)) in all MRT stations, which in 2017, the Company's Train Punctuality (Delay within 5 Min.) represented 99.93 percent from the target of 99.75 percent.

Moreover, the Company's membership in NOVA Group of Metros, a consortium of international metro service operators in a program of railway benchmarking, has inspired the development and improvement of service operations to achieve a higher level of success. Other than the standard set of service performance indicators, the Company has set out benchmarking indicators that are comparable to those of other members of the NOVA Group of Metros in various aspects in order to share knowledge and experience which will result in improvement and development of the services. Furthermore, in comparison with information in the NOVA Group, the Company's operational results are excellent in various respects, such as, train punctuality as compared with the train schedule, repair and maintenance to ensure the availability of trains for service, and work safety of staff, etc.

Other than the safety, efficiency in the services and new technology as employed to satisfy the service users' needs, the Company has also realized the significance of its traders which are considered a business supply chain as comparable to the service users.

The Company formulates a policy to fairly treat its business partners and promotes the knowledge, understanding, practice, development in accordance with the framework for sustainable development in the Company's business sector, building reliability through the fair business operations with its traders and financial supporters, regarded as key success factor which enables the Company to deliver the quality services to the expressway users even during a crisis. The Company then set out the practices towards traders in a way of the business operations with fairness to ensure that acquisition of goods and services meet standards, with the commitment to developing and maintaining sustainable relationships with traders, and having the clear objective regarding quality of goods and services as suitable for monetary value, technical quality and trust in each other.

The Company has arranged for the procurement process with equality and fairness for its traders in all systems, which is in accordance with the operating process governing procurement under the requirements of the ISO 9001 quality management system, by methods and measures adopted in against unfair competitions, determined the guidelines to promote respect for intellectual property rights of traders and safeguard the rights in assets, as well as the business operations with the supply chain in strict compliance with the international standards of the ISO 90001 quality management system and the ISO 14001 environmental management system through provision of knowledge, understanding and close monitoring system, to rest assured that the Company's supply chain transacting a business with the Company has carried out its operations with environmental care to ensure sustainability in mutual business operations. As for group of financial supporters, it included lenders, debenture holders, creditors, the Company is determined to comply with agreements and commitments and maintain the financial discipline on a strictly basis.

Regarding safety for staff and contractors, the Company has conducted its work safety in accordance with Thai laws and local and international safety standards, i.e., TIS 18001:2011 and OHSAS 18001:2007, as assessed by TUV NORD (Thailand) Limited. The main objective is to supervise welfare for work performance in respect of occupational safety, health and environment of staff and persons in connection with operations in the metro system. The Company also prepared Plod Online E-magazine for communication with its staff to ensure their awareness of safety, quality and environment.

3. Happy Society

Throughout the period of the business operations, the Company is committed to being the **"Path to Happiness for Better Travelling Mode"** and the pursuit of happiness of travellers, the following matters are then given priority:

1. **Family:** Spending quality family time can be made in various manners, one of which is travelling together as a family on expressway route or metro route, to see and experience new stories of community lifestyles and to ensure income distribution to their destinations;
2. **Education of children and youth:** Not only indoor learning, but also outdoor learning can allow children to gain important first-hand experience and apply such gained experience to their lives in the future, and meanwhile, the Company has provided educational opportunities for underprivileged children and youth with good academic records, by way of distribution of scholarships to them.
3. **Public interest assistance** and alleviation of hardships from various disasters: The Company has always provided assistance to any parts in need and to mitigate distress caused by uncontrollable things.

4. Summary of Environmental Performance

Environmental Quality Promotion and Environmental Impact Reduction (More Quality and Less Impact)

The Company, in its capacity as the expressway and metro service provider, has realized the business operations based on sustainable development in three aspects, namely, economy, continuously developing quality of services; society, taking care of the Source of Happiness to ensure that they have the improved quality of life, with the readiness to transfer value to the society nearby and as a whole; environment, emphasizing prevention and control of pollution.

The Company is determined to develop quality of the services, with the commitment to environmental responsibility; therefore, the environmental management policy has been formulated, with the guidelines as follows:

Environmental Policy

1. Giving the priority to prevention and control of pollution to ensure compliance with the international standards and taking into account environmental impacts of the service users, staff and communities;
2. Instilling awareness on utilization of natural resource energy in an efficient manner into staff and promoting them to so do;
3. Performing duties in compliance with laws and other requirements in relation to environment;
4. Reviewing the objectives and goals for improving the environmental management system on a regular basis;
5. Disseminating the environmental policy to the public and other concerned parties.

It is deemed to be all staff's and traders' responsibility to strictly and regularly adhere to this policy for ensuring good environment for the service users, staff, traders, and nearby communities.

The Company has a policy and is determined to continuously take care of every sector of society in respect of management of improved operational results, and creation of value added to shareholders, and giving priority to nearby communities as well as taking care of both nearby and remote communities. In 2017, the Company organized the corporate social and environmental contribution activities as follows:

1) Good Family Relationships

“Moms & Kids Strengthen Relationships with BEM to Create Works of Art in Nakhon Pathom”

was held on the occasion of the National Mother's Day, as a special family day to allow them to express affection and concern between each other, in which the Company played a part in strengthening family relationships by inviting 14 families of the expressway users, to travel on the Si Rat - Outer Ring Road Expressway heading for the Little Tree Garden in Nakhon Pathom Province to experience a shady atmosphere of the riverside park next to the Tha Chin River as well as joining activities to strengthen family relationships and preserve environment through natural indigo dyeing and decoration of plants in terrariums.

“Dads & Kids to Strengthen Relationships with BEM to Visit Rice Paddies in Suphan Buri”

was held to strengthen family relationships on the occasion of the National Father's Day, the Company then organized the BEM Invites Dads & Kids to Visit Rice Paddies in Suphan Buri activity by inviting 10 families of the expressway users, to travel on the Si Rat - Outer Ring Road Expressway heading for the Lifestyle and Spirit of Thai Farmers Learning Center (Here Chai Riceseed) in Suphan Buri Province to jointly learn the farmers' lifestyles; and all of such families were allowed to transplant paddy sprouts in the demonstration fields to engage deeply with the natural surroundings, as well as making Fish Roe Sweet, a Thai local dessert showcase of Suphan Buri Province.

2) Good Relationships with Shareholders

With the Company's commitment to operating the business in accordance with the Corporate Governance Code, taking care of all stakeholders and always allowing them to have access to information on an equitable basis, the Company then organized the site visit activities for its shareholders, as follows:

“Visit to the Si Rat - Outer Ring Road Expressway with BEM”

activity, by inviting shareholders to pay a visit to the project in respect of traffic report and emergency call at the Si Rat - Outer Ring Road Expressway Control Center as well as leading them to see the route and see function of the toll collection system, toll revenue inspection at Boromarajonani Road Toll Plaza.

“Analyst Meeting together with Visit to MRT Sanam Chai Station”

In the MRT Blue Line Extension Project, Hua Lamphong - Bang Khae Section to enhance an understanding of a group of analysts, fund managers and long-term share investors relating to the Company's businesses.

“Visit to MRT Sanam Chai Station with BEM”

activity, by inviting three groups of shareholders to listen to a lecture on important information regarding construction of the MRT Blue Line Extension Project as well as paying a visit to the exquisite MRT Sanam Chai Station, as designed by Associated Professor Dr. Pinyo Suwankiri, the National Artist in Visual Arts.

“Visit to Operation Control Center of the M.R.T. Chalong Ratchadham Line (MRT Purple Line) and One-Station Connection Point”

Between the MRT Blue Line and the MRT Purple Line (Bang Sue - Tao Poon) for travelling to Khlong Bang Phai Station activity, by inviting shareholders to pay a visit to the main Depot together with the train operation control room and train driving simulator.

3) Awareness of Environmental Preservation

“Let’s Love Environment with BEM”

To sustainably maintain the balance of nature, and the environmental preservation is of great importance to everyone and requires active participation, the Company then organized the program titled Let’s Love Environment with BEM to instill awareness of environmental preservation by taking a group of management and staff to participate in the Siam Weed Elimination activity to ensure more plant and food areas for wild animals at Khao Yai National Park in Nakhon Ratchasima Province.

“Return the Metro Cards for MRT Lucky Draw for Environmental Protection”

Which campaigned for passengers’ greater recognition of the “Return the Metro Cards for Environmental Protection and Sustainable Social Development” project by distributing metro card envelopes to passengers who purchased or showed their 1-Day Pass, 3-Day Pass or 30-Day Pass, filling in their names-addresses on the envelopes, inserting used-up 1-Day Pass, 3-Day Pass or 30-Day Pass in the envelopes, and then dropping them into the metro card boxes at all 18 stations of the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) for lucky draw.

4) Moral and Ethical Awareness for Corporate Social Responsibility

“Blood Donating”

is to give blood to give life as a part of the greatest giving. The Company, in association with The Thai Red Cross Society and Faculty of Medicine Vajira Hospital, Navamindradhiraj University, then organized three blood donation activities at the Si Rat - Outer Ring Road Expressway Control Center, with active participation of management, staff and residents living nearby.

5) Good Relationships with Related Authorities

The cooperation for provision of good services to meet the utmost satisfaction of the expressway users is regarded as a key goal of the three collaborating authorities, namely, staff of the Company, staff of EXAT, and police officers of the Expressway Police Station 2. To strengthen relationships among them in order to ensure unity and maximum efficiency of the services, the Company organized activities, as follows:

“Watch Movie with Expressway”

was an event where families of staff of EXAT and police officers of the Expressway Police Station 2 as well as families of the Company’s staff were invited to meet, enjoy games, and watch the 3D movie “Beauty and the Beast” at Esplanade Cineplex to enhance family relationships and strengthen relationships among the three authorities.

“Donation of Cars and Motorcycles to EXAT and the Expressway Police Station 2”

The Company granted cars and motorcycles to EXAT and the Expressway Police Station 2 for use on the Si Rat Expressway, including the Si Rat - Outer Ring Road Expressway to ensure smooth operations of the relevant authorities and take care of the expressway users and provide the rapid and efficient services for the expressway users.

6) Promotion of Youth Learning

Education represents a key foundation for youths' sustainable development of knowledge, abilities, thoughts and values in order to become decent and quality citizens of society. The Company continues to encourage and support youth education every year through various activities as follows:

“Scholarships to Adjacent Schools”

The Company organized the BEM Grants Scholarships to Underprivileged Students with Good Academic Records and Funds for Development of 10 Schools adjacent to the Si Rat Expressway, the Udon Rattaya Expressway and the Si Rat - Outer Ring Road Expressway activity, to raise morale of the youth in studying hard and grow up as a quality adult in the country's development in the future.

“Scholarships to Children of EXAT's Staff”

The Company, in association with the EXAT and the EXAT Club, granted scholarships to children of EXAT's staff who are working on the Si Rat Expressway and the Udon Rattaya Expressway. The executives from both authorities jointly granted such scholarships.

“Scholarships for Children of the Expressway Police Station 2's Police Officers”

The Company granted scholarships to children of the Expressway Police Station 2's police officers, who collaborate with the Company in ensuring convenience and safety of the expressway users.

7) Support for Outdoor Learning Experience

Outdoor experience is an opportunity for children to fully gain first-hand experience, which will help them understand various things clearly and comprehensively, and apply the gained knowledge to their life in the future. The Company thus organized outdoor learning experience activities as follows:

“Sufficient Happiness”

An activity on the occasion of the National Children's Day for 2017 was held to remind children to follow the notable teachings delivered by His Majesty the late King Bhumibol Adulyadej through activities of the Father's Nine Teachings, among of which included endeavor, sufficiency, honesty, etc., as well as joining DIY activities: kids savings, growing vegetables for Dad, and enjoying funny games and getting a substantial reward, in which a number of staff's children, students from nearby schools and neighboring residents participated.

“MRT Delivers Happiness to Children”

The Company organized an activity on the occasion of National Children's Day for 2017 by presenting gifts and delivering happiness to children at both MRT lines, i.e., the M.R.T. Chaloem Ratchamongkhon Line (MRT Blue Line) at Phra Ram 9 Station, and the M.R.T. Chalong Ratchadham Line (MRT Purple Line) at Nonthaburi Civic Center Station, holding an activity to enhance children's outdoor learning, with a good participation by kids and their parents.

“Let's Learn History at Coin Museum Thailand”

The Company invited a group of teachers and students from Wat Soi Thong School, adjacent to the Si Rat - Outer Ring Road Expressway, to visit the Coin Museum Thailand to broaden their experience in learning evolution of coins extending from ancient times until the present, see an exhibition of the late Father's collection of coins, as well as enjoying a 4-D oral history recording exhibition about way of life, society, and art and culture.

“Let's Learn History with BEM”

The Company invited a group of teachers and students from Wimmatawongpittayakorn School, adjacent to the Si Rat - Outer Ring Road Expressway to visit Pipit Banglamphu History Museum and Coin Museum Thailand to learn the history of Banglamphu community with the racial and cultural diversity in the early Rattanakosin era, including learning of the evolution of coins extending from ancient times until the present.

“Share 2 Child Activity”

The Company invited children from Foundation for the Welfare of the Crippled under the Royal Patronage of Her Royal Highness the Princess Mother, Nonthaburi, (Srisangwal School) to learn how to use facilities for children with disabilities and take a free ride on the M.R.T. Chalong Ratchadham Line (MRT Purple Line) and watch an animated movie “Despicable Me 3”, to allow children to gain knowledge about proper utilization of the MRT system and make them happiness and smile.

Moreover, the Company invited a group of teachers and students from Wat Chatkaewchongkolnee School, Bang Phlat District, Bangkok, to take a free ride on the M.R.T. Chaloei Ratchamongkhon Line (MRT Blue Line) connecting to the M.R.T. Chalong Ratchadham Line (MRT Purple Line) to learn how to properly and safely use the MRT system as well as visiting the Depot for broadening their experience and inspiring their imagination.

“Give Books Get Back with MRT”

MRT passengers were invited to jointly donate books for children and youth, both new and second-hand books, at four stations, Phahon Yothin Station, Phetchaburi Station, Sukhumvit Station, and Silom Station, for further distribution to educational institutions in the program “Dream Learning Center for Kids by MRT”.

“MRT Launched the Program of Dream Learning Center for Kids by MRT”

The Director of Bang Phlat District, together with a group of management, staff of the Company, participated in the opening ceremony of a library of Wat Chatkaewchongkolnee School, Bang Phlat District, Bangkok, under the program “Dream Learning Center for Kids by MRT” on November 24, 2017.

The “Dream Learning Center for Kids by MRT” program was organized to improve the quality of life in terms of education of children and youth in educational institutions nearby the MRT route by way of collecting second-hand books jointly donated by the MRT passengers for development of the library at Wat Chatkaewchongkolnee School, together with learning and teaching equipment, such as, desktop PC, television, and DVD player, etc., as well as holding an activity for educating them about use of the MRT system, essay writing contest, painting contest for winning scholarships on the subject “MY MRT”. Furthermore, in the event, there were recreation activities via games to enhance kids’ knowledge, as well as sponsoring luncheon to the participants. Each activity would be volunteered by BEM staff to educate the students from Wat Chatkaewchongkolnee School and bring them happiness throughout the event.

8) Activity for Development of Quality of Life on Public Health

“M Care Activity”

The Company, in association with its partners, organized an exhibition booth to provide information on health, safety, and free health checkups for MRT passengers and residents surrounding the MRT routes and nearby communities, as follows:

- Exhibitions on health care and checkup by private hospitals to provide knowledge relating to proper and safe use of the MRT service (by Safety & Quality Division), such as, warning of pickpockets, safety in using escalators, etc., together with CSR bulletin board of Bangkok Expressway and Metro Public Company Limited.
- Health checkup service by Hua Chiew Traditional Chinese Medicine Clinic, by health care suggestion, initial, health checkup under traditional Chinese medicine, teaching how to make cold-relief aroma sachets with diverse herbs.
- Health checkup service by Thai Traditional and Complementary Medicine Hospital for initial medical assessment together with initial remedial massage under the medical physician’s disease diagnosis with traditional Thai medicine.
- Health checkup service by Bangpo Hospital for testing of fasting blood glucose, blood pressure, initial assessment of disease risk, health consulting service by registered nurses.
- Health checkup service by Yanhee Hospital for initial health checkup, initial suggestions on skin, body shape and beauty, including distribution of its vitamin water to the participants.
- Health checkup service by Metta Pracharak Hospital for initial eye measurement with advice on eyes by the ophthalmologists.
- Educating on initial exercise for the elderly by the Division of Physical Activity & Health, Department of Health, Ministry of Public Health, with an accurate practical demonstration given by the officials.

9) **BEM Paid a Final Tribute to His Majesty the late King Bhumibol Adulyadej**

“BEM in collaboration with CH. Karnchang Public Company Limited, affiliated companies, and Northern Bangkok Expressway Company Limited, to host the royal merit-making ceremony dedicated to the late King Bhumibol Adulyadej”

The Company in collaboration with CH. Karnchang Public Company Limited, affiliated companies, and Northern Bangkok Expressway Company Limited (NECL) hosted the royal merit-making ceremony dedicated to the late King Bhumibol Adulyadej to express the deepest royalty and gratitude to His Majesty the late King, at the Dusit Maha Prasat Throne Hall in the Grand Palace.

“BEM Paid a Final Tribute in Remembrance of His Majesty the late King Rama 9”

The Company expressed the deepest royalty and gratitude to the late King Bhumibol Adulyadej, by holding exhibitions showcasing the royal duties and his music genius during October 20-29, 2017 at MRT Hua Lamphong Station in the hallway area, Exit 2, and at MRT Phra Ram 9 Station in the area of concourse floor, as well as inviting the passengers to jointly decorate flowers of love for the farewell to our beloved King, and granting pictures in which His Majesty the late King Bhumibol Adulyadej graciously presided over the official opening ceremony of the M.R.T. Chaloem Ratchamongkhon Line on July 3, 2004, to passengers as a souvenir on the occasion of the royal cremation ceremony of His Majesty the late King Bhumibol Adulyadej. There were a great number of passengers participating in such activity to express their deepest royalty to the late King.

“BEM Jointly Invented and Delivered Flowers of Love Tribute to Our Beloved King”

The management and staff jointly invented a total of 4,909 sandalwood flowers to be used in the royal cremation ceremony of His Majesty the late King Bhumibol Adulyadej under the activity named “Sandalwood Flower Volunteering for Paying Tribute to the late King” for delivery to Rama IX Golden Jubilee Temple, represented by Phrarajayankawi, Assistant Abbot.

“BEM Volunteered to Distribute Free Drinking Water to People”

The Company jointly volunteered to serve the people who travelled to take part in the royal cremation ceremony of His Majesty the late King Bhumibol Adulyadej by distributing free drinking water to them at MRT Hua Lamphong Station, MRT Phra Ram 9 Station and MRT Lumpini Station.

“BEM and CH. Karnchang Group Joined Volunteers for Dad to Serve the People who Travelled to Offer Sandalwood Flowers to the late King Bhumibol Adulyadej”

The management and staff of the company group of CH. Karnchang took part in the volunteer activity to distribute water and sweets to the people who travelled to present the sandalwood flowers to the late King Bhumibol Adulyadej in the area of the royal Treat Food Hall and the outside of the Royal Crematorium Replica standing in the Lumpini Park.

10) **Activity for Promotion of Other Public Benefits**

“BEM and CH. Karnchang Group Presented Donations to Flood Victims in the South of Thailand”

The Company, in association with CH. Karnchang Public Company Limited, TTW Public Company Limited and CK Power Public Company Limited, presented donations to the flood victims in the 14 southern provinces to be a part in relief of hardships of the Thai people, via the Prime Minister’s Office, and meanwhile, the Company also presented a donation to flood victims in the south via the Thai Red Cross Society.

“BEM in association with CH. Karnchang Group Presented Donations to Flood Victims in the North and Northeast of Thailand in the Civil-State Unity under His Graciousness Project”

The Company, in association with the company group in CH. Karnchang, presented donations to flood victims in the north and northeast of Thailand via the “Civil-State Unity under His Graciousness” project, to be a part in providing aid to and relieving hardships of the flood victims, whereby General Prayuth Chan-o-cha represented to accept such donations.

“BEM Joined Public Benefit Activity in Honor of King Rama 10 with Bang Kruai Municipality”

The Company took part in the public benefit activity with Bang Kruai Municipality to jointly clean and improve the landscape in the areas along the railroad tracks from Thoet Phrakiat Road intersection to the entrance of Rama 7 Road in honor of His Majesty King Maha Vajiralongkorn Bodindradebayavarangkun on the occasion of his 65th birthday anniversary.

“Happy Smile Happy the Elderly”

The Company, in collaboration with Nonthaburi Municipality, organized the activity “Happy Smile Happy the Elderly” to continue the traditional Thai customs with pouring water on the hands of the revered elderly and asking for blessing, as well as delivering a lecture on how to safely use the MRT system, and joining recreation activities to bring the elderly happiness at the Multipurpose Building, Wat Chaeng Siri Samphan Temple, Nonthaburi Province.

“Buddhist Monk Robe Offering Ceremony for 2017”

The Company, in association with communities surrounding the expressway project route, the MRT route and the MRT passengers, together with a group of management and staff, hosted the Buddhist Monk Robe Offering Ceremony for 2017 at Wat Bang Pho Omawat Temple, Bang Sue District, Bangkok, to participate in donation for renovation of Vihara Luang Pho To, in the donated amount of Baht 1,049,999.

10.3 Anti-Corruption Policy

10.3.1 The Company’s Anti-Corruption Policy

The Company realizes and gives priority to anti-corruption and fraud prevention, both inside and outside its organization. The Company thus formulates guidelines for proper conduct of directors, management and staff via the code of business ethics of the Company. Furthermore, with the potential damage from corruption in mind, the Company then formulates anti-corruption policy containing the key practical guidelines as follows:

1. The Company’s staff at all levels should carry out activities with fairness, integrity and transparency in business dealings with various agencies, provided that such activities must be lawful, and they have the duty to comply with the anti-corruption policy in the code of business ethics of the Company.
2. The Company promotes fair treatment with integrity towards its traders and compliance with any contractual commitments made with the Company’s stakeholders.
3. Executives’ and staff’s awareness must be promoted to ensure that they refrain from committing any fraud and realize consequences of corruption.
4. Directors, executives and staff must refrain from accepting or offering any reception, gifts, and any other payments which are extravagant and unusual to those in business dealings with the Company.
5. The Company arranges for staff training to educate them regarding the anti-corruption policy, practices and guidelines.

The Company which operates the expressway business and the metro business did formulate and implement their respective anti-corruption policies, which can be summarized as follows:

10.3.2 Expressway Business

The Company sets out measures, based on both disciplinary and legal actions, against corruption. The fact-finding must be conducted by a committee comprising representatives from the human resources department, from the department of the offender and from other units. The Managing Director is authorized to consider imposing disciplinary actions in case of written warning and termination of employment. Should the misconduct constitute embezzlement, legal action will be undertaken to protect the Company's interests. Guidelines under this policy are as follows:

1. No business dealings may be entered into with any organization or unit which is involved in corruption.
2. Disciplinary and legal actions will be imposed and instituted against such staff who are involved in corruption.

Additional Anti-Corruption Practices

The Company intends to operate its business with transparency without involvement with any corruption, in accordance with the corporate governance policy. All directors, executives and staff must perform their duties with integrity, due care, prudence and in the best interests of the Company and fairness to stakeholders, as well as free from corruption, both internal and external.

1. The Company and its Subsidiary set out policy and measures for anti-corruption and prevention of payments or acceptance of bribery, including any actions contrary to morality and customary practices, which are written in the corporate governance policy, the Company's code of business ethics, and the work rules and regulations, for compliance by all directors, executives and staff.
2. The Company is aware of business risks from both internal and external factors which may affect its operations. The Company therefore sets out a systematic risk management, monitoring and measures to continuously minimize risks. The Corporate Governance and Risk Management Committee was thus appointed to consider the policy level while the Management has the duty to supervise the overall risk management process and perform the day-to-day operation on behalf of the Corporate Governance and Risk Management Committee. Such duties include monitoring, evaluation and preparation of a risk management report at the department level for submission to the Board of Directors for information. Moreover, the risk management manual and plan are prepared as operational guidelines, including risk monitoring, evaluation and review in line with the internal and external circumstances. All work units must also prepare emergency plans for any emergency situation so as to be ready to resolve problems forthwith.
3. In order to comply with the written anti-corruption policy, the Company also builds up recognition of anti-corruption practices in the organization by way of training, using both physical and psychological approaches, to develop a positive attitude, such as practice the Dhamma with BEM, because the Company believes that decency emanates from inside out. In preparation for the application for certification of membership in Thailand's Private Sector Collective Action Coalition Against Corruption, the Company had various departments conduct a self-assessment to identify potential improvements in compliance with the anti-corruption measures in Thailand's Private Sector Collective Action Coalition Against Corruption. Moreover, the Company assigned two representatives, who are responsible for the corporate governance and the internal audit, to attend the Anti-Corruption: The Practical Guide (ACPG 15) course, organized by the Institute of Directors Association (IOD).
4. The Company surveys the compliance with the code of business ethics yearly for the management to review their conduct in accordance with the code of business ethics.

5. The Company treats misconduct relating to fraud and corruption as serious disciplinary misconduct, and any violation is subject to severe disciplinary action up to termination of employment without prior warning. The details of such misconduct are described as follows:
 - (1) Disclosure of the Company's confidential information to any third parties;
 - (2) Breach of duty and/or fraudulent acts towards the Company, including a conspiracy with others to do so;
 - (3) Abuse of position for personal interest or for the interest of others;
 - (4) Acceptance of undue consideration in relation to assigned tasks;
 - (5) Showing impolite manners or use of aggressive, threatening, insulting words or causing bodily injury to supervisors, including visitors.

10.3.3 Metro Business

The Company gives priority to good corporate governance, including anti-corruption measures, and the Company has made determined arrangements to tackle issues of corruption pursuant to the good corporate governance. The Company has made its anti-corruption policy known to all staff and disseminated such policy on intranet website and the Company's main website regarding the content of Corporate Governance, as well as providing training courses for all new directors of the Company to ensure their awareness of such matters from the beginning and holds an annual refresher and testing program for all staff, in order to review their conduct in accordance with the code of business ethics. Moreover, the Company takes into account potential damage as a result of corruption by arranging for a whistleblower guide for any matter which may give rise to damage to the Company by reporting directly to the Audit Committee.

11. Internal Control and Risk Management

11.1 Internal Control

The Board of Directors continues to realize the significance of its good and effective internal control system, including its good corporate governance guidelines. It believes that a good internal control system is founded on a good performance process, organization chart and work system, which could help achieve goal or mission with efficiency and effectiveness, as well as minimize risk and prevent possible damage in the Company's business operations. The Board of Directors has thus authorized the Audit Committee comprising independent directors to audit the evaluation of the effectiveness of the internal control system. The Internal Audit Office, which independently performs its duty and directly reports to the Audit Committee, audits the work operation system in various departments of the Company as per the annual audit plan approved by the Audit Committee to ensure each department's efficient and effective performance of work and optimized use of its resources, as well as ensuring corruption control and prevention. This also includes the control of the work performance, the timely, accurate and reliable financial reports, as well as the compliance with the policies as well as laws and regulations of the government agencies and relevant authorities. Furthermore, the effectiveness of the internal control system is regularly reviewed to ensure the optimum benefit to the shareholders from the business operation based on fairness in terms of benefits to all stakeholders. In addition, the Audit Committee shall have the duties to consider, select and submit for appointment of the auditor, including remuneration of the auditor, consider accurate and complete disclosure of the Company's connected transactions or any transactions which may give rise to any conflicts of interest.

11.2 Risk Management

The Board of Directors has realized the significance of using the risk management system in the administration by assigning the Corporate Governance and Risk Management Committee to supervise and review the Company's overall risks, risk management strategy and risk alert system. This is to ensure proper and timely response to various challenges, as well as to provide training for executives and staff about the risk management guidelines for their understanding and engagement in the firmwide risk management, covering both corporate level and operational level. The Company's management takes into account various risk factors currently sustained or threatened to be sustained in the future by the Company to analyze impact and possibility of such risks and to determine measures to prevent and deal with such risks to stay at an acceptable level in line with the Company's policy, and to report to the Corporate Governance and Risk Management Committee to consider the adequacy and appropriateness. The risk management plan shall be reviewed every year, and the effectiveness of the risk management system shall be evaluated every quarter, and at any time when the risk level has changed, whereby the results are regularly monitored on a quarterly basis by the secretary to the Corporate Governance and Risk Management Committee and reported to the management and the Corporate Governance and Risk Management Committee for acknowledgement and further report to the Board of Directors. The significant risk factors and management are described in Risk Factors on pages 87 to 92.

11.3 The Board of Directors has evaluated the adequacy of the internal control system based on the Internal Control Adequacy Evaluation Form, taking into consideration five components, i.e., corporate internal control, risk assessment, control measures, information and communication system, and follow-up system. It was concluded that the Company's internal control system was considered adequate and appropriate to the business operation without material defect in the internal control system; and it could control and prevent corruption and improper or unauthorized use by executives or employees of the property of the Company and the subsidiaries. The financial report of the Company was accurate and reliable in accordance with the generally accepted accounting standards and the financial reporting standards. The Company's business operation was in accordance with the law on securities and exchange and other applicable laws.

The Board of Directors, the Audit Committee and the auditor were of the opinion that the Company's business operation was transparent and in accordance with the good corporate governance principles, its internal control system was suitable, effective and capable of preventing improper or unauthorized use by executives or employees of the property of the Company.

The Head of the Internal Audit Unit is Miss Vasana Wattananukulchai, General Manager of Internal Audit Office. The Audit Committee is of the view that she has knowledge, abilities and work experience and is qualified to efficiently and adequately perform duties as the Head of the Internal Audit Unit. The appointment, removal and transfer of a person holding an office as Head of the Internal Audit Unit shall be subject to the Audit Committee's approval. (The details are described on page 211.

The Head of the Compliance Unit is Mr. Phakpoom Thaweewittayarat, Deputy Managing Director - Administration and Company Secretary, having knowledge on laws and accounting, abilities and work experience in the position of Company Secretary for a long time, who shall be responsible for compliance matters. (The details are described on page 212)

12. Connected Transactions

12.1 Criteria and Procedures for Approval of Execution of Connected Transactions

Transactions with persons who may have a conflict of interests are subject to the conditions and criteria in the ordinary course of business. The execution of connected transactions and transactions with a conflict of interests are in accordance with the regulations of the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission.

In the consideration and approval of any connected transaction, the Company shall propose such matter to the Board of Directors' Meeting, in which the directors having any involvement which may give rise to a conflict of interests shall not be entitled to attend and vote on such matter. Furthermore, the Audit Committee, as assigned by the Board of Directors, shall consider the disclosure of the Company's information in respect of the connected transaction or the transaction which may have a conflict of interests, to ensure accuracy and completeness.

In respect of connected transactions with general commercial terms which the Company and its subsidiaries have or may have in the future, the Company already requested approval in principle from the Board of Directors' Meeting.

12.2 Policy or Trend of Future Connected Transactions

The Company shall comply with the requirements and regulations of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand, as well as the rules on disclosure of information on connected transactions and acquisition and disposition of material assets of the Company and its subsidiaries, including the accounting standards as prescribed by the Federation of Accounting Professions. Should there be any transaction which may have a conflict of interests in the future, for example, engagement of a group of persons who may have a conflict of interests for construction, project management, maintenance, the Board of Directors, together with the Audit Committee, will consider the necessity and justification for execution of such transaction, as well as pricing and conditions on the execution of such transaction whether they are in the ordinary course of business, and in comparison with third party prices or market price, provided that the interested parties shall not take part in the consideration and approval for execution of the transaction. The Company has no policy for lending loans or providing guarantee to any person who may have a conflict of interests in accordance with the definition of the SEC Office.

In case that the Audit Committee has no expertise to consider any potential connected transaction, the Company will arrange for an independent expert or the Company's auditor to provide an opinion on such connected transaction in support of the decision-making by the Board of Directors and/or the Audit Committee or shareholders, as the case may be. In this regard, the Company discloses its connected transactions in the Company's notes to the financial statements as audited or reviewed by the Company's auditor.

12.3 Connected Transactions of the Company and the Subsidiaries with Persons who May Have a Conflict of Interests for 2017 and 2016

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited	- This company is a major shareholder of the Company, with 29.98 percent of shares in the Company as at September 8, 2017.	<u>The Company</u> - Project Management Fee	-	4,100,011,478	<p>- Project Management fee of the Si Rat - Outer Ring Road Expressway Project: On September 14, 2012, the Company engaged CH. Karnchang Public Company Limited as Project Manager of the Si Rat - Outer Ring Road Expressway Project, in the total value of Baht 22,500 Million, with a construction period of not exceeding 48 months, commencing on December 15, 2012.</p>	<p>- CH. Karnchang Public Company Limited has expertise, experience and know-how in the Segment Box Girder construction methodology in accordance with the terms of reference of the Si Rat - Outer Ring Road Expressway Project, together with experience in administering the lump sum turnkey contracts for the Company with good quality of work and low maintenance costs as well as construction completion according to schedule and within the fixed budget; and its strategic investment partnership with the Company which would assure its responsibility and commitment for the successful operation of the Project.</p>
	- Mr. Plew Trivisavet, Chairman of the Executive Board of CH. Karnchang Public Company Limited, serves as Vice Chairman of the Board of Directors and Chairman of the Executive Board of the Company.	- Trade accounts payable	-	65,002,500		
	- Mr. Phongsarit Tantisuwanitchkul, Senior Executive Vice President of CH. Karnchang Public Company Limited, serves as executive director of the Company.					
	- Mr. Prasert Marittanaporn, executive director and senior executive of CH. Karnchang Public Company Limited is the spouse of Mrs. Payao Marittanaporn, Managing Director of the Company and Acting Managing Director of NECL.	- Construction costs - Trade accounts payable	57,750,000 34,427,250	- -		
					<p>- On July 31, 2017, the Company engaged CH. Karnchang Public Company Limited for design and construction of a connection between the Si Rat - Outer Ring Road Expressway and the northern part of the Si Rat Expressway (heading to Chaeng Watthana), with the total value of Baht 275 Million, for a construction period of 18 months.</p>	<p>- The price of the work is reasonable based on the unit price used in the Project Management Agreement for the Si Rat - Outer Ring Road Expressway Project, which has been considered by the independent consulting engineer as the reasonable price.</p>

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited (Continued)		<u>The Company</u> - Costs of inspection and repair of the structure of the expressway	26,908,304	6,300,106	- Inspection and repair of the structure of the Si Rat Expressway, No. 3, Phase 5: On September 26, 2016, the Company executed a contract engaging CH. Karnchang Public Company Limited to carry out the inspection and repair of the structure of the Si Rat Expressway, No. 3, Phase 5, in the total value of Baht 32,341,810, with a contract term of 10 months from the date of the contract signing.	- The price of the work is reasonable and lower than the price assessed by the Company and the independent consulting company. In addition, the contractor has expertise and experience in construction of the Si Rat Expressway, and as such, it is capable of carrying out the work properly and is well-prepared to promptly start the work.
		- Trade accounts payable	-	2,416,794		
		- Costs of inspection and repair of the structure of the expressway	3,256,731	-	- Inspection and repair of the structure of the Si Rat Expressway, No. 4, Phase 1: On September 1, 2017, the Company executed a contract engaging CH. Karnchang Public Company Limited to carry out the inspection and repair of the structure of the Si Rat Expressway, No. 4, Phase 1, in the total value of Baht 24,884,140, with a contract term of 12 months from the date of the contract signing.	- The price of the work is reasonable and lower than the price assessed by the Company and the independent consulting company. In addition, the contractor has expertise and experience in construction of the Si Rat Expressway, and as such, it is capable of carrying out the work properly and is well-prepared to promptly start the work.
		- Trade accounts payable	896,347	-		
		- Interest income	12,907,083	35,985,138	- Sale of ordinary shares in Bangkok Metro Public Company Limited:	- The selling price of shares is reasonable and comparative to market price. Such price was concluded after negotiation and agreement based on the weighted average price of Bangkok Metro Public Company Limited's shares for the past 60 days, less discount of approximately 5 percent due to big lot trading. The conditions on payment were set to allow the Company to be able to sell all such shares on a single occasion at the agreed price.
		- Subscriptions receivable net of deferred interest income	-	756,834,379	On July 2, 2015, the Company sold its 2,050,134,895 shares in Bangkok Metro Public Company Limited to CH. Karnchang Public Company Limited, at the price of Baht 1.79 per share, whereby the Company received payment on the transaction date in the amount of Baht 2,000 Million, with the remaining payment to be gradually made until completion by August 2017.	

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited (Continued)		<p><u>The Company</u></p> <ul style="list-style-type: none"> - Other accounts receivable - Advance payment received under the Contract for Engineering Services (which was recorded in deferred project cost of rail in the Company's statement of financial position) 	-	12,840,000	<ul style="list-style-type: none"> - Engineering Services and Commissioning for Operation Service in the MRT Purple Line Project, Contract 4: On May 2, 2014, the Company executed the Contract engaging CH. Karnchang Public Company Limited for Engineering Services and Commissioning for Operation Service in the MRT Purple Line Project, Contract 4: Concession for Supply of M&E Systems and O&M Services (Khong Bang Phai Station - Tao Poon Station), for the total contract value of Baht 450 Million. 	<ul style="list-style-type: none"> - The contract was made with clear terms of payment. CH. Karnchang Public Company Limited is an experienced and specialized company in this type of work and was also responsible for the civil infrastructure work in relation to each train station. CH. Karnchang Public Company Limited has information of electric systems and civil work, which would enhance the efficiency in construction of such project.
		<ul style="list-style-type: none"> - Cost of maintenance of civil infrastructure and electrical and mechanical systems - Trade accounts payable 	90,950,000	87,555,556		
			22,737,500	18,725,000	<ul style="list-style-type: none"> - Civil Infrastructure and Electrical and Mechanical Systems Maintenance for the M.R.T. Chaloem Ratchamongkhon Line Project (MRT Blue Line): On November 17, 2015, the Company executed the Project Management Agreement engaging CH. Karnchang Public Company Limited for Civil Infrastructure and Electrical and Mechanical Systems Maintenance for the M.R.T. Chaloem Ratchamongkhon Line Project (MRT Blue Line) for a period of 9 years, for the total contract value of Baht 1,270 Million. 	<ul style="list-style-type: none"> - The value of the Project Management Agreement with CH. Karnchang Public Company Limited for Civil Infrastructure and Electrical and Mechanical Systems Maintenance for the MRT Blue Line Project is reasonable and lower than the price assessed by the Independent Certification Engineer under the same scope of work. In addition, CH. Karnchang Public Company Limited is a large-sized construction company in Thailand, having experience and expertise, and familiarity to equipment, including civil infrastructure of the metro, as it was responsible for the construction of tunnels and metro stations in the southern part of the MRT Blue Line Project. Therefore, it is well prepared for management of the maintenance and supply of equipment for the maintenance service.

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited (Continued)		<p><u>The Company</u></p> <p>- Cost of maintenance of civil infrastructure and electrical and mechanical systems</p>	211,700,000	55,000,000	<p>- On November 17, 2015, the Company executed the Project Management Agreement engaging CH. Karnchang Public Company Limited for Civil Infrastructure and Electrical and Mechanical Systems Maintenance, including maintenance of elevators and escalators inside the metro stations, elevated structures and depot, as well as supply of equipment, tools, spare parts and personnel for maintenance services, for the MRT Purple Line for a period of 8 years from November 17, 2015 to November 16, 2023, for the contract value of Baht 1,520 Million.</p> <p>Subsequently, on December 14, 2016, the Company executed additional Project Management Agreement engaging CH. Karnchang Public Company Limited for Civil Infrastructure and Electrical and Mechanical Systems Maintenance for the MRT Purple Line, for the contract value of Baht 155 Million, for a period of 7 years from January 1, 2017 to December 31, 2023.</p>	<p>- The value of the Project Management Agreement with CH. Karnchang Public Company Limited for Civil Infrastructure and Electrical and Mechanical Systems Maintenance, as well as supply of equipment and tools for train operation and maintenance services, for the MRT Purple Line is reasonable and lower than the price assessed by the Independent Certification Engineer under the same scope of work. In addition, CH. Karnchang Public Company Limited is a large-sized construction company in Thailand, having experience and expertise, and familiarity to equipment, including engineering structures of the MRT Purple Line.</p>
		<p>- Improvement of civil infrastructure in stations and depot, as well as supply of related spare parts and equipment (which was recorded in deferred project cost of rail in the Company's statement of financial position)</p> <p>- Trade accounts payable</p>	65,000,000	53,000,000		
			61,166,667	75,432,000		

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited (Continued)		<u>The Company</u> - Project Management Fee	8,789,070,222	-	<p>- On June 20, 2017, the Company executed the Agreement engaging CH. Karnchang Public Company Limited for Project Management, as well as Supply, Installation, and Test Run and Commissioning of M&E Equipment for the MRT Blue Line Project, for a total value of Baht 19,643 Million.</p> <p>Subsequently, the Company executed the Agreement engaging CH. Karnchang Public Company Limited for management of construction and improvement of the administrative building in the area of Huai Khwang Depot, as well as supply and installation of the (additional) M&E Equipment for the MRT Blue Line Project, for a total value of Baht 560 Million, whereby it shall be deemed as an integral part of the aforesaid Project Management Agreement.</p>	<p>- CH. Karnchang Public Company Limited operates the construction business with expertise, experience and know-how in administering the project in design, supply and installation of the M&E Equipment for the MRT Projects on a lump sum turnkey basis for the Company, with construction completion according to schedule and within the fixed budget, as well as good quality of work. The value of work is reasonable and lower than the price assessed by the Independent Certification Engineer under the same scope of work. In addition, CH. Karnchang Public Company Limited is a construction contractor for Contract 2 and Contract 5 of the MRT Blue Line Extension Project, and served as the Project Manager for the M.R.T. Chaloem Ratchamongkhon Line Project, which is beneficial to the Company in order to smoothly connect the M&E Systems and the civil infrastructure and efficiently integrate the M&E Equipment for the whole line of the MRT Blue Line Project.</p>
		<u>Northern Bangkok Expressway Company Limited ("NECL")</u> - Costs of inspection and repair of the structure of the expressway - Trade accounts payable	-	24,972,181		<p>- The price of the work is reasonable and lower than the price assessed by the Company and the independent consulting company. In addition, the contractor has expertise and experience in construction of the Si Rat Expressway, and as such, it is capable of carrying out the work properly and is well-prepared to promptly start the work.</p>

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
1. CH. Karnchang Public Company Limited (Continued)		<u>Bangkok Metro Networks Limited ("BMN")</u> - Office space rental and service charge - Trade accounts payable	7,885,899	7,188,358	- BMN entered into the office space lease agreement in Viriyathavorn Building with CH. Karnchang Public Company Limited, with a term of three years until February 9, 2016, and extended the lease term for another five months until July 9, 2016. Subsequently, BMN relocated its office by entering into the office space lease agreement in Viriyathavorn 2 Building with CH. Karnchang Public Company Limited, with a term of three years, from July 10, 2016 to July 9, 2019.	- This rental rate is comparable to the rental rates charged by the lessor to third party lessees.
2. Mass Rapid Transit Authority of Thailand ("MRTA")	- The Mass Rapid Transit Authority of Thailand holds shares in the Company representing 8.22 percent as at September 8, 2017. - Mr. Yuttana Yimgarund, director of MRTA, serves as director of the Company.	<u>The Company</u> - Remuneration from fare box revenue and commercial development revenue (as shown in the Income Statement) - Prepaid project remuneration (as shown in the Statement of Financial Position) - Trade accounts and other payables (Remuneration payable from revenue and others) - Building and land taxes	384,806,190	503,539,074	- The remuneration to MRTA from the fare box revenue and commercial development revenue. - The transaction is in accordance with the conditions of the Concession Agreement with which the Company is required to comply.	- The transaction is the expense which was made and paid under the Agreement.
			2,487,433,243	1,614,607,949		
			111,927,177	102,915,876		
			3,558,000	3,521,496	- In 2015, the building and land taxes amounted to Baht 3.14 Million, and the building and land taxes with retroactive effect for 2005 - 2013 amounted to Baht 11.34 Million.	

Persons who may have a conflict of interests	Relationship	Nature of Transaction	Transaction Value (Baht)		Necessity/Details	Opinion of the Audit Committee
			2017	2016		
2. MRTA (Continued)		<u>BMN</u> - Remuneration from use of space	-	236,963	- BMN took on lease of the area for advertising board installation in the vicinity of the Interchange Building at the MRT Sukhumvit Station, covering an area of 12 square meters, which ended in August 2016.	- The rental rate of such advertising media is reasonable.
		- Remuneration from use of space	115,457	-	- In 2017, BMN took on lease of the area for advertising board installation in the vicinity of Park & Ride Building at the MRT Lat Phrao Station, covering an area of 144 square meters, for a period of one year, ending on September 21, 2018.	
		- Building and land taxes	6,775,482	6,675,561	- In 2015, building and land taxes amounted to Baht 5.54 Million, and the building and land taxes with retroactive effect for 2005 - 2014 amounted to Baht 17.03 Million.	- The transaction is in accordance with the conditions of the Agreement.

13. Financial Highlights

Summary of the Report of the Auditor

EY Office Limited, as the auditor for the Company and its subsidiaries, has audited the consolidated statement of financial position of Bangkok Expressway and Metro Public Company Limited and its subsidiaries, which comprise the consolidated statement of financial position as at 31 December 2017, and the related consolidated statement of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, and have also audited the separate financial statement of Bangkok Expressway and Metro Public Company Limited as at 31 December 2017. The auditor is of the opinion that the financial statements referred to above present fairly, in all material respects, the financial position of Bangkok Expressway and Metro Public Company Limited and its subsidiaries, and of Bangkok Expressway and Metro Public Company Limited, as at 31 December 2017, their operational results and cash flow for the year then ended in accordance with Thai Financial Reporting Standards.

Statement of financial position	2017		2016		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Assets						
Current assets						
Cash and cash equivalents	2,627,062,725	2.66	777,001,145	0.94	4,483,374,825	5.74
Current investments	1,449,457,222	1.47	5,941,349,949	7.18	497,356,702	0.64
Trade and other receivables	426,286,028	0.43	1,614,563,463	1.95	84,628,359	0.11
Current portion of receivable from sales of investment	-	-	756,834,379	0.91	564,014,862	0.72
Current portion of receivable under the consession agreement	1,649,683,274	1.67	-	-	-	-
Other current assets	127,581,197	0.12	129,541,368	0.16	239,884,440	0.31
Total current assets	6,280,070,446	6.35	9,219,290,304	11.14	5,869,259,188	7.52
Non-current assets						
Receivable from sales of investment, net of current portion	-	-	-	-	756,834,379	0.97
Receivable under the consession agreement, net of current portion	12,510,098,163	12.65	-	-	-	-
Investments in associates	9,592,230,802	9.70	9,667,680,300	11.68	9,836,588,559	12.60
Other long-term investment	1,654,862,090	1.67	1,237,849,790	1.50	913,087,490	1.17
Investment properties	120,357,493	0.12	120,357,493	0.15	120,357,493	0.15
Building and equipment	361,168,428	0.37	340,732,838	0.41	154,365,572	0.20
Rights to operate expressway sectors	38,448,873,562	38.87	41,551,825,215	50.19	39,927,864,221	51.13
Rights to use sites for expressway construction	719,073,059	0.73	1,020,623,701	1.23	1,320,193,685	1.69
Intangible asset under concession agreement of the MRT Blue Line Project	25,954,096,373	26.24	17,048,090,154	20.59	17,016,713,315	21.79
Advance payment under expressway construction contract	-	-	-	-	398,250,000	0.51
Project cost of the MRT Chalong Ratchadham Line	666,742,626	0.67	627,255,954	0.76	271,396,970	0.35
Prepaid project remuneration	2,487,433,243	2.51	1,614,607,949	1.95	942,249,276	1.21
Other intangible assets	75,257,871	0.08	68,228,569	0.08	36,236,800	0.05
Deferred tax assets	4,997,667	0.01	201,887,940	0.24	474,860,502	0.61
Other non-current assets	44,103,679	0.03	67,132,878	0.08	56,345,685	0.05
Total non-current assets	92,639,295,056	93.65	73,566,272,781	88.86	72,225,343,947	92.48
Total assets	98,919,365,502	100.00	82,785,563,085	100.00	78,094,603,135	100.00

Statement of financial position (continued)	2017		2016		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Liabilities and shareholders' equity						
Current liabilities						
Short-term loans from financial institutions	3,629,184,736	3.67	4,715,775,247	5.70	22,410,000,000	28.70
Trade and other payables	2,107,884,865	2.13	898,075,149	1.08	2,627,335,133	3.36
Current portion of long-term loans from financial institutions	3,808,760,069	3.85	2,066,750,000	2.50	118,500,000	0.15
Unearned fare box revenue	138,261,714	0.14	111,971,378	0.14	89,973,896	0.12
Deposits on stored value ticket	54,367,547	0.05	43,313,997	0.05	34,738,933	0.04
Income tax payable	62,132,371	0.06	31,444,025	0.04	306,735,926	0.39
Current portion of provision for compensation for site acquisition cost	1,600,000,000	1.62	1,500,000,000	1.81	1,500,000,000	1.92
Other current liabilities						
Retention guarantees	19,917,415	0.02	70,983,137	0.09	161,068,581	0.21
Others	162,315,927	0.17	119,444,343	0.14	66,366,706	0.09
Total current liabilities	11,582,824,644	11.71	9,557,757,276	11.55	27,314,719,175	34.98
Non-current liabilities						
Long-term loans from financial institutions, net of current portion	25,801,112,363	26.08	16,952,402,523	20.48	17,329,066,575	22.19
Debentures	28,170,623,095	28.48	23,167,912,861	27.99	-	-
Derivative financial liabilities	52,954,374	0.05	18,608,408	0.02	-	-
Provision for compensation for site acquisition cost, net of current portion	1,411,401,698	1.43	2,817,151,698	3.40	4,066,671,698	5.21
Provision for long-term employee benefits	483,787,045	0.49	471,043,876	0.57	237,842,102	0.30
Deferred tax liabilities	217,152,225	0.22	-	-	-	-
Other non-current liabilities	20,211,885	0.02	17,982,160	0.02	16,269,432	0.02
Total non-current liabilities	56,157,242,685	56.77	43,445,101,526	52.48	21,649,849,807	27.72
Total liabilities	67,740,067,329	68.48	53,002,858,802	64.03	48,964,568,982	62.70

Statement of financial position (continued)	2017		2016		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Shareholders' equity						
Share capital						
Registered						
15,285,000,000 ordinary shares of Baht 1 each	15,285,000,000	15.45	15,285,000,000	18.46	15,285,000,000	19.57
Issued and paid-up						
15,285,000,000 ordinary shares of Baht 1 each	15,285,000,000	15.45	15,285,000,000	18.46	15,285,000,000	19.57
Premium on ordinary shares	5,816,938,084	5.88	5,816,938,084	7.03	5,816,938,084	7.45
Retained earnings						
Appropriated - statutory reserve	1,077,490,000	1.09	928,690,000	1.12	800,490,000	1.03
Unappropriated	8,948,481,343	9.05	7,763,596,451	9.38	7,254,261,049	9.29
Other components of shareholders' equity	(59,724,462)	-0.06	(104,972,966)	-0.13	(113,097,160)	-0.14
Equity attributable to shareholders of the Company	31,068,184,965	31.41	29,689,251,569	35.86	29,043,591,973	37.20
Non-controlling interests of the subsidiaries	111,113,208	0.11	93,452,714	0.11	86,442,180	0.10
Total shareholders' equity	31,179,298,173	31.52	29,782,704,283	35.97	29,130,034,153	37.30
Total liabilities and shareholders' equity	98,919,365,502	100.00	82,785,563,085	100.00	78,094,603,135	100.00

Income statement	2017		2016		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Revenues						
Revenue from expressway business	9,956,687,741	64.68	9,300,724,132	70.28	8,814,588,007	67.26
Revenue from rail business	4,520,903,061	29.37	3,230,064,080	24.41	2,373,562,621	18.11
Revenue from commercial development business	675,836,158	4.39	573,349,010	4.33	549,431,372	4.19
Other income						
Interest income	175,173,105	1.14	68,199,690	0.52	57,843,948	0.44
Gain from sales of investment before amalgamation	-	-	-	-	1,235,526,377	9.43
Others	64,631,074	0.42	61,057,711	0.46	73,859,102	0.57
Total revenues	15,393,231,139	100.00	13,233,394,623	100.00	13,104,811,427	100.00
Expenses						
Cost of expressway business	1,735,419,841	11.27	1,511,964,604	11.43	1,383,129,584	10.55
Cost of rail business	3,352,428,083	21.78	2,371,420,998	17.92	1,444,542,770	11.02
Cost of commercial development business	177,151,157	1.15	199,943,914	1.51	210,151,434	1.60
Amortisation of rights to operate expressway sectors and compensation for site acquisition cost	3,694,893,202	24.00	3,470,883,807	26.23	3,422,566,022	26.12
Amortisation on intangible asset under concession agreement of the MRT Blue Line Project	246,289,965	1.60	440,076,422	3.33	777,584,371	5.93
Selling expenses	95,250,353	0.62	92,540,321	0.70	79,252,582	0.60
Administrative expenses	1,048,996,443	6.82	892,093,625	6.73	893,992,437	6.84
Total expenses	10,350,429,044	67.24	8,978,923,691	67.85	8,211,219,200	62.66
Profit before share of profit from investments in associates, finance cost and income tax expenses	5,042,802,095	32.76	4,254,470,932	32.15	4,893,592,227	37.34
Share of profit from investments in associates	405,916,311	2.64	347,349,465	2.62	461,212,789	3.52
Profit before finance cost and income tax expenses	5,448,718,406	35.40	4,601,820,397	34.77	5,354,805,016	40.86
Finance cost	(1,610,765,279)	-10.47	(1,426,027,697)	-10.77	(1,932,552,456)	-14.75
Profit before income tax expenses	3,837,953,127	24.93	3,175,792,700	24.00	3,422,252,560	26.11
Income tax expenses	(695,602,106)	-4.52	(562,927,698)	-4.26	(721,234,596)	-5.50
Profit for the year	3,142,351,021	20.41	2,612,865,002	19.74	2,701,017,964	20.61
Profit attributable to:						
Equity holders of the Company	3,123,129,324	20.29	2,605,854,468	19.69	2,649,736,343	20.22
Non-controlling interests of the subsidiaries	19,221,697	0.12	7,010,534	0.05	51,281,621	0.39
	3,142,351,021	20.41	2,612,865,002	19.74	2,701,017,964	20.61
Basic earnings per share						
Profit attributable to equity holders of the Company	0.20		0.17		0.17	

Statement of comprehensive income	2017		2016		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Profit for the year	3,142,351,021	20.41	2,612,865,002	19.74	2,701,017,964	20.61
Profit for the year						
Other comprehensive income to be reclassified to profit or loss in subsequent periods:						
Unrealised loss from cash flow hedges of the Company, net of income tax	(27,476,773)	-0.18	(14,886,726)	-0.11	-	-
Share of other comprehensive income from associates, net of income tax	72,725,277	0.47	23,010,920	0.17	(46,505,941)	-0.35
Other comprehensive income to be reclassified to profit or loss in subsequent periods, net of income tax	45,248,504	0.29	8,124,194	0.06	(46,505,941)	-0.35
Other comprehensive income not to be reclassified to profit or loss in subsequent periods						
Actuarial gain (loss) of the Company, net of income tax	45,830,261	0.30	(134,132,646)	-1.01	5,606,050	0.04
Actuarial gain (loss) of associates, net of income tax	(2,635,896)	-0.01	13,580	0.00	-	-
Other comprehensive income not to be reclassified to profit or loss in subsequent periods, net of income tax	43,194,365	0.29	(134,119,066)	-1.01	5,606,050	0.04
Other comprehensive income for the year	88,442,869	0.58	(125,994,872)	-0.95	(40,899,891)	-0.31
Total comprehensive income for the year	3,230,793,890	20.99	2,486,870,130	18.79	2,660,118,073	20.30
Total comprehensive income attributable to:						
Equity holders of the Company	3,213,133,396	20.87	2,479,859,596	18.74	2,608,836,452	19.91
Non-controlling interests of the subsidiaries	17,660,494	0.12	7,010,534	0.05	51,281,621	0.39
	3,230,793,890	20.99	2,486,870,130	18.79	2,660,118,073	20.30

Cash flow statement	2017	2016	2015
Cash flows from operating activities			
Profit before tax	3,837,953,127	3,175,792,700	3,422,252,560
Adjustments to reconcile profit before tax to net cash provided by (paid from) operating activities:			
Amortisation and depreciation	3,544,655,128	3,422,513,416	3,270,656,984
Allowance for doubtful debt	272,590	471,546	-
Gain from sales of investment before amalgamation	-	-	(1,235,526,377)
Gain on investments	(41,608,290)	(31,090,443)	(62,222,728)
Loss on disposals/write-off of equipment, intangible asset under concession agreement of the MRT Blue Line Project and other intangible assets	6,028,232	1,197,724	(3,481,422)
Project remuneration expense	384,806,190	503,539,074	371,749,656
Compensation for site acquisition cost	495,800,643	550,049,984	595,973,617
Provision for long-term employee benefits	76,747,586	63,285,807	36,803,472
Share of profit from investments in associates	(405,916,311)	(347,349,465)	(461,212,789)
Unrealised loss (gain) on exchange rate	(105,460)	509,200	552,419
Interest income	(175,173,105)	(67,646,250)	(57,085,937)
Interest expenses	1,572,881,432	1,173,937,460	1,330,203,885
Profit from operating activities before changes in operating assets and liabilities	9,296,341,762	8,445,210,753	7,208,663,340
Operating assets (increase) decrease			
Trade and other receivables	155,095,799	(1,530,393,882)	21,466,299
Receivable under the concession agreement	412,420,819	-	-
Other current assets	101,986,629	118,245,333	(2,326,064)
Other non-current assets	13,393,495	(59,034,205)	(27,667,427)
Cash paid for project remuneration	(1,252,089,706)	(1,167,855,334)	(1,005,166,667)
Operating liabilities increase (decrease)			
Trade payables and other payables	8,049,920	27,111,561	133,650,482
Unearned fare box revenue	26,290,336	21,997,482	3,038,660
Deposits on stored value ticket	11,053,550	8,575,064	(735,750)
Other current liabilities	(8,194,092)	(14,279,907)	(75,632,327)
Other non-current liabilities	2,229,724	1,002,021	(12,808,430)
Cash paid for long-term employee benefits	(7,740,208)	(3,733,720)	-
Cash paid for compensation for site acquisition cost	(1,500,000,000)	(1,500,000,000)	(1,500,000,000)
Net cash flows from operating activities	7,258,838,028	4,346,845,166	4,742,482,116
Cash received from interest income	139,602,025	14,076,604	4,537,910
Cash paid for income tax	(248,930,830)	(515,595,620)	(585,484,131)
Net cash flows from operating activities	7,149,509,223	3,845,326,150	4,161,535,895

Cash flow statement (continued)	2017	2016	2015
Cash flows from investing activities			
Decrease (increase) in current investments	4,533,501,017	(5,419,545,593)	1,901,788,886
Increase of investments in subsidiary	-	-	(154,000,000)
Cash paid for purchases of investments in associates	-	-	(1,402,165,044)
Cash received from sales of investments in associate	-	46,971,310	42,514,120
Cash received from sales of investment before amalgamation	769,741,462	600,000,000	2,300,000,000
Increase in other long-term investments	(417,012,300)	(324,762,300)	(213,750,000)
Cash received from sales of equipment and intangible asset under concession agreement of the MRT Blue Line Project	7,706,184	8,074,075	3,514,566
Purchase of equipment	(89,131,306)	(233,477,194)	(39,352,287)
Advance payment for purchase of equipment	(77,040)	(83,400)	-
Cash received from interest income	21,484,010	12,907,263	9,339,041
Cash received from dividend income	551,455,191	498,953,704	528,855,465
Cash paid for project cost of the MRT Chalong Ratchadham Line	(65,000,000)	(362,076,317)	(134,104,815)
Cash paid for intangible asset under concession agreement of the MRT Blue Line Project	(7,906,570,615)	(412,493,534)	(141,867,979)
Cash paid for expressway construction	(130,085,647)	(5,732,648,468)	(7,038,885,967)
Interest expenses capitalised as cost of projects	(48,805,714)	(301,989,908)	(385,316,949)
Increase in intangible assets	(25,644,761)	(43,075,180)	(8,680,720)
Net cash flows used in investing activities	(2,798,439,519)	(11,663,245,542)	(4,732,111,683)
Cash flows from financing activities			
Cash received for in short-term loans from financial institutions	-	10,400,000,000	20,410,000,000
Cash paid for short-term loans from financial institutions	(1,088,000,000)	(28,090,000,000)	-
Cash received from long-term loans from financial institutions	500,000,000	12,344,000,000	5,356,000,000
Repayment of long-term loans from financial institutions	(3,536,448,559)	(10,759,185,781)	(40,500,000)
Cash received from debentures	5,000,000,000	23,500,000,000	-
Cash paid for redemption of debentures	-	(300,000,000)	(19,400,000,000)
Cash paid for financial fees	(8,219,329)	(67,423,644)	(21,495,301)
Interest paid	(1,534,140,236)	(1,081,644,863)	(1,702,101,798)
Dividend paid	(1,834,200,000)	(1,834,200,000)	(1,925,000,000)
Net cash flows from (used in) financing activities	(2,501,008,124)	4,111,545,712	2,676,902,901
Net increase (decrease) in cash and cash equivalents	1,850,061,580	(3,706,373,680)	2,106,327,113
Cash and cash equivalents at beginning of year	777,001,145	4,483,374,825	2,377,047,712
Cash and cash equivalents at end of year	2,627,062,725	777,001,145	4,483,374,825

Financial Ratios of Financial Statements

	Unit	2017	2016	2015
LIQUIDITY RATIO				
1. Liquidity Ratio	Time	0.46	0.96	0.21
2. Quick Ratio	Time	0.45	0.87	0.19
3. Cash Flow Ratio	Time	0.72	0.21	0.23
PROFITABILITY RATIO				
4. Gross Profit Margin	%	39.25	38.99	38.34
5. Cash to Profitability Ratio	%	72.55	43.61	48.28
6. Net Profit Margin	%	20.45	19.69	20.22
7. Return on Equity	%	10.31	8.87	9.76
EFFICIENCY RATIO				
8. Return on Total Assets	%	3.75	3.25	3.65
9. Return on Fixed Assets	%	10.81	10.40	11.02
10. Assets Turnover	Time	0.18	0.16	0.18
FINANCIAL POLICY RATIO				
11. Interest Bearing Debt to Equity Ratio	Time	1.38	1.31	1.20
12. Interest Coverage Ratio	Time	6.66	7.51	6.48
13. Net Debt to EBITDA	Time	5.20	5.25	5.10
Per Share DATA				
14. Book Value per Share	Baht	2.03	1.94	1.90
15. Net Earnings per Share	Baht	0.20	0.17	0.17
16. Dividend per Share	Baht	0.13	0.11	0.11

Note : The Company has not presented Accounts Receivable Turnover, Average Collection Period, Accounts Payable Turnover, Average Debt Servicing Period and Cash Cycle because these ratios are not appropriated for consideration of the Company's operation according to the amount of accounts receivable and accounts payable which are not significant for the Company's nature of operation.

The above financial ratios are not include transaction related to the novation of the M&E systems under the concession agreement of the MRT Chalong Ratchadham Line Project which the MRTA is fully responsible for both loan repayment and interest expense in accordance to the concession agreement.

Report on Responsibilities of the Board of Directors towards the Financial Report

The Company's Board of Directors realizes the significance of its duties and responsibilities in supervising the Company's business to ensure good management in accordance with laws, detailed objectives and the Company's Articles of Association, as well as resolutions of the shareholders' meetings with integrity and prudence. The Board of Directors protects the benefits of the Company, shareholders and general investors by ensuring that the Company's financial report contains accurate and full accounting records that reflect the Company's actual financial status and operational results.

The Company's Board of Directors establishes the Audit Committee comprising independent directors fully qualified in accordance with the requirements of the Stock Exchange of Thailand to review and ensure accuracy and sufficiency of the financial report, including accurate and complete disclosure of connected transactions or transactions with possible conflict of interest, in compliance with the requirements of the Stock Exchange of Thailand and relevant rules and regulations. In this regard, the Audit Committee has already reported its performance to the Company's Board of Directors.

The Company's Board of Directors is of the opinion that the financial statements for 2017 of the Company and the Subsidiaries, which have been reviewed by the Audit Committee in conjunction with the management, and audited by the Company's auditor, reflect accurate financial status and operational results as appropriate in material aspects in accordance with generally accepted accounting principles.



(Dr. Virabongsa Ramangkura)

Chairman of the Board of Directors

27 February 2018



(Mrs. Payao Marittanaporn)

Managing Director

27 February 2018

14. Management Discussion and Analysis

Significant events

1. Bangkok Expressway and Metro Public Company Limited entered into the MRT Blue Line Concession Agreement with the Mass Rapid Transit Authority of Thailand (the “MRTA”) on March 31, 2017 for the concession period of 33 years. The MRT Blue Line Project consisted of the Chaloem Ratchamongkhon Project (Hua Lamphong Station - Bang Sue Station), currently operated and the MRT Blue Line Extension Project (Hua Lamphong Station - Lak Song Station and Bang Sue Station - Tha Phra Station) which will be connected and operated as a Through Operation. The MRT Blue Line Extension Project, which has a total distance of 27 kilometers with 20 stations, connects with the MRT Chaloem Ratchamongkhon at Bang Sue Station and Hua Lamphong Station. The project is targeted to complete and be operated within 36 months from the date the MRTA provided the Company a written Notice to Proceed, as detailed below: -
Section 1 Bang Sue Station - Tao Poon Station: within August 15, 2017. With a total distance of 1 kilometer, the Company has operated this section since August 11, 2017, that makes passengers the convenience of travelling between the MRT Purple Line Project and the MRT Blue Line Extension Project.
Section 2 Hua Lamphong Station - Lak Song Station: within 30 months or within September 2019. With a total distance of 14 kilometers, the route starts from Hua Lamphong Station with the underground distance of 5 kilometers including 4 stations along Rama IV Road to Charoen Krung Road, passes Wat Mangkon Kamalawat and Wang Burapa. The route then enters to Sanam Chai Road, crosses under the Chao Phraya River at Pak Khlong Talat, and runs along Issarapab Road. Then, the line elevates, heads to Tha Phra intersection that has a joint station with the MRT Blue Line Extension Project Bang Sue Station - Tha Phra Station Section, runs along Phetkasem Road, passes Bang Pai, Bang Wa, Phasi Charoen, and Bang Kae, and ends at Kanchanapisek Road, totaling 9 kilometers of elevated structure with 7 stations.
Section 3 Tao Poon Station - Tha Pra Station: within 36 months or within March 2020. With a total distance of 12 kilometers, the elevated structure has 8 stations, starts from Tao Poon intersection, that has an interchange station with the MRT Purple Line Project. The route then enters into Pracharat Sai 2 Road, passes Bang Pho intersection, crosses the Chao Phraya River, runs along Charansanitwong Road, passes Bang Phlat intersection, Borommaratchonnani intersection, Fai Chai intersection, and ends at Tha Phra intersection, that has a joint station with the MRT Blue Line Extension Project Hua Lamphong Station - Lak Song Station Section.
2. Bangkok Expressway and Metro Public Company Limited entered into an extension of the concession agreement with the Expressway Authority of Thailand (EXAT) on July 19, 2017 for the construction of the Connection between the Si Rat-Outer Ring Road Expressway and the Northbound Si Rat Expressway (heading to Chaeng Watthana) for the period of approximately 18 months.
3. Bangkok Expressway and Metro Public Company Limited issued 5-year and 7-year debentures totaling amount to Baht 5,000 Million on September 7, 2017 which is reserved for investment and working capital.
4. Bangkok Expressway and Metro Public Company Limited entered into the Novation and Debt Repayment Agreement for the MRT Purple Line Project on September 29, 2017 by novating M&E accounts payable to long term loan from financial institutions totaling of Baht 13,619 Million which is the same amount that the Company has the obligation. This novation has no effect to the required Debt to Equity ratio due to the MRTA is fully responsible for the loan repayment according to the concession agreement.

Overview Operational Results

In the year 2017, the Company had the net profit attributable to equity holders of the Company in the amount of Baht 3,123 Million representing an increase from the previous year by Baht 517 Million or 19.8 percent. The Company had total revenue of Baht 15,393 Million, representing an increase from the previous year by Baht 2,160 Million or 16.3 percent. The revenue increased from all 3 businesses but mainly from the Si Rat-Outer Ring Road Expressway (SOE) and the O&M service of the MRT Purple Line, both operated in August 2016 which the Company realized those revenues only for 5 months, while fully realized in the year 2017. In addition, interest income amounted to Baht 118 Million was received from the MRTA under the concession agreement of the MRT Chalong Ratchadham Line Project where the income is equal to the interest expense from the long term loan for investing in the MRT Chalong Ratchadham Line Project which the MRTA is fully responsible for both loan repayment and interest expense in accordance to the concession agreement.

Cost of service amounted to Baht 9,206 Million representing an increase from the previous year by Baht 1,212 Million or 15.2 percent according to the opening of the projects.

Financial cost amounted to Baht 1,611 Million representing an increase from the previous year by Baht 185 Million or 13 percent. The main increase in finance cost amounted to Baht 118 Million was from interest expense from long term loan for investing in the MRT Chalong Ratchadham Line Project which the MRTA is fully responsible according to the concession agreement (same amount of interest income as described above). The other increase in finance cost amounted to Baht 67 Million was from the increase in interest cost from SOE construction loans, which were all recorded as interest expenses in the income statement once operated but were partially recorded as cost of construction in the year 2016 according to accounting standard. Also, in the year 2016 the Company had the prepayment fee from re-financing which recognized as a one-off expense of Baht 212 Million but there was no such transaction in this year.

Segmental performance

1. Expressway business

The Company had revenue from Expressway business of Baht 9,957 Million, representing an increase from the previous year by Baht 656 Million or 7.1 percent. The increase in toll revenue amounted to Baht 612 Million was from SOE operated in August 2016 which the Company has the right to receive toll revenue. SOE average traffic volume in the year 2017 was at 50,000 trips/day representing an increase by 62.6 percent when compared to the first month of its operation. For the First Stage Expressway (FES) and the Second Stage Expressway (SES), toll revenue was similar to the previous year. For the Bang Pa-in - Pak Kret Expressway, toll revenue increased from the previous year by Baht 60 Million or 4.5 percent due to the expansion of suburban area resulting to the traffic volume increased.

Cost of service for operation of Expressway business consisted of costs of toll, amortization of rights to operate completed expressway sectors and compensation for site acquisition cost. For the year 2017, the cost was at Baht 5,430 Million, representing an increase from the previous year by Baht 447 Million or 9 percent. This was mainly from the operation of the SOE.

2. Rail business

The Company had revenue from Rail business of Baht 4,521 Million, representing an increase from the previous year by Baht 1,291 Million or 40 percent. The increase in revenue amounted to Baht 1,095 Million was from the service revenue of the MRT Purple Line (O&M contract) which operated in August 2016. Farebox revenue of the MRT Blue Line increased from the previous year by Baht 196 Million or 7.9 percent from the connection between the MRT Purple Line Project and the MRT Blue Line Project in August 2017 which makes convenience and time saving for passengers resulting to the increase in ridership of both projects. The average ridership of the MRT Blue Line Project in September 2017 (1 month after the connection) was at 319,800 trips/day representing an increase by 13.4 percent when compared to the average ridership in July 2017 (1 month before the connection).

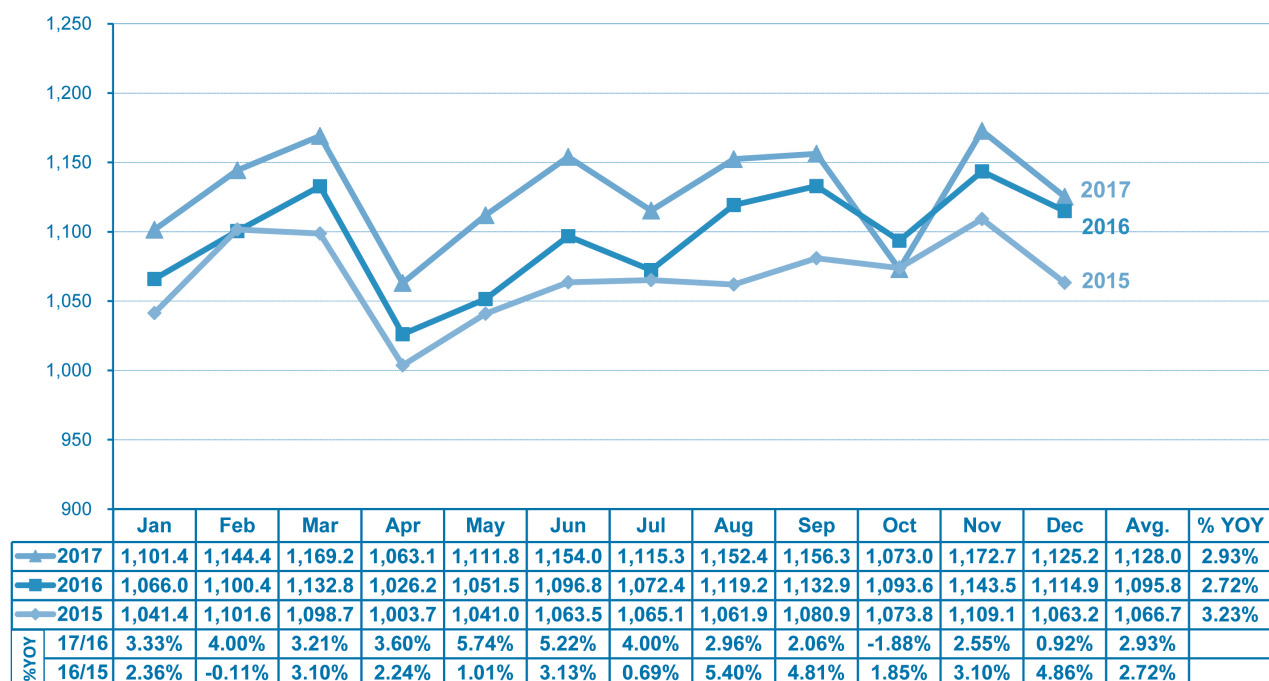
Cost of Rail business consisted of costs of farebox, O&M cost and amortization of intangible asset under the MRT Blue Line Project. For the year 2017, the cost was at Baht 3,560 Million, representing an increase from the previous year by Baht 792 Million or 28.6 percent due to the O&M cost of the MRT Purple Line and the cost of farebox related to the riderships which is in line with revenue growth.

3. Commercial Development Business

In the year 2017, total commercial development revenue was Baht 675 Million, representing an increase from the previous year by Baht 102 Million or 17.8 percent, mainly from the commercial development revenue related to rail business especially from the advertising and retails which the subsidiary has improved the advertising media and retail shops in order to meet with the new customer target and lifestyle of the new generation.

Average Daily Traffic Volume for the First Stage Expressway, the Second Stage Expressway and the Si Rat-Outer Ring Road Expressway

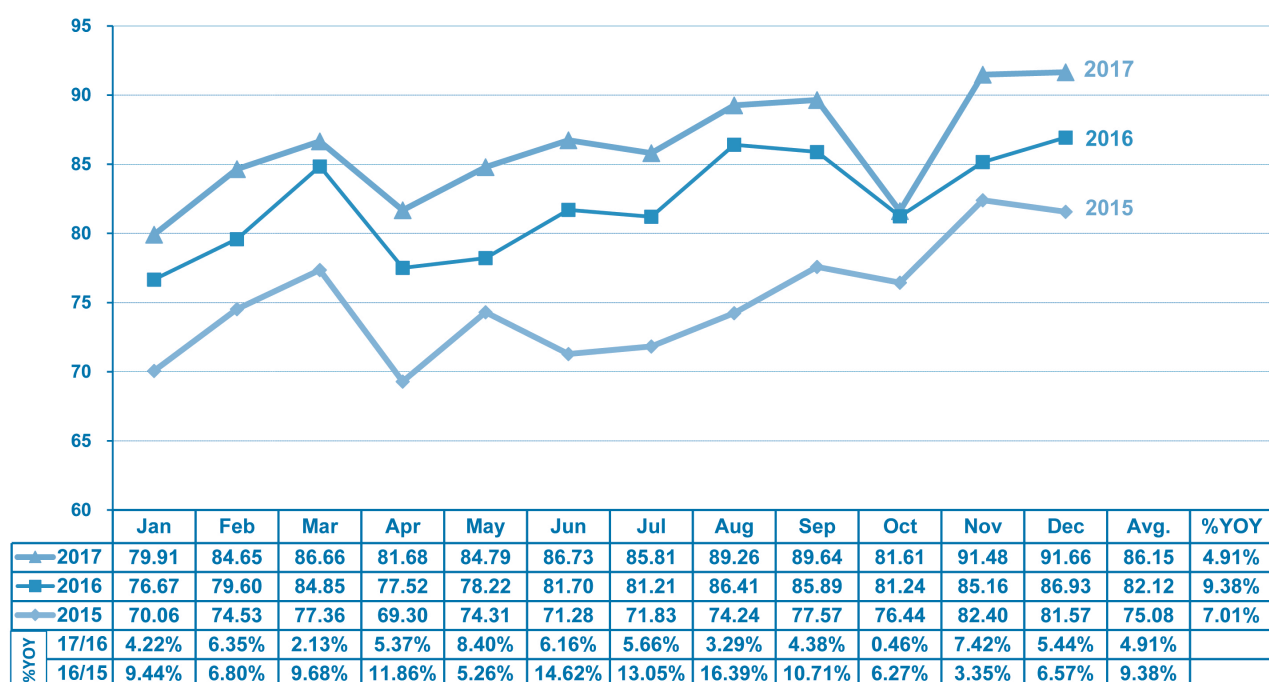
(Thousand Trips / Day)



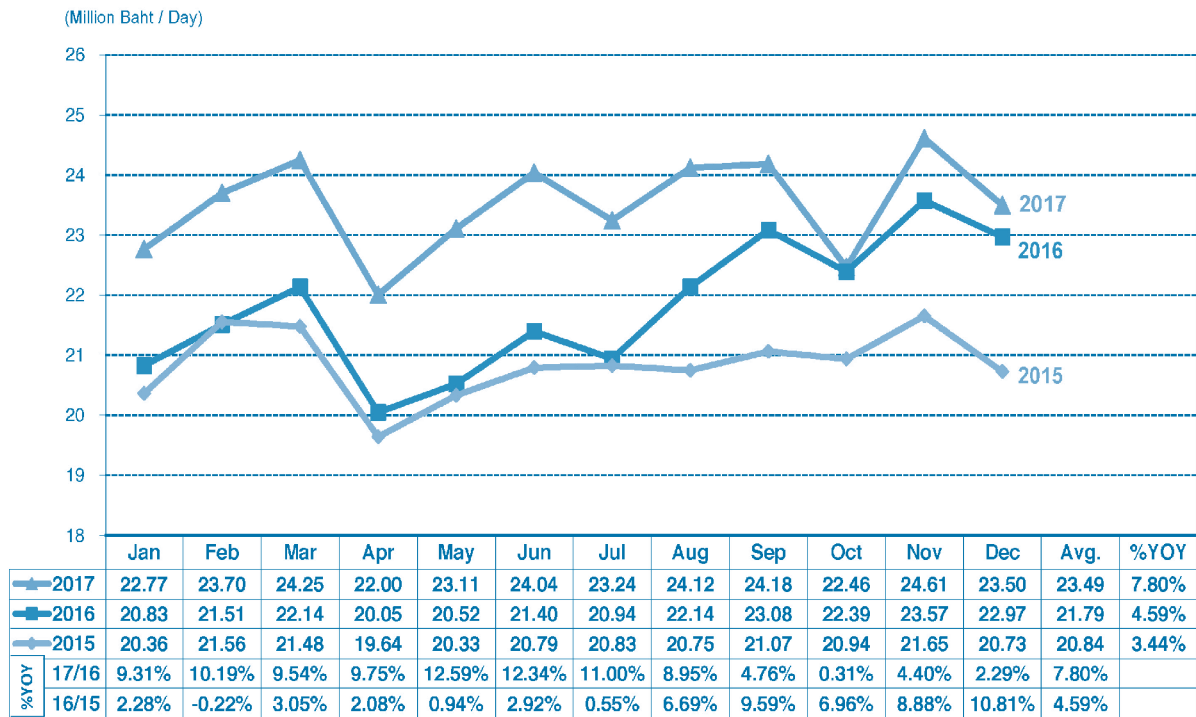
Note : The Si Rat - Outer Ring Road Expressway was opened on August 22, 2016

Average Daily Traffic Volume for the Bang Pa-in - Pak Kret Expressway

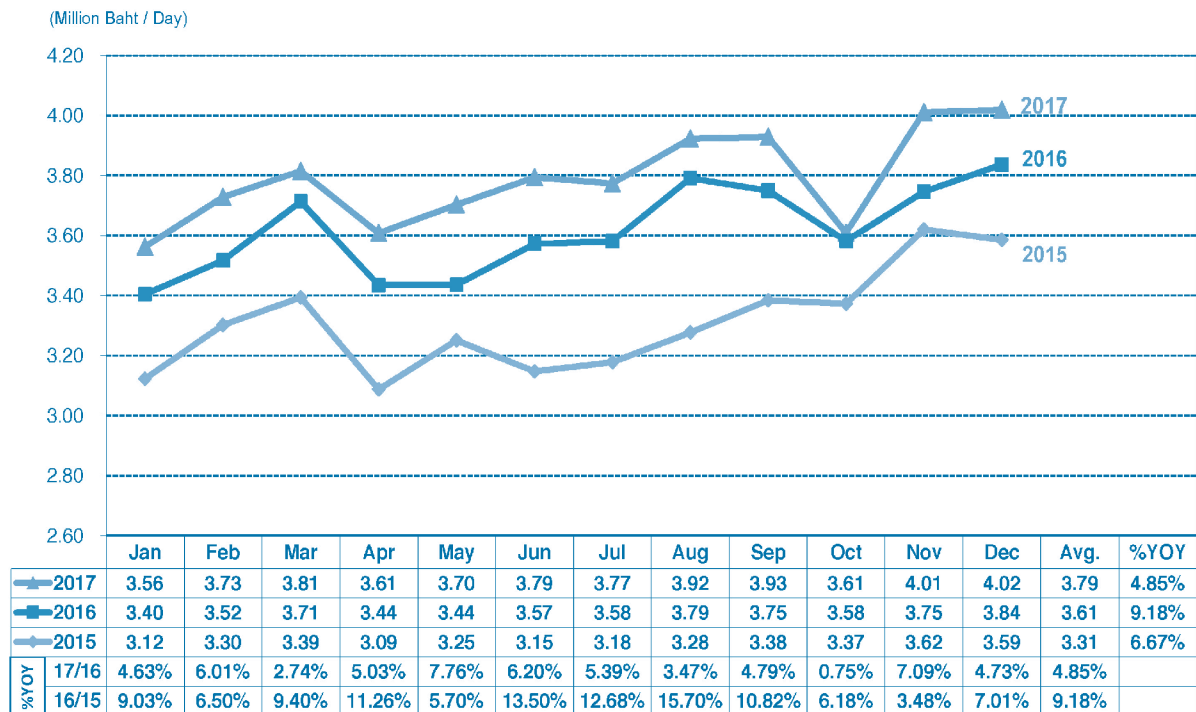
(Thousand Trips / Day)



**Average Daily Toll Revenue for the First Stage Expressway, the Second Stage Expressway
and the Si Rat-Outer Ring Road Expressway**

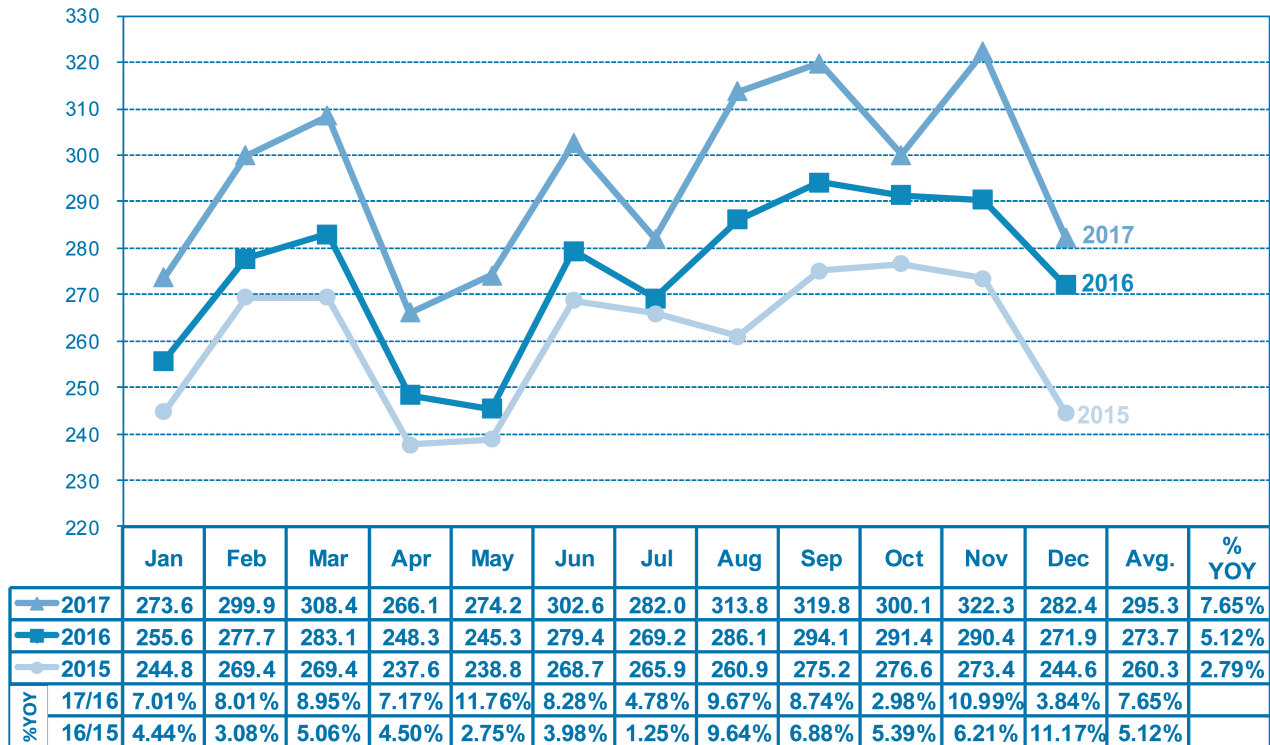


Average Daily Toll Revenue for the Bang Pa-in - Pak Kret Expressway



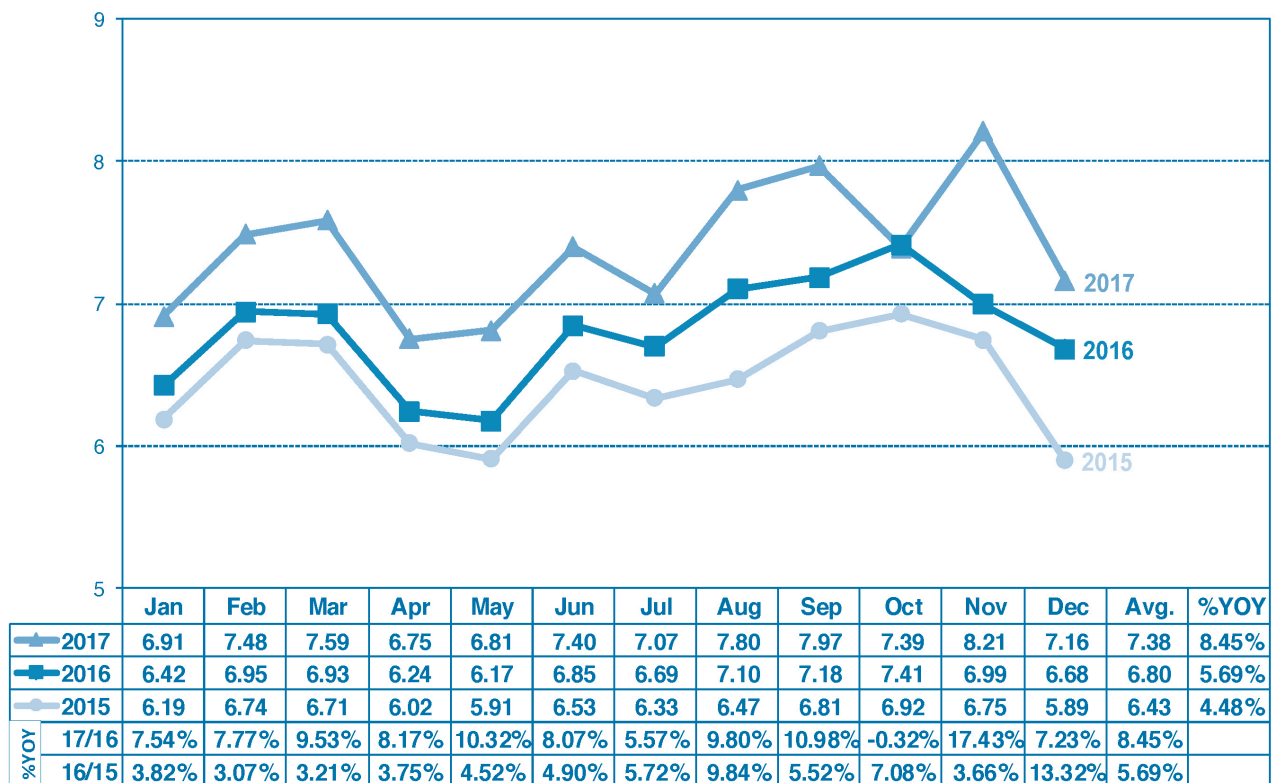
Average Daily Ridership for the MRT Blue Line

(Thousand Trips / Day)



Average Daily Farebox Revenue for the MRT Blue Line

(Million Baht / Day)



Financial Position

As at December 31, 2017, the Company and its subsidiaries had total assets amounted to Baht 98,919 Million, representing an increase by Baht 16,133 Million or 19.5 percent when compared with total assets as at December 31, 2016. Total liabilities amounted to Baht 67,740 Million, representing an increase by Baht 14,737 Million or 27.8 percent. Total shareholders' equity amounted to Baht 31,179 Million, representing an increase by Baht 1,396 Million or 4.7 percent when compared to the end of the year 2016.

Cash Flows

For the year 2017, the Company and its subsidiaries generated cash flows from operating activities amounting to Baht 7,150 Million. Cash used in investing activities amounting to Baht 2,799 Million detailed as follow; (1) paid for the M&E equipment of the MRT Blue Line Project and invested in the MRT Purple Line Project in the net amount of Baht 8,020 Million, (2) investment in other investment in the amount of Baht 417 Million, (3) investment in the Si Rat-Outer Ring Road Expressway Project in the amount of Baht 130 Million, (4) acquisition of fixed assets and other assets in the net amount of Baht 108 Million, (5) cash receipt from sales of current investments and interest income in the amount of Baht 5,325 Million and (6) dividend receipt in the amount of Baht 551 Million. The Company and its subsidiaries utilized cash of Baht 2,501 Million from financing activities due to (1) repayment of short term and long term loans in the amount of Baht 4,624 Million, (2) payment of interest and finance cost in the amount of Baht 1,543 Million, (3) dividend payment in the amount of Baht 1,834 Million, (4) receipt from issuance of debentures in the amount of Baht 5,000 Million and (5) draw down of long term loans in the amount of Baht 500 Million.

As at December 31, 2017, the Company and its subsidiaries had cash and cash equivalents amounting to Baht 2,627 Million, representing an increase from the end of the previous year by Baht 1,850 Million.

Significant Financial Ratios*

For the year 2017, the Company had Net Profit Margin ratio at 20.45 percent, Return on Equity ratio at 10.31 percent, Return on Total Assets ratio at 3.75 percent, Debt to Equity ratio at 1.75 times and Interest Bearing Debt to Equity ratio at 1.38 times.

- * The operational results were calculated based on the consolidated financial statements which consist of the Expressway Business, Rail Business, Commercial Development Business, the manufacture and distribution of treated water business and electricity production business. Therefore, there was no similar type of business in the industry that can be used as a benchmark for comparison.

Not include transaction related to the novation of the M&E systems under the concession agreement of the MRT Chalong Ratchadham Line Project which the MRTA is fully responsible for both loan repayment and interest expense in accordance to the concession agreement.

Information of Directors, Executives and Company Secretary (As at December 31, 2017)

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
1. Dr. Virabongsa Ramangkura - Chairman of the Board of Directors (appointed on December 30, 2015)	74	- Doctor of Law (Honorary), Webster University, St. Louis, USA - Ph.D. (Economics), University of Pennsylvania, USA - M.A. (Economics), University of Pennsylvania, USA - B.A. Political Science (First Class Honors), Chulalongkorn University - National Defence Course for the Joint State Private Sector, Class 1, National Defence College - Director Certification Program (DCP 43/2004), Thai Institute of Directors Association	-	-	2005 - Present	- Chairman of the Board of Directors	<u>Listed Companies:</u> Finansa Public Company Limited
					2004 - Present	- Director and Audit Committee Member	Polyplex (Thailand) Public Company Limited
					1994 - 2015	- Chairman of the Board of Directors	Bangkok Expressway Public Company Limited
					1996 - 2012	- Director	Bangkok Airways Public Company Limited
					2008 - Present	- Chairman of the Board of Directors	<u>Other Companies:</u> Nam Ngum 2 Power Company Limited
					2006 - Present	- Chairman of the Board of Directors	SouthEast Asia Energy Limited
					1995 - Present	- Chairman of the Executive Board	Double A (1991) Public Company Limited
					2004 - 2016	- President	Thai-Lao Association, Ministry of Foreign Affairs
					2012 - 2013	- Chairman of the Board of Directors	The Bank of Thailand
2. Mr. Plew Trivisvavet - Vice Chairman of the Board of Directors - Chairman of the Executive Board - Nomination and Remuneration Committee Member - Authorized Signatory Director (appointed on December 30, 2015)	72	- Honorary Doctorate (Civil Engineering), Kasetsart University - Honorary Doctorate of Engineering, Civil Engineering, Rajamangala University of Technology Isan - Honorary Doctorate of Engineering, Thai-Nichi Institute of Technology - M.Sc. (Electrical Engineering), Osaka University, Japan - B.Sc. (Electrical Engineering), Osaka University, Japan - National Defence Course for the Joint State Private Sector, Class 6, National Defence College - Director Certification Program (DCP 50/2004), Thai Institute of Directors Association - Director Accreditation Program (DAP 18/2004), Thai Institute of Directors Association - Finance for Non-Finance Directors (FND 13/2004), Thai Institute of Directors Association - Capital Market Academy Leader Program, Class 4/2007, Capital Market Academy	0.1577% (24,109,405 shares) (0.1420% held by himself, 0.0157% held by his spouse)	-	2011 - Present	- Director	<u>Listed Companies:</u> CK Power Public Company Limited
					2012 - Present	- Chairman of the Executive Board	TTW Public Company Limited
					2009 - Present	- Director	
					2008 - Present	- Vice Chairman of the Board of Directors	CH. Karnchang Public Company Limited
					2007 - Present	- Corporate Governance and Risk Management Committee Member	
					2003 - Present	- Nomination and Remuneration Committee Member	
					1994 - Present	- Chairman of the Executive Board	
					1994 - 2015	- Director	Bangkok Expressway Public Company Limited
						- Chairman of the Executive Board	
						- Nomination and Remuneration Committee Member	
					2004 - 2015	- Chairman of the Board of Directors	Bangkok Metro Public Company Limited
						- Chairman of the Executive Committee	
						- Nomination and Remuneration Committee Member	
					1994 - 2015	- Chief Executive Officer	CH. Karnchang Public Company Limited
					2010 - Present	- Director and Chairman of the Executive Board	<u>Other Companies:</u> Xayaburi Power Company Limited
					2006 - Present	- Director and Chairman of the Executive Board	Nam Ngum 2 Power Company Limited
					2006 - Present	- Director and Chairman of the Executive Board	SouthEast Asia Energy Limited
					1996 - Present	- Chairman of the Board of Directors and Chairman of the Executive Board	Northern Bangkok Expressway Company Limited

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
3. Mr. Vitoon Tejatussanasoontorn - Director (appointed on December 30, 2015) - Chairman of the Audit Committee (appointed on February 25, 2016) - Nomination and Remuneration Committee Member (appointed on December 30, 2015)	77	- B.A. in Commerce, Thammasat University - Director Certification Program (DCP 2/2000), Thai Institute of Directors Association - IOD Chartered Directors, Thai Institute of Directors Association, Class 1/2007 - Audit Committee Program (ACP 27/2009), Thai Institute of Directors Association - Advanced Audit Committee Program (AAP 3/2010), Thai Institute of Directors Association - Role of the Compensation Committee (RCC 12/2011), Thai Institute of Directors Association	0.0053% (803,893 shares)	-	2014 - Present 2007 - Present 1999 - Present 2007 - 2014 2005 - 2015 2015 - Present 2004 - Present 1991 - Present 1991 - Present 1988 - Present 1988 - Present 1988 - Present 1987 - Present 1988 - 2017 1986 - 2017	- Chairman of the Nomination and Remuneration Committee - Chairman of the Corporate Governance and Risk Management Committee - Director and Chairman of the Audit Committee - Nomination and Remuneration Committee Member - Independent Director, Audit Committee Member, and Nomination and Remuneration Committee Member - Director and Chairman of the Audit Committee - Director - Deputy Senior Managing Director - Director - Director and Executive Director - Director and Executive Director - Director and Executive Director - Director - Director and Executive Director - Director and Executive Director	Listed Companies: CH. Karnchang Public Company Limited Bangkok Metro Public Company Limited Other Companies: Thaisri Insurance Public Company Limited Asahi Glass Foundation of Thailand AGC Flat Glass (Thailand) Public Company Limited Glass Way Co., Ltd. Kiarti Thaneey Country Club Co., Ltd. Pattaya Estate Co., Ltd. Kiarti Land Co., Ltd. Diachrome Chemicals Limited Sriracha Resort Co., Ltd. Sakata-Thai Corporation Ltd.
4. Gen. Chetta Thanajaro - Director - Chairman of the Nomination and Remuneration Committee - Audit Committee Member (appointed on December 30, 2015)	79	- Master of Arts (Political Science), Ramkhamhaeng University - Bachelor of Science, Chulachomklao Royal Military Academy, Class 9 - Infantry Basic Officer Leadership Course, United States Army Infantry School - The Royal Thai Army Command and General Staff Course - The Joint State-Private Sector Regular Course Class 6, National Defence College, - Director Certification Program (DCP 33/2003), Thai Institute of Directors Association - Finance for Non-Finance Directors (FND 7/2003), Thai Institute of Directors Association - Board & CEO Assessment, Class 2/2003, Thai Institute of Directors Association	0.0138% (2,102,527 shares)	-	2005 - 2015 1999 - 2003 1996 - Present 2005 - Present 2005 - Present 2004 2003 - 2004	- Independent Director, Chairman of the Audit Committee - Chairman of the Nomination and Remuneration Committee - Audit Committee Member - President Advisor - Director - Chairman of the Audit Committee - Minister of Defence - Minister of Science and Technology	Listed Companies: Bangkok Metro Public Company Limited Bangkok Expressway Public Company Limited Other Companies: The Royal Development Project Double A (1991) Public Company Limited L.P.N. Platemill Public Company Limited Ministry of Defence Ministry of Science and Technology
5. Gen. Sampao Choosri - Director - Chairman of the Corporate Governance and Risk Management Committee - Audit Committee Member (appointed on December 30, 2015)	76	- Chulachomklao Royal Military Academy - Royal Military Academy (Saint Cyr), France - The Army Command and General Staff College, Class 51 - National Defence Course for the Joint State Private Sector, Class 6, National Defence College - Director Accreditation Program (DAP 15/2004), Thai Institute of Directors Association	-	-	2004 - 2015 2007 - 2015 2013 - Present 2012 - Present 2001 - Present	- Director - Audit Committee Member - Chairman of the Nomination and Remuneration Committee - Corporate Governance and Risk Management Committee Member - Chairman of the Mae Fah Luang University Council - Chairman of the Board of Directors - Chairman of the Board of Directors	Listed Company: Bangkok Expressway Public Company Limited Other Companies: Mae Fah Luang University TIPS Co., Ltd. Dhospaak Company Limited

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
6. Dr. Annop Tanlamai - Director - Audit Committee Member (appointed on February 25, 2016)	68	<ul style="list-style-type: none"> - Ph.D. Engineering Management, University of Missouri, USA - M.B.A. (Quantitative Business Analysis), Indiana University, Bloomington, USA - M.S. in Engineering Management, University of Missouri, USA - Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University - Director Certification Program (DCP 154/2011), Thai Institute of Directors Association - The Audit Committee's Role in Compliance and Ethical Culture Oversight Program, Thai Institute of Directors Association 	-	-	2012 - Present	- Director and Chairman of the Audit Committee	<u>Listed Companies:</u> MK Restaurants Group Public Company Limited Bangkok Expressway Public Company Limited <u>Other Companies:</u> Chitralada Technology College Mahidol University Chulalongkorn University
					2001 - 2015	- Director	
					2001 - 2015	- Audit Committee Member	
					2011 - 2015	- Nomination and Remuneration Committee Member	
					2011 - 2015	- Corporate Governance and Risk Management Committee Member	
					2016 - Present	- Dean of Faculty of Business Administration	
					2012 - Sep 2016	- Dean of College of Management	
					2007 - 2011	- Dean of Faculty of Commerce and Accountancy	
					1999 - 2007	- Director of the Committee of Master of Business Administration Program (MBA), Faculty of Commerce and Accountancy	
7. Mrs. Vallapa Assakul - Director - Corporate Governance and Risk Management Committee Member (appointed on December 30, 2015)	67	<ul style="list-style-type: none"> - Master of Economics, University of Detroit, USA - Bachelor of Economics (Second Class Honors), Chulalongkorn University - Audit Committee Program (ACP 21/2008), Thai Institute of Directors Association - Director Certification Program (DCP 86/2007), Thai Institute of Directors Association - Director Accreditation Program (DAP 37/2005), Thai Institute of Directors Association - Role of the Compensation Committee (RCC 5/2008), Thai Institute of Directors Association 	-	-	2006 - Present	- Director	<u>Listed Companies:</u> Ocean Life Insurance Public Company Limited Vinythai Public Company Limited Bangkok Expressway Public Company Limited Bangkok Metro Public Company Limited TMB Bank Public Company Limited <u>Other Companies:</u> Ocean Property Co., Ltd. Ocean Development Co., Ltd. Siam Estate Co., Ltd. Amphan Co., Ltd. Northern Bangkok Expressway Company Limited
					2012 - 2016	- Chairman of the Nomination and Remuneration Committee	
					2010 - 2015	- Supervision Committee Member	
					2010 - 2015	- Director	
					2010 - 2015	- Director and Executive Director	
					2009 - 2015	- Independent Director	
					2012 - 2015	- Chairman of the Risk Committee	
					2005 - 2007	- Director	
					2004 - 2007	- Senior Executive Vice President, Corporate and Investment Banking Group	
					2013 - Present	- Senior Executive Vice President, Corporate and Investment Banking Group	
8. Mr. Supong Chayutsahakij - Director - Nomination and Remuneration Committee Member - Executive Director - Authorized Signatory Director (appointed on December 30, 2015)	76	<ul style="list-style-type: none"> - Honorary Ph.D. (Management Science), Phranakorn Rajabhat University - Master of Political Science (Politics and Government), Sukhothai Thammathirat Open University - Executive Master of Business Administration, Sasin Graduate Institute of Business Administration of Chulalongkorn University - Master of Engineering (Electrical), University of Tokyo, Japan - Bachelor of Engineering (Electrical), University of Tokyo, Japan - Director Certification Program (DCP 8/2001), Thai Institute of Directors Association - Audit Committee Program (ACP 17/2007), Thai Institute of Directors Association 	-	-	2006 - Present	- Director	<u>Listed Companies:</u> Siam Steel International Public Company Limited CK Power Public Company Limited Bangkok Expressway Public Company Limited Bangkok Metro Public Company Limited <u>Other Companies:</u> Xayaburi Power Company Limited SouthEast Asia Energy Limited Nam Ngum 2 Power Company Limited Thai-Nichi Institute of Technology Northern Bangkok Expressway Company Limited Bangkok Metro Networks Limited CK Power Limited
					2013 - Sep 2016	- Director and Audit Committee Member	
					1994 - 2015	- Director	
					2003 - 2015	- Vice Chairman of the Executive Board	
					2007 - 2015	- Nomination and Remuneration Committee Member	
					2009 - 2015	- Corporate Governance and Risk Management Committee Member	
					2009 - 2015	- Vice Chairman of the Board of Directors	
					2002 - 2015	- Director and Executive Committee Member	
					2014 - Present	- Director	
					2008 - Present	- Director	

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
9. M.L. Prasobchai Kasemsant - Director (appointed on December 30, 2015)	62	- M.S. (Civil Engineering) and M.S. (Operations Research), Stanford University, USA, 1979 - B.S. (Civil Engineering, Mathematics), Virginia Military Institute, Virginia, USA, 1976 - Thailand Energy Academy Course for Management, Class 3, 2013 - National Defence Course, Class 50, National Defence College - Director Certification Program (DCP 33/2003), Thai Institute of Directors Association	-	-	1994 - 2015 Oct 2015 - Present 2013 - Sep 2015 2012 - 2013 2009 - 2010	- Director and Executive Director - Retired Military Officer - Chairman of the Defence Advisory Board - Deputy Permanent Secretary for Defence (Energy and Defence Industry) - Director-General, Office of Defence Logistics, Office of Permanent Secretary	<u>Listed Company:</u> Bangkok Expressway Public Company Limited <u>Other Company:</u> Ministry of Defence
10. Mr. Phongsarit Tantisuvanitchkul - Director - Corporate Governance and Risk Management Committee Member - Executive Director - Authorized Signatory Director (appointed on December 30, 2015)	45	- Master of Engineering (Construction and Management), University of Michigan - Ann Arbor, USA - Bachelor of Engineering (Mechanical Engineering), Kasetsart University - Director Certification Program (DCP 155/2012), Thai Institute of Directors Association - Finance for Non-Finance Directors (FND 35/2007), Thai Institute of Directors Association - Understanding the Fundamental of Financial Statements (UFS 9/2007), Thai Institute of Directors Association	-	-	2016 - Present 2016 - Present 2011 - Present 2014 - 2015 2016 - Present Oct 18, 2017 - Present 2009 - Oct 17, 2017 2012 - 2015	- Director and Chairman of the Executive Committee - Senior Executive Vice President: Operation Group - Acting Executive Vice President: Business Development - Director and Executive Director - Director and Executive Director - Chairman of the Board of Directors - Director - Director	<u>Listed Companies:</u> TTW Public Company Limited CH. Karnchang Public Company Limited Bangkok Metro Public Company Limited <u>Other Companies:</u> Northern Bangkok Expressway Company Limited Bangkok Metro Networks Limited Transit Expert Co., Ltd.
11. Mr. Werapong Suppasedsak - Director (appointed on December 30, 2015)	51	- Master of Economics (Financial Economics), National Institute of Development Administration - Bachelor of International Economics, Ramkhamhaeng University - TLCA Executive Development Program (EDP 14/2014) Thai Listed Companies Association - Director Accreditation Program (DAP 100/2013), Thai Institute of Directors Association - Executive Development Program (ELDP), 2011 Fiscal Policy Research Institute Foundation (FPRI)	-	-	2016 - Present 2014 - 2016 2011 - 2014 2016 - Present 2012 - 2015 2011 - 2014 2017 - Present 2014 - 2017	- Senior Executive Vice President - Group Head - First Executive Vice President - Group Head - Executive Vice President - Director - Director - Director - Director - Director - Director and Chairman of the Audit Committee	<u>Listed Companies:</u> Krung Thai Bank Public Company Limited Krungthai Panich Insurance Public Company Limited Bangkok Metro Public Company Limited Krungthai-AXA Life Insurance Public Company Limited <u>Other Companies:</u> KT ZMICO Securities Company Limited Suvarnabhumi Airport Hotel Company Limited
12. Mr. Panit Dunnvatanachit - Director (appointed on December 30, 2015)	61	- M.B.A. (Finance), Washington University, St. Louis, USA - Bachelor of Arts & Science, Washington University, St. Louis, USA - Board and CEO Assessment Program, Thai Institute of Directors Association - Director Certification Program (DCP 10/2001), Thai Institute of Directors Association - Capital Market Academy Leader Program, Class 14/2012, Capital Market Academy - Broadcasting Executive Forum, Class 1/2013, Office of the National Broadcasting and Telecommunications Commission - Thailand Energy Academy Course for Management, Class 4/2014, Thailand Energy Academy - Public-Private Partnerships for Executive Program (PEP 1/2016)	-	-	2000 - Present 2003 - 2015 2003 - 2012 2006 - Present 1994 - Present 2003 - 2016 2000 - 2010	- Executive Vice President - Director - Executive Director - Director - Director - Director and Executive Director - Director and Member of the Executive Committee	<u>Listed Companies:</u> Bangkok Bank Public Company Limited Bangkok Expressway Public Company Limited <u>Other Companies:</u> Thai Yamaha Motor Co., Ltd. Krungthep Engineering Consultants Co., Ltd. Northern Bangkok Expressway Company Limited CBNP (Thailand) Limited

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
13. Mr. Yuttana Yimgarund - Director (appointed on November 30, 2016)	56	<ul style="list-style-type: none"> - Master of Public Administration, National Institute of Development Administration (NIDA) - Bachelor of Laws, Ramkhamhaeng University - Graduate Diploma in Public Law, Thammasat University - Sulkarak School Graduate Diploma, Customs Department - Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 13, King Prajadhipok's Institute - Senior Executive Development Program (SED), Class 71, Office of the Civil Service Commission - Anti-Corruption Strategic Management Course for Senior Executives, Class 3 - National Defence Course for the Joint State Private Sector, Class 25 - Capital Market Academy Program (CMA), Class 18 - Financial and Fiscal Management Program For Senior Executives, Class 2 - Ministerial-Level Inspector General Program - Top Management in Governmental legal Program, Class 5 - Top Executive Program in Commerce and Trade (TEPCoT), Class 10 - Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations, Class 17 	-	-	2013 - Mar 31, 2017 2016 - Present 2015 - Present 2014 - Present 2015 2011 - 2015 2010 - 2011 2009 - 2010 2008 - 2009 2004	<ul style="list-style-type: none"> - Director representing the Ministry of Finance - Director representing the Ministry of Finance - Inspector General - Director representing the Ministry of Finance - Principal Advisor on Customs Control Development - Deputy Director-General - Director of Laem Chabang Port Customs Bureau - Director of Regional Customs Bureau 1 - Director of Central Administration Bureau - Director of Land Investigation and Suppression Division 	Listed Company: Erawan Hotel Public Company Limited Other Companies: Mass Rapid Transit Authority of Thailand Ministry of Finance Thailand Tobacco Monopoly Customs Department
14. Mr. Prasit Dachsiri ⁽¹⁾ - Director (appointed on November 22, 2017)	59	<ul style="list-style-type: none"> - Master of Development Administration, National Institute of Development Administration (NIDA) - Bachelor of Political Science, Ramkhamhaeng University 	-	-	Dec 31, 2015 - Feb 2, 2016 Nov 5, 2015 - Dec 29, 2015 Oct 1, 2016 - Present 2014 - Jun 14, 2015 2013 - Sep 2016 2009 - 2012	<ul style="list-style-type: none"> - Director - Director - Deputy Governor for Administration - Director of Land Acquisition Department, Acting Deputy Governor for Operation - Director of Land Acquisition Department - Director of Traffic Control Department 	Listed Companies: Bangkok Expressway and Metro Public Company Limited Bangkok Expressway Public Company Limited Other Company: Expressway Authority of Thailand
15. Dr. Sombat Kitjalaksana - Director - Corporate Governance and Risk Management Committee Member - Executive Director - Managing Director - Authorized Signatory Director (appointed on December 30, 2015)	60	<ul style="list-style-type: none"> - Dr. Techn. in Soil Mechanic, University of Innsbruck, Austria - Bachelor and Master of Engineering (Civil), Chulalongkorn University - Director Certification Program (DCP 81/2006), Thai Institute of Directors Association - Finance for Non-Finance Directors (FND 19/2005), Thai Institute of Directors Association - Director Accreditation Program (DAP 36/2005), Thai Institute of Directors Association 	0.0235% (3,599,141 shares)	-	2000 - Present 2006 - 2015 2014 - 2015 2011 - 2014 2004 - 2015 2004 - 2011 2001 - 2010 2000 - 2011 Feb 2016 - Present 2009 - Present	<ul style="list-style-type: none"> - Director and Executive Director - Director - Managing Director and Executive Director - Vice Chairman of the Executive Committee - Director - Executive Committee Member - Executive Vice President: Business Development - Managing Director - Director and Executive Director - Director 	Listed Companies: TTW Public Company Limited CH. Karnchang Public Company Limited Bangkok Metro Public Company Limited CH. Karnchang Public Company Limited Bangkok Metro Public Company Limited Other Companies: Northern Bangkok Expressway Company Limited Bangkok Metro Networks Limited

Remark : ⁽¹⁾ Mr. Prasit Dachsiri was appointed as director on November 22, 2017 to replace Mr. Dumkerng Pankam who resigned from office on October 24, 2017.

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
16. Mrs. Payao Marittanaporn - Director - Corporate Governance and Risk Management Committee Member - Executive Director - Managing Director - Authorized Signatory Director (appointed on December 30, 2015)	60	- M.B.A., Chulalongkorn University - Higher Diploma in Auditing, Thammasat University - Bachelor of Accountancy, Chulalongkorn University - Director Certification Program (DCP 48/2004), Thai Institute of Directors Association - Role of the Compensation Committee (RCC 9/2009), Thai Institute of Directors Association - Capital Market Academy Leader Program, Class 11/2010, Capital Market Academy	-	-	2015 - Present	- Director - Nomination and Remuneration Committee Member - Risk Management Committee Member	Listed Companies: TTW Public Company Limited
					2007 - 2015	- Director and Executive Director - Managing Director	Bangkok Expressway Public Company Limited
					2013 - 2014	- Director - Nomination and Remuneration Committee Member - Risk Management Committee Member	TTW Public Company Limited
					2007 - Present	- Acting Managing Director	Other Companies: Northern Bangkok Expressway Company Limited
					2004 - Present 2011 - 2014	- Director and Executive Director - Director	Xayaburi Power Company Limited
17. Mr. Sanguan Kunatinun - Deputy Managing Director - Expressway Engineering (appointed on December 30, 2015)	57	- M.B.A., Thammasat University - Bachelor of Engineering, Chulalongkorn University - Director Certification Program (DCP 101/2008), Thai Institute of Directors Association	-	-	2014 - 2015	- Deputy Managing Director, Engineering	Listed Company: Bangkok Expressway Public Company Limited
					2006 - 2014	- Assistant Managing Director, Engineering	Other Company: - None -
18. Mrs. Sudruthai Prommart - Deputy Managing Director - Expressway Operation (appointed on December 30, 2015)	54	- M.B.A. (Financial Accounting), Northrop University, Inglewood, California, USA - Bachelor of Business Administration, Assumption University - Director Certification Program (DCP 151/2011), Thai Institute of Directors Association	-	-	2014 - 2015	- Deputy Managing Director, Operation	Listed Company: Bangkok Expressway Public Company Limited
					2007 - 2014	- Assistant Managing Director, Operation	Other Company: - None -
19. Mr. Phakpoom Thaweewittayarat - Deputy Managing Director - Administration - Company Secretary (appointed on December 30, 2015)	51	- M.B.A., Thammasat University - Bachelor of Laws, Chulalongkorn University - Bachelor of Accountancy, Chulalongkorn University - Certified Public Accountant (CPA) - Certified Internal Auditor (CIA) - Director Certification Program (DCP 102/2008), Thai Institute of Directors Association - Company Secretary Program (CSP 9/2005), Thai Institute of Directors Association	-	-	2014 - 2015	- Deputy Managing Director, Administration	Listed Company: Bangkok Expressway Public Company Limited
					2012 - 2014	- Assistant Managing Director, Administration	
					2008 - 2015 2011	- Company Secretary - Senior General Manager of Administration Division	
					2008 - 2011	- Senior General Manager of Managing Director Office	Other Company: - None -
20. Miss Panan Tosuwanthaworn - Deputy Managing Director - Finance (appointed on December 30, 2015)	50	- Master of Accountancy, Thammasat University - Bachelor of Accountancy, Thammasat University - Director Certification Program (DCP 158/2012), Thai Institute of Directors Association - CFO Certification Program, Class 1/2004, The Institute of Certified Accountants and Auditors of Thailand - Corporate Secretary Development Program, Class 13, Faculty of Commerce and Accountancy, Chulalongkorn University	-	-	2014 - 2015	- Deputy Managing Director, Finance	Listed Company: Bangkok Expressway Public Company Limited
					2012 - 2014	- Assistant Managing Director, Finance	
					2008 - 2011	- Senior General Manager of Finance Division	
					Nov 2017 - Present	- Director	Other Company: Bangkok Metro Networks Limited

Name-Surname/Position Date of Appointment	Age (Years)	Education/Training	Shareholding in the Company	Family Relationship between Directors and Executives	Work Experience for the Past 5 Years		
					Period	Position	Organization
21. Mr. Witoon Hatairatana - Deputy Managing Director - Railway System Operation and Engineering (appointed on December 30, 2015)	60	- Master of Science (Business Administration), California University of Pennsylvania, USA - Bachelor of Engineering (Civil), Chulalongkorn University - Anti-Corruption for Executive Program (ACEP 13), Thai Institute of Directors Association	-	-	2014 - 2015	- Deputy Managing Director	<u>Listed Company:</u> Bangkok Metro Public Company Limited <u>Other Company:</u> Bangkok Metro Networks Limited
					2012 - 2014	- Acting Assistant Managing Director, Train Operation Group	
					2007 - 2012	- Executive Vice President, Operations	
					2005 - 2015 2004 - 2012 2002 - 2004	- Acting Marketing & Commercial Development Director - Risk Committee Member - Operations Director - Traffic Manager	
					Nov 2017 - Present	- Director	
22. Mr. Alvin Gee - Deputy Managing Director Operation Support (appointed on December 30, 2015)	46	- Bachelor of Science in Finance, Boston College, USA - Director Certification Program (DCP 165/2012), Thai Institute of Directors Association	0.0009% (144,272 shares) (spouse)	Spouse of Mr. Plew Trivisvavet's daughter	2013 - Feb 2016	- Director	<u>Listed Companies:</u> CK Power Public Company Limited SouthEast Asia Energy Limited Bangkok Metro Public Company Limited <u>Other Companies:</u> Nam Ngum 2 Power Company Limited TMB Macquarie Securities (Thailand) Limited
					2013 - Feb 2016	- Director, Executive Director and Managing Director	
					2011 - 2013	- Deputy Managing Director, Accounting and Finance Department	
					2008 - 2011	- Investor Relations Officer	
					2013 - Feb 2016	- Director, Executive Director and Managing Director	
					2011 - 2013 2007 - 2008	- Deputy Managing Director - Business Analyst, Corporate Finance	
23. Dr. Vites Techangam - Deputy Managing Director Technology & E-Business (appointed on October 1, 2017)	60	- Ph.D. in Computer Science, University of South Western Louisiana, U.S.A. - M.Sc. in Computer Science, University of California, U.S.A. - Bachelor of Engineering (Computer Engineering), Chulalongkorn University	-	-	Jun 1, 2017 - Sep 30, 2017	- Senior Executive Vice President - Managing Director, Special Projects	<u>Listed Company:</u> Krung Thai Bank Public Company Limited <u>Other Company:</u> KTB Computer Services Co., Ltd.
					an 5, 2015 - May 31, 2017	- Senior Executive Vice President - Managing Director, Technology Group	
					Jun 17, 2013 - Jan 4, 2015	- Senior Executive Vice President - Managing Director, Electronic Banking & Cash Management Group	
					2011 - Jun 16, 2013 2007 - 2010	- President - Vice President	

Information of Directors in the Subsidiaries and Related Companies

Names of Directors and Executives	The Company	Related Companies													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Dr. Virabongsa Ramangkura	2										2		2		
2. Mr. Plew Trivisvavet	3,4		2,4	1,4	1	1,4	1	1	1	1,3	1,4	1,4	1,4	1	1
3. Mr. Vitoon Tejatussanasoontorn	1			1											
4. Gen. Chetta Thanajaro	1														
5. Gen. Sampao Choosri	1														
6. Dr. Annop Tanlamai	1														
7. Mrs. Vallapa Assakul	1														
8. Mr. Supong Chayutsahakij	1,4		1,4								1	1	1		
9. M.L. Prasobchai Kasemsant	1														
10. Mr. Phongsarit Tantisuwanitchkul	1,4	2	1,4	5						1,4					
11. Dr. Sombat Kitjalaksana	1,4	1	1,4							1,4					
12. Mrs. Payao Marittanaporn	1,4		1,4							1					
13. Mr. Werapong Suppasedsak	1														
14. Mr. Panit Dunnvatanachit	1														
15. Mr. Yuttana Yimgarund	1														
16. Mr. Prasit Dachsi ⁽¹⁾	1		1												
17. Mr. Sanguan Kunatinun	5														
18. Mrs. Sudruthai Prommart	5														
19. Mr. Phakpoom Thaweewittayarut	5														
20. Miss Panan Tosuwanthaworn	5	1													
21. Mr. Witoon Hatairatana	5														
22. Mr. Alvin Gee	5														
23. Dr. Vites Techangam ⁽²⁾	5														

- Remarks :**
- Definitions : 1 = Director; 2 = Chairman of the Board of Directors; 3 = Vice Chairman of the Board of Directors; 4 = Executive Director; 5 = Executive
 - ⁽¹⁾ Mr. Prasit Dachsi⁽¹⁾ was appointed as director on November 22, 2017 to replace Mr. Dumkerng Pankam who resigned from office on October 24, 2017.
 - ⁽²⁾ Dr. Vites Techangam was appointed to hold office on October 1, 2017.
 - The Company

1 = Bangkok Metro Networks Limited	2 = Northern Bangkok Expressway Company Limited
3 = CH. Karnchang Public Company Limited	4 = Mahasiri Siam Co., Ltd.
5 = CK Power Public Company Limited	6 = CH. Karnchang Holding Co., Ltd.
7 = CH. Karnchang-Tokyu Construction Company Limited	8 = CK. Office Tower Co., Ltd.
9 = TTW Public Company Limited	10 = SouthEast Asia Energy Limited
11 = Xayaburi Power Company Limited	12 = Nam Ngum 2 Power Company Limited
13 = CH. Karnchang Real Estate Co., Ltd.	14 = Construction Material Supply Co., Ltd.

Information of Directors in the Subsidiaries

Names of Directors	Northern Bangkok Expressway Company Limited	Bangkok Metro Networks Limited
1. Mr. Plew Trivisvavet	2, 3	-
2. Mr. Supong Chayutsahakij	1, 3	-
3. Mr. Phongsarit Tantisuvanitchkul	1, 3	1, 2
4. Mr. Prasit Dachsi ⁽¹⁾	1	-
5. Mrs. Payao Marittanaporn	1, 3	-
6. Dr. Sombat Kitjalaksana	1, 3	1
7. Mr. Witoon Hatairatana	-	1
8. Mrs. Thipsuda Yimwilai	-	1
9. Miss Panan Tosuwanthaworn	-	1
10. Mr. Nattavut Trivisvavet	-	1

- Remarks :
- Definitions: 1 = Director; 2 = Chairman of the Board of Directors; 3 = Executive Director
 - Subsidiaries refer to material subsidiaries whose revenues exceed 10 percent of total revenues as per the consolidated statement of income of the latest accounting year.
 - ⁽¹⁾ He was appointed as director on March 15, 2017 to replace Mr. Wichan Ekarintrakul who resigned from office on March 9, 2017.

Details Relating to Head of the Internal Audit Unit and Head of the Compliance Unit

1. Head of the Internal Audit Unit

Name-Surname	Miss Vasana Wattananukulchai
Position	General Manager Internal Audit Office
Education	<ul style="list-style-type: none"> - M.B.A., National Institute of Development Administration - Bachelor of Accountancy Bangkok University
Work Experience	<p>2008 - Dec 2015 - General Manager of Internal Audit Office Bangkok Expressway Public Company Limited</p> <p>2006 - 2007 - General Manager of Toll Revenue Division Bangkok Expressway Public Company Limited</p>
Related Training	<ul style="list-style-type: none"> - Internal Auditing - Integrated Management ISO 9001, ISO 14001 and ISO 27001 - Risk Management ISO 31000 - Compliance Audit - Internal Control for Financial Reporting: Business Value-Added Strategy - Going from Good to Great in IT Governance and Outsourcing - In-depth Modern Risk Management Techniques - Anti-Corruption The Practical Guide (ACPG 15) Thai Institute of Directors Association (IOD)
Duties and Responsibilities	<ol style="list-style-type: none"> 1. Internal audit work <ol style="list-style-type: none"> 1.1 Preparing the annual internal audit plan; 1.2 Supervising the review of performance, adequacy and appropriateness of the internal control system of the Company's work systems for compliance with the plan; 1.3 Concluding the results of review, together with observations and suggestions for improvement for the audited works, as well as following up the suggested improvement; 1.4 Reporting on the audit results to the management and the Audit Committee. 2. Works in support of the Audit Committee <ol style="list-style-type: none"> 2.1 Reviewing the annual and quarterly financial statements; 2.2 Preparing information in support of the selection and nomination of the Company's auditor; 2.3 Reviewing the disclosure of information to ensure compliance with the rules and regulations and the good corporate governance principles; 2.4 Assessing the adequacy of the Company's annual internal control system; 2.5 Coordinating and organizing the Audit Committee's meetings. 3. Works in support of corporate risk management <ol style="list-style-type: none"> 3.1 Coordinating all internal work units to prepare and review the annual emergency and risk management plans as well as compiling the results thereof as the overall emergency and risk management plans; 3.2 Quarterly following up and concluding the results of risk management from all relevant work units for presentation to the management and the Corporate Governance and Risk Management Committee on a quarterly basis; 3.3 Coordinating and organizing the Corporate Governance and Risk Management Committee's meetings. 4. Works on quality and environmental management system activity <ol style="list-style-type: none"> 4.1 Following up the results of system audit by the monitoring subcommittee and external certification agencies. 5. Other works as assigned by the Audit Committee.

Remark : Any appointment, removal and transfer of Head of the Internal Audit Unit shall be subject to the power of the Audit Committee.

2. Head of the Compliance Unit

Name-Surname	Mr. Phakpoom Thaweewittayarut		
Position	<ul style="list-style-type: none"> - Deputy Managing Director, Administration - Company Secretary 		
Education	<ul style="list-style-type: none"> - M.B.A., Thammasat University - Bachelor of Laws, Chulalongkorn University - Bachelor of Accountancy, Chulalongkorn University 		
Work Experience	Oct 2014 - Dec 2015	- Deputy Managing Director, Administration Bangkok Expressway Public Company Limited	
	2012 - Sep 2014	- Assistant Managing Director, Administration Bangkok Expressway Public Company Limited	
	Sep 2011 - Dec 2011	- Senior General Manager of Administration Division Bangkok Expressway Public Company Limited	
	2008 - Aug 2011	- Senior General Manager of Managing Director Office Bangkok Expressway Public Company Limited	
Related Training	<ul style="list-style-type: none"> - Certified Public Accountant (CPA) - Certified Internal Auditor (CIA) - Director Certification Program (DCP 102/2008), Thai Institute of Directors Association - Company Secretary Program (CSP 9/2005), Thai Institute of Directors Association 		
Duties and Responsibilities	<ol style="list-style-type: none"> 1. Determining the scope of the good corporate governance in line with the Company's structure in comparison with international practices or principles; 2. Reviewing the appropriateness and adequacy of the Company's good corporate governance policy and code of ethics, as well as their revisions to meet the international practices for good corporate governance; 3. Reviewing with the management as to compliance with the good corporate governance principles as specified by the Company for disclosure in the Annual Report; 4. Conducting the procedures for evaluation of performance of the Board of Directors, the Managing Directors, as well as concluding the results for presentation to the Board of Directors; 5. Providing suggestions for preparation of the Company's corporate governance development plan in compliance with the good corporate governance principles; 6. Providing advice and suggestions on the good corporate governance practices to the Board of Directors; 7. Performing any other functions as assigned by the Managing Directors. 		

Independent Auditor's Report

To the Shareholders of Bangkok Expressway and Metro Public Company Limited

Opinion

I have audited the accompanying consolidated financial statements of Bangkok Expressway and Metro Public Company Limited and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2017, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, and have also audited the separate financial statements of Bangkok Expressway and Metro Public Company Limited for the same period.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Bangkok Expressway and Metro Public Company Limited and its subsidiaries and of Bangkok Expressway and Metro Public Company Limited as at 31 December 2017, their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the Group in accordance with the Code of Ethics for Professional Accountants as issued by the Federation of Accounting Professions as relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the financial statements of the current period. These matters were addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

I have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report, including in relation to these matters. Accordingly, my audit included the performance of procedures designed to respond to my assessment of the risks of material misstatement of the financial statements. The results of my audit procedures, including the procedures performed to address the matters below, provide the basis for my audit opinion on the accompanying financial statements as a whole.

Key audit matters and how audit procedures respond for each matter are described below.

Capitalisation of project costs under construction

As discussed in Notes 1 A.2 and B.1 to the financial statements, as a result of the agreements made with the Expressway Authority of Thailand and the Mass Rapid Transit Authority of Thailand, the Company has significant projects which are operating under concession agreements. As at 31 December 2017, project costs under construction, in the statement of financial position, amounted to Baht 8,055 million. The project costs under construction recorded as "rights to operate expressway sectors" and "intangible assets under concession agreement of the MRT Blue Line Project", as disclosed in Notes 17 and 19 to the financial statements. I considered the capitalisation of project costs as assets to be a significant transaction. In addition, management needed to exercise substantial judgment in determining whether the costs were direct costs and could be recognised as costs of acquiring intangible assets, and in deciding to cease capitalisation of borrowing costs when they did not meet the conditions stipulated under financial reporting standards.

I assessed the method used for recognition of project costs under construction by inquiring with management to gain an understanding of the basis applied and judgement exercised by management in capitalising expenses as project costs under construction, including the capitalisation of borrowing costs, and disclosures in the notes to the financial statements. I reviewed the minutes of meetings, contracts and documents related to the project costs under construction. I also selected and checked representative samples of supporting documents for expenses recognised as project costs under construction incurred during the year to determine whether the recognition met the criteria under financial reporting standards. In addition, I tested the calculation and the recording of the borrowing costs capitalised as project costs under construction and reviewed the disclosures in the notes to the financial statements.

Disputes

As discussed in Note 41.2.2 to the financial statements, the subsidiary was involved in a dispute, in which the Expressway Authority of Thailand demanded the subsidiary start the Phase II construction of the Udon Rattaya Expressway, and pay a compensation totaling Baht 1,587.7 million. As the dispute has just entered the court consideration process, the management needs to exercise significant judgement in considering related laws and regulations to assess the outcome. However, the actual outcome of the dispute may differ from the assessment made by the management.

I inquired with the Group's management and legal department regarding the procedures followed to monitor a dispute filed. I also inquired into the details and progress of disputes and the methods applied by management to assess the outcomes of the disputes, assessed the judgment exercised by management in assessing the outcomes of the disputes by reading relevant conditions and provisions of agreements, together with the claims and objections submitted by the subsidiary and counterparties to the Arbitral Tribunal for the purpose of providing background into the disputes. In addition, I made inquiry of and had discussion with the external legal consultant of the Group regarding the details, case status, objections to the dispute and the probability of outcomes. Moreover, I sent confirmation letters to the external legal consultant retained by the Group to obtain case details and status. I also assessed the expertise, ability, independence and integrity of the external legal consultant in accordance with relevant auditing standards and I determined whether the laws and conditions referred to by the external legal consulting related to the subsidiary's dispute. In addition, I reviewed the disclosures relating to disputes in the notes to the financial statements.

Recording and presentation of the MRT Blue Line Concession Agreement

As discussed in Note 1 B.1 to the financial statements, on 31 March 2017, the Company signed the MRT Blue Line Concession Agreement ("Blue Line Concession Agreement") with the Mass Rapid Transit Authority of Thailand (MRTA) for a concession period of approximately 33 years. Under the MRT Blue Line Concession Agreement, the concession agreement with the MRTA for the MRTA Initial System Project - Chaloem Ratchamongkhon Line ("Chaloem Ratchamongkhon Line Concession Agreement"), is deemed to be a part of the MRT Blue Line Concession Agreement, and only the clauses relating to the rights, duties and provisions with respect to fares, fare rates and payment of remuneration to the MRTA. The expiry date of the concession agreement with the Chaloem Ratchamongkhon Line has also been extended to the same date as that of the MRT Blue Line Concession Agreement from 2029 to 2050. Therefore, I have focused on the recording and presentation of accounting entries relating to the MRT Blue Line Concession Agreement, and the disclosures made in the notes to financial statements.

I assessed the accounting records and the presentation of transactions related to the MRT Blue Line Concession Agreement, including the disclosures made in the notes to the financial statements, by reading and gaining an understanding of the substance of the transactions, the conditions and undertakings per the agreements made with the MRTA. I also inquired with the management regarding the rules, basis and judgement in recording and presenting these transactions. In addition, I reviewed the disclosures in the notes to financial statements.

Presentation of M&E Systems equipment related to the MRT Chalong Ratchadham Line under the concession agreement

As discussed in Note 1 B.2 to the financial statements, on 29 September 2017, the related company notified the Company of its transfer of all rights of claim under the concession agreement for Phase 1: Design and Build of the MRT Chalong Ratchadham Line Project to the group of lenders of its related company, and then the Company entered into an agreement to transfer such rights of claim to the group of lenders, who would become the Company's trade creditor in lieu of the related company.

On the same day, the Company entered into the Novation and Debt Repayment Agreement with the group of lenders, changing the nature of debts, from trade creditor to loan, in line with the business objectives of the group of lenders. The Company therefore separately presented receivables under Phase I of the concession agreement expected to be received from the MRTA for the M&E Systems within a period of 10 years as assets (Note 11) and presented long-term loans from financial institutions (Note 24) as a separate line item in liabilities in the statement of financial position. The Company also separately presented the related interest income and expenses in profit or loss for the year ended 31 December 2017. Since the amounts of assets and liabilities separately presented in the financial statements are material, I have focused on the separate presentation of the transactions, and the disclosures made in the notes to the financial statements.

I examined the accounting presentation of transactions related to design and build of the M&E Systems under such concession agreement, and assessed the disclosures made in the notes to the financial statements by reading and gaining an understanding of the agreements made with the Mass Rapid Transit Authority of Thailand, the related company and the group of lenders. Moreover, I inquired with the Company's management regarding the substance of the transactions, as well as the conditions and undertakings per the agreements, and assessed the basis that management exercised in presenting these transactions. I also reviewed the disclosures made in the notes to the financial statements.

Other Information

Management is responsible for the other information. The other information comprise the information included in annual report of the Group, but does not include the financial statements and my auditor's report thereon. The annual report of the Group is expected to be made available to me after the date of this auditor's report.

My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated.

When I read the annual report of the Group, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance for correction of the misstatement.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Thai Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Thai Standards on Auditing, I exercise professional judgement and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

I am responsible for the audit resulting in this independent auditor's report.



Siraporn Ouaanunkun

Certified Public Accountant (Thailand) No. 3844

EY Office Limited

Bangkok: 27 February 2018

STATEMENT OF FINANCIAL POSITION

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of financial position

As at 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Assets					
Current assets					
Cash and cash equivalents	8	2,627,062,725	777,001,145	2,526,936,395	729,292,774
Current investments	9	1,449,457,222	5,941,349,949	1,437,883,352	5,932,097,666
Trade and other receivables	10	426,286,028	1,614,563,463	419,017,402	1,619,496,342
Receivable from sales of investment	7	-	756,834,379	-	756,834,379
Current portion of long-term loans to related party	7	-	-	18,000,000	12,000,000
Current portion of receivable under the concession agreement	11	1,649,683,274	-	1,649,683,274	-
Other current assets		127,581,197	129,541,368	118,433,055	114,430,633
Total current assets		6,280,070,446	9,219,290,304	6,169,953,478	9,164,151,794
Non-current assets					
Long-term loans to and interest receivable					
from related parties, net of current portion	7	-	-	4,968,496,436	6,273,496,436
Receivable under the concession agreement, net of current portion	11	12,510,098,163	-	12,510,098,163	-
Investments in subsidiaries	12	-	-	303,585,600	303,585,600
Investments in associates	13	9,592,230,802	9,667,680,300	7,499,815,400	7,499,815,400
Other long-term investments	14	1,654,862,090	1,237,849,790	1,654,862,090	1,237,849,790
Investment properties	15	120,357,493	120,357,493	120,357,493	120,357,493
Building and equipment	16	361,168,428	340,732,838	315,812,844	283,862,387
Rights to operate expressway sectors	17	38,448,873,562	41,551,825,215	32,244,581,463	34,808,993,374
Rights to use sites for expressway construction	18	719,073,059	1,020,623,701	719,073,059	1,020,623,701
Intangible asset under concession agreement of					
the MRT Blue Line Project	19	25,954,096,373	17,048,090,154	25,608,388,894	16,722,780,980
Project cost of the MRT Chalong Ratchadham Line	20	666,742,626	627,255,954	666,742,626	627,255,954
Prepaid project remuneration	7	2,487,433,243	1,614,607,949	2,487,433,243	1,614,607,949
Other intangible assets	21	75,257,871	68,228,569	70,296,570	63,496,944
Deferred tax assets	34	4,997,667	201,887,940	-	198,541,907
Other non-current assets		44,103,679	67,132,878	17,152,796	32,663,799
Total non-current assets		92,639,295,056	73,566,272,781	89,186,696,677	70,807,931,714
Total assets		98,919,365,502	82,785,563,085	95,356,650,155	79,972,083,508

The accompanying notes are an integral part of the financial statements.

STATEMENT OF FINANCIAL POSITION (Continued)

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of financial position (continued)

As at 31 December 2017

(Unit: Baht)

		Consolidated financial statements		Separate financial statements	
	Note	2017	2016	2017	2016
Liabilities and shareholders' equity					
Current liabilities					
Short-term loans from financial institutions	22	3,629,184,736	4,715,775,247	3,629,184,736	4,715,775,247
Trade and other payables	23	2,107,884,865	898,075,149	2,036,963,224	818,518,361
Current portion of long-term loans from financial institutions	24	3,808,760,069	2,066,750,000	3,808,760,069	2,066,750,000
Unearned fare box revenue		138,261,714	111,971,378	138,261,714	111,971,378
Deposits on stored value ticket		54,367,547	43,313,997	54,367,547	43,313,997
Income tax payable		62,132,371	31,444,025	36,454,936	13,598,158
Current portion of provision for compensation					
for site acquisition cost	26	1,600,000,000	1,500,000,000	1,600,000,000	1,500,000,000
Other current liabilities					
Retention guarantees		19,917,415	70,983,137	12,233,232	66,356,635
Others		162,315,927	119,444,343	147,511,683	108,205,343
Total current liabilities		11,582,824,644	9,557,757,276	11,463,737,141	9,444,489,119
Non-current liabilities					
Long-term loans from financial institutions, net of current portion	24	25,801,112,363	16,952,402,523	25,301,112,363	16,952,402,523
Debentures	25	28,170,623,095	23,167,912,861	28,170,623,095	23,167,912,861
Derivative financial liabilities		52,954,374	18,608,408	52,954,374	18,608,408
Provision for compensation for site acquisition cost,					
net of current portion	26	1,411,401,698	2,817,151,698	1,411,401,698	2,817,151,698
Unearned revenue from advertising management rights	27	-	-	13,113,762	14,362,122
Provision for long-term employee benefits	28	483,787,045	471,043,876	467,538,729	461,245,260
Deferred tax liabilities	34	217,152,225	-	217,152,225	-
Other non-current liabilities		20,211,885	17,982,160	1,751,708	2,756,127
Total non-current liabilities		56,157,242,685	43,445,101,526	55,635,647,954	43,434,438,999
Total liabilities		67,740,067,329	53,002,858,802	67,099,385,095	52,878,928,118

The accompanying notes are an integral part of the financial statements.

STATEMENT OF FINANCIAL POSITION (Continued)

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of financial position (continued)

As at 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Shareholders' equity					
Share capital					
Registered					
15,285,000,000 ordinary shares of Baht 1 each		15,285,000,000	15,285,000,000	15,285,000,000	15,285,000,000
Issued and paid-up					
15,285,000,000 ordinary shares of Baht 1 each		15,285,000,000	15,285,000,000	15,285,000,000	15,285,000,000
Premium on ordinary shares		5,816,938,084	5,816,938,084	5,816,938,084	5,816,938,084
Retained earnings					
Appropriated - statutory reserve	29	1,077,490,000	928,690,000	1,077,490,000	928,690,000
Unappropriated		8,948,481,343	7,763,596,451	6,120,200,475	5,077,414,032
Other components of shareholders' equity		(59,724,462)	(104,972,966)	(42,363,499)	(14,886,726)
Equity attributable to shareholders of the Company		31,068,184,965	29,689,251,569	28,257,265,060	27,093,155,390
Non-controlling interests of the subsidiaries		111,113,208	93,452,714	-	-
Total shareholders' equity		31,179,298,173	29,782,704,283	28,257,265,060	27,093,155,390
Total liabilities and shareholders' equity		98,919,365,502	82,785,563,085	95,356,650,155	79,972,083,508

The accompanying notes are an integral part of the financial statements.

INCOME STATEMENT

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Income statement

For the year ended 31 December 2017

(Unit: Baht)

		<u>Consolidated financial statements</u>		<u>Separate financial statements</u>	
	<u>Note</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Revenues					
Revenue from expressway business		9,956,687,741	9,300,724,132	8,573,398,391	7,977,852,606
Revenue from rail business		4,520,903,061	3,230,064,080	4,520,903,061	3,230,080,880
Revenue from commercial development business		675,836,158	573,349,010	403,063,532	359,433,237
Other income					
Interest income		175,173,105	68,199,690	329,456,108	246,333,581
Dividend income	7, 13.2	-	-	551,455,190	498,953,704
Others		64,631,074	61,057,711	196,981,995	182,983,354
Total revenues		15,393,231,139	13,233,394,623	14,575,258,277	12,495,637,362
Expenses					
Cost of expressway business		1,735,419,841	1,511,964,604	1,518,255,658	1,256,523,416
Cost of rail business		3,352,428,083	2,371,420,998	3,352,428,083	2,371,420,998
Cost of commercial development business		177,151,157	199,943,914	90,559,239	114,773,566
Amortisation of rights to operate expressway sectors and compensation for site acquisition cost	17, 18, 26	3,694,893,202	3,470,883,807	3,156,353,460	2,956,153,554
Amortisation on intangible asset under concession agreement of the MRT Blue Line Project	19	246,289,965	440,076,422	214,655,637	412,379,726
Selling expenses		95,250,353	92,540,321	52,105,380	59,370,640
Administrative expenses		1,048,996,443	892,093,625	987,382,897	833,217,672
Total expenses		10,350,429,044	8,978,923,691	9,371,740,354	8,003,839,572
Profit before share of profit from investments in associates, finance cost and income tax expenses					
Share of profit from investments in associates	13.2	405,916,311	347,349,465	-	-
Profit before finance cost and income tax expenses		5,448,718,406	4,601,820,397	5,203,517,923	4,491,797,790
Finance cost		(1,610,765,279)	(1,426,027,697)	(1,604,852,271)	(1,416,993,054)
Profit before income tax expenses		3,837,953,127	3,175,792,700	3,598,665,652	3,074,804,736
Income tax expenses	34	(695,602,106)	(562,927,698)	(623,194,397)	(511,890,549)
Profit for the year		3,142,351,021	2,612,865,002	2,975,471,255	2,562,914,187
Profit attributable to:					
Equity holders of the Company		3,123,129,324	2,605,854,468	2,975,471,255	2,562,914,187
Non-controlling interests of the subsidiaries		19,221,697	7,010,534		
		3,142,351,021	2,612,865,002		
Basic earnings per share					
Profit attributable to equity holders of the Company	35	0.20	0.17	0.20	0.17

The accompanying notes are an integral part of the financial statements.

STATEMENT OF COMPREHENSIVE INCOME

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of comprehensive income

For the year ended 31 December 2017

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Profit for the year		<u>3,142,351,021</u>	<u>2,612,865,002</u>	<u>2,975,471,255</u>	<u>2,562,914,187</u>
Other comprehensive income					
<i>Other comprehensive income to be reclassified to profit or loss in subsequent periods:</i>					
Unrealised loss from cash flow hedges of the Company, net of income tax		(27,476,773)	(14,886,726)	(27,476,773)	(14,886,726)
Share of other comprehensive income from associates, net of income tax	13.2	<u>72,725,277</u>	<u>23,010,920</u>	-	-
Other comprehensive income to be reclassified to profit or loss in subsequent periods, net of income tax		<u>45,248,504</u>	<u>8,124,194</u>	<u>(27,476,773)</u>	<u>(14,886,726)</u>
<i>Other comprehensive income not to be reclassified to profit or loss in subsequent periods</i>					
Actuarial gain (loss) of the Company, net of income tax	28, 34	45,830,261	(134,132,646)	50,315,188	(134,132,646)
Actuarial gain (loss) of associates, net of income tax	13.2	<u>(2,635,896)</u>	<u>13,580</u>	-	-
Other comprehensive income not to be reclassified to profit or loss in subsequent periods, net of income tax		<u>43,194,365</u>	<u>(134,119,066)</u>	<u>50,315,188</u>	<u>(134,132,646)</u>
Other comprehensive income for the year		<u>88,442,869</u>	<u>(125,994,872)</u>	<u>22,838,415</u>	<u>(149,019,372)</u>
Total comprehensive income for the year		<u>3,230,793,890</u>	<u>2,486,870,130</u>	<u>2,998,309,670</u>	<u>2,413,894,815</u>
Total comprehensive income attributable to:					
Equity holders of the Company		3,213,133,396	2,479,859,596	<u>2,998,309,670</u>	<u>2,413,894,815</u>
Non-controlling interests of the subsidiaries		<u>17,660,494</u>	<u>7,010,534</u>		
		<u>3,230,793,890</u>	<u>2,486,870,130</u>		

The accompanying notes are an integral part of the financial statements.

STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of changes in shareholders' equity

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements									
	Equity attributable to the shareholders of the Company									
	Other components of shareholders' equity									
	Other comprehensive income									
	Issued and paid-up share capital	Premium on ordinary shares	Retained earnings	Unrealised loss from cash flow hedges of the Company	Share of other comprehensive income from associates	Capital deficit from change in shareholding in subsidiary	Total other components of shareholders' equity	Total equity attributable to shareholders of the Company	Equity attributable to non-controlling interests of the subsidiaries	Total shareholders' equity
Balance as at 1 January 2016	15,285,000,000	5,816,938,084	800,490,000	7,254,261,049	(80,948,458)	(32,148,702)	(113,097,160)	29,043,591,973	86,442,190	29,130,034,163
Profit for the year	-	-	-	2,605,854,468	-	-	-	2,605,854,468	7,010,534	2,612,865,002
Other comprehensive income for the year	-	-	-	(134,119,066)	23,010,920	-	8,124,194	(125,994,872)	-	(125,994,872)
Total comprehensive income for the year	-	-	-	2,471,735,402	23,010,920	-	8,124,194	2,479,859,596	7,010,534	2,486,870,130
Transferred to statutory reserve (Note 29)	-	-	128,200,000	(128,200,000)	-	-	-	-	-	-
Dividend paid (Note 36)	-	-	-	(1,834,200,000)	-	-	-	(1,834,200,000)	-	(1,834,200,000)
Balance as at 31 December 2016	15,285,000,000	5,816,938,084	928,690,000	7,763,596,451	(57,937,538)	(32,148,702)	(104,972,966)	29,689,251,569	93,452,714	29,782,704,283
Balance as at 1 January 2017	15,285,000,000	5,816,938,084	928,690,000	7,763,596,451	(57,937,538)	(32,148,702)	(104,972,966)	29,689,251,569	93,452,714	29,782,704,283
Profit for the year	-	-	-	3,123,129,324	-	-	-	3,123,129,324	19,221,697	3,142,351,021
Other comprehensive income for the year	-	-	-	44,755,568	72,725,277	-	45,248,504	90,004,072	(1,561,203)	88,442,869
Total comprehensive income for the year	-	-	-	3,167,884,892	72,725,277	-	45,248,504	3,213,133,396	17,660,494	3,230,793,890
Transferred to statutory reserve (Note 29)	-	-	148,800,000	(148,800,000)	-	-	-	-	-	-
Dividend paid (Note 36)	-	-	-	(1,834,200,000)	-	-	-	(1,834,200,000)	-	(1,834,200,000)
Balance as at 31 December 2017	15,285,000,000	5,816,938,084	1,077,490,000	8,948,481,343	14,787,739	(32,148,702)	(59,724,462)	31,088,184,965	111,113,208	31,179,298,173

The accompanying notes are an integral part of the financial statements.

STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Statement of changes in shareholders' equity

For the year ended 31 December 2017

(Unit: Baht)

	Separate financial statements					
	Issued and paid-up share capital	Premium on ordinary shares	Retained earnings		Other components of shareholders' equity	
			Appropriated - statutory reserve	Unappropriated	Other comprehensive income	
					Unrealised loss from cash flow hedges	Total shareholders' equity
Balance as at 1 January 2016	15,285,000,000	5,816,938,084	800,490,000	4,611,032,491	-	26,513,460,575
Profit for the year	-	-	-	2,562,914,187	-	2,562,914,187
Other comprehensive income for the year	-	-	-	(134,132,646)	(14,886,726)	(149,019,372)
Total comprehensive income for the year	-	-	-	2,428,781,541	(14,886,726)	2,413,894,815
Transferred to statutory reserve (Note 29)	-	-	128,200,000	(128,200,000)	-	-
Dividend paid (Note 36)	-	-	-	(1,834,200,000)	-	(1,834,200,000)
Balance as at 31 December 2016	15,285,000,000	5,816,938,084	928,690,000	5,077,414,032	(14,886,726)	27,093,155,390
Balance as at 1 January 2017	15,285,000,000	5,816,938,084	928,690,000	5,077,414,032	(14,886,726)	27,093,155,390
Profit for the year	-	-	-	2,975,471,255	-	2,975,471,255
Other comprehensive income for the year	-	-	-	50,315,188	(27,476,773)	22,838,415
Total comprehensive income for the year	-	-	-	3,025,786,443	(27,476,773)	2,998,309,670
Transferred to statutory reserve (Note 29)	-	-	148,800,000	(148,800,000)	-	-
Dividend paid (Note 36)	-	-	-	(1,834,200,000)	-	(1,834,200,000)
Balance as at 31 December 2017	15,285,000,000	5,816,938,084	1,077,490,000	6,120,200,475	(42,363,499)	28,257,265,060

The accompanying notes are an integral part of the financial statements.

CASH FLOW STATEMENT

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Cash flow statement

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cash flows from operating activities				
Profit before tax	3,837,953,127	3,175,792,700	3,598,665,652	3,074,804,736
Adjustments to reconcile profit before tax to net cash provided by (paid from) operating activities:				
Amortisation and depreciation	3,544,655,128	3,422,513,416	2,959,316,613	2,872,420,659
Revenue recognition of unearned revenue from advertising management rights	-	-	(1,248,360)	(1,248,360)
Allowance for doubtful debt	272,590	471,546	-	-
Gain on investments	(41,608,290)	(31,090,443)	(41,295,378)	(45,235,624)
Loss on disposals/write-off of equipment, intangible asset under concession agreement of the MRT Blue Line Project and other intangible assets	6,028,232	1,197,724	6,384,610	1,282,797
Project remuneration expense	384,806,190	503,539,074	384,806,190	503,539,074
Compensation for site acquisition cost	495,800,643	550,049,984	495,800,643	550,049,984
Provision for long-term employee benefits	76,747,586	63,285,807	74,217,105	61,148,682
Share of profit from investments in associates	(405,916,311)	(347,349,465)	-	-
Unrealised loss (gain) on exchange rate	(105,460)	509,200	(105,460)	509,200
Interest income	(175,173,105)	(67,646,250)	(329,456,108)	(245,903,758)
Dividend income	-	-	(551,455,191)	(498,953,704)
Interest expenses	1,572,881,432	1,173,937,460	1,570,619,514	1,167,084,082
Profit from operating activities before changes in operating assets and liabilities	9,296,341,762	8,445,210,753	8,166,249,830	7,439,497,768
Operating assets (increase) decrease				
Trade and other receivables	155,095,799	(1,530,393,882)	170,916,997	(1,534,439,908)
Receivable under the concession agreement	412,420,819	-	412,420,819	-
Other current assets	101,986,629	118,245,333	94,045,237	115,077,421
Other non-current assets	13,393,495	(59,034,205)	15,511,002	(55,823,728)
Cash paid for project remuneration	(1,252,089,706)	(1,167,855,334)	(1,252,089,706)	(1,167,855,334)
Operating liabilities increase (decrease)				
Trade payables and other payables	8,049,920	27,111,561	13,469,473	(3,166,476)
Unearned fare box revenue	26,290,336	21,997,482	26,290,336	21,997,482
Deposits on stored value ticket	11,053,550	8,575,064	11,053,550	8,575,064
Other current liabilities	(8,194,092)	(14,279,907)	(14,817,064)	(16,791,607)
Other non-current liabilities	2,229,724	1,002,021	(1,004,420)	616,000
Cash paid for long-term employee benefits	(7,740,208)	(3,733,720)	(7,174,500)	(3,733,720)
Cash paid for compensation for site acquisition cost	(1,500,000,000)	(1,500,000,000)	(1,500,000,000)	(1,500,000,000)
Net cash flows from operating activities	7,258,838,028	4,346,845,166	6,134,871,554	3,303,952,962
Cash received from interest income	139,602,025	14,076,604	139,325,027	14,052,160
Cash paid for income tax	(248,930,830)	(515,595,620)	(190,353,092)	(494,208,005)
Net cash flows from operating activities	7,149,509,223	3,845,326,150	6,083,843,489	2,823,797,117

The accompanying notes are an integral part of the financial statements.

STATEMENT OF COMPREHENSIVE INCOME

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Cash flow statement (continued)

For the year ended 31 December 2017

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Cash flows from investing activities				
Decrease (increase) in current investments	4,533,501,017	(5,419,545,593)	4,535,509,692	(5,428,000,700)
Cash received from sales of investments in associate	-	46,971,310	-	46,971,310
Cash received from sales of investment before amalgamation	769,741,462	600,000,000	769,741,462	600,000,000
Increase in other long-term investments	(417,012,300)	(324,762,300)	(417,012,300)	(324,762,300)
Cash received from long-term loans to related parties	-	-	1,085,531,900	612,586,000
Cash paid for long-term loans to related party	-	-	(10,000,000)	(170,000,000)
Cash received from sales of equipment and intangible asset under concession agreement of the MRT Blue Line Project	7,706,184	8,074,075	7,139,543	7,764,986
Purchase of equipment	(89,131,306)	(233,477,194)	(87,335,527)	(173,420,119)
Advance payment for purchase of equipment	(77,040)	(83,400)	-	-
Cash received from interest income	21,484,010	12,907,263	399,511,649	317,603,648
Cash received from dividend income	551,455,191	498,953,704	551,455,191	498,953,704
Cash paid for project cost of the MRT Chalong Ratchadham Line	(65,000,000)	(362,076,317)	(65,000,000)	(362,076,317)
Cash paid for intangible asset under concession agreement of the MRT Blue Line Project	(7,906,570,615)	(412,493,534)	(7,854,438,863)	(393,001,035)
Cash paid for expressway construction	(130,085,647)	(5,732,648,468)	(130,085,647)	(5,731,793,324)
Interest expenses capitalised as cost of projects	(48,805,714)	(301,989,908)	(48,805,714)	(301,989,908)
Increase in intangible assets	(25,644,761)	(43,075,180)	(23,533,540)	(37,541,180)
Net cash flows used in investing activities	(2,798,439,519)	(11,663,245,542)	(1,287,322,154)	(10,838,705,235)
Cash flows from financing activities				
Cash received for in short-term loans from financial institutions	-	10,400,000,000	-	10,400,000,000
Cash paid for short-term loans from financial institutions	(1,088,000,000)	(28,090,000,000)	(1,088,000,000)	(28,080,000,000)
Cash received from long-term loans from financial institutions	500,000,000	12,344,000,000	-	12,344,000,000
Repayment of long-term loans from financial institutions	(3,536,448,559)	(10,759,185,781)	(3,536,448,559)	(10,602,500,000)
Cash received from debentures	5,000,000,000	23,500,000,000	5,000,000,000	23,500,000,000
Cash paid for redemption of debentures	-	(300,000,000)	-	(300,000,000)
Cash paid for financial fees	(8,219,329)	(67,423,644)	(8,219,329)	(67,423,644)
Interest paid	(1,534,140,236)	(1,081,644,863)	(1,532,009,826)	(1,074,733,749)
Dividend paid	(1,834,200,000)	(1,834,200,000)	(1,834,200,000)	(1,834,200,000)
Net cash flows from (used in) financing activities	(2,501,008,124)	4,111,545,712	(2,998,877,714)	4,285,142,607
Net increase (decrease) in cash and cash equivalents	1,850,061,580	(3,706,373,680)	1,797,643,621	(3,729,765,511)
Cash and cash equivalents at beginning of year	777,001,145	4,483,374,825	729,292,774	4,459,058,285
Cash and cash equivalents at end of year	2,627,062,725	777,001,145	2,526,936,395	729,292,774
Supplemental cash flows information				
Non-cash items consist of:				
Transfer of project costs under construction to completed expressway	-	19,600,400,995	-	19,600,400,995
Purchase of equipment under financial lease	-	3,255,708	-	3,255,708
Purchase of intangible asset under concession agreement of the MRT Blue Line Project and increase in payable from expressway construction	1,228,818,865	1,886,114,853	1,228,818,865	1,884,706,415
Increase in receivable under the concession agreement from the Novation and Debt Repayment Agreement	13,618,880,612	-	13,618,880,612	-
Transfer other receivable - related party to receivable under the concession agreement	953,321,643	-	953,321,643	-

The accompanying notes are an integral part of the financial statements.

Bangkok Expressway and Metro Public Company Limited and its subsidiaries

Notes to consolidated financial statements

For the year ended 31 December 2017

1. General information

Bangkok Expressway and Metro Public Company Limited (“the Company”) is a public company incorporated from an amalgamation on 30 December 2015 and domiciled in Thailand. The Company’s major shareholder is the CH. Karnchang Public Company Limited, which was incorporated in Thailand and its registered address is 587 Sutthisarn Road, Dindaeng Subdistrict, Dindaeng District, Bangkok. The Company has four branches.

The Company is principally engaged in the construction and management of expressways, the operation of metro services and commercial development. Details are as follows:

A. Construction and management of expressways

The Company has been granted concessions by the Expressway Authority of Thailand (“EXAT”) for the construction and management of expressways, as follows:

A.1 The Si Rat Expressway under the Second Stage Expressway agreement (Sector A, Sector B and Sector C) and the Extension of the Second Stage Expressway agreement (Sector D).

The Company, as a concessionaire, invested in the design, construction and management of expressways. These consists of 4 sectors: Sector A (Rama IX-Ratchadapisek), Sector B (Phayathai-Bangkhlo), Sector C (Ratchadapisek-Chaeng Watthana) and Sector D (Rama IX-Srinagarindra). The concession periods are 30 years commencing on 1 March 1990 for Sectors A, B and C, and on 17 April 1997 for Sector D. The EXAT has the right to collect all toll revenues and is to compensate the Company in the form of toll revenue sharing at the rates specified in the concession agreement, throughout the concession period. The Company has the right to extend the concession for two further periods of 10 years each, depending upon terms and conditions that are to be agreed between the parties.

- A.2 The Si Rat - Outer Ring Road Expressway Project, under a concession agreement in respect of the investment, design, construction, management, operation and maintenance.

The Company, as concessionaire, invested in the design, construction, management, operation and maintenance of the Si Rat - Outer Ring Road Expressway Project, and is also responsible for expressway operation expenses throughout the concession period, which is for 30 years commencing on 15 December 2012. The Company has the right to collect all toll revenue and rights to all other related income, and is to compensate the EXAT in the form of toll revenue sharing at the rates specified in the concession agreement, throughout the concession period.

The Si Rat - Outer Ring Road Expressway stated operation on 22 August 2016.

On 19 July 2017, the Company signed the additional amendment agreement for design and construction of the Connection between the Si Rat-Outer Ring Road Expressway and the north of Si Rat Expressway (heading to Chaeng Watthana Road) with the EXAT with a term of 18 months.

- A.3 The Udon Ratthaya Expressway Project (Bang Pa-In - Pakkret Expressway) under a concession agreement in respect of the construction and management of the expressway project of a subsidiary.

The Subsidiary, as concessionaire, invested in the design, construction and management of the expressway, together with related business under a 30-year concession commencing on 27 September 1996. The EXAT has the right to collect all toll revenue and is to compensate the Subsidiary in the form of revenue sharing at the rates specified in the concession agreement, throughout the concession period. The Subsidiary has the right to extend the concession for two further periods of 10 years each, depending upon terms and conditions that are to be agreed between the parties.

B. Operation of metro services

The Company received concessions from the Mass Rapid Transit Authority of Thailand (“MRTA”) to operate metro services, as follows:

B.1 The MRT Blue Line Project.

The Company, as concessionaire of the MRTA Initial System Project - Chaloeem Ratchamongkhon Line (The MRT Blue Line: Hua Lamphong Station - Bang Sue Station) under the MRTA Initial System Project - Chaloeem Ratchamongkhon Line, invested in M&E Equipment and is to operate and maintain the MRTA Initial System for a concession period of 25 years, commencing on 2 July 2004.

Subsequently, the Company was selected as an operator of the MRT Blue Line Extension Project: Bang Sue station-Tao Poon station. On 16 February 2017, the Company signed an agreement for the supply of M&E Systems equipment, and operation and maintenance services with a term of 2 years, commencing from the official starting date of the operation of the MRT Blue Line Extension Project: Bang Sue station-Tao Poon station. In addition, if the Company signed the MRT Blue Line Concession Agreement, the requirements of the MRT Blue Line Concession Agreement were to be applied instead.

On 28 March 2017, the Company was selected as concessionaire of the MRT Blue Line Concession Agreement, in accordance with a cabinet resolution. On 31 March 2017, the Company signed the MRT Blue Line Concession Agreement for a concession period of approximately 33 years under the Build, Transfer and Operate basis, with the MRTA. Accordingly, the MRT Blue Line Extension Project: Bang Sue station-Tao Poon Station Agreement was canceled. The MRT Blue Line Project consists of the MRTA Initial System Project - Chaloeem Ratchamongkhon Line: Hua Lamphong Station-Bang Sue Station and the MRT Blue Line Extension: Hua Lamphong Station-Lak Song Station and Bang Sue Station-Tha Phra Station.

Under the MRT Blue Line Concession Agreement, a concession agreement with the MRTA for the MRTA Initial System Project - Chaloeem Ratchamongkhon Line is deemed to be part of the MRT Blue Line Concession Agreement, and only the clauses relating the rights, duties and provisions with respect to fares, fare rates and payment of remuneration to the MRTA will remain in effect until the end of the concession agreement with the MRTA for the MRTA Initial System Project - Chaloeem Ratchamongkhon Line.

The Company, as concessionaire of the MRT Blue Line Concession Agreement is responsible for the supply, installation and testing of the M&E Systems of the MRT Blue Line Extension Project (Phase 1 of the concession, which has a terms of 36 months from the commencement date of work by the MRTA) and operation of the Through Operation systems of the MRT Blue Line Project (Phase 2 of the concession, which has a term of 30 years from the commencement date of the revenue-generating service on all sectors). The Company has rights, duties and obligations to claim, collect, and retain all fares, and to generate revenue from commercial development, and is responsible for all investment, payment of operating costs, and payment of remuneration to the MRTA in accordance with the Concession.

The Company is required to gradually commence operation of the MRT Blue Line Extension Project in 3 sectors.

Sector 1: Bang Sue Station-Tao Poon Station within 15 August 2017.

Sector 2: Hua Lamphong Station-Lak Song Station within 30 months.

Sector 3: Tao Poon Station-Tha Phra Station within 36 months.

On 11 August 2017, the Company officially commenced operation of the MRT Blue Line Extension Project: Bang Sue Station-Tao Poon Station.

- B.2 The MRT Chalong Ratchadham Line Project (Bang Yai-Rat Burana, Bang Yai-Bang Sue Section (Klong Bang Phai Station-Tao Poon Station)) (the "MRT Purple Line Project") Contract 4: Concession for Supply of M&E Systems and O&M Services.

The Company, as concessionaire, invested in the M&E Systems and rolling stock. In addition, the Company provides operation and maintenance services. The MRTA has the right to collect fare box revenues and commercial revenues from the use of all civil infrastructure and the M&E Systems, and is to compensate the Company in the form of M&E Systems equipment costs (Phase I) and operation and maintenance service fees (Phase II). Details are as below:

Phase I: Design and Build

The Company is to design, supply, install and test the M&E Systems within 1,200 days after the agreement date (4 September 2013). In return the Company is to receive remuneration and interest totaling Baht 20,011 million from the MRTA in the form of monthly payments over a period of 10 years, beginning from the date of the Commissioning Certificate.

Subsequently, in September 2013, the Company subcontracted all Phase 1 works under its responsibility to a related company for fees and interest amounting to Baht 20,011 million. However, the Company will pay the fees to the related company based on when the Company receives remuneration from MRTA. In addition, the Company has entered into an agreement assigning the rights to receipts under the agreement with the MRTA to the related company's bank, as collateral for loans.

On 6 August 2016, the Company received the M&E Systems and Rolling Stocks under Phase 1 of the MRT Chalong Ratchadham Line Project from its related company and on the same date delivered the M&E Systems and Rolling Stocks to the MRTA. The Company had transferred the performance obligations and responsibilities under Phase 1 of the concession agreement to its related company and assigned the right to receive payments for the M&E Systems and Rolling Stocks under Phase 1 of the concession agreement from the MRTA to the group of lenders of the related company, as collateral for the loans used to fund investment in performance of work under such agreement in 2013. Therefore, since 6 August 2016 the Company has presented receivable from the MRTA - the M&E Systems and Rolling Stocks amounting to Baht 16,422 million, net of the amount payable to the related company for the M&E Systems and Rolling Stocks amounting to Baht 16,422 million. In addition, the Company presented the revenue associated with these transactions net of related expenses in the consolidated and separate financial statements.

The related company notified the Company of its transfer of all rights under Phase 1 of the concession agreement of the MRT Chalong Ratchadham Line Project to the group of lenders, as discussed in the preceding paragraph. According to the provisions of the law, this transfer gives the group of lenders the status of the Company's lender, instead of the related company, and the Company will enter into a novation agreement for the transfer of rights to change the identity of the lenders accordingly. Subsequently, on 23 August 2017, a Board of Directors' meeting passed a resolution to grant approval for the Company to enter into the Novation and Debt Repayment Agreement with the group of lenders, changing the nature of the debt from trade debt to loan.

On 29 September 2017, the related company issued notification to the Company of its transfer of all rights of claim under the concession agreement of Phase 1 of the MRT Chalong Ratchadham Line Project to the Company, and the Company entered into an agreement transferring all such rights of claim to the group of lenders, as the Company's creditor in lieu of the related company. On the same day, the Company entered into the Novation and Debt Repayment Agreement with the group of lenders, changing the nature of debts from trade debt to loan to be in line with the business objectives of the group of lenders. These debts comprised approximately Baht 13,557 million of loans - Tranche A and approximately Baht 62 million of loans - Tranche B, as described in Note 24 to the financial statements, and bank guarantees amounting to Baht 200 million, as described in Note 40.5 d) to the financial statements.

As at 31 December 2017, the Company has therefore presented amounts receivable within 10 years from the MRTA under the concession agreement for the M&E Systems, as described in Note 11 to the financial statements, separately from long-term loans from financial institutions a line item under assets and liabilities in the statement of financial position. The Company has also presented the related interest income separately from interest expenses in profit or loss for the year ended 31 December 2017.

Phase II: O&M services

The Company is responsible for the operation of metro services, including repair, maintenance and improvement of all equipment and materials related to the civil infrastructure works and M&E Systems from the date specified in the Commissioning Certificate until the end of the concession period. In addition, the Company shall transfer rights of civil infrastructure and M&E Systems to the MRTA when the concession agreement ends. The compensation for Phase II under the agreement, amounting to approximately Baht 57,208 million (excluding escalations for inflation and adjustments to reflect electricity prices), will be paid to the Company on a monthly basis until the expiration of the concession agreement (3 September 2043).

On 6 August 2016, the Company is delivered the operating civil infrastructure and M&E Systems equipment of the MRT Chalong Ratchadham Line from the MRTA. On that day, the operation of the MRT Chalong Ratchadham Line Project officially started.

- C. Commercial development business, which consists of commercial developments related to the expressways and the operation of metro services.

2. Basis of preparation

- 2.1 The financial statements have been prepared in accordance with Thai Financial Reporting Standards enunciated under the Accounting Profession Act B.E. 2547 and their presentation has been made in compliance with the stipulations of the Notification of the Department of Business Development dated 11 October 2016, issued under the Accounting Act B.E. 2543.

The financial statements in Thai language are the official statutory financial statements of the Company. The financial statements in English language have been translated from the Thai language financial statements.

The financial statements have been prepared on a historical cost basis except where otherwise disclosed in the accounting policies.

2.2 Basis of consolidation

- a) The consolidated financial statements include the financial statements of Bangkok Expressway and Metro Public Company Limited (“the Company”) and its subsidiaries (“the subsidiaries”). Details are as follows:

Company's name	Nature of business	Country of incorporation	Proportion of Shareholding	
			<u>2017</u> (Percent)	<u>2016</u> (Percent)
Northern Bangkok Expressway Company Limited	Operation and management of Bang Pa-In - Pakkret Expressway project	Thailand	99.99	99.99
Bangkok Metro Networks Limited	Rental of retail space and provision of advertising services and telecommunication services in underground train stations	Thailand	65.19	65.19

- b) The Company is deemed to have control over an investee or subsidiaries if it has rights, or is exposed, to variable returns from its involvement with the investee, and it has the ability to direct the activities that affect the mount of its returns.
- c) Subsidiaries are fully consolidated, being the date on which the Company obtains control, and continue to be consolidated until the date when such control ceases.
- d) The financial statements of the subsidiaries are prepared using the same significant accounting policies as the Company.
- e) Material balances and transactions between the Company and the subsidiaries have been eliminated from the consolidated financial statements.
- f) Non-controlling interests represent the portion of profit or loss and net assets of the subsidiaries that are not held by the Company and are presented separately in the consolidated profit or loss and within equity in the consolidated statement of financial position.

- 2.3 The separate financial statements, which present investment in subsidiaries and associates presented under the cost method.

3 New financial reporting standards

3.1 Financial reporting standards that became effective in the current year

During the year, the Company and its subsidiaries have adopted the revised financial reporting standards and interpretations (revised 2016) and new accounting treatment guidance which are effective for fiscal years beginning on or after 1 January 2017. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of standards. The adoption of these financial reporting standards does not have any significant impact on the Company and its subsidiaries' financial statements.

3.2 Financial reporting standards that will become effective in the future

During the current year, the Federation of Accounting Professions issued a number of revised financial reporting standards and interpretations (revised 2017) which are effective for fiscal years beginning on or after 1 January 2018. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes and clarifications directed towards disclosures in the notes to financial statements.

The management of the Company and its subsidiaries believe that the revised financial reporting standards will not have any significant impact on the financial statements when they are initially applied.

4. Change in accounting estimates

As described in Note 1 B.1 to the financial statements, the Company entered into the MRT Blue Line Concession Agreement on 31 March 2017, resulting in the end date of the concession period under a concession agreement with the MRTA for the MRTA Initial System Project - Chaloem Ratchamongkhon Line being extended from 2029 to 2050, which is the same as the end date of the MRT Blue Line Extension Project. In the current year, the Company changed the estimated useful lives of Intangible assets under the concession agreement of the MRTA Initial System Project - Chaloem Ratchamongkhon Line, which were presented under intangible assets under the concession agreement of the MRT Blue Line Project, to be in accordance with the concession period of the MRT Blue Line Concession Agreement. The management of the Company believes that the new useful lives of the assets are more appropriate, since they are consistent with the expected utility periods estimated by the Company.

The Company applied the change in estimates prospectively.

The effects of the change to the statements of financial position as at 31 December 2017 and the income statement for the year ended 31 December 2017 are summarised below.

(Unit: Million Baht)

	Consolidated and Separate	
	financial statements	
	As at	For the year ended
	31 December 2017	31 December 2017
<u>Statement of financial position</u>		
Increase in intangible asset under concession agreement of the MRT Blue Line Project	261	-
<u>Income statement</u>		
Decrease in amortisation on intangible asset under concession agreement of the MRT Blue Line Project	-	261
Increase in profit attributable to equity holders of the Company	-	261
<u>Earnings per share</u>		
Increase in basic earnings per share (Baht per share)	-	0.02

5. Significant accounting policies

5.1 Revenue and expense recognition

a) Toll revenue

Toll revenue represent the invoiced value, excluding value added tax, of service rendered.

b) Toll revenue sharing

Toll revenue sharing represent the invoiced value, excluding value added tax, on accrual basis.

c) Fare box revenue

Smart card and smart token sales are recognised as revenue when the services are rendered. Prepaid value in stored value smart cards is recorded as unearned fare box revenue in current liabilities in the statement of financial position.

d) Revenue from provision of operating services

Revenue from provision of operating services is recognised when services have been rendered taking into accounting the stage of completion, excluding value added tax. Service rate charged is in accordance with rates stipulated in the agreement.

e) Commercial development revenue

Commercial development revenue is recognised as income when service has been rendered.

f) Financial revenue

Financial revenue is revenue from receivable under the concession agreement and is realised over the installment period using the effective interest rate method. Revenue is recognised when installments come due, regardless of whether collection is made, and is presented under interest income in profit and loss.

g) Other revenues and expenses recognition

Interest income

Interest income is recognised on an accrual basis based on the effective interest rate.

Dividends

Dividends are recognised when the right to receive the dividends is established.

Other expenses

Expenses are recognised on accrual basis.

5.2 Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and cash at banks, and all highly liquid investments with an original maturity of three months or less and not subject to withdrawal restrictions.

5.3 Trade and other receivables

Trade and other receivables are stated at the net realisable value. Allowance for doubtful accounts is provided for the estimated losses that may be incurred in collection of receivables. The allowance is generally based on collection experience and analysis of debt aging.

5.4 Receivable under the concession agreement

Receivable under the concession agreement is stated at the contract value net of unrealised financial revenue.

5.5 Investments

- a) Investments in securities held for trading are stated at fair value. Changes in the fair value of these securities are recorded in profit or loss.
- b) Investments in debt securities, both due within one year and expected to be held to maturity, are recorded at amortised cost. The premium/discount on debt securities is amortised/accreted by the effective rate method with the amortised/accreted amount presented as an adjustment to the interest income.
- c) Investment in non-marketable equity securities, which the Company classifies as other investments, are stated at cost net of allowance for impairment loss (if any).
- d) Investment in associates are accounted for in the consolidated financial statements using the equity method.
- e) Investments in subsidiaries and associates are accounted for in the separate financial statements using the cost method.

The fair value of marketable securities is based on the latest bid price of the last working day of the year. The fair value of debt instruments is determined based on the required rate of return or the yield rates quoted by the Thai Bond Market Association. The fair value of unit trusts is determined from their net asset value.

The weighted average method is used for computation of the cost of investments.

On disposal of an investment, the difference between net disposal proceeds and the carrying amount of the investment is recognised in profit or loss.

5.6 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated at cost less accumulated depreciation and allowance for loss on impairment (if any).

No depreciation has been provided for land awaiting sales.

On disposal of investment properties, the difference between the net disposal proceeds and the carrying amount of the asset is recognised in profit or loss in the period when the asset is derecognised.

5.7 Building and equipment and depreciation

Building and equipment are stated at cost less accumulated depreciation and allowance for loss on impairment of assets (if any).

Depreciation of building and equipment is calculated by reference to their costs on the straight-line basis over the following estimated useful lives:

Building and construction improvement	5 years, 20 years
Furniture, fixture and equipment	3 - 5 years
Vehicles	5 - 16 years

Depreciation is included in determining income. No depreciation has been provided for assets under installations.

An item of building and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal of an asset is included in profit or loss when the asset is derecognised.

5.8 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of the respective assets. All other borrowing costs are expensed in the period they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

5.9 Amortisation of rights to operate expressway sectors and amortisation

Rights to operate expressway sectors represent the cost of construction of the Second Stage Expressway System, the Si Rat - Outer Ring Road Expressway and the Bang Pa-In - Pakkret Expressway. It is stated at cost less accumulated amortisation and allowance for loss on impairment (if any).

The rights to operate completed expressway sectors are amortised as expenses in income statements with the unit of throughput method over the concession period. The amortisation of rights to operate expressway sectors is charged to profit or loss and calculated as follows:

$$\begin{aligned}\text{Amortisation for the year} &= \text{Net rights to operate expressway sectors} \times \text{Percentage of the number of vehicle volume for the year} \\ \text{Percentage of the number of vehicle volume for the year} &= \frac{\text{Current year's number of actual vehicle volume}}{(\text{Current year's number of actual vehicle volume} + \text{Projected vehicle volume after current year to the remaining years of the agreement})} \\ \text{Net rights to operate expressway sectors} &= \text{Total actual cost of rights to operate expressway sectors} - \text{Accumulated amortisation}\end{aligned}$$

No amortisation is provided for project costs under construction.

5.10 Rights to use sites for expressway and amortisation

The Company initially recorded the rights to use sites for expressway at cost, equal to the present value of future compensation for site acquisition cost to be paid to the EXAT under the Second Stage Expressway System agreement. Following initial recognition, the rights are carried at cost less accumulated amortisation and allowance for loss on impairment (if any).

The Company amortises the rights to use sites for expressway as an expense in the income statement is proportion to the number of actual vehicle volume. The Company reviews for impairment of the asset whenever there are indications of impairment and reviews the amortisation method at least once per year.

5.11 Intangible assets under concession agreement of the MRT Blue Line Project and amortisation

Intangible assets under concession agreement of the MRT Blue Line Project are stated at cost less accumulated amortisation and allowance for loss on impairment (if any).

The Company and its subsidiary capitalised as assets all expenditures related to the MRT Blue Line Project, which including management and consultant fees, design costs, electrical and mechanical works and rolling stock purchased during the concession period, interest and other financing expenses. These will be amortised to expenses over the concession period after the commencement of operations.

Equipment - Metro system

The Company has been adopting the unit of throughput method to amortise such intangible assets, which related to equipment of metro system, over concession period of the MRT Blue Line Project and based on the following methodology:

$$\text{Amortisation for the year} = \text{Net intangible assets under concession agreement of the MRT Blue Line Project} \\ \times \text{Percentage of passengers for the year}$$

$$\text{Percentage of Passengers for the year} = \frac{\text{Current year's actual passengers}}{(\text{Actual passengers for the current year} + \text{Projected passengers during the remaining concession year})}$$

Equipment - Other system

Amortisation of intangible assets under concession agreement of the MRT Blue Line Project Line is calculated by reference to its cost on the straight-line basis over the following estimated useful lives:

Equipment and rental area at station improvement	5 years and concession period
Telecommunication equipment	5 years and concession period
Advertising equipment	5 years

Net intangible assets under concession agreement of the MRT Blue Line Project = Total intangible assets under concession agreement of the MRT Blue Line Project - Accumulated amortisation

Amortisation of intangible assets under concession agreement of the MRT Blue Line Project is included in profit or loss.

No amortisation is provided on assets under installations.

5.12 Project cost of the MRT Chalong Ratchadham Line

Project cost of the MRT Chalong Ratchadham Line is stated at cost less accumulated amortisation and allowance for loss on impairment (if any). The amortisation is calculated on the straight-line basis over the concession period.

The amortisation is included in profit or loss.

5.13 Prepaid project remuneration

The Company records remuneration expense of the MRT Blue Line Project in profit or loss for each year based on the proportion of projected remuneration to projected revenue under the concession agreement over the concession period. Differences between the remuneration that the Company pays to the MRTA and the recognised remuneration expenses are recorded under “prepaid project remuneration” in the statement of financial position.

The proportion of projected remuneration to projected revenue under the concession agreement is reviewed at least once a year.

5.14 Other intangible assets and amortisation

The Company and its subsidiaries are initially recognised intangible assets at cost. Following the initial recognition, the intangible assets are carried at cost less any accumulated amortisation and allowance for loss on impairment (if any).

Intangible assets with finite useful lives are amortised on a systematic basis over the economic useful life and tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method of such intangible assets are reviewed at least at each financial year end. The amortisation is include in profit or loss.

The intangible assets with finite useful lives is computer software with 3 years, 5 years and 10 years useful lives.

5.15 Deferred financial fees

Financial expenses related to borrowings that are typically incurred on or before signing facility agreements and before the actual draw down of the loans are recorded as deferred financial fees. Deferred financial fees is presented as a deduction against the related loan account and amortised proportionately to the amount of the loan facility already drawn over the term of the loans.

The amortisation of deferred financial fees is capitalised as part of the cost of the respective assets until to get ready for their intended use.

5.16 Goodwill

Goodwill is initially recorded at cost, which equals to the excess of the cost of business combination over the fair value of the net assets acquired. If the fair value of the net assets acquired exceeds the cost to business combination, the excess is immediately recognised as gain in profit or loss.

Goodwill is carried at cost less any accumulated impairment losses. Goodwill is tested for impairment annually and when circumstances indicate that the carrying value may be impaired.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the Company's cash generating units that are expected to benefit from the synergies of the combination. The Company estimates the recoverable amount of each cash-generating unit to which the goodwill relates. Where the recoverable amount of the cash-generating unit is less than the carrying amount, an impairment loss is recognised in profit or loss. Impairment losses relating to goodwill cannot be reversed in future periods.

5.17 Related party transactions

Related parties comprise individuals or enterprises that control, or are controlled by, the Company and its subsidiaries, whether directly or indirectly, or which are under common control with the Company and its subsidiaries.

They also include associated companies, and individuals or enterprises which directly or indirectly own a voting interest in the Company that gives them significant influence over the Company and its subsidiaries, key management personnel, directors and officers with authority in the planning and direction of the Company and its subsidiaries' operations.

5.18 Long-term leases

Leases of equipment which transfer substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lower of the fair value of the leased assets and the present value of the minimum lease payments. The outstanding rental obligations, net of finance charges, are included in long-term payables, while the interest element is charged to profit or loss over the lease period. The assets acquired under finance leases are depreciated over the useful life of the asset.

Leases of equipment which do not transfer substantially all the risks and rewards of ownership are classified as operating leases. Operating lease payments are recognised as an expense in profit or loss on a straight line basis over the lease term.

5.19 Foreign currencies

The consolidated and separate financial statements are presented in Baht, which is also the Company's functional currency. Items of each entity included in the consolidated financial statements are measured using the functional currency or that entity.

Transactions in foreign currencies are translated into Baht at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Baht at the exchange rate ruling at the end of reporting period.

Gains and losses on exchange are included in determining income.

5.20 Impairment of assets

At the end of each reporting period, the Company and its subsidiaries performs impairment reviews in respect of their assets whenever events or changes in circumstances indicate that an asset may be impaired. An impairment loss is recognised when the recoverable amount of an asset, which is the higher of the asset's fair value less costs to sell and its value in use, is less than the carrying amount. In determining value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, an appropriate valuation model is used. These calculations are corroborated by a valuation model that, based on information available, reflects the amount that the Company could obtain from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal.

The Company and its subsidiaries recognise an impairment loss in profit or loss.

5.21 Employee benefits

Short-term employee benefits

The Company and its subsidiaries will recognise salaries, wages, bonuses and contributions to the social security fund as expenses when incurred.

Post-employment benefits

Defined contribution plans

The Company, its subsidiaries and its employees have jointly established a provident fund. The fund is monthly contributed by employees and by the Company and its subsidiaries. The fund's assets are held in a separate trust fund and the contributions of the Company and its subsidiaries are recognised as expenses when incurred.

Defined benefit plans

The Company and its subsidiaries have obligations in respect of the severance payments they must make to employees upon retirement under labor law. The Company and its subsidiaries treat these severance payment obligations as a defined benefit plan.

The obligation under the defined benefit plan is determined by a professionally qualified independent actuary based on actuarial techniques, using the projected unit credit method.

Actuarial gains and losses arising from post-employment benefits are recognised immediately in other comprehensive income.

5.22 Provisions

Provisions are recognised when the Company and its subsidiaries have a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

Provision for compensation for site acquisition cost

The Company records provision for compensation for site acquisition cost based on the present value of future payments to be paid to the EXAT to compensate the site acquisition cost as stated in the Second Stage Expressway System.

5.23 Periodic maintenance on the expressway and rail systems

All annual maintenance costs are charged directly to the income statement in the year on which they are incurred. The independent specialists have stated that if annual repairs are carried out in accordance with the specified standard, there will be no requirement for major maintenance. As a result, no further amounts are set aside as provision for maintenance.

5.24 Income tax

Income tax expense represents the sum of corporate income tax currently payable and deferred tax.

Current tax

Current income tax is provided in the accounts at the amount expected to be paid to the taxation authorities, based on taxable profits determined in accordance with tax legislation.

Deferred tax

Deferred income tax is provided on temporary differences between the tax bases of assets and liabilities and their carrying amounts at the end of each reporting period, using the tax rates enacted at the end of the reporting period.

The Company and its subsidiaries recognise deferred tax liabilities for all taxable temporary differences while they recognise deferred tax assets for all deductible temporary differences and tax losses carried forward to the extent that it is probable that future taxable profit will be available against which such deductible temporary differences and tax losses carried forward can be utilised.

At each reporting date, the Company and its subsidiaries review and reduce the carrying amount of deferred tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

The Company and its subsidiaries record deferred tax directly to shareholders' equity if the tax relates to items that are recorded directly to shareholders' equity.

5.25 Derivative financial instruments and hedging

Derivative financial instruments

The Company and associated companies use derivative financial instruments to manage its risks associated with exchange rate and interest rate, such as interest rate swap agreements.

Such derivatives are initially recognised and measured at fair value on the date on which the derivative contract is entered into and are subsequently remeasured at fair value, which has been calculated using the quoted market rates, at the end of reporting period. Gains or losses resulting from changes in the fair value of the derivative financial instruments are recognised as financial assets or financial liabilities when the gain or loss occurs. However, where derivatives qualify for hedge accounting, recognition of any resultant gain or loss from changes in the fair value depends on the nature of the item being hedged.

Hedge accounting - Cash flow hedges

The Company and associated companies apply hedge accounting when the risk that has been hedged can be clearly identified and the effectiveness of the hedge can be measured. Gains or losses arising from changes in the fair value of hedging instruments or derivatives that effectively hedge exposure to fluctuations in cash flows that are either attributable to a particular risk associated with a recognised financial asset or financial liability, or to a highly probable forecast transaction, are recognised directly in other comprehensive income and transferred to be recognised in profit or loss when the hedged cash flow transaction occurs. However, if the hedge instrument is not effective, any gain or loss from a change in the fair value of the derivative financial instrument is recognised immediately to profit or loss.

5.26 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between buyer and seller (market participants) at the measurement date. The Company and its subsidiaries apply a quoted market price in an active market to measure their assets and liabilities that are required to be measured at fair value by relevant financial reporting standards. Except in case of no active market of an identical asset or liability or when a quoted market price is not available, the Company and its subsidiaries measure fair value using valuation technique that are appropriate in the circumstances and maximises the use of relevant observable inputs related to assets and liabilities that are required to be measured at fair value.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy into three levels based on categorise of input to be used in fair value measurement as follows:

Level 1 - Use of quoted market prices in an observable active market for such assets or liabilities

Level 2 - Use of other observable inputs for such assets or liabilities, whether directly or indirectly

Level 3 - Use of unobservable inputs such as estimates of future cash flows

At the end of each reporting period, the Company and its subsidiaries determine whether transfers have occurred between levels within the fair value hierarchy for assets and liabilities held at the end of the reporting period that are measured at fair value on a recurring basis.

6. Significant accounting judgements and estimates

The preparation of financial statements in conformity with financial reporting standards at times requires management to make subjective judgements and estimates regarding matters that are inherently uncertain. These judgements and estimates affect reported amounts and disclosures; and actual results could differ from these estimates. Significant judgements and estimates are as follows:

Fair value of financial instruments

In determining the fair value of financial instruments that are not actively traded and for which quoted market prices are not readily available, the management exercise judgement, using a variety of valuation techniques and models. The input to these models is taken from observable markets, and includes credit risks for both bank and counter parties consideration of liquidity, correlation and longer-term volatility of financial instruments. Change in assumption which is related to calculating input, could affect fair value in financial statement and the disclosure of fair value hierarchy.

Impairment of investment in subsidiaries

The Company reviews impairment of investment in subsidiaries, which requires management to prepare projection of the cash flow expected to be generated by the investment in the future, and to choose a suitable discount rate in order to calculate the present value of those cash flows.

Building improvement and equipment/Depreciation

In determining depreciation of building improvement and equipment, the management is required to make estimates of the useful lives and residual values of the Company's building improvement and equipment and to review estimate useful lives and residual values when there are any changes.

In addition, the management is required to review building improvement and equipment for impairment on a periodical basis and record impairment losses in the period when it is determined that their recoverable amount is lower than the carrying amount. This requires judgements regarding forecast of future revenues and expenses relating to the assets subject to the review.

Amortisation of rights to operate completed expressway sectors and rights to use sites for expressway construction

In determining amortisation of rights to operate completed expressway sectors and rights to use sites for expressway construction, the management has to project vehicle volume after current year for the remaining years of the agreement. Vehicle volume is projected based on the number of vehicles as assessed by an independent appraiser, and adjusted by comparison to actual vehicle volume. However, the actual vehicle volume in the future could differ from the estimate depending upon changes in external factors that may affect toll rates and vehicle volume.

Amortisation of intangible asset under concession agreement of the MRT Blue Line Project

In determining amortisation of intangible asset under concession agreement of the MRT Blue Line Project, the management has to project the number of passengers after current year for the remaining year of the agreement. Various assumptions needed to project by an accredited independent valuer, such as traffic model, network rail, average cost of fuel, and fare structure.

Deferred tax assets

Deferred tax assets are recognised for deductible temporary differences and unused tax losses to the extent that it is probable that taxable profit will be available against which the temporary differences and losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of estimate future taxable profits.

Post-employment benefits under defined benefit plans

The obligation under the defined benefit plan is determined based on actuarial techniques. Such determination is made based on various assumptions, including discount rate, future salary increase rate, mortality rate and staff turnover rate.

Disputes

The Company and its subsidiaries have contingent liabilities as a result of litigation. The Company's management has used judgment to assess of the results of the litigation and believes that no loss will result. Therefore no contingent liabilities are recorded as at the end of reporting period.

7. Related party transactions

During the year, the Company and its subsidiaries had significant business transactions with related parties. Such transactions arose in the ordinary course of business and were concluded on commercial terms and bases agreed upon between the Company and those related parties.

The relationship between the Company, its subsidiaries and the related parties which have transactions with during the year summarised below.

Name of related parties	Relationship with the Company
CH. Karnchang Public Company Limited	Major shareholders
Mass Rapid Transit Authority of Thailand	Shareholders
Northern Bangkok Expressway Company Limited	Subsidiary
Bangkok Metro Networks Limited	Subsidiary
CK Power Public Company Limited	Associated company
TTW Public Company Limited	Associated company
Krungthai Bank Public Company Limited	Related company by the Company's director has authority in bank
Bangkok Bank Public Company Limited	Related company by the Company's director has authority in bank
Xayaburi Power Company Limited	Related company by Common directors

Such significant transaction for the year ended 31 December 2017 and 2016 are summarised below.

(Unit: Million Baht)					
	Consolidated financial statements		Separate financial statements		Pricing policy
	2017	2016	2017	2016	
<u>Transactions with major shareholder</u>					
Interest income	-	36	-	36	At the fixed rate per annum
Cost of rail projects	8,854	-	8,854	-	Based on contracts
Cost of expressway construction	69	3,983	69	3,983	Based on contracts
Expressway and civil works maintenance expenses	335	199	335	174	Based on contracts
Advance receivable for the MRT Chalong					
Ratchadham Line project	-	104	-	104	Based on contracts
Office rental and service expenses	8	7	-	-	Based on contracts
<u>Transactions with subsidiary companies</u>					
(eliminated from the consolidated financial statements)					
Commercial development revenue	-	-	327	282	Based on contracts
Interest income from long-term loans	-	-	154	178	Based on contracts
Project management income	-	-	144	120	Baht 12 million per month (2016: Baht 10 million per month)
<u>Transactions with associated companies</u>					
Dividend income	-	-	551	499	As declared
<u>Transactions with related companies</u>					
Commercial development revenue	9	8	9	8	Based on contracts
Interest income for M&E Systems	118	-	118	-	Interest rate of FDR plus stipulated margins
Cost of fare box (Inclusive of VAT)	361	436	361	436	Based on concession agreement
Costs of commercial development	24	67	24	67	Based on concession agreement
Property tax	4	4	4	4	At the rates charged by Bangkok Metropolitan Administration
Financial fee	23	109	20	103	Based on contracts
Interest expenses on short-term loans	-	337	-	337	At the fixed rate and interest rate of MOR per annum
Interest expenses on long-term loans	369	325	369	320	At the fixed rate and interest rate of MLR minus stipulated margins, 6M FDR plus stipulated margin and FDR plus stipulated margin per annum

The balances of the accounts as at 31 December 2017 and 2016 between the Company and its subsidiaries and related parties are as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2017	2016	2017	2016
<u>Trade and other receivables (Note 10)</u>				
<u>Trade receivables</u>				
Bangkok Metro Networks Limited	-	-	77,820	74,473
CH. Karnchang Public Company Limited	-	12,840	-	12,840
Mass Rapid Transit Authority of Thailand	326,236	490,232	326,236	490,232
Total	326,236	503,072	404,056	577,545
<u>Other receivables</u>				
Northern Bangkok Expressway Company Limited	-	-	12,840	10,700
CH. Karnchang Public Company Limited	-	1,029,562	-	1,029,562
Total	-	1,029,562	12,840	1,040,262
<u>Receivable from sales of investment</u>				
CH. Karnchang Public Company Limited	-	769,741	-	769,741
Less: Deferred interest income	-	(12,907)	-	(12,907)
Total	-	756,834	-	756,834
<u>Prepaid expenses</u>				
Krungthai Bank Public Company Limited	6,467	6,528	4,162	4,223
<u>Advance payment under service contract</u>				
CH. Karnchang Public Company Limited	24,969	3,906	24,969	3,906
<u>Receivable under the concession agreement (Note 11)</u>				
Mass Rapid Transit Authority of Thailand	14,159,781	-	14,159,781	-
<u>Prepaid project remuneration</u>				
Mass Rapid Transit Authority of Thailand	2,487,433	1,614,608	2,487,433	1,614,608
<u>Trade and other payables (Note 23)</u>				
CH. Karnchang Public Company Limited	1,291,085	163,398	1,291,075	161,587
Mass Rapid Transit Authority of Thailand	111,928	102,916	111,928	102,916
Krungthai Bank Public Company Limited	1,545	1,192	1,476	1,123
Bangkok Bank Public Company Limited	1,254	871	1,254	871
Others	1,840	1,874	-	-
Total	1,407,652	270,251	1,405,733	266,497
<u>Retention guarantees</u>				
CH. Karnchang Public Company Limited	4,153	57,925	2,874	56,646
<u>Unearned revenue from advertising management rights (Note 27)</u>				
Bangkok Metro Networks Limited	-	-	14,362	15,610

As at 31 December 2017 and 2016, the balance of long-term loans to and interest receivables between the Company and those related parties and the movement in the separate financial statement are as follows:

(Unit: Thousand Baht)				
	Balance as at	Increase	Decrease	Balance as at
	31 December 2016	during the year	during the year	31 December 2017
Northern Bangkok Expressway Company Limited				
Long-term loans	5,066,241	-	(1,073,532)	3,992,709
Interest receivable	1,054,255	148,805	(372,273)	830,787
Total	6,120,496	148,805	(1,445,805)	4,823,496
Bangkok Metro Networks Limited				
Long-term loans	165,000	10,000	(12,000)	163,000
Interest receivable	-	5,755	(5,755)	-
Total	165,000	15,755	(17,755)	163,000
Grand total	6,285,496	164,560	(1,463,560)	4,986,496

The assets of Northern Bangkok Expressway Company Limited such as deposits at banks, current investments, rights in the Bang Pa-In - Pakkret Expressway System, rights in toll revenues and beneficiary rights under insurance policies are secured against the loans from the Company. However, the subsidiary is able to make withdrawals from deposit at banks and trading of current investments for use as regular operating expenses.

As at 31 December 2017 and 2016, the balance of long-term loans from financial institution (only principal) between the Company and those related parties and the movement are as follows:

(Unit: Thousand Baht)				
Consolidated and Separate financial statements				
	Balance as at	Increase	Decrease	Balance as at
	31 December 2016	during the year	during the year	31 December 2017
Krungthai Bank Public Company Limited	4,701,379	5,323,620	(630,415)	9,394,584
Bangkok Bank Public Company Limited	4,582,105	-	(360,474)	4,221,631
Total	9,283,484	5,323,620	(990,889)	13,616,215

Directors and management's remuneration

For the year ended 31 December 2017 and 2016, the Company and its subsidiaries had employee benefit expenses payable to their directors and management as below.

(Unit: Thousand Baht)				
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Short-term employee benefits	135,953	115,857	119,834	100,582
Post-employment benefits	8,760	8,496	8,102	8,035
Total	<u>144,713</u>	<u>124,353</u>	<u>127,936</u>	<u>108,617</u>

8. Cash and cash equivalents

(Unit: Thousand Baht)				
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Cash	31,734	43,671	29,954	41,891
Bank deposits	2,595,329	733,330	2,496,982	687,402
Total	<u>2,627,063</u>	<u>777,001</u>	<u>2,526,936</u>	<u>729,293</u>

The Company has pledged the bank accounts used to deposit moneys received for work on the MRT Chalong Ratchadham Line Project, and transferred rights to debit or withdraw from the deposit accounts used to make payment of loans and related financial fees to a group of lenders to secure the Company's loan, as described in Note 24 to the financial statements.

As at 31 December 2017, the balance of the pledged bank account amounted to Baht 1,018.

9. Current investments

(Unit: Thousand Baht)				
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Investments in trading securities				
Unit trusts	895,985	4,432,102	884,415	4,422,853
Add: Unrealised gain on changes in value of investments	43,472	57,051	43,468	57,048
Unit trusts - Fair value	939,457	4,489,153	927,883	4,479,901
Investments in held-to-maturity debt security				
Bills of exchange	510,000	1,452,197	510,000	1,452,197
Total current investments	<u>1,449,457</u>	<u>5,941,350</u>	<u>1,437,883</u>	<u>5,932,098</u>

10. Trade and other receivables

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
<u>Trade receivables</u>				
Trade receivables				
- Related parties (Note 7)	326,236	503,072	404,056	577,545
- Unrelated parties	101,923	85,155	-	-
Less: Allowance for doubtful debts	(5,182)	(4,910)	-	-
Total trade receivables - net	<u>422,977</u>	<u>583,317</u>	<u>404,056</u>	<u>577,545</u>
<u>Other receivables</u>				
Other receivables				
- Related parties (Note 7)	-	1,029,562	12,840	1,040,262
- Unrelated parties	1,585	1,456	1,544	1,407
Advances	1,177	(54)	30	-
Accrued income	547	282	547	282
Total other receivables	<u>3,309</u>	<u>1,031,246</u>	<u>14,961</u>	<u>1,041,951</u>
Trade and other receivables - net	<u>426,286</u>	<u>1,614,563</u>	<u>419,017</u>	<u>1,619,496</u>

Most of the trade receivables of the Company and its subsidiaries were within their credit terms or past due up to 3 months. As at 31 December 2017, the outstanding balances of trade receivables in the consolidated financial statements that are one year past due amounted to approximately Baht 6 million (2016: Baht 5 million) (Separate financial statements: Nil). The Company and its subsidiaries assessed the net realisable value of the receivables that were past due and recorded an allowance for doubtful accounts amounting to Baht 5 million in the consolidated financial statements (2016: Baht 5 million) (Separate financial statements: Nil).

11. Receivable under the concession agreement

	(Unit: Thousand Baht)
	Consolidated and Separate financial statements
Net book value as at 1 January 2017	-
Increase	14,572,202
Collection	(412,421)
Net book value as at 31 December 2017	14,159,781
Current	1,649,683
Non-current	12,510,098
Total receivable under the concession agreement	14,159,781

Receivable under the concession agreement is a receivable for M&E Systems (Inclusive of VAT) of Phase 1 of the MRT Chalong Ratchadham Line Project as described in Note 1 B.2 to the financial statements. The MRTA will pay the remuneration and interest in the form of monthly installments until 2026. The Company transferred rights to receive cash from receivable under the concession agreement to the group of lenders, in settlement of long-term loans from financial institutions, as described in Notes 24.7 and 24.8 to the financial statement.

Amounts receivable under the concession agreement that are due in over 5 years amount to approximately Baht 5,911 million and carry interest rate of FDR plus stipulated margin.

Interest income for M&E Systems for the year end 31 December 2017 amounted to Baht 118 million.

12. Investments in subsidiaries

Details of investments in subsidiaries as presented in separate financial statements are as follows:

	(Unit: Million Baht)											
Company's name	Registered capital		Paid-up capital		Proportion of investment		Cost		Allowance for impairment		Net book value	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
	(percent)											
Northern Bangkok Expressway Company Limited	6,000	6,000	5,250	5,250	99.99	99.99	2,604	2,604	(2,450)	(2,450)	154	154
Bangkok Metro Networks Limited	254	254	254	254	65.19	65.19	166	166	(16)	(16)	150	150
Total							2,770	2,770	(2,466)	(2,466)	304	304

13. Investments in associates

13.1 Details of investment in associates

(Unit: Million Baht)

		Consolidated financial statements						
Company's name	Nature of business	Incorporated country	Shareholding		Cost		Carrying amounts based on equity method	
			percentage					
			<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
			(percent)					
CK Power Public Company Limited	Investment in electricity generation and distribution business	Thailand	19.40	19.40	3,223	3,223	3,121	3,121
TTW Public Company Limited	Production and sales of treated water	Thailand	19.45	19.45	6,976	6,976	6,471	6,547
Total					<u>10,199</u>	<u>10,199</u>	<u>9,592</u>	<u>9,668</u>

(Unit: Million Baht)

			Separate financial statements			
Company's name	Nature of business	Incorporated country	Shareholding		Cost	
			percentage			
			<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
			(Percent)			
CK Power Public Company Limited	Investment in electricity generation and distribution business	Thailand	19.40	19.40	3,223	3,223
TTW Public Company Limited	Production and sales of treated water	Thailand	19.45	19.45	<u>4,277</u>	<u>4,277</u>
Total					7,500	7,500

13.2 Share of comprehensive income and dividend received

During the year, the Company has recognised its share of profit/loss from investments in associates in the consolidated financial statements and dividend income in the separate financial statements as follows:

(Unit: Million Baht)

Company's name	Consolidated financial statements					
	Share of other comprehensive				Separate financial statements	
	Share of profit from		income from investments		Dividend received	
	investments in associates		in associates			
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
CK Power Public Company Limited	31	10	56	18	85	32
TTW Public Company Limited	375	337	14	5	466	467
Total	406	347	70	23	551	499

13.3 Fair value investments in listed associates

In respect of investments in associates that are listed companies on the Stock Exchange of Thailand, their fair values are as follows:

(Unit: Million Baht)

Company's name	Fair values as at 31 December	
	<u>2017</u>	<u>2016</u>
CK Power Public Company Limited	5,777 ⁽¹⁾	5,062 ⁽¹⁾
TTW Public Company Limited	9,701	8,304
Total	15,478	13,366

⁽¹⁾ Excluding the fair value of warrants amounting to Baht 189 million (2016: Baht 189 million).

13.4 Summarised financial information about material associates

Summarised information about financial position

	(Unit: Million Baht)			
	CK Power Public		TTW Public	
	Company Limited		Company Limited	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Current assets	6,294	7,622	3,279	5,298
Non-current assets	54,167	51,636	19,997	20,461
Current liabilities	(2,669)	(1,444)	(2,046)	(1,972)
Non-current liabilities	(27,134)	(27,311)	(9,353)	(12,253)
Non-controlling interests of the subsidiaries	(12,911)	(12,760)	(42)	(42)
Net assets	17,747	17,743	11,835	11,492
Shareholding percentage (percent)	19.40	19.40	19.45	19.45
Share of net assets	3,442	3,442	2,302	2,235
Elimination entries	(321)	(321)	-	-
Rights to produce and sell treated water	-	-	1,773	1,916
Goodwill	-	-	2,396	2,396
Carrying amounts of associates based on equity method	3,121	3,121	6,471	6,547

Summarised information about comprehensive income

	(Unit: Million Baht)			
	For the year ended 31 December			
	CK Power Public Company Limited		TTW Public Company Limited	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Revenue	6,930	6,359	5,747	5,499
Profit	159	52	2,663	2,468
Other comprehensive income	288	93	73	26
Total comprehensive income	447	145	2,736	2,494

14. Other long-term investments

(Unit: Million Baht)

Company's name	Nature of business	Country of incorporation	Consolidated and Separate financial statements							
			Registered capital		Paid-up capital		Proportion of investment		Cost	
			2017	2016	2017	2016	2017	2016	2017	2016
							(percent)			
Xayaburi Power Company Limited	Generating and sale of electricity	The Lao People's Democratic republic	26,861	26,861	22,065	16,505	7.50	7.50	1,655	1,238
Other long-term investments									1,655	1,238

During the December 2016 to November 2017, Xayaburi Power Company Limited called up additional parts of the unpaid portion of its shares, totaling Baht 417 million, and the Company made payment for the shares.

Subsequently in December 2017 and January 2018, Xayaburi Power Company Limited called up a further Baht 43 million. The Company made payments of the share capital in January and February 2018.

The 201.46 million ordinary shares of Xayaburi Power Company Limited held by the Company have been pledged to secure long-term loans of that company.

15. Investment properties

As at 31 December 2017, the Company has investment properties, consisting of land, which is presented in the consolidated and separate financial statements at its fair value of Baht 315 million (2016: Baht 315 million).

The fair value of above investment properties has been determined based on the valuation performance by an accredited independent valuer, using market approach.

The Company has pledged all investment properties as collateral against credit facilities received from a group of lenders. However, in October 2017, The company repaid all long-term loans and has release the collateral.

16. Building and equipment

(Unit: Thousand Baht)

	Consolidated financial statements			
	Building and construction improvement	Furniture, fixture and Office equipment	Vehicles	Total
Cost:				
1 January 2016	34,727	193,445	327,053	555,225
Additions	4,663	85,425	146,643	236,731
Disposals/Write off	-	(13,928)	(32,741)	(46,669)
31 December 2016	39,390	264,942	440,955	745,287
Additions	18,954	15,064	55,113	89,131
Disposals/Write off	(106)	(43,389)	(36,620)	(80,115)
Transfer in (out)	26,836	(26,836)	-	-
31 December 2017	85,074	209,781	459,448	754,303
Accumulated depreciation:				
1 January 2016	30,221	165,761	204,877	400,859
Depreciation for the year	2,376	18,403	20,536	41,315
Depreciation on disposals/write off	-	(13,750)	(23,870)	(37,620)
31 December 2016	32,597	170,414	201,543	404,554
Depreciation for the year	6,509	22,494	27,414	56,417
Depreciation on disposals/write off	(71)	(37,692)	(30,073)	(67,836)
Transfer in (out)	12,004	(12,004)	-	-
31 December 2017	51,039	143,212	198,884	393,135
Net book value:				
31 December 2016	6,793	94,528	239,412	340,733
31 December 2017	34,035	66,569	260,564	361,168
Depreciation for the year				
2016 (Baht 18 million included in cost of services and the balance in selling and administrative expense)				41,315
2017 (Baht 29 million included in cost of services and the balance in selling and administrative expense)				56,417

	Separate financial statements			
	Building and construction improvement	Furniture, fixture and Office equipment	Vehicles	Total
Cost:				
1 January 2016	34,693	175,564	320,292	530,549
Additions	4,662	29,021	142,991	176,674
Disposals/Write off	-	(5,017)	(32,054)	(37,071)
31 December 2016	39,355	199,568	431,229	670,152
Additions	18,906	14,076	54,354	87,336
Disposals/Write off	(59)	(43,336)	(35,263)	(78,658)
Transfer in (out)	14,280	(14,280)	-	-
31 December 2017	72,482	156,028	450,320	678,830
Accumulated depreciation:				
1 January 2016	30,186	149,995	199,730	379,911
Depreciation for the year	2,376	12,432	19,714	34,522
Depreciation on disposals/write off	-	(4,960)	(23,183)	(28,143)
31 December 2016	32,562	157,467	196,261	386,290
Depreciation for the year	3,998	12,868	26,267	43,133
Depreciation on disposals/write off	(52)	(37,640)	(28,714)	(66,406)
Transfer in (out)	10,832	(10,832)	-	-
31 December 2017	47,340	121,863	193,814	363,017
Net book value:				
31 December 2016	6,793	42,101	234,968	283,862
31 December 2017	25,142	34,165	256,506	315,813
Depreciation for the year				
2016 (Baht 14 million included in cost of services and the balance in selling and administrative expense)				34,522
2017 (Baht 20 million included in cost of services and the balance in selling and administrative expense)				43,133

As at 31 December 2017, the Company has vehicles with net book value of Baht 4 million (2016: Baht 5 million) which were acquired under finance lease agreements.

As at 31 December 2017, certain items of building and equipment were fully depreciated but are still in use. The gross carrying amount before deducting accumulated depreciation of those assets amounted to approximately Baht 271 million (2016: Baht 309 million) (The Company only: Baht 262 million, 2016: Baht 300 million).

17. Rights to operate expressway sectors

(Unit: Thousand Baht)

	Consolidated financial statements		
	Rights to operate		
	completed expressway sector	Project costs under construction	Total
Cost:			
1 January 2016	61,616,349	19,600,401	81,216,750
Additions	-	4,544,795	4,544,795
Transfer in (out)	24,145,196	(24,145,196)	-
31 December 2016	85,761,545	-	85,761,545
Additions	29,034	67,107	96,141
31 December 2017	85,790,579	67,107	85,857,686
Accumulated amortisation:			
1 January 2016	41,288,886	-	41,288,886
Amortisation for the year	2,920,834	-	2,920,834
31 December 2016	44,209,720	-	44,209,720
Amortisation for the year	3,199,092	-	3,199,092
31 December 2017	47,408,812	-	47,408,812
Net book value:			
31 December 2016	41,551,825	-	41,551,825
31 December 2017	38,381,767	67,107	38,448,874
Amortisation for the year			
2016			2,920,834
2017			3,199,092

	Separate financial statements		
	Rights to operate		
	completed expressway sector	Project costs under construction	Total
Cost:			
1 January 2016	48,772,059	19,600,401	68,372,460
Additions	-	4,544,795	4,544,795
Transfer in (out)	24,145,196	(24,145,196)	-
31 December 2016	72,917,255	-	72,917,255
Additions	29,034	67,107	96,141
Transfer in (out)	-	-	-
31 December 2017	72,946,289	67,107	73,013,396
Accumulated amortisation:			
1 January 2016	35,702,158	-	35,702,158
Amortisation for the year	2,406,104	-	2,406,104
31 December 2016	38,108,262	-	38,108,262
Amortisation for the year	2,660,553	-	2,660,553
31 December 2017	40,768,815	-	40,768,815
Net book value:			
31 December 2016	34,808,993	-	34,808,993
31 December 2017	32,177,474	67,107	32,244,581
Amortisation for the year			
2016			2,406,104
2017			2,660,553

The Company transferred its rights in the Si Rat Expressway Project and the Si Rat - Outer Ring Road Expressway Project to secure long-term loans.

The Company repaid all long-term loans related to the Si Rat Expressway Project in October 2017 and the collateral has been released.

18. Rights to use sites for expressway construction

The net book value of rights to use sites for expressway construction as at 31 December 2017 and 2016 are presented below.

(Unit: Thousand Baht)		
Consolidated and Separate		
financial statements		
	<u>2017</u>	<u>2016</u>
Cost	6,644,790	6,644,790
Less: Accumulated amortisation	(5,925,717)	(5,624,166)
Net book value	<u>719,073</u>	<u>1,020,624</u>

A reconciliation of the net book value of the rights to use sites for expressway construction for the years 2017 and 2016 are summarised below.

(Unit: Thousand Baht)		
Consolidated and Separate		
financial statements		
	<u>2017</u>	<u>2016</u>
Net book value at the beginning of the year	1,020,624	1,320,194
Amortisation for the year	(301,551)	(299,570)
Net book value at the end of the year	<u>719,073</u>	<u>1,020,624</u>

The rights to use sites for expressway construction is a part of rights to operate expressway sectors.

19. Intangible asset under concession agreement of the MRT Blue Line Project

(Unit: Thousand Baht)

Consolidated financial statements			
	Intangible asset under concession agreement of the MRT Blue Line Project	Project costs under construction	Total
Cost:			
1 January 2016	19,906,821	406,642	20,313,463
Additions	164,331	307,341	471,672
Disposals/write-off	(3,971)	-	(3,971)
Transfer in (out)	178,122	(178,122)	-
31 December 2016	20,245,303	535,861	20,781,164
Additions	1,164,228	7,939,445	9,103,673
Interest cost	-	48,806	48,806
Disposals/write-off	(339)	-	(339)
Transfer in (out)	535,861	(535,861)	-
31 December 2017	21,945,053	7,988,251	29,933,304
Accumulated amortisation:			
1 January 2016	3,296,750	-	3,296,750
Amortisation for the year	440,077	-	440,077
Accumulated amortisation on disposals/write off	(3,753)	-	(3,753)
31 December 2016	3,733,074	-	3,733,074
Amortisation for the year	246,290	-	246,290
Accumulated amortisation on disposals/write off	(156)	-	(156)
31 December 2017	3,979,208	-	3,979,208
Net book value:			
31 December 2016	16,512,229	535,861	17,048,090
31 December 2017	17,965,845	7,988,251	25,954,096
Amortisation for the year			
2016			440,077
2017			246,290

	Separate financial statements		
	Intangible asset under concession agreement of the MRT Blue Line Project	Project costs under construction	Total
Cost:			
1 January 2016	19,562,180	235,774	19,797,954
Additions	154,012	298,045	452,057
Disposals/write-off	(136)	-	(136)
31 December 2016	19,716,056	533,819	20,249,875
Additions	1,112,013	7,939,445	9,051,458
Interest cost	-	48,806	48,806
Transfer in (out)	533,819	(533,819)	-
31 December 2017	21,361,888	7,988,251	29,350,139
Accumulated amortisation:			
1 January 2016	3,114,732	-	3,114,732
Amortisation for the year	412,380	-	412,380
Accumulated amortisation on disposals/write off	(18)	-	(18)
31 December 2016	3,527,094	-	3,527,094
Amortisation for the year	214,656	-	214,656
31 December 2017	3,741,750	-	3,741,750
Net book value:			
31 December 2016	16,188,962	533,819	16,722,781
31 December 2017	17,620,138	7,988,251	25,608,389
Amortisation for the year			
2016			412,380
2017			214,656

According to the MRTA Initial System Project - Chaloe Ratchamongkhon Line agreement dated 1 August 2000, M&E Systems equipment, depot building and administration building under the MRTA Initial System Project - Chaloe Ratchamongkhon Line were to be transferred to the MRTA at the end of the concession period of 25 years (2 July 2029), on an Acquire, Operate and Transfer basis. Then, on 31 March 2017, the Company entered into the MRT Blue Line Concession Agreement, which included the MRTA Initial System Project - Chaloe Ratchamongkhon Line as a part of the concession, as described in Note 1 B.1 to the financial statements. Thus, on 31 March 2017, The Company transferred the M&E Systems equipment, depot building and administration building under the MRTA Initial System Project - Chaloe Ratchamongkhon Line to the MRTA, as a requirement of the Concession, and on the same date, the MRTA transferred the rights to use the M&E Systems equipment, depot building and administration building to the Company for it to utilise in the provision of operation and maintenance services in accordance with the MRT Blue Line Concession Agreement.

During the year, the Company has capitalised the borrowing cost as part of intangible asset under concession agreement of the MRT Blue Line Project. The weighted average rate used to determine the amount of borrowing cost eligible from capitalisation was 2.93 percent.

20. Project cost of the MRT Chalong Ratchadham Line

The net book value of project cost of the MRT Chalong Ratchadham Line as at 31 December 2017 and 2016 is presented below.

	(Unit: Thousand Baht)	
	Consolidated and Separate financial statements	
	<u>2017</u>	<u>2016</u>
Cost	701,462	636,462
Less: Accumulated amortisation	(34,719)	(9,206)
Net book value	<u>666,743</u>	<u>627,256</u>

A reconciliation of the net book value of project cost of the MRT Chalong Ratchadham Line for the years 2017 and 2016 are summarised below.

	(Unit: Thousand Baht)	
	Consolidated and Separate financial statements	
	<u>2017</u>	<u>2016</u>
Net book value at the beginning of the year	627,256	271,397
Additions	65,000	365,065
Amortisation for the year	(25,513)	(9,206)
Net book value at the end of the year	<u>666,743</u>	<u>627,256</u>

21. Other intangible assets

The net book value of other intangible assets which are computer software as at 31 December 2017 and 2016 is presented below.

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Cost	165,075	144,582	156,009	137,627
Less: Accumulated amortisation	(89,817)	(76,353)	(85,712)	(74,130)
Net book value	<u>75,258</u>	<u>68,229</u>	<u>70,297</u>	<u>63,497</u>

A reconciliation of the net book value of other intangible assets for the years 2017 and 2016 is presented below.

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Net book value at the beginning of the year	68,229	36,237	63,497	36,165
Acquisition of computer software	25,645	43,075	23,534	37,541
Write-off	(1,273)	-	(1,273)	-
Amortisation for the year	(17,343)	(11,083)	(15,461)	(10,209)
Net book value at the end of the year	<u>75,258</u>	<u>68,229</u>	<u>70,297</u>	<u>63,497</u>

22. Short-term loans from financial institutions

(Unit: Thousand Baht)

	Interest rate	Consolidated and Separate	
		financial statements	
	(Percent)	<u>2017</u>	<u>2016</u>
Short-term loans	At the fixed rate	3,632,000	4,720,000
Less: Deferred financial fees		(2,815)	(4,225)
Total		<u>3,629,185</u>	<u>4,715,775</u>

23. Trade and other payables

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Trade payables - related parties (Note 7)	1,334,514	219,023	1,334,366	217,143
Trade payables - unrelated parties	341,818	363,568	305,781	314,368
Accrued interest - related parties (Note 7)	2,416	1,651	2,416	1,651
Accrued interest - unrelated parties	134,374	96,397	134,242	96,397
Accrued expense - related parties (Note 7)	70,722	49,577	68,951	47,703
Accrued expense - unrelated parties	209,745	160,543	189,377	139,875
Other payables	14,296	7,316	1,830	1,381
Total trade and other payables	<u>2,107,885</u>	<u>898,075</u>	<u>2,036,963</u>	<u>818,518</u>

24. Long-term loans from financial institutions

Loans	Credit facility (Million Baht)	Objective	Interest rate (percent)	Period of repayment	Consolidated financial statements		(Unit: Thousand Baht) Separate financial statements	
					2017	2016	2017	2016
24.1 Tranche Gor (Fully drew down)	29,888	Refinance remaining long-term loans	At fixed rate	To be repaid in full in July 2019	-	74,664	-	74,664
24.2 Tranche Khor (Fully drew down)	4,998	Lending to subsidiary to repay its long-term loans from commercial banks	At fixed rate	To be repaid in full in July 2019	-	9,595	-	9,595
24.3 Tranche Chor (Fully drew down)	1,000	Working capital	Interest rate of MLR minus stipulated margins and 6M FDR plus stipulated margins	To be repaid in full in July 2019	-	1,000,000	-	1,000,000
24.4 Tranche Gor (Fully drew down)	5,750	For construction of the Si Rat - Outer Ring Road Expressway	Interest rate of MLR minus stipulated margins	Repayment in monthly installments commencing October 2017 to September 2027	5,711,619	5,750,000	5,711,619	5,750,000
24.5 Tranche Khor (Fully drew down)	4,250	For construction of the Si Rat - Outer Ring Road Expressway	Interest rate of 6M FDR plus stipulated margins	Repayment in monthly installments commencing October 2017 to September 2027	4,221,631	4,250,000	4,221,631	4,250,000
24.6 Long-term loan (Fully drew down)	8,000	Working capital	At the fixed rate	Repayment installments in every six months commencing May 2017 to May 2021	6,000,000	8,000,000	6,000,000	8,000,000
24.7 Tranche A (Fully drew down)	13,557	To invest in the MRT Chalong Ratchadham Line Project	Interest rate of FDR plus stipulated margins	Repayment in monthly installments commencing October 2017 to July 2026	13,173,277	-	13,173,277	-
24.8 Tranche B (Fully drew down)	62	To invest in the MRT Chalong Ratchadham Line Project	Interest rate of FDR plus stipulated margins	Repayment in monthly installments commencing October 2017 to July 2026	60,163	-	60,163	-
24.9 Long-term loan (Available credit facilities to be drawn down Baht 4,900 million)	5,700	Repayment for loan obtained from the Company	Interest rate of 6M FDR plus stipulated margins	Repayment in quarterly installments commencing within September 2024	500,000	-	-	-
Total	73,205				29,666,690	19,084,259	29,166,690	19,084,259
Less: Current portion of long-term loans					(3,808,760)	(2,066,750)	(3,808,760)	(2,066,750)
Less: Deferred financial fees					(56,818)	(65,106)	(56,818)	(65,106)
Long-term loans - net of current portion					25,801,112	16,952,403	25,301,112	16,952,403

Movements in the long-term loans account for the year ended 31 December 2017 and 2016 are as follows:

	(Unit: Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Balance at the beginning of the year	19,084,259	17,499,445	19,084,259	17,342,759
Add: Drawdown during the year	500,000	12,344,000	-	12,344,000
Add: Debt novation during the year	13,618,880	-	13,618,880	-
Less: Repayment during the year	(3,536,449)	(10,759,186)	(3,536,449)	(10,602,500)
Balance at the end of the year	<u>29,666,690</u>	<u>19,084,259</u>	<u>29,166,690</u>	<u>19,084,259</u>

For the long-term loans number 24.1 to 24.3

The long-term loans are secured by assets of the Company such as land and construction thereon, rights under the Expressway Agreement, rights in toll revenues, and beneficiary rights under insurance policies.

Under the loan agreements, the Company must comply with normal financial covenants relating to various matters, such as the maintenance of debt service coverage ratio, debt to equity ratio, shareholding proportion in a subsidiary company, dividend payment and conditions for mandatory prepayment. In this respect, the Company has the total financial expenses of Baht 2.0 million per year payable to the agents of the lenders (2016: Baht 2.4 million).

In October 2017, the Company made full repayment of the long-term loans without prepayment fees. At present, the Company has been released the collaterals.

For the long-term loans number 24.4 to 24.5

The long-term loans are secured by assets of the Company such as rights under the Expressway Agreement, rights in toll revenues, and beneficiary rights under insurance policies.

Under the loan agreements, the Company must comply with normal financial covenants relating to various matters, such as the maintenance of debt service coverage ratio, debt to equity ratio, dividend payment and conditions for mandatory prepayment. In this respect, the Company has the total financial expenses of Baht 2.4 million per year payable to the agents of the lenders (2016: Baht 2.4 million).

For the long-term loans number 24.6

The Company entered into an interest rate swap contract to change the interest rate from a floating rate of 6M THBFIX plus stipulated margins to a fixed rate of per annum.

Under the loan agreements, the Company must comply with normal financial covenants relating to various matters, such as the maintenance of debt service coverage ratio and debt to equity ratio.

For the long-term loans number 24.7 to 24.8

As described in Note 1 B.2 to the financial statements, on 29 September 2017 the Company entered into the Novation and Debt Repayment Agreement, whereby the Company pledged bank accounts used to deposit moneys received for work on the M&E Systems of the MRT Chalong Ratchadham Line and transferred rights to receive payments for such work to the group of lenders. The Company had interest expenses amounting to Baht 118 million on such loans for the year ended 31 December 2017.

Under the Credit Facility Agreement, the Company must comply with normal financial covenants relating to various matters, such as maintenance of debt service coverage ratio and debt to equity ratio, dividend payment and conditions for mandatory prepayment.

For Long-term loan number 24.9

This is a loan of a subsidiary company. Under the loan agreement, the subsidiary must comply with normal financial covenants relating to various matters, such as the maintenance of debt service coverage ratio and debt to equity ratio, dividend payment and conditions for mandatory prepayment.

Long-term loan agreement for credit facility of Baht 14,000 million

On 26 January 2018, the Company signed a long-term loan agreement with a group of lenders, granting facility of Baht 14,000 million to invest in the procurement, installation and testing of the M&E Systems of the MRT Blue Line Project. The credit facility carries interest at a rate of 6M THBFIX plus stipulated margin, and are repayable in quarterly installments from December 2021 until December 2035.

25. Debentures

Debentures as at 31 December 2017 and 2016 have the following details:

					(Unit: Thousand Baht)	
					Consolidated and Separate	
					financial statements	
Type of debenture	Term	Issuance date	Maturity date	Interest rate	2017	2016
No. 1/2016				(% per annum)		
- Tranche 1	3 years	24 June 2016	24 June 2019	2.22	5,000,000	5,000,000
- Tranche 2	5 years	24 June 2016	24 June 2021	2.52	1,615,000	1,615,000
- Tranche 3	7 years	24 June 2016	24 June 2023	3.00	2,000,000	2,000,000
- Tranche 4	10 years	24 June 2016	24 June 2026	3.30	3,335,000	3,335,000
- Tranche 5	12 years	24 June 2016	24 June 2028	3.61	2,750,000	2,750,000
No. 2/2016	12 years	11 August 2016	24 June 2028	3.61	500,000	500,000
No. 3/2016						
- Tranche 1	4 years	21 October 2016	21 October 2020	2.62	2,500,000	2,500,000
- Tranche 2	9 years	21 October 2016	21 October 2025	3.78	2,500,000	2,500,000
- Tranche 3	11 years	21 October 2016	21 October 2027	3.95	3,000,000	3,000,000
No. 1/2017						
- Tranche 1	5 years	7 September 2017	7 September 2022	2.65	2,000,000	-
- Tranche 2	7 years	7 September 2017	7 September 2024	3.10	3,000,000	-
Total					28,200,000	23,200,000
Less: Deferred debenture issuing cost					(29,377)	(32,087)
Debentures - net					28,170,623	23,167,913

Movements in the debentures account for the year ended 31 December 2017 and 2016 are summarised below.

			(Unit: Thousand Baht)	
			Consolidated and Separate	
			financial statements	
			2017	2016
Balance at the beginning of the year			23,200,000	-
Add: Issuance of debentures during the year			5,000,000	23,500,000
Less: Redemption of debentures during the year			-	(300,000)
Balance at the end of the year			28,200,000	23,200,000

All of the Company's debentures are registered debentures, unsubordinated, and unsecured, without a debenture holders' representative, that pay interest semi-annually. The debentures contain covenants relating to maintenance of interest bearing debt to equity ratio.

26. Provision for compensation for site acquisition costs

	(Unit: Thousand Baht)	
	Consolidated and Separate	
	financial statements	
	<u>2017</u>	<u>2016</u>
Provision for compensation for site acquisition cost		
as at the beginning of the year	4,317,152	5,566,672
Payment during the year	(1,500,000)	(1,500,000)
Interest cost	194,250	250,480
Provision for compensation for site acquisition cost		
at the end of the year	3,011,402	4,317,152
Less: Current portion	(1,600,000)	(1,500,000)
Provision for compensation for site acquisition cost		
- net of current portion	<u>1,411,402</u>	<u>2,817,152</u>

The Company is committed to make payments totaling Baht 16,816 million to compensate the EXAT for site acquisition costs, from the 15th year to the 30th year of the agreement, or year 2004 to year 2019 as stipulated in the Second Stage Expressway Agreement.

As at 31 December 2017, the Company had already paid Baht 13,600 million of this compensation (2016: Baht 12,100 million).

27. Unearned revenue from advertising management rights

The Company entered into a contract granting commercial development rights to the subsidiary, to manage advertising services through the Passenger Information Display System (PID), which is installed in underground stations and on trains. The agreement has started from the date the Company notifies the subsidiary of the commencement of advertising services through the PID (1 January 2010). During the year 2015, the Company extended the contract period from 31 December 2021 to 2 July 2029.

Under this agreement, the Company received remuneration from the subsidiary amounting to Baht 35 million which is presented under the caption of “Unearned revenue from advertising management rights” and amortised throughout the contract period. Moreover, the Company received an additional annual remuneration fee calculated at the contract rates starting from commencement date.

Movements in unearned revenue from advertising management rights account in the separated financial statements are summarised below.

	(Unit: Thousand Baht)
Balance as at 1 January 2016	16,859
Less: Recognise to revenue during the year	<u>(1,249)</u>
Balance as at 31 December 2016	15,610
Less: Recognise to revenue during the year	<u>(1,248)</u>
Balance as at 31 December 2017	14,362
Less: Current portion	<u>(1,248)</u>
Unearned revenue from advertising management rights - net of current portion	<u>13,114</u>

28. Provision for long-term employee benefits

Provision for long-term employee benefits, which represents compensation payable to employees after they retire, are as follows:

(Unit: Thousand Baht)				
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Provision for long-term employee benefits				
at beginning of the year	471,044	237,842	461,245	230,181
Included in profit or loss:				
Current service cost	67,236	59,308	65,036	57,428
Interest cost	11,656	9,962	11,326	9,704
Included in other comprehensive income:				
Actuarial (gain) loss arising from				
- Demographic assumptions changes	18,230	46,248	15,730	46,248
- Financial assumptions changes	(146,877)	92,748	(145,472)	92,748
- Experience adjustments	70,238	28,670	66,848	28,670
Benefits paid during the year	(7,740)	(3,734)	(7,174)	(3,734)
Provision for long-term employee benefits				
at end of the year	<u>483,787</u>	<u>471,044</u>	<u>467,539</u>	<u>461,245</u>

Line items in profit or loss under which long-term employee benefit expenses are recognised are as follows:

(Unit: Thousand Baht)				
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Cost of expressway business	20,879	14,326	20,879	14,326
Cost of rail business	30,890	21,047	30,890	21,047
Cost of commercial development business	1,300	939	205	163
Selling expenses	644	488	-	-
Administrative expenses	23,034	22,511	22,243	21,896
Finance Cost	-	3,975	-	3,717

The Company and its subsidiaries expect to pay Baht 7 million of long-term employee benefits during the next year (Separate financial statements: Baht 6 million) (2016: Baht 23 million, Separate financial statements: Baht 22 million).

As at 31 December 2017, the weighted average duration of the liabilities for long-term employee benefit is 12.65 - 17.47 years (Separate financial statements: 12.65 - 17.47 years (2016: 14.45 - 17.69 years, Separate financial statements: 14.45 - 17.69 years).

Significant actuarial assumptions are summarised below:

	(Unit: Percent per annum)			
	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Discount rate	2.6, 2.9	2.4, 2.5, 3.4	2.6, 2.9	2.4, 2.5
Future salary increase rate	5.5	7.0 - 7.5	5.5	7.5
Staff turnover rate (depending on age)	2.0 - 12.0	2.0 - 17.0	2.0 - 12.0	2.0 - 17.0

The result of sensitivity analysis for significant assumptions that affect the present value of the long-term employee benefit obligation as at 31 December 2017 and 2016 are summarised below:

	(Unit: Million Baht)			
	As at 31 December 2017			
	Consolidated financial statements		Separate financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(43)	50	(41)	48
Future salary increase rate	48	(42)	46	(40)
Staff turnover rate	(45)	32	(43)	31

	(Unit: Million Baht)			
	As at 31 December 2016			
	Consolidated financial statements		Separate financial statements	
	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Discount rate	(54)	66	(53)	64
Future salary increase rate	62	(53)	60	(52)
Staff turnover rate	(57)	36	(56)	35

29. Statutory reserve

Pursuant to Section 116 of the Public Company Limited Act B.E. 2535, the Company is required to set aside to a statutory reserve at least 5% of its net income, after deducting accumulated deficit brought forward (if any), until the reserve reaches 10% of the registered share capital. The statutory reserve is not available for dividend distribution.

30. Toll revenues

30.1 Under the Construction and Management Contract of the Si Rat Expressway Project (the Second Stage Expressway System) and the Bang Pa-In - Pakkret Expressway Project, the Company and its subsidiary and the EXAT agreed to share toll revenues receive as follows:

	The Company	The EXAT
	(Percent)	(Percent)
<u>Urban Network (FES and SES Sectors A and B)</u>		
(a) First 9 years from the "Priority Component Opening Date" (PCOD) (already expired)	60	40
(b) Last 9 years ending 29 February 2020	40	60
(c) Period between (a) and (b) above (already expired)	50	50
<u>Suburban Network (SES Sector C)</u>		
(a) The earlier of the PCOD to the completion of SES Sector B or 19 October 1996 (already expired)	60	40
(b) Period after (a) above until end of contract period (29 February 2020)	100	Nil
<u>Suburban Network (SES Sector D)</u>		
From the construction completion date of relevant Sections until end of contract period (21 April 2027)	100	Nil
<u>Bang Pa-In - Pakkret Expressway</u>		
From the construction completion date of relevant Sections until end of contract period (26 September 2026)	100	Nil

30.2 Under a concession agreement of the Si Rat - Outer Ring Road Expressway Project, the Company and the EXAT agreed to share toll revenues receive as follows:

	The Company	The EXAT
	(Percent)	(Percent)
<u>The Si Rat - Outer Ring Road Expressway</u>		
From the construction completion date of relevant Sections until end of contract period (14 December 2042)	100	Nil

31. Revenue from commercial development business

Revenue from commercial development business derived from sources of income in separate financial statement for the year ended 31 December 2017, consisting of revenue on expressway system amounting to Baht 50 million (2016: Baht 48 million) and revenue on rail system amounting to Baht 353 million (2016: Baht 311 million).

32. Remuneration from fare box revenue and commercial development revenue

32.1 The Concession agreement of the MRTA Initial System Project - Chaloem Ratchamongkhon Line

The Company agrees to apportion revenues derived under the MRTA Initial System Project - Chaloem Ratchamongkhon Line concession agreement to the MRTA. These consist of remuneration from fares, remuneration from commercial development, apportionment of profit in excess of stipulated Return on Equity (ROE) and any benefit derived from the interest rate on a loan being lower the rate specified in the Concession Agreement

As described in Note 1 B.1 to the financial statement, the Company signed the MRT Blue Line Project Concession Agreement on 31 March 2017. Under the MRT Blue Line Concession Agreement, the MRTA Initial System Project - Chaloem Ratchamongkhon Line concession agreement is deemed to be part of the MRT Blue Line Concession Agreement, and only the clauses relating the rights, duties and provisions with respect to fares, fare rates and payment of remuneration to the MRTA will remain in effect until the end of the concession agreement with the MRTA for the MRTA Initial System Project - Chaloem Ratchamongkhon Line.

Remuneration paid to the MRTA under the MRTA Initial System Project - Chaloem Ratchamongkhon Line concession agreement is summarised in Part I of Note 32.2 to the financial statement.

32.2 The MRT Blue Line Concession agreement

Under the MRT Blue Line Project concession agreement dated 31 March 2017, the Company agrees to apportion revenue under the concession agreement to the MRTA, which can be divided into two parts, as follows:

Part I: Remuneration from fares and commercial development revenues of the MRTA Initial System Project - Chaloem Ratchamongkhon Line earned under the related concession agreement until 1 July 2029, with detail as follow:

a) Remuneration from fare revenue

Annual remuneration

The Company has agreed to apportion fare revenue to the MRTA on an annual basis for the period from 2 July 2014 to 1 July 2029. The total amount payable is Baht 43,567 million (inclusive of VAT) divided into annual payments in amounts stipulated in the MRTA Initial System Project - Chaloem Ratchamongkhon Line concession agreement.

As at 31 December 2017, the Company recorded accumulated annual remuneration totaling Baht 3,745 million (2016: Baht 2,585 million).

Percentage remuneration

The Company has agreed to apportion to the MRTA 1 percent to 15 percent of the fare revenue of the MRTA Initial System Project - Chaloem Ratchamongkhon Line (inclusive of VAT) from 2 July 2004 to 1 July 2029, in the form of monthly payments.

b) Remuneration from commercial development revenues

Annual remuneration

The Company has agreed to apportion commercial development revenues to the MRTA on an annual basis for the period from 2 July 2004 to 1 July 2029. The total amount payable is Baht 930 million (inclusive of VAT) divided into annual payments in amounts stipulated in the MRTA Initial System Project - Chaloem Ratchamongkhon Line concession agreement.

As at 31 December 2017, the Company recorded accumulated annual remuneration totaling Baht 355 million (2016: Baht 305 million).

Percentage remuneration

The Company has agreed to apportion to the MRTA 7 percent of commercial development revenues of the MRTA Initial System Project - Chaloem Ratchamongkhon Line (inclusive of VAT) from 2 July 2004 to 1 July 2029, in the form of monthly payments.

Phase II: Remuneration from fares and commercial development revenues of the MRT Blue Line Extension Project from 31 March 2017 until end of the MRT Blue Line concession period and remuneration from fares and commercial development revenues of the MRTA Initial System Project - Chaloem Ratchamongkhon Line from 2 July 2029 until end of the MRT Blue Line concession period.

The Company is to pay remuneration to MRTA when the Company earns a return on investment over the rate stipulated in the concession agreement, from its operation of the MRT Blue Line Extension Project, as from 31 March 2017, and from its operation of the MRTA Initial System Project - Chaloem Ratchamongkhon Line, as from 2 July 2029, until the end of the MRT Blue Line concession period. The compensation rates are as stipulated in the MRT Blue Line concession agreement

33. Expenses by nature

Significant expenses classified by nature are as follows:

	Consolidated financial statements		(Unit: Thousand Baht) Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Amortisation and depreciation	3,544,655	3,422,513	2,959,316	2,872,421
Salaries, wages and other employee benefits for the Company's staff and its subsidiaries	2,121,784	1,586,663	2,040,571	1,515,205
Salary, wages and other benefits of the employees of the EXAT	795,616	735,511	650,921	592,446
Repair and maintenance expenses	1,497,590	908,857	1,445,801	815,067
Compensation for site acquisition cost	495,801	550,050	495,801	550,050
Utilities expenses	612,080	512,964	592,394	482,544
Project remuneration expenses	384,806	503,539	384,806	503,539
Expenses with respect to facilitation and safety on expressway and stations	467,864	352,668	433,879	326,883
Insurance expenses	114,112	105,793	109,283	99,254

34. Income tax

Income tax expenses for the years ended 31 December 2017 and 2016 are made up as follows:

	Consolidated financial statements		(Unit: Thousand Baht) Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Current income tax:				
Current income tax for the year	268,034	252,576	194,106	200,946
Adjustment in respect of current income tax of previous year	19,235	125	19,104	125
Deferred tax:				
Relating to origination and reversal of temporary differences	408,333	310,227	409,984	310,820
Income tax expense reported in the income statement	695,602	562,928	623,194	511,891

The amounts of income tax relating to each component of other comprehensive income for the years ended 31 December 2017 and 2016 are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Deferred tax related to				
- Unrealised loss from cash flow hedges	(6,869)	(3,722)	(6,869)	(3,722)
- Actuarial gain (loss)	12,579	(33,533)	12,579	(33,533)
Total	<u>5,710</u>	<u>(37,255)</u>	<u>5,710</u>	<u>(37,255)</u>

The reconciliation between accounting profit and income tax expense is shown below.

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Accounting profit before tax	<u>3,837,953</u>	<u>3,175,793</u>	<u>3,598,666</u>	<u>3,074,805</u>
Applicable tax rate	20%	20%	20%	20%
Accounting profit before tax multiplied by applicable tax rate	767,591	635,159	719,733	614,961
Adjustment in respect of income tax of previous year	19,235	125	19,104	125
Effects of:				
Unrealised loss on investments	29,108	32,933	-	-
Tax-exempt revenues	(110,291)	(99,509)	(110,291)	(99,509)
Non-deductible expenses	3,452	3,628	2,659	2,590
Additional expense deductions allowed	(10,544)	(9,296)	(6,626)	(5,883)
Others	(2,949)	(112)	(1,385)	(393)
Total	<u>(91,224)</u>	<u>(72,356)</u>	<u>(115,643)</u>	<u>(103,195)</u>
Income tax expenses reported in the income statement	<u>695,602</u>	<u>562,928</u>	<u>623,194</u>	<u>511,891</u>

The components of deferred tax assets and deferred tax liabilities as at 31 December 2017 and 2016 are as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Deferred tax assets (liabilities)				
Allowance for doubtful accounts	380	325	-	-
Accrued bonus	9,938	6,658	8,858	5,597
Others accrued expense	4,080	-	3,792	-
Allowance for asset impairment	1,167	5,185	1,167	5,185
Provision for long-term employee benefits	96,757	94,209	93,508	92,249
Provision for compensation for site acquisition cost	602,280	863,430	602,280	863,430
Accumulated amortisation - Rights to operate expressway sectors	(475,770)	(424,200)	(475,770)	(424,200)
Rights to use sites for expressway construction	(143,815)	(204,125)	(143,815)	(204,125)
Prepaid project remuneration	(309,069)	(134,488)	(309,069)	(134,488)
Unrealised gain from revaluation of investments	(8,694)	(11,410)	(8,694)	(11,410)
Deferred interest income	-	2,582	-	2,582
Derivative financial liabilities	10,591	3,722	10,591	3,722
Deferred tax assets (liabilities) - net	<u>(212,155)</u>	<u>201,888</u>	<u>(217,152)</u>	<u>198,542</u>
Presentation in the financial statement				
Deferred tax assets	4,997	201,888	-	198,542
Deferred tax liabilities	<u>(217,152)</u>	<u>-</u>	<u>(217,152)</u>	<u>-</u>
	<u>(212,155)</u>	<u>201,888</u>	<u>(217,152)</u>	<u>198,542</u>

35. Earnings per share

Basic earnings per share is calculated by dividing profit for the year attributable to equity holders of the Company (excluding other comprehensive income) by the weighted average number of ordinary shares in issue during the year.

Earnings per share are calculated as below:

	Consolidated financial statements		Separate financial statements	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Profit for the year (Thousand Baht)	3,123,129	2,605,854	2,975,471	2,562,914
Weighted average number of ordinary shares (Thousand shares)	15,285,000	15,285,000	15,285,000	15,285,000
Earnings per share (Baht/share)	0.20	0.17	0.20	0.17

36. Dividends

Dividend declared for the year ended 31 December 2017 and 2016 in the consolidated and separate financial statements consisted of the following:

Dividend	Approved by	Total dividend (Million Baht)	Dividend per share (Baht)	Paid on
Dividend for the second half of the year 2016	Annual General Meeting of the shareholders on 11 April 2017	917	0.06	4 May 2017
Dividend for the first half of the year 2017	Meeting of the Board of Directors on 23 August 2017	917	0.06	20 September 2017
Total dividend for the year ended 31 December 2017		1,834	0.12	
Dividend for the year 2015	Annual General Meeting of the shareholders on 5 April 2016	1,070	0.07	29 April 2016
Dividend for the first half of the year 2016	Meeting of the Board of Directors on 31 August 2016	764	0.05	27 September 2016
Total dividend for the year ended 31 December 2016		1,834	0.12	

37. Promotional privileges

The Company has received promotional privileges from the Board of Investment for investment in the MRT Blue Line Project. In addition, the Company has received exemption from corporate income tax on net income from the promoted operations, for a period of 8 years from the date the promoted operations commenced generating revenues on all sectors from the operation of the through operation systems of the MRT Blue Line Project.

38. Segment information

Operating segment information is reported in a manner consistent with the internal reports that are regularly reviewed by the chief operating decision maker in order to make decisions about the allocation of resources to the segment and assess its performance.

For management purposes, the Company and its subsidiaries are organised into business units based on its products and services and have four reportable segments as follows:

- 1) The expressway business segment includes the construction and operation of the expressway.
- 2) The rail business segment includes the operation of the rapid transit system.
- 3) The commercial development business segment includes the rental of retail space, and the provision of advertising media services and telecommunication services inside and outside underground train stations and on expressway.
- 4) Other segments are segments where the Company is employed to operate Bang Pa-In - Pakkret Expressway of the subsidiary.

The chief operating decision maker monitors the operating results of the business units separately for the purpose of making decisions about resource allocation and assessing performance. Segment performance is measured based on operating profit or loss and total assets and on a basis consistent with that used to measure operating profit or loss and total assets in the financial statements.

The basis of accounting for any transactions between reportable segments is consistent with that for third party transactions.

The following tables present revenue and profit and total assets/total liabilities information regarding the Company's and its subsidiaries' operating segments for the year ended 31 December 2017 and 2016.

	Expressway business segment		Rail business segment		Commercial development business segment		Other segments		Total segments		Elimination of inter-segment revenues		Consolidation	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Revenue from external customers	9,957	9,301	4,521	3,230	676	573	-	-	15,154	13,104	-	-	15,154	13,104
Inter-segment revenues	-	-	-	-	327	282	144	120	471	402	(471)	(402)	-	-
Total revenues	9,957	9,301	4,521	3,230	1,003	855	144	120	15,625	13,506	(471)	(402)	15,154	13,104
Segment profit	4,527	4,318	961	462	459	330	-	-	5,947	5,110	-	-	5,947	5,110
Unallocated income and expenses:														
Interest income													175	68
Gain from sales of investment													42	31
Other income													23	30
Share of profit from investments in associates													406	347
Selling expenses													(95)	(92)
Administrative expenses													(1,049)	(892)
Finance cost													(1,611)	(1,426)
Income tax expense													(696)	(563)
Non-controlling interests of the subsidiaries													(19)	(7)
Profit for the year													3,123	2,606
Right to operate expressway sectors	38,449	41,552	-	-	-	-	-	-	38,449	41,552	-	-	38,449	41,552
Intangible asset under concession agreement of the MRT Blue Line Project	-	-	25,105	16,117	849	931	-	-	25,954	17,048	-	-	25,954	17,048
Project cost of the MRT Chalong Ratchaham Line	-	-	667	627	-	-	-	-	667	627	-	-	667	627
Unallocated assets	-	-	-	-	-	-	43,533	25,512	-	-	(9,684)	(1,953)	33,849	23,559
Total assets													98,919	82,786

Transfer prices between business segments are as set out in Note 7 to the financial statements.

Geographic information

The Company and its subsidiaries operate in Thailand only. As a result, all the revenues and assets as reflected in these financial statements pertain exclusively to this geographical reportable segment.

Major customers

For the year ended 2017 and 2016, the Company and its subsidiaries have no major customer with revenue of 10 percent or more of an entity's revenues.

39. Provident fund

The Company, its subsidiaries and its employees have participated in TISCO Ruamtun 2 Registered Provident Fund as approved by Ministry of Finance in accordance with the Provident Fund Act B.E. 2530. Employees, the Company and its subsidiaries contributed to the fund monthly at the rates of 3-10 percent of basic salary. The fund, which is managed by TISCO Asset Management Company Limited, will be paid to employees upon termination in accordance with the fund rules. During the year 2017, the Company and its subsidiaries recognised the contribution of Baht 89 million in the consolidated financial statements (2016: Baht 60 million) as expenses and recognised the contribution of Baht 87 million in the separate financial statements (2016: Baht 59 million).

40. Commitments and contingent liabilities

40.1 Capital commitments

The Company and its subsidiaries have capital commitments as follows:

	As at 31 December	
	2017	2016
a) Performance improvement for farebox collection systems	Baht 29 million and USD 3 million	Baht 18 million and USD 3 million
b) Acquisition of equipment	Baht 19 million	Baht 49 million
c) Improvement of civil works	-	Baht 65 million
d) Supply, installation and testing of the M&E Systems of the MRT Blue Line Project	Baht 12,827 million	-
e) Additional for design and construction of the Si Rat - Outer Ring Road Expressway Project	Baht 217 million	-
f) Improvement of server room at the administration building	Baht 75 million	-
g) Other capital commitments	Baht 3 million	-

40.2 Long-term service commitments

The Company and its subsidiaries have commitments in respect of the Procurement of M&E equipment contract, and the Maintenance of M&E equipment and trackwork and infrastructure and civil works contracts of the M&E Project which were signed in December 2001, November 2013 and November 2015 with three companies. These contracts will expire during 2018 until 2024.

Future minimum service fees payable under these contracts, excluding escalation in accordance with the general consumer price index are as follows:

(Unit: Million)

	As at 31 December							
	2017				2016			
	<u>Baht</u>	<u>EUR</u>	<u>SGD</u>	<u>YEN</u>	<u>Baht</u>	<u>EUR</u>	<u>SGD</u>	<u>YEN</u>
Payable:								
In up to 1 year	994	2	1	379	807	2	1	379
In over 1 year and up to 5 years	4,711	12	5	1,518	4,968	12	5	1,518
In over 5 years	5,419	12	5	1,360	2,395	6	6	1,739

40.3 Commitments under various service agreements

The Company and its subsidiaries have commitments under various service agreements as follows:

(Unit: Million Baht)

	As at 31 December	
	2017	2016
Payable:		
In up 1 year	360	290
In over 1 year and up to 5 years	55	196

40.4 Operating lease commitments

The Company and its subsidiaries had entered into several lease agreements in respect of the lease of office building space, equipment and motor vehicles. The terms of the agreements are generally between 2 and 5 years.

Future minimum lease payments required under these operating lease agreements were as follows:

	(Unit: Million Baht)	
	As at 31 December	
	2017	2016
Payable:		
In up to 1 year	19	21
In over 1 year and up to 5 years	21	31

40.5 Guarantees

There were the following outstanding performance bonds and bank guarantees issued by banks on behalf of the Company.

	(Unit: Million Baht)	
	As at 31 December	
	2017	2016
a) Issued to the EXAT in accordance with the operation of the Si Rat-Outer Ring Road Expressway Project agreement	6	500
b) Issued to the MRTA in accordance with the operation of the MRT Blue Line Concession agreement	210	150
c) Issued to the MRTA in accordance with the Agreement for the MRT Chalong Ratchadham Line Project agreement, using the credit line of major shareholder	-	200
d) Issued to MRTA in accordance with the Agreement for the MRT Chalong Ratchadham Project agreement	200	-
e) Issued to the Metropolitan Electricity Authority to guarantee electricity under rail projects	67	67
f) Other guarantees	15	12

40.6 Other commitments

	(Unit: Million Baht)	
	As at 31 December	
	2017	2016
a) Commitments in respect of the uncalled portion of investments		
Northern Bangkok Expressway Company Limited	750	750
Xayaburi Power Company Limited	359	776
b) Commitment in respect of Expressway inspection, replacement and improvement agreements (paid within one year)	18	23

41. The disputes with Expressway Authority of Thailand (EXAT)

The Company and the subsidiary had a total of 11 disputes with EXAT, which were referred to the Arbitral Tribunal in accordance with the dispute settlement procedures under the Agreements and in the Administrative Court. The essence of each dispute was as follows:

41.1 Disputes submitted by the Company and the subsidiary claiming for damages in 8 disputes, with the total amount until the date of submission of the disputes of approximately Baht 28,179.8 million

41.1.1 Priority Component Opening Date under the Second Stage Expressway Agreement

On 9 July 2001, the Company submitted a statement of claim requiring EXAT to compensate for the deficient revenue with interest in the amount of Baht 3,831.4 million, due to different opinions as to which date was the Priority Component Opening Date, which affected the commencement of the toll revenue sharing with the Company under the Agreement.

On 15 December 2008, the Arbitral Tribunal rendered its arbitral award on the dispute requiring EXAT to pay the toll revenue sharing including interest under the Agreement as required by the Company. EXAT subsequently issued a letter refusing to comply with the arbitral award.

And, on 20 April 2009, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award or order refusing to enforce compliance with the arbitral award, and on 19 October 2011, the Company submitted a petition to the Central Administrative Court requesting a judgment to enforce compliance with the arbitral award. The interest was calculated up to the date on which the Company submitted the petition to the Court, amounting to Baht 1,189.7 million, with the total disputed amount of Baht 5,021.1 million.

On 13 September 2013, the Central Administrative Court adjudged to dismiss EXAT's petition requesting the Court to revoke the arbitral award and adjudged to enforce the Company's petition.

On 11 October 2013, EXAT lodged an appeal against the Central Administrative Court's judgment with the Supreme Administrative Court.

The Supreme Administrative Court has determined the end of fact inquisitorial date on 5 January 2017.

On 1 June 2017, the Supreme Administrative Court has convened the first trial date.

At present, it is pending the Supreme Administration Court schedule the date to deliver the verdict.

41.1.2 Competing road with the Udon Rattaya Expressway

On 20 December 2004, the subsidiary submitted a statement of claim requiring EXAT to compensate for the deficient revenue, based on the ground that the Government granted permission for construction of the Extension of the Don Muang Tollway Project, from the National Memorial to Rangsit Section, which constituted a competing road under the Agreement, and affected the financial position of the subsidiary, thereby rendering such damages until the date of submission of the dispute (excluding interest) to Baht 1,790 million.

On 27 November 2008, the Arbitral Tribunal rendered its arbitral award on the dispute requiring EXAT to compensate for the deficient revenue with interest under the Agreement as required by the subsidiary. EXAT then issued a letter to the subsidiary refusing to comply with such arbitral award. And, on 3 March 2009, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

On 1 September 2011, the subsidiary submitted a petition to the Central Administrative Court requesting a judgment to enforce compliance with the arbitral award, with the disputed amount of Baht 3,296.7 million.

On 3 May 2013, the Central Administrative Court adjudged to dismiss EXAT's petition requesting the Court to revoke the arbitral award and the Central Administrative Court also issued a judgment to enforce compliance with the arbitral award.

On 31 May 2013, EXAT lodged an appeal against the Central Administrative Court's judgment with the Supreme Administrative Court.

The Supreme Administrative Court has determined the end of fact inquisitorial date on 25 April 2017.

On 15 August 2017, the Supreme Administrative Court has convened the first trial date.

At present, it is pending the Supreme Administration Court schedule the date to deliver the verdict.

41.1.3 Issuance of variation orders by EXAT

On 9 December 2009, the Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by EXAT's issuance of additional variation orders for certain construction work of the Si Rat Expressway in the total amount of Baht 209.1 million (excluding interest).

On 20 December 2013, the Arbitral Tribunal unanimously rendered its arbitral award requiring EXAT to pay the construction costs and expenses as per the Notice of Variation in the total amount of Baht 382.5 million, including interest under the Agreement.

On 4 February 2014, EXAT issued a letter refusing to comply with such arbitral award. And, on 26 March 2014, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

The Central Administrative Court has determined the end of fact inquisitorial date on 23 September 2016.

On 21 October 2016, the Company submitted a petition to the Central Administrative Court requesting a judgment to enforce compliance with the arbitral award.

On 18 January 2017, the Central Administrative Court issued the order of joinder trial and canceled the prescribed end of fact inquisitorial date (23 September 2016) by way of establishing the case that EXAT filed a petition for the withdrawal of the arbitral award as the major case.

On 13 March 2017, EXAT submitted its testimonial for the case that the Company submitted the petition to the Court to enforce the compliance with the arbitral award (minor case)

At present, it is pending the Central Administrative Court's consideration.

41.1.4 Revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for the year 2003

On 14 November 2008, the Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for 2003, which was not in accordance with the Agreement, thereby causing the damages, including interest, in the total amount of Baht 4,368 million.

On 12 February 2016, the Arbitral Tribunal, by the majority of votes, rendered its arbitral award requiring EXAT to compensate the Company for damages in the amount of Baht 4,368 million, including interest under the Agreement.

EXAT then issued a letter refusing to comply with such arbitral award. And, on 30 May 2016, EXAT submitted a petition to the Central Administrative Court requesting the Court to revoke the arbitral award.

On 4 November 2016, the Company submitted its answer to the petition to the Central Administrative Court.

EXAT lodged its opposition to the Company's answer to the petition to the Central Administrative Court on 15 March 2017.

On 19 July 2017, the Company submitted the opposition to the EXAT's answer to the Central Administrative Court.

At present, it is pending the Central Administrative Court's consideration.

41.1.5 Revision of toll rates of Sector D of the Si Rat Expressway for the year 2003

On 24 July 2008, the Company submitted a statement of claim requiring EXAT to compensate the Company for damages caused by the revision of toll rates of Sector D of the Si Rat Expressway for the year 2003, which was not in accordance with the Agreement, in the total amount of Baht 1,048.2 million.

On 22 February 2017, the Company submitted the closing statement to the Thai Arbitration Institute. EXAT submitted the closing statement on 15 May 2017.

At present, the dispute is pending the Arbitral Tribunal to render the judgment.

41.1.6 Revision of toll rates of the Chalerm Mahanakorn Expressway and the Si Rat Expressway for the year 2008

On 13 June 2013, the Company submitted a statement of claim to the Arbitral Tribunal requiring EXAT to compensate the Company for damages caused by the revision of toll rates (of the Chalerm Mahanakorn Expressway and the Si Rat Expressway) for the year 2008, which was not in accordance with the Agreement, in the total amount of Baht 9,091.8 million, together with interest under the Agreement.

The Thai Arbitration Institute has determined the date for the Claimants to submit their closing statements within 20 February 2018.

At present, the dispute is pending for the Claimants to submit their closing statements.

41.1.7 Revision of toll rates of Sector D of the Si Rat Expressway for the year 2008

On 28 June 2013, the Company submitted a statement of claim to the Thai Arbitration Institute requiring EXAT to compensate the Company for damages caused by the revision of toll rates of Sector D of the Si Rat Expressway for the year 2008, which was not in accordance with the Agreement, together with interest calculated up to 31 May 2013, in the total amount of Baht 4,062.8 million, including interest under the Agreement.

At present, it is pending the required arbitration proceedings of the Thai Arbitration Institute.

41.1.8 Revision of toll rates of Udon Ratthaya Expressway for the year 2003

On 22 October 2013, the subsidiary submitted a statement of claim to the Thai Arbitration Institute requiring EXAT to compensate the subsidiary for damages, caused by the revision of toll rates of the Udon Ratthaya Expressway for the year 2003, which was not in accordance with the Agreement, in the amount of Baht 908.7 million, together with interest under the Agreement.

At present, it is pending the required arbitration proceedings of the Thai Arbitration Institute.

41.2 Disputes submitted by EXAT claiming for damages in 3 disputes, with the total amount until the date of submission of the disputes of approximately Baht 1,589.2 million

41.2.1 Cost of arrangements of the entrance - exit and resolution of complaints

On 11 May 2007, EXAT submitted a statement of claim requiring the Company to be responsible for the cost of arrangements of the entrance - exit claimed by complainants, and the cost of free flow drains, in the total amount of Baht 0.4 million, which the Arbitral Tribunal rendered its arbitral award ruling that EXAT had no right to claim for such costs.

On 7 May 2014, EXAT submitted a petition for revocation of the arbitral award.

On 9 August 2017, the Central Administrative Court has determined the first trial date.

On 30 August 2017, the Central Administrative Court issued the judgment to revoke the arbitral award only on the second ground part - the cost of free flow drains. The Court rules that the Arbitral Tribunal has illegally received the claim because EXAT submitted the case when the ground part was precluded by prescription.

On 29 September 2017, the Company appealed the Central Administrative Court's judgment to the Supreme Administrative Court.

At present, it is pending the Supreme Administration Court's consideration.

41.2.2 Construction of the Udon Ratthaya Expressway, Phase 2

On 29 January 2016, EXAT submitted a statement of claim to the Thai Arbitration Institute requiring the subsidiary to complete the construction of the Udon Ratthaya Expressway, Phase 2, in accordance with Clause 8.5 a. of the conditions of the Bang Pa-In - Pak Kret Expressway Agreement, and compensate for the amount of Baht 1,587.7 million, together with interest under the Agreement. The Agreement states that although the conditions of the Agreement to commence the construction has been fulfilled, the subsidiary shall not yet be obliged to carry out the construction if EXAT breach of the Agreement causing the subsidiary to suffer financial set back materially. EXAT are in breach of the Agreement with the competing road and the revision of toll rates. Therefore, the subsidiary acquired its rights to not commence the construction and EXAT is not entitled to claim for indemnity.

On 1 February 2018, the Arbitral Tribunal has determined on disputes issues and terms of arbitral procedures that the witness examinations date for EXAT has been set to convene in November 2018 and in December 2018 - February 2019 for the subsidiary.

At present, it is pending the witness examination procedures.

41.2.3 Cost of utilization of the Control Center Building (Bang Phun)

On 27 February 2009, EXAT submitted a statement of claim to the Thai Arbitration Institute requiring the subsidiary to be responsible for the cost of utilization of the Control Center Building (Bang Phun) in the amount of Baht 1.1 million, which the subsidiary was of the view that such cost claimed by EXAT was not within its scope of responsibility under the Agreement.

On 3 and 30 November 2017, EXAT has submitted a witness for an examination and the Arbitral Tribunal has determined the date to further examinations in April to May 2018 for EXAT and in June 2018 for the subsidiary.

At present, it is pending the witness examination procedures.

Since the disputes are pending consideration, the Company and the subsidiary therefore did not record such entries in the financial statements.

42. Fair value hierarchy

As at 31 December 2017 and 2016, the Company and its subsidiaries had the assets and liabilities that were measured or disclosed at fair value using different levels of inputs as follows:

(Unit: Million Baht)

	Consolidated financial statements							
	Level 1		Level 2		Level 3		Total	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Asset measured at fair value								
Current investment								
Unit trust	-	-	939	4,489	-	-	939	4,489
Liabilities measured at fair value								
Derivative								
Interest rate swap	-	-	53	19	-	-	53	19
Asset for which fair value are disclosed								
Investment in associates	15,478	13,366	-	-	-	-	15,478	13,366
Investment properties	-	-	-	-	315	315	315	315

(Unit: Million Baht)

	Separated financial statements							
	Level 1		Level 2		Level 3		Total	
	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>	<u>2017</u>	<u>2016</u>
Asset measured at fair value								
Current investment								
Unit trust	-	-	928	4,480	-	-	928	4,480
Liabilities measured at fair value								
Derivative								
Interest rate swap	-	-	53	19	-	-	53	19
Asset for which fair value are disclosed								
Investment in associates	15,478	13,366	-	-	-	-	15,478	13,366
Investment properties	-	-	-	-	315	315	315	315

43. Financial instruments

43.1 Financial risk management

The financial instruments of the Company and its subsidiaries, as defined under Thai Accounting Standard No. 107 “Financial Instruments: Disclosure and Presentations”, principally comprise cash and cash equivalents, current investments, trade and other receivables, receivable from sales of investment, long-term loans and interest receivables to related parties, receivable under the concession agreement, short-term loans from financial institution, trade and other payable, long-term loans, debentures and provision for compensation for site acquisition cost. The financial risks associated with these financial instruments and how they are managed is described below.

Credit risk

The Company and its subsidiaries are exposed to credit risk primarily with respect to trade and other accounts receivable. The Company and its subsidiaries manage the risk by adopting appropriate credit control policies and procedures and therefore do not expect to incur material financial losses. The maximum exposure to credit risk is limited to the carrying amounts of trade and other accounts receivable as stated in the statements of financial position.

Interest rate risk

The Company and its subsidiaries are exposed to interest rate risk relate primarily to their cash at financial institution, current investments, long-term loans and interest receivables to related parties short-term loans, debentures and long-term loans. However, since most the financial assets and liabilities of the Company and its subsidiaries bear floating interest rates or fixed interest rates which are close to the market rate, the interest rate risk is expected to be minimal.

Significant financial assets and liabilities classified by type of interest rate are summarised in the table below, with those financial assets and liabilities that carry fixed interest rates further classified based on the maturity date, or the repricing date if this occurs before the maturity date.

(Unit: Million Baht)

Consolidated financial statements							
As at 31 December 2017							
	Fixed interest rates			Floating	Non-interest	Total	Effective
	Within 1 year	1 - 5 years	Over 5 years	interest rate	bearing		interest rate
							(% p.a.)
Financial assets							
Cash and cash equivalents	-	-	-	2,263	364	2,627	0.38 - 1.60
Current investments	-	-	-	1,449	-	1,449	0.98 - 2.72
Trade and other receivables	-	-	-	-	426	426	-
Receivable under the concession agreement	-	-	-	14,160	-	14,160	Note 11
	-	-	-	17,872	790	18,662	
Financial liabilities							
Short-term loans from financial							
institution	3,629	-	-	-	-	3,629	Note 22
Trade and other payables	-	-	-	-	2,108	2,108	-
Long-term loans	2,000	3,986	-	23,624	-	29,610	Note 24
Debentures	-	11,115	17,056	-	-	28,171	Note 25
Provision for compensation for							
site acquisition cost	1,600	1,411	-	-	-	3,011	4.50
	7,229	16,512	17,056	23,624	2,108	66,529	

Consolidated financial statements

As at 31 December 2016

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate (% p.a.)
	Within 1 year	1 - 5 years	Over 5 years				
Financial assets							
Cash and cash equivalents	-	-	-	390	387	777	0.38 - 1.60
Current investments	-	-	-	5,941	-	5,941	0.98 - 2.72
Trade and other receivables	-	-	-	-	1,615	1,615	-
Receivable from sales of investment	757	-	-	-	-	757	Note 7
	<u>757</u>	<u>-</u>	<u>-</u>	<u>6,331</u>	<u>2,002</u>	<u>9,090</u>	

Financial liabilities

Short-term loans from financial

institution	4,716	-	-	-	-	4,716	Note 22
Trade and other payables	-	-	-	-	898	898	-
Long-term loans	2,000	6,066	-	10,953	-	19,019	Note 24
Debentures	-	9,115	14,053	-	-	23,168	Note 25
Provision for compensation for site acquisition cost	1,500	2,817	-	-	-	4,317	4.50
	<u>8,216</u>	<u>17,998</u>	<u>14,053</u>	<u>10,953</u>	<u>898</u>	<u>52,118</u>	

Separated financial statements

As at 31 December 2017

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate (% p.a.)
	Within 1 year	1 - 5 years	Over 5 years				
Financial assets							
Cash and cash equivalents	-	-	-	2,209	318	2,527	0.48 - 1.59
Current investments	-	-	-	1,438	-	1,438	0.77 - 2.27
Trade and other receivables	-	-	-	-	419	419	-
Long-term loans and interest receivable from related parties	-	-	-	4,155	831	4,986	Note 7
Receivable under the concession agreement	-	-	-	14,160	-	14,160	Note 11
	<u>-</u>	<u>-</u>	<u>-</u>	<u>21,962</u>	<u>1,568</u>	<u>23,530</u>	
Financial liabilities							
Short-term loans from financial institution	3,629	-	-	-	-	3,629	Note 22
Trade and other payables	-	-	-	-	2,037	2,037	-
Long-term loans	2,000	3,986	-	23,124	-	29,110	Note 24
Debentures	-	11,115	17,056	-	-	28,171	Note 25
Provision for compensation for site acquisition cost	1,600	1,411	-	-	-	3,011	4.50
	<u>7,229</u>	<u>16,512</u>	<u>17,056</u>	<u>23,124</u>	<u>2,037</u>	<u>65,958</u>	

Separated financial statements

As at 31 December 2016

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate (% p.a.)
	Within 1 year	1 - 5 years	Over 5 years				
Financial assets							
Cash and cash equivalents	-	-	-	353	377	730	0.38 - 1.60
Current investments	-	-	-	5,932	-	5,932	0.98 - 2.72
Trade and other receivables	-	-	-	-	1,619	1,619	-
Receivable from sales of investment	757	-	-	-	-	757	Note 7
Long-term loans and interest receivable from related parties	-	-	-	5,231	1,054	6,285	Note 7
	757	-	-	11,516	3,050	15,323	
Financial liabilities							
Short-term loans from financial institution	4,716	-	-	-	-	4,716	Note 22
Trade and other payables	-	-	-	-	819	819	-
Long-term loans	2,000	6,066	-	10,953	-	19,019	Note 24
Debentures	-	9,115	14,053	-	-	23,168	Note 25
Provision for compensation for site acquisition cost	1,500	2,817	-	-	-	4,317	4.50
	8,216	17,998	14,053	10,953	819	52,039	

The Company entered into an interest rate swap contract with a local commercial bank to manage risk associated with some of its long-term loan, carrying interest at a floating rate. As at 31 December 2017, the Company has interest rate swap contract, granting facilities of long-term loan of Baht 6,000 million, to swap a floating interest rate of 6M THBFIX plus stipulated margins to a fixed rate. The interest rate swap contract terminates in May 2021.

Foreign currency risk

The Company has a significant foreign currency risk in respect of construction payable. As at 31 December 2017, the Company has outstanding financial liabilities denominated in foreign currency amounting to JPY 97 million, SGD 0.3 million and USD 0.2 million (2016: JPY 68 million, SGD 0.4 million and USD 0.5 million) which have not yet been hedged against foreign exchange risk (the majority of these liabilities are repayable within 1 year).

43.2 Fair values of financial instruments

Since the majority of the financial instruments of the Company and its subsidiaries are short-term in nature or carrying interest at rates close to the market interest rates, their fair value is not expected to be materially different from the amounts presented in the statements of financial position. However, the Company has long-term liabilities in the form of debentures of which carrying value is different from the fair value. As at 31 December 2017, the book value of the Company's debentures was Baht 28,171 million, whereas the fair value was Baht 28,279 million (2016: book value was Baht 23,168 million, whereas the fair value was Baht 22,425 million).

The fair value of debentures is determined using the yield curve announced by the Thai Bond Market Association.

During the current year, there were no transfer within the hierarchy of the fair value.

44. Capital management

The primary objective of the Company's capital management is to ensure that it has an appropriate financial structure to preserve the ability to continue its business as a going concern and maximise shareholder value.

The Company manages its capital position with reference to its debt-to-equity ratio in order to comply with a condition in a long-term loan agreements, which requires the Company to maintain a debt-to-equity ratio of not more than 2.5:1

45. Events after the reporting period

45.1 Sales of other long-term investments

On 27 February 2018, a meeting of the Board of Directors passed a resolution to propose the sale of all investment in Xayaburi Power Limited to CK Power Public Company Limited to the Annual General Meeting of the shareholders for approval. This sale of these investment is subject to the approval of the Annual General Meeting of the shareholders.

45.2 Dividend payment

On 27 February 2018, a meeting of the Board of Directors passed a resolution to propose a dividend payment from the 2017 earnings at a rate of Baht 0.13 per share to the Annual General Meeting of the shareholders for approval. The Company paid an interim dividend at the rate of Baht 0.06 per share on 20 September 2017 and the final dividend payment at the rate of at the rate Baht 0.07 per share will be paid within May 2018. This dividend payment is subject to the approval of the Annual General Meeting of the shareholders.

46. Reclassification

The Company has reclassified certain accounts in the statements of financial position as at 31 December 2016 and 1 January 2016 and the income statement for year ended 31 December 2016 to conform to the current period presentation. The reclassifications, which had no effect on previously reported net profit or shareholders' equity, are as follows:

(Unit: Thousand Baht)

	Consolidated financial statements			
	As at 31 December 2016		As at 1 January 2016	
	As reclassified	As previously reported	As reclassified	As previously reported
Statement of financial position				
Current liabilities				
Trade and other payables	898,075	819,414	2,627,335	2,579,554
Other current liabilities	119,445	198,106	66,367	114,148

(Unit: Thousand Baht)

	Separate financial statements			
	As at 31 December 2016		As at 1 January 2016	
	As reclassified	As previously reported	As reclassified	As previously reported
Statement of financial position				
Current liabilities				
Trade and other payables	818,519	749,456	2,580,488	2,538,959
Other current liabilities	108,205	177,268	57,940	99,469

(Unit: Thousand Baht)

	For the year ended 31 December 2016			
	Consolidated financial statements		Separate financial statements	
	As reclassified	As previously reported	As reclassified	As previously reported
Income statement				
Cost of expressway business	1,511,965	1,345,933	1,256,523	1,096,699
Cost of rail business	2,371,421	1,959,861	2,371,421	1,959,861
Amortisation of intangible asset under concession agreement of the MRT Blue Line Project	440,076	851,636	412,380	823,939
Administrative expenses	892,094	1,038,037	833,218	975,453
Finance cost	1,426,028	1,446,117	1,416,993	1,434,582

47. Approval of financial statements

These financial statements were authorised for issue by the Company's Board of Directors on 27 February 2018.



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