

**"Building" a Better  
Lief for All**



**CH. Karnchang Public Company Limited  
Annual Report 2019**



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## Message from Chairman of the Board



CH. Karnchang Public Company Limited, as the leading construction business and the pre-eminent and comprehensive basic infrastructure investor and developer, at the local and regional levels, throughout the period of its business operations, remains firmly committed to selecting construction of projects which are beneficial to the society and the nation by adhering to the business philosophy which takes into account corporate governance and ethics, as well as emphasizing continued development of personnel competency, construction engineering technology, and project management to enhance the Company's competitiveness, not to mention the fact that the Board of Directors and the management team have regularly reviewed the visions, business structure, and business strategies.

Until now, CH. Karnchang Group is capable of successfully embracing the business philosophy to create a long-term value for stakeholders, generate good returns for related parties, and achieve the business growth under the sustainability guidelines which builds the economic, social and environmental balance.

Thailand's 2019 economic outlook in terms of construction, which represented the Company's main business, according to the forecast of the Bureau of Macroeconomic Policy, Fiscal Policy Office, would grow at a slower rate from the previous year to 2.5<sup>1</sup> percent, resulting from trade tensions between USA and China, including the slowdown in goods export and tourism industries.<sup>2</sup> Nevertheless, the Krungsri Research, Bank of Ayudhya Public Company Limited, has

<sup>1</sup> (Source: Ministry of Finance's News, January 2020)

<sup>2</sup> (Source: Fiscal Policy Ofce (FPO), January 2020)



forecast that during 2019-2021, the construction sector would have a tendency to gradually grow at an accelerating rate, namely, in 2019, value of investment in construction projects as a whole would grow at a low rate in the range of 3.5 - 5.0 percent, as a consequence of the establishment of new government which caused a delay in bids for certain large-scale infrastructure projects of the government; however in 2020 and 2021, the construction sector would have a tendency to expand to 5.0 - 7.0 percent and 7.5 - 9.5 percent, respectively, after the clarity in the incoming government and due to the expedited investment in large-scale infrastructure construction projects of the government sector and private investment in

Bangkok and its surrounding provinces, as well as the region. In this connection, the Eastern Economic Corridor development, new electric train line, and mixed-use real estate development projects, and etc., remained particularly prominent. With regard to construction in neighboring countries, particularly economic development in the CLM countries (Cambodia, the Lao PDR, and Myanmar), there would be a growing tendency according to economic and urbanization expansion which would result in investment in infrastructure and real estate development. This then represents an opportunity for Thai construction companies to further expand their customer base overseas<sup>3</sup> and also provides the Company with a great opportunity.

<sup>3</sup> (Source: Krungsri Research, Thailand Construction Industry Outlook for 2019 - 2021, June 2019)



With respect to the Company's operational results for 2019, they met the set target and stayed at the satisfactory level. As at the end of 2019, under the consolidated financial statements, the Company had total revenues in the amount of Baht 24,797 Million, total expenses in the amount of Baht 23,458 Million, total assets in the amount of Baht 82,586 Million, total liabilities in the amount of Baht 54,773 Million, and net profit in the amount of Baht 1,778 Million. As at the end of 2019, the Company's backlog to be recognized as revenue was worth Baht 37,380 Million.

All construction projects as operated by the Company well progressed. That was, in 2019, the Company took great pride in the largest construction project, i.e., the Xayaburi Hydroelectric Power Project in the Lao People's Democratic Republic (the Lao PDR), with its construction completion to the point which it could be delivered and commence its Commercial Operation on October 29, 2019, together with the Project Management, including Supply, Installation, and Test Run and Commissioning of the M&E Systems for the MRT Blue Line Extension Project, with the rolling stock system being installed to the point which it could be delivered, with its gradual service opening for a trial run and the actual service opening on December 23, 2019. The Xayaburi Hydroelectric Power Project and the MRT Blue Line Extension Project are not only large-scale projects showing the Company's great potential in construction engineering and project management, they are also substantially beneficial to Thai society and Thai people. Moreover, all other construction projects under the Company's operations progressed according to schedule, among of which were, for instance, the MRT Orange Line (East Section) Project, Contract 1: Underground Civil Works, Thailand Cultural Centre - Ram Khamhaeng 12 Section, with 65.13 percent progress, Contract 2: Underground Civil Works, Ram Khamhaeng 12 - Hua Mak Section, with 48.41 percent progress, and Contract 5: Depot and Park & Ride Facilities, with 56.94 percent progress;

the Bang Pa-in - Saraburi - Nakhon Ratchasima Intercity Motorway Project, Contract 3, with 98.07 percent progress, and the Construction and Improvement of the Si Rat - Outer Ring Road Expressway Project, with 84.66 percent progress,<sup>4</sup> etc. In 2019, the Company executed five new projects with the total value amounting to Baht 10,159 Million, namely, the Construction and Improvement of the Si Rat - Outer Ring Road Expressway Project with Bangkok Expressway and Metro Public Company Limited, with its value amounting to Baht 780 Million; the Improvement of Machinery and Equipment for the Tap Water Production and Distribution System for the Banglen Water Treatment Plant (Phase 1) Project with TTW Public Company Limited, with its value amounting to Baht 350 Million; the Repair of the Structures of the Si Rat Expressway, Period 4, Phase 3, Sector B (Urupong - Bang Khlo), and the Improvement of the Structures of the Si Rat - Outer Ring Road Expressway Project with Bangkok Expressway and Metro Public Company Limited, with its value amounting to Baht 233 Million; the Construction of Medical and Public Health Service Integration Center for Chulalongkorn Hospital Project with the Thai Red Cross Society, with its value amounting to Baht 2,160 Million; and the Rama III - Dao Khanong - Western Outer Ring Road Expressway Project, Contract 4 (Civil Work) with the Expressway Authority of Thailand, with its total value amounting to Baht 6,636 Million.

Our goal is to achieve the sustainable growth which lays down the framework guidelines for our operations in conformity with the Company's vision. This reflects that the Company has given priority and commitment to good corporate governance, efficient risk management, and solid internal audit system, along with strict compliance with applicable laws and regulations. For this reason, in 2019, the Company received an "Excellent" rating from the Corporate Governance Report of Thai Listed Companies (CGR) conducted by the Thai Institute of Directors Association (IOD) for the fifth year in a row.

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<sup>4</sup> Project progress as at December 31, 2019.

Furthermore, the Company has realized the significance of the business operations with the efficient capital management, appropriate personnel nomination, including business alliance with expert foreign companies with technical know-how and related technologies, and as a result, the Company is currently well-prepared in terms of capital, labor and technology required for construction through its accumulated experience and specializations in various aspects. Besides, the Company continues to give priority to implementation of its corporate social and environmental responsibility programs (CSR activities) under the supervision of the Corporate Social and Environmental Responsibility Committee for positive impact on society. For example, in 2019, the Company launched a new project titled “Community Technician Innovation Promotion” for the first time, with the aim of developing the competency of “technicians” which is the heart of the Company’s business and serves as quality personnel of the communities and the country. This project also promotes, develops, and extends the community technician innovations which are capable of concretely solving community and social problems. In this regard, the Company has collaborated with the National Innovation Agency (Public Organization) (NIA) and the Change Fusion Institute under the Foundation for Thailand Rural Reconstruction Movement under the Royal Patronage of H.M. the King of Thailand to support development of “community technicians” to become “community innovators”. The Company did survey and select teams of contestants from all over the country to recruit 10 qualified teams for training with the volunteer engineers

of CH. Karnchang and experts in product design and innovation business management to develop skills of the community technicians to create invention prototypes for testing with target groups and improvement and testing to optimize its efficiency for further development, and make such innovations available to the community technicians. Moreover, the Company has organized an activity titled “CK R.A.T.E. R” (R.A.T.E R: Reduce, Alternative, Treater, Environment) (Reuse) as a campaign to engage its staff with “Reduce Quit Stop” use of plastic bags and articles made of plastic, as the main cause of the mounting plastic and garbage crisis the world is presently facing, which leads to various environmental concerns, etc. In this regard, the Company emphasizes to provide proper knowledge and supplies, such as cloth bags, water glasses, recyclable food containers, to encourage, build awareness and lead to change in behaviors and lifestyle of the organization’s personnel, as members of Thai society.

As our next step in the future, the Company is committed to achieving the set goals by way of integration of strategies, policies and visions, which can create value added and attain the sustainable growth in all sectors of its operations. On behalf of the Board of Directors, we would like to extend our grateful thanks to all shareholders, executives, staff, business alliances, both public and private sectors, including all stakeholders, who have always supported and trusted in CH. Karnchang Public Company Limited, and served as our driving force behind the Company’s business to successfully overcome various difficult challenges. Thank you.



**Mr. Aswin Kongsiri**  
Chairman  
of the Board of Directors



**Mr. Plew Trivisvavet**  
Chairman  
of the Executive Board



**Dr. Supamas Trivisvavet**  
President

## Board of Directors



**MR. ASWIN KONGSIRI**

- Chairman of the Board of Directors
- Independent Director



**MR. PLEW TRIVISVAVET**

- Director
- Chairman of the Executive Board
- Nomination and Remuneration Committee Member
- Corporate Governance and Risk Management Committee Member



**MR. VITON TEJATUSSANASOONTORN**

- Director
- Chairman of the Audit Committee
- Chairman of the Nomination and Remuneration Committee
- Chairman of the Corporate Governance and Risk Management Committee
- Independent Director



**MR. THAWANSAK SUKHAWUN**

- Director
- Audit Committee Member
- Nomination and Remuneration Committee Member
- Corporate Governance and Risk Management Committee Member
- Independent Director



**MR. PAVICH TONGROACH**

- Director
- Audit Committee Member
- Chairman of the Corporate Social and Environmental Responsibility Committee
- Independent Director





**MISS SUPAMAS TRIVISVAVET**

- Director
- Executive Director
- Corporate Governance and Risk Management Committee Member
- President



**MR. NARONG SANGSURIYA**

- Director
- Executive Director
- Nomination and Remuneration Committee Member
- Corporate Governance and Risk Management Committee Member



**MR. PRASERT MARITTANAPORN**

- Director
- Executive Director
- Corporate Social and Environmental Responsibility Committee Member



**MR. RATN SANTAANNOP**

- Director
- Executive Director



**MR. ANUKOOL TUNTIMAS**

- Director
- Executive Director
- Corporate Social and Environmental Responsibility Committee Member

## Executive Board



**MR. PLEW TRIVISVAVET**

- Chairman of the Executive Board



**MISS SUPAMAS TRIVISVAVET**

- Executive Director



**MR. NARONG SANGSURIYA**

- Executive Director



**MR. PRASERT MARITTANAPORN**

- Executive Director



**MR. RATN SANTAANNOP**

- Executive Director



**MR. ANUKOOL TUNTIMAS**

- Executive Director

## Senior Management Team



**MR. NARONG SANGSURIYA**

• Senior Executive



**MR. PRASERT MARITTANAPORN**

• Senior Executive



**MR. RATN SANTAANNOP**

• Senior Executive



# Management Team



**MISS SUPAMAS TRIVISVAVET**

- President



**MR. PHONGSARIT TANTISUVANITCHKUL**

- Senior Executive Vice President :  
Operation Group



**MR. SITTIDEJ TRIVISVAVET**

- Senior Executive Vice President :  
Administration Group



**MR. ANUKOOL TUNTIMAS**

- Executive Vice President :  
Human Resource and  
General Administration



**MR. WATCHARA SANGHATTAWATTANA**

- Executive Vice President :  
Engineering



**MR. PORNNARONG SIRIYOTHIN**

- Executive Vice President :  
Construction 1



**MR. PRAPON CHANPRADUBFA**

- Executive Vice President :  
Construction 2



**MR. PAIRAT PROM-IN**

- Executive Vice President :  
Construction 3



**MR. THAMMANOON SURARAT**

- Executive Vice President :  
Construction 4



**MR. PICHAI  
CHEYBUMROONG**

- Executive Vice President :  
Purchasing



**MRS. RINRADA  
TANGTRONGKID**

- Executive Vice President :  
Accounting and Finance



**MR. WIBOON  
UNGAPIATHANACHAI**

- Executive Vice President :  
Internal Audit office



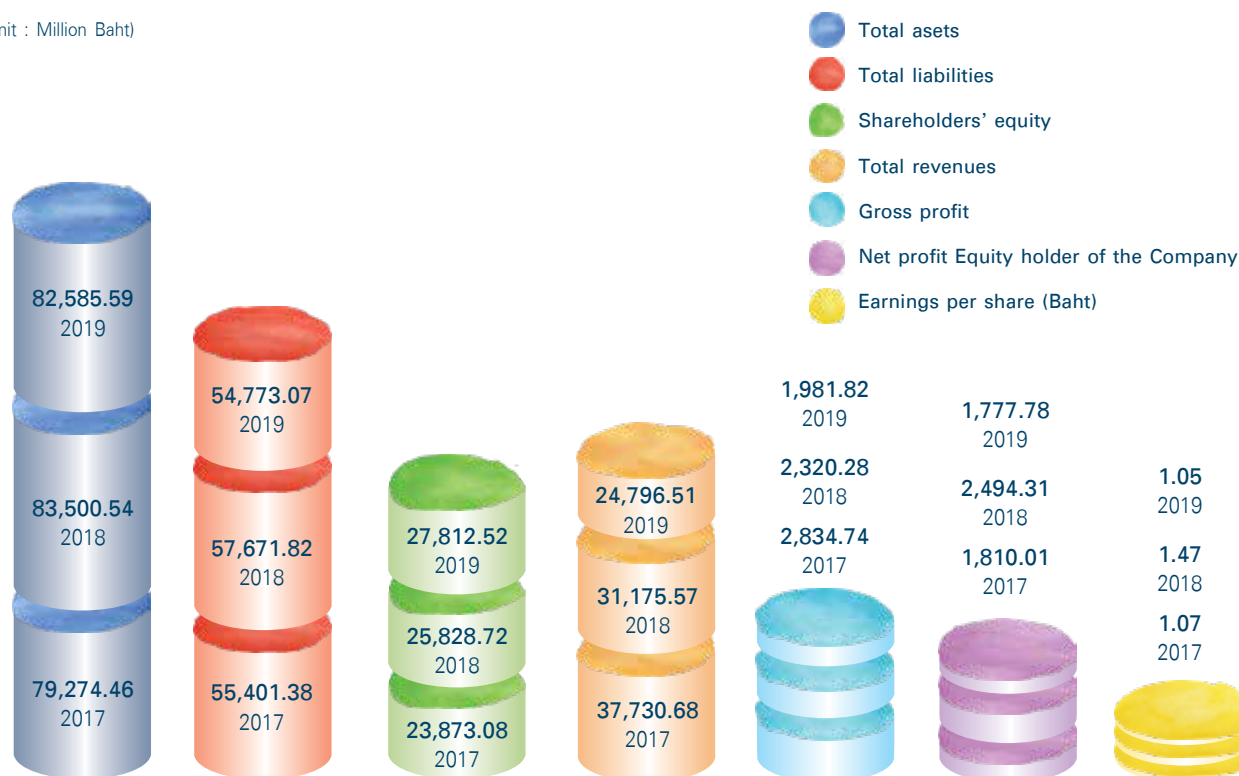
**MR. KEERATI  
LUANGCHOOKIAT**

- Executive Vice President:  
Business Development

# Financial Highlights

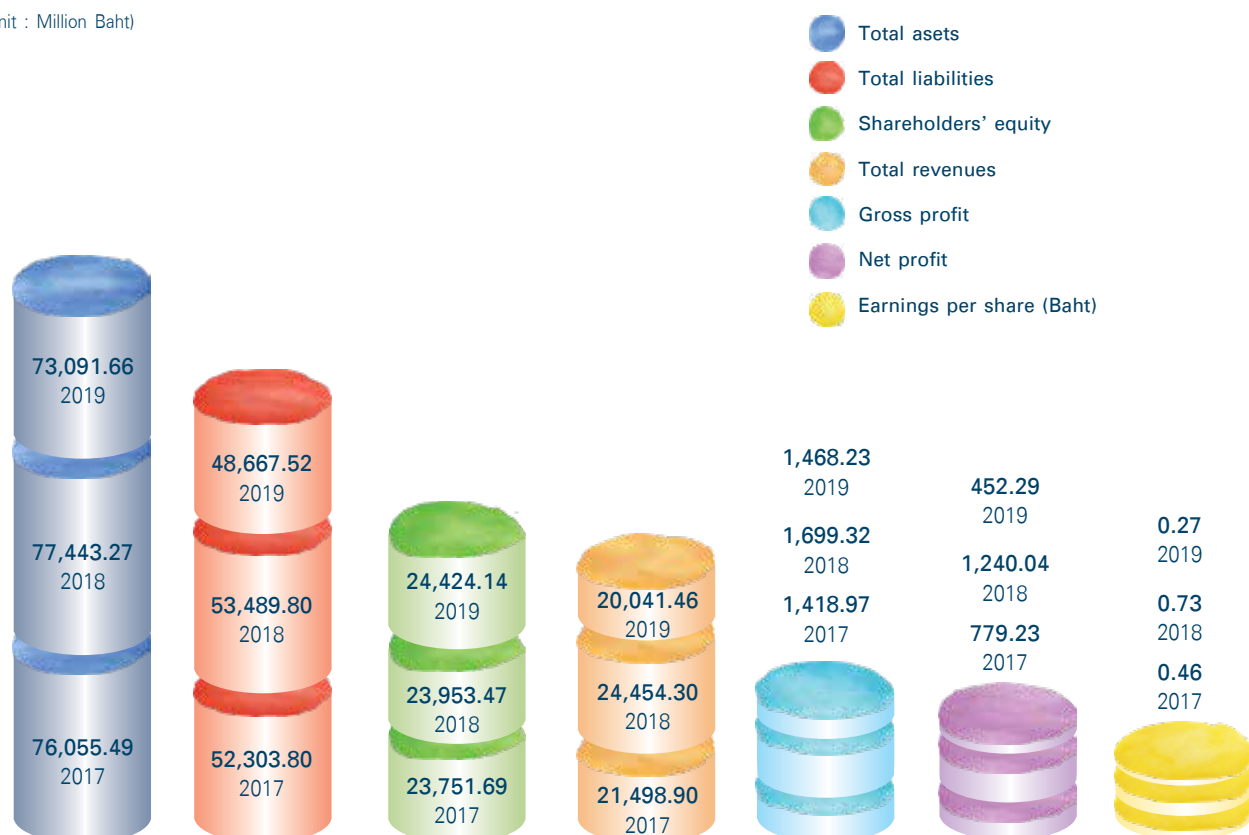
## Summary of Financial Information under the Consolidated Financial Statements

(Unit : Million Baht)



## Summary of Financial Information under the Separate Financial Statements

(Unit : Million Baht)





# PART 1

## BUSINESS OPERATIONS



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# 1. Business Policy and Overview

CH. Karnchang Public Company Limited was incorporated on November 27, 1972 to operate the business as construction contractor given the opportunity for the construction business expansion while Thailand was focusing on national development, by initiating a number of various construction projects. It is the Company's policy from the outset to focus on construction works which are beneficial for the society and the country and to carry on its operations under the business philosophy based on integrity, justice and utmost interest of all stakeholders as well as to always give priority to the social and environmental responsibility. Initially, the Company's scope of work covered construction of buildings and general civil works, mostly for the Royal Thai Army and the government sector.

Subsequently in 1981, the Company entered into a joint venture with Tokyu Construction Co., Ltd., one of Japan's top ten construction contractors, to jointly establish CH. Karnchang-Tokyu Construction Co., Ltd. for the purpose of expansion of the scope of business operations and learning and acceptance of construction technology transfer, as well as formation of a business alliance.

Thereafter, the Company was converted into a public limited company on October 10, 1994 and the Company's ordinary shares were listed and began trading on the Stock Exchange of Thailand on August 3, 1995, at which time, the Company was rapidly growing and improving its capabilities and potential in all aspects, including work management and development of human resources, as well as construction technology development through its joint ventures with foreign

companies which possess expertise to enhance its potential for more efficient operations. This has enabled the Company to expand its scope of engagements to various fields to the point at which the Company has become one of the construction contractors which are sufficiently capable of carrying out sophisticated construction requiring advanced construction technology, such as, construction of large scale infrastructure projects, namely, construction of expressways, subways or dams, etc. With the Company's continued development of its capabilities in terms of both engineering and management, the Company is thus able to handle projects on a design and construction or turnkey basis.

Moreover, based on the vision and policy of the management team which realizes the need to enlarge the scope of business operations; create a prominent role and a sustainable and stable growth for the Company, the Company has changed its role to become an investor in regional, comprehensive infrastructure project development. Currently, the Company has invested in small, medium and large concession projects which cover all systems, namely, transportation, mass rapid transit, infrastructure, and hydropower systems. Among these projects include, for instance, investment in Bangkok Expressway Public Company Limited, which constructs and operates the Si Rat Expressway (the Second Stage Expressway), and various extension projects; investment in the MRT Chaloem Ratchamongkhon Line Project of Bangkok Metro Public Company Limited (on December 30, 2015, Bangkok Expressway Public Company Limited amalgamated with Bangkok Metro Public Company Limited into Bangkok Expressway and Metro





Public Company Limited, which operates the expressway and rail mass rapid transit services, including commercial development in connection with the expressway and metro systems; and subsequently, Bangkok Expressway and Metro Public Company Limited has been granted a concession to conduct construction and management of the Si Rat - Outer Ring Road Expressway, including provision of the operation service of the MRT Blue Line Extension Project and the MRT Chalong Ratchadham Line Project or the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section); investment in the Tap Water Production Project of TTW Public Company Limited for sale of tap water to the Provincial Waterworks Authority in the vicinities of Nakhon Pathom Province and Samut Sakhon Province; and investment in CK Power Public Company Limited which operates the core business as holding company in the electricity production and distribution business from energy resources of various types, namely, investment in the Hydroelectric Power Project (Nam Ngum 2) for electricity generation and distribution to the Electricity Generating Authority of Thailand, investment in the Small Power Producers (SPP), two Cogeneration Power Projects, with their respective production capacity of 117.5 MW and 120 MW, by the cogeneration system for electricity generation and distribution to the Electricity Generating Authority of Thailand and industrial operators in Bang Pa-in Industrial Estate, investment in the solar power projects for electricity generation and distribution to the Provincial Electricity Authority, and projects in progress, such as, investment in the Xayaburi Hydroelectric

Power Project for electricity generation and distribution to the Electricity Generating Authority of Thailand and the Electricite' du Laos, etc. The Company's business operations in this manner demonstrate the results when the group companies whose shares are held by the Company have successfully achieved good operational results, and the Company has received returns on investment in those companies in the form of dividend, including gains on sales of investments, which generate regular income and profit for the Company.

Based on the policies and far-sighted vision in business operations, the Company is able to become a construction contractor, investor and concessionaire, which has distinguished the Company from other leading construction companies in Thailand, and generates revenues for the Company from construction services for both the government sector and the private sector, including income from investment in basic infrastructure project development business. Moreover, the Company is able to more efficiently manage risks in the construction business due to the Company's chance to initiate its own works from its roles as full-scale developer, investor, and manager of concessions. These policies and strategies in management can result in good business returns and stable growth for the Company and its group companies, which make the Company strong and distinctive, and afford an opportunity and have the potential beyond being a construction company alone. This is a prominent factor which empowers the Company to become successful in its business operations for over 47 years.



## 1.1 The Company's Overall Operational Policy

To ensure the accomplishment of the Company's operations for the utmost benefits of all stakeholders, the Company has thus adopted the operational policies subject to the principles as follows:

### Vision

**To be the leader in construction business  
and the pre-eminent and comprehensive basic  
infrastructure developer in the region.**

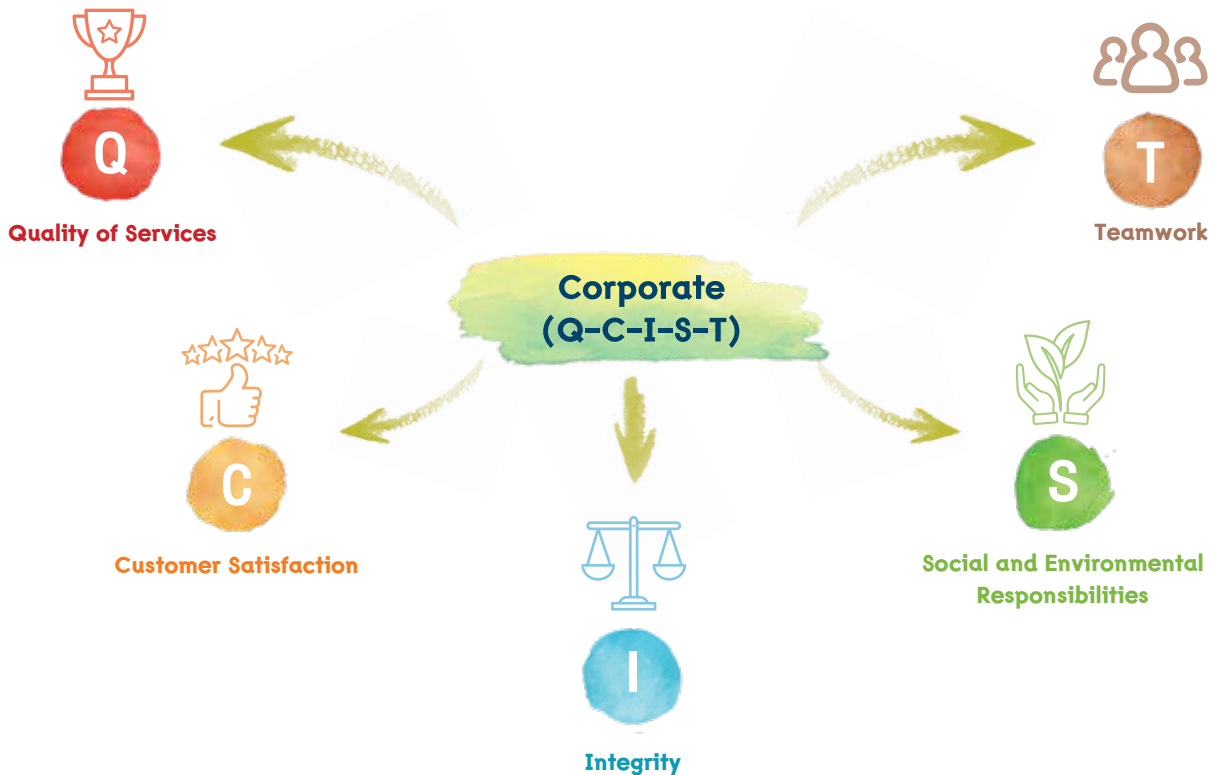
### Missions

**Deliver quality work for our customers  
while committed to creating work that  
contributes to the society and country  
with good returns to our shareholders  
and providing fair treatment to all our  
stakeholders**

**Manage our business with professionalism  
and in accordance with the guidelines of  
good Corporate Governance**

**Be responsible to the community,  
society and the country**

**Develop human capital  
and organization on a continuous  
and consistent basis**



## Strategies: Sustainable Growth



To ensure the Company's business operations in compliance with the policies, the Company has complied with the strategies and action plans in 2019 as follows:

1. The Company carried out construction and performed various related works, with progress according to schedule;
2. The Company followed the procedures under every project agreement;
3. The Company conducted feasibility studies and made preparations for investments in various projects;
4. The Company maintained its liquidity and efficiently managed short-term and long-term investments to generate more revenues, as well as used various financial instruments for risk management, including reduction of finance cost;
5. The Company built a relationship with stakeholders through the social responsibility process and communicates to both internal and external persons for acknowledgement;
6. The Company maintained an efficient, transparent, and auditable management system subject to the good corporate governance principles, including the Quality Management System (ISO 9001), and developed the information system with updated technology to enhance performance.

## 1.2 Significant Changes and Development

According to the aforesaid business policy and overview of the Company, details of the Company's significant changes and development can be summarized as follows:

### 1972 :

The Company was incorporated as a limited company with the initial registered capital of Baht 1.40 Million to engage in general construction business. Initially, the Company's scope of work covered construction of buildings and general civil works and its major clients were government agencies, such as, the Royal Thai Army and the Royal Thai Air Force. The achievements bringing reputation to the Company included, for example, the Chulachomklao Royal Military Academy, various buildings, hospitals and public utilities for the Royal Thai Army and the television station building for the Mass Communication Organization of Thailand (MCOT), etc.

### 1981 :

The Company realized the need to enlarge the scope of its business operations for long-term prosperity. In this respect, the Company entered into a joint venture with Tokyu Construction Co., Ltd., one of Japan's top ten construction contractors, for the purpose of construction business and management, as well as potential business alliance.

### 1994 :

The Company expanded its scope of business operations and increased the registered capital to accommodate the continued business expansion. On October 10, 1994, the Company was converted into a public limited company, resulting in an increase in its registered capital to Baht 700 Million, and then became a listed company on the Stock Exchange of Thailand on August 3, 1995.

### 1996 :

The Company increased its registered capital from Baht 700 Million to Baht 1,050 Million, at which time, the Company was rapidly growing and improving its capabilities by both work management and development of human resources, as well as construction technology development through its joint ventures with foreign companies which possess expertise, e.g., Bilfinger AG from Germany, Thames Water International Limited from England. This enabled the Company to expand its scope of engagements to the point at which the Company became one of a few construction contractors which were sufficiently

well-prepared to carry out sophisticated construction requiring advanced construction technology, such as, construction of large scale infrastructure projects. The Company also developed its capabilities in terms of both engineering and management, allowing the Company to operate projects on a design and construction basis or the so-called turnkey, concession projects on a Build-Transfer-Operate (BTO), Build-Operate-Transfer (BOT), Build-Own-Operate (BOO) and Build-Own-Operate-Transfer (BOOT) basis, as well as other small, medium and large scale projects.

### 2004 :

The Company established SouthEast Asia Energy Limited to serve as the developer of the Nam Ngum 2 Hydroelectric Power Project in the Lao People's Democratic Republic (Lao PDR).

### 2006 :

The Company commenced the construction of the Nam Ngum 2 Hydroelectric Power Project, with a project value of more than Baht 22,000 Million, with a production capacity of 615 MW, for production and distribution of electricity to the Electricity Generating Authority of Thailand. This project is regarded as a source of clean and renewable energy, which is low-priced and stable; and as an international investment which helps create jobs and revenue to the Lao PDR, together with improvement of the quality of life of local people in the long run, strengthen friendship and create partnership and good investment opportunity on a national level.

### 2009 :

In addition to the hydropower investment, the Company expanded its investments to other energy businesses, such as, investments in natural gas power project, thermal power technology (cogeneration), and solar power projects, etc. The Company then established Bangpa-in Cogeneration Limited for operation of the Small Power Producer (SPP) construction and management, with a production capacity of 120 MW, by the cogeneration system within Bang Pa-in Industrial Estate to generate and distribute electricity to the Electricity Generating Authority of Thailand and industrial operators in Bang Pa-in Industrial Estate.



#### 2010 :

The Company established Xayaburi Power Company Limited to operate the electricity generation concession granted by the Lao PDR.

#### 2011 :

The Company established Nakhon Ratchasima Solar Limited, Chiangrai Solar Limited, and Bangkhengchai Company Limited to carry out construction and operation of solar power projects to generate and distribute electricity to the Provincial Electricity Authority. Moreover, the Company established CK Power Limited as a holding company with its core business in SouthEast Asia Energy Limited, the major shareholder of the Nam Ngum 2 Hydroelectric Power Project, with the objectives for investment and shareholding in energy business, starting from its shareholding in energy business under development by the Company group. It has a vision to invest in good energy business, including alternative and clean energy, either projects initiated by the Company group or by other groups of business partners, in order to boost the business prospects in this field.

#### 2012 :

The Company commenced construction of the Xayaburi Run-of-River Project, a 1,285 MW hydropower plant, with a construction project value of more than Baht 76,000 Million, for production and distribution of electricity to the Electricity Generating Authority of Thailand and the Electricit du Laos, which is expected to complete in 2019.

#### 2013 :

CK Power Limited converted into a public limited company on February 6, 2013 and has been listed on the Stock Exchange of Thailand since July 18, 2013.

#### 2015 :

The Company supported the amalgamation between Bangkok Expressway Public Company Limited (BECL) and Bangkok Metro Public Company Limited (BMCL) since the amalgamation was considered a strategy to integrate the strengths of both companies in order to diversify services; strengthen business competitiveness and create investment opportunities in the future; as well as promoting image of

securities of the new company from the amalgamation. The Joint Shareholders' Meeting between shareholders of Bangkok Metro Public Company Limited and shareholders of Bangkok Expressway Public Company Limited resolved to approve various matters of the new company from the amalgamation as stipulated by the Public Limited Companies Act B.E. 2535 (1992) and its amendments. In this regard, the public limited company registrar, Department of Business Development, Ministry of Commerce, accepted the registration of the amalgamation on December 30, 2015, and as a result, Bangkok Metro Public Company Limited and Bangkok Expressway Public Company Limited became defunct and amalgamated into Bangkok Expressway and Metro Public Company Limited or BEM, with its registered and paid-up capital equal to Baht 15,285,000,000, divided into a total of 15,285,000,000 ordinary shares, at the par value of Baht One per share. Therefore, such new company has assumed all assets, debts, rights, duties and responsibilities of Bangkok Metro Public Company Limited and Bangkok Expressway Public Company Limited by operation of law from the date of the public limited company registrar's acceptance of registration of the amalgamation onwards.

#### 2017 :

CH. Karnchang Real Estate Co., Ltd., as the Company's subsidiary, jointly invested with other persons and/or legal entities which had no connection with the Company, by signing the shareholders' agreement to become a shareholder in Kamala Senior Living Co., Ltd., a newly registered company (by having its shareholding proportion representing 20 percent of the paid-up capital of the joint investment company), with a purpose for development and management of the elderly luxury residential project located at Tambon Kamala, Amphoe Kathu, Phuket Province, which is the elderly residential project fully equipped with various facilities and services for the elderly. The initial registered capital of such company is Baht 1,000,000 (One Million Baht), divided into 100,000 ordinary shares (one hundred thousand shares), at the par value of Baht 10 (Ten Baht) per share, and its registered capital will be increased as it deems necessary and in line with its business operation plan.

## Significant Changes in 2019



### 1. On April 23, 2019,

the Company executed the Contract for the Construction and Improvement of the Si Rat - Outer Ring Road Expressway and Repair of the Structures of the Si Rat Expressway with Bangkok Expressway and Metro Public Company Limited, for the operation period of approximately 12 months and with the estimated contract value of Baht 779,684,481, exclusive of value added tax, divided into:

- Construction and improvement of the Si Rat - Outer Ring Road Expressway Baht 625,663,881
- Repair of the Structure of the Si Rat Expressway Baht 154,020,600

### 2. On May 29, 2019

the Executive Board's Meeting of the Company resolved to grant approval for the Company to jointly invest in the High-Speed Rail Linking Three Airports (Don Mueang- Suvarnabhumi-U-Tapao) Project by way of holding five percent of the registered capital of Eastern High-Speed Rail Linking Three Airports Company Limited in the amount of Baht 200 Million, including exercise of the right in purchase of shares for capital increase in proportion to the price at the par value upon Eastern High-Speed Rail Linking Three Airports Company Limited's capital increase from Baht 4,000 Million to Baht 35,000 Million; and on October 24, 2019, Eastern High-Speed Rail Linking Three Airports Company Limited executed the Agreement for Joint Investment for the Hi-Speed Rail Linking Three Airports Project with the State Railway of Thailand.

### 3. On July 2, 2019,

the Company executed the Contract for the Improvement of Machinery and Equipment for the Tap Water Production and Distribution System for the Banglen Water Treatment Plant (Phase 1) with TTW Public Company Limited, for the operation period of approximately 540 days and with the estimated contract value of Baht 349,692,000, exclusive of valued added tax.



#### **4. On August 16, 2019,**

the Company executed the Contract for the Repair of the Structures of the Si Rat Expressway, Period 4, Phase 3, Sector B (Urupong - Bang Khlo), and the Improvement of the Structures of the Si Rat Expressway and the Si Rat - Outer Ring Road Expressway with Bangkok Expressway and Metro Public Company Limited, for the operation period of approximately 12 months and with the estimated contract value of Baht 233,255,144, exclusive of value added tax.

#### **5. On September 23,**

2019, the Company executed the Contract for the Construction of the Medical and Public Health Service Integration Center for Chulalongkorn Hospital, the Thai Red Cross Society, Pathumwan Subdistrict, Pathumwan District, Bangkok, with the Thai Red Cross Society, for the operation period of approximately 1,280 days and with the estimated contract value of Baht 2,160,000,000, including value added tax.

#### **6. On December 4, 2019,**

the Company executed the Contract for Construction of the Rama III - Dao Khanong - Western Outer Ring Road Expressway Project, Contract 4 (Civil Work), with the Expressway Authority of Thailand, for the operation period of approximately 1,170 days and with the estimated contract value of Baht 6,636,192,131.80, including value added tax.

#### **7. On December 27, 2019,**

CKST Joint Venture (CH. Karnchang Public Company Limited and Sino-Thai Engineering and Construction Public Company Limited) executed the Construction Contract of Pipeline and Related Works on Ramkhamhaeng Road from Soi Ramkhamhaeng 12 to Hua Mak, together with the MRT Orange Line (Contract 2) of the Mass Rapid Transit Authority of Thailand with the Provincial Waterworks Authority, for the operation period of approximately 1,080 days and with the estimated contract value of Baht 188,093,866, including value added tax.



## 1.3 Shareholding Structure of Company Group

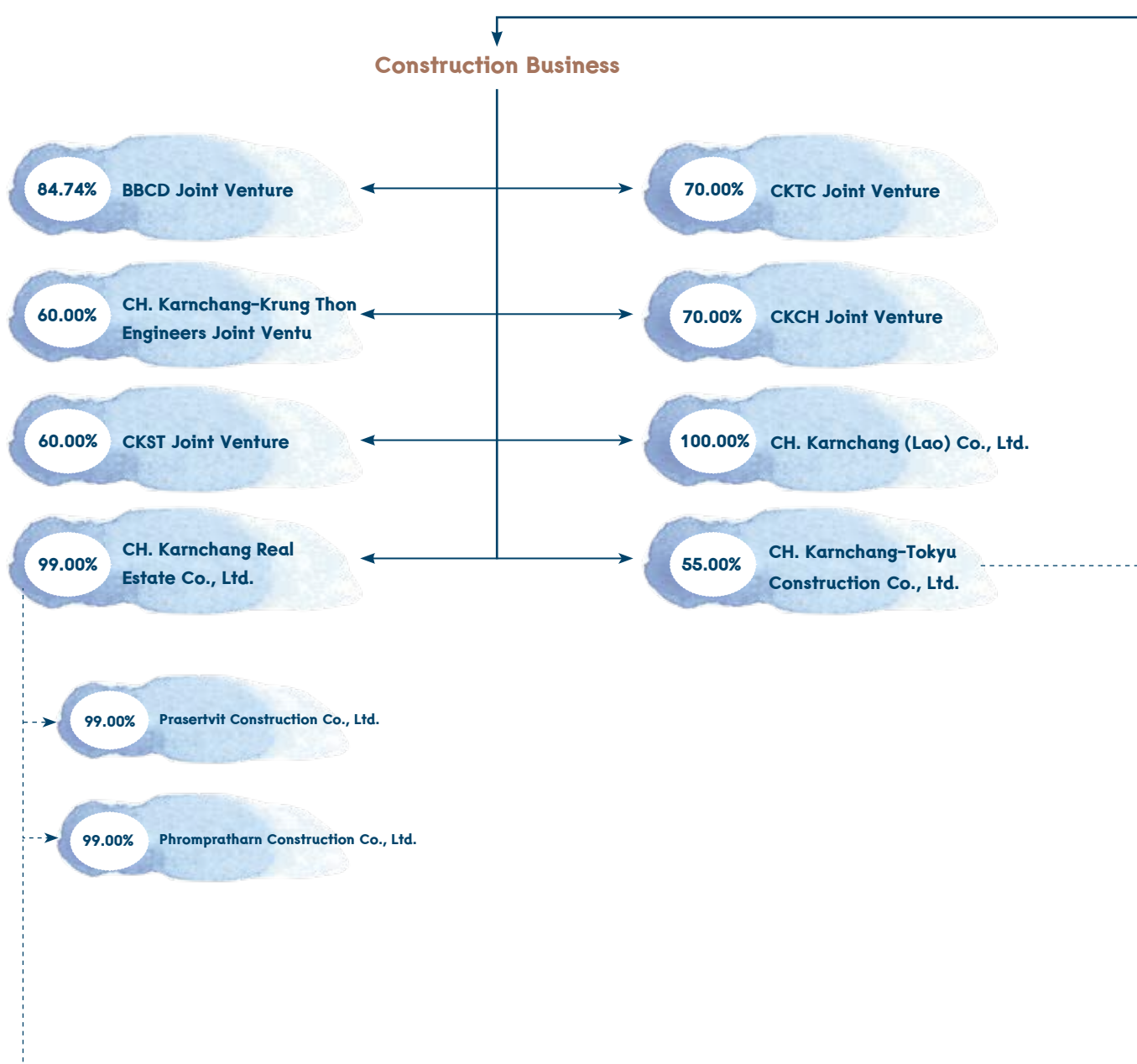
### 1.3.1 Policy on Business Grouping among Companies in the Group

The business operations of group companies are divided into two categories as follows:

- 1) Construction Business
- 2) Infrastructure Investment

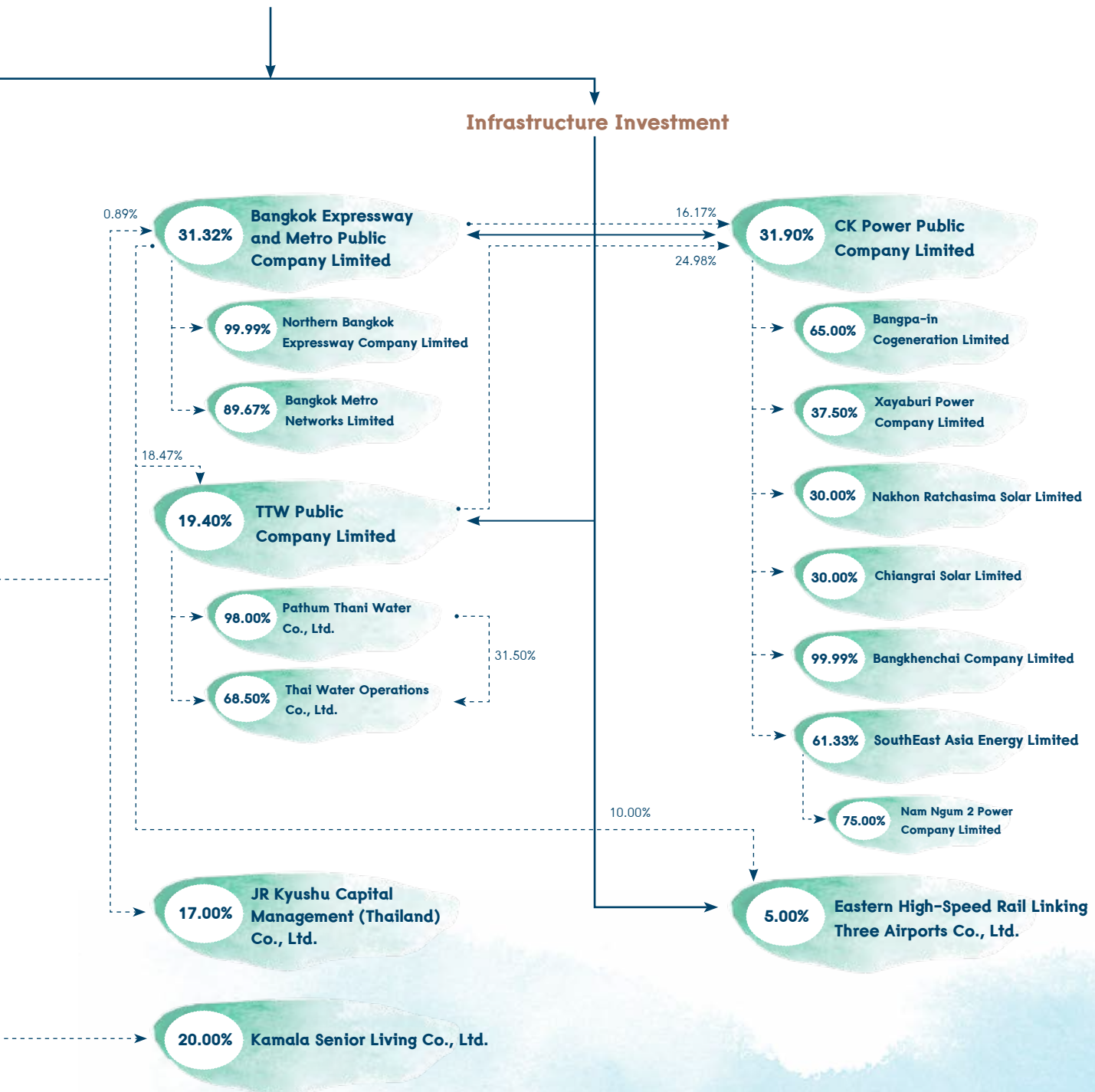
### 1.3.2 Information on Shareholding Structure of Company Group

Organization Chart of CH. Karnchang Public Company Limited  
(As at December 31, 2019)





## CH. Karnchang Public Company Limited



## Details of Business Operations of the Company, Subsidiaries, Associated Companies, Related Companies and Joint Ventures

### Construction Business

Joint Venture/Company Name	Shareholding Ratio	Nature of Work
1. CH. Karnchang (Lao) Co., Ltd.	100.00%	Construction of the Nam Ngum 2 Hydroelectric Power Project and the Xayaburi Hydroelectric Power Project
2. CH. Karnchang Real Estate Co., Ltd.	99.00%	Trading of Land, Allocation of Land and Residential Buildings
3. Phrompratharn Construction Co., Ltd.	99.00% of shares held by CH. Karnchang Real Estate Co., Ltd.	Construction
4. Prasertvit Construction Co., Ltd.	99.00% of shares held by CH. Karnchang Real Estate Co., Ltd.	Construction
5. CH. Karnchang-Tokyu Construction Co., Ltd.	55.00%	Construction of All Kinds
6. BBCD Joint Venture comprising Bilfinger + Berger AG, CH. Karnchang Public Company Limited and Dyckerhoff & Widmann AG	84.74%	Construction of the (Bang Na - Bang Pli - Bang Pakong) Expressway
7. CKTC Joint Venture comprising CH. Karnchang Public Company Limited and Tokyu Construction Co., Ltd.	70.00%	Operations for Construction Project of the MRT Purple Line, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section; Contract 1: Elevated Structures (East)
8. CH. Karnchang-Krung Thon Engineers Joint Venture comprising CH. Karnchang Public Company Limited and Krung Thon Engineers Company Limited	60.00%	Operations for Construction of Phra Ong Chao Chaiyanuchit Canal Conduit System - Bang Phra Reservoir and Appurtenant Structures Contract 1 Project, Project for Diversion of Water from Eastern Chao Phraya River Basin - Bang Phra Reservoir, Chon Buri Province
9. CKCH Joint Venture comprising CH. Karnchang Public Company Limited and Ch. Thavee Construction Co., Ltd.	70.00%	Construction of Double Track Railroad, Chira Junction - Khon Kaen Section
10. CKST Joint Venture comprising CH. Karnchang Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited	60.00%	Construction of the MRT Orange Line Project (East Section), Thailand Cultural Centre - Min Buri Section, Contracts 1, 2 and 5 : Construction of Manholes and Electric Conduit for the MRT Line ; Contract 1 and 2 : Construction of Piping Installation for the MRT Line, Contract 2



## Infrastructure Investment

Joint Venture/Company Name	Shareholding Ratio	Nature of Work
1. Bangkok Expressway and Metro Public Company Limited	31.32%	Expressway and Metro Services, including Commercial Development in connection with the Metro and Expressway Systems
2. Northern Bangkok Expressway Company Limited	99.99% of shares held by Bangkok Expressway and Metro Public Company Limited	Construction and Management of the Udon Rathaya Expressway
3. Bangkok Metro Networks Limited	89.67% of shares held by Bangkok Expressway and Metro Public Company Limited	Commercial Development Business
4. TTW Public Company Limited	19.40%	Tap Water Production and Distribution for the Provincial Waterworks Authority in Nakhon Pathom Province and Samut Sakhon Province
5. Pathum Thani Water Co., Ltd.	98.00% of shares held by TTW Public Company Limited	Tap Water Production and Distribution in Pathum Thani and Rangsit
6. Thai Water Operations Co., Ltd.	68.50% of shares held by TTW Public Company Limited and 31.50% of shares held by Pathum Thani Water Co., Ltd.	Administration and Management of Tap Water Production and Distribution Systems and Wastewater Treatment System
7. CK Power Public Company Limited	31.90%	Holding Company by holding shares in other companies engaging in electricity production and distribution businesses
8. Bangpa-in Cogeneration Limited	65.00% of shares held by CK Power Public Company Limited	Construction and Management of Two Cogeneration Power Projects for Production of Electricity and Steam, namely, BIC 1 with the production capacity of 117.5 MW for electricity and that of 20 tons per hour for steam; and BIC 2 with the production capacity of 120 MW within Bang Pa-in Industrial Estate to generate and distribute electricity to the Electricity Generating Authority of Thailand (EGAT) and industrial operators in Bang Pa-in Industrial Estate
9. Xayaburi Power Company Limited	37.50% of shares held by CK Power Public Company Limited	Construction and Operation of the Xayaburi Hydroelectric Power Project
10. Nakhon Ratchasima Solar Limited	30.00% of shares held by CK Power Public Company Limited	Construction and Operation of the Project for Electricity Generation by Solar Energy, with a production capacity of 6 MW, to generate and distribute electricity to the Provincial Electricity Authority (PEA)
11. Chiangrai Solar Limited	30.00% of shares held by CK Power Public Company Limited	Construction and Operation of the Project for Electricity Generation by Solar Energy, with a production capacity of 8 MW, to generate and distribute electricity to PEA
12. Bangkhenchai Company Limited	99.99% of shares held by CK Power Public Company Limited	Construction and Operation of the Project for Electricity Generation by Solar Energy, with a production capacity of 8 MW, to generate and distribute electricity to PEA
13. SouthEast Asia Energy Limited	61.33% of shares held by CK Power Public Company Limited	Investment and Development of Power Production Business in the Lao People's Democratic Republic (Lao PDR)
14. Nam Ngum 2 Power Company Limited	75.00% of shares held by SouthEast Asia Energy Limited	Production and Distribution of Electricity from the Hydroelectric Power Project, as the concessionaire from the government of the Lao PDR under the concession for the Nam Ngum 2 Hydroelectric Power Project, with a production capacity of 615 MW
15. Kamala Senior Living Co., Ltd.	20.00% of shares held by CH. Karnchang Real Estate Co., Ltd.	Development and management of the elderly residential project located at Tambon Kamala, Amphoe Kathu, Phuket Province
16. JR Kyushu Capital Management (Thailand) Co., Ltd.	17.00% of shares held by CH. Karnchang-Tokyu Construction Co., Ltd.	Holding Company by holding shares in other companies engaging in businesses of hotels and serviced apartments for rent
17. Eastern High-Speed Rail Linking Three Airports Company Limited	5.00% 10.00% of shares held by Bangkok Expressway and Metro Public Company Limited	Operation of the High-Speed Rail Linking Three Airports (Don Mueang- Suvarnabhumi-U-Tapao) Project

#### 1.4 Relationship with Business Group of Major Shareholders

The Company's core business operations have no material relationship or connection with other business operations of the major shareholders.





# 2. Nature of Business Operations

CH. Karnchang Public Company Limited is operating the primary business of construction by accepting engagements from government agencies, state enterprises and private entities, in the form of main contractor or sub-contractor, and in collaboration with foreign contractor companies in the form of joint ventures for construction projects which cannot be separated into work portions or volumes for the respective joint venture members. Each joint venture member is responsible for profit or loss in accordance with the ratio as agreed upon in respect of every work portion. The joint investment may also be in the form of consortium, in case such construction project can be separated into work portions and volumes for the respective members who shall be independently responsible for profit or loss. The works of this nature are mostly various projects of the government.

Based on the vision and policy, the Company focuses on personnel development for enhancement of management potential and for business expansion to ensure the Company's sustainable growth, opportunities and superior capabilities beyond being a construction company alone. The Company has thus invested in regional, comprehensive infrastructure project development business, currently, including transportation system, mass rapid transit system, water infrastructure system, energy system, etc. Details of both business operations are as follows:

## 1) Construction Business

The construction business operations of the Company, its subsidiaries and joint ventures can be divided into two natures, namely:

(A) Main Contractor :	(B) Sub-contractor:
<p>The Company directly submits proposals in its own name, as contractor through bidding process or negotiation, to project owners. In case of a large-scale project, which requires specialized foreign companies for joint operation, the Company submits proposals in cooperation with specialized foreign companies in accordance with the requirements of the project owners. In the acceptance of projects in this manner, the Company does not solely carry out the entire construction work, but subcontracts parts of such work. In the nomination of sub-contractor(s), the Company takes into account the creditability and previous achievements of the sub-contractors, without reliance upon or adherence to any particular sub-contractor.</p>	<p>The Company accepts work from other contractors that were awarded the work directly from project owners. The work of this nature would mostly be related to the production process utilizing large sized and sophisticated machinery, usually operated by foreign companies, and requiring construction contractors with various capabilities and fields of experience. A single main contractor does not have adequate experience and skills to proceed with all steps of the work. In this respect, the Company would consider accepting engagement as sub-contractor from main contractors with reputation and good financial standing only, and would accept parts of such subcontract work by taking into account the Company's sufficient capabilities. Such work of this nature allows the Company to have the opportunity to accept transfer of technology in respect of engineering, production process and management, as well as business alliance with sufficient capability and readiness to carry out large-scale projects which require more advanced technology in the future.</p>



## 2) Infrastructure Investment

In addition to the construction business, the Company also has invested in regional, comprehensive infrastructure project development business. Currently, the Company has invested in transportation system, mass rapid transit system, water infrastructure system, and energy system. These projects are differently carried out in the form of Build-Operate-Transfer (BOT) or Build-Transfer-Operate (BTO) or Build-Own-Operate (BOO) or Build-Own-Operate-Transfer (BOOT), etc. For such projects, with a long concession period and high valued investments, the Company establishes associated companies and related companies to carry out various arrangements.

Based on the said manner of the infrastructure investment, the definition of each respective form can be described below.

Build-Operate-Transfer (BOT) :	Build-Own-Operate (BOO) :
<p>Private entity shall be granted the right under a concession agreement from the government for investment in construction and implementation to derive returns within a specified period and during the implementation, the ownership of the property shall remain vested in the private entity. After the end of the concession period, the ownership of the invested property shall be transferred to the government in consideration of the grant of the concession.</p>	<p>Private entity shall carry out construction and management by its own investment. The ownership of the invested property is vested in the private entity. However, the private entity shall have an agreement with the government to guarantee revenue on a long term basis, whereby the government agency shall purchase goods during the term of the agreement and upon expiration of the concession period, such property shall remain vested in the investing company.</p>
Build-Transfer-Operate (BTO) :	Build-Own-Operate-Transfer (BOOT) :
<p>Private entity shall carry out the design, investment and construction of property, the ownership of which shall be transferred to the government immediately after the construction completion. The private entity shall be granted the right to utilize such invested property under the concession agreement to derive returns within a specified period. During the period the Company is still entitled to utilize such property under the concession period, the Company records such property in the form of the right to utilize, which is amortized throughout the concession period.</p>	<p>Private entity shall be granted the right of concession by the government for financing, design, construction, and service operations during the specified period of time, provided that the ownership of the property shall be transferred to the government upon the end of such specified period of time.</p>

**Engagement Ratio of CH. Karnchang Public Company Limited and its Subsidiaries  
Based on Engagement**

Unit : Million Baht

Value of Work	2016		2017		2018		2019	
	Million Baht	%	Million Baht	%	Million Baht	%	Million Baht	%
Main Contractor	45,705.06	97.20	35,899.69	95.15	29,292.30	93.96	23,002.94	92.77
Sub-contractor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Income (project management income, dividend, etc.)	1,314.48	2.80	1,830.99	4.85	1,883.27	6.04	1,793.57	7.23
<b>Total</b>	<b>47,019.54</b>	<b>100.00</b>	<b>37,730.68</b>	<b>100.00</b>	<b>31,175.57</b>	<b>100.00</b>	<b>24,796.51</b>	<b>100.00</b>

**Revenue Structure (Consolidated Financial Statements)**

Unit : Million Baht

Products	Operated by	% Share holding of the Company	2016		2017		2018		2019	
			Revenues	%	Revenues	%	Revenues	%	Revenues	%
<b>Revenues from Construction Services</b>	CH. Karnchang Public Company Limited	-	17,179.81	36.54	12,718.49	33.71	10,916.31	35.02	9,782.88	39.45
	CH. Karnchang (Lao) Co., Ltd.	100.00	24,181.04	51.42	14,252.18	37.77	6,281.59	20.15	4,265.83	17.20
	CH. Karnchang-Tokyu Construction Co., Ltd.	55.00	1,948.82	4.14	2,807.85	7.44	1,216.34	3.90	1,166.93	4.71
	CKTC Joint Venture	70.00	79.13	0.17	16.89	0.05	9.26	0.03	6.46	0.03
	CKCH Joint Venture	70.00	2,313.73	4.92	5,205.42	13.80	6,456.78	20.71	2,075.78	8.37
	CH. Karnchang-Krung Thon Engineers Joint Venture	60.00	2.54	0.01	-	-	-	-	-	-
	CKST Joint Venture	60.00	-	-	898.86	2.38	4,412.02	14.15	5,705.06	23.01
	<b>Total Revenues from Construction Services</b>		<b>45,705.06</b>	<b>97.20</b>	<b>35,899.69</b>	<b>95.15</b>	<b>29,292.30</b>	<b>93.96</b>	<b>23,002.94</b>	<b>92.77</b>
<b>Construction Revenue from Public Sector</b>			<b>6,525.10</b>	<b>14.28</b>	<b>10,793.59</b>	<b>30.07</b>	<b>13,926.98</b>	<b>47.54</b>	<b>9,825.35</b>	<b>42.71</b>
<b>Construction Revenue from Private Sector</b>			<b>39,179.96</b>	<b>85.72</b>	<b>25,106.10</b>	<b>69.93</b>	<b>15,365.32</b>	<b>52.46</b>	<b>13,177.59</b>	<b>57.29</b>
<b>Revenue from Sales of Construction Materials</b>	CH. Karnchang Public Company Limited	-	-	-	1.00	0.00	3.50	0.01	6.86	0.03
	Construction Material Supply Co., Ltd.	99.99	62.75	0.13	22.00	0.06	-	-	-	-
	CKCH Joint Venture	70.00	-	-	0.12	0.00	0.14	0.00	-	-
	CKST Joint Venture	60.00	-	-	-	-	-	-	-	-
	CKTC Joint Venture	70.00	0.47	0.00	-	-	-	-	-	-
<b>Total Revenue from Sales of Construction Materials</b>			<b>63.22</b>	<b>0.13</b>	<b>23.12</b>	<b>0.06</b>	<b>3.64</b>	<b>0.01</b>	<b>6.86</b>	<b>0.03</b>
Interest Income			355.42	0.76	738.05	1.96	816.48	2.62	876.19	3.53
Dividend Income			464.63	0.99	464.64	1.23	464.71	1.49	464.64	1.87
Other Income <sup>(1)</sup>			431.21	0.92	605.18	1.60	598.44	1.92	445.88	1.80
<b>TOTAL<sup>(2)</sup></b>			<b>47,019.54</b>	<b>100.00</b>	<b>37,730.68</b>	<b>100.00</b>	<b>31,175.57</b>	<b>100.00</b>	<b>24,796.51</b>	<b>100.00</b>

- Remarks:** (1) Other income comprises gain on sales of investments in subsidiaries and associated companies, revenue from reversal of provision for doubtful debts, gain on exchange, miscellaneous income, etc.
- (2) The figures of revenue from the respective companies as indicated in the foregoing table have been net of connected transactions.

## 2.1 Description of Products and Services

### 2.1.1 Construction Business

The Company has experience and expertise in engineering and construction of all categories, such as, infrastructure construction work, e.g., roads, bridges, elevated roads, expressways, building and industrial factory construction work, or mechanical and electrical equipment work, namely, installation of equipment and machinery for various factories, etc. Considering the previous revenue structure and present projects, the construction may be divided into four primary categories as follows:

1. **Building construction** work can be divided into two major categories, namely, medium and high level buildings, with a height of 15 or more stories. The building construction work comprises three major systems, i.e., structure, interior and exterior designs, and system work, including electricity, water supply, air-conditioning, elevator, drainage and fire extinguishing systems. Furthermore, the Company also improves the efficiency and expands the capabilities of the Company in turnkey construction projects. In this regard, the Company shall be responsible for the design and construction of the structural system, decoration as well as the entire system work for the project owner or employer in accordance with the design and period as agreed upon in the contract. The policy to enhance the capabilities for such turnkey projects allows the Company's customers to obtain full scale services.
2. **Road**, national highway and other roadwork construction comprise the country's basic infrastructure work owned by the government to accommodate the expansion of the national economy in the future. In the past, various government infrastructure services have not yet grown in line with the private sector requirements, thereby resulting in the increased expansion of the national highway system, as evidenced by a number of new projects, such as, traffic lane expansion projects, interchange construction projects, etc. In this regard, the Company also foresees a good trend for construction work of such nature, therefore, the Company has developed its capabilities and competition strategies to the extent that the Company has presently become one of the leading company groups in the construction of such special highways as construction of expressway projects and elevated roads, etc.
3. **Infrastructure** construction work involves the development of the national infrastructure system, which was included in the National Economic Development Plan No. 7 (1992-1996) and continued in the National Economic Development Plans No. 8 (1997-2001), No. 9 (2002-2006), No. 10 (2007-2011), No. 11 (2012-2016), and No. 12 (2017-2021). In addition, the Office of the National Economic and Social Development Council (NESDC) formulated the 20-Year National Strategy Framework (2017- 2036), as the master plan of the national development with the Sustainable Development Goals (SDGs), as well as the national reforms in line with the Thailand 4.0 Policy, divided into 6 primary strategies, comprising:
  - (1) Strategy for national security;
  - (2) Strategy for underpinning competitiveness;
  - (3) Strategy for competency development and enhancement of teachers;
  - (4) Strategy for creating equitable and fair society;
  - (5) Strategy for environmentally-friendly growth;
  - (6) Strategy for balancing and development of public administration system.

Investment in development of infrastructure and logistics referring to development of infrastructure in the fields of transportation, support of development of transportation system, development of logistics, development of energy, development of digital economy-information technology system, and research and development of tap water system, are part of the strategy for underpinning competitiveness. In this connection, the Company always plays a role in collaboration with the public sector for investment in the expansion of infrastructure system, which serves as a fundamental requirement to the national development. The development of various infrastructure systems may be divided into such categories as transportation, energy, communications, water system and other infrastructure systems. With the long experience and work achievements of the Company, the Company always has advantages and opportunities to accept a variety of infrastructure construction projects.



4. **Such construction which could not be categorized** comprises other construction work outside of the foregoing categories, namely, medium to small-sized construction projects, which, due to the Company's experience and previous quality performance, were awarded to the Company, e.g., project for land improvement phase 1 in Suvarnabhumi Airport, the Ground Improvement for the 1st Midfield Satellite Aprons and the 3rd Runway Project of New Bangkok International Airport Company Limited, the Construction of Drainage Canal and Road with Facilities Phase 1 Project, Drainage System Project in Suvarnabhumi Airport, Samut Prakan Province, and the Construction of Phra Ong Chao Chaiyanuchit Canal Conduit System - Bang Phra Reservoir and Appurtenant Structures Contract 1 Project, etc.

In the participation in the bidding for government construction works, bidders are generally required to complete the registration as permitted contractors prior to participating in any bidding for projects of such government agencies as the Department of Highways, the Department of Royal Irrigation, etc. The registration of contractors also involves the rating of the capabilities of the respective contractors to identify the size of projects in which these contractors would be qualified to participate. At present, the Company has already registered as contractor with various agencies and is rated as type 1 contractor. As for the initial qualifications for such registration, the government agencies shall take into account three primary requirements, namely, experience and achievements; financial position; including the number and qualifications of personnel. The government agencies generally categorize the preliminary qualifications into five levels, and each level shall be eligible to submit bids for construction at different project values. However, when the Company is rated as type 1 contractor, the Company is then eligible to bid for all types of projects. In the past, the Company has not been restricted to participate in bidding for various construction projects since the Company is fully qualified under the requirements in all respects.

#### 2.1.2 Infrastructure Investment

The Company has invested in infrastructure project development business by participating in bidding for various concession projects of the government, which involve the infrastructure systems, and has also established various companies for investment in and management of such projects, as follows:

1. **Bangkok Expressway and Metro Public Company Limited (BEM)** which was incorporated by the amalgamation under the Public Limited Companies Act B.E. 2535 (1992) between Bangkok Expressway Public Company Limited (BECL) and Bangkok Metro Public Company Limited (BMCL) on December 30, 2015, and assumed all assets, rights, obligations, and responsibilities of both companies by virtue of the law. As at December 31, 2019, the 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 each. The main businesses are to provide the expressway and rail mass rapid transit services, as well as commercial development in connection with the expressway and metro systems, which will serve as the foundation in business expansion through extension of routes and service network in both expressway and metro systems in the future, and can also expand to other businesses with good growth and yield rates, such as, other infrastructure projects, commercial development, or real estate development, both in the country and overseas, etc. In this regard, BEM and one of its subsidiaries, i.e., Northern Bangkok Expressway Company Limited (NECL), were granted concession for construction and operation of the expressways, comprising the Si Rat Expressway (Sectors B and C), the Si Rat Expressway (Sector D), the Si Rat - Outer Ring Road Expressway, and the Udon Rattaya Expressway. BEM was also granted concession for provision of the rail mass rapid transit service for two projects, namely, the MRT Blue Line Project, comprising 1) the M.R.T. Chaloem Ratchamongkhon Line Project, Hua Lamphong Station - Bang Sue Station Section, Hua Lamphong Section - Lak Song Station Section, and Bang Sue Station - Tha Phra Station Section; and 2) the M.R.T. Chalong Ratchadham Line Project (Khlong Bang Phai Station - Tao Poon Station). BEM holds shares in its subsidiaries, as follows:

### 1.1 Northern Bangkok Expressway Company Limited (NECL)

NECL's registered capital amounted to Baht 6,000 Million, divided into 294 million ordinary shares and 306 million preferred shares, at the par value of Baht 10 each, Baht 5,250 Million of which were paid-up. As at December 31, 2019, BEM held shares representing 99.99 percent of its registered capital. NECL executed an agreement with the Expressway Authority of Thailand for construction and operation of the Udon Rattaya Expressway for a period of 30 years from September 27, 1996. The Udon Rattaya Expressway's route is northbound, connecting with the Si Rat Expressway at Chaeng Watthana Road, passing Bang Phun, Chiang Rak, and ending at Bang Sai.

### 1.2 Bangkok Metro Networks Limited (BMN)

BMN's registered capital amounted to Baht 254 Million, divided into 25.4 million ordinary shares, at the par value of Baht 10 each, Baht 254 Million of which were paid-up. As at December 31, 2019, BEM held shares in BMN representing 89.67 percent of its registered capital.

At present, BMN is a sole representative of BEM in management of commercial development in the MRT Blue Line Project currently operated by BEM which has granted the right to BMN to serve as its representative in management of commercial development, namely, supply and procurement of advertising media in various forms in the areas of the metro stations and inside the trains, lease of retail shops in the metro stations of the M.R.T. Chaloem Ratchamongkhon Line Project, and the basement level of the park and ride facility at Lat Phrao Station, as well as provision of service and maintenance of telecommunication system equipment inside the metro stations and tunnels.

2. **TTW Public Company Limited (TTW)** operates the business of generation and distribution of water to the Provincial Waterworks Authority (PWA) in the vicinity of West Bangkok, covering the areas of two provinces, namely, Nakhon Pathom Province in three districts, i.e., Amphoe Nakhon Chai Si, Amphoe Sam Phran, Amphoe Phutthamonthon, and Samut Sakhon Province in two districts, i.e., Amphoe Krathum Baen and Amphoe Mueang Samut Sakhon.

TTW has executed the Water Purchase Agreement with the Provincial Waterworks Authority (PWA) for a period of 30 years on a BOO basis and TTW was granted concession for the tap water business operation by the Ministry of Natural Resources and Environment. TTW has distributed the water to the PWA since January 5, 2004.

Currently, TTW has two water treatment plants, namely, 1) Banglen Water Treatment Plant located in Amphoe Banglen, Nakhon Pathom Province, with the production capacity of 440,000 cubic meters per day; and 2) Krathumbaen Water Treatment Plant located at Tambon Khlong Maduea, Amphoe Krathum Baen, in Samut Sakhon Province, with the initial production capacity of 100,000 cubic meters per day, serving as the reserve water production plant. Currently, TTW's total maximum production capacity for the two plants accounted for 540,000 cubic meters per day, with the minimum off-take quantity to which the PWA has committed amounting to 354,000 cubic meters per day. TTW holds shares in its subsidiaries and associated companies, as follows:

- 2.1 **Pathum Thani Water Co., Ltd. (PTW)** is TTW's subsidiary, with the registered capital amounting to Baht 1,200 Million, divided into 12 million ordinary shares, at the par value of Baht 100 per share, with the paid-up capital amounting to Baht 1,200 Million. As at December 31, 2019, the Company's shareholding proportion in PTW represented 98 percent of the registered capital (another two percent of its shares were held by the Provincial Waterworks Authority). PTW operates the business of production and distribution of water to the PWA in the vicinity of

Pathum Thani - Rangsit on a Build-Own-Operate-Transfer (BOOT) basis for a period of 25 years. PTW commenced its business operation in 1998 onwards. Currently, PTW's production capacity accounted for 488,000 cubic meters per day, with the minimum off-take quantity to which the PWA has committed amounting to 358,000 cubic meters per day.

**2.2 Thai Water Operations Co., Ltd. (TWO)** is TTW's subsidiary, with the registered capital amounting to Baht 60 Million, divided into 600,000 ordinary shares, at the par value of Baht 100 per share, with the paid-up capital amounting to Baht 60 Million. As at December 31, 2019, the Company's shareholding proportion in TWO represented 68.50 percent of the registered capital (another 31.50 percent of its shares were held by PTW). TWO operates the business of management and maintenance of tap water production system and wastewater treatment system for TTW, PTW, the Bang Pa-in Industrial Estate, the Amata City Chonburi Industrial Estate, and the Amata City Rayong Industrial Estate.

**2.3 CK Power Public Company Limited (CKP)** which is a listed company on the Stock Exchange operates the main business as holding company by holding shares in other companies operating the business of production and distribution of electricity. CKP has the registered capital in the total amount of Baht 9,240 Million, divided into 9,240 million ordinary shares, at the par value of Baht One per share, with the paid-up capital amounting to Baht 8,129 million. As at December 31, 2019, TTW's shareholding percentage in CKP represented 24.98 percent of the registered capital.

**3. CK Power Public Company Limited (CKP),** which operates the main business as holding company by holding shares in other companies operating the business of production and distribution of electricity from various kinds of energy, both in the country and overseas. CKP's core revenue under the consolidated financial statements is derived from revenue from sales of electricity and steam, and project management income. As at December 31, 2019, CKP invested by holding shares in other companies operating the business of production and distribution of electricity from various kinds of energy, e.g., hydroelectric power plants, cogeneration power plants, and solar power plants, with the total installed production capacity of 2,167 MW, comprising the installed production capacity of 2,164 MW from the power plants with commercial operation, and the installed production capacity of 3 MW from the power projects under construction. The details of investments in each project are as follows:

**3.1 SouthEast Asia Energy Limited (SEAN):** CKP holds shares in SEAN representing 61.33 percent of its registered and paid-up capital. SEAN invests in the development of power production business in the Lao PDR and provides consulting, including other services relating to the power production project. Currently, SEAN holds shares in Nam Ngum 2 Power Company Limited (NN2) representing 75 percent of its registered and paid-up capital. Therefore, SEAN's core revenue under the consolidated financial statements is derived from the dividend from revenue from sales of electricity of NN2.

NN2 is a generator and distributor of electricity from the Nam Ngum 2 Hydroelectric Power Plant, whereby NN2 was granted concession by the Lao PDR. The Concession Agreement is being operated on a BOOT (Build-Own-Operate-Transfer) basis, that is, NN2 will design, develop, construct and operate the hydroelectric power project from the Nam Ngum 2 Hydroelectric Power Plant, with the installed production capacity of 615 MW, and with a concession period of 25 years from the Commercial Operation Date ("COD"). Upon expiration of the concession period, NN2 shall deliver such Nam Ngum 2 Hydroelectric Power Plant to the Lao PDR. In this regard, NN2 has the right under the agreement to request an extension of time for the Concession Agreement, subject to the terms and conditions to be agreed upon. Under the Concession Agreement, NN2 is obliged to pay the consideration for the concession and taxes to the Government of the Lao PDR according to the schedule and at the rate as specified in the Concession Agreement.



NN2 produces and distributes electricity from the Nam Ngum 2 Hydroelectric Power Plant to the Electricity Generating Authority of Thailand (“EGAT”) under the Power Purchase Agreement, with the supply targets to be purchased by EGAT from NN2 of 2,310 GWh (million units) per year at the fixed tariff, and with a concession period of 25 years from the COD. The electricity will be delivered for distribution in Thailand through EGAT’s transmission system. NN2 initially commenced the electricity production and distribution (Initial Operation Date or “IOD”) to EGAT on March 26, 2011 and the COD was January 1, 2013.

**3.2 Xayaburi Power Company Limited (XPCL):** CKP holds shares in XPCL representing 37.5 percent of its registered and paid-up capital. XPCL is a company registered in the Lao PDR and is awarded the concession by the Government of the Lao PDR for the design, development, construction and operation of the Xayaburi Hydroelectric Power Plant for a period of 31 years from the Commercial Operation Date (“COD”).

The Xayaburi Hydroelectric Power Plant is a large run-of-river hydropower project on the Mekong River downstream, within the boundary of the Lao PDR, approximately 80 kilometers south of Luang Prabang Province, and approximately 160 kilometers from Amphoe Chiang Khan, Loei Province. Its installed capacity is 1,285 MW, with its production capacity to sell approximately 1,220 MW of electricity to EGAT under the Power Purchase Agreement for 29 years from the COD, and 60 MW of electricity to Electricit du Laos (EdL) under the Power Purchase Agreement between EdL and XPCL, for the period under the Concession Agreement.

The Xayaburi Hydroelectric Power Plant commenced the production and distribution of electricity during the initial period (Unit Operation Period or “UOP”) to EGAT on April 4, 2019, with its COD commencing on October 29, 2019.

**3.3 Bangpa-in Cogeneration Limited (BIC):** CKP holds shares in BIC representing 65 percent of its registered and paid-up capital. BIC is a generator and distributor of electricity and steam from the cogeneration power system by using natural gas as fuel, comprising two projects, namely, the Bangpa-in Cogeneration Power Plant No. 1 (BIC1) and the Bangpa-in Cogeneration Power Plant No. 2 (BIC2), both located in the Bang Pa-in Industrial Estate, Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province. BIC1 has the installed production capacity of 117.5 MW for electricity and 20 tons per hour for steam, executing the Power Purchase Agreement with EGAT for 90 MW for a period of 25 years from the Commercial Operation Date. The remaining electricity and steam will be sold to the industrial operators in the Bang Pa-in Industrial Estate. The Commercial Operation Date of BIC1 was on June 28, 2013. BIC2 has the installed production capacity of 120 MW for electricity, executing the Power Purchase Agreement with EGAT for 90 MW for a period of 25 years from the Commercial Operation Date. The remaining electricity will also be sold to the industrial operators in the Bang Pa-in Industrial Estate. The Commercial Operation Date of BIC2 was on June 29, 2017.

**3.4 Bangkhenchai Company Limited (BKC):** CKP holds shares in BKC representing 99.99 percent of its registered and paid-up capital. BKC has invested in the Bangkhenchai Solar Power Plant, located in Amphoe Pak Thong Chai, Nakhon Ratchasima Province, employing the thin film photovoltaic module technology, with the installed production capacity of 8 MW. BKC executed the PowerPurchase Agreement for the Very Small Power Producer (“VSPP”) with the Provincial Electricity Authority (“PEA”) on July 28, 2009, for a period of five years from the Commercial Operation Date which is automatically renewable for another five years each, and which remains enforceable until the Agreement is terminated. According to such Power Purchase Agreement, PEA agrees to purchase power at the maximum volume of 8 MW, and the Bangkhenchai Solar Power Plant will receive the adder at the rate of Baht 8 per kilowatt-hour (unit) for a period of 10 years from the Commercial Operation Date. BKC commenced the production and distribution of electricity to PEA on August 10, 2012.

Moreover, BKC started to invest in construction of five solar rooftop power plants and one solar farm power plant, with the total installed production capacity of 6.7 MW, for production and distribution of electricity to the private operators. Each of such projects is bounded by the power purchase agreement for a period of 25 years from the Commercial Development Date. The following are such mentioned projects:

- The solar rooftop project in Amphoe Phachi, Phra Nakhon Si Ayutthaya Province (“Phachi Solar Power Plant”), with the installed capacity of 0.9 MW, commencing its electricity distribution in February 2019;
- The solar rooftop project in Amphoe Banglen, Nakhon Pathom Province (“Banglen Solar Power Plant”), with the installed capacity of 1.0 MW, commencing its electricity distribution in May 2019;
- The solar rooftop project in Amphoe Sam Phran, Nakhon Pathom Province (“Phutthamonthon Sai 5 Solar Power Plant”), with the installed capacity of 1.0 MW, commencing its electricity distribution in June 2019;
- The solar rooftop project in Amphoe Mueang Samut Sakhon, Samut Sakhon Province (“Mahachai Solar Power Plant”), with the installed capacity of 0.7 MW, commencing its electricity distribution in June 2019;
- The solar rooftop project in Amphoe Krathum Baen, Samut Sakhon Province (“Krathum Baen Solar Power Plant”), with the installed capacity of 0.5 MW, commencing its electricity distribution in July 2019; and
- The solar farm project in Amphoe Khlong Preng, Chachoengsao Province (“Khlong Preng Solar Power Plant”), with the installed capacity of 2.7 MW, which was currently pending preparation for construction.

**3.5 Nakhon Ratchasima Solar Limited (NRS):** CKP holds shares in NRS representing 30 percent of its registered and paid-up capital. NRS has invested in the Nakhon Ratchasima solar power plant, located in Amphoe Dan Khun Thot, Nakhon Ratchasima Province, with the installed production capacity of 6 MW, and also executed the Power Purchase Agreement for the Very Small Power Producer (“VSPP”) with PEA for a period of five years from the Commercial Operation Date which is automatically renewable for another five years each, and which remains enforceable until the Agreement is terminated. According to such Power Purchase Agreement, PEA agrees to purchase power at the maximum volume of 6 MW, and the Nakhon Ratchasima solar power plant will receive the adder at the rate of Baht 8 per unit for a period of 10 years from the Commercial Operation Date, and commenced the production and distribution of electricity to PEA on March 8, 2012.

**3.6 Chiangrai Solar Limited (CRS):** CKP holds shares in CRS representing 30 percent of its registered and paid-up capital. CRS has invested in the Chiangrai solar power project, located in Amphoe Mae Chan, Chiang Rai Province, with the installed production capacity of 8 MW and also executed the Power Purchase Agreement for the Very Small Power Producer with PEA for a period of five years from the Commercial Operation Date which is automatically renewable for another five years each, and which remains enforceable until the Agreement is terminated. According to such Power Purchase Agreement, PEA agrees to purchase power at the maximum volume of 8 MW, and the Chiangrai solar power plant will receive the adder at the rate of Baht 8 per unit for a period of 10 years from the Commercial Operation Date, and commenced the production and distribution of electricity to PEA on January 17, 2013.

## 2.2 Marketing and Competition

- (a) Overall in 2019, the Company continued to mainly emphasize the large-scale projects of the public sector, despite the fact that the large-scale projects of the public sector, especially in terms of communication and transportation, which in 2019, were not resulted in the expected bidding, due to the establishment of a new government under various ministers which caused such various projects (particularly mega projects) to be additionally considered.

Still, the Company executed the engagement agreements for a total of five projects, with the total project value of Baht 10,254.20 Million namely:

(Million Baht)

No	Project	Organization	Value (VAT inclusive)
1	Construction and Improvement of the Structures of the Si Rat - Outer Ring Road Expressway and Repair of the Structures of the Si Rat Expressway	Bangkok Expressway and Metro Public Company Limited (BEM)	834.26
2	Improvement of Machinery and Equipment for the Tap Water Production and Distribution System for the Banglen Water Treatment Plant (Phase 1)	TTW Public Company Limited	374.17
3	Repair of the Structures of the Si Rat Expressway Period 4, Phase 3, and Improvement of the Si Rat - Outer Ring Road Expressway	Bangkok Expressway and Metro Public Company Limited (BEM)	249.58
4	Construction of Medical and Public Health Service Integration Center for Chulalongkorn Hospital, the Thai Red Cross Society	Chulalongkorn Hospital, the Thai Red Cross Society	2,160.00
5	Rama III - Dao Khanong - Western Outer Ring Road Expressway Project, Contract 4	Expressway Authority of Thailand	6,636.19

Other than the foregoing projects for which the Company won the bids and executed the agreements, the Company, in collaboration with its business alliances, also succeeded in the bid for the High-Speed Rail Linking Three Airports Project, with the value of civil work amounting to approximately Baht 160,000 Million, on a PPP basis in the Eastern Economic Corridor (EEC), with the Company's investment proportion in such project accounting for five percent.

- (b) The Company not only has an interest in local projects, but also in overseas project on a PPP basis, namely, the Rangoon expressway construction project in the Republic of the Union of Myanmar, in alliance with its affiliated companies and local alliances, with the value amounting to approximately USD 300 Million, for the concession period (management and collection of tolls) of 35 years, with the proposal scheduled to be submitted in the first quarter of 2020, which the Company has initially passed consideration of the required qualifications.

With respect to the construction industry outlook 2020, it is anticipated that there would be various projects for which the government would not be able to drive bids in 2019, including new projects under the 2020 annual budget. Those projects have passed the required procedures of the government sector and are ready for bidding in the first - second quarter of 2020, including the PPP-based projects, with the total value in which Baht 167,272.14 Million, the Company has sufficient potential to participate in competitions for all such projects.

### 2.2.1 Significant Policies and Marketing for Products or Services

#### A. Competition Strategies

- **Use of Advanced and Highly Efficient Construction Technology:** At present, the construction techniques have remarkably developed, introducing choices for use of appropriate technology to save time, minimize production costs and control the work efficiency and quality. In this respect, the Company



continues to select and use appropriate, modern and safe technology, as well as the Company's work experience which is an essential factor minimize the production costs and increase profits. For example, in the expressway and elevated road construction projects, the Company utilized the technology of pre-casting system of concrete segments from such countries as Germany and the United States of America.

- **Appropriate Revenue Structure Management:** The Company has policies to manage its revenue structure and affiliated companies to be in line with the fluctuations of the economy as the construction work of the public and private sectors would usually expand at a fluctuating rate. In other words, during a highly growing economy with high demand for private sector construction, the government would minimize the inflation rate by way of restrictions on the expenditure budgets of the government agencies. During the economic downturn, the government would increase expenditure budgets to stimulate the economic expansion. In this regard, the Company sets policies to focus on various types of construction projects in line with the economic circumstances. In the construction business, the Company would focus on large-scale projects of the government and private entities, while the affiliated companies would focus on small to medium-scale projects of the government and private entities. The joint ventures would focus on large-scale construction projects from the government, which require use of advanced construction technology. Furthermore, the Company also additionally invested in various infrastructure concession projects, such as, TTW Public Company Limited, Pathum Thani Water Co., Ltd., Bangkok Expressway and Metro Public Company Limited, CK Power Public Company Limited (CK Power Public Company Limited invests by holding shares in SouthEast Asia Energy Limited, Bangpa-in Cogeneration Limited, Xayaburi Power Company Limited, Nakhon Ratchasima Solar Limited, Chiangrai Solar Limited, and Bangkhengchai Company Limited). The Company derived dividends from these companies, which serve to minimize risks from the fluctuation of economic circumstances due to the fact that the nature of construction works of the government and private entities usually grow at a fluctuating rate and the Company's revenue solely relies on construction business, and also serve to render the Company's revenue to become more constant.
- **Provision of Service to Maximum Benefits to Customers:** The Company promotes policies for development of personnel and teamwork, including study, research and development on advanced technology on a regular basis so as to achieve safe and highly efficient work and management system in response and giving rise to benefits to customers in terms of quality and satisfaction, and timely work completion.
- **Regular Personnel Quality and Management System Development:** The Company emphasizes the policies for development of personnel and management procedures to ensure versatile and flexible work structures, including procedures in response to the fluctuating business circumstances. This also gives rise to the opportunity to exchange advanced technology with foreign investors to render the management flexible and develop personnel to have more knowledge and skills.

#### **B. Characteristics of Customers and Relationships among Customers, the Company and Subsidiaries**

The construction clientele of the Company and its subsidiaries can be divided into two groups, namely government agencies or state enterprises, and private sector. The characteristics of the Company's customers could not be divided into definite ratios given the fact that the customers are different in terms of periods and nature of their projects. However, considering the projects in the past, most of the Company's customers are the government agencies and state enterprises in the country. The target customer group of the Company and its subsidiaries at present include the government agencies, state enterprises and large-sized private entities. As at December 31, 2019, more than 62.2 percent of the Company group's revenue structure in the future for backlog projects represented the works for the public sector, and 37.8 percent of the same represented the works for the private sector. In this regard, the work from the private sector would mostly constitute extension projects from the government concession operations of affiliated companies, e.g., Bangkok Expressway and Metro Public Company Limited and TTW Public Company Limited, etc.

Concession Business: This business depends on concession contracts of companies in the group. The customer under the concessions granted to TTW Public Company Limited and Pathum Thani Water Co., Ltd. is the Provincial Waterworks Authority, as a government agency, and the customers under the concessions granted to Bangkok Expressway and Metro Public Company Limited are the public using the services, as well as the customer under the concessions granted to SouthEast Asia Energy Limited, Xayaburi Power Company Limited, Bangpa-in Cogeneration Limited is the Electricity Generating Authority of Thailand, the customer under the concessions granted to Nakhon Ratchasima Solar Limited, Chiangrai Solar Limited, and Bangkhenchai Company Limited, is the Provincial Electricity Authority and the Concession Agreement of Xayaburi Power Company Limited Served its customers, comprising the Electricity Generating Authority of Thailand and Electricite' du Laos.

#### Summary of Top 10 Major Customers as at December 31, 2019

Name of Employers		% of Total Revenues from Construction Services (Consolidated Financial Statements) As at December 31, 2019
1	Bangkok Expressway and Metro Public Company Limited	33.14
2	Mass Rapid Transit Authority of Thailand	26.02
3	Xayaburi Power Company Limited	18.54
4	State Railway of Thailand	9.02
5	Department of Highways	7.39
6	TTW Public Company Limited	0.50
7	Metropolitan Electricity Authority	0.29
8	Mae Fah Luang University	0.14
9	Chulalongkorn Hospital - The Thai Red Cross Society	0.10
10	Expressway Authority of Thailand	0.04
11	Others	4.82
Total		100.00

#### C. Distribution and Channels

Given that the construction business mainly entails direct approach to customers, with a Business Development Department having duty to be mainly responsible for monitoring and following up on information and details in respect of investment plans for new projects of the public and private sectors by planning and setting up strategies to have access to and analyze the information of the target groups and competitors in the same industry, as well as establishing good relationship with government agencies and private entities in order to increase the Company's opportunities for competitions. The fact that the Company focuses on bidding for construction and concession projects from government agencies, whether in

the form of main contractor or sub-contractor, and that the Company's previous achievements, which have been acceptable and satisfactory to customers, serve as a channel to approach and be recognized by all target customers, for which the Company participated in bidding for their projects, and some construction projects were awarded to the Company through the recommendation by the Company's existing customers.

## 2.2.2 Competition in Construction Industry

### A. Trend of Growth and Development of Construction Industry

The construction industry in 2019 did not achieve the expected growth, due to the government's inability to drive various projects under the operation plan or the budget, particularly the rail transport system projects of both the State Railway of Thailand and the Mass Rapid Transit Authority of Thailand. Meanwhile, as for other projects such as large-sized building or special building work, e.g., hospital buildings which had a few competitors, the Company was able to succeed in the bid and execute one project.

### B. Industrial Structure Relating to Competition

In general, construction contractors may be divided into three groups as follows:

1) **Small and medium-sized contractors:** The contractors in this group shall have the capacity to accept construction work projects with low value, the majority of these works shall be derived from private entities or small-sized projects of the public sector, which requires moderate technology and investment funds. This group includes a number of contractors, thereby resulting in a rather high competition in pricing and being highly vulnerable to impacts from fluctuation in the industry.

2) **Large-sized contractors:** The contractors in this group have goals in respect of their acceptance of various large-scale projects, requiring a rather high construction technology, from the public and private sectors, and have capabilities to carry out various types of works in such projects. Certain contractors also have companies in the same group serving as producers of construction materials to be used in such projects, and are well prepared in terms of their personnel's expertise and experience in diversified works and high professional standard, including tools and machinery. This group includes a small number of contractors and the competition in this group is moderate. Certain contractors also accept work overseas, including creation of works by way of investment for concession, namely, CH. Karnchang Public Company Limited, Italian-Thai Development Public Company Limited and Sino-Thai Engineering and Construction Public Company Limited.)

Company	As at December 31, 2019 (Unit: Million Baht) (Consolidated Financial Statements) (Source: Stock Exchange of Thailand)	
	Total Assets	Total Revenues
1. CH. Karnchang Public Company Limited	82,585.59	26,602.76
2. Italian-Thai Development Public Company Limited	103,789.90	63,213.04
3. Sino-Thai Engineering and Construction Public Company Limited	49,207.39	33,614.69

3) **Foreign contractors:** The contractors in this group are large-sized companies with advanced technology, mostly comprising companies from Japan, China and Europe, such as, Kajima Corporation, Obayashi, Kumagai, Siemens, Bilfinger, and China State. The business operations of these companies focus on accepting large-scale projects, requiring a rather high construction technology, in cooperation with large-sized construction companies in Thailand. Such cooperation is neither certain nor specific to establish a long-term business alliance, but the cooperation shall be selective on a case by case basis.



### 2.2.3 Market Share

In 2019, the Company succeeded in the bid for and executed the Contract for the Rama III - Dao Khanong - Western Outer Ring Road Expressway Project, Contract 4, representing construction of the cable-stayed bridge crossing the Chao Phraya River which required a high level of experience in work performance and complicated construction method, let alone two competitors which were joint ventures of Thai and foreign contractors.

The Company's main competitors not only were Thailand's large contractors, but also included overseas contractors, especially from China which played a more key role in projects, for instance, the Rama III - Dao Khanong - Western Outer Ring Road Expressway Project with a total of four contracts, three of which were successfully bid by Chinese contractors (in alliance with Thai contractors), and moreover, the Bangkok - Nakhon Ratchasima Hi-Speed Railway Project with a total of 14 contracts, all of which were bid by Chinese contractors.

#### Characteristics of Customers and Relationships

The Company has mainly focused on its customers which were government agencies in respect of construction projects of communication and transportation infrastructure, including construction projects of hospital buildings, etc.

With regard to the private sector projects, the Company has obtained concessions from its affiliated companies with the value accounting for approximately 14 percent of the projects executed in 2019 by the Company.

## 2.3 Procurement of Products or Services

### 2.3.1 Construction Materials, Products and Services

Significant construction materials and products produced in Thailand comprise cement, steel rods, structural steel, stones, sands, etc. The materials in architecture are, for example, sanitary ware, ceramic, granite, ceiling and wall, steel doors, aluminum doors and windows, wood doors and windows, PVC and equipment, as specified in the details of the construction contract. The Thailand Industrial Standards of the project owner shall be taken into account. The Company does not purchase construction materials exclusively from any particular distributor since the procurement procedure requires checking of price, quality, delivery of goods and reliability at all times to ensure obtaining the best distributor, both in respect of quality, price and service. The Company shall conduct evaluation of the distributor at least twice a year. Each procurement and engagement requires approval of the project owner and supervisor. The Company is also required to execute a procurement contract to ensure the best conditions and the price can be valid until the project completion. As for the service, the Company shall be responsible for the quality of the goods and service for a period of at least two years or under a contract with the project owner.

Construction materials and products from overseas import: The Company has a policy to purchase this type of materials via a local distributor, by taking into account the after sale service and experience of an agent. In case the materials are required to be directly purchased from overseas, the Company shall open letters of credit (L/C). Such materials from overseas shall meet the standard per the requirements of the project owner, such as, ASTM, BS, JIS, API, etc. In this regard, the terms and conditions of the L/C shall be carefully specified to minimize risks.

The Company has procured products and services under the quality management system, including the criteria for selection of manufacturers, suppliers and contractors, as well as regular review and inspection of product quality based on the performance of current manufacturers, suppliers and contractors, in order to confirm and assure at all times that the products and services after delivery to project owners are correct and complete in accordance with the agreed terms and conditions.

In procuring goods, products and services for use in various construction projects, the Company has selected suppliers/contractors with potential, experience, performance and qualifications for each work and checked prices, quality and delivery of goods that meet standards as required by owners in purchase orders for such goods, products and services.


The Company gives priority to raw materials which have environmental impact, for example, materials made of asbestos. With this reason, the Company then avoids using such materials and uses other materials which have no environmental impact instead. In the past, the Company had never received any report or complaint relating to violation of environmental laws.

In procuring products and services for construction in various projects of the Company based on categories of both domestic and overseas products, the Company has benefited from cooperation from various potential business partners which are major and retail manufacturers and suppliers of construction materials. Given the Company's improved operational results and continued business growth, the Company has more channels to procure and select goods, products and equipment in the construction from higher quality standard and qualified manufacturers and suppliers in line with the growth of the manufacturing industry. As a result, the Company is confident in its ability to supply quality goods, products and services in accordance with the requirements and objectives of project owners.

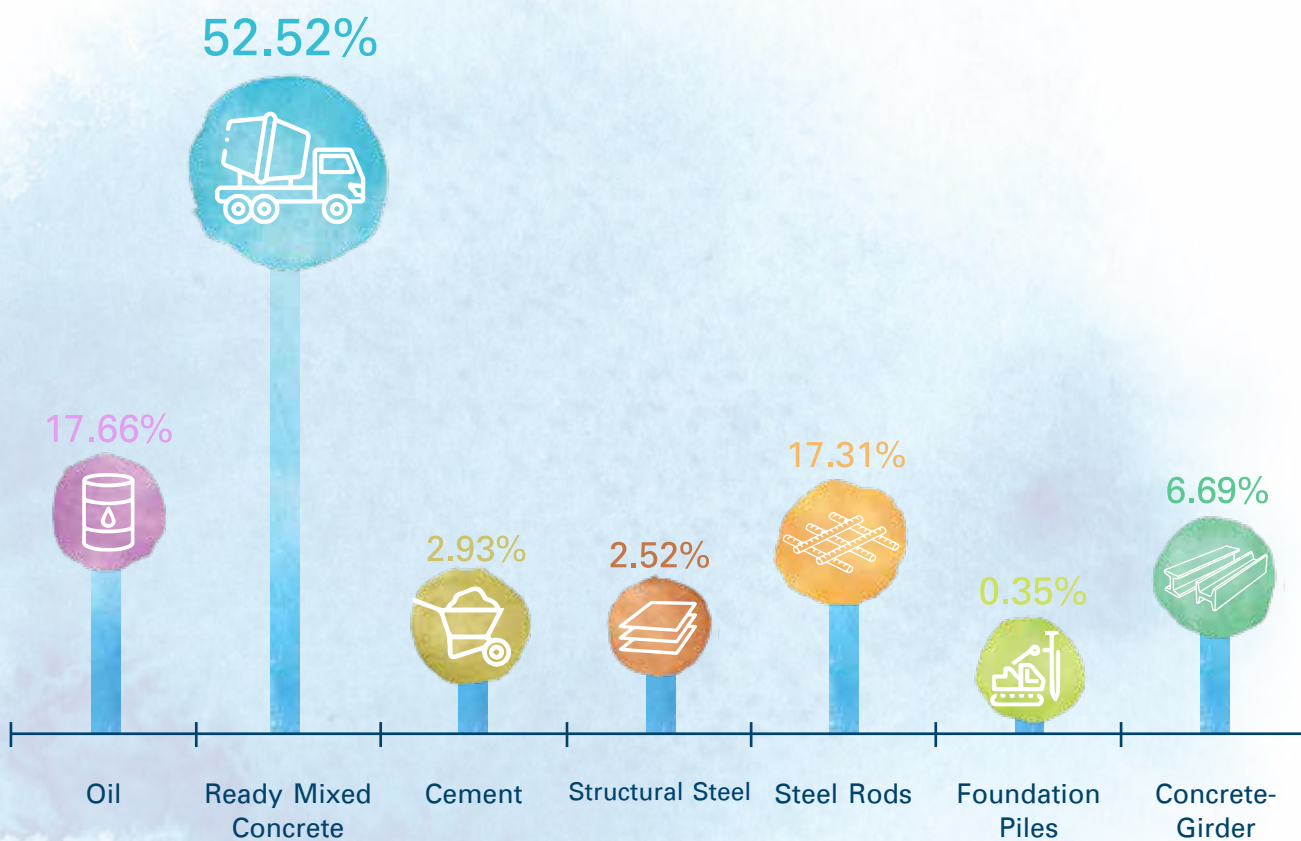
In addition, the Company has enhanced its potentials in respect of procurement of products and services, by introducing the ERP (Enterprise Resource Planning) system since 2009, to ensure that the procurement of products and services is improved, with a more systematic control and recording process, for example, process for issuance of purchase orders and inventory management, thereby resulting in an efficient inventory management and reduction of waste materials in construction projects.

In 2019, there was a slowdown in Thailand's economy; purchase order volume of key materials of all categories decreased and no purchase order was placed on certain categories, due to completion and termination of many projects. Prices of key materials of many categories declined, such as, ready-mixed concrete (cement), oil, steel rods, etc. However, as for the production capacity for goods in respect of key materials, it is expected that they remained sufficient for demand for domestic utilization, resulting from the private sector's confidence that in 2020, the government would implement the economic stimulus policy to generate the motivation in manufacturers for continuous production of goods.

#### Summary of Purchase Value of Key Materials in 2015 - 2019:

No	Description	2019 (Baht)	2018 (Baht)	2017 (Baht)	2016 (Baht)	2015 (Baht)
 1	Oil	301,000,000	452,100,000	359,000,000	120,000,000	94,000,000
 2	Ready Mixed Concrete	895,000,000	2,056,200,000	1,579,000,000	725,000,000	853,000,000
 3	Cement	50,000,000	94,900,000	108,000,000	32,000,000	27,000,000
 4	Structural Steel	43,000,000	114,800,000	134,000,000	562,000,000	44,000,000
 5	Steel Rods	295,000,000	1,808,900,000	539,000,000	690,000,000	1,087,000,000
 6	Foundation Piles	6,000,000	13,150,000	8,000,000	3,000,000	19,000,000
 7	Segment-Girder	114,000,000	25,900,000	242,000,000	243,000,000	11,000,000
 8	Concrete Sleeper	250,000	-	84,000,000	228,000,000	133,000
	<b>Total</b>	<b>1,704,250,000</b>	<b>4,565,950,000</b>	<b>3,053,000,000</b>	<b>2,603,000,000</b>	<b>2,135,000,000</b>

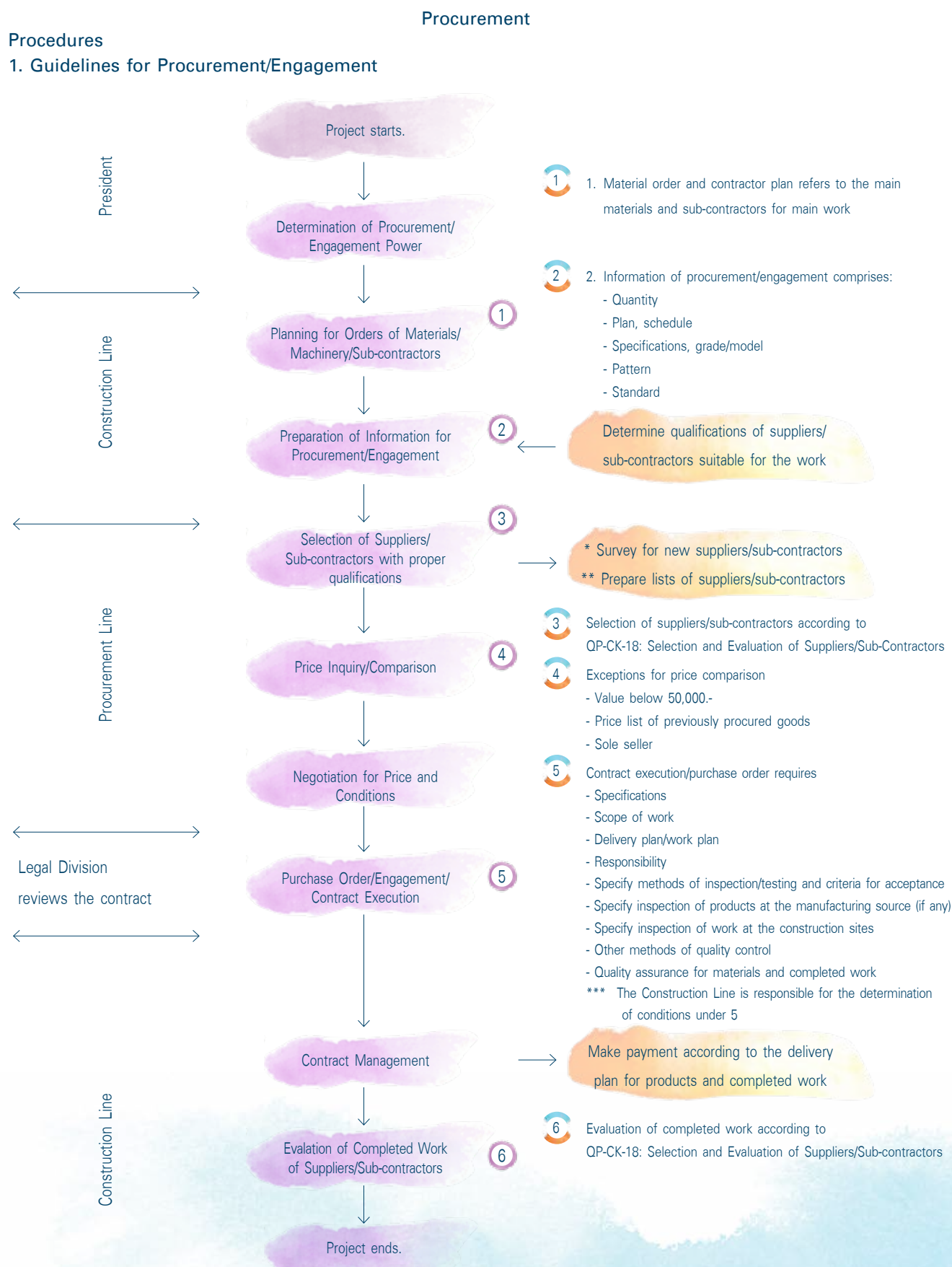
## Summary of Purchase Percentage of Key Materials in 2019 (%)





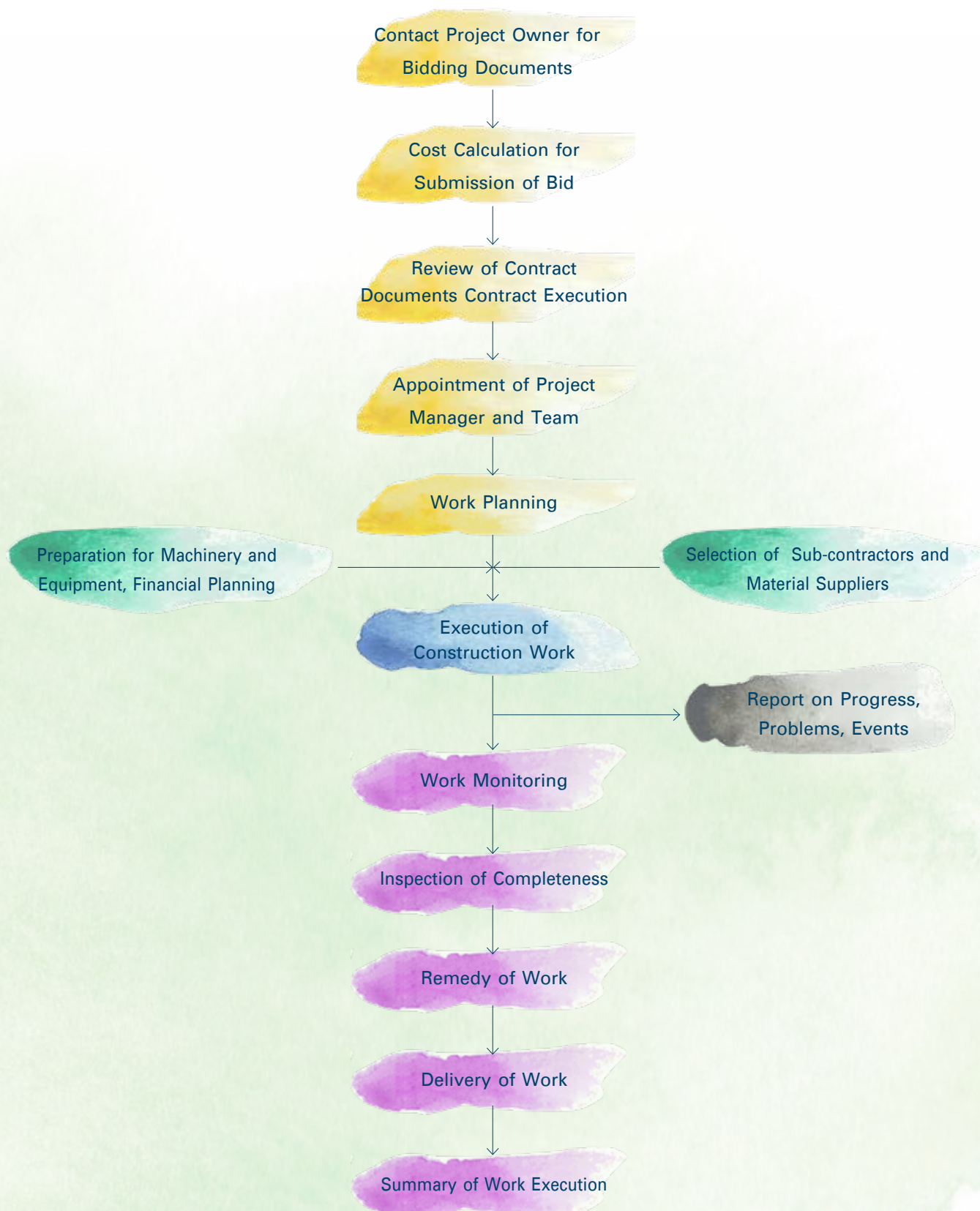
## Description of Procurement of Raw Materials

The Company procures raw materials from local and overseas sources as described above. The guidelines for procurement are as per the detailed procurement flow chart as follows:



### 2.3.2 Procedures for Production and Disposal of Unused Raw Materials

(1) The production procedures for construction work can be summarized as follows:



**A. Procedures for Acceptance of Work:** The Business Development Department shall be responsible to contact and procure construction work, which can be done in two manners, namely, direct contact from customers or submission of proposals to customers. Such information shall be derived from updates and news from various sources. Normally, the Company shall accept construction works by two methods as follows:

- **Negotiation:** The Company shall accept construction work through negotiation process without bid submission. The acceptance of construction work in this manner may be a result of either direct contact from customers or the Company's direct proposal of work to customers. The majority of work accepted by this method is usually such work from the existing customers with good relationships with the Company or those recognizing the Company's previous achievements or new customers with recommendation from the Company's existing customers.
- **Bidding:** The Company shall be informed of news regarding invitation to bid from various sources and participate in the bidding process in accordance with the following procedures:
  - Purchase of drawing and specifications and the bidding documents, as well as downloading documents in case of e-bidding;
  - Cost estimation;
  - Bidding.

The signing of a construction contract would take place after conclusion of prices and conditions.

**B. Procedures during Implementation:** After the Company has signed a construction contract, it shall be the duty and responsibility of the Construction Project Department to proceed as follows:

**Appointment of Project Manager:** The project manager shall serve as the project management center, and shall be responsible for the project in all respects, e.g., supervision of work to ensure timely completion and control of expenses within the specified budget, etc.

#### **Planning and Preparations for Construction by Project Manager:**

- **Construction Schedule Planning:** The work schedule should be planned in line with the conditions and delivery schedule;
- **Resource Planning:** Employment of staff should be prepared in line with the nature and volume of work, including engagement of minor contractors, procurement of material suppliers and planning for utilization of materials and machinery;
- **Preparation of Temporary Office:** During the construction, the production and delivery of work shall take place at the site of the customer or project owner, and it is the duty of the project manager to prepare various public utilities required for the work performance, such as, water, electricity, and staff quarters, etc.
- **Preparation of Detailed Work Plan:** The project manager shall prepare step by step work plans in line with timeframe to facilitate the work supervision so as to progress in accordance with the schedule and meet the standards required by the project owner.

**Construction:** During the construction, supervisors and foremen in the respective divisions shall jointly monitor and supervise the quality and progress of work to be in accordance with the schedule and timeframe, as well as ensure safety for operating staff and the public.

**Monitoring and Inspection:** The progress of work, costs, various overheads and budgets used in the construction must be verified, and the project manager shall receive reports from the relevant divisions.

**Report on Progress of Work:** This is a report on the details of the work performed, utilization of construction materials, costs, quality, quantity and progress of work, including various problems, which would be reported by the project manager to supervisor at the Head Office. In case there are problems, the supervisor will provide assistance and support to solve such problems.



**Inspection of Work Completeness:** This is the final inspection of work completeness prior to delivery. Generally, during the execution, the work would be inspected on a monthly basis. If any stage of such work fails to pass the inspection, the re-inspection would be scheduled. When the work passes the inspection, the completeness of the corrected work would be inspected prior to delivery of the work to the employer.

C. Post-Completion Procedures: At this stage, the Company would provide training to the employer, deliver necessary documents, e.g., As-Built Drawings, material quality and workmanship warranty documents, and other documents as specified in the contract to the employer. The employer would inspect the work completeness before returning the retention money and the performance bond to the Company after the expiration of the warranty period.

## **(2) Disposal of Unused Raw Materials**

The Company greatly emphasizes the significance of the environment and social development, along with the operations with work safety standard and environment in line with the relevant laws and regulations.

The Company and the subsidiaries have arranged for work safety and environmental standards for every project in line with the regulations, rules, laws and international standards, which at present renders the Company to receive the ISO 9001:2015.

Based on the aforesaid activities, the carrying out of various projects does not cause any impact on the society and environment, as well as reducing work-related accident statistics to an acceptable level. For instance, wastewater and effluents have been properly treated to ensure the sanitary condition before emission; unused materials and wastes from construction have been regularly collected and properly disposed of, i.e., hazardous materials shall be disposed of or handled by specialist. Unused materials, such as, steel rods, structural steel, sanitary ware, office equipment, shall be returned at the Company's central store for further use in other projects. Scrap of materials, such as, iron scraps, metal scraps, used tyres, in good condition, used engine oil, shall be put for sale to those wishing to recycle them for further use in proper work. This includes ongoing training for staff on safety and environment. Expenses in carrying out such various activities are considered one of the Company's costs. The Company has obtained various prizes, for example:

-  In 2000, outstanding award for minimizing environmental impact from the Mass Rapid Transit Authority of Thailand for Lumpini Station, Joint Venture BCKT;
-  In 2000, honorable award for minimizing environmental impact from the Mass Rapid Transit Authority of Thailand for Sukhumvit Station, Joint Venture BCKT;
-  In 2001, outstanding award for minimizing environmental impact from the Mass Rapid Transit Authority of Thailand for Sam Yan Station, Joint Venture BCKT;
-  In 2003, maximum construction work safety achievement with 5,000,000 working hours without lost time accident in Nakhon Pathom - Samut Sakhon Water Project, Joint Venture TWCK;
-  In 2015, outstanding award for administration and management of safety, occupational health and working environment from the Mass Rapid Transit Authority of Thailand for construction of the MRT Green Line Project, Bearing - Samutprakan Section, Contract 1;
-  In 2016, TCA Concrete Practice Award 2016: Silver Medal from Thailand Concrete Association for construction of the Xayaburi Run-of-River Project.
-  In 2017, the ASEAN Outstanding Engineering Achievement Project Award from the member countries of ASEAN Federation of Engineering Organizations (AFEO) in terms of expertise in various fields of engineering and continued support of engineering works beneficial to the society and the country, together with the organization management works in relation to engineering work, and continued support of activities of the Engineering Institute of Thailand.
-  In 2017, the Best Investor Relations Awards in the category of companies listed on the Stock Exchange of Thailand with market capitalization ranging from Baht 30,000 - 100,000 Million in SET Awards 2017 Event.

## 2.4 Undelivered Work

The details of undelivered work of the Company, its subsidiaries and joint ventures with the value exceeding 10 percent of the total revenue in the consolidated financial statements for the period ended December 31, 2019, are as follows:

Project Name	Nature of Work	Project Value (Million Baht)	Expected Year of Project Completion	% of Undelivered Work	Value of Undelivered Work (Million Baht)
CH. Karnchang (Lao) Co., Ltd. 1) Engineering, Procurement and Construction Contract for the Xayaburi Hydroelectric Power Project in The Lao People's Democratic Republic	Xayaburi Hydroelectric Power Plant	94,622	2021	4.1	3,879
<b>CKST Joint Venture</b> 1) Contract E1: Underground Civil Works, Thailand Cultural Centre-Ram Khamhaeng 12 Section, the MRT Orange Line (East Section) Project 2) Contract E2: Underground Civil Works, Ram Khamhaeng 12 - Hua Mak Section, the MRT Orange Line (East Section) Project 3) Contract E5: Depot and Park & Ride, the MRT Orange Line (East Section) Project	MRT MRT MRT	18,388* 19,137* 4,265*	2024 2024 2024	52.9 61.4 48.6	9,727 11,750 2,073
<b>CH. Karnchang Public Company Limited</b> 1) MRT Blue Line Hua Lamphong to Bang Khae and Bang Sue to Tha Phra: M&E Equipment Procurement, Construction and Management Contract 2) MRT Blue Line Hua Lamphong - Bang Sue : Maintenance Services and E&M Systems 3) The Construction of Rama 3 - Dao Khanong - Western Outer Ring Road Expressway Project : Contract 4 (Civil Work)	Supply and Installation of trains and the M&E Systems Maintenance Services on Infrastructure Expressway	21,393 4,048 6,202	2020 2027 2023	14.1 82.2 99.9	3,016 3,327 6,196

**Remarks:** \* The aforesaid project value has not yet included the provisional sum.

### 3. Risk Factors

CH. Karnchang Public Company Limited has a vision of becoming the leader in construction business and basic infrastructure developer, and considers it necessary to manage risks in its business under the changes in internal and external factors which might affect its operations. Risk management is considered a key instrument in the business administration to ensure efficient achievement, and is also regarded as a key factor in the good corporate governance. Therefore, the Company arranges for systematic risk management, monitoring and measures to continuously minimize risks. The Corporate Governance and Risk Management Committee is appointed to consider at the policy level, while management manages the overall risk management process of the organization, with a working team to perform daily routine works on behalf of the Corporate Governance and Risk Management Committee, in order to monitor and assess risks as well as prepare the risk management report at the unit level for submission to the Board of Directors for acknowledgement.

The Company has prepared a handbook on risk management and risk management plan as guidelines in the operations, as well as monitoring, assessment, and review of risks in line with both internal and external circumstances. The risk factors which might give rise to investors' investment risks are as follows:

#### 3.1 Risk from Major Shareholders Exceeding 25 Percent

As at September 4, 2019, the Company's major shareholder group was the Trivisvavet Group, holding shares in aggregate representing 31.19 percent of its registered and paid-up capital. Such shareholding percentage might enable the Trivisvavet Group to make material decisions in shareholders' meetings, as well as to seek resolutions on any other matters that require a majority vote of the shareholders' meeting, except such matters which shall be passed by three-fourths of votes of the shareholders' meeting under the laws or the Company's Articles of Association. Therefore, other shareholders of the Company might be at the risk being unable to collect votes to counterbalance and inspect such matters proposed by the major shareholders.

However, the Company realized the significance of power counterbalancing, and then clearly and transparently determined a scope of authority and responsibilities of various committees, as well as formulated measures for execution of connected transactions with directors, major shareholders, executives, controllers, including persons who might have a conflict of interests, whereby such persons shall not have the right to vote on such transactions. The Company also appointed the Audit Committee to independently serve the Board of Directors to ensure transparency and shareholders' confidence in their ability to review performance and counterbalance in the capacity as minor shareholders' representative, as well as help scrutinizing various matters for submission of the same to shareholders' meetings. The Company discloses information and complies with applicable rules and regulations of the SEC Office and the Stock Exchange, such as, connected transactions and transactions on acquisition and disposition of assets of the Company, etc., for the utmost benefit of the Company and all shareholders.

#### 3.2 Risk from Reliance on Customers in the Company Group Invested by the Company

The Company not only operates the construction business, but also invests in basic infrastructure development business on a regional level. Currently, the Company has invested in transportation and mass rapid transit systems, namely, Bangkok Expressway and Metro Public Company Limited (BEM), water infrastructure system, namely, TTW Public Company Limited (TTW), and power system, namely, CK Power Public Company Limited (CKP).

Therefore, in the Company's revenue structure, other than works for public and external private sectors, the Company has also accepted construction works from the companies invested by the Company. In 2019, the Company's revenue from construction services from BEM, Xayaburi Power Company Limited (whose shares were held by CKP), Bangpa-in Cogeneration Limited (whose shares were held by CKP), and TTW Public Company Limited, represented 52.18 percent of the revenue structure in 2019. Revenues from construction services are strategically responsible for the Company's sustainable and stable growth by integrating the construction business with investments in basic infrastructure projects for the national development, along with risk management and increase in long-term returns to shareholders from dividend. Moreover, the Company is a construction company with capabilities and competency to complete works at reasonable prices. The Company's acceptance of works from companies in the group then represented risk diversification in response to decreasing works for public or private sector, which would enable the Company to generate revenues from construction services from the company group invested by the Company



in various projects. Furthermore, the approval of transactions on engagement of companies and company group comply with the regulations of the Stock Exchange of Thailand.

### **3.3 Risk from Management and Risk from Delays in Projects**

The Company realized the risk from management and therefore, determined guidelines to prevent any flaws which might occur, by implementing the quality management system of ISO 9001:2015 to maintain the operation standards both in projects and in the Company's head office, taking into account the continued improvement of quality management system. The Company group also set out guidelines for staff improvement to ensure that staff have knowledge, skills, ethics and accountability towards the organization, including all stakeholders, so as to minimize and prevent damage which might be caused by such risk.

The Company obtained the international quality system standard accreditation of ISO 9001:2015, with the scopes of activities in the business of design, construction, and construction management for roads, bridges, buildings, landscape architecture, underground structure and tunneling, expressway, public transportation system, railway, and tap water production system, including raw water piping and tap water distribution systems, wastewater treatment plant, cogeneration power plant, hydroelectric power development, dam, high voltage transmission line and substation, oil piping, pipe installation, and construction of depot equipped with oil control system, mining work, rock quarry and mill.

Generally, risks from delays in various projects might be caused by delays on the part of employers or contractors or by events without any liable party.

Delays on the part of employers included, for example, site delivery, review and approval on various matters relating to construction work. These delays might affect the construction period and costs. However, the Company minimized risks from such delays through cooperation and coordination with employers to ensure successful completion of the construction works.

Delays on the part of contractors included, for example, shortages of construction materials. The Company prevented such problem by entering into forward agreements for purchase - sale of various materials, as evidenced by the signed agreements for purchase - sale of cements and metals to accommodate the Company's projects, of which contracts have already been executed.

Delays caused by any events without any liable party included, for example, natural perils. In the execution of a contract, there generally is a requirement for the contractor to take out insurance for various construction projects.

Based on the Company's past experience, the Company has never encountered any events caused by delays on the part of the Company group, but risks from delays caused by the Company's contractual party, such as, in the Bang Na - Bang Pli - Bang Pakong Expressway Construction Project, and the Company group rectified such circumstance by requiring the employer to promptly resolve such problems and the Company also accelerated the construction to meet the specified schedule.

### **3.4 Risk from Exchange Rate**

Given the fact that the Company group earned income and incurred costs in certain projects in foreign currencies, the fluctuation of the foreign currencies against Baht would affect the Company's costs or performance. The Company has managed the risk from exchange rate by matching revenue with expenses in foreign currencies, i.e., Foreign Currency Deposit (FCD). When the project incurs any expenses in foreign currencies, the Company shall use funds in the FCD account to pay such expenses. However, at present, there are two projects deriving income in foreign currency, namely, the Xayaburi Hydroelectric Power Construction Project and the Nabong Substation Construction Project in the Lao People's Democratic Republic (the Lao PDR). While there are two projects incurring certain costs in foreign currencies, namely, (1) the Xayaburi Hydroelectric Power Construction Project; and (2) the MRT Blue Line Project, Contract 6, which requires procurement of certain equipment and services from overseas. The proportion of revenues denominated in foreign currencies as compared to the total revenues in the consolidated financial statements represented 4.1 percent; and the proportion of costs denominated in foreign currencies as compared to the total expenses in the consolidated financial statements represented 15.3 percent as at December 31, 2019.

Details of assets and liabilities denominated in foreign currencies as at December 31, 2019 in the consolidated financial statements can be summarized as follows:

Unit : Million

Description	As at December 31, 2019		
	USD	YEN	EURO
<b>Assets</b>			
Bank deposits	12.44	8.61	19.68
Trade accounts receivable and retention money	0.01	-	-
<b>Total</b>	<b>12.45</b>	<b>8.61</b>	<b>19.68</b>
<b>Liabilities</b>			
Short-term loans from financial institutions	32.93	-	-
Trade accounts payable and retention for construction	0.96	44.49	5.76
<b>Total</b>	<b>33.89</b>	<b>44.49</b>	<b>5.76</b>
Assets (Liabilities), net	(21.44)	(35.88)	13.92
Assets (Liabilities), net (Million Baht)*	(645.65)	(9.88)	468.85

**Remark** \* Average exchange rate, The Bank of Thailand at the close of December 30, 2019.

### 3.5 Risk from Construction Material Price, Labor Cost and Fluctuation of Oil Price

The management of construction work contract in each project to gain the gross profit depends on the precise projection of the project cost and the control of the cost actually incurred within the specified projection. The factors of cost projection depend on not only construction material price and labor cost which fluctuate by the demand and supply circumstances, but also oil price, which is indirect cost towards the operating costs.

However, the Company group managed such risk through construction contracts in two manners as follows:

- In case of a construction contract with construction price adjustment in accordance with an escalation factor (K), such K factor would vary depending on the changing production costs, whereby such adjustment may not cover all increased costs of construction materials and labor, but would cover an increase of the construction material and labor prices beyond the projection, thereby giving rise to only a slight impact on the construction cost. As for the projects of the Company group, most customers were government sector, as at December 31, 2019, representing 62.2 percent of the remaining project value to be recognized as revenue in the future;
- In case of a construction contract with fixed costs or lump sum, whereby it does not specify or it is not possible to identify a K factor, which would mostly apply to turnkey projects, provisional sums would also be included to accommodate the case where the construction material costs would be included in the total project value. Most customers in this category were private sector, as at December 31, 2019, representing 37.8 percent of the remaining project value to be recognized as revenue in the future.

### 3.6 Risk from Changes of Government's Policies

Given the fact that the Company group's revenue structure in the future from the total value of projects in hand which would be recognized as revenue in the future, as at December 31, 2019, representing 62.2 percent, amounting to Baht 23,294 Million, involves works for the government sector. and The Company group's revenue therefore relates to the national budget spending, which depends on the economic growth rate and investment climate, including the political stability. As for the government projects for which the contracts have already been signed, the Company group did not have any risk from economic and political circumstances since such projects would be supported by the allocated budgets in the form of tied budgets, which represent guarantee of budgets to be spent by the government in such projects. Nevertheless, in respect of the government projects which were awarded to the Company group, but the contracts have not yet been signed, the government may hold a new bidding for such project based on the justifications of each project.

The Company group reengineered to expand its channel of revenue sources by way of project investment and management. The Company group thus expanded its investments to business activities which would derive more definite revenue, such as, the Company's investments in Bangkok Expressway and Metro Public Company Limited, which manages the expressway projects and the metropolitan rapid transit projects; Pathum Thani Water Co., Ltd., which produces tap water for sale to the Provincial Waterworks Authority for distribution to the public in Pathum Thani Province; through TTW Public Company Limited, which produces tap water for sale to the Provincial Waterworks Authority for distribution to the public in Samut Sakhon Province and Nakhon Pathom Province; CK Power Public Company Limited, which operates a business by holding shares in concession companies, e.g., SouthEast Asia Energy Limited, which generates electricity for distribution to the Electricity Generating Authority of Thailand; Nakhon Ratchasima Solar Limited, Chiangrai Solar Limited, Bangkhenchai Company Limited, which operate a business of solar cell power production plant; Bangpa-in Cogeneration Limited, which operates a business relating to public utilities on energy; and Xayaburi Power Company Limited, which would generate electricity for distribution to the Electricity Generating Authority of Thailand, and Electricite' du Laos etc. These projects are long-term concession projects which would not be affected by changes of government's policies.

### 3.7 Risk from Investments in Subsidiaries, Associated Companies, Jointy Operation, Related Companies and Other Companies

The Company group's structure comprises several subsidiaries, associated companies, including joint operation, related companies and other companies which accorded with the Company group's nature of business, namely, investment and construction of several projects, which are being implemented by different groups of investors. However, most joint operation are established with the objectives to carry out a few projects, and would be dissolved upon completion of the projects. In this respect, the number of companies or legal entities in the group would decrease accordingly. Risks that might be caused by investments in subsidiaries, associated companies, joint operation, related companies and other companies would be limited to the investments in each respective organization. In each investment, the Company would carefully conduct feasibility study of each project or company in addition to the consideration of the rate of return to be derived in the future. The Company might appoint third party advisors or specialists to serve in certain projects prior to submission of such matter to the Executive Board and the Board of Directors.

In this regard, the investment portfolios in the Company group generated share of profit and dividend income as follows:

(Unit : Thousand Baht)

Consolidated Financial Statements		
Company Name	Share of Profit (Loss) from Investments in Associated Companies During the Year	
	2019	2018
Bangkok Expressway and Metro Public Company Limited	1,560,376	1,479,706
CK Power Public Company Limited	250,884	178,402
Kamala Senior Living Co., Ltd.	(5,015)	(478)
<b>Total</b>	<b>1,806,245</b>	<b>1,657,630</b>

(Unit : Thousand Baht)

Separate Financial Statements		
Company Name	Dividend Income from Investment During the Year	
	2019	2018
Bangkok Expressway and Metro Public Company Limited	712,218	603,476
CK Power Public Company Limited	56,176	45,456
TTW Public Company Limited	464,446	464,446
CH. Karnchang-Tokyu Construction Co., Ltd.	-	27,500
Other companies	190	269
<b>Total</b>	<b>1,233,030</b>	<b>1,141,147</b>



### 3.8 Risk from Loans to Subsidiaries, Associated Companies, Jointly Controlled Entities, Related Companies and Other Companies

CH. Karnchang Public Company Limited had risks from loans to subsidiaries, associated companies, related companies and joint operation, namely, loans were provided for use as working capital. As at December 31, 2019, the Company had a balance of loans and accrued interest receivable in respect of subsidiaries, associated companies, related companies and jointly controlled entities in the amount, net of allowance for doubtful accounts, of Baht 12,551.56 Million, representing 17.17 percent of the total assets of the Company's separate financial statements, and as at December 31, 2018, the Company had a balance of loans and accrued interest receivable in respect of subsidiaries, associated companies, related companies and jointly controlled entities in the amount, net of allowance for doubtful accounts, of Baht 14,316.83 Million, representing 18.49 percent of the total assets under the separate financial statements. Such loans are to carry interest at the Minimum Loan Rate plus 0.25 percent (MLR + 0.25%) per annum during the construction period and the Minimum Loan Rate (MLR) from the Commercial Operation Rate (within the year 2019) The Loans are to be repaid or before than 2031. Moreover,

- 1) Subsidiaries were obligated to extend a fund to one associated company for use in development and management of the elderly residential project, with the remainder amounting to Baht 229 Million.
- 2) As at December 31, 2019, the Company provided guarantee for one of its subsidiaries, namely, CH. Karnchang (Lao) Co., Ltd. for credit facilities extended by banks and financial institutions in the total amount of Baht 19,953 Million for use in its construction projects.

Nevertheless, the Company has policies on management of risks that might occur from loans to subsidiaries, associated companies and jointly controlled entities, by accelerating and closely monitoring the debt repayment and significantly taking into account the necessity and justification of transactions as well as the Company's benefits. Such policies need to be approved by the Company's Audit Committee to scrutinize any possible consequences.

### 3.9 Risk from Interest Rate

As a result of the construction business and the infrastructure development business, the financial management is then essential for the business operations in order to have appropriate costs and liquidity for the business operations. The Company group does not have a policy for speculation from financial management, with the financial management in line with the business costs. The policy for financial risk management is then formulated as follows:

The Company group has established the business goal based on risk management system in terms of interest rate to make sure that it is in line with the core business of construction and long-term investment in infrastructure which generate clear income, the Company group has then managed the proportion of the financial cost structure to mostly stay at fixed interest rate which is consistent with the operating cost and clear income, due to the fact that work quality, comprehensive management of the Company group have been generally acknowledged; the Company's construction business is acceptable to the financial institutions, not to mention the fact that TRIS Rating affirmed the Company's credit rating and issue rating as at April 4, 2019 at A with stable Outlook level; as such, the Company group has been extended credits in various forms by the financial institutions; and debt instruments, for risk management in terms of interest rate, in 2019, the Company offered for sale debentures in the total amount of Baht 10,000 Million for three series, i.e., No. 1 with a three-year maturity term in an amount of Baht 3,000 Million at an interest rate of 2.46 percent; No. 2 with a five-year maturity term in an amount of Baht 3,500 Million at an interest rate of 2.49 percent; and No. 3 with a ten-year maturity term in an interest rate of 3.66 percent. Moreover, the Company repaid debentures in 2019 in the total amount of Baht 6,650 Million, comprising matured debentures for three series in the total amount of Baht 4,500 Million, and debentures with early redemption for two series in the total amount of Baht 2,150 Million at the interest rates of 4.19 percent and 4.32 percent, respectively. Under the consolidated financial statements as at December 31, 2019, the Company group had a burden of interest-bearing debts which consisted of a burden of debt bearing a fixed interest rate of 92.26 percent and that bearing a float interest rate of 7.74 percent.

## Emerging Risks

### 1. Risk from Technological Changes

Innovations have rapidly played a role in running various businesses, especially during the last decade, which was both an opportunity and a threat to the competitiveness, depending on the each organization's preparation for coping with technological changes. Despite the fact that the construction industry was still less affected by technology than other industries, the Company has recognized the significance of adaptation for such technological changes to sustainably maintain its business competitiveness. To that effect, the Company has formed a work team, in which knowledgeable and expert personnel are included, to follow up, analyze, assess impacts from such changes having a material effect upon the Company's business, and report to the high-ranking management to ensure a prompt response to any such changes. Furthermore, the Company has employed new technology for improvement of the current business operations.

### 2. Risk from Cyber Threats

Business operations and communication in organizations and between organizations nowadays rely more increasingly on technology; therefore, this poses a risk from cyber threats which may impact on security of commercial data and reliability of the Company. In 2019, the Company invested in an internal communication network system for linkage of data in business operations to boost work efficiency and secure data from loss and theft. Furthermore, the Company implements the firewall security measures to prevent any unauthorized persons from entering the network; has a backup system in place and uses new technology to help data storage in order to increase work efficiency and data security; and provides training for staff to be aware of data security risks.

### 3. Risk from Overseas Competitors

Owing to the current economic and social conditions with a worldwide declining growth rate, the Company has foreseen a risk from more fierce competition from its overseas competitors which have started to play a role in large-scale construction projects in the Southeast Asia, as a region with relatively high growth rate in infrastructure investment. The Company's many overseas competitors have high technological capabilities and advantages in financial costs; however, with the reputation for quality of construction works over the past 47 years and the strengths of the business alliances within the region, the Company believes in its competitiveness in construction business and the Company remains committed to business operations based on the vision with an aim of creating the regional strength through presentation of construction works which emphasize quality and timely completion to the contractual parties, while facilitating sustainable progress for the society and communities in which the Company has performed work. Nevertheless, to maintain the competitive advantage, the Company focuses on continuous improvement and development of the organization's potential and considers opportunities for joint investment with local and foreign trade partners whose core values are compatible with that of the Company in order to increase the strengths, improve the weaknesses, and ensure the greater competitiveness.

## 4. Assets for Business Operations

### 4.1 Summary of Property, Plant and Equipment

As at December 31, 2019, the Company and its subsidiaries had property, plant and equipment based on the book value, as follows:

Type of Assets	Nature of Ownership	Cost (Thousand Baht)	Net Value* (Thousand Baht)	Obligations
(1) Land and Improvements	Owner	6,040,896	5,497,089	(1)
(2) Buildings and Structures	Owner	2,241,253	1,447,489	N/A
(3) Building Improvement	Owner	111,748	70,112	N/A
(4) Machinery and Equipment	Owner	6,941,418	3,165,182	N/A
(5) Equipment, Furniture and Vehicles	Owner	654,926	96,162	N/A
(6) Assets under Construction	Owner	887,936	887,936	N/A
<b>Total Property, Plant and Equipment</b>		<b>16,878,177</b>	<b>11,163,970</b>	

**Remark** \* Net value refers to the book value at cost less the accumulated depreciation costs and provision for loss from impairments.

(1) The Company had restrictions on the sale, distribution, transfer, or creation of any obligations for of the Company's partial land under the Company's loan and debenture conditions.

#### 4.1.1 Land and Improvements

Details of Land	Ownership	Number of Title Deeds	Area (Rai-Ngan-Square wah)	Cost** (Thousand Baht)
1. Bangkok	CH. Karnchang Plc.	38	30-0-39	875,388
2. Nonthaburi	CH. Karnchang Plc.	4	2-1-48	6,356
3. Pathum Thani	CH. Karnchang Plc.	7	31-1-11	280,362
4. Pathum Thani	CH. Karnchang-Tokyu Construction Co., Ltd.	1	30-0-0	7,844
5. Samut Prakan	CH. Karnchang Plc.	14	410-2-76	1,417,934
6. Chon Buri	CH. Karnchang-Tokyu Construction Co., Ltd.	1	0-0-18	2,880
7. Saraburi	CH. Karnchang Plc.	11	202-2-48	114,419
8. Phra Nakhon Si Ayutthaya	CH. Karnchang Plc.	67	1,367-1-64	2,015,300
9. Chachoengsao	CH. Karnchang Plc.	20	301-1-34	151,945
10. Prachin Buri	CH. Karnchang Plc.	21	537-1-11	141,199
11. Prachuap Khiri Khan	CH. Karnchang Plc.	3	13-0-76	35,000
12. Loei	CH. Karnchang Plc.	5	29-0-18	34,432
13. Samut Sakhon	CH. Karnchang Plc.	5	49-3-2	957,837
<b>Total</b>				<b>6,040,896</b>

**Remark** \*\* The cost refers to the original cost of land, together with cost of land improvement.



#### 4.1.2 Office Buildings

Details of Buildings	Ownership	Location	Cost (Thousand Baht)
1. Office building, materials store, canteen, laboratory	CH. Karnchang Plc.	Bangkok	462,903
2. Office building, staff residence, materials store	CH. Karnchang Plc.	Phra Nakhon Si Ayutthaya	840,137
3. Office building, materials store, tool center	CH. Karnchang-Tokyu Construction Co., Ltd.	Pathum Thani	21,507
4. Temporary building	CH. Karnchang-Tokyu Construction Co., Ltd.	Chon Buri	400
5. Office building, warehouse building	CH. Karnchang Plc.	Loei	22,503
6. Office building, materials store, canteen	CH. Karnchang (Lao) Co., Ltd.	Lao PDR	631,617
7. Office building, asphalt plant	BBCD Joint Venture	Samut Prakan	3,297
8. Office building, residential building, parking area, canteen	CKCH Joint Venture	Khon Kaen	219,814
9. Office building, residential building, parking area, canteen	CKST Joint Venture	Bangkok	39,075
<b>Total</b>			<b>2,241,253</b>

## 4.2 Real Estate for Investment

As at December 31, 2019, the Company and its subsidiaries had real estate for investment based on the book value, as follows:

Type of Assets	Nature of Ownership	Net Value* (Thousand Baht)	Obligations
1. Land	Owner	603,325	None
2. Building Offices for Rent	Owner	144,903	None
<b>Total</b>		<b>748,228</b>	

**Remark** \*\* Net value refers to the book value at cost less the accumulated depreciation costs and provision for loss from impairments.

## 4.3 Intangible Assets

As at December 31, 2019, the Company and its subsidiaries had intangible assets based on the book value, as follows:

Type of Assets	Nature of Ownership	Net Value* (Thousand Baht)	Obligations
1. Computer Software	Owner	34,323	None

**Remark** \*\* Net value refers to the book value at cost less the accumulated depreciation costs.

## Investment Policy

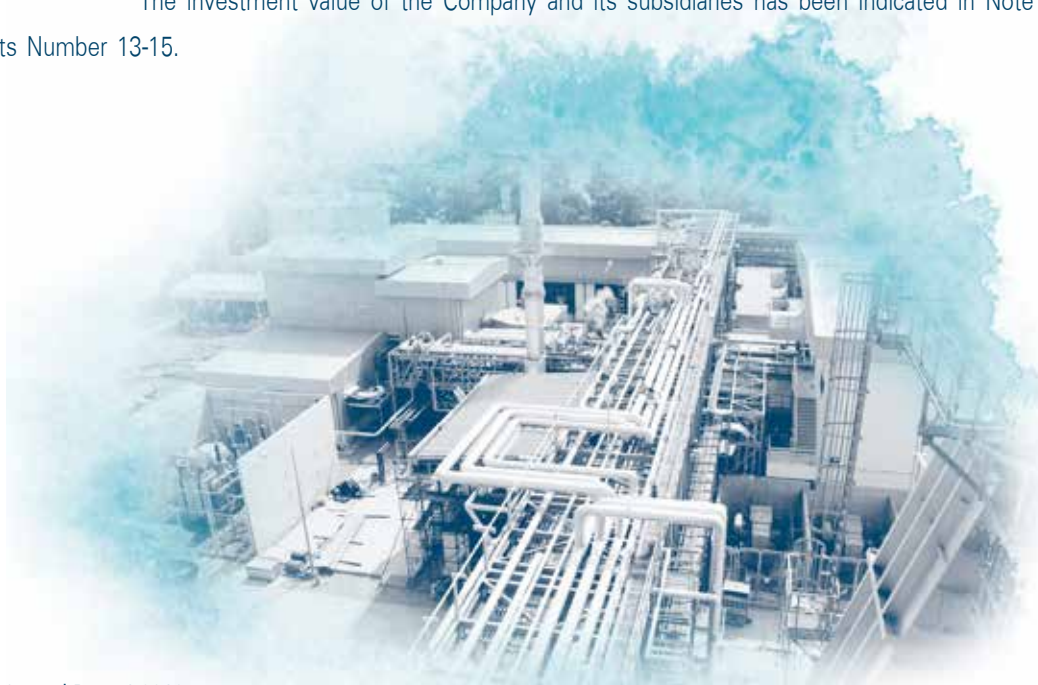
The Company has a policy to invest in such businesses which are relevant to the Company's primary business as follows:

**Infrastructure Concession Projects:** The Company considers that the results of operation of such business shall result in return, and enhance the Company's long-term cash flow, namely, the water production and distribution concession project in Pathum Thani Province for the Provincial Waterworks Authority, the MRTA Initial System Project, Chaloem Ratchamongkhon Line, and the water production and distribution project in Nakhon Pathom and Samut Sakhon Provinces for the Provincial Waterworks Authority, projects of design, development, construction and operation of the Nam Ngum 2 Hydroelectric Power Project and the Xayaburi Hydroelectric Power Project for production and distribution of electricity to the Electricity Generating Authority of Thailand, project of design, development, construction and operation of the Small Power Producers (SPP) for production and distribution of electricity and steam to the Electricity Generating Authority of Thailand and industrial operators in Bang Pa-in Industrial Estate, and project of business for production of electricity from solar power, etc.

**Construction Business, including Joint operation:** The Company also jointly invested with other investors with expertise in specific areas in major infrastructure construction projects, namely, expressway construction projects and the MRTA projects, which require specific techniques or know-how. In addition to the financial return to be received by the joint ventures and the Company, the Company will also benefit from new technology transfer from such joint ventures. Furthermore, it is clear that the joint ventures in the Company group earn satisfactory rates of return on investment.

With regard to the management principles, the Company shall appoint its representatives to jointly participate in the management, in cooperation with representatives of major shareholders according to the shareholding ratio. The decisions on various policies shall be mutually agreed upon among the major shareholders. In this regard, the investment ratio shall take into account the suitability and the rate of return of such project, along with other related factors, such as, technology and size of the project, etc. As for investment in subsidiaries, the Company shall appoint its representatives to act as executives. As for investment in joint ventures, the Company shall appoint its representatives to participate in the management and operations, whereby the roles and responsibilities shall be clearly allocated among other joint venture partners. However, the Company does not have any specific criteria as to its representation in the management of the joint ventures.

The investment value of the Company and its subsidiaries has been indicated in Note to the Financial Statements Number 13-15.



## 5. Legal Disputes

The Company or the subsidiaries have no legal disputes, to which the Company or the subsidiaries are a party or respondent, and which would give rise to negative impact on the assets of the Company or of the subsidiaries by more than 5 percent of the shareholders' equity as at the most recent accounting year end, and there is no lawsuit which would significantly affect the Company's business operations. In addition, the Company has no material lawsuit which is not resulted from the Company's ordinary course of business.

In 2000, Joint Venture BBCD claimed the increased costs from the Expressway Authority of Thailand (the employer), whereby the employer's consulting engineer considered the Joint Venture's claim and issued a letter confirming and accepting the certification of such increased costs. The Arbitral Tribunal then issued its arbitral award requiring the employer to pay the increased costs, together with interest, to the Joint Venture. Subsequently, the employer issued a letter notifying the Joint Venture that the employer had considered the matter and deemed it appropriate to comply with such arbitral award. On this ground, the Joint Venture recorded such amount as its assets and revenue in the financial statements for 2001 in proportion to the Company group's participation in the Joint Venture, representing approximately Baht 2,500 Million.

Due to the delay in payment of such costs, the Joint Venture filed a lawsuit against the employer with the Civil Court to enforce compliance with the said arbitral award. On December 30, 2003, the Civil Court adjudged enforcing compliance with the arbitral award, by requiring the Expressway Authority of Thailand (the employer) to make such payment to the Joint Venture in accordance with the arbitral award. Later in January 2004, the employer filed an appeal with the Supreme Court.

On February 15, 2007, the Supreme Court adjudicated reversing the Civil Court's judgment which enforced the arbitral award requiring the employer to make such payment to Joint Venture BBCD. The Joint Venture therefore recorded an allowance for doubtful accounts in full for accounts receivable for - claims for additional costs as expenses in profit or loss for 2006 in proportion to the Company group's participation in the Joint Venture, representing approximately Baht 2,500 Million.



Subsequently, after the thorough study of the details of the judgment of the Supreme Court, the Company's management filed a lawsuit against the employer with the Civil Court on February 11, 2008 to claim the costs paid by Joint Venture BBCD from the employer on charge of undue enrichment, bringing the costs included interest calculated until the date of the plaint to approximately Baht 3,400 Million (in proportion to the Company group's participation in the Joint Venture).

On September 15, 2011, the Civil Court adjudged requiring the employer to make payment to Joint Venture BBCD in the amount of Baht 1,750 Million (in proportion to the Company group's participation in the Joint Venture), together with interest at the rate of 7.5 percent per annum from such principal from February 15, 2007 until the employer would make such payment to Joint Venture BBCD in full. The employer and Joint Venture BBCD filed their appeals with the Appeal Court.



On December 27, 2013, the Appeal Court adjudicated reversing the Civil Court's judgment, thereby dismissing Joint Venture BBBCD's plaint on the grounds that at the time when the Plaintiff and the Defendant executed the turnkey contract in dispute, both parties were well aware that the Defendant was not yet ready to deliver the construction site under the contract to the Plaintiff, and as a result, several problems subsequently arose after the date of execution of the contract, which were raised by the Plaintiff to request an extension of time for the construction period and claim the increased costs. Therefore, it must be deemed that the Plaintiff executed the turnkey contract in dispute with the Defendant whereby the Plaintiff agreed to accept potential risks relating to burden of additional costs for design and construction of the expressway project, and as such, the Plaintiff may not demand the Defendant to return the expressway project to the Plaintiff under Section 411 of the Civil and Commercial Code despite the fact that the Defendant had accepted the delivery of the project from the Plaintiff before the Supreme Court rendered the judgment, in which case, it was deemed that the Defendant had accepted the project in good faith. Furthermore, as the Supreme Court did not adjudge that the turnkey contract in dispute was null and void, but only refused to enforce compliance with the arbitral

award, and the Court of First Instance did not have jurisdiction over such issue, it was then no longer required to decide on other issues in the Defendant's appeal, particularly the issues as to whether or not the Plaintiff had power to file its plaint; the Plaintiff's plaint was barred by prescription; and the Plaintiff's plaint was repeated, since the Appeal Court's judgment would not change. Thus, the Defendant was not required to return the expressway project to the Plaintiff on charge of undue enrichment nor pay additional costs, together with interest, nor deliver any interest from toll revenue to the Plaintiff under the plaint. Therefore, the Court of First Instance's judgment was opposed to the Appeal Court's opinion.

Subsequently, in February 2014, Joint Venture BBBCD filed an appeal with the Supreme Court to demand the employer to pay all increased costs, together with interest, until the payment would be made in full.

On June 22, 2017, the Supreme Court adjudicated dismissing Joint Venture BBBCD's plaint under the Appeal Court. Currently, the Company is studying to find out guidelines and legal issues for further litigating the case. For that reason, the Company has had the legal advisor study various guidelines for proceeding with such case for submission to the management for consideration in the near future.



## 6. General Information and Other Significant Information

### 6.1 General Information

(1) Company Profile	:	CH. Karnchang Public Company Limited
Head Office	:	587 Viriyathavorn Building, Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok 10400
Telephone	:	66(0)2277-0460, 66(0)2275-0026
Fax	:	66(0)2275-7029
Website	:	www.ch-karnchang.co.th
Business Category	:	To operate the business of general contract construction for government agencies, state enterprises and private entities, in the form of main contractor, subcontractor or joint venture or consortium.
Registration No.	:	0107537002575
Registered Capital	:	Baht 1,693,899,970
Divided into Ordinary Shares	:	1,693,899,970 shares
Par Value	:	Baht 1 per share
Paid-up Capital	:	Baht 1,693,896,872

(2) The Company invests in each of its subsidiaries as follows:

Company Name	Business Category	Total Number of Shares	Par Value	Shares Held by the Company	Share-holding Ratio	Type of Shares
1. CH. Karnchang Real Estate Co., Ltd. The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026 Fax 66(0) 2275-7029	Trading of Land, Allocation of Land and Residential Buildings	1,600,000	Baht 100	1,584,000	99.00%	Ordinary Shares
2. Phrompratharn Construction Co., Ltd. The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026 Fax 66(0) 2275-7029	Contract for Construction	1,000,000	Baht 100	990,000 shares held by CH. Karnchang Real Estate Co., Ltd.	99.00%	Ordinary Shares

Company Name	Business Category	Total Number of Shares	Par Value	Shares Held by the Company	Shareholding Ratio	Type of Shares
3. Prasertvit Construction Co., Ltd. The head office is located at No. 587 Sutthisarn Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026 Fax 66(0) 2275-7029	Contract for Construction	200,000	Baht 100	198,000 shares held by CH. Karnchang Real Estate Co., Ltd.	99.00%	Ordinary Shares
4. CH. Karnchang-Tokyu Construction Co., Ltd. The head office is located at No. 587, 7 <sup>th</sup> - 8 <sup>th</sup> Floors, Viriyathavorn Building, Sutthisarn Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-3651-5 Fax 66(0) 2275-3657	Contract for All Kinds of Construction	2,000,000	Baht 100	1,099,999	55.00%	Ordinary Shares
5. CH. Karnchang (Lao) Co., Ltd.* The head office is located at Ban Xiang Yuen, Chantaburi District, Vientiane	Operation of Business of Construction of the Nam Ngum 2 and Hydroelectric Power Dam					

**Remark** \* CH. Karnchang (Lao) Co., Ltd. has paid-up share capital of USD 1,000,000, 100% of which is invested by CH. Karnchang Public Company Limited.

**(3) The Company also invests in other companies through a shareholding ratio of at least 10 percent of the number of shares sold in each company as follows:**

Company Name	Business Category	Total Number of Shares	Par Value	Shares Held by the Company	Shareholding Ratio	Type of Shares
1. TTW Public Company Limited The head office is located at No. 30/130 Moo 12, Buddhamonthon 5 Road, Tambon Rai Khing, Amphoe Sam Phran, Nakhon Pathom Province Telephone 66(0) 2019-9484-89 Fax 66(0) 2420-6064	Supply and Development of Projects for Production and Distribution of Tap Water	3,990,000,000	Baht 1	774,077,400	19.40%	Ordinary Shares
2. Bangkok Expressway and Metro Public Company Limited The head office is located at No. 587 Sutthisarn Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2354-2000 Fax 66(0) 2354-2000	Provision of Services of Expressways and Mass Rapid Transit Railway System, and Commercial Development relating to Metro and Expressway Systems	15,285,000,000	Baht 1	4,787,121,829	31.32%	Ordinary Shares
3. CK Power Public Company Limited The head office is located at No. 587, 19 <sup>th</sup> Floor, Viriyathavorn Building, Sutthisan Winitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2691-9720-34 Fax 66(0) 2691-9723	Operation of Business by Holding Shares in Other Companies (Holding Company)	8,129,382,039	Baht 1	2,592,961,348	31.90%	Ordinary Shares

(4) The Company also invests in the form of joint venture as follows:

Joint Venture Name	Nature of Work	Investment Ratio
1. BBCE Joint Venture comprising Bilfinger Berger AG, CH. Karnchang Public Company Limited and Dyckerhoff & Widmann AG The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026, Fax 66(0) 2275-7029	Construction of the (Bang Na - Bang Pli - Bang Pakong) Expressway	84.74%
2. CKTC Joint Venture comprising CH. Karnchang Public Company Limited and Tokyu Construction Co., Ltd. The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026, Fax 66(0) 2275-7029	Operations for Construction Project of the MRT Purple Line, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section; Contract 1: Elevated Structures (East)	70.00%
3. CH. Karnchang-Krung Thon Engineers Joint Venture comprising CH. Karnchang Public Company Limited and Krung Thon Engineers Company Limited The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026, Fax 66(0) 2275-7029	Operations for Construction of Phra Ong Chao Chaiyanuchit Canal Conduit System - Bang Phra Reservoir and Appurtenant Structures Contract 1 Project, Project for Diversion of Water from Eastern Chao Phraya River Basin - Bang Phra Reservoir, Chon Buri Province	60.00%
4. CKCH Joint Venture comprising CH. Karnchang Public Company Limited and Ch. Tawee Construction Co., Ltd. The head office is located at No. 587 Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026, Fax 66(0) 2275-7029	Operations for Double Track Railroad Construction Project, Chira Junction - Khon Kaen Section	70.00%
5. CKST Joint Venture comprising CH. Karnchang Public Company Limited and Sino-Thai Engineering & Construction Public Company Limited The head office is located at No. 587 Sutthisarn Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok Telephone 66(0) 2275-0026, Fax 66(0) 2275-7029	Operations for Construction of the MRT Orange Line Project (East Section), Contracts 1, 2 and 5 : Construction of Manholes and Electric Conduits for the MRT Line; Contract 1 and 2 : Construction of Piping Installation for the MRT Line, Contract 2	60.00%



<b>Securities Registrar</b>	: <b>Thailand Securities Depository Co., Ltd.</b> 93 Ratchadaphisek Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok 10400 Telephone 0-2009-9000, Fax 0-2009-9991
<b>Auditors</b>	: Miss Siraporn Ouuanunkun CPA License No. 3844 Mr. Chatchai Kasemsrithanawat CPA License No. 5813 Miss Chonlaros Suntiasvaraporn CPA License No. 4523 <b>EY Office Limited</b> 33 <sup>rd</sup> Floor, Lake Rajada Office Complex, 193/136-137 New Rajadapisek Road, Klongtoey District, Bangkok 10110 Telephone 0-2264-0777 Fax 0-2264-0789-90
<b>Legal Advisors</b>	: <b>The Legists Group</b> 990 Abdulrahim Place, 9 <sup>th</sup> Floor, Room 901-1 Rama IV Road, Silom Subdistrict Bangrak District, Bangkok 10500 Telephone 0-2636-1111 Fax 0-2636-0000 : <b>Weerawong, Chinnavat &amp; Peangpanor Ltd.</b> 540 Mercury Tower, 22 <sup>nd</sup> Floor Ploenchit Road, Lumpini Subdistrict Pathumwan District Bangkok 10330 Telephone 0-2264-8000 Fax 0-2657-2222
<b>Debenture Holder Representatives</b>	: <b>CIMB Thai Bank Public Company Limited</b> 44 Langsuan Road, Lumpini Subdistrict Patumwan District, Bangkok 10330 Telephone 0-2638-8112, 0-2626-7218, 0-2626-7503 Fax 0-2626-7543 : <b>Bank of Ayudhya Public Company Limited</b> AA Floor No. 1222, Rama III Road Bang Phongphang Subdistrict, Yan Nawa District Bangkok 10120 Telephone 0-2296-3582 Fax 0-2683-1298

## 6.2 Other Significant Information - None -

PART

# 2

## MANAGEMENT AND CORPORATE GOVERNANCE



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## 7. Information on Securities and Shareholders

### 7.1 Registered and paid-up capital

(1) As at December 31, 2019, the Company's registered capital amounts to Baht 1,693,899,970, divided into 1,693,899,970 ordinary shares at the par value of Baht 1 per share, Baht 1,693,896,872 of which has been paid up, divided into 1,693,896,872 ordinary shares at the par value of Baht 1 per share.

(2) The Company does not have any other type of shares providing rights or conditions differing from those of the ordinary shares.

(3) The Company neither has any plan to offer shares or convertible securities to the Thai Trust Fund, nor issues non-voting depository receipts (NVDR).

### 7.2 Shareholders

#### (1) Major shareholders

##### (a) Top ten major shareholders

Major Shareholders as at September 4, 2019 (As of the most recent date of closing the shareholder register)

Shareholders	Total Shares	Shareholding (%)
<b>1 Trivisvavet Family</b>	<b>528,270,638</b>	<b>31.186</b>
1.1 Mahasiri Siam Co., Ltd. <sup>1</sup>	237,512,365	14.022
1.2 CH. Karnchang Holding Co., Ltd. <sup>2</sup>	171,396,530	10.118
1.3 CK. Office Tower Co., Ltd. <sup>3</sup>	86,048,212	5.080
1.4 Mr. Plew Trivisvavet	13,631,497	0.805
1.5 Mrs. Pranee Tongkittikul	9,214,342	0.544
1.6 Mrs. Saikasem Trivisvavet	6,061,142	0.358
1.7 Miss Supamas Trivisvavet	1,700,000	0.100
1.8 Mr. Puwanet Trivisvavet	1,089,255	0.064
1.9 Mrs. Korakot Trivisvavet	930,000	0.055
1.10 Miss Sawanya Trivisvavet	477,225	0.028
1.11 Mr. Prasert Trivisvavet	204,285	0.012
1.12 Mr. Nattavut Trivisvavet	5,785	0.000
<b>2 Thai NVDR Co., Ltd.<sup>4</sup></b>	<b>111,596,189</b>	<b>6.588</b>
<b>3 UOB KAY HIAN (HONG KONG) LIMITED - Client Account<sup>5</sup></b>	<b>42,007,200</b>	<b>2.480</b>
<b>4 Bangkok Bank Public Company Limited</b>	<b>38,950,000</b>	<b>2.299</b>
<b>5 SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED</b>	<b>37,452,900</b>	<b>2.211</b>
<b>6 Krungsri Dividend Stock LTF (KFLTFDIV)</b>	<b>24,262,100</b>	<b>1.432</b>
<b>7 K 20 Select LTF</b>	<b>21,200,000</b>	<b>1.252</b>
<b>8 The Viriyah Insurance Public Company Limited</b>	<b>15,545,200</b>	<b>0.918</b>
<b>9 Mrs. Sopida Trivisvavet</b>	<b>15,383,225</b>	<b>0.908</b>
<b>10 K Equity LTF</b>	<b>14,940,025</b>	<b>0.882</b>

Remarks <sup>1</sup> Mahasiri Siam Co., Ltd.'s shareholders comprise:

Shareholders	Total Shares	Shareholding (%)
Mr. Plew Trivisvavet	2,096,107	23.29
Mr. Prasert Trivisvavet	2,042,855	22.70
Mr. Thavorn Trivisvavet	1,335,391	14.84
Mrs. Phintakan Inchaikhao	1,217,013	13.52
Mr. Thep Trivisvavet	913,045	10.15
Mr. Kamthorn Trivisvavet	704,236	7.83
Mr. Kritsada Trivisvavet	133,539	1.48
Mr. Kris Trivisvavet	133,539	1.48
Miss Thanatchsorn Trivisvavet	108,339	1.20
Mrs. Thiprat Wicharanakorn	108,139	1.20
Miss Kanthanat Trivisvavet	108,339	1.20
Mrs. Sopida Trivisvavet	60,905	0.68
Mrs. Ratchanee Trivisvavet	25,989	0.29
Mrs. Ornanong Trivisvavet	12,564	0.14
<b>Total</b>	<b>9,000,000</b>	<b>100.00</b>

<sup>2</sup> CH. Karnchang Holding Co., Ltd.'s shareholders comprise:

Shareholders	Total Shares	Shareholding (%)
Mahasiri Siam Co., Ltd.	2,100,000	25.00
Mrs. Panicha Padphaiboon	1,050,000	12.50
Namphol Construction Co., Ltd.	1,050,000	12.50
Cholavet Civil Co., Ltd.	1,050,000	12.50
Thavornwong Co., Ltd.	1,050,000	12.50
Vetprasert Co., Ltd.	1,050,000	12.50
Ekkamthorn Co., Ltd.	1,050,000	12.50
<b>Total</b>	<b>8,400,000</b>	<b>100.00</b>

<sup>3</sup> CK. Office Tower Co., Ltd.'s shareholders comprise:

Shareholders	Total Shares	Shareholding (%)
Mahasiri Siam Co., Ltd.	750,000	25.00
Mr. Thavorn Trivisvavet	375,000	12.50
Mr. Plew Trivisvavet	375,000	12.50
Mr. Prasert Trivisvavet	375,000	12.50
Mr. Thep Trivisvavet	375,000	12.50
Mr. Yim Trivisvavet	375,000	12.50
Mr. Kamthorn Trivisvavet	375,000	12.50
<b>Total</b>	<b>3,000,000</b>	<b>100.00</b>

<sup>4</sup> This is a subsidiary established by the Stock Exchange. NVDR represents automatically listed securities. NVDR investors enjoy the same financial privileges as investment in ordinary shares of companies, except that they have no right to vote in shareholders' meetings.

<sup>5</sup> This is a company registered abroad and trades securities on the Stock Exchange of Thailand without disclosing if its shareholding is for its own interest or for others, and the Company is not in a position to request the shareholder to disclose such information.



(b) None of the Company's major shareholders has, by circumstances, any material influence over the determination of policies on management or operations of the Company.

**Increase or Decrease in Direct and Indirect Shareholding by Directors and Executives until December 31, 2019**

Name of Director/Executive	Brought Forward as at January 1, 2019	Change		Balance as at December 31, 2019
		Acquisition	Disposal	
Mr. Aswin Kongsiri	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Plew Trivisvavet	13,631,497	600,000	-	14,231,497
Spouse and minor child	6,061,142	-	-	6,061,142
Mr. Vitoon Tejatussanasoontorn	156,250	-	-	156,250
Spouse and minor child	-	-	-	-
Mr. Thawansak Sukhawun	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Pavich Tongroach	-	-	-	-
Spouse and minor child	-	-	-	-
Miss Supamas Trivisvavet	1,700,000	-	-	1,700,000
Spouse and minor child	-	-	-	-
Mr. Narong Sangsuriya	512,500	-	-	512,500
Spouse and minor child	-	-	-	-
Mr. Prasert Marittanaporn	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Ratn Santaannop	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Anukool Tuntimas	-	-	-	-
Spouse and minor child	177,484	-	-	177,484
Mr. Sittidej Trivisvavet	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Phongsarit Tantisuvanitchkul	153,750	-	-	153,750
Spouse and minor child	-	-	-	-
Mr. Pornnarong Siriyothin	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Prapon Chanpradubfa	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Pairat Prom-in	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Thammanoon Surarat	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Watchara Sanghattawattana	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Pichai Cheybumroong	150,000	-	-	150,000
Spouse and minor child	-	-	-	-
Mrs. Rinrada Tangtrongkid	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Wiboon Ungapipathanachai	-	-	-	-
Spouse and minor child	-	-	-	-
Mr. Keerati Luangchookiat	50,050	-	-	50,050
Spouse and minor child	-	-	-	-

## (2) Shareholders' Agreement

None of the Company's major shareholders has entered into a shareholders' agreement, to which the Company is a party, concerning any matters which have affect the Company's issuance and offering of securities or its administration.

## 7.3 Outstanding obligations in previous issuance of bills of exchange or debentures and issuance of other securities of the Company

- (1) The Company has no convertible securities.
- (2) The Company's securities in the form of debt instrument are debentures, with the details as follows:

The Company's Outstanding Debentures as at December 31, 2019

Debenture Symbol	Issuance Date	Value as at Issuance Date (Million Baht)	Value as at December 31, 2019 (Million Baht)	Term	Maturity Date	Interest Rate (per annum)	Type of Offering*	Credit Rating as at June 21, 2019
CK235A	May 26, 2016	1,000	1,000	7 years	May 26, 2023	3.22%	PP10	A
CK246A	June 7, 2016	500	500	8 years	June 7, 2024	3.50%	PP10	A
CK247A	July 8, 2016	1,500	1,500	8 years	July 8, 2024	3.51%	PP-II&HNW	A
CK267A	July 8, 2016	2,700	2,700	10 years	July 8, 2026	3.82%	PP-II&HNW	A
CK283A	July 8, 2016	800	800	11 years 8 months	March 8, 2028	3.99%	PP-II&HNW	A
CK277A	July 11, 2016	1,000	1,000	11 years	July 11, 2027	3.95%	PP10	A
CK27NA*	November 8, 2016	1,000	1,000	11 years	November 8, 2027	4.05%	PP10	A
CK27NB*	November 17, 2016	500	500	11 years	November 17, 2027	4.05%	PP10	A
CK215A	May 26, 2017	2,250	2,250	4 years	May 26, 2021	2.97%	PP-II&HNW	A
CK245A*	May 26, 2017	1,600	1,600	7 years	May 26, 2024	3.80%	PP-II&HNW	A
CK20NA	November 3, 2017	1,000	1,000	3 years	November 3, 2020	2.24%	PP-II&HNW	A
CK25NA*	November 3, 2017	1,000	1,000	8 years	November 3, 2025	3.34%	PP-II&HNW	A
CK27NC*	November 3, 2017	1,000	1,000	10years	November 3, 2027	3.65%	PP10	A
CK225A	May 23, 2018	1,600	1,600	4 years	May 23, 2022	2.48%	PP-II	A
CK235B	May 23, 2018	2,700	2,700	5 years	May 23, 2023	2.74%	PP-II	A
CK217A	July 25, 2018	820	820	3 years	July 25, 2021	2.60%	PP-II	A
CK227A	July 25, 2018	910	910	4 years	July 25, 2022	2.80%	PP-II	A
CK287A*	July 25, 2018	1,020	1,020	10 years	July 25, 2028	4.00%	PP-II	A
CK226A	June 28, 2019	3,000	3,000	3 years	June 28, 2022	2.46%	PP-II&HNW	A
CK246B	June 28, 2019	3,500	3,500	5 years	June 28, 2024	2.90%	PP-II&HNW	A
CK296A	June 28, 2019	3,500	3,500	10 years	June 28, 2029	3.66%	PP-II&HNW	A
<b>Total</b>		<b>32,900</b>	<b>32,900</b>					

\* This refers to debentures which the issuer has the early redemption right.

Remarks : PO refers to public offering to all types of investors.

PP10 refers to private placement to not more than 10 investors.

PP-II&HNW refers to private placement to institutional investors or high net worth investors.

PP-II refers to private placement to institutional investors.

### **The Company's Outstanding Bills of Exchange as at December 31, 2019**

As at December 31, 2019, the Company's bills of exchange payable amounted to Baht 830 Million, which would mature in January 2020.

### **The Company's Outstanding Short-Term Debentures as at December 31, 2019**

As at December 31, 2019, the Company had no an outstanding debt for the short-term debentures.

### **Latest Credit Rating of Debentures**

As at June 21, 2019, TRIS Rating Co., Ltd. has affirmed the corporate rating and the existing unsubordinated and unsecured debenture ratings of the Company at "A", with the "Stable" outlook. The Company's credit ratings also reflect its leading position in Thailand's construction industry, together with proven records in its ability to undertake large-scale infrastructure and sophisticated construction projects requiring specific expertise, including strengths in project operations and financial flexibility obtained from the Company's strategic investments. However, these strengths are partially constrained by the cyclical nature and the intense competition in the construction industry, together with the Company's high financial leverage.



## 7.4 Policy on dividend payment

The Company has a policy to pay dividend to shareholders at an expected rate of approximately not less than 40 percent of the net profit after tax in each year, which will be payable in the following year provided that there is no any other necessary requirements and such dividend payment will not affect the ordinary course of the Company's business operations in any material aspects.

As for the subsidiaries, joint ventures and related companies, the Company has not yet set out any policy on dividend payment.

### Companies in the basic infrastructure project group which are associated companies, namely:

1. Bangkok Expressway and Metro Public Company Limited 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 its shareholders when it is of the initial 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.

2. CK Power Public Company Limited has a policy on dividend payment to shareholders from its separate financial statements at the rate not less than 40 percent of the net profit after deduction of corporate income tax and legal reserve of each year. In this regard, the rate of such dividend payment may vary from the specified rate subject to the operational results, financial position, liquidity, necessity in investments, working capital, additional investments, business expansion, conditions and restrictions specified in the loan agreement, and other relevant factors in the management as the board of directors and/or the company's shareholders may deem appropriate. In addition, the board of directors may consider approving an interim dividend payment to its shareholders when it initially considers that the company has sufficient profits and cash flows for dividend payment.

### The Company's dividend payments during the past five years were as follows:

(Unit : Baht)

Name of Directors / Executives	2015	2016	2017	2018	2019
Net Profit Margin per share	1.46	0.53	0.31	0.37	0.46
Dividend per share	0.65	0.50	0.50	0.50	0.40

### The Company's retained earnings and shareholders' equity during the past five years were as follows:

(Unit : Million Baht)

Name of Directors / Executives	2015	2016	2017	2018	2019
Retained earnings	8,300.54	8,096.91	7,775.18	7,638.40	7,566.20
Shareholders' equity (Consolidated Financial Statements)	20,855.67	21,854.32	23,873.08	25,828.72	27,812.52



## 8. Management Structure

### 8.1 Board of Directors

As at December 31, 2019, the Board of Directors consists of 10 directors as listed below:

Directors	Positions	Category	Total Number of Board of Directors' Meetings (2019)	Attendances of Board of Directors' Meetings (2019)
1. Mr. Aswin Kongsiri	Chairman of the Board of Directors	Independent Director	7	7
2. Mr. Plew Trivisvavet	Director Chairman of the Executive Board Nomination and Remuneration Committee Member Corporate Governance and Risk Management Committee Member	Executive Director	7	7
3. Mr. Vitoon Tejtassanasoontorn	Director Chairman of the Audit Committee Chairman of the Nomination and Remuneration Committee Chairman of the Corporate Governance and Risk Management Committee	Independent Director	7	7
4. Mr. Thawansak Sukhawun	Director Audit Committee Member Nomination and Remuneration Committee Member Corporate Governance and Risk Management Committee Member	Independent Director	7	7
5. Mr. Pavich Tongroach	Director Audit Committee Member Chairman of the Corporate Social and Environmental Responsibility Committee	Independent Director	7	7
6. Miss Supamas Trivisvavet	Director Executive Director President Corporate Governance and Risk Management Committee Member	Executive Director	7	7
7. Mr. Narong Sangsuriya	Director Executive Director Nomination and Remuneration Committee Member Corporate Governance and Risk Management Committee Member	Executive Director	7	7
8. Mr. Prasert Marittanaporn	Director Executive Director Corporate Social and Environmental Responsibility Committee Member	Executive Director	7	7
9. Mr. Ratn Santaannop	Director Executive Director	Executive Director	7	7
10. Mr. Anukool Tuntimas	Director Executive Director Corporate Social and Environmental Responsibility Committee Member	Executive Director	7	7

The Company's authorized signatory directors are two of the following four directors, namely, Miss Supamas Trivisvavet, the President, Mr. Plew Trivisvavet, Mr. Narong Sangsuriya, Mr. Prasert Marittanaporn, jointly sign and affix the Company's seal, or any one of the said four directors and either Mr. Ratn Santaannop or Mr. Anukool Tuntimas, totaling two directors, jointly sign and affix the Company's seal.

### **Board of Directors' Authority**

- 1) Determining policies and directions of the Company's operation and supervising the management to comply with the specified policies as well as taking steps to ensure that the Company has efficient and effective internal control system and the intention to continue its business operations;
- 2) Performing the duties in compliance with laws, objectives and Articles of Association of the Company, as well as resolutions passed by shareholders' meetings, taking into account the integrity and protection of the Company's interest;
- 3) Being responsible for preparation of balance sheet and income statement at the close of the Company's accounting period to ensure that they contain accurate information and truly and fairly reflect the Company's status, in compliance with generally accepted accounting standards, and having said financial statements audited by the Company's auditor so as to submit the same to the Annual Ordinary General Meeting of Shareholders for consideration and approval;
- 4) Focusing on the duty to disclose the Company's information in accordance with the Stock Exchange of Thailand's requirements, Re: Rules and Procedures for Disclosure of Information and Acts of Listed Companies, so as to disclose to the public such information which is material and necessary to the decision to invest in securities;
- 5) Having the authority to appoint other person to operate the Company's business subject to the supervision of the Board of Directors or the President or delegating to such person the authorities as the Board deems appropriate and during a certain period as the Board deems appropriate, provided that the Board of Directors may cancel, revoke or amend such authorities and that said authorization in no way allows such authorized person to approve any transactions in which such authorized person or another person may have conflict, interest or conflicts of interest in other manners with the Company or its subsidiaries;
- 6) Considering and granting approval for capital increase, issuance of debentures, for submission to the shareholders' meeting for further approval;
- 7) Considering and granting approval for operating expenses in excess of the amount authorized to be approved by the President, for submission to the Board of Directors' meeting for further approval.

The authority to take the foregoing actions shall not extend to connected transactions and such transactions relating to acquisition or disposition of significant assets of listed companies in accordance with the rules and regulations of the Office of the Securities and Exchange Commission/the Stock Exchange of Thailand and the Company shall comply with the Stock Exchange's rules, regulations and requirements governing those related matters. In addition, the foregoing authority shall not include any other matters subject to approval by the shareholders' meeting in accordance with the Company's Articles of Association.

## Board of Directors' Approval Authority

1. Approving appointment of any natural persons or legal entities as share registrars;
2. Approving close of the register book and suspension of share transfer;
3. Approving management of all businesses of the Company in accordance with the laws, objectives and Articles of Association of the Company and resolutions of the shareholders' meeting; and having authority to take any actions specified in the Memorandum of Association or pertaining thereto;
4. Approving authorization of one or more persons to take any actions on behalf of the Board of Directors;
5. Approving assignment of any other persons or groups of persons to engage in the Company's business under the supervision of the Board of Directors, or authorizing such person to have authority as the Board of Directors deems appropriate and within a period of time as the Board of Directors deems appropriate, whereby the Board of Directors may revoke, repeal, change or amend such authorization;
6. Approving sale or mortgage of any immovable assets of the Company or leasing out any immovable assets of the Company for three years or longer or allowing for or making compromise or filing a lawsuit in court(s) or referring any disputes to arbitration;
7. Approving interim dividend payment to shareholders from time to time if it is found that the Company's profit is justifiable to do so, reporting to the next shareholders' meeting;
8. Approving election of the Executive Board to perform any or several matters;
9. Approving remuneration and rewards or other benefits for executive directors;
10. Approving appointment of the Company's authorized signatory directors.

## Chairman of the Board of Directors' Authority

- 1) Monitoring the management in setting the direction of the business operations, providing suggestions, including supervision, control and following up the management via the Executive Board and the President;
- 2) Determining the Company's policies in association with the Board of Directors, by jointly considering and establishing the business goals with management;
- 3) Presiding over both Board of Directors' meetings and shareholders' meetings, to control and conduct meetings efficiently and effectively, and encouraging all directors to participate in meetings and offers opinions independently.



## Structure of Subsidiaries' Directors

As at December 31, 2019, the Boards of Directors of subsidiaries consist of qualified persons as listed below:



### CH. Karnchang Real Estate Co., Ltd.

- |                              |          |
|------------------------------|----------|
| 1. Mr. Plew Trivisvavet      | Director |
| 2. Miss Supamas Trivisvavet  | Director |
| 3. Mr. Prasert Marittanaporn | Director |
| 4. Mr. Nattavut Trivisvavet  | Director |



### Phrompratharn Construction Co., Ltd.

- |                        |          |
|------------------------|----------|
| 1. Mr. Yim Trivisvavet | Director |
|------------------------|----------|



### Prasertvit Construction Co., Ltd.

- |                              |          |
|------------------------------|----------|
| 1. Mrs. Ornanong Trivisvavet | Director |
|------------------------------|----------|



### CH. Karnchang-Tokyu Construction Co., Ltd.

- |                                     |                                    |
|-------------------------------------|------------------------------------|
| 1. Mr. Plew Trivisvavet             | Chairman of the Board of Directors |
| 2. Miss Khajornwit Sae-chia         | Director                           |
| 3. Miss Supamas Trivisvavet         | Director                           |
| 4. Mr. Phongsarit Tantisuvanitchkul | Director                           |
| 5. Mr. Narong Sangsuriya            | Director                           |
| 6. Mr. Prasert Marittanaporn        | Director                           |
| 7. Mr. Hideo Miyagawa               | Director                           |
| 8. Mr. Tsuneo Izuka                 | Director                           |
| 9. Mr. Mitsuhiro Terada             | Director                           |
| 10. Mr. Pruitt Boonkasemsanti       | Director                           |
| 11. Mr. Shigehiko Shibusawa         | Director                           |



### CH. Karnchang (Lao) Co., Ltd.

- |                        |          |
|------------------------|----------|
| 1. Mr. Ratn Santaannop | Director |
|------------------------|----------|



## 8.2 Management Team

As at December 31, 2019, the management team<sup>(1)</sup> of the Company consists of 17 persons as listed below:

Names	Positions
1. Mr. Plew Trivisvavet	Chairman of the Executive Board
2. Miss Supamas Trivisvavet	President
3. Mr. Narong Sangsuriya	Senior Executive
4. Mr. Prasert Marittanaporn	Senior Executive
5. Mr. Ratn Santaannop	Senior Executive
6. Mr. Sittidej Trivisvavet	Senior Executive Vice President: Administration Group
7. Mr. Phongsarit Tantisuvanitchkul	Senior Executive Vice President: Operation Group
8. Mr. Pornnarong Siriyothin	Executive Vice President: Construction 1
9. Mr. Prapon Chanpradubfa	Executive Vice President: Construction 2
10. Mr. Pairat Prom-in	Executive Vice President: Construction 3
11. Mr. Thammanoon Surarat	Executive Vice President: Construction 4
12. Mr. Watchara Sanghattawattana	Executive Vice President: Engineering
13. Mr. Anukool Tuntimas	Executive Vice President: Human Resource and General Administration
14. Mr. Pichai Cheybumroong	Executive Vice President: Purchasing
15. Mrs. Rinrada Tangtrongkid	Executive Vice President: Accounting and Finance
16. Mr. Wiboon Ungapipathanachai	Executive Vice President: Internal Audit Office
17. Mr. Keerati Luangchookiat	Executive Vice President: Business Development

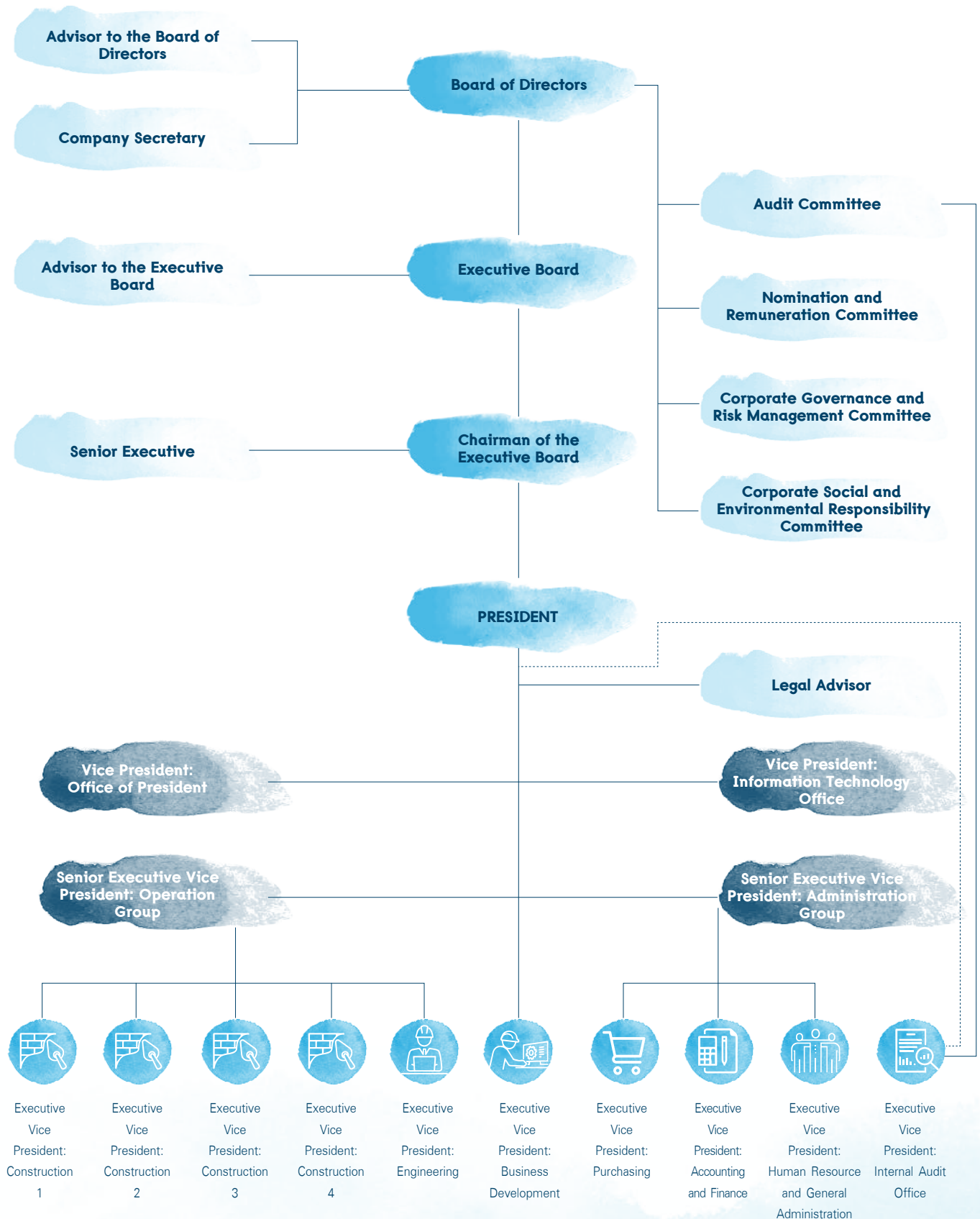
**Remark** <sup>1</sup> The management team refers to the definition of “executive” of the Office of the Securities and Exchange Commission.

### President’s Authority

The President shall have the authority to control and manage the Company’s core business and monitor all businesses of the Company to ensure compliance with resolutions and policies of as assigned by the Board of Directors, including their suggestions. In this regard, the Board of Directors shall evaluate the President’s performance in comparison with the annual goals, whereby the Nomination and Remuneration Committee shall consider remuneration for the President by evaluating from the performance in the past year for proposal to the Board of Directors for consideration and approval in accordance with the criteria.

# The Company's Management Structure

as at December 31, 2019



### 8.3 Company Secretary

The Board of Directors' Meeting No. 2/2013 on May 28, 2013 appointed Mr. Nattavut Trivisvavet to hold office as the Company Secretary with duties and responsibilities as follows:

1. Providing advice to directors as to relevant legal provisions, rules, criteria, and regulations;
2. Ensuring compliance with laws, the Articles of Association, relevant regulations and the good corporate governance principles by the Company;
3. Arranging for meetings as specified by law and the Articles of Association, preparing and keeping directors registration, notices and minutes of the Board of Directors' meetings and annual reports of the Company, notices and minutes of the shareholders' meetings as well as coordinating to ensure compliance with resolutions of the Board of Directors or resolutions of the shareholders with efficiency;
4. Ensuring disclosure of information and report on information to the regulatory units;
5. Contacting and communicating with shareholders and the related regulatory units;
6. Promoting training in various courses and providing information useful for new directors; and
7. Proceeding with other matters as assigned by the Board of Directors.

### 8.4 Remuneration for Directors and Executives

#### Remuneration for Directors and President

The Company has considered providing appropriate remuneration to directors and the President, whereby remuneration for directors is subject to shareholders' approval and the Board of Directors must approve remuneration for the President, as per the criteria of determination of remuneration for directors and the President as follows:

- 1) Remuneration shall be appropriate for and in line with the scope of duties and responsibilities of each director, e.g., Chairman of the Board of Directors, Chairman of each subcommittee and members of the Executive Board, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee and the Corporate Social and Environmental Responsibility Committee, who shall receive additional remuneration for such position;
- 2) Remuneration shall be sufficient to attract and retain knowledgeable and qualified directors and the President to efficiently perform duties for the Company to lead the organization into achievements in the short-term and long-term goals;
- 3) Elements of remuneration are clear, transparent and easy to understand;
- 4) Remuneration must be considered and screened by the Nomination and Remuneration Committee to stay at the reasonable and competitive rate which is at the same level as that of the same industry and at a sufficient level to take care of and retain the directors and the President who are qualified in line with the Company's business goals.

In this regard, the Nomination and Remuneration Committee and the Board of Directors did survey remuneration for directors for 2019 based on performance of directors, in comparison with other companies in the same industry of a similar size and nature, including results of director remuneration survey of the Thai Institute of Directors.

#### Remuneration for Executives

Consideration of the remuneration for executives shall be subject to the criteria as specified by the Board of Directors, namely, such remuneration is appropriate and at a sufficient level to attract and retain qualified high-ranking executives to work for the Company, as well as at a rate comparable to companies at the same level or in the same business. This will be consistent with the Company's operational results and the results of performance evaluation of each executive via the Performance Management System.

**In 2019, the remuneration of directors and executives is as follows:**

**(1) Monetary Remuneration for the year ended December 31, 2019**

**(a) Remuneration for directors** (including the structure of remuneration for non-executive directors) consists of remuneration and meeting allowance, allowance, bonus, bringing the total remuneration for directors in 2019 to Baht 18,849,998, which was consistent with the resolution of the 2019 Annual Ordinary General Meeting of Shareholders approving remuneration for directors in the total amount not exceeding Baht 19,625,000, namely, bonus for directors for the year 2018 in the amount not exceeding Baht 11,000,000 and remuneration for directors for the year 2019 in the amount not exceeding Baht 8,625,000, as per the following details:

**1. Remuneration and office remuneration**

**1.1 Remuneration for directors**

Remuneration for directors	Baht	200,000 per year per person
Remuneration for Audit Committee Members	Baht	200,000 per year per person
Remuneration for executive directors	Baht	100,000 per year per person

**1.2 Office remuneration**

Chairman of the Board of Directors	Baht	550,000 per year
Chairman of the Executive Board	Baht	300,000 per year
Chairman of the Audit Committee	Baht	200,000 per year
Chairman of the Nomination and Remuneration Committee	Baht	100,000 per year
Chairman of the Corporate Governance and Risk Management Committee	Baht	100,000 per year
Chairman of the Corporate Social and Environmental Responsibility Committee	Baht	100,000 per year

**2. Meeting allowance** is paid according to the number of attendances to the Board of Directors' Meetings or subcommittees' meetings, whereby the meeting allowance is Baht 20,000 per person for each Board of Directors' Meeting and Executive Board's Meeting and Baht 10,000 per person for any other subcommittees.

**Office Remuneration and Meeting Allowance in 2019**

Unit : Baht

Directors	Positions	Board of Directors	Executive Board	Audit Committee	Nomination and Remuneration Committee	Corporate Governance and Risk Management Committee	Corporate Social and Environmental Responsibility Committee	Bonus 2018	Total
Mr. Aswin Kongsiri	Chairman of the Board of Directors	890,000	-	-	-	-	-	1,270,124	2,160,124
Mr. Plew Trivisvavet	Chairman of the Executive Board	340,000	640,000	-	20,000	40,000	-	1,270,124	2,310,124
Mr. Vitoon Tejatussanasoontorn	Chairman of the Audit Committee	340,000	-	440,000	120,000	140,000	-	1,270,124	2,310,124
Mr. Thawansak Sukhawun	Audit Committee Member	340,000	-	240,000	20,000	40,000	-	1,057,146	1,697,146
Mr. Pavich Tongroach	Audit Committee Member	340,000	-	240,000	-	-	120,000	846,750	1,546,750
Miss Supamas Trivisvavet	Executive Director	340,000	340,000	-	-	40,000	-	1,057,146	1,777,146
Mr. Narong Sangsuriya	Executive Director	340,000	340,000	-	20,000	40,000	-	1,057,146	1,797,146
Mr. Prasert Marittanaporn	Executive Director	340,000	340,000	-	-	-	20,000	1,057,146	1,757,146
Mr. Ratn Santaannop	Executive Director	340,000	340,000	-	-	-	-	1,057,146	1,737,146
Mr. Anukool Tuntimas	Executive Director	340,000	340,000	-	-	-	20,000	1,057,146	1,757,146
<b>Total</b>		<b>3,950,000</b>	<b>2,340,000</b>	<b>920,000</b>	<b>180,000</b>	<b>300,000</b>	<b>160,000</b>	<b>10,999,998</b>	<b>18,849,998</b>



(b) **Remuneration for executive directors and independent directors** consists of remuneration, meeting allowance as well as allowance. Remuneration for executives consists of salary, bonus and welfare. The total remuneration for 6 executive directors, 4 independent directors and 11 executives in 2019 amounted to Baht 171,988,598.

**(2) Other Remuneration and Benefits**

**2.1 Other Remuneration and Benefits for Directors**

- None -

**2.2 Other Remuneration and Benefits for Executives**

- Provident Fund Contributions

The Company established a provident fund which represents its employees' long-term remuneration upon termination of employment with the Company or upon retirement, whereby executives pay their savings at the rate of 10 - 15 percent of his/her salary according to service years and the Company pays contributions at the same rate to the fund, but not exceeding 10 percent of such executive's wage. In 2019, the Company paid the provident fund contributions for 17 executives in the amount of Baht 10,143,020.

## 8.5 Personnel

(1) **Number of all staff and number** of staff in each main work line of CH. Karnchang Public Company Limited as at December 31, 2019 consist of:

position	number	unit
Directors	10	persons
High-ranking executives (excluding the Board of Directors)	14	persons
Engineering	50	persons
Construction 1	185	persons
Construction 2	215	persons
Construction 3	679	persons
Construction 4	2	persons
Business Development	12	persons
Purchasing	103	persons
Accounting and Finance	113	persons
Human Resource and General Administration	54	persons
Office of President	35	persons
Internal Audit Office	9	persons
Information Technology Office	12	persons
<b>Total</b>	<b>1,493</b>	<b>persons</b>

**Remark :** The number of staff as reported above is the total number of full-time staff. There also are 487 daily staff members.

(2) **The Company neither has any significant change in number of staff nor labor dispute** during the past three years.

(3) **The Company has total remuneration**, namely, salary, wage, overtime pay, allowance, office remuneration, bonus and provident fund contributions of all staff of the Company in 2019, amounted to Baht 1,629,650,860.

**(4) Personnel Development Policy:** The Company has been developing human resources. The management realizes the significance of improvement of performance and potential of staff in respect of management skills, team building and learning about specific professional knowledge, including encouraging staff to learn about information technology, foreign languages and continuously improve themselves. Furthermore, the Company organized the project for human resources management system development by allowing our qualified advisors to study and develop the structure and supporting systems in various aspects, such as, the organization structure, nature of work, training plan, evaluation of performance of staff, career path and succession plan, etc., in order to ensure their efficient performance, including fair and competitive return. Moreover, directors and executives are also encouraged to learn modern techniques of work management, namely by way of ensuring a learning organization, change management, etc. These reflect that the Company is determined to improve its personnel, both staff and executives, to keep pace with the world of technology and nature of business under a more intense competition, including the structure and supporting systems so as to accommodate the management of the organization. In doing so, the Company focuses on improvement, enhancement and development of competency of the Company's personnel towards the goals of services to the service users' satisfaction, whereby the personnel development is deemed to be the Company's key action plan, and as such, the Company sets out the action plans and conducts personnel development on key matters as follows:

#### **1. Development of Competency**

The Company arranges for development of personnel in both main functions and supporting functions, particularly in respect of such main functions, training course for competency has been provided, both in theory and in practice, by experts in order for staff to have competency and skills in the respective aspects in operations in order to refresh and enhance specific skills on a regular basis. Moreover, the Key Performance Indicators (KPIs) are reviewed on a regular basis to ensure compliance with the Company's policy.

#### **2. Development of Staff Potential**

This is based on the belief that every person has potential which could be used without limitation if they were given support and opportunity. The Company thus allows staff to show their potential through various quality activities, such as, 5S, Suggestion System, as well as supporting them to further study in a level higher than bachelor's degrees in the fields relating to their assigned duties or long-term training course in specific fields.

#### **3. Retention of Potential Personnel**

The Company has taken care of its staff who have high ability and potential, by allowing for advancement in their career paths and setting out clear criteria to be regularly implemented every year. Moreover, the Company arranges for the individual development plan, especially such personnel at the supervisor level or higher. Furthermore, the Company also improves the performance evaluation by using KPIs in the evaluation to ensure concrete and measurable results, along with factors in respect of competency and work behavior of staff which would serve as a mechanism to retain competent personnel and for the purpose of development of staff's competency to possess core competencies as desirable by the Company, namely:

- Self-learning and self-development to ensure continued development in the learning organization;
- Focus on ethics to promote the performance in accordance with the good corporate governance principles;
- Provision of good and quality services to meet customers' satisfaction;
- Results-based goals as key performance indicators and achievable action plans.

#### 4. Succession Plan

The Company focuses on internal rather than outside recruitment, particularly such work positions in the primary line, through the promotion process in accordance with the criteria, significantly based on performance and potentials. 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.

#### 5. Quality Management System

The Company is regularly determined to improve the efficiency and quality of work performance, by way of maintenance of the quality of its service provision through the Company's quality management certification, ISO 9001, which has been certified by SGS (Thailand) Limited in accordance with UKAS Standard of England and NAC Standard of Thailand.

#### 6. Promotion and Creation of Innovations in the Organization

With the Company's commitment to and support of development of personnel and bodies of knowledge to have them keep pace with technology and innovations in terms of design, engineering, construction and operational procedures to ensure that they are kept up to date with new innovations in the digital generation, and with the significance realized by the Company towards development of innovations and technology, which is a part of the Company's vision and business strategies; the Company was therefore presented with the awards as follows:

##### 2017: Innovation on Use of Limestone Powder in Concrete Work



The Xayaburi Hydroelectric Power Project located in the Lao People's Democratic Republic (Lao PDR) has been made of more than 4 million cubic meters of concrete and its construction site is located in the area of limited sources of raw materials of concrete-mixed sand, that is, the volume of sand in the Mekong River in the construction site is inadequate, let alone the fact that the sand's physical property is rather fine than the required standard of sand to be used for concrete mixture. For these reasons, it is necessary to use limestone for production as crushed sand to be mixed with certain portions of the river sand for concrete production. Upon mixture of such two types of sand, the fineness modulus would be obtained in accordance with the requirements of concrete-mixed sand, and the quality concrete can be produced as required.

However, the sand so produced from crushing would have fine aggregate or dust of smaller than 75 microns in size which must not exceed 3 percent of the requirements; while the crushed sand so produced would have dust particles averaging 10 - 13 percent. The method to reduce dust in crushed sand was to wash it before using, which needed water and electricity, with residue from such process. To enable such a large-sized construction project to minimize the environmental impact and use resources for the maximum benefits, further studies and testing of crushed sand were conducted, and it was found that dust or fine aggregate to be washed off could be used for concrete mixture without any impact on concrete quality, through various methods, testing, and seeking approval for use from a supervising engineer based on the Deming Cycle, PDCA, until the approval was granted for use of such crushed sand without having the washing process, and still, the quality control was required from the original source of materials, namely, rock mine, until the concrete production, to ensure that the concrete work met quality and had properties as required, in respect of the property of fresh concrete during placing of concrete and the property of setting of concrete, and that the raw materials could be produced as required according to the construction plan.

From such achievement of use of crushed sand, the Company then was of the view that such information would be useful to the engineering profession in Thailand on use of crushed sand in concrete, therefore, an article regarding "The Use of Limestone Powder in Concrete of the Xayaburi Hydroelectric Power Project" was proposed to the Thailand Concrete Association, and the "TCA Concrete Practice Award: Silver Medal for 2016" was thus granted. In addition, the ARE-QP Award was granted from the Asian Network for Quality (ANQ) in the ANQ Congress 2017, Kathmandu, Nepal, for the article's subject "Continuous Improvement on Concrete Quality for Xayaburi Hydropower Project".

## Summary of Number of Days, Classification and Category of Courses under the 2019 Annual Training Plan

### Chart of Total Training Hours of Each Program in 2019



### Chart of Average Training Hours Classified by Staff Level and Training Courses in 2019







## 9. Corporate Governance

The Board of Directors puts their trust in and realizes the significance of the Corporate Governance Code, consisting of 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, which is a key factor in adding value and bringing the highest returns to the Company's shareholders in the long run on a sustainable basis.

To boost confidence of all shareholders, investors and stakeholders and development resulting in the good corporate governance of the Company 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 then requires that the corporate governance policy and compliance with the policy shall be regularly reviewed on a yearly basis. In this connection, the Company has publicized the Company's corporate governance policy on its website to allow all shareholders, investors and stakeholders to have access to the Company's practical guidelines and business operations which have adhered to the Corporate Governance Code. Moreover, the Company's corporate governance has been widely disseminated and communicated to the Company's staff for acknowledgment. Besides, the Company has encouraged its staff to involve in compliance with such policy.

As a result of the Company's administration which has always complied with the Principles of Good Corporate Governance, by realizing the significance of and responsibilities towards shareholders and stakeholders of the Company, the Company then received results of assessments by the regulatory units, various organizations and agencies, as follows:

-  The Company received an "Excellent" rating in the assessment of the quality of the 2019 Annual Ordinary General Meeting of Shareholders by the Thai Investors Association.
-  The Company received an "Excellent" rating in the assessment of the corporate governance of Thai listed companies for 2019 from the Thai Institute of Directors Association (IOD).

### 9.1 Corporate Governance Policy

The Board of Directors realizes the significance of ensuring that shareholders exercise their rights, and has the duty to equally safeguard the benefits of all shareholders, including institutional investors or major or minor shareholders in their capacity as investors in the Stock Exchange and as shareholders who own the Company, in accordance with the accepted CG Code of the Stock Exchange of Thailand, namely:

#### 1) Shareholders' Rights

Promoting shareholders to exercise their basic rights and taking care of shareholders better than their rights as specified by law without any actions in violation of or depriving shareholders of their rights.

#### 2) Equitable Treatment of Shareholders

Monitoring to ensure that all shareholders are equally treated and protected in respect of their basic rights, implementing measures to prevent inside information usage for personal gain or others, which would cause damage to shareholders as a whole.

#### 3) Role of Stakeholders

Taking care of stakeholders based on their rights under applicable laws without any actions in violation of stakeholders' rights as well as establishing measures to compensate any stakeholders suffering from damage arising from violation of rights, promoting cooperation between the Company and stakeholders for the Company's prosperity, financial stability and sustainability. The Company formulates the policy on anti-corruption and anti-bribery to prevent any act in exchange for any business advantage of the Company or granting of any item or any other benefits to any person who has authority or business related to the organization for the business benefits of the Company.

#### 4) Disclosure and Transparency

Undertaking all activities with transparency, open for inspection, and sufficient information disclosure to all relevant parties as well as monitoring disclosure of material information relating to the Company, both financial and non-financial records, to ensure accuracy, completeness, timeliness and transparency through easy access with equality and reliability.

#### 5) The Board of Directors' Responsibilities

Ensuring that the Board of Directors performs duties with honesty and due care to the best interest of the Company and in fairness to all shareholders under the good internal control system and appropriate risk management, including compliance with the Company's code of ethics.

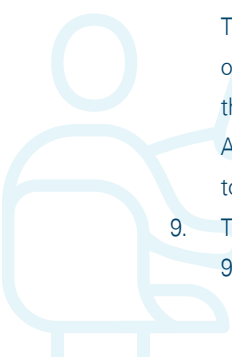
In 2019, the Company has adhered to the Corporate Governance Code for Listed Companies as stipulated by the Stock Exchange of Thailand as follows:

### 1. Shareholders' Rights

The Company gives priority to shareholders' rights and also realizes the significance of shareholders and their rights of ownership to control the Company through appointment of the Board of Directors and their rights to make decisions on significant changes of the Company. The Company thus promotes shareholders to exercise their protected basic rights. In this respect, shareholders shall be informed of the Company's correct, complete, sufficient and up-to-date information and news, including the right to attend the shareholders' meeting, the right to appoint proxy to attend and vote at the meeting, the right to share opinions and make inquiries in the shareholders' meeting in order to jointly make decisions on the Company's important matters, e.g., profit allocation, election of directors, determination of remuneration for directors, appointment of the auditor, determination of the audit fees, and approval of important transactions which may affect the Company's business direction, etc. The Board of Directors clearly sets out the corporate governance policy that the Company shall promote shareholders to exercise their basic rights without taking any actions in violation of or depriving shareholders of their rights. The guidelines for best practices towards shareholders are as follows:

#### Annual Ordinary General Meeting of Shareholders

1. The Company assigns Thailand Securities Depository Company Limited, as its share registrar, to deliver the notice of the shareholders' meeting and supporting documents to all shareholders in advance at least 21 days prior to the meeting date, whereby the notice of the meeting shall contain complete and clear details on day, time, place and agenda items, as well as clearly specifying objectives, reasons, and opinions of the Board of Directors on each item of the proposed agenda to ensure that shareholders acknowledge matters to be considered in the meeting in order to serve as a factor for consideration of making a decision to attend the meeting, and that shareholders obtain information in support of their decision making in advance prior to the meeting. In this regard, the Company shall avoid adding other agenda items required the meeting's resolution without prior determination in the shareholders' meeting, which is deemed to be unfair treatment towards shareholders absent from the meeting.
2. In the annual ordinary general meeting of shareholders, the Company shall regularly propose the remuneration for directors to shareholders for consideration and approval on a yearly basis as well as proposing the policy to determine remuneration, including criteria for provision of the remuneration for directors in support of shareholders' consideration.
3. The Company allows shareholders to vote to elect directors on an individual basis, by nominating directors to shareholders for voting on an individual basis in order for shareholders to have the right to truly elect directors of their choice.
4. The Company allows shareholders to propose in advance items of the agenda of the shareholders' meeting and nominate directors, by way of announcement via the channels of the Stock Exchange of Thailand and the Company's website, together with detailed and clear criteria for consideration and acceptance of the proposed matters in the agenda, directly via the Company's website.

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5. The Company allows shareholders to make inquiries and provide their opinions in advance to the Board of Directors on any matters relating to the Company, which would be answered in the shareholders' meeting, by way of announcement via the channels of the Stock Exchange of Thailand and the Company's website, directly to the Company Secretary via the Company's website. And during the meeting, the Chairman of the Board of Directors who presides over the shareholders' meeting allows and encourages shareholders to share opinions and ask questions concerning related matters to the meeting, whereby sharing opinions or asking questions relating to agenda items is allowed during the meetings, after the end of report or presentation of each agenda item; or further sharing opinions or asking questions relating to matters other than the agenda items is allowed after the meeting has already proceeded in accordance with all agenda items.
  6. The Company has a policy to encourage shareholders, particularly institutional investors, to attend the shareholders' meeting, whereby prior registration shall be available.
  7. The Company uses the barcode system and the meeting program provided by InvenTech Systems (Thailand) Co., Ltd. in the shareholders' meeting, including registration, vote, counting of votes and display of the voting results to ensure the rapid, correct and precise conduct of the meeting.
  8. The Company arranges for its legal advisor and at least two shareholders' representatives to serve as witnesses in the counting of votes, to ensure transparency, compliance with the laws and articles of association. The Chairman of the Board of Directors who presides over the shareholders' meeting introduces the examiners of the vote counting to the meeting, and arranges to have it recorded in the minutes of the meeting, with the voting results showing all favorable votes, unfavorable vote, abstaining votes, and voided voting cards. As for the voting results, shareholders may examine such results, as the Company discloses the resolutions, together with the voting results, in each agenda item to the meeting.
  9. The Company shall specify complete details on agenda items in the notice of the shareholders' meeting, consisting of:
    - 9.1 To consider the election of directors, by specifying names, surnames, education, work experience, number of listed and general companies in which they hold office as director, including nomination procedures and criteria, category of nominated directors, such as, directors or independent directors, together with information on attendance at the previous meetings, and period/years of holding office as director in the Company;
    - 9.2 To consider the appointment of auditor, by clearly specifying the auditor's name, company, auditing license, experience and capabilities, years of audit service for the Company, including issues relating to independence and remuneration for the auditor;
    - 9.3 To consider and approve dividend payment, by notifying the Company's policy on dividend payment, proposed dividend rate, and reasons and supporting information, including suspension of dividend payment;
    - 9.4 The notice of the meeting shall clearly contain facts and reasons of each agenda item, including opinion of the Board on each agenda item.
  10. The Company efficiently prepares the minutes of the shareholders' meeting covering significant details on various matters as follows:
    - 10.1 Record of clarification on the voting procedures, by notifying shareholders of voting method and counting by using voting cards, including method of display of the results of votes, prior to the meeting;
    - 10.2 Record of questions posed by the shareholders and answers or opinions on various items at the meeting to allow the shareholders absent from the meeting to acknowledge the same;
    - 10.3 Clear record of resolutions of the meeting, together with such votes on each agenda item to agree, disagree and abstain on all items requiring voting;
    - 10.4 Record of the list of attending directors and absent directors, together with their position, for review of the directors' participation in each shareholders' meeting.

In this regard, the Company has publicized the resolutions of the shareholders' meeting via the news system of the Stock Exchange of Thailand and on the Company's website within the following business day and also publicized the complete minutes of the shareholders' meeting on the Company's website at [www.ch-karnchang.co.th](http://www.ch-karnchang.co.th) within 14 days from the meeting

date to enable the shareholders to review such information instead of waiting until the next meeting. Moreover, video presentation of the atmosphere of the shareholders' meeting is made available on the Company's website in order to allow shareholders who do not attend the meeting or any persons interesting in the Company's information to acknowledge the details of the meeting other than those recorded in the minutes of the meeting, whereby such video presentation is made available on the Company's website until the next shareholders' meeting.

11. The Chairman of the Board of Directors, chairpersons of various committees, namely, the Chairman of the Audit Committee, the Chairman of the Nomination and Remuneration Committee, the Chairman of the Corporate Governance and Risk Management Committee, the Chairman of the Corporate Social and Environmental Responsibility Committee, the Chairman of the Executive Board, and the President (top management), including auditor and legal advisor of the Company, participate in every annual ordinary general meeting of shareholders to answer questions in relevant matters.

12. The Company greatly realizes the significance of the shareholders' meeting, i.e., the meeting place must be convenient for the shareholders' commute, including suitable and sufficient time. The Company thus uses its office as the meeting place, which is located at No. 587 Viriyathavorn Building, Sutthisarnvinitchai Road, Ratchadaphisek Subdistrict, Dindaeng District, Bangkok, and which is convenient for commuting, nearby a subway station or an expressway on- and off-ramp, by providing a shuttle van service to and from a subway station, with sufficient parking areas for shareholders.

13. The shareholding structure of the Company and its subsidiaries is disclosed with clarity, transparency and open for review, and without any cross shareholding in the Company Group.

14. The Company has a free float greater than 40 percent, whereby the Board of Directors shall hold shares in aggregate not exceeding 25 percent of the Company's issued shares.

15. The Company's shareholding proportion of institutional investors in aggregate is more than five percent.

16. The Company has treated shareholders equally regarding share repurchase and opportunity for shareholders to contact or communicate each other.

17. The Company has no shareholders' agreement which has a material effect on the Company or other shareholders.

## 2. Equitable Treatment of Shareholders

The Company has a policy to promote and ensure equal and fair treatment towards all shareholders, including minority and foreign shareholders, with the following measures for protection of the shareholders' basic rights:

1. The Company allows all shareholders to cast votes, namely, one share for one vote, to ensure equitable treatment towards the shareholders, based on the criteria that shares of the same type should represent the right to vote on an equitable basis, namely, one share for one vote.

2. The Company has the process and channels for minority shareholders to involve in the Company's management, by allowing the minority shareholders to propose any item of agenda of the ordinary general meeting of shareholders and propose any qualified person to be considered and appointed as the Company's director prior to the meeting date. In this connection, the Company clearly notifies the shareholders of the details, together with the criteria for the consideration via channels of the Stock Exchange of Thailand and the Company's website, for four months, in order to build up the confidence of the minority shareholders to exercise the right to propose any matters relating to any significant change of the Company and the right to elect any independent directors to take care of the benefits on their behalf.

3. The Company sets out the written guidelines to prevent the use of insider information of the Company under the resolution of the Board of Directors, whereby the Company treats this as important policy which will prevent directors, management and staff from abusing their position for personal interests, as specified in the Annual Report. In addition, the Code of Conduct and Business Ethics are distributed and disseminated to all directors, management and staff of the Company for acknowledgment and compliance, which are available on the Company's website as a channel for all staff to access such information.

The Company's directors and management are required to disclose the reports to the Securities and Exchange Commission on their holding of securities, his/her spouse's holding of securities and minor children's holding of securities which are securities in the Company, as well as reporting on every change in such holdings of securities in respect of purchase, sale, transfer or acceptance of transfer, under Section 59 of the Securities and Exchange Act B.E. 2535 (1992) within three business days after the date of purchase, sale, transfer or acceptance of transfer of securities. Moreover, the directors and management realize their duties and responsibilities as specified, including the penalty provisions as specified in the Securities and Exchange Act B.E. 2535 (1992).



The Company pays significant attention to the efficient internal control system by setting out the internal control guidelines to prevent and minimize risks which may arise, namely, the Company specifies that management with access to insider information shall be prohibited from taking any actions in violation of Section 241 of the Securities and Exchange Act B.E. 2535 (1992), including applicable regulations. Due to the guidelines to prevent the use of insider information, in each past year, there has never been any case that the Company's directors and management abuse insider information to seek personal interests or others' interests.

4. The Company clearly discloses to shareholders the details and reasons of execution of related party transactions requiring the disclosure or approval of shareholders under the Stock Exchange of Thailand's regulations, by disclosing names and relationship of connected persons, pricing policy and transaction value, including opinion of the Board relating to such transactions.

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 management 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 Chairman of the Audit Committee in accordance with the Board of Directors' policy requiring directors and executives to report on their personal interests.

5. The Company discloses that the connected transactions have been executed according to market price and in accordance with the ordinary course of business. In the previous year, the Company did not execute any connected transactions in violation of or not in compliance with the rules of the Stock Exchange of Thailand and/or the Office of the Securities and Exchange Commission. In this regard, other than the notifications of such connected transactions via the channels of the Stock Exchange of Thailand, the Company also discloses the connected transactions in its Annual Report.

6. The Company has no the structure of business group with connected transactions in such a manner which may have a conflict of interests, taking into account the shareholding structure and level of execution of the connected transactions within the business group, based on the Company's income and expenditure as a result of the business operation in the group, compared with the total income and expenditure. In this regard, the level of execution of connected transactions shall be considered, both income and expenditure, which shall be less than 25 percent, except for transactions in the ordinary course of business and transactions with subsidiaries or associated companies without related persons holding shares exceeding 10 percent.

7. Any shareholder unable to attend the meeting in person may exercise his/her right to vote by appointing proxy to attend and vote on his/her behalf. In addition, the Company nominates members of the Audit Committee who are independent directors as an option for appointment of shareholders' proxy. The Company sends Proxy Form B, together with the notice of the shareholders' meeting, in order for the shareholder unable to attend the meeting on the scheduled date to enjoy his/her equal rights as shareholder.

8. Proxy Form sent by the Company with the notice of the shareholders' meeting specifies clear details, documents and evidence in support of the appointment of proxy, together with suggestions and procedures for appointment of proxy to enable shareholders to produce complete documentations without any difficulty in attending the meeting by proxy.

9. As for the requirement for appointment of proxy by any shareholder unable to attend the meeting in person, the Company has not set out any rules or conditions causing any difficulties to the appointment of proxy to attend the meeting on his/her behalf. Instead, such documents shall be certified by the proxy grantor and the proxy holder to confirm the exercise and granting of the right to attend the shareholders' meeting in accordance with the criteria.

10. The Company delivers the notice of the shareholders' meeting to shareholders in advance at least 21 days prior to the meeting.

11. The Company posts the notice of the meeting, together with details of the complete notice of the shareholders' meeting, on the Company's website in advance 30 days prior to the meeting date for the shareholders to have time to consider details of each agenda item, especially for those shareholders unable to attend the meeting in person.

12. The Company delivers the notice of the shareholders' meeting and supporting documents in Thai version to Thai shareholders. For foreign shareholders' convenience, the Company prepares the notice of the shareholders' meeting and supporting documents in English version to the foreign shareholders. In this regard, both all Thai and foreign shareholders shall receive complete documents within the period of time specified by law.

13. The Company has no policy to provide any financial support, whether loan or guarantee, to any companies which are not the Company's subsidiaries, except such loan or guarantee due to the Company's shareholding in accordance with a joint venture agreement.

14. Last year, the Company did not execute any transactions on acquisition or disposition of assets in violation of or not in compliance with the rules of the Stock Exchange of Thailand and/or the Office of the Securities and Exchange Commission.

### 3. Role of Stakeholders

The Company realizes the significance of rights of all groups of stakeholders, whether inside, such as staff and executives of the Company and the subsidiaries, or outside, such as customers, traders, competitors, creditors, communities, society, public sector and other relevant authorities, to ensure that the basic rights of these stakeholders are well protected and taken care of under the provisions of the laws and other relevant rules and regulations. The Company recognizes support from these stakeholders which could help building up the Company's competitiveness and profitability to result in long-term success for the Company. The Company's Board of Directors has set out the corporate governance policy that the Company shall take care of the stakeholders based on their rights under the relevant laws, shall not take any acts in violation of the rights of stakeholders, and shall establish measures to compensate any stakeholders suffering from damage arising from violation of rights. The practices towards the Company's stakeholders are as follows:

#### 1. Shareholders

- The Company has performed duties with integrity, honesty and fairness, taking into account both major and minor shareholders, and for the benefit of the group of related persons as a whole;
- The Company has managed its business to ensure prosperity, stability and good return for shareholders;
- The Company has protected its assets from depreciation or unnecessary loss;
- The Company has, regularly and in a timely manner, disclosed the accurate and sufficient information, both financial and non-financial, relating to the Company's business and the operational results, and representing the Company's actual operational and financial status;
- The Company's treatment of shareholders complies with the CG Code in the Chapter: Shareholders' Rights and Equitable Treatment of Shareholders. In addition, the Company pays significant attention to the annual ordinary general meeting of shareholders by complying with the assessment of the shareholders' meeting by the Office of the Securities and Exchange Commission and the Thai Investors Association before the meeting, during the meeting and after the meeting for facilitating all shareholders' exercise of their right to vote in the meeting equally.

#### 2. Traders and/or Creditors/Debtors

- Every trader and/or creditor/debtor has been equally and fairly treated by the Company, taking into account the Company's optimum benefit and based on the fair returns for both parties;
- Based on the conditions of selection of traders, the Company's competition is on the basis of equal information access, without preventing any trader from participating in business competition;
- The Company has utilized copyrighted goods and services and does not support any goods or any actions in violation of the intellectual property;
- The Company has prepared appropriate and standard contracts;
- The Company has arranged for management and monitoring systems to ensure the full compliance with contracts, and internal control system to prevent any fraud and misconduct in every step of the procurement procedures;
- The Company has made payments to traders on time in accordance with terms of payment as mutually agreed, and has strictly complied with various conditions as mutually agreed upon with traders and/or creditors;

- The Company has refrained from seeking any trader's secret by any dishonest or improper means, such as, bribing any director and staff of competitors;
- The Company has refrained from making any negative accusation against traders without actual information;
- The Company has avoided the situation which causes a conflict of interest, as well as complying with the contractual obligations;
- The Company has provided actual information and accurate report. The negotiation for problem resolution is based on the business relationship;
- The Company has strictly complied with various agreements or conditions as mutually agreed, including commitment and contingent liability. In case it is unable to comply with any condition or there is a default on debt repayment, the lenders must be informed thereof without any undisclosed facts to jointly seek a justifiable solution;
- The Company manages fund to ensure appropriate structure in support of the Company's business operations and to maintain creditors' trust;
- The Company is determined to maintain the sustainable relationship with creditors and mutual trust.

### 3. Customers

- The Company has clear and concrete policies and practices with fairness and responsibility towards customers. The Company maintains the optimism and gives priority to customers, treats customers willingly, actively, politely, keeps customers' confidential information from misuse for personal gain or others, as well as treating all customers equally without discrimination;
- The Company delivers quality goods at fair price in accordance with agreements with its customers;
- The Company provides correct, adequate and up-to-date information, news, and suggestions relating to goods and services to customers;
- The Company strictly complies with various conditions with customers. If the Company is unable to comply with any of such conditions, the Company must promptly give notice to customers to jointly consider finding a solution to such problem.
- The Company has a procedure for customers to submit any complaint about quality, quantity, safety of goods and services, including turnaround time for delivery, and the Company makes its best efforts to ensure rapid turnaround time to customers.

### 4. Competitors

- The Company has clear and concrete policies and practices with fairness and responsibility towards competitors, based on ethics, transparency and fair competition within the scope of laws;
- The Company has free trading policy and believes that competition is a positive factor to encourage the development of service standard and innovations to be offered to customers;
- The Company has complied with the fair competition framework;
- The Company in no way discredits any trading competitor's reputation by negative accusation without actual information;
- The Company in no way accesses any competitor's confidential information through any dishonest or other inappropriate methods.

### 5. Business Interested Parties

- The Company has clearly determined policies and procedures for approval of connected transactions to prevent any potential conflicts of interest.

### 6. Staff

- The Company has policies and practices relating to occupational health and safety for staff at work place as well as creating a good working environment and promoting good physical and mental health of staff, by arranging for fitness room, annual sports competition, to ensure the unity and good relationship; In 2019, there was no report on accident or rate of absence from work or rate of work-related illness to the extent of absence from work.

- The Company truly realizes the significance of its staff, and to meet its objectives, the Company recruits and employs knowledgeable, capable and experienced personnel to perform works, and in response to the Company's requirements and growth, by continually organizing programs for development of staff knowledge and capacities to advance their skills;
- The Company has concrete and open policies and practices as to management of staff remuneration and welfares on an equal and fair basis, whereby the Company has equally and fairly treated its staff through proper and fair remuneration and welfare, as well as provided more welfares than those specified by law, such as, establishment of a provident fund, medical treatment packages in hospitals designated by the Company, financial aids in the event of death of staff or their parent or spouse, annual health check-up, 5S activity, and fitness center, etc.;
- The Company truly realizes the significance of personnel development by establishing clear internal personnel development plans, encouraging all levels of its staff up to high ranking executives to receive training for improvement of their knowledge and capacities, both in theory and practice, so as to ensure the efficient performance skills, including fair employment conditions suitable for the market and in compliance with the labor laws;
- The Company provides the fair and suitable remuneration for staff based on their performance by applying the staff performance evaluation system to measure their capabilities to ensure development of competency and clear performance measurement subject to key performance indicators (KPI) for all major activities, in support of the consideration of merits of staff to ensure incentives for staff development and remuneration in connection with value added to the business and in line with the Company's operational results for short and long term;
- The Company builds the participatory working atmosphere and teamwork by allowing staff to express their opinions relating to their works;
- The Company establishes a policy on human rights by determining clear operational guidelines and practices towards non-discrimination, equal employment opportunity for women, persons with disabilities, underprivileged groups, youth, elderly, and recognition of staff's right to collective bargaining. In 2019, the Company received no complaint about violation of human rights;
- The Company ensures that staff strictly comply with laws and regulations relating to staff, including provision of suggestions in order to prevent any illegal action, whereby the Company supervises to ensure that staff use lawful products and refrain from infringement of copyrights or intellectual property, along with support of compliance with the operational guidelines and performance of duties with integrity, without any involvement with corruption for the benefits and success of the Company.

#### 7. Society and Public

- The Company has clear and concrete policies and practices with fairness and responsibility towards society, and with transparent operations, by taking into account the public interest and refraining from taking any acts which may cause damage to the country's reputation, natural resources, environment and public interest;
- The Company has promoted and instilled into its staff at all levels the corporate social responsibility;
- The Company in no way facilitates, supports or allows to be instrumental in any avoidance of compliance with the law.

#### 8. Communities

- The Company has considered communities as part to be concerned and facilitated, and thus focuses on various activities for improvement of the quality of life of communities and environment as its contribution to society. The Company then has a policy to support and participate in activities related to development of communities by complying with laws and regulations;
- The Company regularly participates in meetings, sharing of opinions, and provides cooperation with local agencies for development of livelihood of communities;
- The Company establishes preventive and remedial measures against environmental and community impact as a result of the Company's operations.



## 9. Environment

- The Board of Directors has set out a policy to operate the business by taking into account the environment, with a commitment to compliance with applicable laws, regulations, standards and requirements, including strict adherence to the government's environmental policies, together with its readiness to continuously and seriously carry out the development of the environmental management procedures within the organization to ensure the cost-efficient resources utilization and minimize waste with the environmental impact from the organization's activities, including provision of knowledge and training regarding environment to staff and participation in support of activities related to community development to ensure the continuity of environmental activities and reflect the business sustainability;
- The Company has developed and improved the environmental management system in all activities of the Company to continuously minimize pollution and impact on the environment, with clear objectives, goals, action plans and evaluation;
- The Company has promoted the environment preservation, as well as publicizing the information and news, and cooperated with the staff, customers, government agencies and private entities, including the public, as a gesture of the Company's image and awareness of the environmental management;
- The Company has rapidly and efficiently responded to any events giving rise to impact on the environment and communities caused by the Company's operation;
- The Company has raised the consciousness and responsibility of staff in relation to environment under the environment management system as well as campaigning conservation and consumption of energy and resources with efficiency through training and public relations media, such as, internal newsletters, notice board, internal circular letters, in order to regularly keep them well informed on knowledge and skills on environment;
- The Company has presented the results of performance in compliance with the policy and action plans in respect of the social responsibility by reporting directly to the Board of Directors and disseminating the social and environmental activities to the Company's staff, shareholders, and persons related to the Company, as well as publicizing such information via website and Annual Report of the Company.

10. The Company has set out a non-infringement of human rights policy to confirm its respect for human rights which is the foundation of personnel care and development, and which will play an important role in building the Company's quality and achievements as a whole. The Company is committed to its staff care as follows:

1. In terms of remuneration and welfare, other than the fundamental welfare as required by laws, the Company also commits itself to paying remuneration and providing welfare as appropriate and reasonable, always taking into account the overall market condition;
2. In terms of personnel development, the Company has set out a personnel development policy by ensuring satisfaction of remuneration and work environment through development of competency in response to requirements of each work unit for the purpose of the organization's competitiveness.

11. The Company determines a non-infringement of intellectual property or copyright policy and practices to prevent any problems which may damage or discredit the Company, by prohibiting its management and staff from using any illegal software and copying any copyrighted software for any reason whatsoever without prior permission of the software owners. All staff have a duty to help take care of the Company's intellectual property works and refrain from misusing or allowing any third parties to use the Company's intellectual property without permission. In addition, 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.

12. The Company determines an anti-corruption and bribery policy to prohibit any bribe payment for the Company's business interest or granting of any items or any other benefits to any persons having a duty or business related to the organization for the Company's business interest. It is clearly set out as a guideline to prevent any problems due to corruption and unfairness in the business operation, such as, compliance with prohibitions, action plans or internal control measures, morality, and work supervision, as a duty of staff at all levels in the Company, as well as monitoring code of ethics, morality and action plans or measures in work supervision relating to anti-corruption and bribery, including authority and duty to report on various matters directly to the Company's independent unit for inspection and monitoring. Moreover, the Company has adopted the corruption risk assessment process and the practices relating to supervision and control for prevention and monitoring of corruption risks, including guidelines for following up and evaluation of performance in compliance with the anti-corruption policy, by providing staff training to ensure their knowledge relating to the anti-corruption policy and practices at least once a year. The Company then establishes the anti-corruption policy for ensuring strict adherence thereto and compliance therewith by all of the Company's directors, executives and staff. The following are the key practical guidelines:

1. The Company's directors, executives and staff of all levels should engage in activities with various agencies based on fairness, honesty, integrity, and transparency, provided that such activities must be proper in accordance with laws, policies, articles of association, rules announcements or accurate operational procedures.
2. The Company promotes and supports fair and honest treatments towards all its business alliances, including compliance with contractual obligations to the Company's stakeholders.
3. The Company promotes and supports awareness-raising among directors, executives and staff to ensure that they refrain from committing any fraud or corruption and realize negative impacts of corruption.
4. The Company supports and encourages its directors, executives and staff to refrain from receiving, agreeing to receive, providing any hospitality, gift/souvenir and any other payments which are extravagant and inappropriate from and to those who make business deals 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 conducts supervision and monitoring to prevent any fraud or corruption by determining clear and concise procedures, and the internal unit has a duty to inspect the actual performance in order to prevent any fraud or corruption.

13. The Company has the corruption risk assessment process via the risk management working group which shall meet quarterly to report on the results, to management and the Corporate Governance and Risk Management Committee for further report to the Board of Directors, respectively, and also determines the practices relating to supervision and monitoring to prevent and follow up corruption risks, as follows:

1. Staff are prohibited from granting or offering any items or any other benefits to third parties, such as, government officials, agents, representatives, counterparts, etc., with the intention of inducing such third parties to take or omit to take any acts in violation of laws or contrary to their positions or functions or in exchange for undue privileges;
2. Staff are prohibited from demanding or receiving any items or any other benefits for personal gain or for gains of others in a manner that persuades them to abuse their duties or neglect to perform their duties;
3. Any business dealings in association with various agencies, such as, government agencies, state enterprises or private sector, etc., both local and international, must be transparent, fair and lawful in Thailand and foreign countries where such dealings take place;
4. Any fraudulent acts against duties are deemed to be a serious disciplinary misconduct.

14. The Company realizes the significance of communication with all groups of stakeholders to exchange information, as well as listening to opinions and suggestions of all groups of stakeholders for common interest. In case where any stakeholders are not fairly treated by the Company, they may contact or file complaints directly with the Company through the Audit Committee or via e-mail: [audit\\_committee@ch-karnchang.co.th](mailto:audit_committee@ch-karnchang.co.th), and/or through the Company Secretary or via e-mail: [company\\_secretary@ch-karnchang.co.th](mailto:company_secretary@ch-karnchang.co.th). In 2019, there was no any complaint.

15. The Company determines policies or guidelines for protection of staff or any whistleblower by establishing measures to protect them under the criteria as follows:

1. Any complainant or person who provide cooperation in fact-findings may choose not to disclose his/her identity if he/she considers it unsafe or damaging. However, if the identity is disclosed, it will enable the organization to report on any development and explain the facts to the complainant;
2. The Company will not disclose name-surname, address, photograph, or any other data which may identify the complainant or person who provide cooperation in fact-findings;
3. The complaint recipient will keep relevant information confidential/be concerned about safety by establishing measures to protect staff who make complaints and/or who provide information and/or cooperation in investigation, whereby they will be protected from unfair treatment, such as, change of work position, job description, work place, work suspension, threat, nuisance in performance of work, employment termination, as a result of the complaints;
4. Any aggrieved party will be relieved by means of proper and fair process.

16. The Company arranges for channels for all stakeholders, general people, and staff to make complaints on unfair treatment or to provide any clues relating to matters which may be considered illegal and correctable, including measures to protect staff who make the complaints and notice of the results to the complainants on a systematic and fair basis, by allowing staff to have channels to make their complaints and independently provide their opinions, as follows:

1. The complaint recipient shall gather facts concerning violation or non-compliance with ethics;
2. The complaint recipient shall report to the independent directors on facts, conduct an investigation of facts in order to consider the complaints, by dividing related matters into issues in terms of management, knowledge development, investigation of facts, etc.
3. As for the operational measures, the complaint recipient shall propose the independent directors to conduct an investigation of facts and establish measures to resolve such violation or non-compliance with laws.
4. As for the report on the results, the complaint recipient shall notify the complainants of the results should such complainants disclose their identity. In case of a significant matter, the results shall be reported to the Chairman of the Board of Directors and/or the Board of Directors.

17. The Stock Exchange of Thailand and the Office of the Securities and Exchange Commission. The Company, in its capacity as a public limited company listed on the Stock Exchange of Thailand, has strictly complied with the Securities and Exchange Act, including rules and regulations issued by the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission.

Over the past period, the Company has disclosed its significant information via the news system of the Stock Exchange and prepared the financial reports and other reports, namely, connected transactions, minor shareholding distribution, in accordance with requirements of the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission.

#### 4. Disclosure and Transparency

The Company realizes the significance of the good corporate governance by disclosing material information which affect or may affect change in the Company's securities value or investment decision-making or benefits of shareholders in order for shareholders and general investors to rapidly and equally acknowledge news and information.

The Company has the guidelines on disclosure of significant information relating to the Company to the public with accuracy, completeness, punctuality and transparency in accordance with requirements stipulated by the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand through an easy access to information, namely, dissemination of information, both in Thai and English, on websites of the Stock Exchange of Thailand, the Office of the Securities and Exchange Commission, including the Company's website, with the practices as follows:

1. To ensure shareholders/investors' acknowledgement of the structure of ownership of business in which they have invested and their rights, compared with other shareholders, the Company discloses the most recent structure of major shareholders for those who utilize information to truly and clearly acknowledge shareholders; discloses shareholding of directors and executives, both direct and indirect, including information on structure of the business group and shareholding proportion, major risks in the Company's business operations.

2. The Board of Directors establishes a policy that the Company shall undertake activities with transparency and open for inspection with sufficient information disclosure to all relevant parties as well as monitoring to ensure disclosure of correct, complete, timely and reliable information, and everyone can equally access such information. In disclosing the Company's significant information, other than by way of dissemination under the specified criteria via the Stock Exchange of Thailand's channels, the Company also disseminates such information on the Company's website: [www.ch-karnchang.co.th](http://www.ch-karnchang.co.th), both Thai and English, such as, Annual Report, Annual Registration Statement (Form 56-1), Corporate Governance Policy, the Company's information, nature of business operations of the Company, financial statements, public relations news, shareholding structure, organization structure, business group structure, information relating to directors and executives, investor relations information, the Articles of Association, the meeting notice, the operational results, financial ratio, dividend payment record, together with other information, such as, corporate social responsibility activities. In this regard, the Company regularly updates the website for up-to-date information and news for convenient access and to the best interest of users.

3. In respect of investor relations, the Board of Directors is well aware of the significance of accurate, complete, transparent, thorough and timely disclosure of information relating to the Company. Therefore, the Company has set up an Investor Relations unit to be specifically responsible for disclosure of information to shareholders and investors, both financial and non-financial, such as, financial report, operational results, financial ratio, dividend history and other information which may impact the Company's securities value. Such information and news in support of their decision making are published for investors and relevant parties through various channels and media of the Stock Exchange of Thailand, the Office of the Securities and Exchange Commission, including the Company's website at [www.ch-karnchang.co.th](http://www.ch-karnchang.co.th) in both Thai and English languages.


Those interested to receive information in support of investment may contact Khun Sawanya Trivisvavet at Investor Relations, Telephone 0-2275-0026 ext. 2317-2319.

The provision of the Company's related information to securities analysts is also another main duty of the Investor Relations unit 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 correct 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.

In addition, the Company has set out a policy to rotate high level executives from the President, Executive Vice President, Vice President: Accounting, Vice President: Finance, and the Company Secretary to provide information and answer questions to investors, so that they would be personally aware of opinions and requirements of Thai and foreign investors. As for internal communication, the Investor Relations unit prepares IR Report, by collecting and summarizing questions and opinions of investors towards the Company's business operations for submission to the management on a monthly basis in order to present useful suggestions or feedbacks of investors to the management for further improvement of the operations. Consequently, such activities in various forms contributed to achievements of the Investor Relations, as follows:

### Investor Relations Awards

 In 2017, the Company was presented with the Outstanding Investor Relations Awards in the category of companies listed on the Stock Exchange of Thailand with market capitalization ranging from Baht 30,000 - 100,000 Million in SET Awards 2017 Event.

 In 2018, the Company was presented with the Best Investor Relations Awards in the category of companies listed on the Stock Exchange of Thailand with market capitalization ranging from Baht 30,000 - 100,000 Million in SET Awards 2018 Event.

4. The Company discloses its financial information and reports the responsibilities of the Board of Directors towards the financial report, together with the auditor's report, the management discussion and analysis, general information and significant information in the Annual Report correctly, timely and in accordance with the regulations of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand.



5. The Company did disclose the roles and duties of the Board and various subcommittees, number of meetings and attendances of each director in 2019.

6. The Board of Directors and the management have prepared the report on securities holding and change in securities holding in accordance with the rules of the Office of the Securities and Exchange Commission. The Board of Directors has also set out a policy requiring directors and executives to make a report on each change in their share acquisition-disposition/securities holding to the Board of Directors' meeting.

Other than the report on securities trading of executives in accordance with the requirements of the SEC, in regard to other executives along with staff who are authorized to access the Company's material information which may influence securities price movements, securities trading by usage of inside information, such as, information on capital increase or decrease, dividend payment, the Company's operational results, joint investments, etc., is considered as taking advantage of general investors. In this respect, the Company prevents any insider trading of securities by requiring its executives to report on their securities trading in accordance with the rules as required by the Stock Exchange, whereby all insiders should refrain from trading securities or should wait until the public has been informed of such information for a reasonable period of time.

7. The Board of Directors has set out a policy regarding report on interest of directors and executives by requiring directors and executives to report the Company of their personal interest or their related persons', which is related to the business operation and management of the Company or its subsidiaries, in accordance with the criteria, conditions and methods as required and announced by the Capital Market Supervisory Board. Such report also includes a disclosure of information on directorship or executive position in other legal entities and information on their shareholding in other legal entities in excess of 10 percent of the total number of voting shares by both reporters and their related persons (spouse, child/adopted minor child and related legal entity) for submission to the Company Secretary for reference, and copies of such reports shall be submitted to the Chairman of the Board of Directors and the Chairman of Audit Committee within seven business days from the date of receipt thereof.

8. In regard to the policy on payment of remuneration for directors and executives, the Company establishes a clear and transparent policy on remuneration for directors and executives, subject to review by the Nomination and Remuneration Committee. The remuneration shall be at the same level as that in the same industry and sufficient to retain the qualified directors and the President, and remuneration for executives, excluding the President, shall be in accordance with the principles and policies determined by the Executive Board corresponding to the Company's operational results and performance of the executives, as per the details of Remuneration for Directors and Executives on pages 105.

9. The Company establishes a whistleblowing policy for the purpose of development of the Company's sustainable growth and prosperity. Such arrangement is a key mechanism which will help enable management, staff or stakeholders to report on acts in violation of the code of ethics, fraudulent acts, and other ethical issues, without identifying any whistleblower's name. The Company will also assure whistleblowers that the whistleblowing process is independent, reliable and dependable, together with a monitoring process for fact-findings or conclusion, including fair whistleblower protection measures.

10. The Company establishes the policy on significant connected transactions which shall be subject to consideration and approval of the Board of Directors in compliance with the requirements of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand. In the case of execution of connected transactions, the Company shall disclose details of persons with whom the Company executes such connected transactions, relationship, transaction description, price conditions/policies and transaction value.

11. The Company formulates its objectives/goals in the long run to become the leading construction and regional infrastructure investment development business that provides quality and full services.

## 5. The Board of Directors' Responsibilities

The Board of Directors acknowledges its role and responsibilities to set policies and directions of the Company's operations under the laws, its business objectives, the Articles of Association, as well as resolutions of shareholders' meetings. The Board of Directors monitors and supervises the management to efficiently and effectively perform in compliance with the specified policies in order to protect the Company's interests, maximize its economic value and create wealth for shareholders

based on the CG Code. The Board of Directors monitors and supervises management to ensure that the strategies have been applied to the business for sustainable growth. In respect of the significance of the role and duties of the Board of Directors towards the Company and shareholders, the Board of Directors shall consist of qualified persons who have leadership, vision, knowledge, abilities and experience in various fields, honesty and integrity as well as independence on decision-making for the optimum benefits to the Company and shareholders as a whole.

**The Board of Directors complies with the best practices of the Stock Exchange in various aspects, as follows:**

### **1. Structure of the Board of Directors**

The Board of Directors consists of 10 qualified members, with useful skills, knowledge and experience to efficiently perform their duties, comprising: six executive directors, four independent directors, constituting a counterbalance from non-executive director. The Company has four independent directors, which represents more than one-third of the total number of directors. The Chairman of the Board of Directors is an independent director by the definition of the Stock Exchange of Thailand and has no relationship with management and is not the President, so as to separate the policy-making and supervisory duty from the regular managerial duty. The Board of Directors clearly determines power and duties of the Chairman of the Board of Directors and the President.

The Company determines qualifications of “independent directors” stricter than the minimum requirements of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand.

The Board of Directors establishes the policy on limitation to the number of listed companies in which each director will hold office as director which shall not exceed five companies, without any exemption, since, after considering the matter, it is deemed that such number enables all directors to devote their time to regularly attend meetings. In this regard, the Board of Directors has not established the policy on limitation to the number of term of office as director since directors have a good understanding of the Company’s business and provide suggestions which are useful for both the Company and shareholders. Furthermore, the Board of Directors also appoints the Company Secretary in accordance with the guidelines for the CG Code to provide suggestions relating to various laws and regulations as required by the Board of Directors and to supervise activities of the Board of Directors as well as coordinating to ensure compliance with the Board of Directors’ resolutions.

The Board of Directors establishes the policy on holding of office as director in other companies by the President, whereby the Board of Directors’ meetings shall be notified of reasons and details of companies in which he/she holds such office, which shall not exceed five listed companies.

### **2. Subcommittees**

The Company establishes five subcommittees to closely monitor and supervise the operation and regularly report to the Board of Directors, namely, the Executive Board, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee, and the Corporate Social and Environmental Responsibility Committee. In this regard, the Board of Directors determines duties and responsibilities of each subcommittee. Furthermore, all subcommittees have reported to the Board of Directors on their respective self-performance evaluation results, as follows:

1) The Executive Board has performed its duties to provide useful suggestions and advice to management and consider scrutinizing works proposed to the Board, as well as providing beneficial opinions and instructions in terms of financial management.

2) The Audit Committee has performed its duties to review the reliability of the Company’s financial reports prior to submission to the Stock Exchange of Thailand, audit the internal control system, as well as considering the disclosure of connected transactions to ensure the accurate and complete information, and provide useful suggestions and advice to management in terms of good corporate governance.

3) The Nomination and Remuneration Committee has performed its duties to consider nomination criteria and procedures for qualified persons to hold the position of the Company’s directors and consider determining criteria on consideration of remuneration for directors and President.

4) The Corporate Governance and Risk Management Committee has performed its duties to provide suggestions, follow up performance under the CG Code, monitor and review the Company’s overall risk management, strategies for risk management.

5) The Corporate Social and Environmental Responsibility Committee has performed its duties to provide suggestions, follow up performance to ensure achievement of the goals and the social and environmental policy as well as considering and following up progress of corporate social and environmental implementation, together with evaluation of success.

### **3. Roles, Duties and Responsibilities of the Board of Directors**

1) The Board of Directors comprises personnel having knowledge, ability, skills and experiences in various fields to exercise their judgment independently with leadership, who determine vision, missions, strategies, goals, business plans and budget of the Company, and supervise the management to take actions in compliance with the business plans and forecast budget with efficiency and effectiveness so as to optimize the economic value to the business, including monitoring the operational results to meet the objectives and comply with the policies, rules, laws and other relevant regulations.

2) The Board of Directors establishes a corporate governance policy and has such policy reviewed at least once a year.

3) The Board of Directors has a duty to consider granting approval of important matters relating to the Company's operations, such as, vision and missions of the Company, strategies, financial target, action plan and budget, as well as supervising, controlling, monitoring to ensure management's compliance with the specified policies and plans with efficiency and effectiveness so as to enhance the optimum economic value to the business, and ensure that the operational results meet the objectives and comply with the policies, rules, laws, and relevant regulations. The Company did have its vision and missions reviewed and approved at least every five years. Subsequently, the Board of Directors' Meeting No. 7/2014 on December 18, 2014 resolved to grant approval for the Board of Directors to consider reviewing the Company's vision, missions or strategies in every previous accounting year in order for the Board of Directors to oversee and monitor the implementation of the Company's strategies.

4) The Company prepares its code of ethics since the year 2003, with the approval by the Board of Directors. The code of ethics contains proper conduct and practices for directors, executives and staff, and guidelines for conduct and treatment towards the Company, colleagues, third parties and society, in accordance with the best practices. In the past, all directors, executives and staff have been informed and well understood of the proper and ethical conduct and complied with such practices in the performance of their duties in line with the Company's missions, with honesty, integrity and equality, to build up confidence of shareholders and all groups of stakeholders, including the public and society.

The Company has the guidelines in support of compliance with the code of ethics, as well as following up performance, whereby the ethical compliance survey forms shall be sent yearly to all directors, executives and staff, and the results of the survey shall be then concluded as standard for strict adherence to the code of ethics.

In addition, the Company has determined to review its code of ethics on a regular basis, should it be found that any practices in its code of ethics do not cover its business operation, the amendment thereof shall be made promptly. Other than the provision 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, the Company also continues to encourage high and middle executives to undergo corporate governance training, in order to enhance their knowledge, understanding, vision and good attitude towards management in accordance with the CG Code, to create leadership and to succeed to an office in management, as well as to further perform duties and push ahead the organization with morals and ethics.

5) The Board of Directors establishes the Internal Audit Office which shall report directly to the Audit Committee, with the duty to follow up and review the Company's operations, together with the operating system in various departments of the Company to ensure efficiency in compliance with the annual audit plan as approved by the Audit Committee. Last year, the Company has no records of violation of any rules and regulations of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand.

6) The Company establishes the Compliance Unit to perform the duty to provide suggestions and monitor to ensure the Company's compliance with laws, the Articles of Association, relevant rules and regulations, including disclosure and information memoranda.

7) The Board of Directors and the Audit Committee shall provide an opinion relating to adequacy of the internal control system in the Annual Report.

8) The Board of Directors properly considers the transactions which may have a conflict of interests or connected transactions or related party transactions under the best practices subject to review by the Audit Committee to ensure compliance with the rules of the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission, as well as the disclosure of information on the execution of such transactions which may have a conflict of interests to the public. In this regard, the Company establishes the policy, rules and regulations, and procedures for approval of the transactions which may have a conflict of interests for executives, staff and the relevant persons for compliance with the significant principles, as follows:

(1) Compliance with the rules set out by the Stock Exchange of Thailand in the execution of connected transactions to propose the connected transactions to the Audit Committee for consideration and approval prior to seeking approval of the Board of Directors under the CG Code.

(2) Disclosure of information on the transactions which may have conflict of interest or connected transactions or related party transactions pursuant to the rules set out by the Office of the Securities and Exchange Commission/Stock Exchange of Thailand, in the Annual Registration Statement (Form 56-1) and the Annual Report, as well as disclosing the information of such transactions in the financial statements in accordance with the accounting standards.

(3) In the consideration of the execution of the transactions which may have a conflict of interests, the Board of Directors shall carefully consider such transactions to ensure the benefits of the Company and shareholders as a whole, whereby the interested directors shall not attend the meeting nor vote on such agenda.

9) In respect of risk management, the Board of Directors follows up and acknowledges the Company's risk management plan from management's report on operational results in every the Board of Directors' meeting and from the Report of the Corporate Governance and Risk Management Committee. In this regard, the Company determines and assesses its business risks by establishing the efficient risk preventive measures and risk management systems for the entire organization.

### **Risk Management Policy**

1. The Board of Directors, all executives, staff and units own the risks and have the duties to be responsible for, assess, follow up, and support the risk management process with efficiency.

2. All units of the Company shall have a risk management process, as well as having a systematic and continuous assessment and follow-up, subject to regular review at least once a year in line with business changes.

3. The risk assessment shall form an integral part of the annual work plan of all units, by considering all risks of the entire organization, taking into account such risk factors, both inside and outside the organization, including proper risk management.

4. The Corporate Governance and Risk Management Committee has the duties to assess the risk management and propose its opinion to the Board of Directors.

5. The organization culture will focus on common understanding and awareness of risks. The body of knowledge shall be established for staff at all levels to have access for study and research and sharing of experiences, which would pave the way for development and improvement of the risk management process to become an efficient mechanism in the strategic administration.

### **10) Segregation of Roles and Duties between the Board of Directors and Management**

The Company has the roles and duties between the Board of Directors and management clearly segregated, namely, the Board of Directors shall have the duty to set out the Company's policies and supervise management's operations while the Company's management shall have the duty to handle various administration affairs to ensure compliance with the policies set out by the Board of Directors. Therefore, the Chairman of the Board of Directors and the President shall be two different persons, and the Chairman of the Board of Directors shall be an independent director.

The Board of Directors consists of the Chairman of the Board of Directors and directors. The Company's management consists of the Chairman of the Executive Board, the President, Senior Executive Vice President: Operation Group, Senior Executive Vice President: Administration Group, Executive Vice President: Construction 1, Executive Vice President: Construction 2, Executive Vice President: Construction 3, Executive Vice President: Construction 4, Executive Vice President: Engineering, Executive Vice President: Business Development, Executive Vice President: Purchasing, Executive Vice President: Accounting and Finance, Executive Vice President: Human Resource and General Administration, and Executive Vice President: Internal Audit Office.



11) The Board of Directors has monitored and supervised to ensure the Company's strategic implementation by setting out policy formulation process which is clear and ready for implementation, jointly meeting among high level executives, management and workers, planning process and plan implementation process in close cooperation with each other to convey knowledge and understanding in plans/action plans to all related personnel, namely, those who have a duty to be responsible for doing various projects, those who have a duty to conduct inspection and evaluation, appointing a working group to follow up performance, in which case, if it is found that performance fails to meet the target, trying to modify the action plans to ensure achievement of the set target.

#### 4. Board of Directors' Meetings

The Company schedules the Board of Directors' meetings in advance for directors to manage their time to attend the meetings, except for special agenda, the Chairman of the Board of Directors or the directors in the number specified by law may convene additional meetings as necessary. The Board of Directors regularly meets every two months. The President Office shall deliver the notice of the meeting, together with agenda and supporting documents, at least seven days prior to the meeting date for the Board's review prior to attending each meeting.

The agenda shall be determined by mutual discussion between the Chairman of the Board of Directors and the President. In 2019, the Board of Directors convened a total of seven meetings, one of which was convened with non-executive director without the management's presence in order to allow directors to independently discuss and share opinions as well as efficiently following up performance of the management. Moreover, the Executive Board meets on a monthly basis. Most of the directors were able to attend the meetings, except where they were engaged by urgent business. In every meeting, the Chairman of the Board of Directors shall serve as the chairman of the meeting to ensure each item shall be carefully considered and all directors shall be 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 matters to the satisfaction prior to voting on each item. In this regard, the minutes of the meetings are recorded in writing and systematically kept for inspection.

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. In considering a connected person and interested person, the Board of Directors shall take into account such report on interests which all directors and executives shall 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 Chairman of the Audit Committee. In addition, the Board of Directors establishes a policy relating to minimum quorum of a Board of Directors' meeting to pass resolutions, whereby the directors present at the meeting shall not be less than two-thirds of all directors.

Meeting attendance of each director (attendances/total number of meetings) may be summarized as follows:

Directors	Board of Directors	Executive Board	Audit Committee	Nomination and Remuneration Committee	Corporate Governance and Risk Management Committee	Corporate Social and Environmental Responsibility Committee
1. Mr. Aswin Kongsiri	7/7					
2. Mr. Plew Trivisvavet	7/7	12/12		2/2	4/4	
3. Mr. Vitoon Tejatussanasoontorn	7/7		4/4	2/2	4/4	
4. Mr. Thawansak Sukhawun	7/7		4/4	2/2	4/4	
5. Mr. Pavich Tongroach	7/7		4/4			2/2
6. Mr. Narong Sangsuriya	7/7	12/12		2/2	4/4	
7. Miss Supamas Trivisvavet	7/7	12/12				
8. Mr. Prasert Marittanaporn	7/7	12/12				2/2
9. Mr. Ratn Santaannop	7/7	12/12				
10. Mr. Anukool Tuntimas	7/7	12/12				2/2

## 5. Evaluation of Performance of the Board of Directors and the President

The Board of Directors has a policy to evaluate performance of the Board of Directors as a whole, subcommittees and directors on an individual basis at least once a year, and also requires an annual evaluation of performance of the President in accordance with the criteria prescribed by the Nomination and Remuneration Committee, in order to ensure that the Board of Directors has jointly considered their performance and address problems in the previous year and to improve the effectiveness in the Board of Directors' performance. Moreover, the Board of Directors has required a review of the evaluation subjects to be suitable and in line with the roles, duties and responsibilities, and the guidelines of the Principles of Good Corporate Governance.

As for evaluation criteria, they are calculated as a percentage from the full score in each subject. The evaluation forms of the Board of Directors and the President will be sent back to the Company Secretary to process the overview and conclude the scores. The following is the scoring criteria for each scale:

Evaluation Criteria	Excellent	Very Good	Good	Fair
Score (percent)	90-100	80-89	70-79	0-69

### 5.1 Self-Evaluation of the Board of Directors

The self-evaluation of the Board of Directors as a whole is divided into six subjects, namely, 1) structure and qualifications of the Board of Directors; 2) roles, duties and responsibilities of the Board of Directors; 3) the Board of Directors' meetings; 4) directors' performance of duties; 5) relationship with management; and (6) self-development of directors and development of executives. In 2019, the Company delivered the board evaluation form to each director for evaluating the overall performance of the Board of Directors as a whole so that the evaluation results would be proposed to the Board of Directors to consider improving its performance, with the evaluation results of the Board of Directors as a whole making an average score of 98.01 percent which was at excellent level. In this regard, most of directors' opinions can be summarized as follows:

#### 1) Structure and Qualifications of the Board of Directors

Most directors were of the view that the structure and qualifications of the Board of Directors were excellent and suitable to the nature of business operations of the Company. The Board of Directors comprised personnel with sufficient knowledge, ability and experiences in a variety of fields to perform their overall duties efficiently. In this regard, the Board of Directors appointed another five subcommittees, namely, 1. the Audit Committee with the duty to help supervise and monitor the business as well as considering the appropriateness and justifications of various transactions for the optimum benefit of the Company; 2. the Nomination and Remuneration Committee with the duty to consider criteria and procedures for nomination of qualified persons to be appointed as the Company's directors based on transparency, fairness, without influence of any persons; 3. the Corporate Governance and Risk Management Committee with the duty to establish policies and directions of operations in respect of the good corporate governance of the Company, including risk management; 4. the Corporate Social and Environmental Responsibility Committee with the duty to establish guidelines and policies on corporate social and environmental activities; and 5. the Executive Board with the duty to supervise and provide suggestions to the management, and proceed with other matters as assigned by the Board of Directors.

#### 2) Roles, Duties and Responsibilities of the Board of Directors

Most directors were of the view that the roles, duties and responsibilities of the Board of Directors were excellent, namely, the Board of Directors gave priority and contributed sufficient time to consider significant matters relating to directions of the Company's business operations, review the corporate governance policy of the Company, as well as ensuring compliance with various policies, review of the code of business ethics and compliance. The Board of Directors, at the same time, set a policy to prevent a conflict of interests. As for connected transactions and transactions which might have a conflict of interest, the Board of Directors also followed the procedures by taking into account the optimum benefit of the Company. Furthermore, the Board of Directors has regularly reviewed the internal control system to ensure good and sufficient internal control system and appropriate risk management, as well as following up and monitoring the performance of duties of the management in accordance with the policies as assigned by the Board of Directors.

### **3) Board of Directors' Meetings**

Most directors were of the view that the Board of Directors' meetings were excellent, namely, the Company gave prior notice of annual schedule of the meetings to directors so that they would be able to manage their time to attend every meeting. The number of meetings and agenda were suitable, thereby supporting the Board of Directors to perform duties efficiently and enabling it to supervise and monitor the Company's business operations with success. Moreover, directors also received supporting documents prior to each meeting and had sufficient time to study additional information in preparation for each meeting. The supporting documents contained sufficient information for decision making and they could ask for additional information in support of decisions to the benefit of the Company. Furthermore, the atmosphere at each Board of Directors' meeting allowed all directors to express constructive opinions without any influence of any persons. In addition, directors could fully discuss significant issues at each meeting.

### **4) Directors' Performance of Duties**

Most directors were of the view that directors' performance of duties was excellent, namely, they were well prepared and sufficiently study information prior to each meeting and regularly attend the meetings. In addition, directors independently provided their opinions and impartially considered various matters and were independent on voting, including useful suggestions for the Company's operations; and understood the significance of each matter and properly contributed their time to consider such matter; and opened for different opinions among them without any conflict.

### **5) Relationship with Management**

Most directors were of the view that the relationship with management was excellent. Directors could straightforwardly discuss with the President and maintain good relationship with management, whereby the President could request directors' advice as and when necessary and the Board of Directors did not interfere in the performance of duties of the management. Moreover, the Board of Directors also participated in solving problems as appropriate in case the management's performance of duties did not meet the operational plans and forecast budget.

### **6) Self-Development of Directors and Development of Executives**

Most directors were of the view that the self-development of directors and development of executives were excellent, namely, directors understood their roles, duties and responsibilities, had sufficient knowledge and understanding of the Company's business, paid attention to significant information or news relating to economic and industrial conditions, changes in rules and regulations and the state of competition, which would allow directors to efficiently perform their duties. In this regard, all directors were trained to ensure their understanding of performance of duties in the capacity of directors. Furthermore, in case of new directors, the Board of Directors would have the management provide documents or briefing for the new directors to understand the business and performance of duties as directors. In addition, the Board of Directors also set out the succession plan to ensure continuity of performance of duties of the Company's high level executives.

Procedures/process of the performance evaluation are as follows:

1. The Nomination and Remuneration Committee reviews the self-evaluation form to ensure its accuracy and completeness in accordance with the criteria stipulated by the regulatory unit;
2. The Company Secretary delivers a self-evaluation form to each director to evaluate the overall performance of the Board of Directors;
3. The Secretary to the Nomination and Remuneration Committee summarizes and reports the results of evaluation to the Nomination and Remuneration Committee;
4. The Nomination and Remuneration Committee reports the results of evaluation to the Board of Directors for acknowledgment and improvement of their performance to be more efficient.

## 5.2 Individual Performance Evaluation of Directors

The Chairman of the Board of Directors has conducted the performance evaluation of all directors since 2013 onwards in accordance with the criteria as specified by the Nomination and Remuneration Committee, the results of which would be used to consider establishing guidelines for improvement and development of performance of the Company's directors. In this regard, the individual performance evaluation of directors shall be divided into six subjects, namely, 1) qualifications of directors; 2) roles, duties and responsibilities of directors; 3) the Board of Directors' meetings; 4) directors' performance of duties; 5) relationship with management; and 6) self-development of directors, with the results of individual evaluation of directors having an average score of 98.89 percent which was at excellent level. Procedures/process of the performance evaluation can be summarized as follows:

1. The Nomination and Remuneration Committee reviews the self-evaluation form to ensure its accuracy and completeness in accordance with the criteria stipulated by the regulatory unit;
2. The Company Secretary delivers self-evaluation forms of all directors to the Chairman of the Board of Directors to evaluate the individual performance of each director;
3. The Secretary to the Nomination and Remuneration Committee summarizes and reports the results of evaluation to the Nomination and Remuneration Committee;
4. The Nomination and Remuneration Committee reports the results of evaluation to the Board of Directors for acknowledgment and improvement of their performance to be more efficient.

## 5.3 Evaluation of Performance of Subcommittees

The Board of Directors arranges for evaluation of performance of five subcommittees, namely, the Executive Board, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee, and the Corporate Social and Environmental Responsibility Committee, the results of which would be used to consider establishing guidelines for improvement and development of the subcommittees' performance to achieve the greater efficiency. In this regard, the performance evaluation of the subcommittees shall be divided into six subjects, namely, 1) structure and qualifications of the subcommittees; 2) roles, duties and responsibilities of the subcommittees; 3) the subcommittees' meetings; 4) the subcommittee members' performance of duties; 5) relationship with the Board ; and 6) self-development of subcommittee members. The results of evaluation of the five subcommittees can be summarized as follows:

Evaluation of Performance of Subcommittees	Average Score (percent)	Level
The Executive Board	99.27	Excellent
The Audit Committee	99.31	Excellent
The Nomination and Remuneration Committee	99.08	Excellent
The Corporate Governance and Risk Management Committee	99.86	Excellent
The Corporate Social and Environmental Responsibility Committee	100.00	Excellent

The opinions of committee members can be summarized according to each subject, as follows:

### 1) Structure and Qualifications of the Subcommittees

The results of evaluation are excellent. All subcommittee members are of the opinion that the total number of all subcommittee members is appropriate to the nature of business operations of the Company, thereby allowing the subcommittees to perform the overall duties efficiently; and the subcommittees comprise personnel with sufficient knowledge and experience in a variety of fields, which enable them to perform the overall duties efficiently. In addition, the subcommittees also have the duties in providing assistance in the corporate governance, nominating qualified persons to hold offices as directors, with transparency and justice, without undue influence of any person, including appropriate and competitive remuneration sufficient to retain qualified directors, setting out policies and directions of the implementation in respect of the corporate governance of the Company, code of ethics, as well as risk administration and management, taking care of and providing suggestions to the management, for the benefit of the Company's business operations under the good corporate governance.



## 2 Roles, Duties and Responsibilities of the Subcommittees

The results of evaluation are excellent, which can be summarized as follows:

- **The Executive Board** has provided guiding policies, supervised, made suggestions and advice for the President and the 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; and has reported on the Company's operational results to 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 the nomination of candidates 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 candidates 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 President's performance have been assessed under the specified criteria; and remuneration for the President 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 Company's corporate governance policy; has followed up and evaluated the results under the Company's good corporate governance; has considered policies and work plans relating to risk management; has monitored and reviewed the Company's overall risk management, strategies for risk management; and has reported on risks and actions taken to minimize risks to the Board of Directors.
- **The Corporate Social and Environmental Responsibility Committee** has conducted studies and followed up movement as well as monitored progress of social and environmental operations; has improved and made suggestions on the Company's environmental policy; has searched information or followed up significant news in respect of environment, and changes in laws and regulations; and has considered setting out policies and action plans in respect of social and environmental operations.

### 3) The Subcommittees' Meetings

The results of evaluation are excellent. Subcommittee members are given prior notice of the annual schedule of the subcommittees' meetings so as to enable them to manage time to attend every meeting; the number of the subcommittees' meetings is suitable to support the performance of its duties efficiently and to supervise and monitor the Company's business operations successfully; the agenda of the subcommittees' meetings are suitable to support the performance of its duties efficiently; 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 subcommittee members' decision making; the subcommittees can request any other necessary information in support of their decisions for the benefit to the Company; the atmosphere at each subcommittees' meeting allows all subcommittee members to express constructive opinions without undue influence of any person; and subcommittee members can fully discuss significant issues at each subcommittees' meeting.

#### **4) Subcommittee Members' Performance of Duties**

The results of evaluation are excellent. Subcommittee members are well prepared and sufficiently study information prior to each subcommittees' meeting; subcommittee members have regularly attended the subcommittees' meetings; subcommittee members independently provide their opinions; subcommittee members impartially consider various matters and are independent in making decisions or passing resolutions without undue influence of any individual; subcommittee members have provided useful suggestions for the Company's operations; subcommittee members understand the significance of each matter and properly contribute their time to consider such matters without wasting time on minor issues; and subcommittee members accept different opinions among them without conflict.

#### **5) Relationship with Management**

The results of evaluation are excellent. Subcommittee members may straightforwardly discuss with the President; the subcommittees maintain a good relationship with management; the President can request subcommittee members' advice as necessary; the subcommittees do not intervene with management's performance of duties; and the subcommittees participate in solving problems as appropriate in case management's performance does not meet the specified plans and budget.

#### **6) Self-Development of Subcommittee Members and Development of Executives**

The results of evaluation are excellent. Subcommittee members understand their roles, duties and responsibilities; subcommittee members have sufficient knowledge and understanding relating to the Company's business to ensure efficiency in their performance; subcommittee members 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 subcommittee members to efficiently perform their duties; all subcommittee members undergo training to ensure their understanding of the performance of duties in their capacity as members; subcommittee members are well prepared and sufficiently study information prior to each subcommittees' meeting; subcommittee members have regularly attended the subcommittees' meetings; subcommittee members independently provide their opinions; subcommittee members impartially consider various matters and are independent in making decisions or passing resolutions without undue influence of any individual; subcommittee members have provided useful suggestions for the Company's operations; subcommittee members understand the significance of each matter and properly contribute their time to consider such matters without wasting time on minor issues; and subcommittee members accept different opinions among them without conflict.

#### **Procedures/process of the performance evaluation are as follows:**

1. The Subcommittees prepare a self-evaluation form in accordance with the good corporate governance principles of the Thai Institute of Directors Association and the guidelines for operations of the subcommittee;
2. The secretary to the subcommittees summarizes and reports the results of performance evaluation of the subcommittees for improvement of their performance to be more efficient.
3. The Secretary to the Nomination and Remuneration Committee summarizes and reports the results of evaluation of the subcommittees to the Nomination and Remuneration Committee.
4. The Nomination and Remuneration Committee reports the results of evaluation to the Board of Directors for acknowledgement and improvement of their performance to be more efficient.

#### **5.4 Evaluation of Performance of the President**

Independent directors have continued to evaluate performance of the President every year from 2012 in accordance with the criteria as specified by the Nomination and Remuneration Committee. The Board of Directors has authorized the Nomination and Remuneration Committee to consider proposing to the Board of Directors for consideration and approval remuneration and other benefits as appropriate for the President, based on the results of annual performance evaluation. In this regard, the evaluation of performance of the President shall be divided into three chapters, namely, 1) progress of action plans and success of business goals; 2) performance measurement; and 3) CEO development. The results of evaluation of the President had an average score of 98.50 percent which was at excellent level. The independent directors' opinions can be summarized as follows:

### 1) Progress of Action Plans and Success of Business Goals

Evaluation based on Chapter 1: Progress of action plans and success of business goals, the independent directors have evaluated the performance of the President by taking into consideration the operations in 3 main areas, namely, operational results in 2019, finance, and development of personnel and technology, with the Company's operational results in all such areas meeting the set target and staying at the satisfactory level, especially in the area of development of personnel and technology, the President has continued to monitor and support development of personnel, and also paid attention to change of AI (Artificial Intelligence) which would impact on the organization in terms of personnel, including machinery and equipment required for construction work.

### 2) Performance Measurement

Evaluation based on Chapter 2: Performance measurement, the independent directors have conducted evaluation of the performance of the President by taking into consideration 10 topics, comprising:

- 1) Leadership
- 2) Determination of Strategies
- 3) Compliance with Strategies
- 4) Financial Planning and Performance
- 5) Relationship with the Board of Directors
- 6) Relationship with Third Parties
- 7) Management and Relationship with Personnel
- 8) Succession
- 9) Knowledge in terms of Products and Services
- 10) Personal Characteristics

In this regard, the results of evaluation based on Chapter 2: Performance measurement had an average score of 98.50 percent which was at excellent level.

### 3) CEO Development

Evaluation based on Chapter 3: CEO development, the independent directors have conducted evaluation of the performance of the President by taking into consideration the President's strengths which should be further maintained, for instance, having high knowledge and abilities, commitment to self-development, and good crisis management, etc. Most importantly, there are matters which the President should be aware for self-development in the next year, such as, readiness to cope with future fluctuations in construction business, etc.

## 6. Assessment of Performance in Compliance with the Company's Code of Ethics

The Board of Directors sets out the Company's code of 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 ethics, as follows:

1. Compliance with the code of ethics: Understanding and adhering to the guidelines as specified in the Company's code of 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 business with continuity and create value added to the shareholders in the long run.

6. 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.
7. Commitments to communities, society and environment: Providing cooperation in making benefits for the communities, society and environment on an occasional and ready basis.
8. 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.
9. The Company's assets: Setting out practices in taking care of the Company's assets to prevent them from loss, damage or misuse.
10. 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 business, except during festival or according to custom, in which case, at the reasonable value as shall be considered by recipient.

## 7. Remuneration for Directors and Executives

### Remuneration for directors

The Company establishes a clear and transparent policy on remuneration for directors and the President in line with duties and responsibilities of each director as chairman or member of subcommittee, subject to review by the Nomination and Remuneration Committee. The remuneration shall be at the same level as that in the same industry and sufficient to retain the qualified directors.

### Remuneration for President

The Company formulates policies on remuneration for President. The Nomination and Remuneration Committee shall consider remuneration of the President in line with the Company's operational results in the short term and long term, and performance of the President for submission to the Board of Directors for consideration each year.

### Remuneration for executives

Remuneration for executives shall be in accordance with the principles and policies determined by the Board of Directors corresponding to the Company's operational results and performance of the executives.

## 8. Development of Directors and Executives

### - Training for Directors and Executives

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 Board of Directors and the high level executives realize the significance of 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), Directors Accreditation Program (DAP), The Role of Chairman (RCP), Audit Committee Program, Role of Compensation Committee (RCC).



In this regard, the Company has regularly sent directors and executives to attend training courses organized by the IOD and other institutions. In 2019, directors and executives attended various training courses, as follows:

Names of Directors and Executives	Training Date	Course / Organized by
1. Mr. Plew Trivisvavet	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
2. Miss Supamas Trivisvavet	January 17, 2019	Design Thinking Workshop / Thailand Institute of Justice
	March 20, 2019	Kick off SAP Ariba / SAP
	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
3. Mr. Narong Sangsuriya	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
4. Mr. Prasert Marittanaporn	October 3, 2019	Strategy for Selection of Suitable Investment Plan for Staff / Krungthai Asset Management Public Company Limited
5. Mr. Ratn Santaannop	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
6. Mr. Sittidej Trivisvavet	March 20, 2019	Kick off SAP Ariba / SAP
	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
7. Mr. Pornnarong Siriyothin	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
8. Mr. Prapon Chanpradubfa	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
9. Mr. Pairat Prom-in	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
10. Mr. Watchara Sanghattawattana	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
11. Mr. Keerati Luangchookiat	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
12. Mr. Pichai Cheybumroong	March 20, 2019	Kick off SAP Ariba / SAP
	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
13. Dr. Anukool Tuntimas	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)

Names of Directors and Executives	Training Date	Course / Organized by
14. Mrs. Rinrada Tangtrongkid	March 20, 2019	Kick off SAP Ariba / SAP
	April 3, 2019	Update Accounting Standard for 2019 / NYC Management Co., Ltd.
	May 2, 2019	Situational Leadership Workshop / Slingshot Group Co., Ltd.
	May 27, 2019	Strategic Financial Leadership Program 2019 / Thai Listed Companies Association
	June 18, 2019	Deferred Tax / NYC Management Co., Ltd.
	August 23, 2019	Insight Financial Management / Stock Exchange of Thailand
	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
	September 19, 2019	Cash Budgeting for Top Executives' Planning and Decision / Dharmniti Seminar and Training Co., Ltd.
	October 3, 2019	Strategy for Selection of Suitable Investment Plan for Staff / Krungthai Asset Management Public Company Limited
	November 28, 2019	TFRS 9: International Financial Reporting Standard No. 9 - Financial Instruments / Ey Corporate Services Limited
15. Mr. Wiboon Ungapipathanachai	March 20, 2019	Kick off SAP Ariba / SAP
	April 3, 2019	Update Accounting Standard for 2019 / NYC Management Co., Ltd.
	June 18, 2019	Deferred Tax / NYC Management Co., Ltd.
	September 10, 2019	Sustainability Reporting Guidelines / Thaipat Institute (Public-Interest Organization)
	September 19, 2019	Cash Budgeting for Top Executives' Planning and Decision / Dharmniti Seminar and Training Co., Ltd.
	November 28, 2019	TFRS 9: International Financial Reporting Standard No. 9 - Financial Instruments / Ey Corporate Services Limited

#### - Orientation for New Directors

The Company also arranges for orientation for newly-appointed directors, whereby the Board of Directors assigns the Company Secretary to meet newly-appointed directors by convening a meeting with the relevant directors and/or executives and/or officers for clarification and answer to questions, as well as preparing documents and briefing for new directors, such as, information relating to the Company, business overview, shareholding structure, organization structure, listed company director's handbook, the CG Code, code of ethics, power and duties of the Board of Directors, the annual schedule of the Board of Directors' meetings. Meanwhile, the Company allows directors to attend any training course as suggested by the Office of the SEC and organized by the Thai Institute of Directors (IOD).



## 9. Succession Plan

The Board of Directors sets out a succession plan for executive level and in the primary line of work, by significantly 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 Director or executives in the key positions are not able to perform duties.

An executive who has been assigned to succeed an office shall not only be qualified and experienced in an appropriate field, but also accept transfer of knowledge and experience by rotation to other related work units, as well as attending additional necessary training courses to be well prepared in the performance of duties in a higher position in the future, and to ensure smooth succession and continued management.

The Company sets up a human resource management system with sufficient allocation, control and following up of the assessment in respect of 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 staff knowledge and skills, by applying a performance evaluation system in support of consideration of remuneration as appropriate for staff ability and performance.

### 9.2 Subcommittees

(1) The Company's management structure comprises the Board of Directors and five subcommittees, namely, the Executive Board, the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance and Risk Management Committee, and the Corporate Social and Environmental Responsibility Committee. The names of members of subcommittees, including authority and duties of the respective committees are as follows:

#### A. Executive Board

The Board of Directors appoints the Executive Board to help give suggestions and advice to management and make other arrangements as assigned by the Board of Directors. As at December 31, 2019, the Executive Board consists of six members, namely:

Names	Positions
1. Mr. Plew Trivisvavet	Chairman of the Executive Board
2. Miss Supamas Trivisvavet	Executive Director
3. Mr. Narong Sangsuriya	Executive Director
4. Mr. Prasert Marittanaporn	Executive Director
5. Mr. Ratn Santaannop	Executive Director
6. Mr. Anukool Tuntimas	Executive Director

The Executive Board meets monthly for consideration of various matters within the scope of the authority assigned by the Board of Directors and for screening matters to be proposed to the Board of Directors for consideration and approval.

#### Executive Board's Authority

The Board of Directors authorizes the Executive Board to have the following authority:

- 1) Providing policy guidelines, appointing, prescribing powers and duties, supervising, monitoring, coordinating and prescribing powers and duties of special working groups or work management groups, as well as considering and approving various proposals submitted by the management groups or the special working groups;
- 2) Approving proposals submitted by various working groups for the purposes of managing work and conducting business in accordance with the Company's objectives;
- 3) Conducting feasibility studies on new projects and having power to consider approving participation in various biddings, including operation of various projects as it deems appropriate, as well as entering into any juristic acts related thereto until completion;

- 4) Conducting feasibility studies on investment in new projects and having power to consider granting approval for the Company to invest or jointly invest with other persons, legal entities, groups of persons in various forms for conducting business in compliance with the objectives within the amount of not exceeding Baht 3,000 Million per project, including investment in other manners, such as, purchase of shares, exchange of shares with other legal entities as it deems appropriate, as well as entering into any juristic acts related thereto until completion;
- 5) Prescribing, considering, approving regulations, rules, work management and business operation policy guidelines or any actions binding the Company;
- 6) Providing advice, consultation and determining policy guidelines and authorities of the President and special working groups;
- 7) Having power to approve, appoint, employ, remove, impose disciplinary action, determine salary, wages, benefits, bonus, allowances, and other remunerations, including expenses and facilities of the Company's officers or staff in the position of department directors or higher, including Assistant Managing Director, Deputy Managing Director or equivalent or various special working groups for specific operation;
- 8) Proceeding with other matters in accordance with the policy as assigned by the Board of Directors;
- 9) Having power to appoint any person or group of persons to operate the Company's business under control of the Executive Board or authorize such person or group of persons to take any action as the Executive Board deems appropriate, and change, amend, repeal and revoke such authority;
- 10) Having power to appoint the Chairman of the Advisory Committee or advisors or Advisory Committee for Executive Board as appropriate, and determine remuneration, allowances, benefits, facilities and other expenses of the Chairman of the Advisory Committee or advisors or the Advisory Committee as appropriate;
- 11) The Executive Board or the Chairman of the Executive Board has power to convene the Executive Board's meetings and/or determine rules and regulations of the meetings as it deems appropriate;
- 12) In the case that the Chairman of the Executive Board cannot perform duties, the Chairman of the Executive Board shall appoint a substitute to perform duties on his or her behalf on each occasion, whereby the substitute shall have authorities equal to the Chairman of the Executive Board;
- 13) Considering and approving for authorization of executives to operate and manage business in accordance with the relevant rules, regulations and requirements;
- 14) Having power to approve and withdraw money from all accounts of the Company, and use credits provided by all banks or financial institutions for the Company, including apply for opening accounts and/or apply for credits in various forms with all banks or financial institutions, as well as placing securities of the Company as collateral against such debts, regardless of whether or not it requires registration.

#### B. Audit Committee

The Board of Directors appoints the Audit Committee to help supervise and monitor the Company's business. Mr. Vitoon Tejatussanasoontorn, an independent director who has knowledge in accounting and finance, was appointed as Chairman of the Audit Committee. As at December 31, 2019, the Audit Committee consists of three independent directors, namely:

Names	Positions
1. Mr. Vitoon Tejatussanasoontorn*	Chairman of the Audit Committee
2. Mr. Thawansak Sukhawun	Audit Committee Member
3. Mr. Pavich Tongroach	Audit Committee Member

With a three-year term of office.

**Remark \*** Serving as Audit Committee member with the knowledge and experience in review of the Company's financial statements.



The Audit Committee regularly meets at least every three months with the external auditor, internal auditor, management team and executives who are accountable for accounting and finance for review of financial statements on a quarterly basis and reports to the Board of Directors, or in case the management team would execute any connected transactions or transactions relating to acquisition or disposition of assets, which shall take into account appropriateness, justification of such transactions and the utmost benefits of the Company, the Chairman of the Audit Committee may convene additional meeting. In 2019, the Audit Committee convened a total of four meetings.

#### **Audit Committee's Authority**

The Board of Directors authorizes the Audit Committee to have the authority as follows:

- 1) Reviewing to ensure that the Company's financial reports are accurate and adequate;
- 2) Reviewing to ensure that the Company's internal control and internal audit systems are suitable and effective, considering the independence of the internal audit unit as well as providing opinions 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 and termination of person who is independent to serve as the Company's auditor, proposing remuneration of such person as well as meeting with the auditor without the management team at least once a year;
- 5) Considering connected transactions or transactions which may have conflict of interest 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 reports of the Audit Committee to be disclosed in the Company's Annual Report, whereby such reports must be signed by the Chairman of the Audit Committee and be comprised of 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 have conflict of interest;
  - (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 authority and responsibilities assigned by the Board of Directors.
- 7) Performing any other activities as assigned by the Board of Directors of the Company and approved by the Audit Committee.

#### **C. Nomination and Remuneration Committee**

The Board of Directors appoints the Nomination and Remuneration Committee to nominate and consider remuneration for directors and the President to ensure transparency and fairness. Mr. Vitoon Tejatussanasoontorn, an independent director, was appointed as Chairman of the Nomination and Remuneration Committee in line with the CG Code stipulating that chairmen of subcommittees should be an independent director. As at December 31, 2019, the Nomination and Remuneration Committee consists of four members, namely:

<b>Names</b>	<b>Positions</b>
1. Mr. Vitoon Tejatussanasoontorn	Chairman of the Nomination and Remuneration Committee
2. Mr. Thawansak Sukhawun	Nomination and Remuneration Committee Member
3. Mr. Plew Trivisvavet	Nomination and Remuneration Committee Member
4. Mr. Narong Sangsuriya	Nomination and Remuneration Committee Member

With a three-year term of office.

In 2019, the Nomination and Remuneration Committee convened two meetings for nomination of qualified persons to be proposed and appointed as directors to replace those who were due to retire by rotation and for consideration of remuneration for directors for 2019 and bonus for 2018 for submission to the 2019 Annual Ordinary General Meeting of Shareholders for consideration and approval, and consideration of remuneration for the President for submission to the Board of Directors for consideration and approval.

#### **Nomination and Remuneration Committee's Authority**

The Board of Directors authorizes the Nomination and Remuneration Committee to have the authority as follows:

- 1) Considering the nomination criteria and procedures, 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 appointment;
- 2) Considering, selecting and proposing qualified persons to hold the position of the President to the Board of Directors for appointment;
- 3) Considering and determining criteria on consideration for remuneration for directors and the President;
- 4) Considering, determining and proposing remuneration for directors to the shareholders' meeting for approval;
- 5) Considering and reviewing rates of salary and other remuneration for the President and proposing the same to the Board of Directors for approval;
- 6) Proceeding with other matters as assigned by the Board of Directors.

#### **D. Corporate Governance and Risk Management Committee**

The Board of Directors appoints the Corporate Governance and Risk Management Committee to supervise and monitor performance of the directors and the management to ensure compliance with the CG Code and to oversee and support the risk management to achieve success in the organizational level. As at December 31, 2019, the Corporate Governance and Risk Management Committee consists of five members, namely:

<b>Names</b>	<b>Positions</b>
1. Mr. Vitoon Tejatussanasoontorn	Chairman of the Corporate Governance and Risk Management Committee
2. Mr. Thawansak Sukhawun	Corporate Governance and Risk Management Committee Member
3. Mr. Plew Trivisvavet	Corporate Governance and Risk Management Committee Member
4. Mr. Narong Sangsuriya	Corporate Governance and Risk Management Committee Member
5. Miss Supamas Trivisvavet	Corporate Governance and Risk Management Committee Member

With a three-year term of office.

The Corporate Governance and Risk Management Committee met to follow up and evaluate the results of compliance with the CG Code and the risk management plan of the Company. In 2019, the Corporate Governance and Risk Management Committee convened four meetings.

#### **Corporate Governance and Risk Management Committee's Authority**

The Board of Directors authorizes the Corporate Governance and Risk Management Committee to have the authority as follows:

##### **Corporate Governance**

- 1) Determining and proposing policies and directions of operations in respect of the good corporate governance of the Company, including the code of business ethics, to the Board of Directors for consideration and approval for further compliance at all levels;
- 2) Supervising and monitoring the business operation of the Company and performance of the Board of Directors, the management and personnel of the Company to ensure compliance with Clause 1);
- 3) Evaluating and reviewing policies, directions, code of ethics, and best practices or practical guidelines in respect of the good corporate governance of the Company to ensure compliance with the international practices and recommendations of various institutions, as well as proposing the same to the Board of Directors for further consideration and approval;

- 4) Following up on movement, tendencies, as well as comparing performance in respect of the good corporate governance of the Company with the practices of other leading companies;
- 5) Overseeing and supporting performance in compliance with the good corporate governance policies to ensure continual effectiveness and appropriateness to the Company's business;
- 6) Giving advice to the Company, the Board of Directors, the management and working groups on the matters relating to the good corporate governance;
- 7) Reporting on the corporate governance of the Company to the Board of Directors on a regular basis, and immediately reporting to the Board of Directors for consideration in case there is any matter materially affecting the Company, as well as providing opinions on the practices and suggestions for improvement and resolution as appropriate;
- 8) Disclosing information relating to the good corporate governance of the Company to related parties and in the Annual Report, provided that it shall always be proposed to the Board of Directors for prior approval;
- 9) Establishing any working group as it deems appropriate.

#### **Risk Management**

- 1) Determining policies and scope of risk management operations of the Company, as well as giving advice to the Board of Directors and the management on risk management;
- 2) Overseeing and supporting the risk management to ensure successful implementation by emphasizing the significance of and taking into account risk factors in support of the decision making as appropriate;
- 3) Considering the Company's material risks in line with the Company's business, e.g., in terms of investment, finance, security, law, rules and regulations, by suggesting measures to prevent and minimize risks to stay at an acceptable level, as well as following up, evaluating and improving the working plans for minimizing risks on a continual basis as appropriate to the condition of the business operation;
- 4) Reporting risk assessment results and operations for minimizing risks to the Board of Directors on a regular basis, and promptly reporting to the Board of Directors for consideration in case there is any matter materially affecting the Company;
- 5) Establishing any working group as it deems appropriate.

#### **E. Corporate Social and Environmental Responsibility Committee**

The Board of Directors appoints the Corporate Social and Environmental Responsibility Committee to supervise the Company's operations in respect of the corporate social and environmental responsibility by focusing on the impact on its shareholders and stakeholders. As at December 31, 2019, the Corporate Social and Environmental Responsibility Committee consists of three members, namely:

Names	Positions
1. Mr. Pavich Tongroach	Chairman of the Corporate Social and Environmental Responsibility Committee
2. Mr. Prasert Marittanaporn	Corporate Social and Environmental Responsibility Committee Member
3. Mr. Anukool Tuntimas	Corporate Social and Environmental Responsibility Committee Member

With a three-year term of office.

The Corporate Social and Environmental Responsibility Committee met to follow up progress of the social and environmental activities of the Company. In 2019, the Corporate Social and Environmental Responsibility Committee convened two meetings.

#### **Corporate Social and Environmental Responsibility Committee's Authority**

The Board of Directors authorizes the Corporate Social and Environmental Responsibility Committee to have the authority as follows:

- 1) Considering establishing the corporate social and environmental guidelines and policies for submission to the Board of Directors;
- 2) Considering and approving the Company's strategies to meet the CSR target and policies;

- 3) Considering the action plans and the annual budget for arrangement of the CSR activities for submission to the Executive Board and the Board of Directors;
- 4) Considering and following up the progress of the arrangement of the CSR activities as well as assessing the result and the quality of the CSR projects;
- 5) Proceeding with other matters as assigned by the Board of Directors.

#### **President's Authority**

The Board of Directors authorizes the President to have the authority as follows:

- (1) Having authority to supervise and monitor all businesses of the Company to ensure compliance with the resolutions and policies of the Board of Directors and the Executive Board;
- (2) Having power to approve, appoint, remove, engage, impose disciplinary actions, determine salary, bonus, pension, welfare and other remuneration, including expenses and facilities of the Company's officers or staff in the position of division general manager or lower (excluding Senior Executive Vice President, Executive Vice President, and division manager or equivalent) and, if applicable, substitute any work groups, the Board of Directors/committees, management team, groups of persons or executives as appropriate;
- (3) Having power to approve any juristic acts binding upon the Company in the amount not exceeding Baht 60,000,000 (Sixty Million Baht Only) per transaction;
- (4) 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 60,000,000 (Sixty Million Baht Only) or equivalent per transaction;
- (5) Authorizing from time to time the Company's staff in the executive positions (Senior Executive Vice President, Executive Vice President, division manager or equivalent) to perform duties on behalf of the President in certain matters (such as purchase order, procurement, payment order) as appropriate;
- (6) Having power to issue, amend, add, update regulations, orders and work rules of the Company, such as, assignment, appointment, removal, and discipline of staff and employees, determination of salary and other monies, including various aid and welfare;
- (7) Having duty to prepare and approve balance sheets, financial statements and income statements of the Company for submission to the Board of Directors;
- (8) Conducting feasibility study for new projects and having power to consider approving projects as assigned by the Executive Board;
- (9) Appointing a person acting in place of the President from time to time in the event that the President is unable to perform his/her duties, whereby such acting person shall have the same authority as the President;
- (10) Having power to appoint any persons or groups of persons to engage in the Company's business under the supervision of the President, or, if applicable, authorizing such persons to make arrangements as the President deems appropriate and having power to change, amend, revoke and repeal such authorization;
- (11) Proceeding with other matters as assigned by the Board of Directors or the Executive Board from time to time.

### **9.3 Nomination and Appointment of Directors and Top Management**

#### **(1) Nomination of Independent Directors**

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 director. The Company has adjusted the definition of the Company's independent directors to become stricter than the definition set out by 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, subsidiary, associated company, major shareholder or controller of the Company, including shares held by any related persons;
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, subsidiary, associated company, subsidiary at the same level, 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 date of appointment, provided that such prohibited characteristics shall not apply to the independent director who has been 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, executive, major shareholder, controller or person to be nominated as executive or controller of the Company or its subsidiary;
4. Not having or having had any business relationship with the Company, its parent company, subsidiary, associated company, 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, subsidiary, associated company, 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 date of appointment;

The aforesaid business relationship shall include any transaction which is an ordinary course of business for the business operation of lease taking or lease out 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 in accordance with the calculation method for value of the connected transaction under the Notification of the Capital Market Supervisory Board governing 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 the date on which the business relationship with the same person occurs;

5. Not being or having been an auditor of the Company, its parent company, subsidiary, associated company, 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, subsidiary, associated company, 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 date of appointment;
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, subsidiary, associated company, 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 date of appointment;
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 subsidiary; 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 subsidiary;
9. Not having any other characteristics preventing provision of independent opinions on the Company's operations.

## (2) Nomination of Directors and Top Management

### 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 resignation 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 and rules of the Stock Exchange.
2. Having knowledge, ability and experience in a variety of fields which will be beneficial and create 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, there should be consideration from his past records as to 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.

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. The Nomination and Remuneration Committee proceeds in accordance with the following procedures:

1. Nominating qualified candidates to fill the vacancy.
2. Considering qualifications of candidates nominated by minor shareholders according to the Company's policy to allow shareholders to propose their nominations in advance (if any).
3. Proposing the nominations to the Board of Directors for consideration and appointment (in case of interim vacancy).
4. 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, at least one-third of the number of directors shall vacate their office. If the number of directors is not a multiple of three, then the number nearest to one-third must retire from office. Therefore, 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. Each shareholder has one vote for one share held.
2. The group election of all directors to be appointed on such occasion shall be by a single vote or if deemed appropriate by the shareholders' meeting, the election may be on an individual basis, the / vote for any candidate by each individual shareholder, whether as individual or group election, shall reflect the number of all shares held by such shareholder at the time of the vote in accordance with Clause 1 and no shareholder shall apportion a partial vote to any specific candidate.

3. In case of an election on an individual basis, the candidates with the highest number of votes in descending order shall be elected as directors up to the number of directors to be elected or vacancies at that time. If more than one candidate has equal votes for the final vacancies, the appointment shall be made by drawing of lots.

## 2.2 Nomination of President and Executives

1. With respect to an executive in the position of the President, he/she will be nominated by the Nomination and Remuneration Committee, which would consider selecting a qualified person, namely, who has knowledge, skills and experiences useful for the administration to meet the objectives or goals specified by the Board of Directors, as well as insight into the Company's business, whereby the Nomination and Remuneration Committee would nominate such person to the Board of Directors for consideration and appointment.
2. As for an executive at the managerial level or higher, the management would nominate such person to the Executive Board for consideration and appointment.

Besides, in nomination of directors, President, and high-ranking executives of the Company, the Company has emphasized and nominated persons who has experience, qualifications and skills essential for the business management under the policies stipulating that the structure of the Board of Directors shall be composed of those who have knowledge in various fields, whether it would be professional skills, expertise in specific fields, and gender, etc., Currently, the Company has analyzed vital skills as required by the Company for nomination of directors and also analyzed the existing skills of the members of the current Board of Directors, with the results that the current Board of Directors, including the President, already have experience, qualifications and skills as required by the Company in all respects. Details are shown as follows:

**Skill Matrix**

Positions/Qualifications	Engineer	Technology	Industrial Condition	Foreign Marketing	Policy	Strategy	Management	Corporate Governance	Risk Management	Accounting / Finance	Law	Audit
1. Independent Directors and Chairman of the Board of Directors												
2. Directors and Chairman of the Executive Board												
3. Independent Directors												
4. Independent Directors												
5. Independent Directors												
6. Directors												
7. Directors												
8. Directors												
9. Directors												
10. President												

## 9.4 Supervision of Operations of Subsidiaries and Associated Companies

(1) The Board of Directors has its governance mechanism to monitor and supervise the management and responsibility for operations of subsidiaries and associated companies in order to protect interests in the Company's investments. The Company's representatives shall be assigned to hold office as directors, executives, or controllers in such companies according to the shareholding proportion. The Company specifies that the assignment of such representatives shall be subject to approval by resolution of the Board of Directors' meeting, and such persons who are appointed as directors in subsidiaries or associated companies shall have the duty to ensure the best interests of such subsidiaries or associated companies; provided that such appointed persons shall obtain approval from the Board of Directors of the Company prior to passing a resolution or exercising the voting right on significant matters at the same level as that shall be approved by the Board of Directors in the Company's operations. The Company sets out the scope of power, duties and responsibilities of directors and executives as the Company's representatives in such companies to control or participate in the determination of significant policies on their business operations, with the governance mechanism for accurate and full disclosure of financial position and operational results; execution of connected transactions between such companies and related persons; acquisition or disposition of assets; or execution of any other significant transactions of such companies. Rules and regulations relating to disclosure and execution of transactions above shall be similar to those of the Company.

Moreover, in case of a subsidiary, the Company has set up rules that persons who are appointed by such subsidiary shall monitor to ensure that such subsidiary has its articles of association regarding connected transactions, acquisition or disposition of assets, or any other material transactions of such subsidiary to ensure completeness and correctness, and using the criteria relating to the disclosure of information and the execution of the aforesaid transactions in the same manner as those of the Company, as well as monitoring to keep and make information and accounting records of such subsidiary available for the Company's review and use in support of the preparation of the consolidated financial statements in due course.

The Company determines that its subsidiaries and associated companies are required to notify the Company of their execution of connected transactions and transaction on acquisition or disposition of assets, as well as other transactions which are material to the subsidiaries' operations. Prior to execution of such transactions, each subsidiary shall obtain approval for execution of such transaction from the Company, in order to allow the Company to control and specify directions of the subsidiary's business operations. In the event that the subsidiaries and associated companies have the investment expansion plan or have conducted the feasibility study on any new project, the subsidiaries and associated companies shall propose such investment plan, project development schedule, and report on progress of the process and details of the investment plan, to enable the Company to assess the feasibility of the project, fund usage plan, and to closely follow up the progress, including material problems and obstacles which may arise from the development of the project.

(2) The Company has no any shareholders' agreement between the Company and other shareholders in respect of management of subsidiaries and associated companies which are material to the operations of the Group or administration or sharing of returns other than such normal returns from its shareholding.

## 9.5 Control of Inside Information Usage

The Company determines its control of inside information usage in accordance with the CG Code, as follows:

### 1) Policy and monitoring of directors and executives

The Company must keep directors and executives informed of the SEC's applicable notifications requiring directors and executives to report on every change in their securities holdings to the SEC pursuant to Section 59 of the Securities and Exchange Act B. E. 2535 (1992) within three business days from the date of such change in securities holdings. The Company Secretary must be informed thereof to keep records of such change and summarize the number of securities holdings by directors and executives on an individual basis for submission to the Board of Directors for acknowledgement in the next meeting. In addition, punishments in case of any violation or non-compliance with such rules are also informed. In this regard, the directors and executives have acknowledged and strictly comply with the policies and relevant laws regarding inside information usage.



- 2) Measures relating to protection of inside information
  1. Not using inside information for personal interests or others.
  2. Identifying and restricting persons who are authorized to access inside information, whereby the authorized persons shall not disclose such information to other persons until such information has been disclosed to the public in accordance with various regulations.
  3. Disclosing information which has a material effect on the operations via the Stock Exchange's channel prior to disclosure to any specific groups of investors.
  4. Insiders should refrain from trading securities or should wait until the public has been informed of such information with a reasonable period of time to study such information.
- 3) 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.
  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 as appropriate for their responsibilities.
  3. The Company prohibits executives who have access to inside information from taking any actions contrary to Section 241 of the Securities and Exchange Act, including relevant rules and regulations.

In this regard, the Company's management has been conducted based on the CG Code by realizing the significance of and responsibility for shareholders and stakeholders of the Company in order to reinforce the confidence of shareholders, investors and all related parties, together with the general practical guidelines regarding prevention of misuse of inside information by related persons, namely, the Board of Directors, management, and staff in work units related to such information (including their spouse and minor child), whereby the Company sets out the practical guidelines for all directors and executives so as to prevent misuse of inside information as follows:

1. Avoiding or refraining from trading the Company's securities during 30 days prior to disclosure of the quarterly and annual financial statements and during 24 hours after such disclosure;
2. Refraining from trading of the Company's securities, if they have access to any undisclosed information which may have an impact on the Company's securities price, until a lapse of 24 hours from the disclosure of all such information to the public;
3. Not allowing any executives who know or should have known that the Company will disseminate the material information which may have an impact on change in market price of the Company's securities, to purchase or sell the securities from the date on which he/she knows or should have known such information until the end of the day following the date of such disclosure and dissemination.

## 9.6 Remuneration for Auditor

### (1) Audit Fee

The Company and subsidiaries paid the audit fee to:

- the Company's auditor, in the previous accounting period, amounting to Baht .....=.....
- the audit firm of which the auditor is a member, persons or businesses related to the auditor and the

audit firm of which the auditor is a member, in the 2019 accounting period, amounting to Baht 11,025,000 and which is the same auditor as the one of the previous year.

### (2) Non-audit fee

- Provision of the training service relating to new Financial Reporting Standards in the amount of Baht 200,000.

## 9.7 Application of the Corporate Governance Code for Listed Companies 2017

The Board of Directors has understood the roles, duties, benefits and principles of the Corporate Governance Code for Listed Companies 2017. 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 to promote and support the Company's business operations conducive to the sustainable value creation, reported to all directors of the Board of Directors on the promulgation of the Corporate Governance Code for Listed Companies 2017 as guidelines stipulated and announced by the Office of the Securities and Exchange Commission (SEC). The Board of Directors then assigned the management to inform all staff of the Company for acknowledgment and strict compliance therewith and also required that such compliance shall be evaluated at least once a year. In this regard, the Board of Directors then authorized the Corporate Governance and Risk Management Committee to consider and evaluate the application of the same for proposal to the Board of Directors for further consideration.

The Board of Directors' Meeting No. 7/2019 held on December 19, 2019 resolved to grant approval for the Board of Directors to consider reviewing the Company's corporate governance policy by applying the principles under the Corporate Governance Code for Listed Companies 2017 as appropriate for the Company's business context, and jointly evaluated the compliance with such Corporate Governance Code, thereby coming to an understanding on benefits and principles of the Corporate Governance Code which greatly created the sustainable value for the Company's business, as well as drawing up a plan to develop and add guidelines in aspects which the Company should have to improve and remedy to make it suitable for the Company's circumstances. Meanwhile, any principles which could not yet be or have not yet been applied were already provided with reasons as part of the resolutions of the Board of Directors.

An overview of the Company's compliance with the Corporate Governance Code for Listed Companies 2017 was in detail 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 compliance with such principle to rest assured that it obtained a satisfactory outcome of compliance.
2. Defining Objectives and Goals that Promote Sustainable Value Creation	The Board of Directors followed up and ensured implementation of the Company's strategies for the interests of all shareholders and stakeholders on a sustainable basis.
3. Enhancing the Board Effectiveness	The Board of Directors was composed of 10 qualified persons, namely, six executive directors and four independent directors, to meet the requirements of stakeholders, as well as carrying out operations conducive to exercising their discretion independently.
4. Ensuring Effective CEO and People Management	The Company had the process for nomination and development of the President, high level executives, to ensure that they had knowledge, skills, experience and qualifications necessary for driving the organization into achievement of the goals, had the 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.
5. Nurturing Innovation and Responsible Business	The Company supported creating innovations which had value for the business alongside benefiting stakeholders of all groups, and also operated the socially and environmentally responsible business.
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, together with policies or guidelines as specified, and also had the process for approval of significant transactions, such as, execution of transactions which materially affected the Company, or execution of transactions which might give rise to a conflict of interest.
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.
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.

## 9.8 Compliance with the Corporate Governance Code in other Matters

The Company has mostly complied with the Corporate Governance Code for Listed Companies 2017, except for the following:

1. 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 the 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 knowledge and experiences in the Company's business operations, thereby maximizing value to shareholders.

2. The Board of Directors has not mostly comprised independent directors (namely, more than 50 percent) since the Company has independent directors representing more than one-third of the total number of directors who are experienced, expert and independent in performance of the duties.

3. The Nomination and Remuneration Committee has not yet completely or mostly comprised independent directors, and currently comprises independent directors equal to 50 percent.

4. There is no any female independent director on the Board of Directors since there have currently been independent directors in a variety of fields.

5. The Board of Directors acknowledges the signing for anti-corruption campaign by participating in the private concerted efforts against corruption. However, it is deemed appropriate for the Executive Board and/or management to consult on such matter with Thai Contractors Association and companies in the construction industry in order to consider their participation in the campaign.

Last year, there was no any fraudulent offence or ethical misconduct; there was no any resignation of non-executive director due to the Company's corporate governance; and there was no any negative effect on the Company's reputation as a result of failure of the Board of Directors' fiduciary duties.



## 10. Corporate Social Responsibility

The Company operates its business under the corporate social and environmental responsibility and takes into account the utmost benefits of all stakeholders. In 2019, the Company has prepared the Sustainable Development Report to disclose its economic, social and environmental information. This Sustainable Development Report has been prepared in Thai and English versions in printed materials, QR CODE and available for download at [www.ch-karnchang.co.th/#/mission/growth-together](http://www.ch-karnchang.co.th/#/mission/growth-together).



# 11. Internal Control and Risk Management

## 11.1 Summary of Opinions of the Board of Directors regarding the Company's Internal Control System

The Board of Directors continuously realizes the significance of the internal control system to prevent and minimize potential risks, by assigning the Audit Committee comprising independent directors to review the evaluation of the internal control system. The Internal Audit Department shall report directly to the Audit Committee and review the operation systems in various departments of the Company in accordance with the annual audit plan as approved by the Audit Committee, for the purpose of ensuring that the work performance is efficient and effective, that the Company's resources are used cost-efficiently, that the financial reporting is properly controlled to ensure correctness, reliability and timeliness, that it complies with the policy in accordance with the provisions of the laws and regulations of the relevant authorities and agencies, and that the efficiency of the internal control system is regularly reviewed, to ensure the best interest of the shareholders on the basis of fair returns to all stakeholders. In addition, the Audit Committee also has the duty to consider selecting and nominating the auditor, including the audit fee; and consider disclosing the Company's correct and complete information in case of connected transactions and transactions which may have conflict of interest.

In 2019, the Audit Committee convened four meetings, in which the Company's management and the auditor of EY Office Limited attended each and every meeting, and a meeting with the auditor without the management's presence for consideration of the financial statements for 2019 so as to independently make inquiries on audit plan and other matters found during the audit.

The Company recognizes the significance of the use of the risk management in its administration, by assigning the Corporate Governance and Risk Management Committee to monitor and review the Company's overall risk management to stay at an acceptable level. The Company's management considers the risk factors currently being encountered or expected to be encountered by the Company, analyzes the impact and the possibility of such risks, establishes measures

to prevent and manage such risks to stay at an acceptable level in compliance with the Company's policy, and then submits the same to the Corporate Governance and Risk Management Committee for consideration of appropriateness and sufficiency. The risk management system shall also be reviewed and evaluated for its effectiveness every year and every interval in which the risk level has changed, subject to regular monitoring on a quarterly basis by the Internal Audit Department, and the results of such monitoring shall be reported to management and the Corporate Governance and Risk Management Committee for acknowledgement and further reported to the Board of Directors for acknowledgement as a whole.

In the Board of Directors' Meeting No. 2/2020 on February 28, 2020, the Board of Directors has evaluated the adequacy and suitability of the Company's internal control system as per the evaluation report by the Audit Committee in various aspects as per the internal control adequacy evaluation form, comprising five elements, namely, corporate internal control; risk assessment; operational control; information technology and communications system; and monitoring system, together with the report on risk management results by the Corporate Governance and Risk Management Committee. They are of the opinion that the Company's internal control system is adequate and suitable to the business operation without any material fault, which would prevent the Company's and the subsidiaries' assets from misuse or unauthorized use by the executives. The Company's financial reports are correct and reliable in accordance with the generally accepted accounting principles and the financial reporting standards. The Company operates its business in full compliance with the securities and exchange law and other relevant laws.

The Board of Directors, the Audit Committee and the auditor are of the common opinion that the Company's business operation is in accordance with the good corporate governance principles with transparency, and the internal control system is suitable, effective, and can prevent the Company's assets from misuse or unauthorized use by the executives or staff.

## 11.2 The Head of Internal Audit Unit

is Mr. Wiboon Ungapipathanachai, Executive Vice President: Internal Audit Office. The Audit Committee is of the view that Mr. Wiboon Ungapipathanachai has knowledge, abilities and work experience and is qualified to efficiently perform duties as the Head of Internal Audit Unit. The appointment, removal and transfer of a person holding office as Head of Internal Audit Unit shall be subject to the Audit Committee's approval.

The Head of Compliance Unit is Mrs. Thipwaree Athagrisna, Vice President : Legal Department/Compliance Manager, who shall be responsible for compliance matters in cooperation with the Office of President, and in coordination with the Company Secretary.



## Audit Committee's Report

The Audit Committee of CH. Karnchang Public Company Limited, by the appointment of the Company's Board of Directors, comprises three qualified independent directors, namely, Mr. Vitoon Tejatussanasoontorn, Chairman of the Audit Committee, Mr. Thawansak Sukhawun and Mr. Pavich Tongroach, Audit Committee Members, and Executive Vice President: Internal Audit Department as secretary to the Audit Committee.

The Audit Committee has performed under the scope, duties and responsibilities as assigned by the Company's Board of Directors, in accordance with the regulations of the Stock Exchange of Thailand, as well as relevant suggestions on various matters, which were fully cooperated by the Company's Management, internal auditors and auditor. In 2019, the Audit Committee held four meetings with the executives, internal auditors and auditor as appropriate, including a meeting with the auditor without the Management for independent discussion on material information in preparation of financial statements and sharing of opinions, which may be summarized as follows:

- 1. The Audit Committee has reviewed the quarterly financial statements and the financial statements for 2019**, by making inquiries and taking into consideration the clarifications of the executives and the auditor in respect of accuracy and completeness of the financial statements and sufficiency of information disclosure. The Audit Committee is of the opinion in line with the auditor that the said financial statements are fairly accurate in all material aspects and comply with generally accepted accounting standards.
- 2. The Audit Committee has reviewed the compliance with the provisions of laws and the Company's internal control system**, and is of the opinion according to the assessment that the internal control system is sufficient, proper and effective without any material fault in order to support the operations to achieve the specified goal. The Company properly maintains its property and work operations in compliance with the law on securities and exchange and the relevant rules and regulations on business. The authorization and approval are systematically conducted in accordance with the good internal control system, and the corporate governance is transparent, as well as being amended to efficiently conform to the changed situation.
- 3. The Audit Committee has reviewed the internal audit**, by taking into consideration the mission, scope of work, duties, responsibilities and independence of the Internal Audit Department in order to conform to the guidelines on internal audit of the Stock Exchange of Thailand. The Audit Committee is of the opinion that the Company's internal audit system is sufficient and proper, including the consideration for approval of the appointment of Vice President: Internal Audit Department and secretary to the Audit Committee. The Audit Committee is of the opinion that the Company's internal audit system is sufficient, proper and efficient in accordance with the international standards.
- 4. The Audit Committee has reviewed the risk management** in order to connect with the internal control system to manage general risks. The Company has specified objectives and criteria for assessment of the overall risks and risk levels, risk assessment and rating, determination of management plan on existing risks, and preparation of report on risk assessment and management plan on existing risks. The Audit Committee is of the opinion that the Company's risk management system is efficient and effective, by determining objectives for indicating, assessing, managing and monitoring risks on a quarterly basis, risk appetite and risk tolerance, as well as regularly reviewing the risks to be in line with the current situation.



5. **The Audit Committee has reviewed the good corporate governance**, by reviewing the Company's operations 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 Company's business operations, including obligations which may arise from agreements executed with third parties, and found that the Company has duly and properly complied with the relevant laws and requirements in a timely manner.
6. **The Audit Committee has reviewed and provided an opinion on the connected transactions or transactions which may have conflict of interest, including disclosure of such transactions** in accordance with the regulations of the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission. The auditor is of the opinion that the transactions with material aspects executed with the related companies have already been disclosed and shown in the financial statements and notes to the financial statements. The Audit Committee is of the opinion in line with the auditor, as well as providing an opinion that such transactions are reasonable and for the optimum benefit to the Company's business operations, and the information disclosure is accurate and complete.
7. **The Audit Committee has considered selecting, nominating the auditor and proposing the audit fee**, by taking into account the performance of the auditor in the previous year, reliability, capability to provide service and consultation on accounting standards, auditing and certification of the financial statements in a timely manner, and has then provided an opinion to the Company's Board of Directors to seek approval of the Shareholders' Meeting for appointment of either Ms. Siraporn Ouannunkun or Mr. Chatchai Kasemsrithanawat or Ms. Chonlaros Suntiasvaraporn of EY Office Limited as the Company's auditor for 2020, with the audit fee in the amount not exceeding Baht 3,900,000 per year.

Given the performance of duties under the scope of responsibilities as assigned by the Board of Directors to independently provide opinions and suggestions in the equal interests of all stakeholders, the Audit Committee is of the view that the Company's financial reports are correct and reliable in line with the generally accepted accounting standards and financial reporting standards, with sufficient risk management, proper internal control system and effective internal audit. The Company's operation is in accordance with the good corporate governance principles and in full compliance with the laws and requirements relating to the Company's business operations in all respects.



(Mr. Vitoon Tejatussanasoontorn)  
Chairman of the Audit Committee

## 12. Connected Transactions

12.1 Connected Transactions between the Company, Subsidiaries, Associated and Related Companies (Only connected transactions with a value of Baht 500,000 or higher are shown) in 2019 and 2018 can be summarized, as follows:

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
1. Bangkok Expressway and Metro Public Company Limited	<ul style="list-style-type: none"><li>- This is an associated company.</li><li>- On December 30, 2015, Bangkok Metro Public Company Limited and Bangkok Expressway Public Company Limited were amalgamated into a new company named Bangkok Expressway and Metro Public Company Limited.</li><li>- The Company holds shares representing 31.32 percent in Bangkok Expressway and Metro Public Company Limited.</li><li>- An executive director of the Company, namely, Mr. Plew Trivisvavet, serves as director in Bangkok Expressway and Metro Public Company Limited.</li><li>- An executive of the Company, namely, Mr. Phongsarit Tantisuvanitchkul, serves as director in Bangkok Expressway and Metro Public Company Limited.</li><li>- A director of Bangkok Expressway and Metro Public Company Limited, namely, Mrs. Payao Marittanaporn, is the spouse of Mr. Prasert Marittanaporn, a director of the Company.</li></ul>	1.1 The Company <ul style="list-style-type: none"><li>- Bangkok Expressway and Metro Public Company Limited engaged the Company to manage the Project for supply and installation of the M&amp;E Systems for the MRT Purple Line, Bang Yai - Rat Burana (Bang Yai - Bang Sue Section), Contract 4, Concession for Supply of M&amp;E Systems and O&amp;M Services (Khlong Bang Phai Station - Tao Poon Station), with a value of Baht 13,980 Million. (excluding interest expense and financial fee)</li></ul>	Revenues from construction services <ul style="list-style-type: none"><li>719.4</li><li>Contract liabilities</li><li>180.0</li></ul>	22.5 <ul style="list-style-type: none"><li>899.4</li></ul>	<ul style="list-style-type: none"><li>- This transaction is an ordinary course of business.</li><li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li><li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li><li>- The contractor will arrange for a loan throughout the construction period of the Project, provided that all construction costs and finance costs shall be borne by the employer, and the repayment shall be made upon delivery of all works.</li></ul>
		1.2 The Company <ul style="list-style-type: none"><li>- Bangkok Expressway and Metro Public Company Limited engaged the Company to provide maintenance services on Civil Infrastructure and E&amp;M Systems for the M.R.T. Chaloem Ratchamongkhon Line Project, with a value of Baht 4,048 Million.</li></ul>	Revenues from construction services <ul style="list-style-type: none"><li>235.2</li><li>Trade accounts receivable</li><li>55.2</li><li>Contract assets</li><li>209.9</li></ul>	216.2 <ul style="list-style-type: none"><li>118.6</li><li>107.9</li></ul>	

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
1. Bangkok Expressway and Metro Public Company Limited (continued) Operation of concession business for mass transit in Bangkok by the metro and operation of concession business for expressway construction and management		1.3 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company to provide maintenance services on Civil Infrastructure and E&M Systems for the MRT Purple Line Project, Bang Yai - Rat Burana, Bang Yai - Bang Sue Section, with a value of Baht 1,590 Million.	Revenues from construction services 127.8	103.1	- This transaction is an ordinary course of business. - This project is of a nature in which the Company has experience and could be completed within the scheduled period.
			Trade accounts receivable 74.9	82.0	- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.
			Contract liabilities 268.1	220.9	
		1.4 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company to supply and install equipment for improvement of the communication system for the MRT Blue Line Project (one station) with the MRT Purple Line Project, Bang Yai - Bang Sue Section, with a value of Baht 1,020 Million.	Revenues from construction services 0.0	14.1	- This transaction is an ordinary course of business. - This project is of a nature in which the Company has experience and could be completed within the scheduled period. - The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.
		1.5 The Company - The Company received dividend from its shareholding in Bangkok Expressway and Metro Public Company Limited.	Dividend income 712.2	603.5	- The Company has earned a return on investment at the same rate as other shareholders of Bangkok Expressway and Metro Public Company Limited.

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
1. Bangkok Expressway and Metro Public Company Limited (continued) Operation of concession business for mass transit in Bangkok by the metro and operation of concession business for expressway construction and management		1.6 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company to carry out repair of structure of the Si Rat Expressway, Period 4, Phase 1, Sector A, with a value of Baht 25.9 Million.	Revenues from construction services 0.0 Retention receivable 1.3	24.2 1.3	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li> <li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
		1.7 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company to carry out construction of a connection between the Si Rat - Outer Ring Road Expressway and the Si Rat Expressway in the north (heading to Chaeng Watthana), with a value of Baht 275 Million.	Revenues from construction services 23.5 Trade accounts receivable 0.0 Retention receivable 0.0 Contract liabilities 18.5	186.5 2.1 13.6 41.5	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li> <li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
		1.8 CH. Kamchang-Tokyu Construction Co., Ltd. - The company received dividend from its shareholding in Bangkok Expressway and Metro Public Company Limited.	Dividend income 20.5	17.9	<ul style="list-style-type: none"> <li>- CH. Kamchang-Tokyu Construction Co., Ltd. has earned a return on investment at the same rate as other shareholders of Bangkok Expressway and Metro Public Company Limited.</li> </ul>



Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
1. Bangkok Expressway and Metro Public Company Limited (continued) Operation of concession business for mass transit in Bangkok by the metro and operation of concession business for expressway construction and management		1.9 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company to carry out repair of structure of the Si Rat Expressway, Period 3, Phase 5, Sector D (Asoke-Sinagarindra), with a value of Baht 33.2 Million.	Revenues from construction services 24.9	7.2	- This transaction is an ordinary course of business.
			Trade accounts receivable 0.0	1.8	- This project is of a nature in which the Company has experience and could be completed within the scheduled period.
			Retention receivable 1.6	0.2	- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.
		- Bangkok Expressway and Metro Public Company Limited engaged the Company to carry out repair of structure of the Si Rat Expressway, Period 4, Phase 2, Sector C (Prachachuen - Chaeng Watthana) and certain part of Sector B (Urupong - Phayathai), with a value of Baht 32.6 Million.	Contract assets 0.0	0.9	- This transaction provides a credit term of 30-45 days.
			Contract liabilities 0.6	0.0	
1.10 The Company - Bangkok Expressway and Metro Public Company Limited engaged the Company for the project management, including supply, installation, testing M&E Systems and commissioning of the MRT Blue Line Extension Project, including installation and supply of Facilities necessary for Through Operation with the M.R.T. Chaloem Ratchamongkhon Line Project, with the value of Baht 21,393 Million (including additional works).			Revenues from construction services 5,873.9	7,125.5	- This transaction is an ordinary course of business.
			Trade accounts receivable 455.4	521.2	- This project is of a nature in which the Company has experience and could be completed within the scheduled period.
			Contract liabilities 1,601.6	2,265.7	- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.
					- This transaction provides a credit term of 30-45 days.
1.11 The Company - CH. Kamchang Public Company Limited acquired 65 million and 180 million ordinary shares in Bangkok Expressway and Metro Public Company Limited in 2019 and 2018, respectively.			Investments in associated companies 709.2	1,404.9	- This transaction is an ordinary course of business.
					- This is an investment in a company with stability and good operational results.

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
1. Bangkok Expressway and Metro Public Company Limited (continued) Operation of concession business for mass transit in Bangkok by the metro and operation of concession business for expressway construction and management		1.12 The Company The Company sold 40 million ordinary shares in Bangkok Expressway and Metro Public Company Limited in 2018.	Gain on sales of investments in associated companies 0.0	208.0	- The Company has earned a return from sales of investments at market price.
		1.13 CH. Karnchang-Tokyu Construction Co., Ltd. The Company sold six million ordinary shares in Bangkok Expressway and Metro Public Company Limited in 2019.	Gain on sales of investments in associated companies 48.0	0.0	- The Company has earned a return from sales of investments at market price.
		1.14 CH. Karnchang-Tokyu Construction Co., Ltd. The Company purchased six million ordinary shares in Bangkok Expressway and Metro Public Company Limited in 2019.	Investments in associated companies 67.9	0.0	- This transaction is an ordinary course of business. - This is an investment in a company with stability and good operational results.

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
2. Nam Ngum 2 Power Company Limited Production and distribution of electricity in Thailand and overseas	<ul style="list-style-type: none"> <li>- This is a related company.</li> <li>- SouthEast Asia Energy Limited holds shares representing 75 percent.</li> <li>- Three executive directors of the Company, namely, Mr. Plew Trivisvavet, Mr. Narong Sangsuriya, and Mr. Prasert Maritanaporn, serve as directors in Nam Ngum 2 Power Company Limited.</li> <li>- A director of Nam Ngum 2 Power Company Limited, namely, Mr. Thanawat Trivisvavet, a son of Mr. Plew Trivisvavet, serve as director of the Company.</li> </ul>	2.1 CH. Kamchang (Lao) Co., Ltd. Nam Ngum 2 Power Company Limited engaged CH. Kamchang (Lao) Co., Ltd., in which 100 percent of shares are held by the Company, for improvement of voltage and construction of the 230/500 kV Nabong Substation, with a value of Baht 799,850,000 and USD 53,481,457.	Revenues from construction services	429.9	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li> <li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
			17.3	Contract liabilities	
			0.0	6.8	

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification	
3. TTW Public Company Limited	<ul style="list-style-type: none"><li>- This is a related company.</li><li>- The Company holds shares representing 19.40 percent.</li><li>- An executive director of the Company, namely, Mr. Plew Trivisavet, serves as director in TTW Public Company Limited.</li><li>- An executive of the Company, namely, Mr. Phongsarit Tantisuvanitchkul, serves as director in TTW Public Company Limited.</li><li>- A director of TTW Public Company Limited, namely, Mrs. Payao Marittanaporn, is the spouse of Mr. Prasert Marittanaporn, a director of the Company.</li><li>- A director of TTW Public Company Limited, namely, Miss Walainut Trivisavet, the spouse of Mr. Anukool Tantimas, serves as director of the Company.</li></ul>	3.1 The Company	Dividend income 464.4	464.4	<ul style="list-style-type: none"><li>- The Company has earned a return on investment at the same rate as other shareholders of TTW Public Company Limited.</li></ul>	
		<ul style="list-style-type: none"><li>- The Company received dividend from its shareholding in TTW Public Company Limited.</li></ul>				
		3.2 The Company	Revenues from construction services 12.6	55.0	<ul style="list-style-type: none"><li>- This transaction is an ordinary course of business.</li><li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li><li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li></ul>	
		<ul style="list-style-type: none"><li>- TTW Public Company Limited engaged the Company for construction of the Second Water Treatment Plant, to enhance the water production capacity in Samut Sakhon - Nakhon Pathom, with a value of Baht 3,206.6 Million.</li></ul>	Contract liabilities 4.6	17.2		
		3.3 The Company	Revenues from construction services 3.0	17.0	<ul style="list-style-type: none"><li>- This transaction is an ordinary course of business.</li><li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li><li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li></ul>	
		<ul style="list-style-type: none"><li>- TTW Public Company Limited engaged the Company to carry out construction of the raw water intake relocation project by way of construction of a new building, with a value of Baht 138.1 Million.</li></ul>	Contract liabilities 0.0	3.0		
		3.4 The Company	Revenues from construction services 15.7	20.8	<ul style="list-style-type: none"><li>- This transaction is an ordinary course of business.</li><li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li><li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li></ul>	
		<ul style="list-style-type: none"><li>- TTW Public Company Limited engaged the Company to carry out construction of the tap water distribution and intake system improvement project, with a value of Baht 38 Million.</li></ul>	Trade accounts receivable 0.0	6.1		
				Retention receivable 0.0	2.4	<ul style="list-style-type: none"><li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li></ul>
				Contract liabilities 1.6	10.6	



Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
4. Expert Transport Co., Ltd. Operation of business of large vehicles for transportation	<ul style="list-style-type: none"> <li>- This is a related company.</li> <li>- Mahasiri Siam Co., Ltd., as a major shareholder in the Company, holds shares representing 90.00 percent.</li> <li>- Three executive directors of the Company, namely, Mr. Plew Trivisvavet, Mr. Narong Sangsuriya, and Mr. Prasert Maritanaporn, serve as directors in Expert Transport Co., Ltd.</li> <li>- An executive of the Company, namely, Mr. Sittidej Trivisvavet, serves as director in Expert Transport Co., Ltd.</li> </ul>	4.1 The Company	Service fee income		<ul style="list-style-type: none"> <li>- Expert Transport Co., Ltd. took on lease for a total area of 1,073.82 square meters at the rental and service fee rate of Baht 451,004.40 per month, for a lease term of three years from January 1, 2018 to December 31, 2020.</li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
		- The Company leased out area and rendered public utilities services for Expert Transport Co., Ltd.	5.8 Other receivables 17.1	5.8 11.5	
	4.2 The Company	- The Company charged public utilities fees from Expert Transport Co., Ltd.	Rental expenses		<ul style="list-style-type: none"> <li>- The Company used public utilities services from Expert Transport Co., Ltd.</li> <li>- This transaction is an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
			0.5	0.6	

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
<b>5. Bangkok Metro Networks Limited</b>					
Operation of service business for common areas and public utilities in the metro	<ul style="list-style-type: none"> <li>- This is a related company.</li> <li>- Bangkok Expressway and Metro Public Company Limited (CH. Kamchang Public Company Limited's associated company) holds shares representing 89.67 percent.</li> <li>- An executive of the Company, namely, Mr. Phongsart Tantisuwanitchkul, serves as director in Bangkok Metro Networks Limited.</li> </ul>	5.1 The Company - The Company leased out area and rendered public utilities services for Bangkok Metro Networks Limited.	Service fee income 8.4	7.9	<ul style="list-style-type: none"> <li>- Bangkok Metro Networks Limited took on lease from the Company, as follows:               <ol style="list-style-type: none"> <li>1) 725 square meters at the rental and service fee rate of Baht 580,000 per month, for a lease term of three years from July 10, 2016 to July 9, 2019;</li> <li>2) 725 square meters at the rental and service fee rate of Baht 638,000 per month, for a lease term of three years from July 10, 2019 to July 9, 2022.</li> </ol> </li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> </ul>

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
6. Bang Pa-in Land Development Co., Ltd. Operation of Bang Pa-in Industrial Estate	<ul style="list-style-type: none"> <li>- This is a related company.</li> <li>- CK. Office Tower Co., Ltd., as a shareholder in the Company, holds shares representing 25 percent.</li> <li>- Mahasiri Siam Co., Ltd., as a major shareholder in the Company, holds shares representing 25 percent.</li> <li>- Two executive directors of the Company, namely, Mr. Plew Trivisvavet and Miss Supamas Trivisvavet, serve as directors in Bang Pa-in Land Development Co., Ltd.</li> </ul>	6.1 The Company - The Company leased out area and rendered public utilities services for Bang Pa-in Land Development Co., Ltd.	Service fee income 0.4	1.0	<ul style="list-style-type: none"> <li>- Bang Pa-in Land Development Co., Ltd. took on lease from the Company for a total area of 173.79 square meters at the rental and service fee rate of Baht 72,991.80 per month, for a lease term of three years from January 1, 2018 to December 31, 2020.</li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
		6.2 The Company - The Company took on lease of area and used public utilities services and purchased supply from Bang Pa-in Land Development Co., Ltd.	Rental and utilities fees 0.4	0.6	<ul style="list-style-type: none"> <li>- The Company took on lease of area and paid electricity and water costs to Bang Pa-in Land Development Co., Ltd. for the construction of the Cogeneration Power Project Phase 2 and the construction of the Water Treatment Plant No. 2.</li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
		6.3 The Company - Bang Pa-in Land Development Co., Ltd. engaged the Company to carry out design and construction of dikes and drainage system for the Bang Pa-in Industrial Estate Restoration Project, with a value of Baht 665.4 Million.	Retention receivable 7.4	19.4	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li> <li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
6. Bang Pa-in Land Development Co., Ltd. (continued)		6.4 CH. Karnchang Public Company Limited purchased 13 plots of land located in Tambon Bang Krasan, Amphoe Bang Pa-in, Phra Nakhon Si Ayutthaya Province, from Bang Pa-in Land Development Co., Ltd., covering the total area of 56,101 square wah, at the total price of Baht 320 Million.	Property, plant and equipment 320.0	0.0	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This land would be used as mechanical center, storage of construction materials, construction of structures, buildings, camps for staff and workers in order to accommodate equipment, machinery of the Company for completed works to ensure that they are taken care of, improved and repaired for further usage in next projects, and to accommodate the Company's operations and work expansion in the future.</li> </ul> <p>In this regard, the purchase price of the land is lower than the market prices appraised by the independent appraiser, i.e., Thai Surveyor &amp; Advisory Co., Ltd. (a company is on the list of valuation companies in capital market and principal valuers approved by the Office of the Securities and Exchange Commission) at Baht 322,580,000. The independent appraiser chose to use the value appraisal method, namely, Market Approach, as appropriate to characteristics of the assets since the asset is vacant land, with adequate information for market comparison.</p>



Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
7. Xayaburi Power Company Limited	<ul style="list-style-type: none"><li>- This is a related company. The Company held shares representing 50.00 percent</li><li>- As at December 31, 2012, the Company has reduced its shareholding to 30.00 percent in the first quarter of 2013.</li><li>- In 2015, the Company sold all investments in Xayaburi Power Company Limited to CK Power Public Company Limited.</li><li>- An executive director of the Company, namely, Mr. Plew Trivisavet, serves as director in Xayaburi Power Company Limited.</li><li>- A director of Xayaburi Power Company Limited, namely, Mr. Thanawat Trivisavet, is the son of Mr. Plew Trivisavet, a director of the Company.</li></ul>	7.1 CH. Kamchang (Lao) Co., Ltd. <ul style="list-style-type: none"><li>- Xayaburi Power Company Limited engaged CH. Kamchang (Lao) Co., Ltd., in which 100 percent of shares are held by the Company, to carry out the construction of the Xayaburi Hydroelectric Power Project, with a value of approximately Baht 71,225 Million and USD 711 Million, inclusive of costs for additional works.</li></ul>	Revenues from construction services		<ul style="list-style-type: none"><li>- CH. Kamchang (Lao) Co., Ltd. is capable to carry out the works properly and is well-prepared to promptly start the works. In addition, the project value is reasonable, representing an ordinary course of business.</li><li>- This transaction provides a credit term of 30-45 days.</li></ul>
			4,248.5	5,851.7	
			Trade accounts receivable		
			0.0	665.2	
			Contract liabilities		
			3,944.4	2,663.9	

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
7. Xayaburi Power Company Limited (continued)		7.3 The Company - The Company extended the loan to Xayaburi Power Company Limited in the amount of Baht 13,547 Million.	Interest income	762.3	- The Company provided the sponsor support for Xayaburi Power Company Limited under the Sponsors Support Agreement which the Company and shareholders in Xayaburi Power Company Limited executed with the banks (financial institution creditors loan-lending to the Xayaburi Hydroelectric Power Project) in the amount of Baht 13,547 Million, at the interest rate during construction not exceeding MLR plus 0.25 percent per annum, and at the interest rate not exceeding MLR upon commercial operation of the Xayaburi Hydroelectric Power Project by 2019, which the repayment of all loans is scheduled to be made by 2031.
			Loan receivable and accrued interest receivable	14,072.9	
			12,551.5		

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
8. Bangpa-in Cogeneration Limited Operation of power plant business, including businesses relating to electricity and other powers	<ul style="list-style-type: none"> <li>- This is a subsidiary of CK Power Public Company Limited.</li> <li>- CK Power Public Company Limited is an associated company of CH. Karnchang Public Company Limited, which the Company holds shares representing 31.90 percent.</li> </ul>	<ul style="list-style-type: none"> <li>8.1 The Company               <ul style="list-style-type: none"> <li>- The Company leased out area and rendered public utilities services for Bangpa-in Cogeneration Limited.</li> <li>- The Company leased out vehicles for Bangpa-in Cogeneration Limited.</li> </ul> </li> </ul>	Service fee income	0.8	<ul style="list-style-type: none"> <li>- Bangpa-in Cogeneration Limited took on lease from the Company for a total area of 140.91 square meters at the rental and service fee rate of Baht 59,182.20 per month in 2018 and Baht 23,672.88 in 2019, because in 2019, the office was pending improvement, for the lease term of three years from March 1, 2019 to February 28, 2022.</li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
			Service fee income	0.6	
		<ul style="list-style-type: none"> <li>8.2 The Company               <ul style="list-style-type: none"> <li>- Bangpa-in Cogeneration Limited engaged the Company to carry out construction of the Bangpa-in Cogeneration Power Project Phase 2 (BIC-2), with a value of Baht 4,211.3 Million.</li> </ul> </li> </ul>	Revenues from construction services	55.4	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This project is of a nature in which the Company has experience and could be completed within the scheduled period.</li> <li>- The Company has earned a return at market price at a rate not lower than the rate of return generally received in other projects.</li> </ul>
			1.7		

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
9. Krung Thon Engineers Company Limited Operation of construction business	- This is a partner of CH. Karnchang-Krung Thon Engineers Joint Venture, in which CH. Karnchang Public Company Limited's proportion represents 60 percent.	9.1 CH. Karnchang-Krung Thon Engineers Joint Venture - The Joint Venture engaged Krung Thon Engineers Company Limited to carry out installation of the conduit system for the Phra Ong Chao Chaiyanuchit Canal Conduit System Project, with a value of Baht 1,464.50 Million.	0.4	0.4	- This transaction is an ordinary course of business. - This project is of a nature in which Krung Thon Engineers Company Limited has experience and could be completed within the scheduled period.

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
10. CK Power Public Company Limited Operation of business as a holding company, holding shares in companies operating core businesses in the production and distribution of electricity	<ul style="list-style-type: none"> <li>- This is an associated company.</li> <li>- The Company holds shares representing 31.90 percent.</li> <li>- Four executive directors of the Company, namely, Mr. Plew Trivisvavet, Mr. Narong Sangsuriya, Mr. Prasert Marittanaporn, and Miss Supamas Trivisvavet, serve as directors in CK Power Public Company Limited.</li> <li>- A director of CK Power Public Company Limited, namely, Mr. Thanawat Trivisvavet, is the son of Mr. Plew Trivisvavet, and the brother of Miss Supamas Trivisvavet, directors of the Company.</li> </ul>	10.1 The Company - The Company leased out area and rendered public utilities services for CK Power Public Company Limited.	Service fee income	11.7	<ul style="list-style-type: none"> <li>- CK Power Public Company Limited took on lease from the Company as follows:               <ol style="list-style-type: none"> <li>1) 642.50 square meters at the rental and service fee rate of Baht 269,850.00 per month, for a lease term of three years from September 1, 2017 to August 31, 2020;</li> <li>2) 479.43 square meters at the rental and service fee rate of Baht 201,360.60 per month, for a lease term of three years from February 1, 2017 to March 31, 2020.</li> <li>3) 468.92 square meters at the rental and service fee rate of Baht 211,014.00 per month, for a lease term of three years from June 1, 2017 to May 31, 2020.</li> </ol> </li> <li>- The rate is close to market rate, representing an ordinary course of business.</li> <li>- This transaction provides a credit term of 30-45 days.</li> </ul>
			Other receivables	0.8	
				0.4	
	10.2 The Company - The Company received dividend from its shareholding in CK Power Public Company Limited.		Dividend income		<ul style="list-style-type: none"> <li>- The Company has earned a return on investment at the same rate as other shareholders of CK Power Public Company Limited.</li> </ul>
			56.2	45.5	



Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
10. CK Power Public Company Limited (Continued)		10.3 The Company			
		- CH. Karnchang Public Company Limited sold its 14 million shares in CK Power Public Company Limited in 2018.	Gain on sales of investments 0.0	51.9	- The Company has earned a gain on sales of investments in CK Power Public Company Limited at market price.
		- CH. Karnchang Public Company Limited exercised its right under all warrants for purchase of 586,685,870 newly issued ordinary shares in CK Power Public Company Limited in 2019.	3,520.1	0.0	- This is an investment in a company with stability and good operational results.

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
11. Nakhon Ratchasima Solar Limited Operation of power production and distribution business	- CH. Karnchang Public Company Limited formerly held shares representing 30 percent, and then sold all of its shares to CK Power Public Company Limited.	11.1 The Company - The Company extended loans to Nakhon Ratchasima Solar Limited.	Loans to related company and accrued interest receivable		<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- The loans have been extended as per its proportion to enhance the liquidity of Nakhon Ratchasima Solar Limited.</li> <li>- Nakhon Ratchasima Solar Limited will be required to repay the principal and interest upon its repayment of the long-term loans from financial institutions in full.</li> </ul>
			0.0	3.9	
12. Bifinger Berger AG Operation of construction business	- This is a partner of Joint Venture BBCT, in which CH. Karnchang Public Company Limited's proportion represents 99.97 percent.	12.1 Joint Venture BBCT - Advance payment receivable to related parties - Amounts due to related parties	Advance payment		<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This is a share of profit unpaid to the partner.</li> <li>- In 2019, the advance payment receivable and the amounts due to related parties were already repaid.</li> </ul>
			0.0	4.0	
Operation of construction business	- This is a partner of Joint Venture BBCT, in which CH. Karnchang Public Company Limited's proportion represents 84.74 percent.	12.2 Joint Venture BBCT - Advance payment receivable to related parties	Amounts due to related parties	20.0	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- In 2019, the advance payment receivable was already repaid.</li> </ul>
			0.0	4.1	

Unit: Million Baht

Name of Interested or Related Party/Company	Relationship	Nature of Transaction	Transaction Value of 2019	Transaction Value of 2018	Necessity / Justification
13. Mahasiri Siam Co., Ltd.	<ul style="list-style-type: none"> <li>- Mahasiri Siam Co., Ltd., as a major shareholder in CH. Karnchang Public Company Limited, holds shares representing 14.26 percent.</li> <li>- Two executive directors of the Company, namely, Mr. Plew Trivisvavet and Miss Supamas Trivisvavet, serve as directors in Mahasiri Siam Co., Ltd.</li> </ul>	<p>13.1 The Company</p> <ul style="list-style-type: none"> <li>- CH. Karnchang purchased seven plots of land located in Tambon Bueng Kham Phroi, Amphoe Lam Luk Ka, Pathum Thani Province, from Mahasiri Siam Co., Ltd., covering the total area of 12,511 square wah, at the total price of Baht 280 Million.</li> </ul>	<p>Property, plant and equipment</p> <p>280.0</p>	<p>0.0</p>	<ul style="list-style-type: none"> <li>- This transaction is an ordinary course of business.</li> <li>- This land would be used for the purpose of commercial development in the future.</li> </ul> <p>In this regard, the purchase price of the land is lower than the market price appraised by the independent appraiser, i.e., Thai Surveyor &amp; Advisory Co., Ltd. (a company is on the list of valuation companies in capital market and principal valuers approved by the Office of the Securities and Exchange Commission) at Baht 281,497,500. The independent appraiser chose to use the value appraisal method, namely, Market Approach, as appropriate to characteristics of the assets since the asset is vacant land, with adequate information for market comparison.</p>

## 12.2 Opinions of the Board and the Audit Committee

The Company's contracts with its related companies to carry out construction on a subcontract basis are undertaken at reasonable prices, whereby the costs of relevant projects under such contracts were reviewed and deemed appropriate by the Company's engineers and based on an ordinary course of business.

- Project management fees are derived from transactions where the Company arranged for personnel to various related companies and joint ventures for the purpose of project management, whereby the Company entered into contracts for management fees with those related companies and joint ventures, and such management fees covered salaries, bonuses, benefits and other management expenses.
- Service fees are derived from transactions where the Company leased out to joint ventures and subsidiaries equipment and machinery at the rental rates close to market rates, representing an ordinary course of business.
- Costs of goods are derived from transactions where the Company traded goods with related companies at the price close to market price, representing an ordinary course of business.
- Accounts receivable in the form of intercompany loans bear interest at an appropriate rate and subject to an ordinary course of business. Connected transactions are submitted to the meeting of the Board of Directors or the Executive Board, for consideration in respect of their suitability.

## 12.3 Measures or Procedures for Approval of Connected Transactions

The Company has complied with the relevant rules, regulations and requirements of the Securities and Exchange Commission. As for any transactions that might give rise to a conflict of interests and require approval of the Board of Directors and of the Audit Committee, the Company has already complied with such rules, regulations or requirements, whereby the grant of approval for the said connected transactions shall take into account the optimum benefits to the Company, fairness and justifications of the transactions as well as based on market prices in the ordinary course of business. In addition, the interested parties or those who might have a conflict of interests in such connected transactions shall not be allowed to participate in the consideration and approval of the connected transactions so as to ensure the fairness and the optimum benefits to the Company. As for any connected transactions falling under the criteria as specified in the regulations, notifications, orders, requirements or rules of the Stock Exchange of Thailand, the Company has complied with the applicable requirements of the Stock Exchange of Thailand.

## 12.4 Policy or Trend of Future Connected Transactions

The policy on consideration and approval of connected transactions with related businesses shall comply with the procedures that require consideration by the Board of Directors and the Audit Committee while those who have interests or might have a conflict of interests in connected transactions shall not be allowed to participate in the approval of such connected transactions. The criteria used by the Board of Directors and the Audit Committee as guidelines in the consideration is that related businesses are required to propose competitive products or services in terms of price and quality. On the contrary, should the Company be to render services to any related businesses, the Company is required to propose price and quality in line with standards or market price without giving any favorable benefit to the related businesses, which may result in transfer of benefits to those who might have a conflict of interests with the Company.

Future connected transactions in the form of loans tend to be loans among the Company, subsidiaries and joint ventures for the purpose of financial support in business operations so as to support and facilitate their operations, which will be deemed as an ordinary course of business. Consideration and approval for such transactions will be mainly based on the optimum benefits of the Company. However, for the loans between the Company, subsidiaries or joint ventures, and related companies in which the Company's major shareholders, directors or executives hold shares, the Company group has no policy to extend any intercompany loans in the future.

PART

# 3

## FINANCIAL POSITION AND OPERATIONAL RESULTS



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## 13. Financial Highlights

### Summary of Financial Information under the Consolidated Financial Statements

Item	Amount (Million Baht)		
	2017	2018	2019
Total assets	79,274.46	83,500.54	82,585.59
Total liabilities	55,401.38	57,671.82	54,773.07
Shareholders' equity	23,873.08	25,828.72	27,812.52
Total revenues	37,730.68	31,175.57	24,796.51
Gross profit (loss)	2,834.74	2,320.28	1,981.82
Net profit (loss) Equity holders of the Company	1,810.01	2,494.31	1,777.78
Earnings (loss) per share (Baht)	1.07	1.47	1.05

### Summary of Financial Information under the Separate Financial Statements

Item	Amount (Million Baht)		
	2017	2018	2019
Total assets	76,055.49	77,443.27	73,091.66
Total liabilities	52,303.80	53,489.80	48,667.52
Shareholders' equity	23,751.69	23,953.47	24,424.14
Total revenues	21,498.90	24,454.30	20,041.46
Gross profit (loss)	1,418.97	1,699.32	1,468.23
Net profit (loss)	779.23	1,240.04	452.29
Earnings (loss) per share (Baht)	0.46	0.73	0.27

## 14. Management Discussion and Analysis

### 14.1 Analysis of Operations and Financial Position for 2019

#### 14.1.1 Overview

##### Operation Overview and Significant Changes

CH. Karnchang Public Company Limited operates its core business of two categories, namely, the construction business and the regional basic infrastructure investment and development business, in order to strengthen its competitive edge and sustainable and steady growth.

As at the end of 2019, the Company and its subsidiaries had the backlog in the amount of Baht 37,380 Million, whereby the Company and its subsidiaries executed many project construction agreements which would help constantly generate the Company Group's revenues, namely:

- The Contract for the Construction and Improvement of the Si Rat - Outer Ring Road Expressway and Repair of the Structures of the Si Rat Expressway with Bangkok Expressway and Metro Public Company Limited, with the estimated contract value of approximately Baht 780 Million, exclusive of value added tax;
- The Contract for the Improvement of Machinery and Equipment for the Tap Water Production and Distribution System for the Banglen Water Treatment Plant (Phase 1) with TTW Public Company Limited, with the estimated contract value of approximately Baht 350 Million, exclusive of value added tax;
- The Contract for the Repair of the Structures of the Si Rat Expressway, Period 4, Phase 3, Sector B (Urupong - Bang Khlo), and the Improvement of the Structures of the Si Rat Expressway and the Si Rat - Outer Ring Road Expressway with Bangkok Expressway and Metro Public Company Limited, with the estimated contract value of approximately Baht 233 Million, exclusive of value added tax;
- The Contract for the Construction of the Medical and Public Health Service Integration Center, Pathumwan Subdistrict, Pathumwan District, Bangkok, at Chulalongkorn Hospital, the Thai Red Cross Society, with the Thai Red Cross Society, with the estimated contract value of approximately Baht 2,160 Million, including value added tax;
- The Contract for Construction of the Rama III - Dao Khanong - Western Outer Ring Road Expressway Project, Contract 4 (Civil Work), with the Expressway Authority of Thailand, with the estimated contract value of approximately Baht 6,636 Million, including value added tax;
- CKST Joint Venture (between CH. Karnchang Public Company Limited and Sino-Thai Engineering and Construction Public Company Limited) executed the Construction Contract of Pipeline and Related Works on Ramkhamhaeng Road from Soi Ramkhamhaeng 12 to Hua Mak, together with the MRT Orange Line (Contract 2) of the Mass Rapid Transit Authority of Thailand with the Provincial Waterworks Authority, with the estimated contract value of Baht 188 Million, including value added tax.

**With respect to the basic infrastructure investment and development business, there were significant changes as follows:**

- On May 29, 2019, the Executive Board's Meeting of the Company resolved to grant approval for the Company to jointly invest in the High-Speed Rail Linking Three Airports (Don Mueang-Suvarnabhumi-U-Tapao) Project by way of holding five percent of the registered capital of Eastern High-Speed Rail Linking Three Airports Company Limited in the amount of Baht 200 Million, including exercise of the right in purchase of shares for capital increase in proportion to the price at the par value upon Eastern High-Speed Rail Linking Three Airports Company Limited's capital increase from Baht 4,000 Million to Baht 35,000 Million; and on October 24, 2019, Eastern High-Speed Rail Linking Three Airports Company Limited executed the Agreement for Joint Investment for the Hi-Speed Rail Linking Three Airports Project with the State Railway of Thailand.
- In June 2019, the Company exercised its right under all warrants to purchase 586.7 million newly-issued ordinary shares in CK Power Public Company Limited, at the exercise price of Baht 6 per share, with the total value of approximately Baht 3,520 Million, thereby resulting in an increase in the Company's shareholding percentage in such company from 27.22 percent to 31.90 percent.

- In August 2019, the Company acquired 65 million ordinary shares in Bangkok Expressway and Metro Public Company Limited with the value of Baht 709.2 Million, thereby resulting in an increase the Company's shareholding percentage in such company from 30.89 percent to 31.32 percent.

### Accounting Standard and Auditor's Observation

In 2019, regarding key audit matter, the auditor was of the opinion that recognition of revenue from construction services was of great significance in audit of the Company and its subsidiaries since it represented a transaction which had a significant amount as compared with the total revenues of the Company and its subsidiaries, and was also subject to management's discretion. The auditor gave the detailed explanations on audit procedures for such transaction, among of them, for instance, were reading the construction contracts to consider the conditions relating to revenue recognition; making enquiries from responsible executives and gaining a understanding of the Company's and its subsidiaries' process for assessment of the percentage of work completion and estimates of construction project costs of the entire projects; checking estimates of construction project costs with the budget plan for each project; checking actual cost of construction services with its supporting documents, etc., (as per the details in the auditor's report for the financial statements for 2019).

In addition, in the auditor's report, attention should be drawn to Note 15 to the consolidated financial statements regarding the dispute over a competing road with Udon Rattaya Expressway involving a subsidiary of Bangkok Expressway and Metro Public Company Limited (an associated company), including the mutual agreement for settlement of all disputes with the government agency. In this regard, the auditor's opinion was not modified in respect of this matter.

As for additional information relating to business overview, its details are indicated in the sections entitled Business Policy and Overview and Nature of Business Operations; and as for additional information relating to economic and industrial conditions, its details are set forth in the section entitled Trend of Growth and Development of Construction Industry.

### 14.1.2 Operational Results and Profitability

Consolidated Income Statement Unit: Million Baht	Year		Change	
	2019	2018	Amount	Percent
Revenues from construction contract and sales of construction materials	23,009.80	29,295.94	(6,286.14)	(21.46)
Other income	1,786.71	1,879.63	(92.92)	(4.94)
<b>Total revenues</b>	<b>24,796.51</b>	<b>31,175.57</b>	<b>(6,379.06)</b>	<b>(20.46)</b>
Cost of construction services and sales of construction materials	21,027.98	26,975.66	(5,947.68)	(22.05)
Administrative expenses	2,429.56	1,984.83	444.73	22.41
<b>Total expenses</b>	<b>23,457.54</b>	<b>28,960.49</b>	<b>(5,502.95)</b>	<b>(19.00)</b>
Profit before share of profit from investments in associated companies, finance cost and income tax expenses	1,338.97	2,215.08	(876.11)	(39.55)
<u>Plus</u> Share of profit from investments in associated companies	1,806.24	1,657.63	148.61	8.97
<u>Less</u> Finance cost	1,225.80	1,247.53	(21.73)	(1.74)
Income tax expenses	126.39	138.78	(12.39)	(8.93)
Net profit	1,793.02	2,486.40	(693.38)	(27.89)
<u>Less</u> Profit attributable to Non-controlling interests of the subsidiaries	15.24	(7.91)	23.15	(292.73)
<b>Profit attributable to Equity holders of the Company</b>	<b>1,777.78</b>	<b>2,494.31</b>	<b>(716.53)</b>	<b>(28.73)</b>

Net profit attributable to equity holders of the Company for 2019 amounted to Baht 1,777.78 Million, a decrease by Baht 716.53 Million, representing 28.73 percent.

The Company and its subsidiaries had net profit attributable to equity holders of the Company for 2019 amounted to Baht 1,777.78 Million, a decrease by Baht 716.53 Million from the previous year, representing 28.73 percent, mainly due to a decrease in sales from construction services and an increase in administrative expenses.

Revenues from construction contracts and sales of construction materials for 2019 amounted to Baht 23,009.80 Million, a decrease by Baht 6,286.14 Million, representing 21.46 percent.	The Company and its subsidiaries had revenues from construction contracts and sales of construction materials in the total amount of Baht 23,009.80 Million, representing 92.79 percent of total revenues, a decrease by Baht 6,286.14 Million from the previous year, representing 21.46 percent, due to the fact that Double Track Railroad Construction Project, Chira Junction - Khon Kaen Section, and the Xayaburi Hydroelectric Power Project have been already delivered and reached the maintenance phase.
Cost of construction services and sales of construction materials for 2019 amounted to Baht 21,027.98 Million, a decrease by Baht 5,947.68 Million, representing 22.05 percent.	The Company and its subsidiaries had cost of construction services and sales of construction materials in the total amount of Baht 21,027.98 Million, a decrease by Baht 5,947.68 Million from the previous year, representing 22.05 percent. The Company and its subsidiaries had the gross profit in the amount of Baht 1,981.82 Million, a decrease by Baht 338.46 Million from the previous year, representing 14.59 percent, due to a decrease in revenues from construction contracts; however, the gross profit margin of 2019 was equal to 8.61 percent, an increase from 7.92 percent from the previous year.
Other income for 2019 amounted to Baht 1,786.71 Million, a decrease by Baht 92.92 Million, representing 4.94 percent.	The Company and its subsidiaries had other income in the amount of Baht 1,786.71 Million, a decrease by Baht 92.92 Million from that of the previous year, representing 4.94 percent, due to a decrease in gain on sales of investments.
Administrative expenses for 2019 amounted to Baht 2,429.56 Million, an increase by Baht 444.73 Million, representing 22.41 percent.	<p>The Company and its subsidiaries had administrative expenses in the amount of Baht 2,429.56 Million, an increase by Baht 444.73 Million from that of the previous year, representing 22.41 percent, mainly due to employee-related expenses, depreciation, amortization for project development cost and specific business tax.</p> <p>The Company and its subsidiaries did not incur clear expenses for research and development of technology and innovations under the guidelines of the National Science and Technology Development Agency (NSTDA); however, the Company has supported and promoted development of its personnel to ensure their abilities in study and research for new knowledge, experimental development, using knowledge in science and technology to create new products or processes or improve the existing products or production processes to ensure achievement of the objective under the personnel development policy which would lead to new technology and innovations in their performance. As the Company has always continued to develop human resources, expenses therefor were incorporated into the personnel development policy.</p>
Share of profit from investments in associated companies for 2019 amounted to Baht 1,806.24 Million, an increase by Baht 148.61 Million or representing 8.97 percent.	<p>The Company and its subsidiaries had share of profit from investments in associated companies in the amount of Baht 1,806.24 Million, an increase by Baht 148.61 Million, as compared to that of the previous year, representing 8.97 percent, due to the respective improved operational results of Bangkok Expressway and Metro Public Company Limited and CK Power Public Company Limited, including an increase in the Company's shareholding percentage in both companies during the year.</p> <p>Bangkok Expressway and Metro Public Company Limited opened the MRT Blue Line Extension (Hua Lamphong Station - Lak Song Station) for its commercial operations on September 29, 2019, together with sale of its ordinary shares in TTW Public Company Limited in 2019, and reclassified the investment in TTW Public Company Limited from investment in associated company to investment in available-for-sale securities, thereby resulting in recognition of gain on reclassification of the investment (further detailed in Note 15 to the Financial Statements).</p> <p>CK Power Public Company Limited had its improved operational results as a result of an increase in share of profit from investment in associated company, namely, Xayaburi Power Company Limited, which commenced the commercial operations in October 2019.</p>



Share of Profit from Investments in Associated Companies Unit: Million Baht	2019	2018	Change	%
Bangkok Expressway and Metro Public Company Limited	1,560.38	1,479.71	80.67	5.45
CK Power Public Company Limited	250.88	178.40	72.48	40.63
Kamala Senior Living Co., Ltd.	(5.02)	(0.48)	(4.54)	(945.83)
<b>Total</b>	<b>1,806.24</b>	<b>1,657.63</b>	<b>148.61</b>	<b>8.97</b>

Finance cost for 2019 amounted to Baht 1,225.80 Million, a decrease by Baht 21.73 Million, representing 1.74 percent.

The Company and its subsidiaries had finance cost in the amount of Baht 1,225.80 Million, a decrease by Baht 21.73 Million as compared with that of the previous year, representing 1.74 percent.

Corporate income tax for 2019 amounted to Baht 126.39 Million, a decrease by Baht 12.39 Million, representing 8.93 percent.

The Company and its subsidiaries had corporate income tax in the amount of Baht 126.39 Million, a decrease by Baht 12.39 Million as compared with that of the previous year, representing 8.93 percent, mainly resulting from joint venture and subsidiaries in Thailand.

In 2019, return on equity was equal to 6.63 percent and return on assets was equal to 2.14 percent.

The Company and its subsidiaries had return on equity equal to 6.63 percent, a decrease by 3.41 percent as compared with that of the previous year, and return on assets equal to 2.14 percent, a decrease by 0.92 percent as compared with that of the previous year, due to a decrease in net profit.

Consolidated Statement of Financial Position Unit: Million Baht	December 31, 2019	December 31, 2018	Change	
			Amount	percent
Assets	82,585.59	83,500.54	(914.95)	(1.10)
Liabilities	54,773.07	57,671.82	(2,898.75)	(5.03)
Shareholders' equity	27,812.52	25,828.72	1,983.80	7.68

Total assets as at December 31, 2019 amounted to Baht 82,585.59 Million, a decrease by 1.10 percent from the previous year.

As at December 31, 2019, the Company and its subsidiaries had total assets amounting to Baht 82,585.59 Million, a decrease by Baht 914.95 Million from the end of the previous year, representing 1.10 percent, due to a decrease in contract liabilities and assets.

Total liabilities as at December 31, 2019 amounted to Baht 54,773.07 Million, a decrease by 5.03 percent from the previous year.

As at December 31, 2019, the Company and its subsidiaries had total liabilities amounting to Baht 54,773.07 Million, a decrease by Baht 2,898.75 Million, representing 5.03 percent, mainly due to a decrease in payables.

Shareholders' equity as at December 31, 2019 amounted to Baht 27,812.52 Million, an increase by 7.68 percent from the previous year.

As at December 31, 2019, the Company and its subsidiaries had shareholders' equity in the total amount of Baht 27,812.52 Million, an increase by Baht 1,983.80 Million from the previous year, representing 7.68 percent, resulting from the operational results of the Company and its subsidiaries, net of dividend payment.



Cash Flow Statement Unit: Million Baht	Year	
	2019	2018
Net cash flows from (used in) operating activities	3,427.69	7,164.35
Net cash flows from (used in) investing activities	(2,949.63)	(1,876.54)
Net cash flows from (used in) financing activities	(396.00)	(3,357.18)
Effect of exchange rate changes on cash and cash equivalents	(36.88)	(69.90)
Net increase (decrease) in cash	45.18	1,860.73

In 2019, cash from operating activities amounted to Baht 3,427.69 Million; cash used in investing activities amounted to Baht 2,949.63 Million; and cash used in financing activities amounted to Baht 396.00 Million.

In 2019, the Company and its subsidiaries had net cash from operating activities amounting to Baht 3,427.69 Million, due to the operational results of the Company and its subsidiaries; cash used in investing activities amounting to Baht 2,949.63 Million, resulting from investments in associated companies and property, plant and equipment; and cash used in financing activities amounting to Baht 396.00 Million, thereby resulting in an increase net cash of Baht 45.18 Million.

#### 14.1.3 Ability in Asset Management

The asset value of the Company and its subsidiaries under the consolidated financial statements reflected value close to fair value since the Company and its subsidiaries arranged for the assessment of value of various assets. In addition, if it was expected which asset value would be impaired, the Company and its subsidiaries would set aside a provision to ensure that asset value under the financial statements did not materially differ from fair value.

#### Trade accounts and other receivables

As at December 31, 2019, the Company and its subsidiaries had trade accounts receivable amounting to Baht 2,383.19 Million, divided into related companies trade accounts receivable representing 28.75 percent, such as, Bangkok Expressway and Metro Public Company Limited and non-related companies trade accounts receivable representing 71.25 percent, such as, the Mass Rapid Transit Authority of Thailand, and other receivables amounting to Baht 1,259.36 Million, therefore, the total receivables amounted to Baht 3,642.55 Million, a decrease by Baht 3,763.23 Million from the end of 2018, representing 50.81 percent, due to the fact that the Double Track Railroad Construction Project, Chira Junction - Khon Kaen Section, and the Xayaburi Hydroelectric Power Project have been already delivered, with the work value being paid; together with a decrease in trade receivables of the MRT Orange Line as compared to that of the previous year.

Trade and other receivables of the Company were mostly from construction services and sales of construction materials, with the 30-65 day normal credit term to the Company's customers. In 2019, the Company and its subsidiaries had the average collection period equal to 87.63 days, an increase by 7.74 days from 2018, resulting from calculation of average trade receivables and other receivables between the balance at the beginning of the year and that at the end of the year. The balance of the receivables as at the end of 2018 was higher than normal and was not in line with revenues from construction services and sales of construction materials which decreased in 2019. However, if the average collection period was calculated based on the balance of trade and other receivables as at the end of 2019, it would be equal to 57.78 days which was at the normal level.

Trade accounts receivable were stated at the net realizable value. Allowance for doubtful accounts was provided by the Company and its subsidiaries for the estimated losses that might incur from uncollectible receivables. The allowance was generally based on collection history and analysis of debt aging (the analysis of debt aging was shown in Note 9 to Financial Statements).

### Short-term loans to related parties and interest receivable

As at December 31, 2019, the Company and its subsidiaries had short-term loans to related parties and interest receivable under the consolidated financial statements amounting to Baht 54.06 Million, comprising loans extended to Kamala Senior Living Co., Ltd., while during the year 2019, CKCH Joint Venture and BBCD Joint Venture had already fulfilled all liabilities (see details in Note 6 e) to Financial Statements).

### Contract assets/contract liabilities

The contract assets comprised unbilled receivables and retention receivables while the contract liabilities formerly comprised construction revenue received in advance and advance received from employers. In this connection, the Company reclassified the accounting item to ensure consistency with the definition under the Thai Financial Reporting Standard, TFRS 15: Revenue from contracts with customers (see further details in Note 3 to Financial Statements).

As at December 31, 2019, the Company and its subsidiaries had the contract assets in the amount of Baht 1,766.06 Million, a decrease by Baht 2,122.64 Million from the end of the year 2018, representing 54.58 percent, due to the acceleration of work value collection; and had the contract liabilities in the amount of Baht 10,772.80 Million, a decrease by Baht 210.29 Million, representing 1.91 percent, resulting from the construction progress.

	2019	2018	Change	
	Million Baht	Million Baht	Million Baht	%
<b>Contract Assets</b>				
Unbilled receivables	1,127.63	3,103.91	(1,976.28)	(63.67)
Retention receivables	638.43	784.79	(146.36)	(18.65)
<b>Total contract assets</b>	<b>1,766.06</b>	<b>3,888.70</b>	<b>(2,122.64)</b>	<b>(54.58)</b>
<b>Contact Liabilities</b>				
Construction revenue received in advance	9,116.36	7,726.19	1,390.17	17.99
Advance received from employers	1,656.43	3,256.90	(1,600.47)	(49.14)
<b>Total contract liabilities</b>	<b>10,772.79</b>	<b>10,983.09</b>	<b>(210.30)</b>	<b>(1.91)</b>

### Long-term loans to associated company and interest receivable

As at December 31, 2019, the Company had long-term loans to associated company amounting to Baht 10,028.18 Million and interest receivable amounting to Baht 2,523.34 Million, totaling Baht 12,551.52 Million. On May 16, 2016, the Board of Directors' Meeting resolved to grant approval for the Company to provide sponsors support to Xayaburi Power Company Limited (CK Power Public Company Limited's associated company). Thereafter, on May 17, 2016, the Company signed the Sponsors Loan Agreement with such company, under which the Company would extend loans in the amount of approximately Baht 13,547 Million to such company for use in construction of additional works of the Xayaburi Hydroelectric Power Project. Such loans are to carry the interest at the Minimum Loan Rate plus 0.25 percent (MLR + 0.25%) per annum during the project construction period and at the Minimum Loan Rate (MLR) during the period of the project's Commercial Operation Date (within 2019). The loan repayment was scheduled to be made and due in full by no later than 2031, at the same rate as that of loans from the lending banks for this project.

In 2019, Xayaburi Power Company Limited repaid the loans in the amount of Baht 3,000 Million. In this regard, Xayaburi Power Company Limited would repay the loans and interest from the remaining cash after fulfillment of all provisions in the long-term loan agreements of the lending banks (see details in Note 6 f) to Financial Statements).

### Investments in associated companies

As at December 31, 2019, the Company and its subsidiaries had investments in associated companies under the consolidated financial statements amounting to Baht 27,849.29 Million, an increase from the end of 2018 by Baht 5,402.56 Million, per the details as follows:

	2019	2018	2019	2018	Change	
	percent	percent	Million Baht	Million Baht	Million Baht	percent
Bangkok Expressway and Metro Public Company Limited	32.21	31.78	20,896.62	19,230.86	1,665.76	8.66
CK Power Public Company Limited	31.90	27.22	6,938.49	3,196.67	3,741.82	117.05
Kamala Senior Living Co., Ltd.	20.00	20.00	14.18	19.20	(5.02)	(26.15)
<b>Total</b>			<b>27,849.29</b>	<b>22,446.73</b>	<b>5,402.56</b>	<b>24.07</b>

The increase in investments in associated companies was mainly caused by the Company's additional investments in Bangkok Expressway and Metro Public Company Limited and CK Power Public Company Limited during the year (see details of change in investments in associated companies in Note 15 to Financial Statements).

#### 14.1.4 Liquidity and Adequacy of Investments

Current ratio as at December 31, 2019 was equal to 1.06 times, an increase from 0.91 times of the previous year.	<p>The Company and its subsidiaries had current ratio under the consolidated financial statements as at December 31, 2019 equal to 1.06 times, an increase as compared with 0.91 times of the end of the previous year; and quick ratio equal to 0.51 times, an increase from 0.31 times of the end of the previous year, due to a decrease in current liabilities of the Company and its subsidiaries, as well as having the cash cycle at approximately 28.65 days, a decrease from 44.34 days from the previous year (average collection period + average sale period - debt servicing period).</p> <p>The Company was certain that the Company's liquidity was adequate for its operations, and the Company was able to service its debts as well as complying with the material borrowing conditions, together with additional financing.</p>
Debt to equity ratio as at December 31, 2019, was equal to 1.00 times, a decrease from 1.07 times of the previous year.	<p>The Company and its subsidiaries had debt to equity ratio under the consolidated financial statements as at December 31, 2019 equal to 1.00 times, a decrease from 1.07 times from the end of the previous year. The debt to equity ratio was still lower than the specified conditions of issuance of debentures at not exceeding 3.00 times.</p>
Interest coverage for 2019 was equal to 2.98 times.	<p>The interest coverage was equal to 2.98 times, a decrease by 0.70 times as compared with 2018, due to a decrease in net profit.</p>

#### 14.1.5 Obligations

**As at December 31, 2019, the Company's significant obligations were as follows:**

- The Company provided security for credits for the subsidiary's construction project, namely, CH. Karnchang (Lao) Co., Ltd., which was extended by banks and financial institutions, in the total amount of Baht 19,953 Million.
- The Company and its subsidiaries had obligations relating to costs of various construction projects and services, which the Company and its subsidiaries entered into agreements in the amounts of Baht 9,259 Million, Euro 32 Million, USD 27 Million, and YEN 16 Million.
- Letters of guarantee were issued by banks in the name of the Company and its subsidiaries in connection with their obligations in the ordinary course of business in the total amount of Baht 18,971 Million.
- The Company and its subsidiaries incurred capital expenditures in the amount of approximately Baht 100 Million and YEN 9 Million in connection with purchase of plant, machinery and equipment.
- Subsidiaries were obligated to pay rentals under the office and equipment lease agreements in the total amount of Baht 197 Million.
- The Company was obligated to provide financial support to Xayaburi Power Company Limited (see details in Note 6f to Financial Statements).
- Subsidiaries were obligated to extend a fund to one associated company for use in development and management of the elderly residential project, in the remaining amount of Baht 229 Million.

#### 14.1.6 Factors Affecting Future Operations

In 2019, the government sector completely pushed forward many large-scale infrastructure projects, among of them, for instance, the hi-speed rail linked 3 airport project, the Map Ta Phut Industrial Port Project, Phase 3, the Thailand-Chinese High Speed Rail Project, the Toll Collection System and Maintenance Project, the Bang Yai - Kanchanaburi and Bang pa-in - Nakhon Ratchasima Motorway Projects and the Rama III - Dao Khanong Expressway. Moreover, many projects remained under bidding process continuously until 2020, such as, the U-Tapao and Eastern Airport City Development Project, the Laem Chabang Port Project, etc.

Upon commencement of construction of these mega projects, this would propel economic movement against the economic slowdown and boost confidence in Thailand in the global eyes, and attract investment from the business sector around the world and upgrade Thailand's status to step into Thailand Industry 4.0 as mechanism in driving forward Thailand's economy in the future.

In addition to the projects under bidding process, there were many projects pushed forwarded by the government sector to ensure continuity in infrastructure investment, such as, the MRT West Orange Line Project, Bang Khun Non - Thailand Cultural Centre Section, the MRT South Purple Line Project, Tao Poon - Rat Burana Section, the MRT Red Line, 9 routes of double track railroad projects, the 3<sup>rd</sup> Runway for Suvarnabhumi Airport Project, etc., all of which have the significance to the transportation, both in Bangkok and Thailand as a whole.

## 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, 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 position 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 to review and ensure the 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 and relevant rules and regulations. In this regard, the Audit Committee has already reported their performance to the Company's Board of Directors.

The Company's Board of Directors is of the opinion that the financial statements for 2019 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 position and operational results as appropriate in material aspects in accordance with generally accepted accounting principles.



(Miss Supamas Trivisvavet)  
President



(Mr. Prasert Marittanaporn)  
Director



## FINANCIAL POSITION AND OPERATIONAL RESULTS



CH. Karnchang Public Company Limited and its subsidiaries  
Report and consolidated financial statements  
31 December 2019

## **Independent Auditor's Report**

To the Shareholders of CH. Karnchang Public Company Limited

### **Opinion**

I have audited the accompanying consolidated financial statements of CH. Karnchang Public Company Limited and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2019, and the related consolidated statements of 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 CH. Karnchang 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 CH. Karnchang Public Company Limited and its subsidiaries and of CH. Karnchang Public Company Limited as at 31 December 2019, 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.

### **Emphasis of matter**

I draw attention to Note 15 to the consolidated financial statements regarding the dispute over a competing road with Udon Ratthaya Expressway involving a subsidiary of Bangkok Expressway and Metro Public Company Limited (an associated company) including the agreement with the Government agency to settle all disputes. My opinion is not modified in respect of this matter.

## 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 matter and how audit procedures respond to the matter are described below.

### *Recognition of revenue from construction contracts*

The Group disclosed its policies on recognition of revenue from construction contracts, estimation of construction project costs and provision for losses on construction projects in Note 4 and Note 5 to the financial statements. I identified the recognition of revenue from construction contracts and the estimates of possible losses from construction contracts to be areas of significant risk in audit. This is because the amount of revenue from construction contracts that the Group recognises in each period forms a significant portion of the Group's total revenue. In addition, the process of measurement, the determination of appropriate timing of recognition and the estimates of possible losses are areas requiring management to exercise significant judgement to assess the percentage of completion of construction work, the probability of loss, and the measurement of possible losses. There are therefore risks with respect to the amount and timing of the recognition of revenue from construction contracts and the estimates of possible losses from construction contracts.

I examined the recognition of revenue from construction contracts and the provision for losses on construction projects by assessing and testing the effectiveness of the internal controls put in place by the Group over the procurement process, the estimation of project costs and revisions thereto, the recognition of revenue and the estimation of percentage of work completion and possible losses from construction projects by making enquiry of responsible executives, gaining an understanding of the controls and selecting representative samples to test the operation of the designed controls. I also read the construction contracts to consider the conditions relating to revenue recognition, made enquiry of responsible executives, gained an understanding of the Group's process to assess the percentage of completion and cost estimates for projects, checked estimates of project costs to the project budgets. I checked actual costs against supporting documents, tested the calculation of the percentage of completion based on actual construction costs incurred, performed analytical procedures on gross margins of construction projects and compared the percentage of completion as evaluated by the project engineer to the percentage of completion based on actual construction costs incurred. In addition, I evaluated the possible losses on projects assessed by the management through an analysis of the ratio of actual cost incurred against cost estimates for projects for each significant cost component.

### **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.

Chatchai Kasemsrithanawat  
Certified Public Accountant (Thailand) No. 5813

EY Office Limited  
Bangkok: 28 February 2020



CH. Karnchang Public Company Limited and its subsidiaries

Statement of financial position

As at 31 December 2019

(Unit: Baht)

	Note	Consolidated financial statements		Separate financial statements	
		2019	2018	2019	2018
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	7	8,595,002,465	8,549,823,195	4,723,564,670	6,098,630,676
Current investments	8	565,067,902	384,562,356	516,270,102	333,524,777
Trade and other receivables	9	3,642,547,482	7,405,780,024	3,361,342,393	7,787,804,722
Short-term loans to related parties and interest receivable	6	54,058,959	267,895,726	-	240,061,150
Contract assets	10	1,766,058,726	3,888,695,847	1,621,998,370	3,656,179,830
Construction materials and supplies		411,243,025	763,507,847	65,180,588	411,196,049
Advance payment to subcontractors		3,339,344,612	4,517,489,586	331,667,085	1,849,900,161
Current tax assets		366,150,879	367,164,945	314,722,213	315,797,787
Other current assets	11	213,576,439	403,772,475	198,209,281	387,037,846
<b>Total current assets</b>		<b>18,953,050,489</b>	<b>26,548,692,001</b>	<b>11,132,954,702</b>	<b>21,080,132,998</b>
<b>Non-current assets</b>					
Restricted bank deposits	12	15,000,000	15,000,000	-	-
Long-term loans to associated company and interest receivable	6	12,551,523,036	14,072,892,983	12,551,523,036	14,072,892,983
Long-term loans to related company and interest receivable	6	42,048	3,874,608	42,048	3,874,608
Investments in subsidiaries	13	-	-	306,476,901	306,476,901
Investments in associated companies	15	27,849,288,381	22,446,728,243	27,781,320,155	23,552,001,032
Other long-term investments	16	10,854,172,820	9,566,994,040	10,810,572,820	9,526,864,039
Investment properties	17	748,227,955	569,552,594	706,545,857	529,781,442
Property, plant and equipment	18	11,163,970,424	9,787,782,833	9,441,715,811	7,987,869,015
Intangible assets	19	34,323,452	40,138,375	33,817,470	39,551,340
Accounts receivable - claims for additional costs	27	2,515,620,262	2,515,620,262	2,515,620,262	2,515,620,262
Less: Allowance for doubtful accounts	27	(2,515,620,262)	(2,515,620,262)	(2,515,620,262)	(2,515,620,262)
Accounts receivable - claims for additional costs, net		-	-	-	-
Advances for future projects		93,042,473	101,847,617	93,042,473	101,847,617
Withholding tax deducted at source		66,726,982	88,089,548	15,359,824	15,705,790
Deferred tax assets	29	166,292,205	176,686,576	133,701,561	150,799,452
Other non-current assets		89,928,780	82,261,575	84,586,785	75,472,265
<b>Total non-current assets</b>		<b>63,632,538,556</b>	<b>56,951,848,992</b>	<b>61,958,704,741</b>	<b>56,363,136,484</b>
<b>Total assets</b>		<b>82,585,589,045</b>	<b>83,500,540,993</b>	<b>73,091,659,443</b>	<b>77,443,269,482</b>

The accompanying notes are an integral part of the financial statements.

**CH. Karnchang Public Company Limited and its subsidiaries**

**Statement of financial position (continued)**

**As at 31 December 2019**

(Unit: Baht)

		Consolidated financial statements		Separate financial statements	
	Note	2019	2018	2019	2018
Liabilities and shareholders' equity					
Current liabilities					
Short-term loans from financial institutions	20	1,874,121,311	6,319,965,911	830,000,000	5,897,699,110
Trade and other payables	21	2,573,806,731	5,396,504,685	2,267,857,014	5,020,752,647
Current portion of hire purchase creditors	22	28,604	1,325,182	28,604	1,325,182
Current portion of long-term loans	23	525,000,000	325,000,000	525,000,000	325,000,000
Current portion of debentures	24	1,000,000,000	4,500,000,000	1,000,000,000	4,500,000,000
Contract liabilities	10	10,772,796,076	10,983,088,544	6,694,939,289	8,271,747,298
Retention for construction		603,556,731	699,343,714	480,034,361	534,065,289
Income tax payable		28,983,468	23,403,776	28,983,468	23,403,776
Unbilled output tax		163,912,780	367,582,351	142,226,198	359,239,119
Derivative financial liabilities		288,732,190	315,647,874	128,633,795	200,885,974
Other current liabilities		77,813,405	105,934,029	63,811,326	101,199,914
Total current liabilities		17,908,751,296	29,037,796,066	12,161,514,055	25,235,318,309
Non-current liabilities					
Hire purchase creditors, net of current portion	22	-	28,604	-	28,604
Long-term loans, net of current portion	23	1,726,290,137	515,443,288	1,726,290,137	515,443,288
Debentures, net of current portion	24	31,878,660,386	25,034,222,525	31,878,660,386	25,034,222,525
Provision for long-term employee benefits	25	820,670,404	858,780,206	515,927,052	535,246,240
Deferred tax liabilities	29	2,438,699,968	2,225,552,026	2,385,129,410	2,169,542,475
Total non-current liabilities		36,864,320,895	28,634,026,649	36,506,006,985	28,254,483,132
Total liabilities		54,773,072,191	57,671,822,715	48,667,521,040	53,489,801,441
Shareholders' equity					
Share capital					
Registered					
1,693,899,970 ordinary shares of Baht 1 each		1,693,899,970	1,693,899,970	1,693,899,970	1,693,899,970
Issued and fully paid-up					
1,693,896,872 ordinary shares of Baht 1 each		1,693,896,872	1,693,896,872	1,693,896,872	1,693,896,872
Share premium		4,869,410,139	4,869,410,139	4,869,410,139	4,869,410,139
Retained earnings					
Appropriated - statutory reserve	26	174,889,997	174,889,997	169,389,997	169,389,997
Unappropriated		14,313,297,802	13,365,043,548	8,374,477,830	8,769,130,702
Other components of shareholders' equity		6,341,179,879	5,317,771,265	9,316,963,565	8,451,640,331
Equity attributable to owners of the Company		27,392,674,689	25,421,011,821	24,424,138,403	23,953,468,041
Non-controlling interests of the subsidiaries		419,842,165	407,706,457	-	-
Total shareholders' equity		27,812,516,854	25,828,718,278	24,424,138,403	23,953,468,041
Total liabilities and shareholders' equity		82,585,589,045	83,500,540,993	73,091,659,443	77,443,269,482

The accompanying notes are an integral part of the financial statements.



CH. Karnchang Public Company Limited and its subsidiaries

Statement of comprehensive income

For the year ended 31 December 2019

(Unit: Baht)

		Consolidated financial statements		Separate financial statements	
	Note	2019	2018	2019	2018
<b>Profit or loss:</b>					
<b>Revenues</b>					
Revenues from construction contracts		23,002,938,634	29,292,299,525	17,570,178,522	21,794,372,588
Sales of construction materials		6,857,356	3,637,352	13,780,391	11,200,807
Other income					
Project management income	6	186,181,923	203,097,268	186,181,923	203,097,268
Rental income		87,268,984	64,865,669	96,198,083	108,059,744
Transportation income		-	-	-	33,000
Interest income	6	876,189,381	816,485,634	850,599,023	871,302,755
Dividend income	6	464,636,565	464,714,590	1,233,030,553	1,141,146,626
Gain on sales of investments in associated companies	15	47,693,516	259,988,786	-	240,160,000
Gain on excheange rate		-	-	1,041,580	-
Others		124,745,536	70,479,533	90,445,306	84,927,722
<b>Total revenues</b>		<b>24,796,511,895</b>	<b>31,175,568,357</b>	<b>20,041,455,381</b>	<b>24,454,300,510</b>
<b>Expenses</b>					
Cost of construction services and sales of construction materials		21,027,975,348	26,975,661,929	16,115,734,178	20,106,254,843
Administrative expenses		2,429,563,516	1,984,823,703	2,140,157,426	1,758,396,025
<b>Total expenses</b>		<b>23,457,538,864</b>	<b>28,960,485,632</b>	<b>18,255,891,604</b>	<b>21,864,650,868</b>
<b>Profit before share of profit from investments in associated companies, finance cost and income tax expenses</b>		<b>1,338,973,031</b>	<b>2,215,082,725</b>	<b>1,785,563,777</b>	<b>2,589,649,642</b>
Share of profit from investments in associated companies	15	1,806,244,729	1,657,629,585	-	-
<b>Profit before finance cost and income tax expenses</b>		<b>3,145,217,760</b>	<b>3,872,712,310</b>	<b>1,785,563,777</b>	<b>2,589,649,642</b>
Finance cost					
(for construction segment and investment segment)		(1,225,801,951)	(1,247,530,284)	(1,208,924,552)	(1,210,755,296)
<b>Profit before income tax expenses</b>		<b>1,919,415,809</b>	<b>2,625,182,026</b>	<b>576,639,225</b>	<b>1,378,894,346</b>
Income tax expenses					
(for construction segment and investment segment)	29	(126,393,756)	(138,780,460)	(124,347,165)	(138,854,397)
<b>Profit for the year</b>		<b>1,793,022,053</b>	<b>2,486,401,566</b>	<b>452,292,060</b>	<b>1,240,039,949</b>
<b>Other comprehensive income:</b>					
<i>Other comprehensive income to be reclassified to profit or loss in subsequent periods:</i>					
Gain (loss) on changes in value of available-for-sale investments, net of income tax		856,651,411	(140,869,640)	866,407,377	(140,869,640)
Unrealised gain (loss) from cash flow hedges, net of income tax		18,066,800	(53,820,375)	(1,084,143)	(135,401,970)
Share of other comprehensive income from associates		105,476,914	396,275,909	-	-
Other comprehensive income to be reclassified to profit or loss in subsequent periods - net of income tax		980,195,125	201,585,894	865,323,234	(276,271,610)
<i>Other comprehensive income not to be reclassified to profit or loss in subsequent periods</i>					
Actuarial gain, net of income tax		42,094,640	3,724,742	-	-
Share of other comprehensive income from associates		(24,988,157)	3,423,349	-	-
Other comprehensive income not to be reclassified to profit or loss in subsequent periods - net of income tax		17,106,483	7,148,091	-	-
<b>Other comprehensive income for the year</b>		<b>997,301,608</b>	<b>208,733,985</b>	<b>865,323,234</b>	<b>(276,271,610)</b>
<b>Total comprehensive income for the year</b>		<b>2,790,323,661</b>	<b>2,695,135,551</b>	<b>1,317,615,294</b>	<b>963,768,339</b>

The accompanying notes are an integral part of the financial statements.

CH. Karnchang Public Company Limited and its subsidiaries

Statement of comprehensive income (continued)

For the year ended 31 December 2019

(Unit: Baht)

	<b>Consolidated financial statements</b>		<b>Separate financial statements</b>	
<b>Note</b>	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
<b>Profit (loss) attributable to:</b>				
Equity holders of the Company	1,777,781,990	2,494,309,044	452,292,060	1,240,039,949
Non-controlling interests of the subsidiaries	15,240,063	(7,907,478)		
	<u>1,793,022,053</u>	<u>2,486,401,566</u>		
<b>Total comprehensive income attributable to:</b>				
Equity holders of the Company	2,778,187,953	2,696,784,314	1,317,615,294	963,768,339
Non-controlling interests of the subsidiaries	12,135,708	(1,648,763)		
	<u>2,790,323,661</u>	<u>2,695,135,551</u>		
<b>Earnings per share</b>	30			
Basic earnings per share				
Profit attributable to equity holders of the Company	1.05	1.47	0.27	0.73
Weighted average number of ordinary shares (shares)	<u>1,693,896,872</u>	<u>1,693,896,872</u>	<u>1,693,896,872</u>	<u>1,693,896,872</u>

The accompanying notes are an integral part of the financial statements.

(Unit: Baht)

Consolidated financial statements												
	Equity attributable to owners of the Company											
	Other components of equity											
	Other comprehensive income											
	Surplus (deficit) on changes in value of available-for-sale investments											
Issued and fully paid-up share capital	Share premium	Retained earnings	Unappropriated	Appropriated	Share of other comprehensive income from associates	Surplus on change in interest of investment	Total other components of shareholders' equity	Total equity attributable to owners of the Company	Equity attributable to non-controlling interests of the subsidiaries	Total shareholders' equity		
<b>Balance as at 1 January 2018</b>	1,693,896,872	4,869,410,139	174,889,997	11,627,299,952	5,260,391,329	(176,749,851)	37,083,575	23,486,222,013	386,855,220	23,873,077,233		
Dividend paid (Note 33)	-	-	-	(761,994,506)	-	-	-	(761,994,506)	-	(761,994,506)		
Profit for the year	-	-	-	2,494,309,044	-	-	-	2,494,309,044	(7,907,478)	2,486,401,566		
Other comprehensive income for the year	-	-	-	5,429,058	(140,869,640)	(53,820,375)	391,736,227	202,475,270	6,258,715	208,733,985		
Total comprehensive income for the year	-	-	-	-	(140,869,640)	(53,820,375)	391,736,227	2,696,784,314	(1,648,763)	2,695,135,551		
Increase in non-controlling interests of the subsidiary from increase share capital	-	-	-	-	-	-	-	-	45,000,000	45,000,000		
Decrease in non-controlling interests of the subsidiary from dividend payment of the subsidiary	-	-	-	-	-	-	-	-	(22,500,000)	(22,500,000)		
<b>Balance as at 31 December 2018</b>	1,693,896,872	4,869,410,139	174,889,997	13,365,043,548	5,119,521,689	(230,570,226)	428,819,802	25,421,011,821	407,706,457	25,828,718,278		
<b>Balance as at 1 January 2019</b>	1,693,896,872	4,869,410,139	174,889,997	13,365,043,548	5,119,521,689	(230,570,226)	428,819,802	25,421,011,821	407,706,457	25,828,718,278		
Dividend paid (Note 33)	-	-	-	(846,944,932)	-	-	-	(846,944,932)	-	(846,944,932)		
Profit for the year	-	-	-	1,777,781,990	-	-	-	1,777,781,990	15,240,063	1,793,022,053		
Other comprehensive income for the year	-	-	-	17,417,196	861,041,596	18,066,800	103,880,371	1,000,405,963	(3,104,355)	997,301,608		
Total comprehensive income for the year	-	-	-	-	861,041,596	18,066,800	103,880,371	2,778,187,953	12,135,708	2,790,323,661		
Surplus on change in interest of investment	-	-	-	-	-	-	-	-	40,419,847	40,419,847		
<b>Balance as at 31 December 2019</b>	1,693,896,872	4,869,410,139	174,889,997	14,313,297,802	5,980,563,285	(212,503,426)	532,700,173	27,392,674,689	419,842,165	27,812,516,854		

The accompanying notes are an integral part of the financial statements.

CH. Karnchang Public Company Limited and its subsidiaries

Statement of changes in shareholders' equity (continued)

For the year ended 31 December 2019

	Separate financial statements							(Unit: Baht)
	Other components of equity							
	Retained earnings			Surplus (deficit) on		Total other components of shareholders' equity		
	Issued and fully paid-up share capital	Share premium	Appropriated	Unappropriated	changes in value of available-for-sale investments		Unrealised loss from cash flow hedges	
<b>Balance as at 1 January 2018</b>	1,693,896,872	4,869,410,139	169,389,997	8,291,085,259	8,781,947,232	(54,035,291)	8,727,911,941	23,751,694,208
Dividend paid (Note 33)	-	-	-	(761,994,506)	-	-	-	(761,994,506)
Profit for the year	-	-	-	1,240,039,949	-	-	-	1,240,039,949
Other comprehensive income for the year	-	-	-	-	(140,869,640)	(135,401,970)	(276,271,610)	(276,271,610)
Total comprehensive income for the year	-	-	-	1,240,039,949	(140,869,640)	(135,401,970)	(276,271,610)	963,768,339
<b>Balance as at 31 December 2018</b>	1,693,896,872	4,869,410,139	169,389,997	8,769,130,702	8,641,077,592	(189,437,261)	8,451,640,331	23,953,468,041
<b>Balance as at 1 January 2019</b>	1,693,896,872	4,869,410,139	169,389,997	8,769,130,702	8,641,077,592	(189,437,261)	8,451,640,331	23,953,468,041
Dividend paid (Note 33)	-	-	-	(846,944,932)	-	-	-	(846,944,932)
Profit for the year	-	-	-	452,292,060	-	-	-	452,292,060
Other comprehensive income for the year	-	-	-	-	866,407,377	(1,084,143)	865,323,234	865,323,234
Total comprehensive income for the year	-	-	-	452,292,060	866,407,377	(1,084,143)	865,323,234	1,317,615,294
<b>Balance as at 31 December 2019</b>	1,693,896,872	4,869,410,139	169,389,997	8,374,477,830	9,507,484,969	(190,521,404)	9,316,963,565	24,424,138,403

The accompanying notes are an integral part of the financial statements.

CH. Karnchang Public Company Limited and its subsidiaries

Cash flow statement

For the year ended 31 December 2019

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
<b>Cash flows from operating activities</b>				
Profit before tax	1,919,415,809	2,625,182,026	576,639,225	1,378,894,346
Adjustments to reconcile profit before tax to net cash provided by (paid from) operating activities:				
Depreciation and amortisation	526,251,420	705,524,270	436,467,696	481,179,597
Withholding tax deducted at source written off	1,258,665	35,721	1,515	35,721
Dividend income	(464,636,565)	(464,714,590)	(1,233,030,553)	(1,141,146,626)
Gain on sales of current investments	(6,040,975)	(8,192,580)	(5,927,914)	(7,913,289)
Gain on sales of investments in associated companies	(47,693,516)	(259,988,786)	-	(240,160,000)
Allowance for doubtful accounts	7,944,467	-	7,944,467	-
Allowance for loss on diminution in value of other long-term investments	2,280,000	-	-	-
Loss (gain) on sales/written off of plant and equipment	6,477,185	272,814,688	(4,279,582)	(19,002,575)
Gain on sales of investment properties	(37,422,500)	-	-	-
Transfer equipment to cost of construction services	35,782,060	-	35,782,060	-
Unrealised gain on exchange	(927,306)	(4,221,402)	(1,278,298)	(1,314,654)
Loss from foreign exchange contracts	751,358	4,091,541	751,358	4,091,541
Unrealised gain on changes in value of investments in marketable securities	(2,817,909)	(1,056,784)	(2,170,750)	(860,250)
Amortisation of deferred front end fee and deferred debenture issuing cost	11,597,930	12,806,409	9,992,930	11,164,985
Share of profit from investments in associated companies	(1,806,244,729)	(1,657,629,585)	-	-
Provision for long-term employee benefits	122,577,547	232,549,261	40,299,497	154,837,760
Interest expenses	1,207,950,334	1,226,488,916	1,192,677,935	1,191,355,351
Profit from operating activities before changes in operating assets and liabilities	1,476,503,275	2,683,689,105	1,053,869,586	1,811,161,907
Operating assets (increase) decrease				
Trade and other receivables	2,991,543,696	(1,574,738,348)	3,653,540,368	(1,712,609,132)
Contract assets	2,122,637,121	1,157,100,074	2,034,181,460	642,999,661
Construction materials and supplies	352,264,822	1,052,184,962	346,015,461	610,154,091
Advance payment to subcontractors	1,178,144,974	54,761,720	1,518,233,076	200,384,929
Other current assets	188,721,994	182,134,060	187,353,914	174,614,353
Advances for future projects	8,805,144	(85,583,743)	8,805,144	(85,583,743)
Other non-current assets	(9,133,725)	(28,164,911)	(9,114,521)	(26,791,927)
Operating liabilities increase (decrease)				
Trade and other payables	(2,824,724,817)	1,412,740,206	(2,751,217,007)	2,044,332,419
Contract liabilities	(295,327,306)	3,353,871,734	(1,576,808,009)	892,729,694
Retention for construction	(95,234,983)	(176,326,557)	(54,030,928)	(86,474,593)
Other current liabilities	(233,466,783)	147,448,492	(254,416,900)	169,458,014
Cash paid for long-term employee benefits	(118,592,709)	(94,277,430)	(59,618,685)	(13,203,550)
Cash flows from operating activities	4,742,140,703	8,084,839,364	4,096,792,959	4,621,172,123
Cash paid for interest expenses	(1,225,964,854)	(1,198,794,732)	(1,210,692,455)	(1,163,661,168)
Cash refund (paid for) corporate income tax	(88,490,152)	278,301,121	(100,977,432)	280,512,387
<b>Net cash flows from operating activities</b>	<b>3,427,685,697</b>	<b>7,164,345,753</b>	<b>2,785,123,072</b>	<b>3,738,023,342</b>

The accompanying notes are an integral part of the financial statements.



CH. Karnchang Public Company Limited and its subsidiaries

Cash flow statement (continued)

For the year ended 31 December 2019

(Unit: Baht)

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
<b>Cash flows from investing activities</b>				
Decrease in restricted bank deposits	-	221,213	-	221,213
Cash payment for purchase of current investments	(4,175,642,568)	(5,432,000,000)	(4,150,642,568)	(5,250,000,000)
Cash receipt from sales of current investments	4,003,296,348	7,265,367,611	3,975,296,349	7,101,776,742
Decrease (increase) in short-term loans to related parties and interest receivable	213,836,767	(198,515,781)	240,061,150	2,493,775,033
Decrease (increase) in long-term loans to associated company	2,286,580,000	(1,126,800,000)	2,286,580,000	(1,126,800,000)
Decrease in long-term loans to related company	3,600,000	2,700,000	3,600,000	2,700,000
Dividend from subsidiary, associated and related companies	1,253,662,346	1,131,538,859	1,233,030,553	1,141,146,626
Increase in investments in subsidiary	-	-	-	(55,000,000)
Cash receipt from sales of investments in associated companies	68,253,045	413,800,000	-	413,800,000
Purchase of investments in associated companies	(4,297,204,408)	(1,424,685,990)	(4,229,319,123)	(1,404,885,990)
Purchase of other long-term investments	(205,750,000)	-	(200,000,000)	-
Increase in investment properties	(1,270,644)	-	-	-
Increase in property, plant and equipment	(2,243,596,416)	(2,548,395,469)	(2,219,257,534)	(2,538,804,828)
Increase in intangible assets	(158,800)	(6,385,296)	(54,800)	(6,385,296)
Proceeds from sales of investment properties	37,922,500	-	-	-
Proceeds from sales of plant and equipment	106,843,023	46,621,249	101,728,543	46,572,822
<b>Net cash flows from (used in) investing activities</b>	<b>(2,949,628,807)</b>	<b>(1,876,533,604)</b>	<b>(2,958,977,430)</b>	<b>818,116,322</b>
<b>Cash flows from financing activities</b>				
Decrease in short-term loans from financial institutions	(4,288,956,601)	(1,967,181,572)	(5,067,699,110)	(1,360,265,738)
Cash receipt from long-term loans	1,776,900,000	-	1,776,900,000	-
Repayment of long-term loans	(375,000,000)	(1,695,370,000)	(375,000,000)	(1,695,370,000)
Cash receipt from issuance of debentures	9,988,000,000	7,044,865,000	9,988,000,000	7,044,865,000
Repayment of debentures	(6,650,000,000)	(6,000,000,000)	(6,650,000,000)	(6,000,000,000)
Proceeds from increase share capital of the subsidiary	-	45,000,000	-	-
Dividend payment	(846,944,932)	(761,994,506)	(846,944,932)	(761,994,506)
Dividend payment of subsidiary	-	(22,500,000)	-	-
<b>Net cash flows used in financing activities</b>	<b>(396,001,533)</b>	<b>(3,357,181,078)</b>	<b>(1,174,744,042)</b>	<b>(2,772,765,244)</b>
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>(36,876,087)</b>	<b>(69,902,691)</b>	<b>(26,467,606)</b>	<b>(120,178,976)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>45,179,270</b>	<b>1,860,728,380</b>	<b>(1,375,066,006)</b>	<b>1,663,195,444</b>
Cash and cash equivalents at beginning of year	8,549,823,195	6,689,094,815	6,098,630,676	4,435,435,232
<b>Cash and cash equivalents at end of year</b>	<b>8,595,002,465</b>	<b>8,549,823,195</b>	<b>4,723,564,670</b>	<b>6,098,630,676</b>
	-	-	-	-

The accompanying notes are an integral part of the financial statements.

## CH. Karnchang Public Company Limited and its subsidiaries

### Notes to consolidated financial statements

For the year ended 31 December 2019

#### 1. General information

CH. Karnchang Public Company Limited ("the Company") is a public company incorporated and domiciled in Thailand. The major shareholder of the Company is Mahasiri Siam Company Limited, which was also incorporated in Thailand. The Company is principally engaged in the provision of construction services. The registered office of the Company is at 587 Suthisarn Winitchai Road, Khwaeng Ratchadapisek, Khet Dindaeng, Bangkok.

#### 2. Basis of preparation

- 2.1 The financial statements have been prepared in accordance with Thai Financial Reporting Standards enunciated under the Accounting Professions 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 CH. Karnchang Public Company Limited ("the Company") and its subsidiaries ("the subsidiaries") as follows:

Name of entity	Nature of business	Country of incorporation	Percentage of shareholding	
			<u>2019</u>	<u>2018</u>
			Percent	Percent
<b><u>Investments in subsidiaries (held by the Company)</u></b>				
CH. Karnchang Realestate Company Limited (included equity interest in Prompratarn Construction Company Limited and Prasertwit Construction Company Limited)	Investment company	Thailand	99.00	99.00
CH. Karnchang-Tokyu Construction Company Limited	Construction	Thailand	55.00	55.00
CH. Karnchang (Lao) Company Limited	Construction	The Lao People’s Democratic Republic	100.00	100.00

Name of entity	Nature of business	Country of incorporation	Percentage of shareholding	
			<u>2019</u> Percent	<u>2018</u> Percent
<b><u>Investments in subsidiaries (held by subsidiary company)</u></b>				
Prompratarn Construction Company Limited (99.00 percent held by CH. Karnchang Realestate Company Limited)	Construction and construction equipment rental service	Thailand	98.01	98.01
Prasertwit Construction Company Limited (99.00 percent held by CH. Karnchang Realestate Company Limited)	Construction and construction equipment rental service	Thailand	98.01	98.01

- 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 amount of its returns.
  - c) Subsidiaries are fully consolidated as from 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 Group has 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 present investments in subsidiaries and associates under the cost method.

2.4 The Company has joint arrangements which assessed as joint operations between the Company and other joint operators. The Company recognises its shares of assets, liabilities, revenue and expenses of the joint operation, in proportion to its interest, to the separate financial statements, the details as follows:

Name of entity	Nature of Business	Country of incorporation	Interest in joint operations	
			<u>2019</u> Percent	<u>2018</u> Percent
Joint Venture CH. Karnchang Public Company Limited, Bilfinger + Berger Bauaktiengesellschaft, Tokyu Construction Company Limited and CH. Karnchang-Tokyu Construction Company Limited (hereinafter called "Joint Venture BBCT")	Construction			
- Second Stage Expressway Project Sector B Route Phayathai - Bangkhlo		Thailand	-	99.97
- Second Stage Expressway Project Sector C+ Route Chaeng Wattana - Bang Phun & Bang Sai		Thailand	-	99.97
- Second Stage Expressway Project Sector D Route Asoke - Srinakarin		Thailand	-	99.97
- Second Stage Expressway Project Sector C1A Route Ngam Wong Wan - Chaeng Wattana		Thailand	-	99.97
Joint Venture BBCT Bilfinger Berger AG, CH. Karnchang Public Company Limited and Dyckerhoff & Widmann AG (hereinafter called "Joint Venture BBCT")	Construction	Thailand	84.74	35.00
Joint Venture CKET	Project management	Thailand	-	99.99
CKTC Joint Venture	Construction	Thailand	70.00	70.00
CH. Karnchang-Krungthon Engineers Joint Venture	Construction	Thailand	60.00	60.00
Joint Venture CKCH	Construction	Thailand	70.00	70.00
CKST Joint Venture	Construction	Thailand	60.00	60.00

On 12 March 2019, a meeting of the Company's Executive Board No. 3/2019 passed a resolution approving Joint Venture BBCD to proceed with calling up Baht 5,239 million of additional capital from the two joint venturers with amounts of Baht 4,461 million and Baht 778 million called up from CH. Karnchang Public Company Limited and Bilfinger SE, respectively. This is to settle outstanding debts of the Joint Venture BBCD to each of the joint venturers. After the capital increase, the capital of Joint Venture BBCD will increase from Baht 56 million to Baht 5,295 million, causing the Company's interest in joint operations of Joint Venture BBCD increased from 35.00 percent to 84.74 percent.

On 5 August 2019, a Board of directors meeting of Joint Venture CKET approved the dissolution of Joint Venture CKET and Joint Venture CKET registered its dissolution on 15 August 2019.

On 17 September 2019, a Board of directors meeting of Joint Venture BBCT approved the dissolution of Joint Venture BBCT and Joint Venture BBCT registered its dissolution on 31 October 2019.

### **3. New financial reporting standards**

#### **(a) Financial reporting standards that became effective in the current year**

During the year, the Group has adopted the revised (revised 2018) and new financial reporting standards and interpretations which are effective for fiscal years beginning on or after 1 January 2019. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and providing accounting guidance for users of the standards. The adoption of these financial reporting standards does not have any significant impact on the Group's financial statements. However, the new standard involves changes to key principles, which are summarised below:

#### **TFRS 15 Revenue from Contracts with Customers**

TFRS 15 supersedes the following accounting standards together with related Interpretations.

TAS 11 (revised 2017)	Construction contracts
TAS 18 (revised 2017)	Revenue
TSIC 31 (revised 2017)	Revenue - Barter Transactions Involving Advertising Services
TFRIC 13 (revised 2017)	Customer Loyalty Programmes
TFRIC 15 (revised 2017)	Agreements for the Construction of Real Estate
TFRIC 18 (revised 2017)	Transfers of Assets from Customers



Entities are to apply this standard to all contracts with customers unless those contracts fall within the scope of other standards. The standard establishes a five-step model to account for revenue arising from contracts with customers, with revenue being recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer. The standard requires entities to exercise judgement, taking into consideration all of the relevant facts and circumstances when applying each step of the model.

The Group adopted TFRS 15 using the modified retrospective method of adoption of which the cumulative effect is recognised as an adjustment to the retained earnings as at 1 January 2019, and the comparative information was not restated. The Group elects to apply TFRS 15 retrospectively only to contracts that are not completed as at 1 January 2019. However, this standard does not have any significant impact on the Group's financial statements.

The Group has reclassified certain amounts in the statements of financial position as at 31 December 2018 to conform to the defined terms under TFRS 15, which are summarised below.

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	As previously		As previously	
	As reclassified	reported	As reclassified	reported
Contract assets	3,889	-	3,656	-
Trade and other receivables	7,406	8,191	7,788	8,521
Unbilled receivables	-	3,104	-	2,923
Contract liabilities	10,983	-	8,272	-
Advances received from employers and construction revenue received in advance	-	10,983	-	8,272

#### **(b) Financial reporting standards that will become effective for fiscal years beginning on or after 1 January 2020**

The Federation of Accounting Professions issued a number of new and revised financial reporting standards and interpretations, which are effective for fiscal years beginning on or after 1 January 2020. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and providing accounting guidance for users of the standards except the following new standards which involve changes to key principles, which are summarised below.

## Financial reporting standards related to financial instruments

A set of TFRSs related to financial instruments consists of five accounting standards and interpretations, as follows:

Financial reporting standards:

TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments

Accounting standard:

TAS 32	Financial Instruments: Presentation
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Financial Reporting Standard Interpretations:

TFRIC 16	Hedges of a Net Investment in a Foreign Operation
TFRIC 19	Extinguishing Financial Liabilities with Equity Instruments

These TFRSs related to financial instruments make stipulations relating to the classification of financial instruments and their measurement at fair value or amortised cost (taking into account the type of instrument, the characteristics of the contractual cash flows and the Company's business model), calculation of impairment using the expected credit loss method, and hedge accounting. These include stipulations regarding the presentation and disclosure of financial instruments. When the TFRSs related to financial instruments are effective, some accounting standards, interpretations and guidance which are currently effective will be cancelled.

The management of the Group expects the adoption of these accounting standards to result in the following adjustments.

- Classification and measurement of investments in equity instruments of non-listed companies - The Group is to measure investments in equity instruments of non-listed companies at fair value and to classify the investments as financial assets at fair value, through either profit or loss or through other comprehensive income. If the Group elects to present subsequent changes in the fair value of the investment through other comprehensive income, the election is irrevocable.
- Recognition of credit losses - The Group is to recognise an allowance for expected credit losses on its financial assets, and it is no longer necessary for a credit-impaired event to have occurred. The Group applies the simplified approach to consider impairment of trade receivables.

The management of the Group is currently evaluating the impact of these standards on the financial statements in the year when they are adopted.

## **TFRS 16 Leases**

TFRS 16 supersedes TAS 17 Leases together with related Interpretations. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases, and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is low value.

Accounting by lessors under TFRS 16 is substantially unchanged from TAS 17. Lessors will continue to classify leases as either operating or finance leases using similar principles to those used under TAS 17.

The management of the Group is currently evaluating the impact of this standard on the financial statements in the year when they are adopted.

## **4. Significant accounting policies**

### **4.1 Revenues recognition**

#### **a) Revenues from construction contracts**

The Group has determined that its construction contracts generally have one performance obligation. The Group recognises construction revenue over time where the stage of completion is measured using an input method, based on comparison of actual construction costs incurred up to the end of the period and total anticipated construction costs at completion.

The likelihood of contract variations, claims and liquidated damages, delays in delivery or contractual penalties is taken into account in determining revenue to be recognised, such that revenue is only recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

When the value and stage of completion of the contract cannot be reasonably measured, revenue is recognised only to the extent of contract costs incurred that are expected to be recovered.

#### **b) Sales of construction materials**

Sales of construction materials are recognised at the point in time when control of goods are transferred to the customer, generally upon delivery of the goods. Sales are measured at the amount of the consideration received or receivable, excluding value added tax, of goods supplied after deducting returns, discounts and allowances.

**c) Services revenue**

Service revenue is recognised over time when services have been rendered taking into account the stage of completion.

**d) Rental income**

Rental income is recognised based on the rental period, and at the rate stipulated in the rental contract.

**e) Interest income**

Interest income is recognised on an accrual basis based on the effective interest rate.

**f) Dividends**

Dividends are recognised when the right to receive the dividends is established.

**4.2 Cash and cash equivalents**

Cash and cash equivalents consist of cash in hand, cash at banks, and all highly liquid investments with an original maturity of three months or less and not subject to withdrawal restrictions.

**4.3 Trade accounts receivable**

Trade accounts receivable 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 experiences and analysis of debt aging.

**4.4 Contract assets/Contract liabilities**

*Contract assets*

A contract asset is the excess of cumulative revenue earned over the billings to date. Allowance for impairment loss is provided for the estimated losses that may be incurred in customer collection. Contract assets are transferred to receivables when the rights become unconditional (i.e. services are completed and delivered to the customer).

*Contract liabilities*

A contract liability is recognised when the billings to date exceed the cumulative revenue earned and the Group has an obligation to transfer goods or services to a customer. Contract liabilities are recognised as revenue when the Group fulfils its performance obligations under the contracts.

#### **4.5 Construction materials and supplies**

Construction materials and supplies are valued at the lower of cost (under the weighted average method) or net realisable value.

#### **4.6 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 available-for-sale securities are stated at fair value. Changes in the fair value of these securities are recorded as a separate item in other comprehensive income, and will be recorded in profit or loss when the securities are sold.
- c) 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.
- d) Investments in non-marketable equity securities, which the Group classifies as other investments, are stated at cost net of allowance for impairment loss (if any).
- e) Investments in associates are accounted for in the consolidated financial statements using the equity method.
- f) 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 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.

#### **4.7 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).



Depreciation of investment properties is calculated by reference to their costs on the straight-line basis over estimated useful lives of 20 years and 35 years. Depreciation of the investment properties is included in determining income. No depreciation is provided on land classified as investment properties.

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 year when the asset is derecognised.

#### **4.8 Property, plant and equipment/Depreciation**

Land is stated at cost. 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:

Condominium building	35 years
Buildings and construction	3, 5 to 8, 20 and 30 years
Land improvement	5, 20 and 30 years
Building improvements	5 and 10 years
Machinery and equipment	2 to 15 years
Furniture, fixtures and office equipment	2, 5 and 10 years
Motor vehicles	5 years

Depreciation is included in determining income.

No depreciation is provided on land and assets under construction.

An item of property, plant 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.

#### **4.9 Intangible assets**

The intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses (if any).

Intangible assets with finite lives are amortised on a systematic basis over the economic useful life and tested for impairment whenever there is an indication that the intangible assets 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 expense is charged to profit or loss.

Intangible assets of the Group with finite useful lives comprise computer software, and have useful lives of 5, 19 and 20 years.

#### **4.10 Related party transactions**

Related parties comprise individuals or enterprises that control, or are controlled by, the Company, whether directly or indirectly, or which are under common control with the Company.

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, key management personnel, directors and officers with authority in the planning and direction of the Company's operations.

#### **4.11 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 or the present value of the minimum lease payments. The outstanding rental obligations, net of finance charges, are included in other long-term payables, while the interest element is charged to profit or loss over the lease period. The assets acquired under finance leases is depreciated over the useful life of the asset.

Leases of property, plant and 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.

#### **4.12 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 of 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.

#### **4.13 Impairment of assets**

At the end of each reporting period, the Group performs impairment reviews in respect of the property, plant and equipment and other intangible 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.

An impairment loss is recognised in profit or loss.

#### **4.14 Employee benefits**

##### ***Short-term employee benefits***

Salaries, wages, bonuses and contributions to the social security fund are recognised as expenses when incurred.

##### ***Post-employment benefits***

###### ***Defined contribution plans***

The Group and its employees have jointly established provident funds. The funds are monthly contributed by employees and by the Group. The fund's assets are held in separate trust funds and the Group's contributions are recognised as expenses when incurred.

###### ***Defined benefit plans***

The Group has obligations in respect of the severance payments it must make to employees upon retirement under labor law. The 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 defined benefit plans are recognised immediately in other comprehensive income.

Past service costs are recognised in profit or loss on the earlier of the date of the plan amendment or curtailment and the date that the Group recognises restructuring-related costs.

#### **4.15 Provisions**

Provisions are recognised when the Group has 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 losses on construction projects is made in the accounts in full when the possibility of loss is ascertained.

#### **4.16 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 Group recognises deferred tax liabilities for all taxable temporary differences while it recognises 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 Group reviews 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 Group records deferred tax directly to shareholders' equity if the tax relates to items that are recorded directly to shareholders' equity.

#### **4.17 Derivative financial instruments and hedging**

##### **Derivative financial instruments**

The Group uses derivative financial instruments to manage its risks associated with exchange rate such as foreign exchange contracts.

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 Group applies 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.

### **4.18 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 Group applies 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 Group measures 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 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 Group determines 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.



## **5. 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:

### **Construction contracts**

The Group recognises revenue from construction contracts over time. To reflect the satisfaction of the performance obligation, the management determines the stage of completion using an input method, based on comparison of actual construction costs incurred up to the end of the period and total anticipated construction costs at completion of the construction. Significant judgements is required in determining the contract costs incurred for work performed to date, estimated total contract revenue and construction costs, and the recoverability of the contract costs to complete, as well as assessing potential deductions from revenue due to delays in delivery or contractual penalties. In making these judgements, management relies past experience, historical information and information from the project engineers or the work of specialists (if any).

### **Allowance for doubtful accounts**

In determining an allowance for doubtful accounts, the management needs to make judgement and estimates based upon, among other things, past collection history, aging profile of outstanding debts and the prevailing economic condition.

### **Impairment of equity investments**

The Group treats investments as impaired when there has been a significant or prolonged decline in the fair value below their cost or where other objective evidence of impairment exists. The determination of what is “significant” or “prolonged” requires judgement of the management.

### **Joint arrangements**

Management applied judgement to determine the type of joint arrangement, based on consideration of the rights and obligations arising from the arrangement. On this basis, the management of the Company determined that the Company has 7 investments in joint venture agreements that are joint operations (between the Company and other joint operators) in accordance with TFRS 11.

**Property, plant and equipment/Depreciation**

In determining depreciation of plant and equipment, the managements are required to make estimates of the useful lives and residual values of the Group's plant and equipment and to review estimate useful lives and residual values when there are any changes.

In addition, the managements are required to review property, plant 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.

**Estimated construction project costs**

The Group estimates costs of construction projects based on details of the construction work, taking into account the volume and value of construction materials to be used in the project, labour costs and other miscellaneous costs to be incurred to completion of service, taking into account the direction of the movement in these costs. Estimates are reviewed regularly or whenever actual costs differ significantly from the figures used in the original estimates.

**Provision for losses on construction projects**

Management applied judgement in estimating the loss they expect to be realised on each construction project, based on estimates of anticipated costs that take into account the progress of the project and actual costs incurred to date, together with fluctuations in costs of construction materials, labour and the current situation.

**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.

## 6. Related party transactions

During the years, the Group had significant business transactions with related parties. Such transactions, which are summarised below, arose in the ordinary course of business and were concluded on commercial terms and bases agreed upon between the Company and those related parties.

(Unit: Million Baht)

	Consolidated		Separate		
	financial statements		financial statements		Transfer pricing policy
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	
<b><u>Transactions with subsidiaries</u></b>					
(eliminated from the consolidated financial statements)					
Sales of construction materials	-	-	6	-	Based on cost plus margin
Rental and transportation income	-	-	2	37	Close to service fee charged to third parties
Space rental and service income	-	-	7	7	Based on contracts
Interest income	-	-	-	79	Interest rate of MLR - 2%
Dividend income	-	-	-	28	As declared
Other income	-	-	10	31	Based on contracts and cost plus margin
Cost of construction materials and construction work	-	-	700	377	Close to prices charged by third parties and based on contracts
<b><u>Transactions with associated companies</u></b>					
Revenues from construction contracts	11,172	14,014	6,906	7,732	Based on construction contracts
Rental and transportation income	1	1	1	1	Based on contracts
Space rental and service income	24	24	24	24	Based on contracts
Interest income	767	772	765	762	Interest rates of 5%, MLR and MLR + 0.25% (2018: 5%, MLR + 0.25% and MLR - 1%)
Dividend income	-	-	768	649	As declared
Other income	1	-	1	-	Based on contracts
Cost of construction materials and construction work	1	-	1	-	Based on contracts
Sales of land	38	-	-	-	Close to market price

(Unit: Million Baht)

	Consolidated		Separate		
	financial statements		financial statements		Transfer pricing policy
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	
<b><u>Transactions with related parties</u></b>					
Revenues from construction contracts	114	93	114	93	Based on construction contracts
Sales of construction materials	7	-	7	-	Cost plus margin
Project management income	186	203	186	203	Based on contracts and agreed between the parties
Rental and transportation income	5	7	5	7	Close to service fee charged to third parties
Space rental and service income	6	7	6	7	Based on contracts
Interest income	4	3	4	3	Interest rates of 3.1% and MLR - 0.01%
Dividends income	465	465	465	465	As declared
Other income	18	4	18	4	Based on contracts and cost plus margin
Cost of construction materials and construction work	240	211	240	211	Close to prices charged by third parties and based on contracts
Administrative expenses	1	1	1	1	Agreed between the parties
Dividend payment	-	23	-	-	As declared
Sales of equipment	42	20	42	20	Agreed between the parties
Purchases of equipment	13	2	13	2	Agreed between the parties
Purchases of land	600	-	600	-	Close to market price

The balances of the accounts as at 31 December 2019 and 2018 between the Company and those related parties are as follows:

**a) Trade receivables - related parties (Note 9)**

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Subsidiary</b>	-	-	-	285,522
<b>Associated companies</b>				
- Bangkok Expressway and Metro Public Company Limited	677,193	725,739	677,193	725,739
- Xayaburi Power Company Limited	-	665,228	-	-
	<u>677,193</u>	<u>1,390,967</u>	<u>677,193</u>	<u>725,739</u>
<b>Related party (common directors)</b>				
- TTW Public Company Limited	7,994	6,089	7,994	6,089
Total trade receivables - related parties	<u>685,187</u>	<u>1,397,056</u>	<u>685,187</u>	<u>1,017,350</u>

## b) Retention receivables - related parties

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Joint arrangement</b>	408	408	408	408
<b>Associated company</b>				
- Bangkok Expressway and Metro Public Company Limited	44,252	16,781	44,252	16,781
<b>Related parties (common directors)</b>				
- Bangpa-in Land Development Company Limited	7,418	19,417	7,418	19,417
- TTW Public Company Limited	10,688	2,429	10,688	2,429
	18,106	21,846	18,106	21,846
Total retention receivables - related parties	62,766	39,035	62,766	39,035

## c) Other receivables - related parties (Note 9)

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Subsidiaries</b>	-	-	32,853	1,900,301
<b>Joint arrangements</b>	27,766	241,802	27,766	241,467
<b>Associated companies</b>				
- Bangkok Expressway and Metro Public Company Limited	1,449	10	1,449	10
- Xayaburi Power Company Limited	634	1,068,362	116	55
- Other associated companies	878	444	878	444
	2,961	1,068,816	2,443	509
<b>Related parties (common directors)</b>				
- Expert Transport Company Limited	17,128	11,466	17,128	11,466
- Other related companies and related parties	217	550	217	550
	17,345	12,016	17,345	12,016
<b>Other joint operators</b>				
- Bilfinger SE (formerly known as "Bilfinger Berger AG")	-	8,108	-	8,108
- CH. Thavee Construction Company Limited	1,085	-	1,085	-
	1,085	8,108	1,085	8,108
Total other receivables - related parties	49,157	1,330,742	81,492	2,162,401



**d) Advance payment to subcontractor - related parties**

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
<b>Subsidiary</b>	-	-	41,618	98,030
<b>Related party with other joint operator</b>	-	15,947	-	15,947
Total advance payment to subcontractor -related parties	-	15,947	41,618	113,977

**e) Short-term loans to related parties and interest receivable**

As at 31 December 2019 and 2018, the balances of short-term loans to related parties and interest receivable between the Company and those related parties and the movement are as follows:

(Unit: Thousand Baht)

		Consolidated financial statements			
		Balance as at 31 December 2018	Increase during the year	Decrease during the year	Balance as at 31 December 2019
Loans to	Related by				
- Joint Venture BBCD	Joint operation	283,913	-	(283,913)	-
- Joint Venture CKCH	Joint operation	240,061	3,231	(243,292)	-
- Kamala Senior Living Company Limited	Associated company	27,835	26,224	-	54,059
		551,809	29,455	(527,205)	54,059
Less: Allowance for doubtful account		(283,913)	-	283,913	-
		267,896	29,455	(243,292)	54,059

(Unit: Thousand Baht)

		Separate financial statements			
		Balance as at 31 December 2018	Increase during the year	Decrease during the year	Balance as at 31 December 2019
Loans to	Related by				
- Joint Venture BBCD	Joint operation	3,726,253	-	(3,726,253)	-
- Joint Venture CKCH	Joint operation	240,061	3,231	(243,292)	-
		3,966,314	3,231	(3,969,545)	-
Less: Allowance for doubtful accounts		(3,726,253)	-	3,726,253	-
		240,061	3,231	(243,292)	-

Loans to related parties are subject to interest at MLR minus stipulated margin per annum, 3.10 and 5.00 percent per annum and are due at call. Loans to Joint Venture BBCD are granted with a condition waiving interest.

#### Loans to Joint Venture BBCD

On 12 March 2019, a meeting of the Company's Executive Board No. 3/2019 passed a resolution approving Joint Venture BBCD ("the Joint Venture") to proceed with calling up Baht 5,239 million of additional capital from the two joint venturers with amounts of Baht 4,461 million and Baht 778 million called up from CH. Karnchang Public Company Limited and Bilfinger SE, respectively. This is to settle outstanding debts of the Joint Venture to each of the joint venturers. After the capital increase, the Joint Venture's capital will increase from Baht 56 million to Baht 5,295 million, causing the Company's interest in joint operations of Joint Venture BBCD to increase from 35.00 percent to 84.74 percent.

Subsequently, on the same day, a meeting of the joint venturers of Joint Venture BBCD agreed and resolved to inject funds into the Joint Venture by increasing its capital, with the additional capital to be used to repay the outstanding debt that the Joint Venture has to the two joint venturers, as detailed in the above paragraph.

On 5 April 2019, the Company paid in Baht 4,461 million of additional capital to the Joint Venture and received settlement of account receivables and loans amounting to Baht 4,461 million from the Joint Venture. Therefore, during the current year, the Company reversed allowance for doubtful debt for accounts receivable and loans to the Joint Venture amounting to Baht 4,461 million and recorded it as allowance for loss on investment in the Joint Venture.

**f) Long-term loans to associated company and interest receivable**

As at 31 December 2019 and 2018, the balances of long-term loans to associated company and interest receivable between the Company and the associated company and the movement are as follows:

(Unit: Thousand Baht)

	Consolidated and separate financial statements			
	Balance as at 31 December 2018	Increase during the year	Decrease during the year	Balance as at 31 December 2019
<b>Loans:</b>				
- Xayaburi Power Company Limited	12,314,760	713,420	(3,000,000)	10,028,180
<b>Interest receivable:</b>				
- Xayaburi Power Company Limited	1,758,133	765,210	-	2,523,343
	<u>14,072,893</u>	<u>1,478,630</u>	<u>(3,000,000)</u>	<u>12,551,523</u>

On 16 May 2016, a meeting of the Company's Board of Directors passed a resolution to provide financial support to Xayaburi Power Company Limited (an associated company of CK Power Public Company Limited), and on 17 May 2016, the Company entered into a Sponsor Loan Agreement under which it will provide loans of Baht 13,547 million to that company to fund additional construction work on the Xayaburi Hydroelectric Power Project. The loans are to carry interest at the Minimum Loan Rate plus 0.25 percent (MLR + 0.25%) per annum during the construction period and the Minimum Loan Rate (MLR) from the Commercial Operation Date (within the year 2019). The loans are to be repaid in accordance with the loan repayment schedule for the loans from the financial institutions for this project and full settlement is to be made no later than 2031, however, that the payment of interest and principal will be subject to the cash flows available to the shareholders after fulfillment of all conditions stipulated in the long-term loan agreements.

As at 31 December 2019, Xayaburi Power Company Limited has drew Baht 13,028 million of these loans from the Company (2018: Baht 12,315 million).

**g) Long-term loans to related company and interest receivable**

As at 31 December 2019 and 2018, the balances of long-term loans to related company and interest receivable between the Company and the related company and the movement are as follows:

(Unit: Thousand Baht)

	Consolidated and separate financial statements			
	Balance as at 31 December 2018	Increase during the year	Decrease during the year	Balance as at 31 December 2019
<b>Loans:</b>				
- Nakhon Ratchasima Solar Company Limited	3,600	-	(3,600)	-
<b>Interest receivable:</b>				
- Nakhon Ratchasima Solar Company Limited	275	182	(415)	42
	<u>3,875</u>	<u>182</u>	<u>(4,015)</u>	<u>42</u>

The loan is subject to interest at the Minimum Loan Rate less 0.01 percent per annum (MLR - 0.01%) and due for repayment after Nakhon Ratchasima Solar Company Limited has paid the indebtedness as stipulated in the loan agreement from a financial institution.

**h) Trade accounts payable - related parties (Note 21)**

(Unit: Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Subsidiaries</b>	-	-	44,865	98,738
<b>Joint arrangement</b>	4,030	2,794	4,030	2,794
<b>Associated company</b>	7,308	88	101	88
<b>Related parties (common directors)</b>				
- Bangpa-In Land Development Company Limited	33	80	33	80
- Other related companies and related parties	10	100	10	100
	<u>43</u>	<u>180</u>	<u>43</u>	<u>180</u>
<b>Other joint operators</b>				
- CH.Thavee Construction Company Limited	-	31,178	-	31,178
- Sino-Thai Engineering and Construction Public Company Limited	2,812	3,746	2,812	3,746
	<u>2,812</u>	<u>34,924</u>	<u>2,812</u>	<u>34,924</u>

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Related parties with other joint operators</b>				
- Joint Venture Sermsanguan and CH.Thavee	-	38,528	-	38,528
- Donmuang Karnchang Company Limited	-	9,917	-	9,917
	-	48,445	-	48,445
Total trade accounts payable - related parties	14,193	86,431	51,851	185,169

**i) Amounts due to related parties (Note 21)**

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Joint arrangement</b>	186	383	186	383
<b>Associated company</b>				
- Kamala Senior Living Company Limited	-	3,792	-	-
<b>Other joint operator</b>				
- Bilfinger SE (formerly known as "Bilfinger Berger AG")	-	20,017	-	20,017
Total amounts due to related parties	186	24,192	186	20,400

**j) Advances received from employers - related parties**

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Associated company</b>				
- Bangkok Expressway and Metro Public Company Limited	11,342	3,899	11,342	3,899
<b>Related company (common directors)</b>				
- TTW Public Company Limited	46,694	1,325	46,694	1,325
Total advances received from employers - related parties	58,036	5,224	58,036	5,224



## k) Retention for construction - related parties

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Subsidiary</b>	-	-	46,665	41,963
<b>Other joint operators</b>				
- CH. Thavee Construction Company Limited	-	24,481	-	24,481
- Krungthon Engineers Company Limited	408	408	408	408
	<u>408</u>	<u>24,889</u>	<u>408</u>	<u>24,889</u>
<b>Related parties with other joint operators</b>				
- Joint Venture Sermsanguan and CH. Thavee	-	18,483	-	18,483
- Donmuang Karnchang Company Limited	-	2,314	-	2,314
	<u>-</u>	<u>20,797</u>	<u>-</u>	<u>20,797</u>
Total retention for construction - related parties	<u>408</u>	<u>45,686</u>	<u>47,073</u>	<u>87,649</u>

## Directors and management's remuneration

During the years ended 31 December 2019 and 2018, the Group had employee benefit expenses payable to their directors and management as below.

(Unit: Million Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Short-term employee benefits	203	197	172	169
Post-employment benefits	19	14	12	12
Total	<u>222</u>	<u>211</u>	<u>184</u>	<u>181</u>

## Guarantee obligations with related parties

The Company has outstanding guarantee obligations with its related parties, as described in Note 20 and 34.4 to the financial statements.

## 7. Cash and cash equivalents

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Cash	11,175	10,328	7,612	7,736
Bank deposits	8,583,827	8,539,495	4,715,953	6,090,895
Total	<u>8,595,002</u>	<u>8,549,823</u>	<u>4,723,565</u>	<u>6,098,631</u>

As at 31 December 2019, bank deposits in saving accounts and fixed deposits carried interests between 0.05 to 1.60 percent per annum (2018: between 0.05 to 1.30 percent per annum) (Separate financial statements: 0.10 to 1.60 percent per annum (2018: 0.375 to 1.30 percent per annum)).

## 8. Current investments

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Investments in trading securities</b>				
Marketable equity securities - Fair value	9,078	6,907	9,078	6,907
<b>Investments in available-for-sale securities</b>				
Unit trust in fixed income open-ended fund	554,805	376,048	506,539	325,265
Add: Unrealised gain on changes in value of investments	<u>1,185</u>	<u>1,607</u>	<u>653</u>	<u>1,353</u>
Fair value	<u>555,990</u>	<u>377,655</u>	<u>507,192</u>	<u>326,618</u>
Total current investments	<u>565,068</u>	<u>384,562</u>	<u>516,270</u>	<u>333,525</u>

## 9. Trade and other receivables

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<u>Trade receivables - related parties</u> (Note 6)				
Aged on the basis of due dates				
Not yet due	610,317	1,395,997	610,317	730,769
Past due				
Up to 3 months	74,870	1,059	74,870	1,059
3 - 6 months	-	-	-	-
6 - 12 months	-	-	-	-
Over 12 months	-	-	-	285,522
Total trade receivables - related parties	<u>685,187</u>	<u>1,397,056</u>	<u>685,187</u>	<u>1,017,350</u>
<u>Trade receivables - unrelated parties</u>				
Aged on the basis of due dates				
Not yet due	1,383,369	3,847,808	1,078,929	3,798,197
Past due				
Up to 3 months	216,000	17,096	216,000	4,912
3 - 6 months	-	71	-	-
6 - 12 months	682	347	-	-
Over 12 months	97,948	93,074	93,074	93,074
Total trade receivables - unrelated parties	<u>1,697,999</u>	<u>3,958,396</u>	<u>1,388,003</u>	<u>3,896,183</u>
Total trade receivables	<u>2,383,186</u>	<u>5,355,452</u>	<u>2,073,190</u>	<u>4,913,533</u>
<u>Other receivables</u>				
Other receivables - related parties (Note 6)	49,157	1,330,742	81,492	2,162,401
Other receivables - unrelated parties	1,216,130	719,424	1,212,632	711,754
Interest receivable	2,018	162	1,972	117
Total other receivables	<u>1,267,305</u>	<u>2,050,328</u>	<u>1,296,076</u>	<u>2,874,272</u>
Less: Allowance for doubtful account	<u>(7,944)</u>	<u>-</u>	<u>(7,944)</u>	<u>-</u>
Total other receivables - net	<u>1,259,361</u>	<u>2,050,328</u>	<u>1,288,152</u>	<u>2,874,272</u>
Total trade and other receivables - net	<u>3,642,547</u>	<u>7,405,780</u>	<u>3,361,342</u>	<u>7,787,805</u>

## 10. Contract assets/Contract liabilities

### 10.1 Contract balances

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
Contract assets				
Unbilled receivables	1,127,630	3,103,911	1,051,686	2,923,360
Retention receivables	638,429	784,785	570,312	732,820
Total contract assets	1,766,059	3,888,696	1,621,998	3,656,180
Contract liabilities				
Construction revenue received in advance	9,116,364	7,726,191	5,089,511	5,016,433
Advance received from employers	1,656,432	3,256,898	1,605,428	3,255,314
Total contract liabilities	10,772,796	10,983,089	6,694,939	8,271,747

### 10.2 Revenue recognised in relation to contract balances

	(Unit: Thousand Baht)	
	For the year ended 31 December 2019	
	Consolidated	Separate
	financial statements	financial statements
Revenue recognised that was included in		
contract liabilities at the beginning of the year	9,167,664	6,403,614
Revenue recognised from changes in variable		
considerations of performance obligations		
satisfied in previous years	15,786	-

### 10.3 Revenue to be recognised for the remaining performance obligations

As at 31 December 2019, revenue totalling Baht 37,380 million (Separate financial statements: Baht 31,690 million) is expected to be recognised in the future in respect of performance obligations under contracts with customers that are unsatisfied (or partially unsatisfied). The Group expects to satisfy these performance obligation within 5 years.

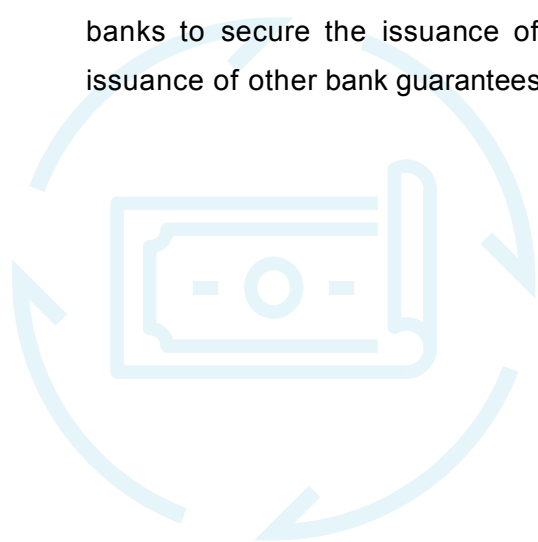
## 11. Other current assets

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Prepaid expenses	70,079	64,617	64,125	53,126
Refundable input tax	27,478	104,915	27,116	104,416
Unbilled input tax	110,062	218,022	103,898	216,141
Others	5,957	16,218	3,070	13,355
Total other current assets	<u>213,576</u>	<u>403,772</u>	<u>198,209</u>	<u>387,038</u>

## 12. Restricted bank deposits

The outstanding balances represent bank deposit accounts which have been pledged with banks to secure the issuance of bank guarantees for electricity utilisation, bidding, issuance of other bank guarantees of a subsidiary.





### 13. Investments in subsidiaries

13.1 Details of investments in subsidiaries as presented in separate financial statements are as follows:

Company's name	Separate financial statements						(Unit: Thousand Baht)	
	Paid-up capital		Shareholding percentage		Cost			Dividend received during the years
	2019	2018	2019	2018	2019	2018		
			(%)	(%)				
CH. Karnchang Realstate Company Limited	160,000	160,000	99.00	99.00	158,400	158,400	-	-
CH. Karnchang-Tokyu Construction Company Limited	200,000	200,000	55.00	55.00	110,000	110,000	-	27,500
CH. Karnchang (Lao) Company Limited								
(paid-up share capital of USD 1,000,000)	39,636	39,636	100.00	100.00	39,636	39,636	-	-
Total					308,036	308,036	-	27,500
Less: Allowance for loss on investments in subsidiary					(1,559)	(1,559)		
Total investments in subsidiaries - net					306,477	306,477		

13.2 Details of investment in subsidiary that have material non-controlling interests.

Company's name	Proportion of equity interest held by non-controlling interests		Accumulated balance of non-controlling interests		Profit (loss) allocated to non-controlling interests during the year		Dividend paid to non-controlling interests during the year	
	2019	2018	2019	2018	2019	2018	2019	2018
	(%)	(%)						
CH. Karnchang-Tokyu Construction Company Limited	45.00	45.00	418	406	15	(8)	-	23

13.3 Summarised financial information that based on amounts before inter-company elimination about subsidiary that have material non-controlling.

Summarised information about financial position.

	(Unit: Million Baht)	
	CH. Karnchang-Tokyu	
	Construction Company Limited	
	<u>2019</u>	<u>2018</u>
Current assets	698	582
Non-current assets	1,745	1,613
Current liabilities	(619)	(547)
Non-current liabilities	(321)	(264)

Summarised information about comprehensive income.

	(Unit: Million Baht)	
	For the years ended 31 December	
	CH. Karnchang-Tokyu	
	Construction Company Limited	
	<u>2019</u>	<u>2018</u>
Revenue	1,926	1,614
Profit (loss)	28	(5)
Other comprehensive income	-	(4)
Total comprehensive income	28	(9)

Summarised information about cash flow.

	(Unit: Million Baht)	
	For the years ended 31 December	
	CH. Karnchang-Tokyu	
	Construction Company Limited	
	<u>2019</u>	<u>2018</u>
Cash flow from (used in) operating activities	52	(115)
Cash flow from investing activities	9	16
Cash flow from (used in) financing activities	(64)	100
Net increase (decrease) in cash and cash equivalents	<u>(3)</u>	<u>1</u>

#### 14. Joint arrangements - joint operations

Financial information of the Company only and the joint arrangements which are the joint operations in 7 entities as described in Note 2.4 to the financial statements are presented including in the separate financial statement as below.

	As at 31 December 2019			(Unit: Million Baht)
	The Company only	The joint arrangements	Elimination entries	Separate financial statement
<b>Summarised information about financial position:</b>				
Current assets	6,061	5,121	(49)	11,133
Non-current assets	61,099	892	(32)	61,959
Current liabilities	7,057	5,487	(382)	12,162
Non-current liabilities	36,488	24	(6)	36,506
Unappropriated retained earnings	7,566	499	309	8,374
	For the year ended 31 December 2019			(Unit: Million Baht)
	The Company only	The joint arrangements	Elimination entries	Separate financial statement
<b>Summarised information about profit or loss:</b>				
Total revenues	13,053	7,833	(845)	20,041
Total expenses	(11,079)	(7,520)	343	(18,256)
Profit before finance cost and income tax expenses	1,974	313	(502)	1,785
Finance cost	(1,188)	(29)	8	(1,209)
Profit before income tax expenses	786	284	(494)	576
Income tax expenses	(11)	(113)	-	(124)
Profit for the year	775	171	(494)	452

(Unit: Million Baht)

## As at 31 December 2018

	The Company only	The joint arrangements	Elimination entries	Separate financial statement
<b>Summarised information about financial position:</b>				
Current assets	13,040	9,152	(1,112)	21,080
Non-current assets	55,818	576	(31)	56,363
Current liabilities	17,811	8,868	(1,444)	25,235
Non-current liabilities	28,225	55	(26)	28,254
Unappropriated retained earnings	7,638	781	350	8,769

(Unit: Million Baht)

## For the year ended 31 December 2018

	The Company only	The joint arrangements	Elimination entries	Separate financial statement
<b>Summarised information about profit or loss:</b>				
Total revenues	13,953	10,918	(417)	24,454
Total expenses	(12,197)	(10,064)	397	(21,864)
Profit before finance cost and income tax expenses	1,756	854	(20)	2,590
Finance cost	(1,144)	(72)	5	(1,211)
Profit before income tax expenses	612	782	(15)	1,379
Tax income (expenses)	13	(152)	-	(139)
Profit for the year	625	630	(15)	1,240

## 15. Investments in associated companies

### 15.1 Details of associated companies:

Company's name	Nature of business	Country of incorporation	Consolidated financial statements					
			Shareholding percentage		Cost		Carrying amounts based on equity method	
			<u>2019</u> (%)	<u>2018</u> (%)	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Bangkok Expressway and Metro Public Company Limited (31.32 percent held by the Company and 0.89 percent indirectly held by a subsidiary (2018: 30.89 percent held by the Company and 0.89 percent indirectly held by a subsidiary))	Construction and management of the expressway, the operation of metro services and commercial development	Thailand	32.21	31.78	20,771,096	20,025,367	20,896,620	19,230,857
CK Power Public Company Limited	Making investment in other companies	Thailand	31.90	27.22	8,060,962	4,540,846	6,938,487	3,196,675
Kamala Senior Living Company Limited (20.00 percent indirectly held by a subsidiary)	Development and management of elderly residential project	Thailand	20.00	20.00	20,000	20,000	14,181	19,196
Total					28,852,058	24,586,213	27,849,288	22,446,728

(Unit: Thousand Baht)



(Unit: Thousand Baht)

## Separate financial statements

Company's name	Nature of business	Country of incorporation	Shareholding percentage		Cost		Allowance for loss on investments		Carrying amounts based on cost method - net	
			2019 (%)	2018 (%)	2019	2018	2019	2018	2019	2018
Bangkok Expressway and Metro Public Company Limited	Construction and management of the expressway, the operation of metro services and commercial development	Thailand	31.32	30.89	20,020,286	19,311,083	(299,928)	(299,928)	19,720,358	19,011,155
CK Power Public Company Limited	Making investment in other companies	Thailand	31.90	27.22	8,060,962	4,540,846	-	-	8,060,962	4,540,846
Total					28,081,248	23,851,929	(299,928)	(299,928)	27,781,320	23,552,001



## 15.2 Share of comprehensive income and dividend received

During the years, the Company has recognised its share of profit (loss) from investments in associated companies in the consolidated financial statements and dividend income in the separate financial statements as follows:

Company's name	(Unit: Thousand Baht)					
	Consolidated		Separate			
	financial statements		financial statements			
	Share of profit (loss) from		Share of other			
	investments in associated		comprehensive income		Dividend received	
	companies during		from investments in		during the years	
	the years		associates during the years			
	2019	2018	2019	2018	2019	2018
Bangkok Expressway and Metro Public						
Company Limited	1,560,376	1,479,706	93,920	358,211	712,218	603,476
CK Power Public Company Limited	250,884	178,402	(13,431)	41,488	56,176	45,456
Kamala Senior Living Company Limited	(5,015)	(478)	-	-	-	-
Total	1,806,245	1,657,630	80,489	399,699	768,394	648,932

## 15.3 Fair value investments in listed associates

The fair values of investments in associated companies that are listed on the Stock Exchange of Thailand are based on the latest bid price of the last working days of December 2019 and 2018, as quoted on the Stock Exchange of Thailand. Such fair values are as follow:

Company's name	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	Fair values as at		Fair values as at	
	31 December		31 December	
	2019	2018	2019	2018
Bangkok Expressway and Metro Public Company				
Limited	53,669	47,130	52,180	45,805
CK Power Public Company Limited	12,861	9,951 <sup>(1)</sup>	12,861	9,951 <sup>(1)</sup>
Total	66,530	57,081	65,041	55,756

<sup>(1)</sup> This fair value excludes the fair values of warrants amounting to Baht 381 million.

## 15.4 Summarised financial information

### Summarised information about financial position

(Unit: Million Baht)

	Bangkok Expressway and Metro Public Company Limited and its subsidiaries		CK Power Public Company Limited and its subsidiaries		Kamala Senior Living Company Limited	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Current assets	4,447	4,217	6,606	6,273	21	25
Non-current assets	107,249	99,614	57,585	56,230	517	384
Current liabilities	(11,429)	(14,607)	(3,394)	(2,488)	(10)	(171)
Non-current liabilities	(61,445)	(53,612)	(25,250)	(28,493)	(452)	(139)
<b>Net assets</b>	<b>38,822</b>	<b>35,612</b>	<b>35,547</b>	<b>31,522</b>	<b>76</b>	<b>99</b>
Equity attributable to non-controlling interests of the subsidiaries in associated companies	(42)	(113)	(11,998)	(13,189)	-	-
<b>Net assets of the Company</b>	<b>38,780</b>	<b>35,499</b>	<b>23,549</b>	<b>18,333</b>	<b>76</b>	<b>99</b>
Shareholding percentage (%)	32.21	31.78	31.90	27.22	20.00	20.00
<b>Share of net assets</b>	<b>12,491</b>	<b>11,282</b>	<b>7,512</b>	<b>4,990</b>	<b>15</b>	<b>20</b>
Elimination entries and others	8,406	7,949	(574)	(1,793)	(1)	(1)
<b>Carrying amounts of associates based on equity method</b>	<b>20,897</b>	<b>19,231</b>	<b>6,938</b>	<b>3,197</b>	<b>14</b>	<b>19</b>

### Summarised information about comprehensive income

(Unit: Million Baht)

	For the years ended 31 December					
	Bangkok Expressway and Metro Public Company Limited and its subsidiaries		CK Power Public Company Limited and its subsidiaries		Kamala Senior Living Company Limited	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Revenue	20,404	19,087	8,843	9,116	-	-
Profit (loss)	5,452	5,336	1,083	1,364	(23)	-
Other comprehensive income	321	1,144	(52)	244	-	-
Total comprehensive income	5,773	6,480	1,036	1,608	(23)	-

## **Bangkok Expressway and Metro Public Company Limited**

In May and June 2019, the subsidiary sold 6 million ordinary shares of Bangkok Expressway and Metro Public Company Limited at a total price of Baht 68.3 million and recorded gains on sales of investments in the associated company of approximately Baht 48 million in profit or loss in the consolidated financial statements for the year 2019. As a result, the subsidiary's interest in the equity of this company decreased from 0.89 percent to 0.85 percent.

In June 2019, the subsidiary purchased 6 million ordinary shares of Bangkok Expressway and Metro Public Company Limited valued at Baht 67.9 million, causing the subsidiary's interest in the equity of this company to increase from 0.85 percent to 0.89 percent.

In August 2019, the Company purchased 65 million ordinary shares of Bangkok Expressway and Metro Public Company Limited valued at Baht 709.2 million, causing the Company's interest in the equity of this company to increase from 30.89 percent to 31.32 percent.

The Company is subject to restrictions on the sale, transfer or creation of obligations with respect to some share certificates for its investment in Bangkok Expressway and Metro Public Company Limited, in compliance with a condition of the Company's long-term loans and debentures.

A subsidiary has pledged some of the share certificates for its investment in Bangkok Expressway and Metro Public Company Limited with a bank to secure its short-term loans from the bank.

### Share of profit from investment in Bangkok Expressway and Metro Public Company Limited

During the year ended 31 December 2019, the Company recognised share of profit from investment in Bangkok Expressway and Metro Public Company Limited amounting to Baht 1,560 million in the consolidated statement of comprehensive income, which included share of gain on the sale of investment in TTW Public Company Limited and gain on reclassification of this investment amounting to Baht 767 million (net of income tax), in proportion to its shareholding in Bangkok Expressway and Metro Public Company Limited. These gains were the result of the Bangkok Expressway and Metro Public Company Limited selling ordinary shares of TTW Public Company Limited in March and April 2019, which resulted in its interest in the equity of TTW Public Company Limited decreasing from 19.29 percent to 18.47 percent and caused it to reclassify the investment in TTW Public Company Limited from investment in associated company to investment in available-for-sale securities. Such reclassification was consistent with the current purpose of the investment in TTW Public Company Limited, which is to convert the investment to cash when there is a suitable business opportunity and the timing is appropriate.

### Dispute over the competing road with Udon Rattaya Expressway of a subsidiary of Bangkok Expressway and Metro Public Company Limited

On 21 September 2018, the Supreme Administrative Court ruled to affirm the Judgement of the Administrative Court to enforce the arbitral award of the arbitral tribunal requiring Expressway Authority of Thailand (“EXAT”) to compensate a subsidiary of Bangkok Expressway and Metro Public Company Limited for the deficient revenue from the projection under the Bang Pa-In - Pak kret Expressway Agreement in total of Baht 1,790 million which included interest. EXAT shall be required to fully comply with the Judgement within 90 days from the date the Supreme Administrative Court has ruled the Judgement, which will be due on 20 December 2018.

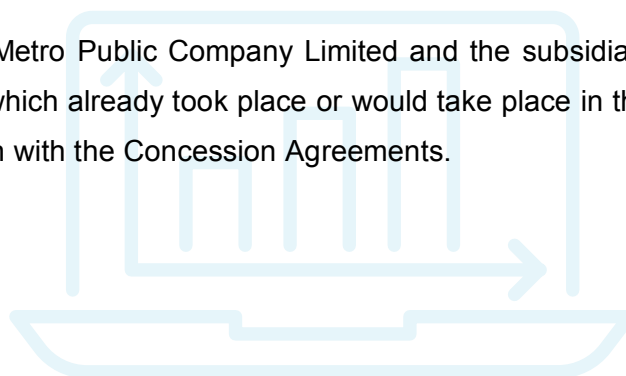
On 2 October 2018, the Council of Ministers’ Meeting passed a resolution to require that the Government agency may conduct a negotiation with its disputing party to alleviate the damage of the Government and to ensure justice to the people. Subsequently, EXAT issued a letter dated 31 October 2018 to the subsidiary informing that the Board of EXAT has appointed a subcommittee to consider determining the guidelines for compliance with such judgement of the Supreme Administrative Court, as well as conducting a negotiation with the subsidiary and inviting the subsidiary to attend the negotiation to reach an agreement for such matter.

On 19 December 2018, EXAT and the subsidiary issued their letters to reply the letter of the Bureau of Administrative Case Execution dated 11 October 2018 regarding the compliance with the Supreme Administrative Court’s judgement that it is pending on the negotiation process to conclude the Supreme Administrative Court’s judgement.

During December 2018, the subcommittee attended the meetings for negotiation with Bangkok Expressway and Metro Public Company Limited and the subsidiary several times for the dispute settlement of all cases between EXAT and Bangkok Expressway and Metro Public Company Limited and the subsidiary under the Second Stage Expressway Agreement (Sector A, B and C), the Agreement for the Extension of the Second Stage Expressway System (Sector D), and the Bang Pa-in - Pak Kret Expressway Agreement. On 21 December 2018, Bangkok Expressway and Metro Public Company Limited and the subsidiary have reached the agreement with EXAT for the negotiation and dispute settlement for all disputes.

The agreement can be summarised as follows;

- A) EXAT, Bangkok Expressway and Metro Public Company Limited and the subsidiary have agreed to settle all disputes which already took place or would take place in the future in the same issues in relation with the Concession Agreements.





- B) EXAT, Bangkok Expressway and Metro Public Company Limited and the subsidiary have mutually agreed to review and amend the Concession Agreements as follows;
- B1. The respective periods of time of the Second Stage Expressway Agreement (Sector A, B and C), the Agreement for the Extension of the Second Stage Expressway System (Sector D), and the Bang Pa-in - Pak Kret Expressway Agreement, shall be extended from which would formerly end in 2020, 2027, and 2026 respectively, to end on 21 April 2057;
  - B2. Bangkok Expressway and Metro Public Company Limited shall provide the O&M Services of the Second Stage Expressway and the subsidiary shall provide the O&M Services of the Bang Pa-in - Pak Kret Expressway, provided that Bangkok Expressway and Metro Public Company Limited and the subsidiary are entitled to receive toll revenue sharing throughout the respective agreement periods at the rates ranging from 40 to 100 percent according to the rates specified in the Agreements;
  - B3. The revision of toll rates shall be revised to constantly increase every 10 years;
  - B4. Bangkok Expressway and Metro Public Company Limited shall have duty to invest, construct and improve the Second Stage Expressway in the total investment amount of approximately Baht 31,500 million to solve the traffic congestion problem.

As at 31 December 2019, the results of the negotiation and disputes settlement are pending for the relevant government agency to propose to the Cabinet for an approval in conformity with the Private Investment in State Undertaking Act B.E. 2556, in which there might be the possibilities to be altered from which summarised in A) and B).

On 6 January 2020, EXAT, Bangkok Expressway and Metro Public Company Limited and the subsidiary reached agreements to settle all disputes, subject to the approval of the Cabinet. The substance of the agreements was as follows;

- 1) EXAT, Bangkok Expressway and Metro Public Company Limited and the subsidiary agreed to settle all existing disputes and potential future disputes over the same issues in relation to the Concession Agreements.
- 2) The disputes were settled by extending the concessions without requiring investment in and improvement of the Second Stage Expressway, and construction of the Double Deck, with the terms of all three agreements comprised of the Second Stage Expressway Agreement (Sector A, B and C), the Agreement for the Extension of the Second Stage Expressway System (Sector D), and the Bang Pa-In - Pak Kret Expressway Agreement, extended until 31 October 2035.

- 3) Bangkok Expressway and Metro Public Company Limited and the subsidiary retain all rights to extend the concessions specified in the existing agreements. The remaining periods of the existing agreements are 4 years and 4 months for the Second Stage Expressway Agreement, 11 years and 6 months for the Extension of the Second Stage Expressway Agreement (Sector D) and 10 years and 11 months for the Bang Pa-In - Pak Kret Expressway Project Agreement, commencing from the end of the amended agreements (31 October 2035).
- 4) The toll rates are to be increased every 10 years by fixed amounts specified in the agreements.

On 18 February 2020, the Cabinet passed a resolution to amend the concession agreements in order to settle all disputes for both the Second Stage Expressway Project (Sector A, B, C and D) and the Bang Pa-In - Pak Kret Expressway Project (the Udon Ratthaya Expressway). On 20 February 2020, Bangkok Expressway and Metro Public Company Limited and the subsidiary and EXAT signed these Concession Agreements (Amendment).

At present, Bangkok Expressway and Metro Public Company Limited and the subsidiary and EXAT are in the process of settling all disputes. The subsidiary of Bangkok Expressway and Metro Public Company Limited is in the process of cancelling enforcement in accordance with the judgement of the Supreme Administrative Court. As a result of cancellation of enforcement, the management of Bangkok Expressway and Metro Public Company Limited and the subsidiary has determined that Bangkok Expressway and Metro Public Company Limited and the subsidiary will not record any revenue in relation to the judgment.

### **CK Power Public Company Limited**

The Company received, at no cost, 586.3 million warrants that could be used to purchase newly issued ordinary shares of the associate at a ratio of 1 warrant to 1.0007 ordinary shares (after, CK Power Public Company Limited adjusted the exercise ratio), with an exercise price of Baht 6 per share. The warrants had a term of 5 years, during which they could be exercised on the last business day of each quarter, with the first and the last exercise dates being 30 June 2015 and 28 May 2020, respectively.

In June 2019, the Company exercised all warrants to purchase 586.7 million newly issued ordinary shares of CK Power Public Company Limited at the exercise price of Baht 6 per share, or for a total of Baht 3,520 million. As a result, the Company's interest in the equity of this company increased from 27.22 percent to 31.90 percent.

## 16. Other long-term investments

(Unit: Thousand Baht)

	Consolidated financial statements			Separate financial statements		
	Shareholding	Investments		Shareholding	Investments	
	percentage	2019	2018	percentage	2019	2018
	Percent			Percent		
<b><u>Investments in available-for-sale - related company</u></b>						
TTW Public Company Limited	19.40	5,810,452	5,810,452	19.40	1,255,736	1,255,736
Add: Unrealised gain on changes in value of investments		4,794,413	3,710,704		9,349,129	8,265,420
		<b>10,604,865</b>	<b>9,521,156</b>		<b>10,604,865</b>	<b>9,521,156</b>
<b><u>Other investments - other companies</u></b>						
Eastern High-Speed Rail Linking Three Airports Company Limited	5.00	200,000	-	5.00	200,000	-
Bangkok Tokyu Department Store Company Limited	19.00	2,280	2,280	-	-	-
Kruasakul Company Limited	10.14	43,750	43,750	10.14	43,750	43,750
The Bangkok Club Company Limited	0.57	3,000	3,000	0.57	3,000	3,000
Chanthaburi Country Club Company Limited	0.25	2,708	2,708	0.25	2,708	2,708
Saha Tokyu Corporation Company Limited	5.00	22,350	16,600	-	-	-
JR Kyushu Capital Management (Thailand) Company Limited	17.00	21,250	21,250	-	-	-
		295,338	89,588		249,458	49,458
Less: Provision for loss on diminution in value of investments		(46,030)	(43,750)		(43,750)	(43,750)
		<b>249,308</b>	<b>45,838</b>		<b>205,708</b>	<b>5,708</b>
Other long-term investments, net		<b>10,854,173</b>	<b>9,566,994</b>		<b>10,810,573</b>	<b>9,526,864</b>

During the year 2019 the Company invested 2 million ordinary shares of Eastern High-Speed Rail Linking Three Airports Company Limited valued at Baht 100 per share, or a total of Baht 200 million, which represents a 5 percent shareholding.

## 17. Investment properties

The net book value of investment properties as at 31 December 2019 and 2018 is presented below.

	Consolidated financial statements			Separate financial statements		
	Land and improvement	Building for rent	Total	Land and improvement	Building for rent	Total
31 December 2019:						
Cost	670,366	209,335	879,701	589,476	258,139	847,615
<u>Less</u> Accumulated depreciation	(20,928)	(64,432)	(85,360)	(20,927)	(78,308)	(99,235)
<u>Less</u> Allowance for impairment loss	(46,113)	-	(46,113)	(41,834)	-	(41,834)
Net book value	603,325	144,903	748,228	526,715	179,831	706,546
31 December 2018:						
Cost	482,808	209,191	691,999	402,058	258,626	660,684
<u>Less</u> Accumulated depreciation	(17,314)	(59,019)	(76,333)	(17,314)	(71,755)	(89,069)
<u>Less</u> Allowance for impairment loss	(46,113)	-	(46,113)	(41,834)	-	(41,834)
Net book value	419,381	150,172	569,553	342,910	186,871	529,781

A reconciliation of the net book value of investment properties for the years 2019 and 2018 is presented below.

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
Net book value at beginning of year	569,553	530,994	529,781	492,363
Purchase of land	1,271	-	-	-
Transfers from plant, property and equipment - book value at transfer date	187,424	49,627	187,424	49,627
Transfers to plant, property and equipment - book value at transfer date	(366)	-	(366)	-
Disposal of land	(500)	-	-	-
Depreciation charged	(9,154)	(11,068)	(10,293)	(12,209)
Net book value at end of year	748,228	569,553	706,546	529,781

The fair value of the investment properties as at 31 December 2019 and 2018 stated below:

	Consolidated		Separate	
	financial statements		financial statements	
	2019	2018	2019	2018
Land and land improvement	1,566	1,187	1,236	827
Building for rent	241	239	298	297

The fair values have been determined based on valuations performed by an independent

## 18. Property, plant and equipment

(Unit: Thousand Baht)

	Consolidated financial statements							
	Land and land improvement	Condominium building	Buildings and construction	Building improvements	Machinery and equipment	Furniture, fixtures and office equipment	Motor vehicles	Assets under construction
Cost								Total
31 December 2017	3,854,981	441,268	2,549,294	46,239	6,803,301	474,515	256,151	94,951
Additions	1,432,046	-	164,033	-	102,890	9,374	270	819,464
Disposals/write off	-	-	(1,351,686)	-	(131,831)	(43,164)	(33,202)	-
Transfer to investment properties	(61,368)	-	-	-	-	-	-	-
Transfer in (out)	-	-	-	65,509	152	657	-	(61,368)
31 December 2018	5,225,659	441,268	1,361,641	111,748	6,774,512	441,382	223,219	848,097
<b>Accumulated depreciation</b>								
31 December 2017	375,549	97,595	1,565,041	24,575	3,467,969	370,098	228,412	-
Depreciation for the year	42,982	10,637	206,044	7,084	368,090	40,228	9,161	-
Depreciation on disposals/write off	-	-	(1,067,679)	-	(91,374)	(43,676)	(33,176)	-
Transfer to investment properties	(11,741)	-	-	-	-	-	-	-
Transfer in (out)	-	-	-	-	14	(14)	-	-
31 December 2018	406,790	108,232	703,406	31,659	3,744,699	366,636	204,397	-
<b>Allowance for impairment loss</b>								
31 December 2017	73,924	-	-	-	-	-	-	-
31 December 2018	73,924	-	-	-	-	-	-	-
<b>Net book value</b>								
31 December 2017	3,405,508	343,673	984,253	21,664	3,335,332	104,417	27,739	94,951
31 December 2018	4,744,945	333,036	658,235	80,089	3,029,813	74,746	18,822	848,097
<b>Depreciation for the year</b>								
2017 (Baht 708 million included in cost of construction services, sales of construction materials and services, and the balance in administrative expenses)								972,398
2018 (Baht 383 million included in cost of construction services, sales of construction materials and services, and the balance in administrative expenses)								684,226



(Unit: Thousand Baht)

## Consolidated financial statements

[illegible]

(Unit: Thousand Baht)

## Separate financial statements

	Land and land improvement	Condominium building	Buildings and construction	Building improvements	Machinery and equipment	Furniture, fixtures and office equipment	Motor vehicles	Assets under construction	Total
<b>Cost</b>									
31 December 2017	3,886,779	406,442	453,113	40,710	3,509,595	277,792	154,030	94,951	8,823,412
Additions	1,432,045	-	164,033	-	95,205	8,314	270	819,465	2,519,332
Disposals/write off	-	-	-	-	(78,202)	(39,013)	(33,202)	-	(150,417)
Transfer to investment properties	(61,368)	-	-	-	-	-	-	-	(61,368)
Transfer in (out)	-	-	-	65,509	152	657	-	(66,318)	-
31 December 2018	5,257,456	406,442	617,146	106,219	3,526,750	247,750	121,098	848,098	11,130,959
<b>Accumulated depreciation</b>									
31 December 2017	375,549	96,566	257,679	21,897	1,642,863	203,054	147,120	-	2,744,728
Depreciation for the year	42,983	9,496	99,713	6,322	270,526	25,913	4,072	-	459,025
Depreciation on disposals/write off	-	-	-	-	(49,809)	(39,861)	(33,176)	-	(122,846)
Transfer to investment properties	(11,741)	-	-	-	-	-	-	-	(11,741)
Transfer in (out)	-	-	-	-	14	(14)	-	-	-
31 December 2018	406,791	106,062	357,392	28,219	1,863,594	189,092	118,016	-	3,069,166
<b>Allowance for impairment loss</b>									
31 December 2017	73,924	-	-	-	-	-	-	-	73,924
31 December 2018	73,924	-	-	-	-	-	-	-	73,924
<b>Net book value</b>									
31 December 2017	3,437,306	309,876	195,434	18,813	1,866,732	74,738	6,910	94,951	6,004,760
31 December 2018	4,776,741	300,380	259,754	78,000	1,663,156	58,658	3,082	848,098	7,987,869
<b>Depreciation for the year</b>									
2017 (Baht 140 million included in cost of construction services, sales of construction materials and services, and the balance in administrative expenses)									399,528
2018 (Baht 163 million included in cost of construction services, sales of construction materials and services, and the balance in administrative expenses)									459,025

(Unit: Thousand Baht)

[illegible]

As at 31 December 2019, certain plant and equipment items have been fully depreciated but are still in use. The gross carrying amount (before deducting accumulated depreciation) of those assets amounted to approximately Baht 4,327 million (2018: Baht 3,898 million) (Separate financial statements: Baht 2,205 million (2018: Baht 1,902 million)).

The Company is subject to restrictions on the sale, transfer or creation of obligations with respect to certain plots of land belonging to the Company, in compliance with a condition of the Company's long-term loans and debentures.

## 19. Intangible assets

Details of intangible assets which are computer software are as follows:

	Consolidated		(Unit: Thousand Baht)	
	financial statements		Separate	
	2019	2018	2019	2018
Cost	153,181	152,018	149,883	148,824
Accumulated amortisation	(118,858)	(111,880)	(116,066)	(109,273)
Net book value	34,323	40,138	33,817	39,551
Amortisation expenses included in the profit or loss for the year	6,978	10,230	6,793	9,946

A reconciliation of the net book value of intangible assets for the years 2019 and 2018 is presented below.

	Consolidated		(Unit: Thousand Baht)	
	financial statements		Separate	
	2019	2018	2019	2018
Net book value at beginning of year	40,138	47,470	39,551	46,599
Acquisition of computer software	1,163	2,898	1,059	2,898
Amortisation	(6,978)	(10,230)	(6,793)	(9,946)
Net book value at end of year	34,323	40,138	33,817	39,551

## 20. Short-term loans from financial institutions

		(Unit: Thousand Baht)			
		Consolidated		Separate financial	
		financial statements		statements	
	Interest rate (% p.a.)	2019	2018	2019	2018
Short-term loans from banks	1.76 to 2.65 and MLR - margin	66,000	2,472,599	-	2,342,599
Trust receipts	3.625 LIBOR + margin and MLR - margin	978,121	947,367	-	655,100
Bills of exchange	1.67 to 2.105	830,000	2,900,000	830,000	2,900,000
Total		1,874,121	6,319,966	830,000	5,897,699

Parts of the short-term loans from financial institutions of the Company are secured by the transfer of rights over collection of revenues from construction projects.

Short-term loans from financial institutions of subsidiaries are secured by certain share certificates of Bangkok Expressway and Metro Public Company Limited owned by a subsidiary, the transfer of the rights over saving deposits of a subsidiary, the transfer of rights over receipt of payment under construction contracts of subsidiaries, the transfer of bank guarantees provided by subcontractors and are guaranteed by the Company and subsidiaries' shareholders.

Trust receipts of the subsidiary are guaranteed by the Company.

## 21. Trade and other payables

		(Unit: Thousand Baht)			
		Consolidated		Separate	
		financial statements		financial statements	
		2019	2018	2019	2018
Trade payables - related parties (Note 6)		14,193	86,431	51,851	185,169
Trade payables - unrelated parties		2,094,247	4,709,526	1,816,928	4,333,836
Amounts due to related parties (Note 6)		186	24,192	186	20,400
Accrued interest expenses		157,496	182,376	157,496	182,376
Accrued expenses		285,583	368,286	222,409	279,577
Other payables		22,102	25,694	18,987	19,395
Total trade and other payables		2,573,807	5,396,505	2,267,857	5,020,753



## 22. Hire purchase creditors

(Unit: Thousand Baht)

	Consolidated and separate financial statements	
	<u>2019</u>	<u>2018</u>
Liabilities under hire purchase	29	1,378
Less: Deferred interest expenses	-	(24)
	29	1,354
Less: Portion due within one year	(29)	(1,325)
Liabilities under hire purchase - net of current portion	-	29

The Company has entered into hire purchase agreements with leasing companies for rental of equipment and motor vehicles for use in their operation, whereby they are committed to pay rental on a monthly basis. The terms of the agreements are generally between 3 to 5 years.

Future minimum lease payments required under the hire purchase agreements were as follows:

(Unit: Million Baht)

	Consolidated and separate financial statements			
	As at 31 December 2019			
	Less than 1 year	1-5 years	Over 5 years	Total
Future minimum lease payments	29	-	-	29
Deferred interest expenses	-	-	-	-
Present value of future minimum lease payments	29	-	-	29

(Unit: Million Baht)

	Consolidated and separate financial statements			
	As at 31 December 2018			
	Less than 1 year	1-5 years	Over 5 years	Total
Future minimum lease payments	1,349	29	-	1,378
Deferred interest expenses	(24)	-	-	(24)
Present value of future minimum lease payments	1,325	29	-	1,354

## 23. Long-term loans

As at 31 December 2019 and 2018, the balances of the long-term loans are as follows:

	(Unit: Thousand Baht)	
	Consolidated and separate financial statements	
	<u>2019</u>	<u>2018</u>
Long-term loans	2,251,290	840,443
Less: Current portion	(525,000)	(325,000)
Long-term loans - net of current portion	<u>1,726,290</u>	<u>515,443</u>

Movements in the long-term loans account during the year ended 31 December 2019 are summarised below.

	(Unit: Thousand Baht)
	Consolidated and separate financial statements
Balance as at 1 January 2019	850,000
Add: Issuance during the period	1,780,000
Less: Repayment during the year	(375,000)
	<u>2,255,000</u>
Less: Deferred front end fees	(3,710)
Balance as at 31 December 2019	<u>2,251,290</u>

As at 31 December 2019, the Company's long-term loans from bank comprise five credit facilities from local commercial banks. The balance of loans amounting to Baht 1,825 million carry interest at the Minimum Loan Rate minus a stipulated margin (MLR - margin) per annum and the loan principals are to be repaid in semi-annual and quarterly base. Full settlements of these loans are to be made within October 2020 to September 2025. The balance of loans amounting to Baht 430 million carry interest at 2.35 percent per annum and full settlement of these loans are to be made within November 2022.

Under the loan agreement, the Company is required to comply with the same conditions and restrictions as those applicable for the Company's debentures (as described in Note 24 to the financial statements) and to maintain a certain debt to equity ratio.

As at 31 December 2019, the long-term credit facilities of the Company which have not yet been drawn down amounted to Baht 5,150 million (2018: Baht 3,500 million).

## 24. Debentures

(Unit: Thousand Baht)

Consolidated and separate  
financial statements

Debentures	Life	Date of issue	Maturity date	Interest rate	2019	2018
				(% p.a.)		
1	4 years	7 August 2015	7 August 2019	2.85	-	500,000
2	3 years	7 March 2016	7 March 2019	2.19	-	1,500,000
3	7 years	26 May 2016	26 May 2023	3.22	1,000,000	1,000,000
4	8 years	7 June 2016	7 June 2024	3.50	500,000	500,000
5	3 years	8 July 2016	8 July 2019	2.24	-	2,500,000
6	8 years	8 July 2016	8 July 2024	3.51	1,500,000	1,500,000
7	10 years	8 July 2016	8 July 2026	3.82	2,700,000	2,700,000
8	11 years 8 months	8 July 2016	8 March 2028	3.99	800,000	800,000
9	11 years	11 July 2016	11 July 2027	3.95	1,000,000	1,000,000
10	11 years	8 November 2016	8 November 2027	4.05	1,000,000	1,000,000
11	11 years	17 November 2016	17 November 2027	4.05	500,000	500,000
12	4 years	26 May 2017	26 May 2021	2.97	2,250,000	2,250,000
13	7 years	26 May 2017	26 May 2024	3.80	1,600,000	1,600,000
14	10 years	26 May 2017	26 May 2027	4.19	-	1,150,000
15	12 years	26 May 2017	26 May 2029	4.32	-	1,000,000
16	3 years	3 November 2017	3 November 2020	2.24	1,000,000	1,000,000
17	8 years	3 November 2017	3 November 2025	3.34	1,000,000	1,000,000
18	10 years	3 November 2017	3 November 2027	3.65	1,000,000	1,000,000
19	4 years	23 May 2018	23 May 2022	2.48	1,600,000	1,600,000
20	5 years	23 May 2018	23 May 2023	2.74	2,700,000	2,700,000
21	3 years	25 July 2018	25 July 2021	2.60	820,000	820,000
22	4 years	25 July 2018	25 July 2022	2.80	910,000	910,000
23	10 years	25 July 2018	25 July 2028	4.00	1,020,000	1,020,000
24	3 years	28 June 2019	28 June 2022	2.46	3,000,000	-
25	5 years	28 June 2019	28 June 2024	2.90	3,500,000	-
26	10 years	28 June 2019	28 June 2029	3.66	3,500,000	-
Total					32,900,000	29,550,000
Less: Deferred debenture issuing costs					(21,340)	(15,777)
Less: Current portion of debentures					(1,000,000)	(4,500,000)
Debentures - net of current portion					31,878,660	25,034,223

Movements in the debentures account during the year ended 31 December 2019 are summarised below.

	(Unit: Thousand Baht)
	Consolidated and separate financial statements
Balance as at 1 January 2019	29,550,000
Add: Issuance of debentures during the year	10,000,000
Less: Repayment debentures during the year	(6,650,000)
	32,900,000
Less: Deferred debenture issuing costs	(21,340)
Balance as at 31 December 2019	32,878,660

On 30 April 2019, the 2019 Annual General Meeting of the Company's shareholders passed a resolution approving an increase in the maximum outstanding balance of the debentures from a limit of Baht 35,000 million to a limit of Baht 45,000 million.

All debentures of the Company are unsecured, registered, senior debentures with trustees and with a par value of Baht 1,000 each. The interest is payable every 3 months and 6 months throughout the life of the debenture.

The conditions of the debentures include covenants that, among other things, prohibit the Company from selling, transferring or creating any commitments with respect to some share certificates for its investment in an associated company and some plots of land of the Company and require it to maintain a certain debt to equity ratio.

## 25. Provision for long-term employee benefits

Provision for long-term employee benefits, which represents compensation payable to employees after they retire, was as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Defined benefit obligation at beginning of year</b>	858,780	725,164	535,246	393,612
Current service cost	88,633	101,506	41,077	54,523
Interest cost	15,314	13,317	9,437	8,921
Past service costs and gains or losses on settlement	18,631	117,726	(10,214)	91,394
Actuarial (gain) loss arising from				
Demographic assumptions changes	(8,881)	3,300	-	-
Financial assumptions changes	13,343	(4,642)	-	-
Experience adjustments	(46,557)	(3,314)	-	-
Benefits paid during the year	<u>(118,593)</u>	<u>(94,277)</u>	<u>(59,619)</u>	<u>(13,204)</u>
<b>Provisions for long-term employee</b>				
<b>benefits at end of year</b>	<u>820,670</u>	<u>858,780</u>	<u>515,927</u>	<u>535,246</u>

The Group expects to pay Baht 86 million of long-term employee benefits during the next year (Separate financial statements: Baht 21 million).

As at 31 December 2019, the weighted average duration of the liabilities for long-term employee benefit is 4.0 - 10.7 years (2018: 4.0 - 12.4 years) (Separate financial statements: 10.6 years (2018: 10.6 years)).

Significant actuarial assumptions are summarised below.

	Consolidated and separate financial statements	
	<u>2019</u>	<u>2018</u>
	(Percent per annum)	(Percent per annum)
Discount rate	1.61 - 2.65	1.62 - 2.71
Future salary increase rate - average (depending on age of employees)	0 - 6.00	0 - 6.00
Staff turnover rate - average	0 - 28.65	0 - 28.65



The result of sensitivity analysis for significant assumptions that affect the present value of the long-term employee benefit obligation as at 31 December 2019 and 2018 are summarised below:

(Unit: Million Baht)

	As at 31 December 2019			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>Increase 1%</u>	<u>Decrease 1%</u>	<u>Increase 1%</u>	<u>Decrease 1%</u>
Discount rate	(49.13)	56.83	(30.38)	34.79
Salary increase rate	63.91	(55.97)	41.29	(36.49)
Turnover rate	(53.08)	49.99	(34.35)	36.17

(Unit: Million Baht)

	As at 31 December 2018			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>Increase 1%</u>	<u>Decrease 1%</u>	<u>Increase 1%</u>	<u>Decrease 1%</u>
Discount rate	(49.51)	57.42	(30.15)	34.66
Salary increase rate	60.37	(53.01)	36.90	(32.68)
Turnover rate	(50.23)	49.72	(30.55)	31.97

## 26. Statutory reserve

Pursuant to Section 116 of the Public Limited Companies Act B.E. 2535, the Company is required to set aside to a statutory reserve at least 5 percent of its net profit after deducting accumulated deficit brought forward (if any), until the reserve reaches 10 percent of the registered capital. The statutory reserve is not available for dividend distribution. At present, the statutory reserve has fully been set aside.

According to the Thai Civil and Commercial Code, the subsidiaries are required to set aside to a statutory reserve an amount equal to at least 5 percent of its net profit each time the subsidiaries pay out a dividend, until such reserve reaches 10 percent of its registered share capital. The statutory reserve cannot be used for dividend payment.

## **27. Accounts receivable - claims for additional costs**

In 2000, Joint Venture BBCE had claimed for payment of additional construction costs from the Expressway Authority of Thailand (the employer). The employer's consulting engineer considered the joint venture's claims and issued a letter confirming its acceptance of the additional costs. Subsequently, the Arbitral Tribunal issued its award, ruling that the employer was to pay the joint venture for such additional costs and accrued interest. Later the employer sent a letter to the joint venture informing that, after consideration, the employer had decided to comply with the arbitral award. Consequently, the joint venture had recorded such amounts as asset and income in the financial statements of 2001. The Company's interest in the joint operation is approximately Baht 2,500 million.

As a result of the delay in the payment, the joint venture filed a lawsuit against the employer with a Civil Court to order compliance with the arbitral award. On 30 December 2003, the court ruled in favor of the joint venture, ordering compliance with the arbitral award requiring the Expressway Authority of Thailand (the employer) to pay the joint venture in accordance with the arbitral award. Subsequently, in January 2004, the employer appealed the ruling to the Supreme Court of Thailand.

On 15 February 2007, the Supreme Court handed down a judgment reversing that of the Civil Court enforcing the arbitral award requiring the employer to make payments to the Joint Venture BBCE. The joint venture therefore recorded allowance for doubtful accounts for the full amount of the accounts receivable recorded in respect of the claim for additional costs as an expense in the profit or loss of 2006, with the Company's interest in the joint operation being approximately Baht 2,500 million.

Subsequently, after the management of the Company carefully reviewed the details of the Supreme Court's judgment, on 11 February 2008 a lawsuit was filed against the employer with the Civil Court, to recover costs paid by the Joint Venture BBCE from the employer, on the grounds of undue enrichment. Such costs and accrued interest calculated up to the date of filing of the lawsuit amounted to approximately Baht 3,400 million (per the Company's interest in the joint operation).

On 15 September 2011, the Civil Court handed down a judgment ruling that the employer was to pay the Joint Venture BBCD Baht 1,750 million (per the Company's interest in the joint operation) together with interest at a rate of 7.5 percent per annum on the principal from 15 February 2007 to the date that employer pays the debt to the Joint Venture BBCD. The employer and the Joint Venture BBCD appealed the ruling to the Appeal Court.

On 27 December 2013, the Appeal Court overturned the judgment made in favor of the Joint Venture BBCD. Subsequently, in February 2014 the joint venture filed an appeal with the Supreme Court, petitioning it to enforce the employer's payment of all additional costs and accrued interest until payment is made.

Subsequently, on 22 June 2017, the Supreme Court upheld the judgment of the Appeal Court, dismissing the petition of Joint Venture BBCD. Currently, the Company is in the process of exploring legal means and issues in order to continue with the lawsuit, and has assigned a team of legal consultants to study means to proceed with the case to be presented to the management for consideration in the near future.

## 28. Expenses by nature

Significant expenses classified by nature are as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Salaries and wages and other employee				
benefits	2,975,899	3,678,512	1,751,844	2,067,036
Depreciation	519,272	695,294	429,672	471,233
Construction materials and consumables used				
and subcontractors costs	17,930,317	21,670,638	14,377,458	17,143,732
Repair and maintenance expenses	63,721	103,984	25,186	44,768
Loss from written off of plant and equipment	14,117	294,009	652	1,514

## 29. Income tax

Income tax expenses for the years ended 31 December 2019 and 2018 are made up as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Current income tax:</b>				
Current income tax charge	116,743	156,262	107,993	156,262
<b>Deferred tax:</b>				
Relating to origination and reversal of temporary differences	9,651	(17,482)	16,354	(17,408)
<b>Income tax expense reported in profit or loss</b>	<u>126,394</u>	<u>138,780</u>	<u>124,347</u>	<u>138,854</u>

The amounts of income tax relating to each component of other comprehensive income for the years ended 31 December 2019 and 2018 are as follows:

	(Unit: Thousand Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Deferred tax relating to				
Gain (loss) on changes in value of available-for-sale investments	214,162	(35,217)	216,602	(35,217)
Unrealised loss from cash flow hedges	(271)	(33,851)	(271)	(33,851)
Actuarial gain	-	930	-	-
	<u>213,891</u>	<u>(68,138)</u>	<u>216,331</u>	<u>(69,068)</u>

The reconciliation between accounting profit and income tax expenses is shown below.

(Unit: Thousand Baht)

	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Accounting profit before tax	<u>1,919,416</u>	<u>2,625,182</u>	<u>576,639</u>	<u>1,378,894</u>
Applicable tax rate	20%	20%	20%	20%
Accounting profit before tax multiplied by income tax rate	383,883	525,036	115,328	275,779
Effects of:				
Non-deductible expenses	20,063	25,288	19,621	24,554
Additional expense deduction allowed	(5,924)	(5,890)	(4,839)	(4,856)
Exemption of income	(92,927)	(94,349)	(246,606)	(231,425)
Additional taxable income	21,315	40,480	21,315	40,480
Profit of a subsidiary granted tax-exemption privileges	(52,857)	(56,908)	-	-
Share of profit from investments in associated companies	(361,249)	(331,526)	-	-
Deferred tax assets which were not recognised during the year				
- Tax losses	214,800	38,556	213,951	31,208
- Allowance for doubtful accounts	1,589	-	1,589	-
Others	(2,299)	(1,907)	3,988	3,114
Total	<u>(257,489)</u>	<u>(386,256)</u>	<u>9,019</u>	<u>(136,925)</u>
Income tax expenses reported in profit or loss	<u>126,394</u>	<u>138,780</u>	<u>124,347</u>	<u>138,854</u>



The components of deferred tax assets and deferred tax liabilities are as follows:

(Unit: Thousand Baht)

	Statements of financial position			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Deferred tax assets</b>				
Property, plant and equipment	9,598	8,623	1,094	119
Provision for long-term employee benefits	127,112	124,273	103,185	107,049
Derivative financial liabilities	25,576	37,108	25,576	37,108
Others	4,006	6,683	3,847	6,523
Total	<u>166,292</u>	<u>176,687</u>	<u>133,702</u>	<u>150,799</u>
<b>Deferred tax liabilities</b>				
Unrealised gain on changes in value of investments	2,431,562	2,216,965	2,377,991	2,160,955
Amortisation of deferred debenture issuing costs	4,268	3,155	4,268	3,155
Others	2,870	5,432	2,870	5,432
Total	<u>2,438,700</u>	<u>2,225,552</u>	<u>2,385,129</u>	<u>2,169,542</u>

As at 31 December 2019, the Group has unused tax losses totaling Baht 1,767 million (2018: Baht 592 million) (Separate financial statements: Baht 1,751 million (2018: Baht 536 million)), on which deferred tax assets have not been recognised as the Group believes future taxable profits may not be sufficient to allow utilisation of the temporary differences and unused tax losses.

The unused tax losses amounting to Baht 1,767 million (2018: Baht 592 million) (Separate financial statements: Baht 1,751 million (2018: Baht 536 million)) will expire by 2024.

### 30. 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.

### 31. 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. The chief operating decision maker has been identified as the Chairman of the Executive Board.

The Group is principally engaged in construction and provision of related services and investment in infrastructure, and the two geographic areas in which these activities are carried on are Thailand and the Lao People's Democratic Republic, where operations are carried out by a subsidiary.

The performance of operating segments is measured on a basis consistent with that used to determine the profit or loss of the operations reported in the financial statements. The profit or loss of the investment in infrastructure business segment comprised dividend income, share of profit or loss from investments under the equity method, gains or losses on sales of investments and related finance costs.

Inter-segment revenues are eliminated on consolidation.

The following tables present revenue, profit and total assets information regarding the Group operating segments for the year ended 31 December 2019 and 2018:

(Unit: Million Baht)

	Construction and related service segment		Investment in infrastructure business segment		Consolidated	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
<b>Revenue</b>						
Revenue from external customers	<u>23,517</u>	<u>29,687</u>	<u>1,280</u>	<u>1,489</u>	<u>24,797</u>	<u>31,176</u>
Share of profit from investments						
in associated companies	-	-	1,806	1,658	1,806	1,658
Administrative expenses	1,711	1,327	719	658	2,430	1,985
Interest expenses	524	586	702	662	1,226	1,248
<b>Segment operating profit</b>	<b>253</b>	<b>798</b>	<b>1,666</b>	<b>1,827</b>	<b>1,919</b>	<b>2,625</b>
Unallocated expenses:						
Income tax expenses					(126)	(139)
Profit for the year					<u>1,793</u>	<u>2,486</u>

## Geographic information for construction and related service segment

	(Unit: Million Baht)	
	<u>2019</u>	<u>2018</u>
Revenue from external customers is based on locations of the customers		
Thailand	19,017	23,282
The Lao People's Democratic Republic	4,266	6,282
Total	<u>23,283</u>	<u>29,564</u>

	(Unit: Million Baht)	
	<u>2019</u>	<u>2018</u>
Non-current assets*		
Thailand	61,827	55,071
The Lao People's Democratic Republic	1,639	1,704
Total	<u>63,466</u>	<u>56,775</u>

\*Other than financial instruments and deferred tax assets.

### Major customers

In 2019, the Group had revenues from provision of construction services to major customers, which consisted of a group of government agencies and two private customers, amounting to Baht 9,825 million, Baht 7,624 million and Baht 4,249 million, respectively, arising from the construction and related service segment (2018: revenues from provision of construction services to major customers, which consisted of a group of government agencies and two private customers, amounting to Baht 13,927 million, Baht 7,699 million and Baht 5,852 million, respectively).

## 32. Provident funds

The Group and their employees have jointly established provident funds in accordance with the Provident Fund Act B.E. 2530. The Group contributes to the funds monthly at the rates of 2 to 10 percent of basic salary and their employees contribute to the funds monthly at the rates of 2 to 15 percent of basic salary. The funds, which are managed by Krung Thai Asset Management Public Company Limited and TISCO Asset Management Company Limited (Separate financial statements: Krung Thai Asset Management Public Company Limited) will be paid to employees upon termination in accordance with the fund rules. The contribution for the years 2019 and 2018 were recognised as expenses amounting to Baht 86.5 million and Baht 85.2 million, respectively (Separate financial statements: Baht 73.9 million and Baht 72.1 million, respectively).

### 33. Dividends payment

Dividends	Approved by	Total dividends (Million Baht)	Dividend per share (Baht)
Final dividends for 2017	The 2017 Annual General Meeting of the shareholders on 27 April 2018	423.2	0.25
Interim dividends for 2018	Board of Directors Meeting on 14 August 2018	338.8	0.20
Dividend payment for the year ended 31 December 2018		<u>762.0</u>	<u>0.45</u>
Final dividends for 2018	The 2018 Annual General Meeting of the shareholders on 30 April 2019	508.2	0.30
Interim dividends for 2019	Board of Directors Meeting on 21 August 2019	338.8	0.20
Dividend payment for the year ended 31 December 2019		<u>847.0</u>	<u>0.50</u>

### 34. Commitments and contingent liabilities

#### 34.1 Capital commitments

As at 31 December 2019, the Company had capital commitment of approximately Baht 100 million and Japanese Yen 9 million (2018: Baht 734 million, Japanese Yen 215 million and Swedish Krona 1 million) relating to the acquisition of plant, machinery and equipment.

#### 34.2 Operating lease commitments

The Group had rental commitments in respect of lease agreements for office building space and office equipment. The terms of the agreements are generally between 1 to 6 years.

As at 31 December 2019, future minimum lease payments required under these operating lease contracts were as follows.

	(Unit: Million Baht)			
	Consolidated financial statements		Separate financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Payable:				
In up to 1 year	91	63	80	37
In over 1 and up to 5 years	106	70	106	70
In over 5 years	-	1	-	1

### 34.3 Service commitments and other commitments

As at 31 December 2019, the Group has the following service commitments and other commitments:

- a) The Group has commitments totaling Baht 9,259 million, Euro 32 million, USD 27 million and Japanese Yen 16 million (2018: Baht 19,499 million, Euro 78 million, USD 58 million and Japanese Yen 48 million) (Separate financial statements: Baht 8,565 million, Euro 32 million, USD 4 million and Japanese Yen 16 million (2018: Baht 15,037 million, Euro 78 million, USD 10 million and Japanese Yen 48 million)) in respect of project construction costs and services, which the Group had already entered into agreements.
- b) The Company has a commitment in respect of its undertakings to provide financial support to an associated company, as stipulated in the conditions in the agreement (as described in Note 6 f) to the financial statements).
- c) The subsidiary has a commitment to inject capital of Baht 229 million (2018: Baht 253 million) into an associated company for used in the development and management of the elderly residential project.

### 34.4 Related party guarantees

As at 31 December 2019, the Company has provided guarantees totaling Baht 19,953 million (2018: Baht 23,728 million) for bank credit facilities on behalf of a subsidiary.

### 34.5 Bank guarantees

As at 31 December 2019 and 2018, there were outstanding bank guarantees issued by banks on behalf of the Group in respect of certain performance bonds as required in the normal course of business of the Group. The details of bank guarantees are as follows:

	(Unit: Million Baht)			
	Consolidated		Separate	
	financial statements		financial statements	
	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>
Guarantee of construction contracts, bidding and debt repayment	10,505	16,278	10,104	11,205
Guarantee of advance payment bond and retention	8,371	8,836	5,896	6,296
Other guarantees	95	178	80	146
	<u>18,971</u>	<u>25,292</u>	<u>16,080</u>	<u>17,647</u>

### 35. Fair value hierarchy

As at 31 December 2019 and 2018, the Group had the assets and liabilities that were measured at fair value or disclosed the fair value using different levels of inputs as follows:

(Unit: Million Baht)

	Consolidated financial statements							
	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
<b>Financial assets measured at fair value</b>								
Held for trade investments								
Equity instruments	9	7	-	-	-	-	9	7
Available-for-sale investments								
Equity instruments	10,605	9,521	-	-	-	-	10,605	9,521
Debt instruments	-	-	556	378	-	-	556	378
<b>Financial liabilities measured at fair value</b>								
Derivatives								
Foreign currency forward contracts	-	-	289	316	-	-	289	316
<b>Assets for which fair value are disclosed</b>								
Investment in associated companies	66,530	57,081	-	-	-	-	66,530	57,081
Investment properties	-	-	1,807	1,426	-	-	1,807	1,426
<b>Liabilities for which fair value are disclosed</b>								
Debentures	-	-	33,872	29,461	-	-	33,872	29,461

(Unit: Million Baht)

	Separate financial statements							
	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
<b>Financial assets measured at fair value</b>								
Held for trade investments								
Equity instruments	9	7	-	-	-	-	9	7
Available-for-sale investments								
Equity instruments	10,605	9,521	-	-	-	-	10,605	9,521
Debt instruments	-	-	507	327	-	-	507	327
<b>Financial liabilities measured at fair value</b>								
Derivatives								
Foreign currency forward contracts	-	-	129	201	-	-	129	201
<b>Assets for which fair value are disclosed</b>								
Investment in associated companies	65,041	55,756	-	-	-	-	65,041	55,756
Investment properties	-	-	1,534	1,124	-	-	1,534	1,124
<b>Liabilities for which fair value are disclosed</b>								
Debentures	-	-	33,872	29,461	-	-	33,872	29,461



## 36. Financial instruments

### 36.1 Financial risk management

The Group's financial instruments, as defined under Thai Accounting Standard No.107 "Financial Instruments: Disclosure and Presentations", principally comprise the following:

<u>Financial assets</u>	<u>Financial liabilities</u>
<ul style="list-style-type: none"><li>- Cash and cash equivalents</li><li>- Current investments</li><li>- Trade and other receivables</li><li>- Short-term loans to related parties and interest receivable</li><li>- Restricted bank deposits</li><li>- Long-term loans to associated company and interest receivable</li><li>- Long-term loans to related company and interest receivable</li><li>- Other long-term investments</li></ul>	<ul style="list-style-type: none"><li>- Short-term loans from financial institutions</li><li>- Trade and other payables</li><li>- Hire purchase creditors</li><li>- Retention for construction</li><li>- Long-term loans</li><li>- Debentures</li></ul>

The financial risks associated with these financial instruments and how they are managed is described below.

#### **a) Credit risk**

The Group is exposed to credit risk primarily with respect to construction receivables and loans. However, since the majority of the Group's construction contracts are made with government agencies and other creditworthy customers, they do not anticipate material losses from their debt collection outside those for which provision has already been set aside.

#### **b) Interest rate risk**

The Group exposures to interest rate risk relates primarily to its cash at banks, lendings, short-term loans, hire purchase creditors, long-term borrowings and debentures. Most of these financial assets and liabilities bear floating interest rates or fixed interest rates which are close to the market rate.

Significant financial assets and liabilities classified by type of interest rates 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)

31 December 2019							
Consolidated financial statements							
	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate (% p.a.)
	Within 1 year	1-5 years	Over 5 years				
<b>Financial assets</b>							
Cash and cash equivalents	-	-	-	8,494	101	8,595	0.05 to 1.60
Current investments	-	-	-	-	565	565	-
Trade and other receivables	-	-	-	-	3,643	3,643	-
Short-term loans to related party and interest receivable	54	-	-	-	-	54	5.00
Restricted bank deposits	15	-	-	-	-	15	0.90
Long-term loans to associated company and interest receivable	-	-	-	12,552	-	12,552	MLR
Other long-term investments	-	-	-	-	10,854	10,854	-
	69	-	-	21,046	15,163	36,278	
<b>Financial liabilities</b>							
Short-term loans from financial institutions	830	-	-	1,044	-	1,874	1.67, 2.105, LIBOR + 2.75 and MLR - margin
Trade and other payables	-	-	-	-	2,574	2,574	-
Retention for construction	-	-	-	-	604	604	-
Long-term loans	-	430	-	1,821	-	2,251	2.35 and MLR - margin
Debentures	1,000	19,359	12,520	-	-	32,879	2.24 to 4.05
	1,830	19,789	12,520	2,865	3,178	40,182	

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## Consolidated financial statements

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate  (% p.a.)
	Within 1 year	1-5 years	Over 5 years				
<b>Financial assets</b>							
Cash and cash equivalents	-	-	-	8,378	172	8,550	0.05 to 1.30
Current investments	-	-	-	-	385	385	-
Trade and other receivables	-	-	-	-	7,406	7,406	-
Short-term loans to related parties and interest receivable	268	-	-	-	-	268	3.10 to 5.00
Restricted bank deposits	-	15	-	-	-	15	0.90
Long-term loans to associated company and interest receivable	-	-	-	14,073	-	14,073	MLR + 0.25
Long-term loans to related company and interest receivable	-	-	-	4	-	4	MLR - 0.01
Other long-term investments	-	-	-	-	9,567	9,567	-
	<u>268</u>	<u>15</u>	<u>-</u>	<u>22,455</u>	<u>17,530</u>	<u>40,268</u>	
<b>Financial liabilities</b>							
Short-term loans from financial institutions	4,851	-	-	1,469	-	6,320	1.73 to 3.625, LIBOR + 2.75 and MLR - margin
Trade and other payables	-	-	-	-	5,397	5,397	-
Hire purchase creditors	1	-	-	-	-	1	4.25 to 4.85
Retention for construction	-	-	-	-	699	699	-
Long-term loans	-	-	-	840	-	840	MLR - margin
Debentures	4,500	10,264	14,770	-	-	29,534	2.19 to 4.32
	<u>9,352</u>	<u>10,264</u>	<u>14,770</u>	<u>2,309</u>	<u>6,096</u>	<u>42,791</u>	

31 December 2019

## Separate financial statements

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate (% p.a.)
	Within 1 year	1-5 years	Over 5 years				
<b>Financial assets</b>							
Cash and cash equivalents	-	-	-	4,690	34	4,724	0.10 to 1.60
Current investments	-	-	-	-	516	516	-
Trade and other receivables	-	-	-	-	3,361	3,361	-
Long-term loans to associated company and interest receivable	-	-	-	12,552	-	12,552	MLR
Other long-term investments	-	-	-	-	10,811	10,811	-
	-	-	-	17,242	14,722	31,964	
<b>Financial liabilities</b>							
Short-term loans from financial institutions	830	-	-	-	-	830	1.67 and 2.105
Trade and other payables	-	-	-	-	2,268	2,268	-
Retention for construction	-	-	-	-	480	480	-
Long-term loans	-	430	-	1,821	-	2,251	2.35 and MLR - margin
Debentures	1,000	19,359	12,520	-	-	32,879	2.24 to 4.05
	1,830	19,789	12,520	1,821	2,748	38,708	



31 December 2018

## Separate financial statements

	Fixed interest rates			Floating interest rate	Non-interest bearing	Total	Effective interest rate  (% p.a.)
	Within 1 year	1-5 years	Over 5 years				
<b>Financial assets</b>							
Cash and cash equivalents	-	-	-	5,984	115	6,099	0.375 to 1.30
Current investments	-	-	-	-	334	334	-
Trade and other receivables	-	-	-	-	7,788	7,788	-
Short-term loans to related party and interest receivable	240	-	-	-	-	240	3.10
Long-term loans to associated company and interest receivable	-	-	-	14,073	-	14,073	MLR + 0.25
Long-term loans to related company and interest receivable	-	-	-	4	-	4	MLR - 0.01
Other long-term investments	-	-	-	-	9,527	9,527	-
	<u>240</u>	<u>-</u>	<u>-</u>	<u>20,061</u>	<u>17,764</u>	<u>38,065</u>	
<b>Financial liabilities</b>							
Short-term loans from financial institutions	4,851	-	-	1,047	-	5,898	1.73 to 3.625 and MLR - 2.625
Trade and other payables	-	-	-	-	5,021	5,021	-
Hire purchase creditors	1	-	-	-	-	1	4.25 to 4.85
Retention for construction	-	-	-	-	534	534	-
Long-term loans	-	-	-	840	-	840	2.35 and MLR - margin
Debentures	4,500	10,264	14,770	-	-	29,534	2.19 to 4.32
	<u>9,352</u>	<u>10,264</u>	<u>14,770</u>	<u>1,887</u>	<u>5,555</u>	<u>41,828</u>	

**c) Foreign currency risk**

The Group's exposure to foreign currency risk arises mainly from construction contracts and purchasing transactions.

The balances of financial assets and liabilities of the Group denominated in foreign currencies are summarised below.

Foreign currency	Consolidated financial statements					
	Financial assets		Financial liabilities		Average exchange rate	
	as at 31 December		as at 31 December		as at 31 December	
	2019	2018	2019	2018	2019	2018
	(Million)	(Million)	(Million)	(Million)	(Baht per 1 foreign currency unit)	
USD	12	22	34	14	30.11	32.40
Euro	20	47	6	37	33.68	37.07
Japanese Yen	9	40	44	-	0.28	0.29

Foreign currency	Separate financial statements					
	Financial assets		Financial liabilities		Average exchange rate	
	as at 31 December		as at 31 December		as at 31 December	
	2019	2018	2019	2018	2019	2018
	(Million)	(Million)	(Million)	(Million)	(Baht per 1 foreign currency unit)	
USD	3	4	-	-	30.11	32.40
Euro	20	47	6	37	33.68	37.07
Japanese Yen	9	40	45	-	0.28	0.29

As at 31 December 2019 and 2018, outstanding foreign exchange contracts of the Group is summarised below.

2019			
Foreign currency	Bought amount	Contractual exchange rate - Bought	Contractual maturity date
	(Million)	(Baht per 1 foreign currency unit)	
<u>Consolidated financial statements</u>			
USD	33	33.88 - 35.02	January 2020 to March 2020
Euro	18	33.47 - 41.07	January 2020 to May 2020
Japanese Yen	49	0.2922 - 0.2957	January 2020 to April 2020
<u>Separate financial statements</u>			
Euro	18	33.47 - 41.07	January 2020 to May 2020
Japanese Yen	49	0.2922 - 0.2957	January 2020 to April 2020



Foreign currency	Bought amount	Contractual exchange rate - Bought	Contractual maturity date
	(Million)	(Baht per 1 foreign currency unit)	
<u>Consolidated financial statements</u>			
USD	46	33.88 - 35.02	February 2019 to March 2020
Euro	68	39.92 - 41.07	January 2019 to May 2020
<u>Separate financial statements</u>			
USD	7	33.88 - 33.94	February 2019 to February 2020
Euro	68	39.92 - 41.07	January 2019 to May 2020

The Group uses foreign exchange contracts to hedge cash flow risk arising from changes in foreign exchange rates.

For the year ended 31 December 2019, the Group recognised an unrealised gain of approximately Baht 13 million (net of income tax), as a result of changes in the fair value of foreign exchange contracts in other comprehensive income (2018: Loss Baht 86 million).

### 36.2 Fair values of financial instruments

Since the majority of the Group's financial instruments are short-term in nature or carrying interest at rates close to the market rates, their fair value is not expected to be materially different from the amounts presented in the statement of financial position, except for the following.

	Consolidated		Separate	
	financial statements		financial statements	
	As at	As at	As at	As at
	31 December	31 December	31 December	31 December
	2019	2018	2019	2018
	Fair value	Fair value	Fair value	Fair value
	Loss	Loss	Loss	Loss

#### Derivatives

Forward exchange contracts	(289)	(316)	(129)	(201)
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	Consolidated and separate financial statements			
	As at 31 December 2019		As at 31 December 2018	
	Carrying		Carrying	
	amount	Fair value	amount	Fair value

#### Financial liabilities

Debentures	32,879	33,872	29,534	29,461
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For derivatives, their fair value has been determined by using a discounted future cash flow model and a valuation model technique. Most of the inputs used for the valuation are observable in the relevant market, such as spot rates of foreign currencies, yield curves of the respective currencies and interest rate yield curves.

For fixed rate debentures, the fair value is determined by using the yield curve as announced by the Thai Bond Market Association which is the fair value measurement level 2 based on the fair value hierarchy.

During the current year, there were no transfers within the fair value hierarchy.

### **37. Capital management**

The primary objective of the Group's capital management is to ensure that it has appropriate capital structure in order to support its business and maximise shareholder value. The Group has to maintain a debt-to-equity ratio as stipulated in long-term loan agreements and condition of debentures.

### **38. Events after the reporting period**

- 38.1 On 30 January 2020, a meeting of the Company's Board of Directors passed a resolution approving the Share Repurchase for Financial Management Project, whereby a maximum of 169,389,000 shares are to be repurchased through the Stock Exchange of Thailand, not exceeding Baht 3,000 million. The period of the share repurchase is starting from 2 March 2020 to 1 September 2020.
- 38.2 On 28 February 2020, a meeting of the Company's Board of Directors passed a resolution approving the payment of a dividend of Baht 0.20 per share in respect of the operations of July to December 2019. Together with the payment of an interim dividend of Baht 0.20 per share for the operations of January to June 2019, total dividends for the year 2019 thus amount to Baht 0.40 per share, or a total of Baht 677.6 million. This resolution will be proposed for approval by the Annual General Meeting of the Company's shareholders for the year 2020.

### **39. Approval of financial statements**

These financial statements were authorised for issue by the Company's Board of Directors on 28 February 2020.

# PART 4

## ATTACHMENT



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Attachment 1 :  
Details of the Company's Directors,  
Executives, Controllers and Company  
Secretary



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Attachment 2 :  
Details of Directors  
of Subsidiaries



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Attachment 3 :  
Details of Head of Internal Audit Unit and  
Head of Compliance Unit

## Attachment 1 : Details of the Company's Directors, Executives, Controllers and Company Secretary

### 1. Information of the Company's Directors, Executives, Controllers and Company Secretary are as follows:

<b>1. Mr. Aswin Kongsiri</b>			
<b>Position</b>	Chairman of the Board of Directors		
<b>Appointment Date as Director</b>	October 10, 1994		
<b>Age</b>	74 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- B.A. (Hons.) in Philosophy, Politics and Economics, Oxford University, England</li> <li>- National Defence Course for the Joint State Private Sector, Class 6, National Defence College</li> <li>- Banff School of Advanced Management, Canada</li> <li>- Chairman 2000 Course (Class 5/2001), Thai Institute of Directors Association</li> <li>- Director Certification Program (DCP 11/2001), Thai Institute of Directors Association</li> <li>- "Ethics: CG Conscience", Stock Exchange of Thailand</li> <li>- Corporate Governance VS Corporate Performance: Duty or Choice?, Thai Institute of Directors Association</li> <li>- Directing in the year of the Rooster : Hot Issues and Outlook for 2017, Thai Institute of Directors Association</li> <li>- Nomination Committee Best Practice Guideline, Thai Institute of Directors Association</li> <li>- "Story Telling for Leaders", Thai Institute of Directors Association</li> <li>- EY Center for Board Matters "Critical insights for Boards and Audit Committees", EY Office Limited</li> <li>- Audit Committee's Role in Compliance and Ethical Culture Oversight, Thai Institute of Directors Association</li> <li>- Independent Director Forum 1/2018: Tough Boardrooms Situations - Independents Share Lessons Learned</li> <li>- Collective Action Against Corruption Conference 1/2018</li> <li>- Board Matters and Trends (BMT 6/2018), Thai Institute of Directors Association</li> <li>- Chairman Forum 'Digital Transformation A must for all companies'</li> </ul>		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
<b>Listed Companies:</b>	2007-Present	Chairman of the Board of Directors	CH. Karnchang Plc.
	2005-Present	Independent Director, Chairman of the Nomination and Corporate Governance Committee, and Chairman of the Risk Management Committee	Bangkok Aviation Fuel Services Plc.
	1999-Present	Independent Director and Chairman of the Audit Committee	OHTL Plc.
	1994-Present	Independent Director	CH. Karnchang Plc.
	1993-Present	Independent Director and Chairman of the Audit Committee	Thai Reinsurance Plc.
	1981-Present	Independent Director, Audit Committee Member, and Chairman of the Nomination and Remuneration Committee	Padaeng Industry Plc.
	2009-2012	Vice Chairman of the Board of Directors	Electricity Generating Plc.
	2009-2012	Director, Audit Committee Member, and Chairman of the Board of Directors	Thoresen Thai Agencies Plc.
	2005-2010	Director and Executive Director	Krung Thai Bank Plc.
	2001-2012	Independent Director	Electricity Generating Plc.
	1999-2003	Director and Executive Director	Siam Commercial Bank Plc.



1. Mr. Aswin Kongsiri (continued)			
<b><u>Other Companies:</u></b>	2010-Present	Chairman of the Board of Directors	Thai Orix Leasing Co., Ltd.
	2008-Mar 2018	Chairman of the Board of Directors	Ton Poh Thailand Fund
	2011-2014	Monetary Policy Committee Member	The Bank of Thailand
	2006-2008	Member of the National Legislative Assembly	The National Legislative Assembly
	1990-1998	Director and General Manager	Industrial Finance Corporation of Thailand



2. Mr. Plew Trivisvavet			
<b>Position</b>	Director / Chairman of the Executive Board / Nomination and Remuneration Committee Member / Corporate Governance and Risk Management Committee Member / Authorized Signatory Director		
<b>Appointment Date as Director</b>	October 10, 1994		
<b>Age</b>	74 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Honorary Doctorate (Civil Engineering), Rajamangala University of Technology Isan</li> <li>- Honorary Doctorate (Civil Engineering), Nakhon Phanom University</li> <li>- Honorary Doctorate (Civil Engineering), Kasetsart University</li> <li>- Honorary Doctorate of Sciences (Engineering), Thai-Nichi Institute of Technology</li> <li>- M.Sc. (Electrical Engineering), Osaka University, Japan</li> <li>- B.A. (Electrical Engineering), Osaka University, Japan</li> <li>- Director Accreditation Program (DAP 18/2004), Thai Institute of Directors Association</li> <li>- Director Certification Program (DCP 50/2004), Thai Institute of Directors Association</li> <li>- Finance for Non-Finance Directors (FND 13/2004), Thai Institute of Directors Association</li> <li>- Capital Market Academy Leadership Program, Capital Market Academy (CMA 4/2007)</li> <li>- National Defence Course (Class 366), National Defence College</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Thailand Energy Academy Course for Management, Class 10/2017, Thailand Energy Academy (TEA)</li> <li>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</li> </ul>		
<b>Shareholding (%)</b>	0.84		
<b>Family Relationship among Directors and Executives</b>	Miss Supamas Trivisvavet's father, Mr. Sittidej Trivisvavet's uncle, Mr. Nattavut Trivisvavet's father		
<b>Experience in Last Five Years</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
<b>Listed Companies:</b>	2016-Present	Director and Chairman of the Executive Board	Bangkok Expressway and Metro Plc.
	2011-Present	Director and Chairman of the Executive Committee	CK Power Plc.
	2007-Present	Corporate Governance and Risk Management Committee Member	CH. Karnchang Plc.
	2006-Present	Director	TTW Plc.
	2003- Present	Nomination and Remuneration Committee Member	CH. Karnchang Plc.
	1994-Present	Chairman of the Executive Board	CH. Karnchang Plc.
	1998-2015	Chairman of the Board of Directors and Chairman of the Executive Committee	Bangkok Metro Plc.
	1998-2015	Director and Chairman of the Executive Board	Bangkok Expressway Plc.
	1994-2015	Chief Executive Officer	CH. Karnchang Plc.
<b>Other Companies:</b>	2010-Present	Director and Chairman of the Executive Committee	Xayaburi Power Company Limited
	2006-Present	Director and Chairman of the Executive Committee	Nam Ngum 2 Power Company Limited
	2004-Present	Director and Chairman of the Executive Committee	SouthEast Asia Energy Limited
	1996-Present	Chairman of the Board of Directors and Chairman of the Executive Committee	Northern Bangkok Expressway Company Limited
	1994-Present	Director	CH. Karnchang Holding Co., Ltd.
	1992-Present	Director	CK. Office Tower Co., Ltd.
	1991-Present	Director	CH. Karnchang Real Estate Co., Ltd.
	1983-Present	Director	Mahasiri Siam Co., Ltd.
	1981-Present	Director and Chairman of the Board of Directors	CH. Karnchang-Tokyu Construction Co., Ltd.



3. Mr. Vitoon Tejatussanasoontorn			
<b>Position</b>	Director / Chairman of the Audit Committee / Chairman of the Nomination and Remuneration Committee / Chairman of the Corporate Governance and Risk Management Committee		
<b>Appointment Date as Director</b>	April 30, 1999		
<b>Age</b>	79 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- B.A. in Commerce, Thammasat University</li> <li>- Director Certification Program (DCP 2/2000), Thai Institute of Directors Association</li> <li>- IOD Chartered Directors, Thai Institute of Directors Association, Class 1/2007</li> <li>- Audit Committee Program (ACP 27/2009), Thai Institute of Directors Association</li> <li>- Advanced Audit Committee Programs (AACP 3/2010), Thai Institute of Directors Association</li> <li>- Role of Compensation Committee (RCC 12/2011), Thai Institute of Directors Association</li> <li>- New Auditor's Report: What's in it for you?, Thai Institute of Directors Association, in association with Federation of Accounting Professions under the Royal Patronage of His Majesty the King</li> <li>- Directors Compensation Survey 2016, Thai Institute of Directors Association</li> <li>- Seminar on Accounting in Preparation for Change of Financial Reporting Standard, EY Office Limited</li> <li>- "Story Telling for Leaders", Thai Institute of Directors Association</li> <li>- Nomination Director Event 1/2017 on Nomination Committee Best Practice Guideline, Thai Institute of Directors Association</li> <li>- Seminar on Accounting, "Business in Era of Unusual Variations", EY Office Limited</li> </ul>		
<b>Shareholding (%)</b>	0.009		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b>Listed Companies:</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Chairman of the Audit Committee	Bangkok Expressway and Metro Plc.
	2015-Present	Director and Nomination and Remuneration Committee Member	Bangkok Expressway and Metro Plc.
	2014-Present	Chairman of the Nomination and Remuneration Committee	CH. Karnchang Plc.
	2007-Present	Chairman of the Corporate Governance and Risk Management Committee	CH. Karnchang Plc.
	1999-Present	Director and Chairman of the Audit Committee	CH. Karnchang Plc.
	1991-Present	Deputy Senior Managing Director	AGC Flat Glass (Thailand) Plc.
	2005-2015	Independent Director, Audit Committee Member, and Nomination and Remuneration Committee Member	Bangkok Metro Plc.
<b>Other Companies:</b>	2015-2018	Director and Chairman of the Audit Committee	Thaisri Insurance Plc.
	2004-Present	Director	Asahi Glass Foundation of Thailand
	1988-Present	Director and Executive Director	Pattaya Estate Co., Ltd.
	1988-Present	Director and Executive Director	Kiarti Thaneey Country Club Co., Ltd.
	1987-Present	Director	Diachrome Chemicals Limited

<b>4. Mr. Thawansak Sukhawun</b>			
<b>Position</b>	Director / Audit Committee Member / Nomination and Remuneration Committee Member / Corporate Governance and Risk Management Committee Member		
<b>Appointment Date as Director</b>	February 29, 2000		
<b>Age</b>	82 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- M.A. in Political Science with the Certificate in International Affairs, University of North Carolina at Chapel Hill, N.C., U.S.A.</li> <li>- Bachelor of Arts, Chulalongkorn University</li> <li>- Certificate of Modern Management, National Defence College (NDC) of Thailand</li> <li>- Director Certification Program (DCP 61/2005), Thai Institute of Directors Association</li> <li>- Finance for Non-Finance Directors (FND 19/2005), Thai Institute of Directors Association</li> <li>- Fraud and Corruption Risk in Economic Downturn, Thai Institute of Directors Association</li> <li>- National Defence Course (Class 366), National Defence College</li> <li>- Advanced Audit Committee Programs (AACP 3/2010), Thai Institute of Directors Association</li> <li>- Advanced Security Management Program (ASMP 3/2012), National Defence College Association of Thailand</li> <li>- Seminar on Accounting, "Business in Era of Unusual Variations", EY Office Limited</li> </ul>		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
<b>Listed Company:</b>	2014-Present	Nomination and Remuneration Committee Member	CH. Karnchang Plc.
	2007-Present	Corporate Governance and Risk Management Committee Member	CH. Karnchang Plc.
	2000-Present	Director and Audit Committee Member	CH. Karnchang Plc.
<b>Other Company:</b>	1989-1998	Director-General Deputy Director-General	Thai News Agency Mass Communication Organization of Thailand (M.C.O.T.)

5. Mr. Pavich Tongroach			
<b>Position</b>	Director / Audit Committee Member / Chairman of the Corporate Social and Environmental Responsibility Committee		
<b>Appointment Date as Director</b>	October 12, 2007		
<b>Age</b>	73 years		
<b>Education/Training</b>	- Doctor of Philosophy (Ph.D.) in Brain Pharmacology, The University of London, U.K.		
	- Post-doctoral Research on brain function at Faculty of Medicine, University of Tokyo, Japan		
	- Master of Science (M.Sc.) in Brain Biology, The University of London, U.K.		
	- Bachelor of Pharmacy, Chulalongkorn University		
	- Director Certification Program (DCP 131/2010), Thai Institute of Directors Association		
	- National Defence Course (Class 4212), National Defence College		
	- Financial Statements for Directors (FSD 26/2014), Thai Institute of Directors Association		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b>Listed Companies:</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2014-Present	Audit Committee Member	CH. Karnchang Plc.
	2014-Present	Chairman of the Corporate Social and Environmental Responsibility Committee	CH. Karnchang Plc.
	2007-Present	Director	CH. Karnchang Plc.
	2005-2006	Director	MCOT Plc.
<b>Other Companies:</b>	Present	Executive Board Member Chairman of the Chemical and Pharmaceutical Science Committee	National Research Council of Thailand
	Present	Member and Vice Chairman	Higher Education Commission
	Present	President of the Nakhon Phanom University Council	Nakhon Phanom University
	Present	Adjunct Professor	Naresuan University
	Present	Distinguished Scholar	Chulalongkorn University
	2008-2014	Chairman of the Kalasin Rajabhat University Council	Kalasin Rajabhat University
	2007-2010	President	The Pharmacy Council
	2007	Director, Chairman of the Nomination and Remuneration Committee, and Chairman of the Audit Committee	Thailand Post Co., Ltd.
	2005-2006	President and Vice Chairman of the University Council	Nakhon Phanom University
	2005	President and Vice Chairman of the University Council	Princess of Narathiwat University
	2005	Acting President	King Mongkut's Institute of Technology Ladkrabang

6. Miss Supamas Trivisvavet			
<b>Position</b>	Director / Executive Director / Corporate Governance and Risk Management Committee Member / President / Authorized Signatory Director		
<b>Appointment Date as Director</b>	July 1, 2015		
<b>Age</b>	45 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Doctor of Philosophy in Public Administration (2004), University of Southern California, U.S.A., Dean's Merit Scholarship</li> <li>- Master of Public Policy (1999), Duke University, U.S.A.</li> <li>- Bachelor of Arts, Chulalongkorn University (1995)</li> <li>- Developing Corporate Governance Policy, 2008 Thai Institute of Directors Association</li> <li>- Director Certification Program (DCP 106/2008), Thai Institute of Directors Association</li> <li>- Current Issue Seminar (R-CIS) Class 2/2010 Thai Institute of Directors Association</li> <li>- Company Secretary Program (CSP 37/2010), Thai Institute of Directors Association</li> <li>- Special Seminar (RSS) Class 1/2011 Thai Institute of Directors Association</li> <li>- Board Reporting Program (BRP 33/2010), Thai Institute of Directors Association</li> <li>- Effective Minute (EMT) Class 16/2010 Thai Institute of Directors Association</li> <li>- Company Secretary Forum (R-CSF) Class 1/2013 Thai Institute of Directors Association</li> <li>- Capital Market Academy Leadership Program (CMA 22/2016), Capital Market Academy</li> <li>- Executive Program on the Rule of Law and Development (RoLD), Class 1/2017, Thailand Institute of Justice (Public Organization)</li> <li>- Workshop for Emerging Leaders on the Rule of Law &amp; Policy, in association with the Institute for Global Law and Policy, Harvard Law School, Thailand Institute of Justice (Public Organization), for 2017</li> <li>- Design Thinking Workshop, Thailand Institute of Justice</li> <li>- Kick off SAP Ariba SAP</li> <li>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</li> </ul>		
<b>Shareholding (%)</b>	0.10		
<b>Family Relationship among Directors and Executives</b>	Mr. Plew Trivisvavet's daughter Mr. Nattavut Trivisvavet's elder sister		
<b>Experience in Last Five Years</b> <b>Listed Companies:</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2018-Present	Corporate Governance and Risk Management Committee Member	CH. Karnchang Plc.
	2015-Present	Director, Executive Director, and President	CH. Karnchang Plc.
	2012-Present	Director and Executive Director	CK Power Plc.
	2009-2012	Executive Vice President: Office of President	CH. Karnchang Plc.
	2019-Present	Committee (Yr.2019-2021)	Thai Listed Companies Association (TLCA)
	2019-Present	Director	Chula Arts Alumni Association (CAAA), Chulalongkorn University
	2017-Present	Director	Kamala Senior Living Co., Ltd.
	2017-Present	Director	CH. Karnchang Real Estate Co., Ltd.
	2016-Present	Director	CH. Karnchang-Tokyu Construction Co., Ltd.
<b>Other Companies:</b>			



6. Miss Supamas Trivisvavet (continued)			
<b><u>Other Companies:</u></b>	2016-Present	Director	Mahasiri Siam Co., Ltd.
	2016-Present	Director	CH. Karnchang Holding Co., Ltd.
	2016-Present	Director	CK. Office Tower Co., Ltd.
	2008-Present	Director	Bang Pa-in Land Development Co., Ltd.
	2008-Present	Director	Cholavet Civil Co., Ltd.
	2008-2009	Lecturer of Graduate School of Public Administration	National Institute of Development Administration
	1999-2000	Research Assistant	The World Bank Office, Thailand



7. Mr. Narong Sangsuriya			
<b>Position</b>	Director / Executive Director / Nomination and Remuneration Committee Member / Corporate Governance and Risk Management Committee Member / Authorized Signatory Director		
<b>Appointment Date as Director</b>	October 10, 1994		
<b>Age</b>	75 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Bachelor of Engineering (Civil), Chulalongkorn University</li> <li>- Director Certification Program (DCP 54/2005), Thai Institute of Directors Association</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Sustainability Reporting Guidelines, ThaiPAT Institute (Public-Interest Organization)</li> </ul>		
<b>Shareholding (%)</b>	0.03		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <u>Listed Companies:</u>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2012-Present	Corporate Governance and Risk Management Committee Member	CH. Karnchang Plc.
	2011-Present	Director	CK Power Plc.
	2007-Present	Nomination and Remuneration Committee Member	CH. Karnchang Plc.
	1994-Present	Director and Executive Director	CH. Karnchang Plc.
	2000-2015	Director	TTW Plc.
	<b>Other Companies:</b>		
	2016-Present	Director	Expert Transport Company Limited
	2006-Present	Director	Nam Ngum 2 Power Company Limited
	2004-Present	Director	SouthEast Asia Energy Limited
	1991-Present	Director	Royal Rayong Real Estate International Co., Ltd.
	1990-Present	Director	CH. Karnchang-Tokyu Construction Co., Ltd.
	2009-2015	Director	Bangpa-in Cogeneration Limited



8. Mr. Prasert Marittanaporn			
Position	Director / Executive Director / Corporate Social and Environmental Responsibility Committee Member / Authorized Signatory Director		
Appointment Date as Director	April 28, 2006		
Age	63 years		
Education/Training	- Master of Business Administration, Kasetsart University		
	- Bachelor of Accounting, Chulalongkorn University		
	- Director Certification Program (DCP 54/2005), Thai Institute of Directors Association		
	- Role of the Compensation Committee (RCC 6/2008), Thai Institute of Directors Association		
	- Capital Market Academy Leadership Program (CMA 9/2009), Capital Market Academy		
	- Successful Formulation & Execution of Strategy (SFE 6/2010), Thai Institute of Directors Association		
	- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)		
	- Basic Knowledge on Trade Finance and Prevention of Risk from Exchange Rate, Krung Thai Bank Plc.		
	- IFRS 9, Krung Thai Bank Plc.		
	- Strategy for Selection of Suitable Investment Plan for Staff Krungthai Asset Management Public Company Limited		
Shareholding (%)	- None -		
Family Relationship among Directors and Executives	- None -		
Experience in Last Five Years	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	<b>Listed Companies:</b>		
	2011-Present	Director	CK Power Plc.
	2007-Present	Executive Director	CH. Karnchang Plc.
	2006-Present	Director	CH. Karnchang Plc.
	2009-2015	Senior Executive Vice President: Administration Group	CH. Karnchang Plc.
	2001-2008	Executive Vice President: Accounting and Finance	CH. Karnchang Plc.
	2000-2012	Director	TTW Plc.
	<b>Other Companies:</b>		
	2017-Present	Director	CH. Karnchang Real Estate Co., Ltd.
	2008-Present	Director	Nam Ngum 2 Power Company Limited
	2007-Present	Director	CH. Karnchang-Tokyu Construction Co., Ltd.
	2004-Present	Director	SouthEast Asia Energy Limited
	1994- Present	Director	Cholavet Civil Co., Ltd.
	1994- Present	Director	Royal Rayong Real Estate International Co., Ltd.
	1994- Present	Director	Expert Transport Co., Ltd.

<b>9. Mr. Ratn Santaannop</b>			
<b>Position</b>	Director / Executive Director / Authorized Signatory Director		
<b>Appointment Date as Director</b>	April 28, 2006		
<b>Age</b>	76 years		
<b>Education/Training</b>	- Bachelor of Engineering (Civil), Chulalongkorn University		
	- Director Certification Program (DCP 88/2007), Thai Institute of Directors Association		
	- Understanding the Fundamental of Financial Statements (UFS 9/2007), Thai Institute of Directors Association		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b>		<b>Period</b>	<b>Position</b>
	<b>Listed Company:</b>		<b>Organization/Company</b>
		2007-Present	Executive Director
		2006-Present	Director
		2001-2015	Executive Vice President: Construction 1
	<b>Other Companies:</b>	2010-Present	Director
		2006-Present	Director
		2007-2009	Director
		2007-2008	Director
		2005-2007	Director



10. Mr. Anukool Tuntimas	
<b>Position</b>	Director / Executive Director / Corporate Social and Environmental Responsibility Committee Member / Authorized Signatory Director
<b>Appointment Date as Director</b>	April 28, 2006
<b>Age</b>	52 years
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Doctor of Business Administration, University of South Australia</li> <li>- Master of Engineering (Engineering Management), Dhurakij Pundit University</li> <li>- Master of Laws, Chulalongkorn University</li> <li>- Master of Business Administration, Kasetsart University</li> <li>- Barrister at Law, The Institute of Legal Education</li> <li>- Bachelor of Laws, Chulalongkorn University</li> <li>- Bachelor of Business Administration (Accounting and Finance), Ramkhamhaeng University</li> <li>- Director Certification Program (DCP 43/2004), Thai Institute of Directors Association</li> <li>- Advanced Audit Committee Programs (AACP 1/2009), Thai Institute of Directors Association</li> <li>- Corporate Governance and Social Responsibility (CSR 1/2007), Thai Institute of Directors Association</li> <li>- Finance for Non-Finance Directors (FND 38/2007), Thai Institute of Directors Association</li> <li>- Role of the Compensation Committee (RCC 9/2009), Thai Institute of Directors Association</li> <li>- Tackling Corruption through Public-Private Collaboration, Thai Institute of Directors Association</li> <li>- Director Certification Program Update (DCPU 2/2014), Thai Institute of Directors Association</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Boards that Make a Difference (BMD 1/2016), Thai Institute of Directors Association</li> <li>- Legal Update : Criminal Liabilities of Directors, Thai Institute of Directors Association</li> <li>- Cultural Intelligence for Global Leaders: Developing the Capability to Lead Across Cultures, Thailand Management Association (TMA)</li> <li>- Thailand Insurance Leadership Program, Class 7, Advanced Insurance Institute</li> <li>- IFRS 9, Krung Thai Bank Plc.</li> <li>- Leadership Communication Batch#8 (Certificate Program 2018), Thailand Management Association (TMA)</li> </ul>
<b>Shareholding (%)</b>	- None -
<b>Family Relationship among Directors and Executives</b>	- None -

10. Mr. Anukool Tuntimas (continued)			
Experience in Last Five Years	Period	Position	Organization/Company
<b>Listed Companies:</b>	2014-Present	Corporate Social and Environmental Responsibility Committee Member	CH. Karnchang Plc.
	2007-Present	Executive Director	CH. Karnchang Plc.
	2006-Present	Director	CH. Karnchang Plc.
	2001-Present	Executive Vice President: Human Resource and General Administration	CH. Karnchang Plc.
	2004-2012	Director and Executive Committee Member	Bangkok Metro Plc.
<b>Other Companies:</b>	2009-2017	Director	Bangkok Metro Networks Limited
	2004-2008	Director	Metro Mall Development Limited
		Director	Triads Networks Co., Ltd.
		Director	BMCL Network Limited
	2004-2006	Director and Vice President, Academic Affairs	Lawyers Association of Thailand





11. Mr. Sittidej Trivisvavet			
<b>Position</b>	Senior Executive Vice President: Administration Group		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	66 years		
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Bachelor of Business Administration in Construction Management, Sukhothai Thammathirat Open University</li> <li>- Director Certification Program (DCP 127/2010), Thai Institute of Directors Association</li> <li>- Advanced Certificate Course in Promotion of Peaceful Society, King Prajadhipok's Institute</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Organizational Changes in Thailand 4.0, CH. Karnchang Plc.</li> <li>- IFRS 9, Krung Thai Bank Plc.</li> <li>- Kick off SAP Ariba SAP</li> <li>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</li> </ul>		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	Mr. Plew Trivisvavet's nephew		
<b>Experience in Last Five Years</b> <b>Listed Company:</b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Senior Executive Vice President: Administration Group	CH. Karnchang Plc.
	2009-2015	Executive Vice President: Purchasing	CH. Karnchang Plc.
<b>Other Companies:</b>	2000-Present	Director	Expert Transport Co., Ltd.
	1994-Present	Director	Vetprasert Co., Ltd.
	1979-Present	Director	Songvet Co., Ltd.

12. Mr. Phongsarit Tantisuvanitchkul			
<b>Position</b>	Senior Executive Vice President: Operation Group		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	47 years		
<b>Education/Training</b>	- Master of Engineering, University of Michigan Ann Arbor		
	- Bachelor of Engineering, Kasetsart University		
	- Understanding the Fundamental of Financial Statements (UFS 9/2007), Thai Institute of Directors Association		
	- Finance for Non-Finance Directors (FND 35/2007), Thai Institute of Directors Association		
	- Director Certification Program (DCP 155/2012), Thai Institute of Directors Association		
<b>Shareholding (%)</b>	0.009		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b>  <u>Listed Companies:</u>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Director and Executive Director	Bangkok Expressway and Metro Plc.
	2016-Present	Senior Executive Vice President: Operation Group	CH. Karnchang Plc.
	2016-Present	Director and Chairman of the Executive Committee	TTW Plc.
	2011-2015	Executive Vice President: Business Development	CH. Karnchang Plc.
	2014-2015	Director	Bangkok Metro Plc.
	<u>Other Companies:</u>		
	2017-Present	Director and Chairman of the Board of Directors	Bangkok Metro Networks Limited
	2016- Present	Director and Executive Director	Northern Bangkok Expressway Company Limited
	2016- Present	Director	CH. Karnchang-Tokyu Construction Co., Ltd.
	2009-2017	Director and Executive Director	Bangkok Metro Networks Limited
	2012-2015	Director	Transit Expert Co., Ltd.



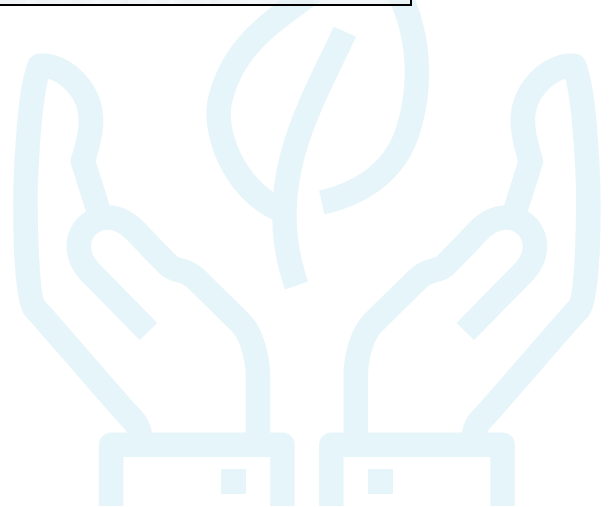
<b>13. Mr. Pornnarong Siriyothin</b>			
<b>Position</b>	Executive Vice President: Construction 1		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	69 years		
<b>Education/Training</b>	- Bachelor of Engineering (Irrigation Engineering), Kasetsart University		
	- Innovations for Unpredictable Ground Condition and Water Ingress, The Engineering Institute of Thailand (EIT)		
	- Seminar on Japanese Construction Technology in Thailand 2018, Advanced Construction Technology Center		
	- IFRS 9, Krung Thai Bank Plc.		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b><u>Listed Company:</u></b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Executive Vice President: Construction 1	CH. Karnchang Plc.
	1990-2015	Project Manager	CH. Karnchang Plc.
<b><u>Other Companies:</u></b>	1981-1990	Project Manager	Sanga Machinery Ltd. Part.
	1979-1981	Civil Engineer, Level 5	Office of Central Land Consolidation, Office of the Permanent Secretary for Ministry of Agriculture and Cooperatives
	1975-1979	Civil Engineer, Level 4	Royal Irrigation Department
	1973-1975	Irrigation Engineer	Royal Irrigation Department



<b>14. Mr. Praon Chanpradubfa</b>			
<b>Position</b>	Executive Vice President: Construction 2		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	64 years		
<b>Education/Training</b>	- Bachelor of Business Administration in Construction Management, Sukhothai Thammathirat Open University		
	- Seminar on Japanese Construction Technology in Thailand 2018, Advanced Construction Technology Center		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b><u>Listed Company:</u></b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Executive Vice President: Construction 2	CH. Karnchang Plc.
	1982-2015	Project Manager	CH. Karnchang Plc.
<b><u>Other Company:</u></b>	- None -		

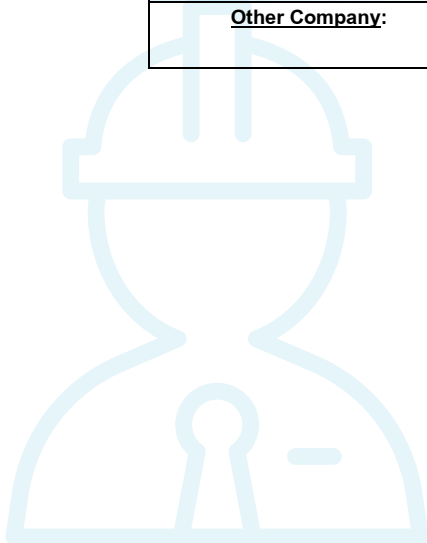
<b>15. Mr. Pairat Prom-in</b>			
<b>Position</b>	Executive Vice President: Construction 3		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	61 years		
<b>Education/Training</b>	- Bachelor of Engineering (Civil), Songklanakarin University		
	- Innovations for Unpredictable Ground Condition and Water Ingress, The Engineering Institute of Thailand (EIT)		
	- IFRS 9, Krung Thai Bank Plc.		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b><u>Listed Company:</u></b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Executive Vice President: Construction 3	CH. Karnchang Plc.
	2014-2015	Si Rat Expressway Construction Project Manager	CH. Karnchang Plc.
	2011-2014	MRT Purple Line Project 1 Manager	CH. Karnchang Plc.
<b><u>Other Companies:</u></b>	1981-1990	Site Engineer, Civil Unit	The Electricity Generating Authority of Thailand
	1980-1981	Supervising Engineer	Italian-Thai Development Corporation Limited

<b>16. Mr. Thammanoon Surarat</b>			
<b>Position</b>	Executive Vice President: Construction 4		
<b>Appointment Date</b>	February 16, 2016		
<b>Age</b>	75 years		
<b>Education/Training</b>	- Bachelor of Engineering, Civil Engineering, Chulalongkorn University		
	- Safety Officer in Management Level Course, Class 4, SAFETECH-Safety and Environment Technology Center		
	- Construction Management for Thai Construction Industry, King Mongkut's University of Technology Thonburi		
	- Taiwan High-Speed Railway Track Construction, The Engineering Institute of Thailand		
	- Challenges of Thai Tunnel Engineers from Diversion Tunnel Construction for the Nam Ngum 2 Hydroelectric Power Project, The Engineering Institute of Thailand		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b><u>Listed Company:</u></b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2016-Present	Executive Vice President: Construction 4	CH. Karnchang Plc.
	1995-2015	Project Manager	CH. Karnchang Plc.
<b><u>Other Company:</u></b>	- None -		



17. Mr. Watchara Sanghattawattana			
<b>Position</b>	Executive Vice President: Engineering		
<b>Appointment Date</b>	July 25, 2011		
<b>Age</b>	61 years		
<b>Education/Training</b>	- Bachelor of Engineering (Civil), Chiang Mai University		
	- Director Certification Program (DCP 155/2012), Thai Institute of Directors Association		
	- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)		
	- Things to Know about Investment Promotion, The Board of Investment of Thailand		
	- EEC Mega Infrastructure Project Development: An Innovation Approach by New space Technology Frontier GISTDA		
	- IFRS 9, Krung Thai Bank Plc.		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	- None -		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <u>Listed Company:</u>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2011-Present	Executive Vice President: Engineering	CH. Karnchang Plc.
	1997-2011	Business Development Manager	CH. Karnchang Plc.
<u>Other Company:</u>	- None -		

18. Mr. Pichai Cheybumroong			
Position	Executive Vice President: Purchasing		
Appointment Date	February 16, 2016		
Age	59 years		
Education/Training	<div><div>- Bachelor of Engineering (Civil Engineering), King Mongkut's Institute of Technology Ladkrabang</div><div>- Reinforced-Concrete Structure Repair, The Engineering Institute Of Thailand</div><div>- Pre-Injection Technology, The Engineering Institute of Thailand</div><div>- The Leadership Grid, Grid Thailand</div><div>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</div><div>- Anti-Corruption and Prevention of Bribe Offering or Acceptance, Office of the National Anti-Corruption Commission (NACC)</div><div>- Things to Know about Investment Promotion, The Board of Investment of Thailand</div><div>- Customs Rates, Tariffs, and Formality relating to Import of Products from Overseas for Construction Business, The Customs Department</div><div>- Construction Price Estimation, Kasetsart University</div><div>- Kick off SAP Ariba SAP</div><div>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</div></div>		
Shareholding (%)	0.008		
Family Relationship among Directors and Executives	- None -		
Experience in Last Five Years	Period	Position	Organization/Company
Listed Company:	2016-Present	Executive Vice President: Purchasing	CH. Karnchang Plc.
	2009-2015	Vice President: Purchasing/Procurement	CH. Karnchang Plc.
Other Company:	- None -		





<b>19. Mrs. Rinrada Tangtrongkid</b>	
<b>Position</b>	Executive Vice President: Accounting and Finance
<b>Appointment Date</b>	February 16, 2016
<b>Age</b>	59 years
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Master of Business Administration, Kasetsart University</li> <li>- Bachelor of Accountancy, Ramkhamhaeng University</li> <li>- Director Certification Program (DCP 234/2017), Thai Institute of Directors Association</li> <li>- Anti-Corruption: The Practical Guide, Class 35/2016, Thai Institute of Directors Association</li> <li>- Strategic CFO in Capital Markets Program, Class 3/2016 Stock Exchange of Thailand</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Strategic Planning for Executive / Strategic Center, 2014</li> <li>- Anti-Corruption and Prevention of Bribe Offering or Acceptance, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Basic Knowledge on Trade Finance and Prevention of Risk from Exchange Rate, Krung Thai Bank Plc.</li> <li>- Things to Know about Investment Promotion, The Board of Investment of Thailand</li> <li>- "Story Telling for Leaders", Thai Institute of Directors Association</li> <li>- Mergers &amp; Acquisitions : Financial, Legal and Tax Strategies and Planning, Omega World Class Research Institute</li> <li>- Customs Rates, Tariffs, and Formality relating to Import of Products from Overseas for Construction Business, The Customs Department</li> <li>- e-Tax Invoice and e-Receipt, Dharmniti Seminar and Training Co., Ltd.</li> <li>- IFRS 9, Krung Thai Bank Plc.</li> <li>- Innovation-Driven New Investing Strategies to keep pace with the World Business, the Stock Exchange of Thailand</li> <li>- Kick off SAP Ariba SAP</li> <li>- Update Accounting Standard for 2019, NYC Management Co., Ltd.</li> <li>- Situational Leadership Workshop Slingshot Group Co., Ltd.</li> <li>- Strategic Financial Leadership Program 2019, Thai Listed Companies Association</li> <li>- Deferred Tax, NYC Management Co., Ltd.</li> <li>- Insight Financial Management, Stock Exchange of Thailand</li> <li>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</li> <li>- Cash Budgeting for Top Executives' Planning and Decision, Dharmniti Seminar and Training Co., Ltd.</li> <li>- Strategy for Selection of Suitable Investment Plan for Staff Krungthai Asset Management Public Company Limited</li> <li>- TFRS 9: International Financial Reporting Standard No. 9 - Financial Instruments / EY Corporate Services Limited.</li> </ul>
<b>Shareholding (%)</b>	- None -
<b>Family Relationship among Directors and Executives</b>	- None -

19. Mrs. Rinrada Tangtrongkid (continued)			
Experience in Last Five Years	Period	Position	Organization/Company
<u>Listed Company:</u>	2016-Present	Executive Vice President: Accounting and Finance	CH. Karnchang Plc.
	1990-2015	Vice President: Accounting	CH. Karnchang Plc.
<u>Other Company:</u>	- None -		



<b>20. Mr. Wiboon Ungapipathanachai</b>	
<b>Position</b>	Executive Vice President: Internal Audit Office
<b>Appointment Date</b>	February 16, 2016
<b>Age</b>	64 years
<b>Education/Training</b>	<ul style="list-style-type: none"> <li>- Bachelor of Science (Accounting), Kasetsart University</li> <li>- Project Management Program, Chulalongkorn University</li> <li>- Internal Audit Program, Chulalongkorn University</li> <li>- International Accounting Standard Program, Ernst &amp; Young Thailand</li> <li>- Propelling Guidelines for Stipulating Appropriate Internal Control Measures for Legal Entities Against Bribery, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Director Certification Program (DCP 234/2017), Thai Institute of Directors Association</li> <li>- Anti-Corruption and Prevention of Bribe Offering or Acceptance, Office of the National Anti-Corruption Commission (NACC)</li> <li>- Things to Know about Investment Promotion, The Board of Investment of Thailand</li> <li>- "Story Telling for Leaders", Thai Institute of Directors Association</li> <li>- Property, Plant and Equipment for 2017 and Financial Reporting Standard and Taxes, Dharmniti Seminar and Training Co., Ltd.</li> <li>- Key Finance for Accountants, NYC Management Co., Ltd.</li> <li>- Accounting X-Ray for Construction Business, NYC Management Co., Ltd.</li> <li>- Problems and Practices on Expenditures for Investment under the New Law, Impacts on Bookkeeping, NYC Management Co., Ltd.</li> <li>- Customs Rates, Tariffs, and Formality relating to Import of Products from Overseas for Construction Business, The Customs Department</li> <li>- Withholding Tax Deducted at Source and Specific Business Tax, Full Version, Dharmniti Seminar and Training Co., Ltd.</li> <li>- Now Analysis &amp; Knowing the Future through Financial Statements, NYC Management Co., Ltd.</li> <li>- Direct and Indirect Utilization of Statement of Cash Flows, NYC Management Co., Ltd.</li> <li>- Financial Information Analysis and Financial Forecasting for Managerial Decision Making, NYC Management Co., Ltd.</li> <li>- Customs Duty Accountants Need to Know, NYC Management Co., Ltd.</li> <li>- IFRS 9, Krung Thai Bank Plc.</li> <li>- 63 Accounting Techniques and Taxes for Foreign Exchange Rate-Related Business, Dharmniti Seminar and Training Co., Ltd.</li> <li>- TFRS 15: Revenue from Contracts with Customers, NYC Management Co., Ltd.</li> <li>- Kick off SAP Ariba SAP</li> <li>- Update Accounting Standard for 2019, NYC Management Co., Ltd.</li> <li>- Deferred Tax, NYC Management Co., Ltd.</li> <li>- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)</li> <li>- Cash Budgeting for Top Executives' Planning and Decision, Dharmniti Seminar and Training Co., Ltd.</li> <li>- TFRS 9: International Financial Reporting Standard No. 9 - Financial Instruments // EY Corporate Services Limited.</li> </ul>
<b>Shareholding (%)</b>	- None -
<b>Family Relationship among Directors and Executives</b>	- None -

20. Mr. Wiboon Ungapipathanachai (continued)			
Experience in Last Five Years	Period	Position	Organization/Company
<u>Listed Company:</u>	2016-Present	Executive Vice President: Internal Audit Office	CH. Karnchang Plc.
	2008-2015	Vice President: Internal Audit Department	CH. Karnchang Plc.
<u>Other Company:</u>	- None –		





<b>21. Mr. Keerati Luangchookiat</b>			
<b>Position</b>	Executive Vice President: Business Development		
<b>Appointment Date</b>	January 1, 2018		
<b>Age</b>	46 years		
<b>Education/Training</b>	- Master of Project Management, Northwestern University		
	- Master of Business Administration, Chulalongkorn University		
	- Bachelor of Engineering (Civil Engineering), Chulalongkorn University		
	- Sustainability Reporting Guidelines, Thaipat Institute (Public-Interest Organization)		
<b>Shareholding (%)</b>	0.002		
<b>Family Relationship among Directors and Executives</b>	- None -		
<b>Experience in Last Five Years</b> <b><u>Listed Company:</u></b>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2018-Present	Executive Vice President: Business Development	CH. Karnchang Plc.
	2014-2017	Project Manager	CH. Karnchang Plc.
<b><u>Other Company:</u></b>	- None -		



<b>22. Mr. Nattavut Trivisvavet</b>			
<b>Position</b>	Company Secretary		
<b>Appointment Date</b>	June 26, 2013 (Details of duties and responsibilities of Company Secretary appear on page 76 of the Annual Report)		
<b>Age</b>	40 years		
<b>Education/Training</b>	- Master of Management Science & Engineering, Stanford University, U.S.A.		
	- Bachelor of Science in Electrical Engineering, Brown University, U.S.A.		
	- Bachelor of Fine Arts in Visual Art, Brown University, U.S.A.		
	- Company Secretary Program (CSP 51/2013), Thai Institute of Directors Association		
<b>Shareholding (%)</b>	0.0003		
<b>Family Relationship among Directors and Executives</b>	Mr. Plew Trivisvavet's son Miss Supamas Trivisvavet's brother		
<b>Experience in Last Five Years</b> <u>Listed Company:</u>	<b>Period</b>	<b>Position</b>	<b>Organization/Company</b>
	2013-Present	Company Secretary	CH. Karnchang Plc.
	2012-Present	Vice President: Office of President	CH. Karnchang Plc.
	2012-2013	Assistant Secretary of the Board of Directors	CH. Karnchang Plc.
	2011-2012	Vice President: Strategy and Planning	CH. Karnchang Plc.
	<u>Other Companies:</u>		
	2017-Present	Director	CH. Karnchang Real Estate Co., Ltd.
	2015-Present	Director and Managing Director	Bangkok Metro Networks Limited
	2009-2011	Valuation AVP	Barclays Capital Inc, New York, NY
	2006-2009	Valuation Senior Associate	International Fund Services (State Street), New York, NY





2. Directors, Executives and Controllers Holding Positions as Directors or Executives in Subsidiaries, Associated Companies or Related Companies

Director Name	CH. Karnchang Public Company Limited	Subsidiaries				
		CH. Karnchang-Tokyu Construction Co., Ltd.	CH. Karnchang Real Estate Co., Ltd.	CH. Karnchang (Lao) Co., Ltd.	Phrompratham Construction Co., Ltd.	Prasertvit Construction Co., Ltd.
Mr. Aswin Kongsiri	X	-	-	-	-	-
Mr. Plew Trivisvavet	/, //, o	X	X	-	-	-
Mr. Vitoon Tejatussanasoontorn	/	-	-	-	-	-
Mr. Thawansak Sukhawun	/	-	-	-	-	-
Mr. Pavich Tongroach	/	-	-	-	-	-
Miss Supamas Trivisvavet	/, //, o	/	/	-	-	-
Mr. Narong Sangsuriya	/, //, o	/	-	-	-	-
Mr. Prasert Marittanaporn	/, //, o	/	/	-	-	-
Mr. Ratn Santaannop	/, //, o	-	-	/	-	-
Mr. Anukool Tuntimas	/, //, o	-	-	-	-	-
Mr. Sittidej Trivisvavet	o	-	-	-	-	-
Mr. Phongsarit Tantisuvanitchkul	o	/	-	-	-	-
Mr. Pornnarong Siriyothin	o	-	-	-	-	-
Mr. Prapon Chanpradubfa	o	-	-	-	-	-
Mr. Pairat Prom-in	o	-	-	-	-	-
Mr. Thammanoon Surarat	o	-	-	-	-	-
Mr. Watchara Sanghattawattana	o	-	-	-	-	-
Mr. Pichai Cheybumroong	o	-	-	-	-	-
Mrs. Rinrada Tangtrongkid	o	-	-	-	-	-
Mr. Wiboon Ungapipathanachai	o	-	-	-	-	-
Mr. Keerati Luangchookiat	o	-	-	-	-	-

Remark: X = Chairman; / = Director; // = Executive Director; /// = Managing Partner; O = Executive

Director Name	CH. Karnchang Public Company Limited	Associated Companies		Related Companies					
		Bangkok Expressway and Metro Public Company Limited	CK Power Public Company Limited	TTW Public Company Limited	Bangkok Metro Networks Limited	CH. Karnchang Holding Co., Ltd.	Royal Rayong Real Estate International Co., Ltd.	SouthEast Asia Energy Limited	Yayaburi Power Company Limited
Mr. Aswin Kongsiri	X	-	-	-	-	-	-	-	-
Mr. Plew Trivisvavet	/, //, o	/, //	/, //	/	-	/	/	/, //	/, //
Mr. Vitoon Tejtassanasontorn	/	/	-	-	-	-	-	-	-
Mr. Thawansak Sukhawun	/	-	-	-	-	-	-	-	-
Mr. Pavich Tongroach	/	-	-	-	-	-	-	-	-
Miss Supamas Trivisvavet	/, //, o	-	/	-	-	/	-	-	-
Mr. Narong Sangsuriya	/, //, o	-	/	-	-	-	/	/	-
Mr. Prasert Marittanaporn	/, //, o	-	/	-	-	-	/	/	-
Mr. Ratn Santaanop	/, //, o	-	-	-	-	-	-	-	-
Mr. Anukool Tuntimas	/, //, o	-	-	-	-	-	-	-	-
Mr. Sittidej Trivisvavet	o	-	-	-	-	-	-	-	-
Mr. Phongsarit Tantisuvanitchkul	o	/	-	/	/	-	-	-	-
Mr. Pornnarong Siriyothin	o	-	-	-	-	-	-	-	-
Mr. Prapon Chanpradubfa	o	-	-	-	-	-	-	-	-
Mr. Pairat Prom-in	o	-	-	-	-	-	-	-	-
Mr. Thammanoon Surarat	o	-	-	-	-	-	-	-	-
Mr. Watchara Sanghattawattana	o	-	-	-	-	-	-	-	-
Mr. Pichai Cheybumroong	o	-	-	-	-	-	-	-	-
Mrs. Rinrada Tangtrongkid	o	-	-	-	-	-	-	-	-
Mr. Wiboon Ungapipathanachai	o	-	-	-	-	-	-	-	-
Mr. Keerati Luangchookiat	o	-	-	-	-	-	-	-	-

Remark: X = Chairman; / = Director; // = Executive Director; O = Executive

Director Name	CH. Karnchang Public Company Limited	Related Companies					
		CK. Office Tower Co., Ltd.	Expert Transport Co., Ltd.	Mahasiri Siam Co., Ltd.	Mahasiri Co., Ltd.	Bang Pa-in Land Development Co., Ltd.	Kamala Senior Living Co., Ltd.
Mr. Aswin Kongsiri	X	-	-	-	-	-	-
Mr. Plew Trivisvavet	/, //, o	/	/	/	/	/	-
Mr. Vitoon Tejatussanasoontorn	/	-	-	-	-	-	-
Mr. Thawansak Sukhawun	/	-	-	-	-	-	-
Mr. Pavich Tongroach	/	-	-	-	-	-	-
Miss Supamas Trivisvavet	/, //, o	/	-	/	-	/	/
Mr. Narong Sangsuriya	/, //, o	-	/	-	-	-	-
Mr. Prasert Marittanaporn	/, //, o	-	/	-	-	-	-
Mr. Ratn Santaannop	/, //, o	-	-	-	-	-	-
Mr. Anukool Tuntimas	/, //, o	-	-	-	-	-	-
Mr. Sittidej Trivisvavet	O	-	/	-	-	-	-
Mr. Phongsanti Tantisuvanitchkul	O	-	-	-	-	-	-
Mr. Pornnarong Siriyothin	O	-	-	-	-	-	-
Mr. Prapon Chanpradubfa	O	-	-	-	-	-	-
Mr. Pairat Prom-in	O	-	-	-	-	-	-
Mr. Thammanoon Surarat	O	-	-	-	-	-	-
Mr. Watchara Sanghattawattana	O	-	-	-	-	-	-
Mr. Pichai Cheybumroong	O	-	-	-	-	-	-
Mrs. Rinrada Tangtrongkid	O	-	-	-	-	-	-
Mr. Wiboon Ungapipathanachai	O	-	-	-	-	-	-
Mr. Keerati Luangchookiat	O	-	-	-	-	-	-

Remark: X = Chairman; / = Director; // = Executive Director; O = Executive

## Attachment 2 : Details of Directors of Subsidiaries

Subsidiary Name Director Name	CH. Karnchang-Tokyu Construction Co., Ltd.	CH. Karnchang Real Estate Co., Ltd.	CH. Karnchang (Lao) Co., Ltd.	Phrompratharn Construction Co., Ltd.	Prasertvit Construction Co., Ltd.
Mr. Yim Trivisvavet	-	-	-	/	-
Mrs. Ornanong Trivisvavet	-	-	-	-	/
Mr. Plew Trivisvavet	X	X	-	-	-
Miss Supamas Trivisvavet	/	/	-	-	-
Mr. Nattavut Trivisvavet	-	/	-	-	-
Mr. Narong Sangsuriya	/	-	-	-	-
Mr. Prasert Marittanaporn	/	/	-	-	-
Mr. Phongsarit Tantisuwanitchkul	/	-	-	-	-
Miss Khajornwit Sae-chia	/	-	-	-	-
Mr. Hideo Miyagawa	/	-	-	-	-
Mr. Tsuneo Izuka	/	-	-	-	-
Mr. Mitsuhiro Terada	/	-	-	-	-
Mr. Pruitti Boonkasemsanti	/	-	-	-	-
Mr. Shigehiko Shibusawa	/	-	-	-	-
Mr. Ratn Santaannop	-	-	/	-	-

Remark    X = Chairman;    / = Director.

## Attachment 3: Details of Head of Internal Audit Unit and Head of Compliance Unit

### 1. Head of Internal Audit Unit

Name-Surname	Mr. Wiboon Ungapipathanachai
Position	Executive Vice President: Internal Audit Office
Education	- Bachelor of Science (Accountancy) Kasetsart University
Work Experience	2016 - Present - Executive Vice President: Internal Audit Office 2008 - 2015 - Vice President: Internal Audit Department
Related Training	- Project Management Program Chulalongkorn University - Internal Audit Program Chulalongkorn University - International Accounting Standards - Property, Plant and Equipment for 2017 and Financial Reporting Standard and Taxes - Key Finance for Accountants - Problems and Practices on Expenditures for Investment under New Law, Impacts on Bookkeeping - Now Analysis & Knowing the Future through Financial Statements
Duties and Responsibilities	<ol style="list-style-type: none"> <li>1. Internal audit works <ol style="list-style-type: none"> <li>1.1 Preparing the annual internal audit plan;</li> <li>1.2 Supervising the review of performance, adequacy and appropriateness of the internal control system of the Company's internal work systems in compliance with the plan;</li> <li>1.3 Concluding the results, together with observations and suggestions for improvement of the audited works, as well as following up the suggested improvement;</li> <li>1.4 Reporting on the audit results to management and the Audit Committee.</li> </ol> </li> <li>2. Works in support of the Audit Committee <ol style="list-style-type: none"> <li>2.1 Reviewing the annual and quarterly financial statements;</li> <li>2.2 Preparing information in support of the selection and nomination of the Company's auditor;</li> <li>2.3 Reviewing the disclosure of information to ensure compliance with the rules and regulations and the good corporate governance principles;</li> <li>2.4 Coordinating and organizing the Audit Committee's meetings.</li> </ol> </li> <li>3. Other works as assigned by the Audit Committee.</li> </ol>



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Name-Surname	Mrs. Thipwaree Athagrisna
Position	Vice President: Legal Department / Compliance Manager
Education	<ul style="list-style-type: none"> <li>- Master of Laws Ramkhamhaeng University</li> <li>- Bachelor of Laws Thammasat University</li> </ul>
Work Experience	<p>2016 - Present      - Vice President: Legal Department</p> <p>2008 - 2015        - Compliance Manager</p> <p>2006 - 2007        - Legal Manager</p>
Related Training	<ul style="list-style-type: none"> <li>- Corporate Secretary Development Program (CSDP 15) Thai Listed Companies Association</li> <li>- Company Secretary Program (CSP 29/2009) Thai Institute of Directors Association</li> <li>- Board Reporting Program (BRP 4/2010) Thai Institute of Directors Association</li> <li>- Effective Minute Taking (EMT 18/2012) Thai Institute of Directors Association</li> </ul>
Duties and Responsibilities	<ol style="list-style-type: none"> <li>1. Reviewing the appropriateness and adequacy of the Company's good corporate governance policy, as well as their revisions to meet the international practices for good corporate governance;</li> <li>2. Reviewing with management as to compliance with the good corporate governance principles as specified by the Company and disclosed in the Annual Report;</li> <li>3. Providing suggestions for preparation of the Company's corporate governance development plan in compliance with the good corporate governance principles;</li> <li>4. Providing advice and suggestions on the good corporate governance practices to the Board of Directors.</li> </ol>





### **CH. Karnchang Public Company Limited**

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