



TTCL Public Company Limited

JOY OF ENGINEERING AND ACHIEVEMENT ►

Annual Report 2017



VISION

TTCL is to be “First Class International Engineering Company” with
“Build up warmth and trust”
“Stay young”
“Unite in Harmony”
“Speak our mind”

MISSION

JOY OF ENGINEERING AND ACHIEVEMENT

TTCL aims to be a company where everybody works with joy of engineering and achievement



First Prize « Mr. Niphon Khiawprommas | *Mechanical Engineer*

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First Prize « Mr. Niphon Khiawprommas | *Mechanical Engineer*

Overall policy and business operations

Vision, goals, objectives, and operations strategies

Vision : TTCL is to be a **“First Class International Engineering Company”** with **“Build up warmth and trust”... “Stay young”...“Unite in Harmony”...“Speak our mind”**.

The business goal of the Company is as follows.

1. To maintain leadership in Integrated EPC business in Thailand

The Company aims to provide Integrated EPC business as its core business and maintains leadership in Integrated EPC business in Thailand. The Company will focus on developing the capability of its personnel continually as well as maintaining the quality of service in terms of design and construction to meet international standards while completing and delivering the work on time. This is to ensure its ability to compete with International EPC Contractors.

2. To become one of the international provider of Integrated EPC

The Company commits to design and do the construction works for customers' satisfaction in quality of the projects. The ability to control project are evident from the repeatedly awards from customers. The Company aims to become one of the international provider of Integrated EPC. This will be achieved by expanding into international markets to work on large scale projects with value from 200-500 million US Dollars to create opportunity for the business growth in the future.

3. Seeking for business opportunities by investing in potential projects which will be returned a good benefit.





Third Prize « Mr. Sampan Onkeaw | *Instrument Engineer*

To achieve the vision, goals and objectives, the Company has defined the following key strategies.

1. Strengthen the core to raise the status of the Company as a Regional EPC Contractor and increase its services abroad.
2. To retain existing partners by quality delivering and providing the engineering services up to standard for partners satisfaction.
3. Strategic of maintenance a good relationship with the manufacturers, supplier of machinery, equipment, and construction materials with the selection of outsourcing quality and responsible subcontractors in relation with the Company performance and delivering quality works to the customers on time.
4. Utilization of advanced engineering design programs to enable the Company to produce accurate designs, reduce errors.
5. The Company has complied with the OHSAS 18001 standard for the safety of all parties and the Company has been certified ISO 9001 ISO 14001 and TIS 18001 from Intertek Industry and Certification Services (Thailand) Ltd.
6. Maintain the relationship with target customers.

Company Profile



First Prize « Mr. Niphon Khiawprommas | *Mechanical Engineering*

TTCL Public Company Limited (TTCL), the first integrated Engineering, Procurement and Construction (Integrated EPC) company in Thailand, was incorporated on 24 April, 1985 with a startup capital of 20 Million Baht. TTCL was formed by the joint venture of 2 leading international engineering and construction companies from Japan and Thailand, Toyo Engineering Corporation (TEC) and Italian-Thai Development Public Company Limited (ITD), with the shareholder stake of 49% and 51% respectively. TTCL has experiences and expertises in providing integrated design and engineering, procurement of machinery & equipment, and construction (Integrated EPC) of turnkey projects for industrial and process plants, mainly in energy, petrochemical, chemical and power industries.

The Company has observed an increasing and continual growth in demand of Integrated EPC services from both domestic and overseas customers, especially for energy, petrochemical and power



Mr. Surawit Klanliang | *Mechanical Engineering*



Mr. Niphon Khiawprommas | *Mechanical Engineer*

industries. The Company's competitive advantage in terms of cost and specialized engineering teams for operating mega projects and complex technologies enable TTCL to expand its international businesses to overseas markets, particularly ASEAN

Economics Community Countries (AEC), United Arab Emirates and Qatar. In June 2009, TTCL issued an initial public offering and became a listed Company in the Stock Exchange of Thailand, thereby enhancing the Company's financial strength and credibility to international investors.

At present, as a leading provider of Integrated EPC for more than 30 years, the Company has succeeded in the design and construction of more than 200 projects, demonstrating the Company's reputation and trust among customers in terms of quality design and construction, scheduled delivery of work, and safety in operations. Besides, the Company increased its paid-up capital to 560 Million Baht with the objective to support the working capital requirements and investment in power plants.



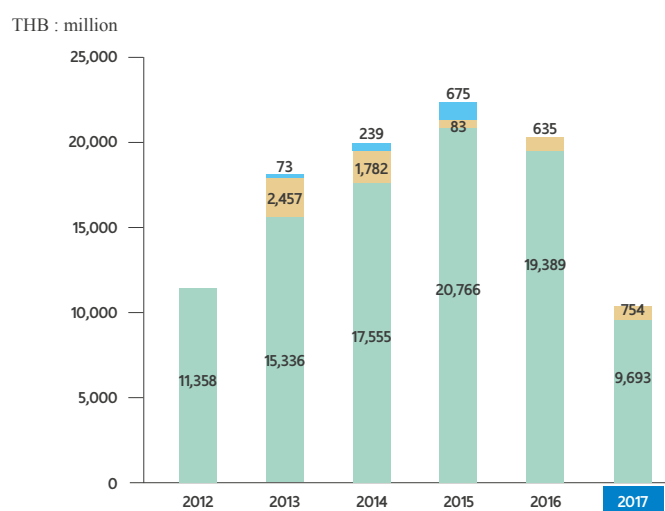
Third Prize « Mr. Sampan Onkeaw | *Instrument Engineer*

Financial Highlights

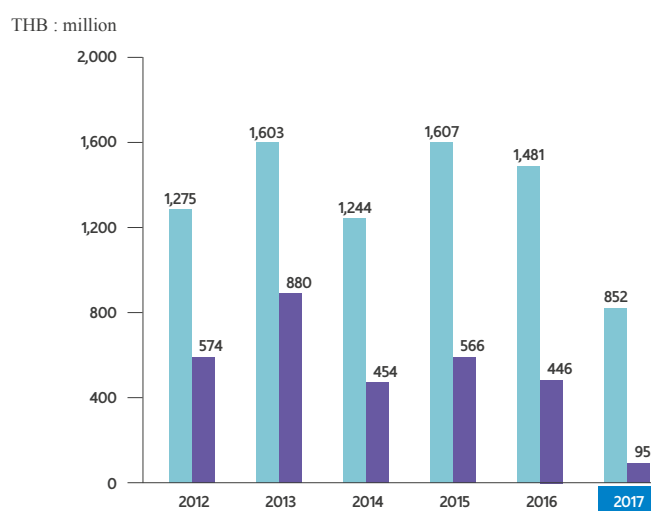
Year Ended Result	2015	2016	2017
Profit (Unit : Million Baht)			
Construction and service revenues	20,765.51	19,389.00	9,692.95
Construction revenues under concession arrangement	83.19	-	-
Revenues from operating the power plant	675.00	635.45	754.16
Total Revenues	21,523.70	20,024.45	10,447.11
Gross Profit	1,607.30	1,481.00	851.84
Net Profit	566.19	445.53	95.03
Financial Ratio			
Gross Profit Margin (%)	7.47	7.40	8.15
Net Profit Margin (%)	2.63	2.22	0.91
Return on Assets (%)	2.19	1.73	0.40
Return on Equity (%)	9.00	7.03	2.32
Earnings Per Share (Baht per Share)	0.75	0.71	0.09

Total Revenues

Gross Profit & Net Profit



- Construction & Service Revenues
- Construction & revenues under concession arrangement
- Revenues from operating the power plant

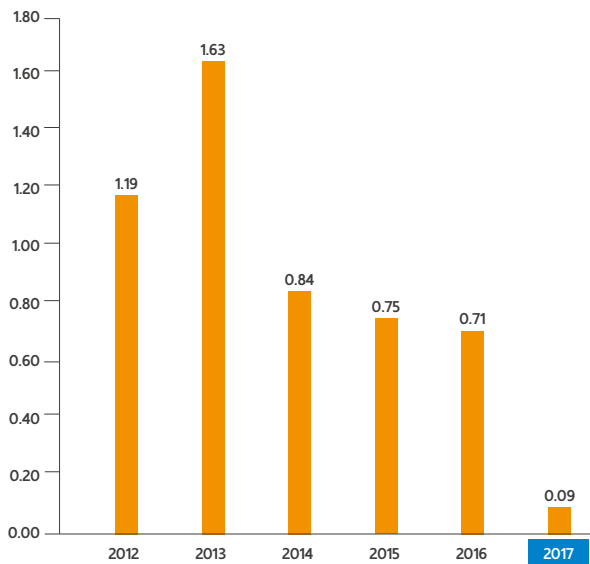


- Gross Profit
- Net Profit

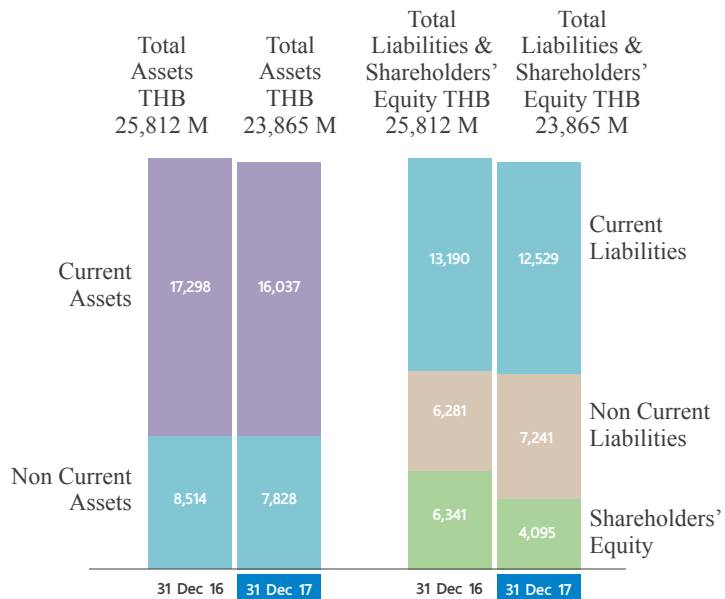
Profitability



Earning Per Share



Balance Sheet





Message from President & CEO



The power plant business in Myanmar, TTCL Subsidiary, continues to operate ordinarily. The power plant business in this region also has high opportunities for future growth

Mr. Hironobu Iriya

President and Chief Executive Officer

Dear Shareholders

As the result of the Company's operation for the year 2017, we still encounter several challenges in both EPC and the power plant business. Besides that, the construction plant in Lao has temporary shutdown due to the change of authorized decision-makers of the owner which were a key factor for the decline in the company's both revenue and net profit. Under these circumstances, the Board of Directors proposed the shareholders to consider and approve non-payment of dividend for the year 2017.

For the trend in the year 2018, the risks and uncertainties of the global economic situation have not much been changed. The power plant business in Myanmar, TTCL Subsidiary, continues to operate ordinarily. The power plant business in this region also has high opportunities for future growth. Therefore, I am confident to drive the operation under our management team to the benefit of all stakeholders much better than previous year.

Finally, I am proud of all TTCL's employees to be united in hard working to overcome the obstacles of the Company. I also would like to thank the shareholders and all of the supporters who support the Company throughout the year and driving for our success.

A blue ink signature of Mr. Hironobu Iriya, written in a cursive style.

Mr. Hironobu Iriya
President and Chief Executive Officer

Report of the Audit Committee



(Pol. Lt. Sivaraks Phinitcharomna)
Chairman of Audit Committee

Dear Shareholders

The Audit Committee, who composed of three independent directors, was appointed by a resolution of the Board of Directors. Pol. Lt. Sivaraks Phinicharomna was appointed as the chairman. Mr. Gumthorn Utarnwuthipong and Mr. Ryuzo Nagaoka were appointed as committee members. Mr. Jittapon Sittisak, Deputy Vice President–Finance & Accounting Division was the secretary to the Committee.

In 2017, the Audit Committee conducted 7 meetings to consider and provide opinions on the following issues:

1. Reviewed quarterly and yearly financial statements to insure conformity with generally accepted accounting principles as well as disclosure properly on related parties and connected transactions, which attended by The Company's Chairman, the management and the external auditor. Note that there was one formal meeting between Audit Committee and the auditor without an attendance of the management in 2017.

2. Reviewed internal control systems and followed up corrective actions by the internal audit department through creating a risk-based audit plan for every three years covering all risks and all activities of the Company. Note that a high-risk related activity must be scrutinized on a yearly basis while monitoring and assuring that the Company had sufficient internal control systems performing in according with a risk-based audit plan. Human resources development was upgraded with a more effective and efficient controlling method.

3. Reviewed the result of risk management to confirm that the process was sufficient and constantly

improved including extending to a newly-established subsidiary, associated and related company.

4. Reviewed whether the Company had followed and complied with the best practice on corporate governance issued by the Stock Exchange of Thailand including any regulations related to The Company's business.

5. Reviewed and provided opinions on connected transactions and those that may cause the conflict of interest including the acquisition or disposal on assets. The responsible management must report with sufficient disclosure.

6. Reviewed the independence of auditor, screened, recommended and appointed including proposed audit fee and compensation.

7. Conducted a meeting with the internal audit head on a regular basis in order to seek advices including considered performance and gave credit to the internal audit head.

8. The Audit Committee had conducted self-evaluation on performance as required by Audit Committee Charter for the year 2017. They were satisfied with the result and reported it to the Board of Directors.

The Audit Committee had unlimited access to the Company information by requesting advices and discuss matters with management, internal and external auditor including external consultant without restriction. The Audit Committee received report from related management along with internal audit and auditor reports in addition with upholding on corporate governance policy. The Audit Committee therefore had opinions that the financial statements for the year ended 31 December 2017 were accurate and completed per principle of materiality

compliant with the generally accepted accounting principles and adequately information disclosure. Risk management was effectively complied with The Company's policy. The internal control systems of the Company were sufficient with no major deficiency. The rules and regulations of Security Exchange Commission and Stock Exchange of Thailand were properly conformed including other related rules and regulations. Connected transactions that may cause conflict of interest were normal business transactions with general commercial terms and to the best benefit of the Company. The Company engaged financial and legal advisors in order to provide opinions on significant asset acquisition and disposal as well.

In 2017, Audit Committee had satisfied with the result of independent evaluation and qualification of the auditor. Therefore, the Committee recommended Board of Directors to consider Mr. Vichien Khingmontr, Certified Public Accountant No. 3977, Mr. Prasit Yuengsrikul, Certified Public Accountant No. 4174 or Ms. Amornrat Pearmpoonvatanasuk, Certified Public Accountant No. 4599 from PricewaterhouseCoopers ABAS Limited, to be the Company's auditor for another year. The audit fee will be THB 4 million same as prior year. The appointment has been preceded to the general shareholders' meeting for approval.

On behalf of Audit Committee.



(Pol. Lt. Sivaraks Phinitcharomna)
Chairman of Audit Committee

Report of The Nomination and Remuneration Committee

To: Shareholders

The Nomination and Remuneration Committee (NRC) has been proposed and appointed by the President and CEO since November 12, 2010. The committee consists of 3 members of TTCL Board of Directors of which 2 members are from TTCL Independent Director.

Roles and responsibilities specified in the Nomination and Remuneration Committee Charter are accessible on the Company's website at http://www.ttcl.com/sustainability/corporate_governance/charters. The Charter defines recruitment, screening and nomination of the candidates in the position of directors and high executive level as well as proposal for remuneration policies and other benefits for the company's board of directors and the committee.

In 2017, the NRC held three meetings to consider important matters and reported the meeting results including comments and recommendations regularly to the Board of Directors for acknowledge and consideration which are summarized as follows;

1. To consider on 2017 fixed remuneration for Board of Directors, Audit Committee and Board of Management as per previous practice base on criteria suitable for their responsibility and linked the remuneration to TTCL overall performance against listed companies of the same Industry and comparable business size.



Mr. Ryuzo Nagaoka

Chairman of the Nomination
and Remuneration Committee

2. To consider on special bonus for 2016 Company operation to Board of Directors, Audit Committee and Board of Management.

3. No 2017 fixed remuneration for committee members except Audit Committee.

4. Nomination and re-appointment of 3 directors, Mr. Gumthorn Utarnwuthipong, Mrs. Nijaporn Charanachitta and Mr. Ryuzo Nagaoka who retired by rotation in December 2016 to hold their directorship for another term to the Board's consideration before nominating their names to the shareholders' meeting for approval.

5. Encouraged TTCL to allow shareholders to propose agenda items and to nominate candidates with qualifications required by Securities and Exchange Commission (SEC) to be elected as 2018 director at least three months ahead of the Shareholders' meeting through Company Website.

6. Setting CEO performance appraisal criteria for evaluation in year 2017 and report to the Board of Directors.

7. Providing Self-Assessment for individual director and committee member and report to the Board of Directors.

8. Providing Group Assessment for Board of Directors and Committees and report to the Board of Directors.

9. The amendment of Charter of Nomination and Remuneration Committee to comply with the principle of good corporate governance.

10. Nomination and re-appointment of Audit Committee who be vacated office for the third term until year 2017 to resume an office as Audit Committee of the Company for the fourth term until December 31, 2020 to the Board of Directors for consideration and approval.

11. Nomination and re-appointment of Corporate Governance Committee who be vacated office for the first term until year 2017 to resume an office as Corporate Governance Committee of the Company for the second term until December 31, 2020 to the Board of Directors for consideration and approval.

On behalf of Nomination and Remuneration Committee.



Mr. Ryuzo Nagaoka
Chairman of the Nomination
and Remuneration Committee

The Report of Risk Management Committee



Mr. Gumthorn Utarnwuthipong

Chairman of Risk Management Committee

Dear Shareholders

Risk Management Committee (RMC) has been appointed by the President and CEO which approved by the resolution of the Board of Director since November 12, 2010. The committee consists of 5 members which are 1 Independent Directors and 4 Senior Executives.

In the year 2017, the Risk Management Committee conducted five meetings to monitor and review the results of risk management. The risk management process has been systematically implemented through the Risk Management Working Group which consists of relevant managements and lead by one of risk management committee. The working group continually monitored and assessed both internal and external factors that may affect to company's operation and determined appropriate measures to prevent and control significant risks with the aim to contain that risks at acceptable level. Responsible person and monitoring method are also determined in order to ensure that risk management processes are efficient and effective in accordance with the company's policies and objectives.

Risk Assessment and Control Measures

The risk management working group and committee have identified and assessed company

risks, covering 4 risk categories which are Strategic Risks, Operational Risks, Financial Risks and Compliance Risks. Risk assessment process also including review of identified risks for any change and identify new risks. In addition, risk control measures have been determined by considering current circumstance and company's direction. The risk management committee has considered and reported significant risks to the Board of Director through audit committee as follows; Risk of revenue from petroleum and petrochemical industrial cycle, Risk of increasing number of new competitor, Risk from political instability and regulatory compliance of international project, including financial risk such as Risk form currency exchange, Risk of income from investment, Risk associated with capital adequacy, Risk associated with fund commitment and Risk associated with cash flow problem.

Improvement of Risk Management Process

The Risk Management Committee encourages the adoption of risk management at all levels of the organization. Then the project risk management working group has been appointed in order to assess and monitor risk factors of the projects which may affect to project schedule, cost, compliance, occupational health and safety of concerned parties, environment, communities and company's reputation.

As the Company is a certified member of the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC). The company shall apply the appropriate anti-corruption measures and ensure that they are arranged by considering current circumstances. Then the committee has assigned working group to assess corruption risk and review adequacy of anti-corruption measures by cooperated with relevant managements on biannually basis.

Furthermore, the committee also reviewed the Charter of Risk Management Committee and performed self-evaluation of risk management committee in order to meet the goals and policies of the Board of Directors which is a part of good corporate governance

On behalf of Risk Management Committee



Mr. Gumthorn Utarnwuthipong
Chairman of Risk Management
Committee

The Report of the Corporate Governance Committee



Mr. Gumthorn Utarnwuthipong

Chairman of the Corporate Governance Committee

To Shareholders :

To align with corporate governance guidelines for listed companies, the President & CEO through the Nomination & Remuneration Committee nominated and appointed the Corporate Governance Committee to the Board of Directors for approval since November 14, 2014. The present Corporate Governance Committee consists of 7 persons as follows:

- 1) Mr. Gumthorn Utarnwuthipong
Chairman
- 2) Mr. Tiwa Jaruke
Committee Member
- 3) Ms. Kantika Tanthuvanit
Committee Member
- 4) Mr. Chamnarn Atsanatam
Committee Member
- 5) Ms. Jaruwan Sookthauyart
Committee Member
- 6) Ms. Nisachol Rittayamai
Committee Member
- 7) Mr. Nuttapol Sinkajohn
Committee Member

In 2017, the Committee held altogether 6 meetings, with attendance by most members. The results of the Committee's meetings are approved by President & CEO and reported regularly to the Board of Directors. A summary of these meetings are as follows:

1. To provide the CG Manual by complying from the Good Corporate Governance Policy, Code of Conduct and Code of Business Ethic and publicize through the company's website.

2. To participate in the evaluation quality of Annual General Meeting 2017 by Thai Investors Association (TIA). The evaluation result scored 100 same as the previous year.

3. To submit the Corporate Governance Assessment in the CGR 2017 survey to Thai Institute of Directors Association (IOD). TTCL has been rated as "Excellent" on two consecutive years.

4. To participate in SET Sustainability Awards by submitting the Sustainability Assessment Questionnaire. TTCL was selected to pass the SET assessment criteria to be the one (1) of sixty-five (65) companies on the Thailand Sustainability Investment (THSI) for the year 2017.

5. To appoint the Anti-Corruption Working Group consisting of the representatives from related divisions to review and assess the corruption risk every 6 months.

6. To conduct a self-assessment to review the performance of both individual and the Corporate Governance Committee as whole.

On behalf of Corporate Governance Committee.



Mr. Gumthorn Utarnwuthipong
Chairman of the Corporate
Governance Committee

The Nature of Business and Services



Second Prize « Ms. Chula Cheevaroongroj | *Electrical Engineering*

Provided services can be classified into 2 main areas:

1. Construction and Service business
2. Power-Generation business

1. Construction and Service business

Construction and service business can be categorized into

- 1.1 Integrated Engineering, Procurement and Construction (Integrated EPC) and
- 1.2 Engineering, Procurement and Construction Management (EPCm) in which the nature and characteristics of works can be explained in full details as follows.

1.1 Integrated Engineering, Procurement and Construction (Integrated EPC)

Integrated EPC refers to a type of construction services in which contractor bears full responsibility to perform all duties starting from project's engineering design, procurement of machinery & equipment, and construction in order to meet clients' requirements. It represents the majority type of construction since as clients can enjoy benefits and efficiencies in quality and project costs control.

The Company is the first Thai engineering contractor who is capable of providing Integrated EPC services to conglomerate engaging in petrochemical, petroleum-related, and energy industries

both domestic and overseas. The Company would act as the main contractor or, as the case may be, jointly co-operate with other contractors, either Thai or foreign partners, in form of joint-venture or consortium.

Large scale construction and yet complexity like Integrated EPC can be divided into 3 scopes i.e. Engineering, Procurement and Construction. With the capacity of an Integrated EPC contractor, this adds competitive advantage to the Company in the continuation of works among the areas. Details of each are described as follows:

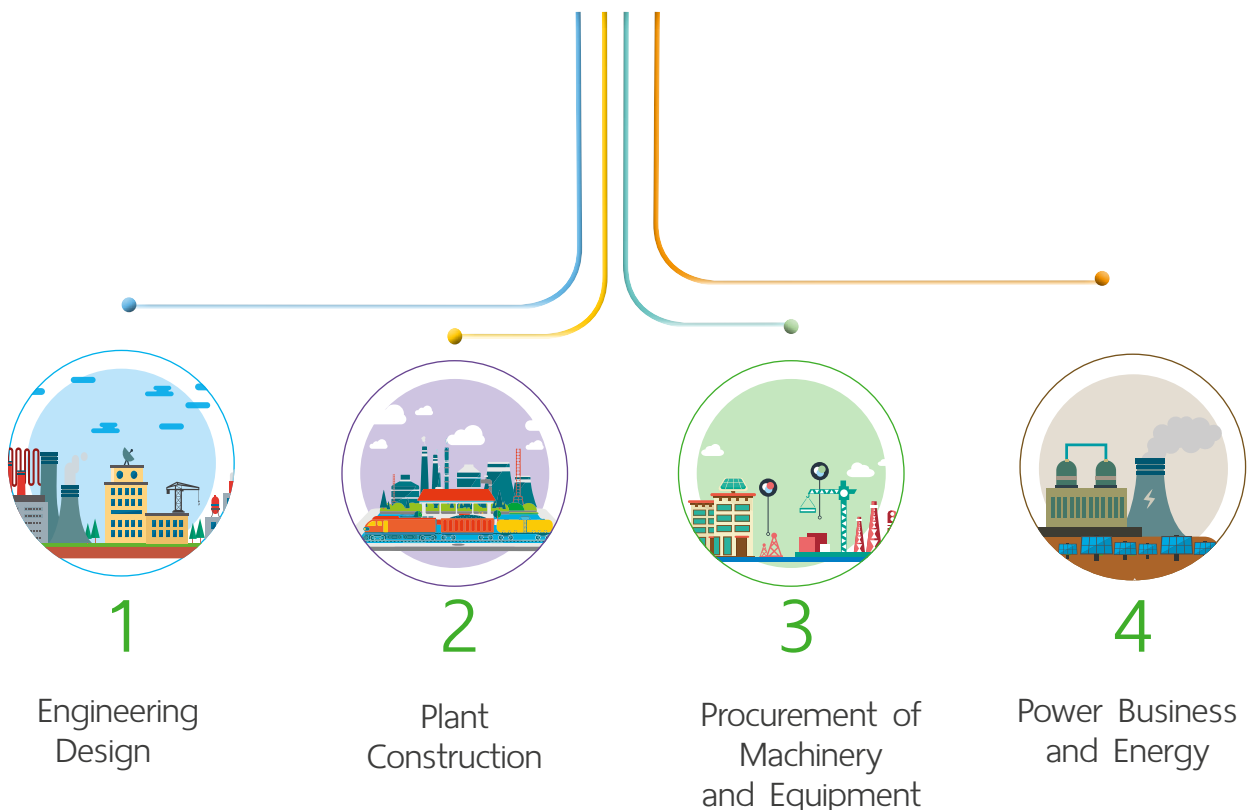
1.1.1 Engineering Design

In providing the engineering design services, the Company's engineering team, consisting of all necessary engineering fields such as civil,

mechanical, electrical and chemical, is capable of designing the whole industrial plant both in civil structures and utility systems, such as electricity, water, air conditioning, solid and wastewater treatment system, storage tanks, production processes, especially for petroleum, petrochemical and chemical plants, including measurement and control system required for the plant. The Company is equipped with eight disciplines of engineering fields that provide competitive advantage. This allows the Company to perform integrated services to the clients, costs-saving for additional design works and, yet, closely cooperate between design team and construction one. This advantage will enable the Company to control overall cost of the project for highest effectiveness.

Our Services

TTCL Public Company Limited



The engineering design steps will commence with the client's objective and requirement analysis in every dimension before performing design works in full details. Key factors that need to be taken into consideration are:

- Plant's Safety both in Overall Scope and each Separate Units.
- Environmental Issues.
- Quality Output from Production Processes.
- Efficiency of production steps both in terms of Heat Balance and Material Balance.
- Manufacturing System, Machines and Equipment.
- Cost for Maintenance or Future Renovation.
- Foreseeable Obstacles during Construction Processes and Adjustment Plan for Risk Mitigation.
- Optimal Point of Technology Applied and Project's Costs.

1.1.2 Procurement of Machinery and Equipment

In providing the procurement services, the Company sources all necessary machines and equipment for the project from both domestic and overseas vendors/manufacturers. The Company also negotiates for price, purchase and delivery conditions, inspecting quality and specification of machines and equipment to be conformed to the engineering design and project schedule as a whole.

From the Company's experiences, most clients are in the petroleum and petrochemical business which obtained promotion privileges from the Board of Investment ("BOI"). This leads the Company to be acquainted with the process of procurement and import of the equipment from overseas for clients to comply with the requirements of BOI. Moreover, the Company benefits from worldwide network extended from its major shareholders like Toyo Engineering Corporation. This advantage additionally equips the Company with the flexibility in procurement, inspection and expedition from overseas vendors.



Merit Prize « Mr. Surawit Klanliang | *Mechanical Engineering*

1.1.3 Plant Construction

In providing the construction services, the Company will assign an appropriate engineering team that best-fit with each project for an operation. Each project team will consist of a project manager, project engineers and lead engineers from various fields. All engineers in project team will work together and be jointly responsible in executing the project since the beginning of planning, performing and coordinating with client or client's representative, subcontractors, manufacturers and vendors of equipment and materials along with the design engineers. Project team will control and inspect the construction work, assuring that quality and timeline are met with the project schedule including budgetary and safety control.

Throughout the process of engineering design, procurement and construction execution, the Company has set up Quality Control Department in its organization consisting of expert in specific fields to inspect and follow up quality of work in every stage to ensure that the work in each detail has been completed and aligned with the required quality. For this stage, the Company will coordinate with client's representative to conduct the inspection together.

1.2. Engineering, Procurement and Construction Management (EPCm)

In providing engineering, procurement, construction project management (EPCm), the Company will act as the project manager assigned to the client. The Company is responsible for managing the appropriate budget of the project and ensuring the project is on schedule. The Company aids customers to select contractors and oversees the work of contractors, advises on the selection of the production and delivery of equipment and materials, and controls the delivery coordination of machinery

and equipment according to schedule. In addition, the engineering, procurement and construction project management services may include feasibility studies for basic engineering as well.

In providing services as per contract signed the Company will assign a project manager and support team for each project. The support team will be selected from appropriate levels of personnel, type of project and work under the supervision of the project manager to ensure that the project is on schedule and according to budget provided. Project managers and support teams comply with the most important principle of project management i.e. to maintain the safety and quality of work.

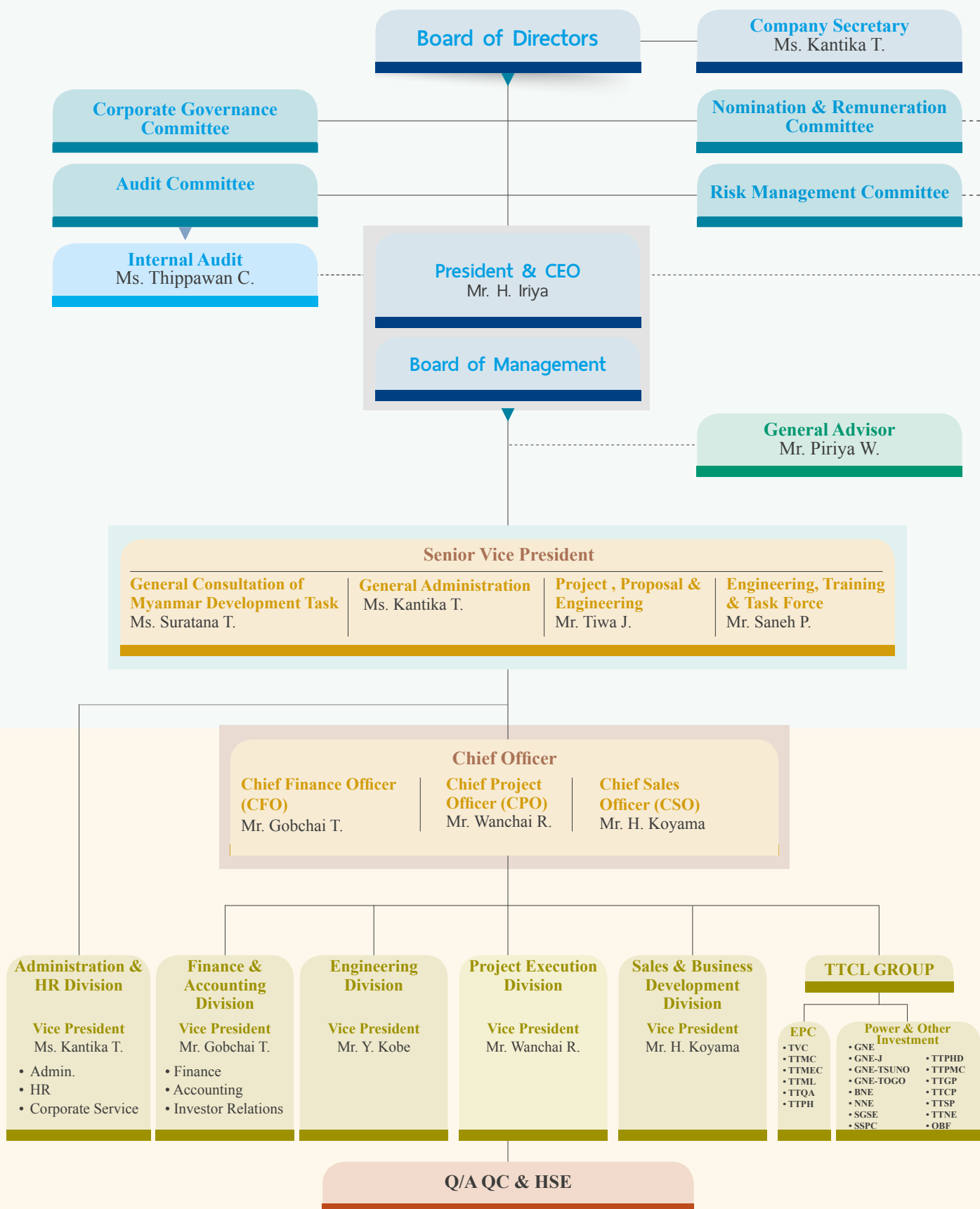
2. Power-Generation Business

The Company maximizes its knowledge and experiences in engineering with an aim to stabilize its long-term income by investing in power and energy businesses. The Company believes in the industries potentialities and being consistent with its investment policy.

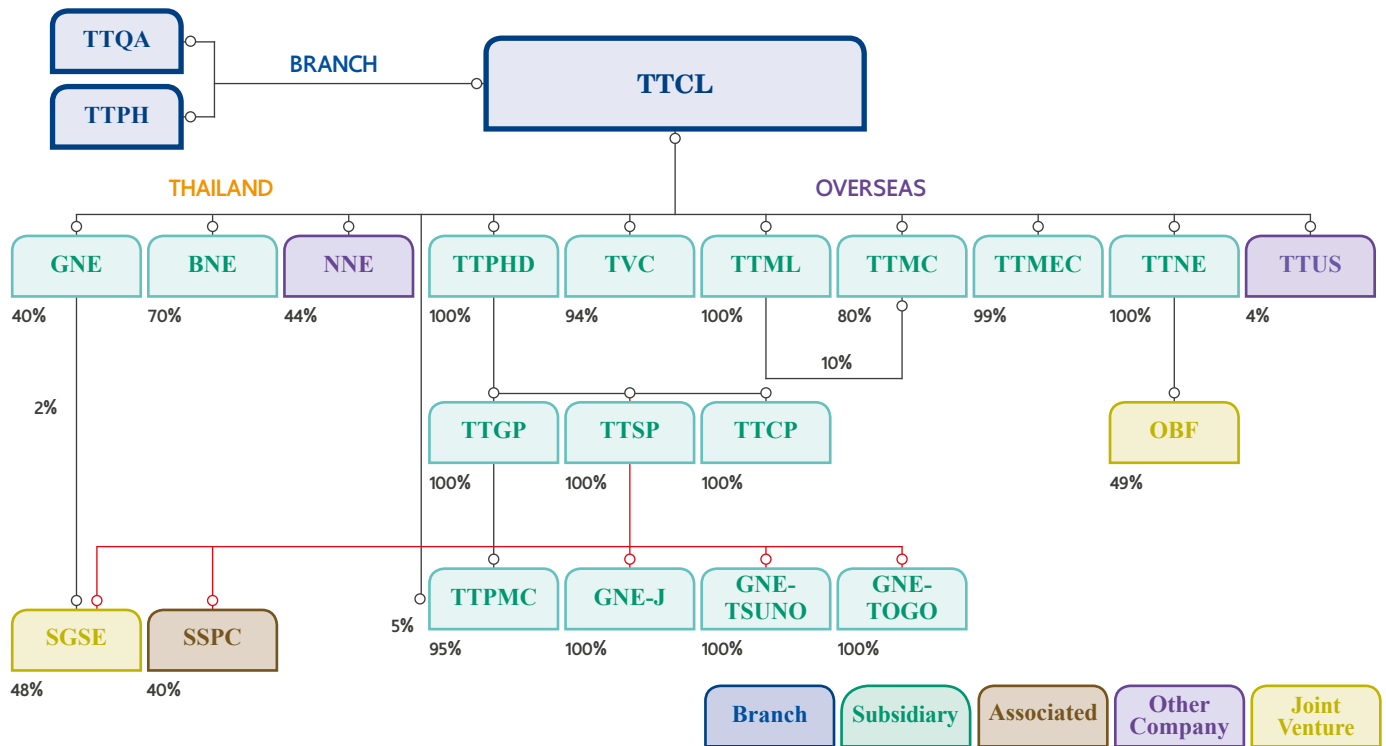
Mostly, the Company is also assigned as the main contractor for the above Projects, both developed by the Company or joint venture. To date, these projects include:

- 1.2 MW Biogas Power Plant, operated by Bio Natural Energy Co., Ltd. ("BNE")
- 110 MW Gas-fired power plant, operated by Navanakorn Electric Co., Ltd. ("NNE")
- 8 MW Solar power plant operated by Siam Solar Power Co., Ltd. ("SSPC")
- 120 MW Gas-Fired power plant, operated by Toyo Thai Power Myanmar Co., Ltd. ("TTPMC")
- 100,000 cbm Ethanol plant, operated by Orient Bio-Fuels Co., Ltd.. ("OBF")
- 743.4 kW Solar Roof-Top, operated by Siam GNE Solar Energy Co., Ltd. ("SGSE")

Organization



Subsidiary Companies and Affiliates



As of 31st December 2017

Company Name	Abbreviation	Type of Business	Head Office	Paid-up Capital	
				Amount	%
1. TTCL Public Company Limited – Qatar Branch	TTQA	Construction and Engineering Service	Qatar	Baht 560,000,000	100.00
2. TTCL Public Company Limited – Philippines Branch	TTPH	Construction and Engineering Service	Philippines	Baht 560,000,000	100.00
3. Global New Energy Co., Ltd.	GNE	Business Development Service	Thailand	Baht 60,000,000	100.00
4. Bio Natural Energy Co., Ltd.	BNE	Renewable Energy Development	Thailand	Baht 5,000,000	100.00
5. Navanakorn Electric Co., Ltd. *	NNE	Electricity Generating Services	Thailand	Baht 1,650,000,000	100.00
6. Siam GNE Solar Energy Co., Ltd.	SGSE	Electricity Generating Services	Thailand	Baht 16,000,000	100.00
7. Siam Solar Power Plc.	SSPC	Electricity Generating Services	Thailand	Baht 300,000,000	100.00
8. TTCL Power Holdings Pte. Ltd.	TTPHD	Investment in Energy Business	Singapore	USD 69,500,000	100.00
9. TTCL Vietnam Corporation Limited	TVC	Construction and Engineering Service	Vietnam	VND 1,500,000	100.00
10. TTCL Malaysia Sdn. Bhd.	TTML	Construction and Engineering Service	Malaysia	RM 750,000	75.00
11. ToyoThai – Myanmar Corporation Co., Ltd.	TTMC	Construction and Engineering Service	Myanmar	USD 300,000	100.00
12. TTCL Myanmar Engineering and Corporation Co., Ltd.	TTMEC	Construction and Engineering Service	Myanmar	USD 300,000	100.00
13. TTCL New Energy Pte. Ltd.	TTNE	Investment in Energy Renewable Business	Singapore	USD 4,200,000	100.00
14. ToyoThai-USA Corporation	TTUS	Construction and Engineering Service	USA	USD 1,000,000	100.00
15. TTCL Gas Power Pte. Ltd.	TTGP	Investment in Energy Business	Singapore	USD 49,500,000	100.00
16. TTCL Solar Power Pte. Ltd.	TTSP	Investment in Energy Business	Singapore	USD 4,000,000	100.00
17. TTCL Coal Power Pte. Ltd.	TTCP	Investment in Energy Business	Singapore	USD 5,000,000	100.00
18. Toyo Thai Power Myanmar Co., Ltd.	TTPMC	Electricity Generating Services	Myanmar	USD 51,587,300	100.00
19. Global New Energy Japan Co., Ltd.	GNE-Japan	Operating and Maintenance Sola Power Plant	Japan	JPY 200,500,000	100.00
20. Global New Energy Tsuno Co., Ltd.	GNE-Tsuno	Electricity generating from Solar Power	Japan	JPY 100,000	100.00
21. Global New Energy Togo Co., Ltd.	GNE-Togo	Electricity generating from Solar Power	Japan	JPY 100,000	100.00
22. Orient Bio-Fuels Co., Ltd.	OBF	Renewable Energy	Vietnam	USD 34,500,000	100.00

Remarks : * Preferred Shares

Board of Directors



Mr. Makoto Fusayama
Director

Mr. Hironobu Iriya
Chairman of the Board
of Directors

Mr. Piriya Wongphayabal
Vice Chairman of the Board
of Directors

Mrs. Nijaporn Charanachitta
Director



Mr. Tiwa Jaruke
Director

Mr. Gumthorn Utarnwuthipong
Independent Director

Ms. Kantika Tanthuvanit
Director & Company Secretary

Mr. Sivaraks Pinicharomna
Independent Director

Mr. Ryuzo Nagaoka
Independent Director

Audit Committee / Nomination and Remuneration Committee / Risk Management Committee / Corporate Governance Committee

Audit Committee

1. Mr. Sivaraks Pinicharomna
Chairman
2. Mr. Gumthorn Utarnwuthipong
Committee Member
3. Mr. Ryuzo Nagaoka
Committee Member

Nomination and Remuneration Committee

1. Mr. Ryuzo Nagaoka
Chairman
2. Mr. Gumthorn Utarnwuthipong
Committee Member
3. Mr. Tiwa Jaruke
Committee Member

Risk Management Committee

1. Mr. Gumthorn Utarnwuthipong
Chairman
2. Mr. Saneh Poorisat
Committee Member
3. Ms. Suratana Trinratana
Committee Member
4. Mr. Wanchai Ratinthorn
Committee Member
5. Mr. Gobchai Tanasugarn
Committee Member

Corporate Governance Committee

1. Mr. Gumthorn Utarnwuthipong
Chairman
2. Mr. Tiwa Jaruke
Committee Member
3. Ms. Kantika Tanthuvanit
Committee Member
4. Mr. Chamnarn Atsanatam
Committee Member
5. Ms. Jaruwan Sookthauyart
Committee Member
6. Ms. Nisachol Rittayamai
Committee Member
7. Mr. Nuttapol Sinkajohn
Committee Member

Board of Management

- | | |
|---|--|
| <p>1. Mr. Hironobu Iriya
President & CEO</p> <p>2. Mr. Tiwa Jaruke
Senior Vice President Project,
Proposal & Engineering</p> <p>3. Ms. Kantika Tanthuvanit
Senior Vice President
General Administration</p> <p>4. Mr. Saneh Poorisat
Senior Vice President Engineering,
Training and Task Force</p> <p>5. Ms. Suratana Trinratana
Chief Operation
Officer (COO),
Vice President Operation
Division</p> | <p>6. Mr. Wanchai Ratinthorn
Chief Project Officer (CPO),
Vice President
Project Execution Division</p> <p>7. Mr. Hideto Koyama
Chief Sales Officer (CSO),
Vice President Sales &
Business Development
Division</p> <p>8. Mr. Gobchai Tanasugarn
Chief Finance Officer (CFO),
Vice President Finance &
Accounting Division and
Investor Relations</p> |
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Merit Prize « Ms. Araya Chanvipaporn |
Process Engineer



Mr. Nippon Khiawprommas | *Mechanical Engineer*



Ms. Araya Chanvipaporn | *Process Engineer*



Ms. Araya Chanvipaporn | *Process Engineer*

Board of Directors & Board of Management

As at 31st December 2017

Name - Surname	: Mr. Hironobu Iriya
Type of Nominated Position	: Chairman of the Board of Directors, President & CEO
Current Position	: Chairman of the Board of Directors, President & CEO (Authorized to Bind the Company)
Years of Age	: 63 years
Nationality	: Japanese
Education	: Bachelor's Degree, Faculty of Engineering (Civil Engineering), Waseda University, Japan
Director Training	
20 August 2008	: Director Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	
Present	: Chairman of the Board of Directors, TTCL Myanmar Engineering & Construction Co., Ltd.
2014 - Present	: Chairman of the Board of Directors, TTCL New Energy Pte. Ltd.
2013 - Present	: Chairman of the Board of Directors, TTCL Solar Power Pte. Ltd.
	: Chairman of the Board of Directors, TTCL Coal Power Pte. Ltd.
2012 - Present	: Chairman of the Board of Directors, Toyo Thai Power Myanmar Co., Ltd.
	: Chairman of the Board of Directors, TTCL Gas Power Pte. Ltd.
	: Chairman of the Board of Directors, TTCL Power Holdings Pte. Ltd.
	: Chairman of the Board of Directors, ToyoThai-Myanmar Corporation Co., Ltd.
2011 - Present	: Chairman of the Board of Directors and Managing Director, TTCL Malaysia Sdn. Bhd
2011 - 19 December 2017	: Chairman of the Board of Directors, ToyoThai-USA Corporation
2009 - Present	: Chairman of the Board of Directors and President, Global New Energy Co., Ltd.
2007 - Present	: Chairman of the Board of Directors and Managing Director, Global Business Management Company Limited
2006 - Present	: Chairman of the Board of Directors, TTCL Vietnam Corporation Limited,
2005 - Present	: Chairman of the Board of Directors, Bio Natural Energy Co., Ltd.
	: Chairman of the Board of Directors, President & CEO, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 14
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 34,161,134 shares equivalent to 6.10% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mr. Piriya Wongphayabal
Type of Nominated Position	: Vice Chairman of the Board of Directors & General Advisor
Current Position	: Vice Chairman of the Board of Directors & General Advisor (Authorized to Bind the Company)
Years of Age	: 67 years
Nationality	: Thai
Education	: Master's Degree, Master of Business Administration, Chulalongkorn University : Bachelor's Degree, Faculty of Engineering (Industrial Engineering) Chulalongkorn University
Director Training 25 July 2008	: Director Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience 2011 - Present 2009 - Present 2005 - Present	: General Advisor, TTCL Public Company Limited : Director, TTCL Vietnam Corporation Ltd. : Vice Chairman of the Board of Directors, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 1
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 6,444,000 shares equivalent to 1.15% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017 The Board of Directors' Meeting The Annual General Shareholders' Meeting	: 5 meetings from total of 6 meetings (83.33%) : 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mr. Makoto Fusayama
Type of Nominated Position	: Director
Current Position	: Director (Authorized to Bind the Company)
Years of Age	: 67 years
Nationality	: Japanese
Education	: Bachelor's Degree, Faculty of Law, Hitosubashi University, Japan
Director Training	
20 August 2008	: Director Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	
2014 - 27 June 2017	: Chairman, Toyo Engineering Corporation
2013	: Executive Vice President, Division Director, Corporate Planning Unit, Legal Unit, General Affairs and Human Capital Development Unit, Finance and Accounting Unit, Toyo Engineering Corporation
2008 - Present	: Director, TTCL Public Company Limited
2004 - 2013	: Chief Executive Officer, Management and Planning Division, Toyo Engineering Corporation
Positions in other listed companies	: None
Positions in non-listed companies	: None
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: None
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 4 meetings from total of 6 meetings (66.67%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mrs. Nijaporn Charanachitta
Type of Nominated Position	: Director
Current Position	: Director (Authorized to Bind the Company)
Years of Age	: 67 years
Nationality	: Thai
Education	: Master's Degree, Faculty of Business Administration (Finance) University of Wisconsin, U.S.A. : Bachelor's Degree, Faculty of Arts, Chulalongkorn University
Director Training	
2-22 March 2005	: Director Certification Program (DCP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	
2007 - Present	: Director, TTCL Public Company Limited : Chairman of the Board of Directors, OHTL Public Company Limited : Chairman of the Board of Directors, Amari Public Company Limited : Chairman of the Board of Directors, Amari Hotel and Resort Co., Ltd. : Director, Nomination and Remuneration Committee, Charoong Thai Wire & Cable Public Company Limited
1994 - Present	: Director, Senior Executive Vice President, Italian-Thai Development Public Company Limited
1983 - 1994	: Vice President, Italian-Thai Development Public Company Limited
1979 - 1983	: Manager of Finance, Italian-Thai Development Public Company Limited
Positions in other listed companies	: 4
Positions in non-listed companies	: 1
Positions in competing /Involving Business Person	: 1
No. of Shareholding in TTCL	: 5,297,207 shares equivalent to 0.95% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: Did not attend the meeting due to business trip in overseas.

Board of Directors

Name - Surname	: Mr. Tiwa Jaruke
Type of Nominated Position	: Director Senior Vice President Project, Proposal & Engineering Nomination and Remuneration Committee Corporate Governance Committee
Current Position	: Director (Authorized to Bind the Company) Senior Vice President Project, Proposal & Engineering Nomination and Remuneration Committee Corporate Governance Committee

Years of Age	: 64 years
Nationality	: Thai
Education	: Bachelor's Degree, Faculty of Engineering (Civil Engineering), Chiang Mai University

Director Training	
20 June 2016	: Ethical Leadership Program (ELP)
15-16 March 2016	: Financial Statements for Directors (FSD)
22 February 2008	: Director Accreditation Program (DAP)
24 July 2007	: Finance for Non-Finance Director (FND)
10 July 2007	: Understanding the Fundamental of Financial Statements (UFS) by Thai Institute of Directors Association (IOD)

Years of being Board of Directors	: 10 years (2008 - Present)
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Working Experience	
2014 - Present	: Director, Senior Vice President Project, Proposal & Engineering Corporate Governance Committee, TTCL Public Company Limited
2013 - Present	: Director, TTCL Power Holdings Pte. Ltd.
2013	: Director, Senior Vice President Project & Proposal, Petrochemical & Refinery Unit and Task Force, TTCL Public Company Limited
2011 - Present	: Director, Deputy Managing Director TTCL Malaysia Sdn. Bhd.
2011 - 2012	: Director, Senior Vice President Project, Proposal & Engineering Division, TTCL Public Company Limited
2010 - Present	: Nomination and Remuneration Committee, TTCL Public Company Limited
2009 - Present	: Director, Global New Energy Co., Ltd.
2008 - Present	: Director, TTCL Vietnam Corporation Limited

Positions in other listed companies	: None
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Positions in non-listed companies	: 4
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Positions in competing	: None
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/Involving Business Person

No. of Shareholding in TTCL	: 6,924,300 shares equivalent to 1.24% of total shares
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Legal dispute in criminal cases	: None
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(other than criminal case with petty offences)

Restrict Qualification by the Public	: None
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Act. B.E. 2535

Meeting Attendance in 2017

The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 3 meetings from total of 3 meetings (100%)
The Corporate Governance Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mr. Sivaraks Phinicharomna
Type of Nominated Position	: Independent Director & Chairman of Audit Committee
Current Position	: Independent Director & Chairman of Audit Committee
Years of Age	: 67 years
Nationality	: Thai
Education	: Master's Degree, Faculty of Public Administration Minnesota State University, U.S.A. : Bachelor's Degree, Faculty of Political Science, Chiang Mai University : Certified Professional California Certified Public Accountant, Internal Revenue Service Enrolled Agent, Certified Internal Auditor, Certified Fraud Examiner, and Certificate of Accountancy, University of California, Los Angeles, U.S.A. : Master of QTRP H&R Block Tax Training School, California, U.S.A.
Director Training	
10-11 June 2015	: Chartered Director Class (CDC)
24-25 April 2014	: How to Measure the Success of Corporate Strategy (HMS)
3-4 March 2014	: Successful Formulation and Execution of Strategy (SFE)
14-15 October 2009	: Role of the Chairman Program (RCP)
14-15 February 2007	: Audit Committee Program (ACP)
21 May-18 June 2004	: Director Certificate Program (DCP)
17 May 2004	: Directors Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	
2013 - Present	: Independent Director, Chairman of Audit Committee, SRK Public Company Limited
2010 - Present	: Independent Director, Audit Committee, Ini3 Digital Plc.
2009 - Present	: Independent Director, Chairman of Audit Committee, UA Withya Public Company Limited
2008 - Present	: Independent Director, Chairman of Audit Committee, TTCL Public Company Limited
Positions in other listed companies	: 1
Positions in non-listed companies	: 2
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 104,670 shares equivalent to 0.02% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Audit Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mr. Gumthorn Utarnwuthipong
Type of Nominated Position	: Independent Director, Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee
Current Position	: Independent Director, Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee
Years of Age	: 77 years
Nationality	: Thai
Education	: Master's Degree, Faculty of Engineering (Plant Engineering) Darmstadt Institute for Hesse, Germany : Bachelor's Degree, Faculty of Science (Chemical Engineering), Chulalongkorn University
Director Training	: Board Matters and Trends (BMT 3/2017) : Advanced Audit Committee Program (AACP) : Ethical Leadership Program (ELP) : Driving Company Success with IT Governance (ITG) : Boards that Make a Difference (BMD) : Ethical Leadership Program (ELP) : Risk Management Program for Corporate Leaders (RCL) : Director Certification Program Update (DCPU) : Anti-Corruption for Executive Program (ACEP) : Directors Certification Program (DCP) : Role of the Compensation Committee (RCC) : Monitoring of the Quality of Financial Reporting (MFR) : Monitoring the Internal Audit Function (MIA) : Monitoring the System of Internal Control and Risk Management (MIR) : Director Accreditation Program (DAP) : Audit Committee Program (ACP) by Thai Institute of Directors Association (IOD) : 10 years (2008 - Present)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	: Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee TTCL Public Company Limited : Independent Director, Audit Committee TTCL Public Company Limited
2010 - Present	: None
2008 - Present	: None
Positions in other listed companies	: None
Positions in non-listed companies	: None
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 114,700 shares equivalent to 0.02% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Audit Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 3 meetings from total of 3 meetings (100%)
The Risk Management Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Corporate Governance Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Mr. Ryuzo Nagaoka
Type of Nominated Position	: Independent Director, Audit Committee, Chairman of Nomination and Remuneration Committee
Current Position	: Independent Director, Audit Committee, Chairman of Nomination and Remuneration Committee
Years of Age	: 82 years
Nationality	: Japanese
Education	: Doctorate's Degree, Faculty of Engineering (Civil Engineering), University of Tokyo, Japan : Master's Degree, Faculty of Engineering (Mechanical Engineering), University of Wisconsin, U.S.A. : Bachelor's Degree, Faculty of Engineering (Mechanical Engineering), Keio University, Japan
Director Training	
11 - 12 September 2017	: Infrastructure Project Financing & Public Private Partnership (IPF) by OMEGAWORLDCLASS
5 - 6 July 2016	: Boards that Make a Difference (BMD)
1 - 7 November 2015	: Director Certification Program (DCP)
20 August 2008	: Director Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 10 years (2008 - Present)
Working Experience	
2010 - Present	: Chairman of Nomination and Remuneration Committee, TTCL Public Company Limited
2008 - Present	: Independent Director, Audit Committee, TTCL Public Company Limited
2004 - Present	: Managing Director, Nagaoka & Associates Inc.
Positions in other listed companies	: None
Positions in non-listed companies	: 1
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 100,000 shares equivalent to 0.02% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Audit Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 3 meetings from total of 3 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Directors

Name - Surname	: Ms. Kantika Tanthuvanit
Type of Nominated Position	: Director Senior Vice President General Administration Corporate Governance Committee Company Secretary
Current Position	: Director (Authorized to Bind the Company) Senior Vice President General Administration Corporate Governance Committee Company Secretary
Years of Age	: 63 years
Nationality	: Thai
Education	: Bachelor's Degree, Faculty of Business Administration, Chiang Mai University Postgraduate, Faculty of Business Administration, Center for Marketing and Management Studies, London, United Kingdom
Director Training	
20 June 2016	: Ethical Leadership Program (ELP)
16 - 17 June 2016	: Company Secretary Program (CSP)
15 - 16 March 2016	: Financial Statements for Directors (FSD)
4 - 5 September 2008	: Effective Minute Taking (EMT)
7 - 8 August 2008	: Company Secretary Program (CSP)
22 February 2008	: Director Accreditation Program (DAP)
24 July 2007	: Finance for Non-Finance Director (FND)
10 July 2007	: Understanding the Fundamental of Financial Statement (UFS) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 2 years (2015 - Present)
Working Experience	
Present	: Director, TTCL Public Company Limited
2014 - Present	: Senior Vice President General Administration, Corporate Governance Committee, TTCL Public Company Limited
2013 - Present	: Director, TTCL New Energy Pte. Ltd.
2011 - Present	: Director, TTCL Power Holdings Pte. Ltd.
2011 - 2013	: Director and General Manager Administration Division, TTCL Malaysia Sdn. Bhd.
2008 - Present	: Senior Vice President, General Administration & Finance, TTCL Public Company Limited
2007 - Present	: Company Secretary, TTCL Public Company Limited
2006 - Present	: Director, Global Business Management Company Limited Director, TTCL Vietnam Corporation Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 5
Positions in competing	: None
/Involving Business Person	
No. of Shareholding in TTCL	: 9,458,041 shares equivalent to 1.69% of total shares
Legal dispute in criminal cases	: None
(other than criminal case with petty offences)	
Restrict Qualification by the Public	: None
Act. B.E. 2535	
Meeting Attendance in 2017	
The Board of Directors' Meeting	: 6 meetings from total of 6 meetings (100%)
The Corporate Governance Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Management

Name - Surname	: Mr. Saneh Poorisat
Current Position	: Senior Vice President Engineering, Training and Task Force, Risk Management Committee

Years of Age	: 64 years
Nationality	: Thai
Education	: Bachelor's Degree, Faculty of Engineering (Electrical Engineering), King Mongkut's University of Technology North Bangkok
Director Training	: None
Years of being Board of Directors	: None
Working Experience	
2014 - Present	: Senior Vice President Engineering, Training and Task Force, TTCL Public Company Limited
2013	: Senior Vice President Engineering, Power Unit, Training and Task Force, TTCL Public Company Limited
2012	: Vice President Technical Officer, Engineering and Proposal Division, TTCL Public Company Limited
2011	: Vice President Engineering Division, TTCL Public Company Limited
2010 - Present	: Risk Management Committee, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: None
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 1,550,750 shares equivalent to 0.28% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Risk Management Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Management

Name - Surname	: Ms. Suratana Trinratana
Current Position	: Senior Vice President, General Consultation of Myanmar Development Task, Risk Management Committee
Years of Age	: 53 years
Nationality	: Thai
Education	: Bachelor's Degree, Faculty of Engineering (Mechanical Engineering), Prince of Songkla University
Director Training	
August - December 2017	: The Executive Training Course version 25 (ETC) by Capital Market Academy (CMA)
25 - 26 October 2016	: Risk Management Program for Corporate Leaders (RCL)
20 June 2016	: Ethical Leadership Program (ELP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: None
Working Experience	
Present	: Senior Vice President, General Consultation Myanmar Development Task
2016 - Present	: Director and Managing Director, TTCL Myanmar Engineering & Construction Co., Ltd.
2014 - 2016	: Chief Operation Officer (COO), Vice President Operation Division, TTCL Public Company Limited
2013 - Present	: Director, TTCL New Energy Pte. Ltd.
	: Director, TTCL Coal Power Pte. Ltd.
	: Director, TTCL Solar Power Pte. Ltd.
	: Director, TTCL Power Holdings Pte. Ltd.
2013	: Chief Operation Officer (COO), Vice President Operation Division, Unit President Power Unit, TTCL Public Company Limited
2012 - Present	: Director, TTCL Gas Power Pte. Ltd.
	: Director, Toyo Thai Power Myanmar Co., Ltd.
	: Director, and Managing Director, ToyoThai-Myanmar Corporation Co., Ltd.
2012	: Vice President, Operation Officer Sales and Procurement Division, TTCL Public Company Limited
2011 - Present	: Director and General Manager, Sales & Procurement Division, TTCL Malaysia Sdn. Bhd.
	: Director, Global New Energy Co., Ltd.
2011 - 19 December 2017	: Director, ToyoThai-USA Corporation
2010 - Present	: Risk Management Committee, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 10
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 15,835,948 shares equivalent to 2.83% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Risk Management Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Management

Name - Surname	: Mr. Wanchai Ratinthorn
Current Position	: Chief Project Officer (CPO), Vice President Project Execution Division, Risk Management Committee
Years of Age	: 52 years
Nationality	: Thai
Education	: Bachelor's Degree, Faculty of Engineering (Mechanical Engineering), King's Mongkut University of Technology Thonburi
Director Training	
20 June 2016	: Ethical Leadership Program (ELP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: None
Working Experience	
Present	: Chief Project Officer (CPO), TTCL Public Company Limited
2014 - Present	: Vice President Project Execution Division, TTCL Public Company Limited
2013	: Vice President Construction and Commissioning Division, Unit President Petrochemical and Refinery Unit, TTCL Public Company Limited
2012	: Vice President Execution Officer, Construction and Commissioning, Project Division, TTCL Public Company Limited
2011 - Present	: Director and General Manager, Project and Proposal Division, TTCL Malaysia Sdn. Bhd.
2011	: Director, TTCL Gas Power Pte. Ltd.
2010 - Present	: Vice President Project and Proposal Division, TTCL Public Company Limited
	: Risk Management Committee, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 2
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 4,300,000 shares equivalent to 0.77% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Risk Management Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Management

Name - Surname	: Mr. Hideto Koyama
Current Position	: Chief Sales Officer (CSO), Vice President Sales and Business Development Division

Years of Age	: 52 years
Nationality	: Japanese
Education	: Master's Degree, Faculty of Engineering (Architectural Engineering), Tokyo University of Science, Japan : Bachelor's Degree, Faculty of Engineering, Tokyo University of Science, Japan
Director Training	: None
Years of being Board of Directors	: None
Working Experience	
Present	: Chief Sales Officer (CSO), TTCL Public Company Limited : Director, Global New Energy Tsuno Co., Ltd. : Director, Global New Energy Togo Co., Ltd.
2015 - 31 August 2016	: Director, Hi-Grade Energy Co., Ltd.
2014 - Present	: Vice President Sales and Business Development Division, TTCL Public Company Limited
2013 - Present	: Director, TTCL Coal Power Pte. Ltd. : Director, TTCL Solar Power Pte. Ltd. : Director, Siam GNE Solar Energy Co., Ltd. : Director, Global New Energy Japan Co., Ltd. : Director, Global New Energy Co., Ltd.
2010 - Present	
Positions in other listed companies	: None
Positions in non-listed companies	: 8
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 4,337,360 shares equivalent to 0.77% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Board of Management

Name - Surname	: Mr. Gobchai Tanasugarn
Current Position	: Chief Finance Officer (CFO), Vice President Finance & Accounting Division and Investor Relations, Risk Management Committee
Years of Age	: 53 years
Nationality	: Thai
Education	: Master's Degree MBA (Finance), Florida Public & Business Administration Academy, U.S.A. : Bachelor's Degree, Faculty of Business Administration (Finance), Florida Public & Business Administration Academy, U.S.A. : Bachelor's Degree, Bachelor of Arts (English), Narasuan University
Director Training	
August - September 2016	: Strategic CFO in Capital Markets Program by The Stock Exchange of Thailand (SET)
18-19 November 2015	: Company Secretary Program (CSP)
27-28 November 2014	: Anti-Corruption: The Practical Guide (ACPG)
4 November 2014	: Company Reporting Program (CRP)
24 July 2014	: Board Reporting Program (BRP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: None
Working Experience	
Present	: Chief Finance Officer (CFO), TTCL Public Company Limited
2014 - Present	: Vice President Finance & Accounting Division and Investor Relations, TTCL Public Company Limited
2013 - Present	: Director, TTCL New Energy Pte. Ltd. : Director, TTCL Coal Power Pte. Ltd. : Director, TTCL Solar Power Pte. Ltd.
2012 - Present	: Director, TTCL Gas Power Pte. Ltd.
2011 - Present	: Risk Management Committee, TTCL Public Company Limited
2011 - 2013	: General Manager, Finance Department and Investor Relations, TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: 4
Positions in competing /Involving Business Person	: None
No. of Shareholding in TTCL	: 2,500,000 shares equivalent to 0.45% of total shares
Legal dispute in criminal cases (other than criminal case with petty offences)	: None
Restrict Qualification by the Public Act. B.E. 2535	: None
Meeting Attendance in 2017	
The Risk Management Committee Meeting	: 3 meetings from total of 4 meetings (75%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Roles & Responsibilities

Board of Directors

List of Directors

As of December 31, 2017, the Board of Directors consists of:

Name	Position
1. Mr. Hironobu Iriya	Chairman of the Board of Directors
2. Mr. Piriya Wongphayabal	Vice Chairman of the Board of Directors
3. Mrs. Nijaporn Charanachitta	Director
4. Mr. Makoto Fusayama	Director
5. Mr. Tiwa Jaruke	Director
6. Ms. Kantika Tanthuvanit	Director
7. Mr. Sivaraks Phinicharomna	Independent Director
8. Mr. Gumthorn Utarnwuthipong	Independent Director
9. Mr. Ryuzo Nagaoka	Independent Director

Ms. Kantika Tanthuvanit served as Company Secretary.

Directors Authorized to sign and bind for the Company

Mr. Hironobu Iriya, Mrs. Nijaporn Charanachitta, Mr. Makoto Fusayama, Mr. Piriya Wongphayabal, Mr. Tiwa Jaruke, Ms. Kantika Tanthuvanit, any two of these six directors jointly and affix the company seal.

Roles and Responsibilities of the Board of Directors

- To supervise and manage the Company under applicable laws, Company objectives, Article of Association, and shareholders' meeting resolutions with honesty and integrity while remaining vigilant of the Company's best interests.
- To determine the business direction and the overall strategic goal for the Company which includes the consideration to approve policies and operational directions proposed by the management. Also to govern and ensure that the management implement the approved policies with efficiency and productivity such as to maximize the benefits to the Company and its shareholders.
- To approve in the general operation such as asset purchasing, investment, and loans in excess of the Board of Management authority.
- To constantly monitor the Company's operation to ensure that the Board of Management manage the company in accordance with laws and approved policies.
- To arrange for the Company to have standardized accounting system, financial reporting, and audit as well as internal control and internal audit systems that are both efficient and effective.
- To appoint Board of Management, audit committee and/or other committees, Company Secretary as appropriate for the best interest of the Company and to monitor the management system in accordance with the approved policies.
- To appoint a director or a group of directors to act on behalf of the Board of Directors.
- To approve the roles and responsibilities

of all sub committees as well as to materially amend the composition of the sub committees.

9. To arrange to have an appropriate balance of authorities of management and/or major shareholders, by considering the proportion or number of independent directors in the Company's Board of Directors.
10. To arrange for appropriate information system that shall assure the Board of Directors of receiving sufficient information from the management in order to operate according to their authorities and responsibilities perfectly.
11. To attend the board meetings at least half of the total number of meetings arranged in each year.
12. To determine and amend names of authorized directors.
13. To consider the remuneration of the directors within the guidelines approved by shareholders.
14. To determine the business direction and overall for Anti-Corruption of the Company and consideration to approve Anti-Corruption Policy proposed by Corporate Governance Committee. Also to govern and forming an effective system supporting Anti-Corruption act in order to affirm that the Management Team intensively concerns, emphasizes, and cultivates Anti-Corruption mindset as the Company's culture.

The following issues shall require shareholders' approval before proceeding, directors with conflict of interests to the Company and/or its subsidiaries are not permitted to vote:

- (a) Issues that the Law require shareholder's approval.
- (b) Connected transactions or acquisition/disposition of assets in accordance to the SET or any other regulatory bodies' stipulation.

Roles and Responsibilities of Chairman of the board

1. Chairman of the Board of Directors or an assignee is assigned to convoke a meeting by sending the invitation letter at least 14 days before the meeting date for the basis of sufficient notice and information.
2. To determine the agenda of the Board of Directors meeting and annual general meeting.
3. To manage effective meeting and allocate adequate time for presentation, as well as giving the opportunity for directors to question and comment freely also control issues in the debate and conclusion of the resolution of the meeting.
4. To encourage the directors to comply with corporate governance such as proposed abstention of votes, and leaving the meeting when considering the agenda that have conflict of interest.
5. To communicate the significant information to the Board of Directors for acknowledgement.
6. To encourage the Board of Directors to attend in the shareholders meeting and officiate as the chairman of the meeting to meet the highest effectiveness and answer the shareholders inquiries.
7. To encourage the Board of Directors to execute their roles according to roles and responsibilities of the Board of Directors, applicable laws and corporate governance.
8. In case of equality vote, the chairman has a casting vote in addition to his/her voting rights as a director.

Board of Management

Board of Directors appoints Member of Board of Management to relieve work of Board of Directors to manage the normal business. Therefore, Board of Directors can focus on key policy and assessment of Management.

List of Members of Board of Management

As of December 31, 2017 Board of Management consists of:

Name	Position
1. Mr. Hironobu Iriya	Chairman of Board of Management
2. Mr. Tiwa Jaruke	Board of Management
3. Ms. Kantika Tanthuvanit	Board of Management
4. Mr. Saneh Poorisat	Board of Management
5. Ms. Suratana Trinratana	Board of Management
6. Mr. Wanchai Ratinthorn	Board of Management
7. Mr. Hideto Koyama	Board of Management
8. Mr. Gobchai Tanasugarn	Board of Management

Roles and Responsibilities of the Board of Management

1. To determine and roll-out policies, directions, strategies, organizational structure, and management structure such that they resonate with the current economic condition and competitive landscape for approval by the Board of Directors.
2. To determine the strategy and annual budget and to manage the operations in all divisions of the Company for the Board of Directors' approval including the ability to approve, amend, change, add to the annual expense budget (if required as matter of urgency) before the Board of Director's approval.
3. To determine Anti-Corruption system, promoting and encouraging Anti-Corruption manner conveyed to all staff and related parties.
4. To monitor the Company's operation in accordance with the Company's policy and to ensure maximum efficiency under any given circumstances.
5. To ensure that results from operation are in line with the approved expectations.
6. To consider sizeable capital investments for approval by the Board of Directors.
7. To have the authority to appoint/layoff all employees ranked below that of the CEO.

8. To approve and execute bidding and contracting with third parties.

9. To perform other duties appointed by the Board of Directors on a case by case basis and have the power to approve the following financial transactions.

(a) In case that the business plan or the annual budget has already been approved by Board of Directors, the Board of Management may execute such matters without financial constraints.

(b) In case that the financial transaction is in the condition other than a), Board of Management has an executable limit of Baht 20 million. The financial authorization shall cover day to day operational expenditures, capital expenditures, permanent asset, loans, other debt instruments, and insurance (excluding bidding and contracting which have no limit).

The Board of Management may delegate the authority to execute financial transactions to other employees at the management level as see fit.

The authority delegation from the Board of Directors to the Board of Management stated above excludes the case of possible conflict of interest (according to the SEC's regulations) except for the transaction on arm-length basis (the transaction is already approved by the Board of Directors and is the Company's normal business with fair price and terms).

The first four top-ranking executives as well as all other 4th ranking equivalent, and accounting or finance executives of department head level and up.

As of December 31, 2017, Member of Management, total 9 persons, consists of:

Name	Position
1. Mr. Hironobu Iriya	Chairman , President & CEO
2. Mr. Tiwa Jaruke	Senior Vice President Project, Proposal and Engineering
3. Ms. Kantika Tanthuvanit	Senior Vice President General Administration
4. Mr. Saneh Poorisat	Senior Vice President Engineering, Training and Task Force
5. Ms. Suratana Trinratana	Senior Vice President General Consultation of Myanmar Development Task
6. Mr. Gobchai Tanasugarn	Chief Finance Officer / Vice President Finance & Accounting Division and Investor Relation
7. Mr. Jittapon Sittisak	Deputy Vice President Finance and Accounting Division
8. Mr. Paibun Sribanphai	Department Manager, Accounting Department
9. Ms. Nisachol Rittayamai	Department Manager Accounting Department (International)

Roles and Responsibilities of the President & CEO

1. To operate and manage the Company's normal course of business.
2. To operate and manage in accordance with business policy, business plan, and business strategy approved by the Board of Directors.
3. To employ, appoint, transfer, layoff, severance, to determine the appropriate salary structure and changes therewith including bonuses of all employees and to appoint employer representative to sit in the Company's provident fund committee.
4. For administration of the Company, President & CEO engages into business contract within the limit that a board of

- management could approve, pre-approved by Board of Directors and has the authority to approve within the limit up to 5 (five) million Baht for the transaction that the Board of Directors or the Board of Management did not specifically approve.
5. To give instruction notification, announcement such that the operation could proceed according the approved policy and to keep discipline within the organization.
6. To be the Company's authorized person for the benefit of the Company.
7. To appoint advisors as deem appropriate for the benefit and operation of the Company.

8. To undertake any other action as authorized by the Board of Directors.
9. To determine Anti-Corruption system, promoting and encouraging Anti-Corruption manner conveyed to all staff and related parties.

Nevertheless, the delegation to President & CEO in case of potential conflict of interest, President & CEO does not have the authority to such approval and he has to instead propose to the board of directors and/or shareholders for approval in accordance to applicable laws and Company's regulations except the approval under specific normal business transactions.

Nominating for Directors and Member of Board of Management

Directors

The Company has appointed a Nomination and Remuneration Committee to select qualified candidates who have knowledge, skills, qualifications, work experience and relevant qualifications for Directors in accordance with Section 68 of Public Company Limited Act B.E. 2535 and related Notifications of the Securities and Exchange Commission. To contribute Company's operation efficiently, the Company has determined criterion for appointment and dismissal of Directors as follows;

1. The Company shall have a Board of Directors consisting of at least five (5) directors but not exceeding twenty (20) persons. All of the directors shall have qualification as prescribed by applicable law and not less than a half of them shall have place of residences in the Kingdom of Thailand.
2. The Directors shall be elected at the general meeting of the shareholders in accordance with the following rules and procedures:

- 2.1 Each shareholder shall have number of vote equal to the number of shares held.
- 2.2 Each shareholder may cast all of his/her votes in accordance with (1) above to elect one or more persons to be Director or Directors but the vote shall be indivisible.
- 2.3 The persons who obtain the highest number of votes shall be elected as the Directors in respective order of votes higher to lower according to the required number of directors, but if two or more persons obtain equal votes, the Chairman shall exercise a casting vote.

3. At every annual general meeting of shareholders, one-third (1/3) of the Director, or if it is not a multiple of three, then the number nearest to one-third (1/3) must retire from office.

There must be a drawing by lots to determine the Directors retiring on the first and second years following the registration of the Company. In each subsequent year, the Directors who occupy the position for longest period shall retire. A retiring is eligible for re-election.

4. In case where there is any vacancy among Directors other than the retirement by rotation, the Board of Directors shall at its next meeting elect a person who is qualified and is not subject to any restriction imposed by applicable law to fill the vacancy, except where the remaining term of the vacant Director is less than two (2) months. The term of the new Director replacing the vacant Director shall be equal to the remaining term of the vacant Director.

The resolution of the Board of Director as specified in the first paragraph shall be passed by three-quarter (3/4) or more of the votes cast by the remaining Director.

5. A meeting of shareholders may resolve any Director before the expiration of his/her term by passing a resolution with the

vote of three-quarter (3/4) or more of the total number of shareholders attending and eligible to vote at the meeting and holding in aggregate fifty (50) percent or more of total number of shares held by the shareholders attending and eligible to vote at the meeting.

The Audit Committee

List of Member of Audit Committee

As of December 31, 2017, Audit Committee consists of:

Name	Position
1. Mr. Sivaraks Phinicharomna	Chairman of Audit Committee
2. Mr. Gumthorn Utarnwuthipong	Audit Committee Member
3. Mr. Ryuzo Nagaoka	Audit Committee Member

Mr. Jittapon Sittisak served as secretary of Audit Committee.

Roles and Responsibilities of the Audit Committee

1. To ensure accuracy and sufficiency of the financial reports.
2. To ensure that the Company has appropriated and effective internal control systems as well as internal auditing activities and consider the independence of the internal audit department, including consent to the appointment, rotation, promotion, and termination of the head of internal audit department and others who are responsible for internal audit activities.
3. To ensure that the Company is complied with laws of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC) as well as other rules and regulations related to the Company's business.
4. To select and propose independent person who will be the Company's auditor and propose his or her compensation, including join meeting with the auditor without management attending at least once a year.
5. To consider compliance of connected or conflict of interest transactions to the rules and regulations of the SET and SEC and assure the transactions are appropriate and provide the best interest to the Company.
6. To assure the risk management has appropriate and effective process.
7. To prepare an Audit Committee's report to be disclosed in the Company's annual report. The report must be signed by the Chairman of the Audit Committee and composed of at least the following information:
 - 7.1 Opinion regarding completeness and reliability of the Financial Report.
 - 7.2 Opinion regarding the sufficiency of the internal control systems.
 - 7.3 Opinion regarding compliance with

- laws of SEC, rules and regulations of SET and other related laws to the Company's business.
- 7.4 Opinion regarding appropriation of auditor.
 - 7.5 Opinion regarding conflict of interest transaction.
 - 7.6 Number of Audit Committee meeting and participation.
 - 7.7 Overall opinion or observation regarding practices of the Audit Committee.
 - 7.8 Other issues that should be disclosed to the shareholders which fall within scope, authority, and responsibility as assigned by the Board of Directors.
 8. To report activities of the Audit Committee to the Board of Directors at least 4 times a year.
 9. To have authority for hiring independent consultant or professional when needed.
 10. To carry out audit committee activities, the Committee shall have authority to invite executive, manager or employee to attend meetings for discussion or answer the Audit Committee's questions.
 11. To review scope, authority and responsibility and conduct self-evaluation on the annual basis.
 12. To perform any assignment by the Board of Directors that agreed upon by the Audit Committee.
 13. During the Audit Committee practice, if they find or suspect transaction or the following activities which may have material impact to the financial position and operation result of the Company, the Audit Committee must report to the Board of Director to take corrective action within a reasonable period of time.

- 13.1 Conflict of interest transaction.
- 13.2 Fraud or unusual transaction or significant deficiency in the internal control systems.
- 13.3 Violation under the laws of SET, SEC, rules and regulations of SET or other related laws of the Company's business.

In case where director or manager fails to take corrective action within a reasonable period of time, any Audit Committee member may report such transaction or activity to the SET and SEC.

14. In case the auditor discovers any suspicious circumstance that the director, manager or any person responsible for the operation of such juristic person commit an offense under the law, and informed such circumstance to the Audit Committee to continue the inspection without delay and the Audit Committee shall report the preliminary inspection to the SEC office and the auditor within 30 days from the notification date of the auditor. The circumstance that shall be informed and the procedures for acquiring the fact related to such circumstance shall be complied with the notification of the Capital Market Supervisory Board.

Committee and Qualification

1. The Audit Committee shall consist of not less than one third of directors and every one must be independent director and possesses qualification in accordance with the rules and regulations of the SET and SEC. At least one member must have sufficient knowledge and experience to review reliability of financial report.
2. The Board of Directors shall select and appoint the Chairman of Audit Committee.

Term of the Appointment

A member of the Audit Committee shall be appointed for a term of three (3) years. A member who vacates his office at the end of the term may be re-elected no more than 2 times unless the Board of Directors shall have other opinions.

Apart from vacating office at the end of the term, a member shall vacate office upon:

1. death
2. resignation
3. disqualify under this charter or rules and regulations promulgated SET or SEC.
4. terminate by the Board of Directors.

In case the member resigned before completing his or her term, he or she should notify and provide reason to the Company one month in advance. So that, the Board of Directors or the Shareholders shall consider appointing another director who has appropriate qualification to fill in vacancy. And, the Company must notify SET with enclosed resignation letter of the member as well.

In case the members vacate office at the same time, the vacated members shall hold the office until the new members have been appointed.

In case the member vacates office due to other reasons during the term of appointment, the Board of Directors shall appoint new member within 90 days to hold the office only for the remaining term.

Meeting

1. The Audit Committee shall hold meetings at least 5 times a year.
2. In calling the meetings, the Chairman of Audit Committee or Secretary of the Audit Committee who is instructed by the Chairman shall send invitation letter to all members 7 days in advance. Except in an emergency case, the invitation letter may be notified by other procedures or the timing may be less than 7 days.

Quorum

At least one – half of the members must present in the meeting to form a quorum. In case of the Chairman of Audit committee is absent or cannot perform his or her duties, the attending members shall elect one member to be seated as chairman of the meeting.

Consent in the meeting shall be made by majority vote. Each member shall have one vote. Member who has conflict of interest shall be prohibited from voting on such matter. In case there is a tie vote, the Chairman can vote in the affirmative to adopt the motion.

Consent of the Audit Committee can be made without the meeting and shall have complete process as conducted the meeting when the consent was ratified by signatories of all members.

Remuneration

The President & CEO through the Nomination & Remuneration Committee proposed the remuneration of Audit Committee to the Board of Directors for approval as deems appropriate.

Management Responsibilities

The manager or department and executive shall be responsible for document preparing, data gathering, activity monitoring, and reporting matters to the Audit Committee.

Nomination & Remuneration Committee

The President & CEO is responsible to appoint Nomination and Remuneration Committee and report the Board of Directors for acknowledgement. The Board of Directors has resolved the appointment of Nomination & Remuneration Committee since November 12, 2010. As at December 31, 2017 the Nomination & Remuneration Committee consists of 3 persons as follows;

Name	Position
1. Mr. Ryuzo Nagaoka	Chairman of Nomination and Remuneration Committee
2. Mr. Gumthorn Utarnwuthipong	Nomination and Remuneration Committee Member
3. Mr. Ryuzo Nagaoka	Nomination and Remuneration Committee Member

Ms. Kantika Tanthuvanit served as secretary of Nomination & Remuneration Committee.

Roles and Responsibilities of Nomination & Remuneration Committee

Authority and Responsibility of Nomination Committee

1. To recommend the structure and composition of the Board of Directors together with the qualification of Independent Director, Audit Committee and Corporate Governance Committee.
2. To recommend the list of qualified persons to the Board of Directors for consideration and propose to the shareholders for approval in case of vacancies by rotation and other causes.
3. To encourage the Company to allow shareholders to propose agenda items and to nominate candidates with qualifications required by Securities and Exchange Commission (SEC) to be elected as director at least three months ahead of the shareholders' meeting.
4. Other assignments relating to nominating for directors and executives as deemed appropriate by the President & CEO or the Board of Directors.

Authority and Responsibility of Remuneration Committee

1. Review and propose structure of remuneration for Directors and Executives, e.g. bonus or other kinds of remuneration of monetary or non-monetary nature.

2. To consider the Remuneration of the Directors and Executives that should take into the fact of suitable type, size, and performance of the Company in consistency with the general market norm and the same industry, both in and out SET for further submission to the Board of Directors' meeting and/or the Shareholders' meeting for approval.
3. Disclose the remuneration policy and the various types of remunerations in the Annual Report of the Company.
4. Determine a criteria to evaluate the performance and annually conduct Self-Assessment of the Board of Directors, Sub Committee on an individual basis and as a whole and the President & CEO and report the result to Board of Directors.
5. Report on progress and results of its work to the Board of Directors after every meeting of the Nomination and Remuneration Committee.
6. Review and propose for further submission to the Board of Directors any changes in the regulations concerning the Nomination and Remuneration Committee that would make its work more appropriate and up to date.
7. Other assignments relating to remunerating for directors and executives as deemed appropriate by the President & CEO or the Board of Directors.

Committee and Qualification

1. Being a Company Director.
2. The Nomination and Remuneration Committee shall be appointed by President & CEO and consist of at least 3 members.
3. The Nomination and Remuneration Committee shall have independent directors as a majority members of the committee.
4. The Nomination and Remuneration Committee shall elect one independent director to be the Chairman.
5. For the Independent Director who chairs the Nomination and Remuneration Committee possessing all qualifications of Independent Director as per the Notification of Capital Market Supervisor Board.

Term of the Appointment

A member of the Nomination and Remuneration Committee shall be appointed for a term of three (3) years ended at 31st December. A member who vacates his office at the end of the term may be re-elected no more than 2 times consecutively unless the President & CEO or Board of Directors shall have other opinions.

Apart from vacating office at the end of the term, a member shall vacate office upon:

1. death
2. resignation
3. disqualify under this charter or rules and regulations promulgated The Stock Exchange of Thailand (SET).
4. terminate by the President & CEO or Board of Directors.

In case the member resigned before completing his or her term, he or she should notify and provide reason to the Company one month in advance. So that, the President & CEO shall consider appointing

another director who has appropriate qualification to fill in vacancy and to be reported to the Board of Directors.

In case all members vacate office at the same time, the vacated members shall hold the office until the new members have been appointed.

In case the member vacates office due to other reasons during the term of appointment, the President & CEO shall appoint new member within 90 days to fill in the vacancy and to complete requirement of Nomination and Remuneration Committee. The new member shall hold the office only for the remaining term.

Meeting

1. The Nomination and Remuneration Committee shall hold meetings at least 2 times a year.
2. In calling the meetings, the Chairman of Nomination and Remuneration Committee or Secretary of the Nomination and Remuneration Committee who is instructed by the Chairman shall send invitation letter to all members 7 days in advance. Except in an emergency case, the invitation letter may be notified by other procedures or the timing may be less than 7 days.

Quorum

1. At least one – half of the members must present in the meeting to form a quorum. In case of the Chairman of Nomination and Remuneration Committee is absent or cannot perform his or her duties, the attending members shall elect one member to be seated as chairman of the meeting.
2. Consent in the meeting shall be made by majority vote.
3. Each member shall have one vote. Member who has conflict of interest shall be prohibited from voting on such matter. In

- case there is a tie vote, the Chairman can vote in the affirmative to adopt the motion.
4. Consent of the Nomination and Remuneration Committee can be made without the meeting and shall have complete process as conducted the meeting when the consent was ratified by signatories of all members.

Remuneration

The President & CEO through the Nomination & Remuneration Committee proposed the remuneration of Nomination & Remuneration Committee and reports to the Board of Directors for acknowledgement.

Management Responsibilities

The Board of Management shall be responsible for document preparing, data gathering, activity monitoring, and reporting matters to the Nomination and Remuneration Committee.

Risk Management Committee.

The President & CEO is responsible to appoint Risk Management Committee and reports the Board of Directors for acknowledgement. The Board of Directors has resolved the appointment of the Risk Management Committee since November 12, 2010. As at December 31, 2017 the Risk Management Committee consists of 5 persons as follows;

Name	Position
1. Mr.Gumthorn Utarnwuthipong	Chairman of Risk Management Committee
2. Mr. Saneh Poorisat	Risk Management Committee Member
3. Ms. Suratana Trinratana	Risk Management Committee Member
4. Mr. Wanchai Ratinthorn	Risk Management Committee Member
5. Mr. Gobchai Tanasugarn	Risk Management Committee Member

Ms. Thippawan Chansuwan served as secretary of Risk Management Committee

Roles and Responsibilities of Risk Management Committee

1. To determine specific business direction and to define, analyze and examine significant risk factors including the determination of those strategic risk management.
2. To determine the standard of risk management in order to be the guidelines of each responsible task.
3. To supervise and ensure that the measurements are widely communicated and the staff has implemented as prescribed in the measurement.
4. To systematically and continuously evaluate and analyze the damage that may occur in order to ensure that the risk survey is covered all business process.
5. To support and develop risk management to be continuously implemented in whole organization and to be applicable to the international standard.

Committee and Qualification

The President & CEO shall appoint the Risk Management Committee by selection from a number of committee and executives and/or specialists. There shall be a selection of chairman of risk management committee from the selected committee.

Term of the Appointment

The term of position of Risk Management Committee shall be comply three (3) years and ended at 31st December of the completed year. The Risk Management Committee who complete their term can be re-elected only 2 consecutive term unless the President & CEO or Board of Directors shall have any other resolution.

Apart from vacating office at the end of the term, a member shall vacate office upon:

1. death
2. resignation
3. disqualify under this charter or rules and regulations promulgated SET or SEC.
4. terminate by the President & CEO or Board of Directors.

In case the member resigned before completing his or her term, he or she should notify and provide reason to the Company one month in advance. So, that the President & CEO shall consider appointing another director who has appropriate qualification to fill in vacancy and to be reported to the Board of Directors.

In case the members vacate office at the same time, the vacated members shall hold the office until the new members have been appointed.

In case the member vacates office due to other reasons during the term of appointment, the President & CEO shall appoint new member within 90 days to hold the office only for the remaining term.

Meeting

1. The Risk Management Committee has to hold the meetings at least four (4) times a year as necessary and appropriate manner.
2. In calling the meetings, the Secretary of the Risk Management Committee who is instructed by the Chairman shall send invitation letter to all members 7 days in advance. Except in an emergency case, the invitation letter may be notified by other procedures or the timing may be less than 7 days.

Quorum

1. At least one – half of the members must present in the meeting to form a quorum. In case of the Chairman of Risk Management Committee is absent or cannot perform his or her duties, the attending members shall elect one member to be seated as Chairman of the meeting.
2. Consent in the meeting shall be made by majority vote.
3. Each member shall have one vote. Member who has conflict of interest shall be prohibited from voting on such matter. In case there is a tie vote, the Chairman can vote in the affirmative to adopt the motion.
4. Consent of the Risk Management Committee can be made without the meeting and shall have complete process as conducted the meeting when the consent was ratified by signatories of all members.

Remuneration

The President & CEO through the Nomination & Remuneration Committee proposed the remuneration of Risk Management Committee and reports to the Board of Directors for acknowledgement.

Responsibility Unit

The chief of unit or unit and executive shall be responsible for document preparing, data gathering, activity monitoring, and report matters to Risk Management Committee.

Corporate Governance Committee

The President & CEO through the Nomination & Remuneration Committee proposed the qualified persons for being the Corporate Governance Committee to the Board of directors for approval since November 14, 2014. As at December 31, 2016, the Corporate Governance Committee consists of 7 persons as follows;

Name	Position
1. Mr. Gumthorn Utarnwuthipong	Chairman of Corporate Governance Committee
2. Mr. Tiwa Jaruke	Corporate Governance Committee Member
3. Ms. Kantika Tanthuvanit	Corporate Governance Committee Member
4. Mr. Chamnarn Atsanatam	Corporate Governance Committee Member
5. Ms. Jaruwan Sookthauyart	Corporate Governance Committee Member
6. Ms. Nisachol Rittayamai	Corporate Governance Committee Member
7. Mr. Nuttapol Sinkajohn	Corporate Governance Committee Member

Ms. Thippawan Chansuwan served as secretary of Risk Management Committee

Roles and Responsibilities of Corporate Governance Committee

1. Governing and monitoring business operation of the committees' operation to strictly comply with law and related regulations.
2. Ensure that good corporate governance is being conducted at all level in accordance to legal requirements & Company's policies.
3. Provide suggestions relevant to ethical practices to the Board, management and employees.
4. Provide recommendations for improvement on the Corporate Governance of the Company.
5. To review, revise and improve corporate governance policy continually at least once a year to keep the Company's corporate governance policy up-to-date and well adjusted to the international standards, laws, criteria, rules and regulations as well as recommendations from internal units that involve the corporate governance.
6. To conduct self evaluation for sufficiency of Anti-corruption practices as it is one of the Anti-corruption progress indicators of Thailand Private Sector Collective Action Coalition Against Corruption.

7. Reporting its performances to the Board of Directors and provide annual report to shareholders in the Annual Report.

Committee and Qualification

1. Being a Company Director or Management.
2. The Corporate Governance Committee shall be appointed by the Board of Directors and consist of Director and Management total seven (7) persons.
3. The Corporate Governance Committee shall consist of one member who must be Independent Director.
4. For the Independent Director who chairs the Corporate Governance Committee must be experienced and fully qualified as per the specifications of the Capital Market Supervisory Board.

Term of the Appointment

A member of the Corporate Governance Committee shall be appointed for a term of three (3) years ended at 31st December.

A member who vacates his office at the end of the term may be re-elected no more than 2 times consecutively unless the President & CEO or Board of Directors shall have other opinions.

Apart from vacating office at the end of the term, a member shall vacate office upon:

1. death
2. resignation
3. disqualify under this charter or rules and regulations promulgated SEC or SET.
4. terminate by the President & CEO or Board of Directors.

In case the member resigned before completing his or her term, he or she should notify and provide reason to the Company one month in advance. So that, the President & CEO shall consider appointing another director who has appropriate qualification to fill in vacancy and to be reported to the Board of Directors.

In case the members vacate office at the same time, the vacated members shall hold the office until the new members have been appointed.

In case the member vacates office due to other reasons during the term of appointment, the President & CEO shall appoint new member within 90 days to hold the office only for the remaining term.

Meeting

1. The Corporate Governance Committee shall hold meetings at least 2 times a year.
2. In calling the meetings, the Chairman of Corporate Governance Committee or Secretary of the Corporate Governance Committee who is instructed by the Chairman shall send invitation letter to all members 7 days in advance. Except in an emergency case, the invitation letter may be notified by other procedures or the timing may be less than 7 days.

Quorum

1. At least one - half of the members must present in the meeting to form a quorum. In case of the Chairman of Corporate

Governance committee is absent or cannot perform his or her duties, the attending members shall elect one member to be seated as chairman of the meeting.

2. Consent in the meeting shall be made by majority vote.
3. Each member shall have one vote. Member who has conflict of interest shall be prohibited from voting on such matter. In case there is a tie vote, the Chairman can vote in the affirmative to adopt the motion.
4. Consent of the Corporate Governance Committee can be made without the meeting and shall have complete process as conducted the meeting when the consent was ratified by signatories of all members.

Remuneration

The President & CEO through the Nomination & Remuneration Committee proposed the remuneration of the Corporate Governance Committee to the Board of Directors for approval as deems appropriate.

Management Responsibilities

The manager or department and executive shall be responsible for document preparing, data gathering, activity monitoring, and reporting matters to the Corporate Governance Committee.

Company Secretary

The Board of Directors has appointed Ms. Kantika Tanthuvanit as the Company Secretary, whose duties and responsibilities are as stipulated in the Securities and Exchange Act (No. 4), B.E. 2551, an amendment of the Securities and Exchange Act B.K. 2535. The Company Secretary is responsible for organizing meetings for the Board of Directors and shareholders, ensuring compliance with the meetings' resolutions, and advising the Board on rules and

regulations to which it must comply. Additionally, the Company Secretary is responsible for preparing and keeping the register of directors, Board meeting invitation letters, Board meeting minutes, Annual Report, invitation letters to attend the shareholders' meeting and records of its minutes, the report on conflict of interests of directors or executive officers and other duties as required by the Capital Market Supervisory Board.

Ms. Kantika Tanthuvanit was graduated in Postgraduate, Business Administration Faculty, Center for Marketing and Management Studies, London, United Kingdom and Bachelor's Degree, Business Administration Faculty, Chiangmai University. Ms. Kantika Tanthuvanit was trained in Company Secretary Program (CSP) and related program from Thai Institute of Directors (IOD) by serving as Company Secretary since 2008 to the present.

Definition of Independent Directors

The Company defines the Company's independent director which is in line with the minimum requirements of the SEC or the Stock Exchange in respect of shareholding in the Company, namely, the Company's independent directors shall hold not more than 1 percent of the total number of shares with voting rights.

Nature of Relationship of Independent Directors

1. Holding shares of not exceeding one percent of the number of voting shares of the Company, its parent company, subsidiaries, associated companies or legal entities which may have conflict of interest, including shares held by related persons.
2. Having no involvement in the management, and not being employee, staff, advisor receiving regular salary or controller of the Company, its parent company, subsidiaries, associated companies, subsidiaries at the

same level or legal entities which may have conflict of interest at present and during the past two years prior to appointment.

3. Having neither relationship by blood or by legal registration in the capacity as parent, spouse, sibling and offspring, including spouse of the offspring, with any executive, major shareholder, controller or person to be nominated as executive or controller of the Company or its subsidiaries.
4. Having neither business relationship with the Company, its parent company, subsidiaries, associated companies, or legal entities which may have conflict of interest at present and during the past two years prior to appointment in the following manners :
 - (1) Provision of professional services, i.e. auditor, other professional service provider receiving fee more than Baht 2 Million per year, such as, legal advisor, financial advisor, property appraiser, etc.
 - (2) Trading/business with a transaction value of Baht 20 Million or more or at least 3 percent of the Company's net tangible asset value, whichever is lower, and in considering the transaction value, and transactions executed during the past six months prior to the date of this transaction execution shall be included.
5. Not being appointed as representative of the Company's director, major shareholder or shareholder who is a related person of the Company's major shareholder.
6. Not having any other characteristics preventing provision of independent opinions.

Board Meeting Attendance

For the year 2017, the directors attended the meetings are as follow :

Name	Position	Meeting in the year 2017						
		Board of Director	Board of Management	Audit Committee	Risk Management Committee	Nomination & Remuneration Committee	Corporate Governance Committee	Shareholders Meeting
		Total 6 times	Total 21 times	Total 6 times	Total 4 times	Total 3 times	Total 4 times	Total 1 time
1. Mr. Hironobu Iriya	Chairman of Board of Directors President & CEO	6/6	21/21	-	-	-	-	1/1
2. Mr. Piriya Wongphayabal	Vice Chairman of Board of Directors	5/6	-	-	-	-	-	1/1
3. Mrs. Nijaporn Charanachitta	Director	5/6	-	-	-	-	-	0/1
4. Mr. Makoto Fusayama	Director	4/6	-	-	-	-	-	1/1
5. Mr. Tiwa Jaruke	Director Board of Management Nomination & Remuneration Committee Corporate Governance Committee	6/6	21/21	-	-	3/3	4/4	1/1
6. Ms. Kantika Tanthuvanit	Director Board of Management Corporate Governance Committee	6/6	21/21	-	-	-	4/4	1/1
7. Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	6/6	-	6/6	-	-	-	1/1
8. Mr. Gumthorn Utarnwuthipong	Independent Director Audit Committee Chairman of Risk Management Committee Nomination & Remuneration Committee Chairman of Corporate Governance Committee	6/6	-	6/6	5/5	3/3	4/4	1/1
9. Mr. Ryuzo Nagaoka	Independent Director Audit Committee Chairman of Nomination & Remuneration Committee	6/6	-	6/6	-	3/3	-	1/1

Shareholders and Number of Shares

20 Major shareholders as of December 29th, 2017

Name of Major Shareholders	Holding as of December 29 th , 2017	
	Number of shares	% of shares
1. TOYO ENGINEERING CORPORATION	56,000,001	10.00
2. GLOBAL BUSINESS MANAGEMENT CO., LTD.	38,634,900	6.90
3. MR. HIRONOBU IRIYA	34,161,134	6.10
4. MR. SAKCHAI SAKCHAICHAROENKUL	33,900,000	6.05
5. THAI NVDR COMPANY LIMITED	33,042,556	5.90
6. MS. SURATANA TRINRATANA	15,835,948	2.83
7. MR. JARANAI LERTRATCHKUL	14,743,100	2.63
8. MS. KANTIKA TANTHUVANIT	9,458,041	1.69
9. MR. TIWA JARUKE	6,924,300	1.24
10. MR. PIRIYA WONGPHAYABAL	6,444,000	1.15
11. MRS. NIJAPORN CHARANACHITTA	5,297,207	0.95
12. MR. SATIT VIDDAYAKORN BY DENALI PRESTIGE ASSET MANAGEMENT LIMITED	5,260,700	0.94
13. MR. SUTHEP PATTANASIN	5,200,000	0.93
14. KGI SECURITIES (THAILAND) PUBLIC COMPANY LIMITED	5,102,200	0.91
15. MR. HIDETO KOYAMA	4,337,360	0.78
16. MR. WANCHAI RATINTHORN	4,300,000	0.77
17. KRUNGSRI THAI ALL STARS EQUITY FUND	4,107,200	0.73
18. MR. NUTTHAPONG PANRATANAMONGKOL	3,800,000	0.68
19. KRUNGSRI STAR EQUITY DIVIDEND FUND	3,450,162	0.62
20. KRUNGSRI THAI SMALL-MID CAP DIVIDEND LTF	3,369,600	0.60

Securities Holding Report of Board of Directors and Management as of 31 December 2017

Name	Position	Number of Shares Holding as of December 2016	Percentage (%)	Number of Shares Holding as of December 2017	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2017
1. Mr. Hironobu Iriya	Chairman of Board of Directors President & CEO	34,161,134	6.10	34,161,134	6.10	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
2. Mr. Piriya Wongphayabal	Vice Chairman of Board of Directors General Advisor	6,444,000	1.15	6,444,000	1.15	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
3. Mrs. Nijaporn Charanachitta	Director	5,297,207	0.95	5,297,207	0.95	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
4. Mr. Makoto Fusayama	Director	-	-	-	-	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
5. Mr. Tiwa Jaruke	Director Senior Vice President Project, Proposal and Engineering Nomination & Remuneration Committee Corporate Governance Committee	6,924,300	1.24	6,924,300	1.24	-
Spouse/Immature Children Related Juristic Person		1,170,000 -	0.21 -	1,170,000 -	0.21 -	- -
6. Ms. Kantika Tanthuvanit	Director Senior Vice President General Administration Corporate Governance Committee Company Secretary	9,458,041	1.69	9,458,041	1.69	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
7. Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	104,670	0.02	104,670	0.02	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
8. Mr. Gumthorn Utarnwuthipong	Independent Director Chairman of Risk Management Committee Chairman of Corporate Governance Committee Audit Committee Nomination & Remuneration Committee	114,700	0.02	114,700	0.02	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
9. Mr. Ryuzo Nagaoka	Independent Director Chairman of Nomination & Remuneration Committee Audit Committee	100,000	0.02	100,000	0.02	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -

Securities Holding Report of Board of Directors and Management as of 31st December 2017

Name	Position	Number of Shares Holding as of December 2016	Percentage (%)	Number of Shares Holding as of December 2017	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2017
10. Mr. Saneh Poorisat	Senior Vice President Engineering, Training and Task Force Risk Management Committee	1,550,750	0.28	1,550,750	0.28	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
11. Ms. Suratana Trinratana	Senior Vice President General Consultation of Myanmar Development Task Risk Management Committee	14,835,948	2.65	15,835,948	2.83	1,000,000
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
12. Mr. Wanchai Ratinthorn	Chief Project Officer Vice President Project Execution Division Risk Management Committee	4,300,000	0.77	4,300,000	0.77	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
13. Mr. Hideto Koyama	Chief Sales Officer Vice President Sales & Business Development Division	4,337,360	0.77	4,337,360	0.77	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
14. Mr. Gobchai Tanasugarn	Chief Finance Officer Vice President Finance & Accounting Division / Investor Relations Risk Management Committee	2,500,000	0.45	2,500,000	0.45	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
15. Mr. Jittapon Sittisak	Deputy Vice President Finance and Accounting Division	-	-	-	-	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
16. Mr. Paibun Sribanphai	Department Manager Accounting Department	100,000	0.02	100,000	0.02	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -
17. Ms. Nisachol Rittayamai	Department Manager Accounting Department (International)	-	-	-	-	-
Spouse/Immature Children Related Juristic Person		- -	- -	- -	- -	- -

Remuneration of Board of Directors / Sub-Committee / Managements

Remuneration in Cash for the year ended 31st December 2017

The remuneration of the Board of Directors in forms of annual remuneration amounted to THB 6,900,000

Directors' Name List	Position	Board of Directors	Directors' Remuneration in Board of Management and Sub-Committee					Total Remuneration (THB)
			Board of Management	Audit Committee	Nomination & Remuneration Committee	Risk Management Committee	CG Committee	
1. Mr. Hironobu Iriya	Chairman of Board of Director / President & CEO	600,000.00	700,000.00	-	-	-	-	1,300,000.00
2. Mr. Piriya Wongphayabal	Vice Chairman of Board of Director	500,000.00	-	-	-	-	-	500,000.00
3. Mr. Makoto Fusayama	Director	500,000.00	-	-	-	-	-	500,000.00
4. Mrs. Nijaporn Charanachitta	Director	500,000.00	-	-	-	-	-	500,000.00
5. Mr. Tiwa Jaruke	Director / Member of Board of Management / Member of Nomination & Remuneration Committee / Member of CG Committee	500,000.00	600,000.00	-	-	-	-	1,100,000.00
6. Ms. Kantika Tanthuvanit	Director / Member of Board of Management / Member of CG Committee	500,000.00	600,000.00	-	-	-	-	1,100,000.00
7. Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	500,000.00	-	200,000.00	-	-	-	700,000.00
8. Mr. Gumthorn Utharnwuthipong	Independent Director / Member of Audit Committee / Member of Nomination & Remuneration Committee / Chairman of Risk Management Committee / Chairman of CG Committee	500,000.00	-	100,000.00	-	-	-	600,000.00
9. Mr. Ryuzo Nagaoka	Independent Director / Member of Audit Committee / Chairman of Nomination & Remuneration Committee	500,000.00	-	100,000.00	-	-	-	600,000.00
Total		4,600,000.00	1,900,000.00	400,000.00	-	-	-	6,900,000.00

Remarks : In the year 2016 the company paid only fix remuneration to directors per annual and it conforms to the policies and the board resolutions.

Details of cash remuneration of Company's executives in forms of salary, bonus and benefit after retirement as follows :

Remuneration	Year 2017		Year 2015	
	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)
Salary	9	39,553,867.00	11	45,181,200.00
Bonus	9	3,401,500.00	11	8,568,300.00
Benefit after retirement	9	1,741,912.00	11	2,095,840.00
Total		44,697,279.00		55,845,340.00

Other Remunerations for the year ended 31st December 2017

Remuneration	Year 2017		Year 2016	
	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)
Contribution to Provident Fund	9	2,180,742.00	11	3,581,940.00
Total		2,180,742.00		3,581,940.00

- Remarks :**
- "Executive" means the first four top-ranking executives as well as all other 4th ranking equivalent, and accounting or finance executives of department head level and up.
 - Year 2016, there were eleven (11) executives, namely, Mr. Hironobu Iriya, Mr. Tiwa Jaruke, Ms. Kantika Tanthuvanit, Mr. Sanee Poorisat, Ms. Suratana Trinratana, Mr. Wanchai Ratinthorn, Mr. Hideto Koyama, Mr. Gobchai Tanasugarn, Mr. Jittapon Sittisak, Mr. Paibun Sribanphai and Ms. Nisachol Rittayamai.
 - Year 2017, there were nine (9) executives, namely, Mr. Hironobu Iriya, Mr. Tiwa Jaruke, Ms. Kantika Tanthuvanit, Mr. Sanee Poorisat, Ms. Suratana Trinratana, Mr. Gobchai Tanasugarn, Mr. Jittapon Sittisak, Mr. Paibun Sribanphai and Ms. Nisachol Rittayamai.

Marketing & Competition

1. Competitive Strategies

The Company has established a competitive strategy and business operation policy to strengthen its competitiveness for sustainable long term growth as follows:

Strengthening the Company's status as a Regional EPC Contractor and increasing its overseas market share

Contractor's reliability is a key factor because customers will generally select contractor based on past experiences and performances, as the investment in each project requires substantial funds. Therefore, an Integrated EPC Provider must ensure the delivery of quality work on time to fortify customers' confidence in the contractors' ability to meet required schedule and price.

In addition, TTCL has expanded its operations to other countries to capture high potential markets in the regional level. Such a strategy will not only increase the customer base for the Company, but also reduce the risk of relying solely on construction projects in the domestic market. To support such a strategy, the Company has established subsidiaries in key target countries such as Vietnam, the Republic of the Union of Myanmar, Malaysia and the United States of America.

The transitioning of the Company from a small EPC contractor to a Regional EPC Contractor enhances the Company's customer base and provides alternatives for taking on more diverse construction projects. Additionally, this move will

offer the Company advantages in terms of operating costs, benefiting from economy of scale.

Satisfactory proven track record

The Company exercises strategy to maintain long term relationships with clients by providing high quality of work, standard engineering services and continual after sales services that satisfy the clients' requirements. The Company has succeeded in this strategy, visible from trust and reliance given by recurring clients, for example, PTT Group, SCG Chemicals Group, Bayer Thai Co., Ltd., AGC Chemical (Thailand) Co., Ltd. (former name: THASCO Chemical Co., Ltd.), Thai Central Chemical Public Company Limited, Bayer Polyurethane (Shanghai) Co., Ltd. (China), Shin-Etsu Engineering Co., Ltd. (Japan) and Solvay SA (Belgium).

Relationship with manufacturers, suppliers of equipment and materials and subcontractors

The Company has maintained a long term sustainable relationship with the manufacturers, suppliers of equipment and construction materials as well as qualified, expert and responsible subcontractors in order for the Company to perform and deliver quality work to clients within the stipulated time schedule. Maintaining fine relationships with these service providers will help the Company to sustain its ability to compete with others and mitigate risks that may arise from being unable to procure equipment and material and skilled subcontractors for new projects in the future.

Utilizing advanced technology to perform engineering design.

Since the construction of petrochemical, petroleum and power plants require very complex designs, the Company therefore, brings forward advanced technology using 3D design programs such as the Plant Design System (PDS) and PDMS (Plant Design Management System) which help create accurate designs, minimizes errors, and able to examine the simulation of a real plant model design in 3D. Moreover, these programs also aid the customers' employees in conducting proper plant operation and maintenance safely.

Safety in the execution of operations

Safety is considered an important policy of the Company towards the employees and the subcontractors. The Company deems that any accident occur will be a loss, impacting the cost and increasing time spent, not to mention the impact on the morale of the related parties. Therefore, the Company has complied with the OHSAS 18001: 2007 standard to ensure the safety in every function and is proud to be certified with ISO 9001:2015, ISO 14001: 2015 and TIS 18001: 2011 by Intertek Industry and Certification Services (Thailand) Limited. In each project, the Company has arranged the accident protection equipment for the employees. Moreover, the Company has analyzed any possible accidents that might occur in every aspect in order to design the protection of loss and to contain the wide spread to nearby vicinity. In addition, the Company has a good safety track record recognized by clients, evident by various certificates received throughout nearly 30 years of the business operation.

Ability to meet customers' needs and requirements

The Company's customers can be divided into 3 main industries; petrochemical and chemical industries, power industry and other industries.

The Company has flexibility to accept projects, i.e. in addition to being a fully integrated engineering design, procurement of machinery and equipment and construction, the Company can undertake projects that require management in the fields of engineering, services and construction project (EPCm), as for some cases project owners only wish to receive the management service alone, which the Company takes into account the maximum needs and satisfaction of the project owner.

2. Petroleum and Petrochemical Industries Outlooks

From the Office of the National Economic and Social Development Board Report in November 2017, the Thai Economy in 2018 tends to grow well with a gradual acceleration, mainly supported by stronger global economic recovery and continual expansion in exports which, in turn, will further stimulate the manufacturing sector to clearly recover and further support overall economic growth. Likewise, total investment is likely to expand at the faster pace contributed by continual improvement of private investment which will be supported by a reduction in excess capacity in several key industries and better economic confidence with the following key assumptions:

Key Assumptions for Economic Forecast 2017 – 2018

	Actual		Forecasted as of Nov. 2017	
	2015	2016	2017	2018
World Economic Growth (%)	3.4	3.2	3.6	3.6
USA	2.9	1.5	2.2	2.3
EU	2.0	1.8	2.3	2.0
Japan	1.1	1.0	1.5	1.2
China	6.9	6.7	6.8	6.6
World Trade Volume Growth (%)	2.8	2.6	4.2	4.0
Exchange Rate	34.29	35.29	34.00	34.0 – 35.0
Crude Oil (USD/Barrel)	50.9	41.4	52.5	50.0 – 60.0
Export (%)	-4.1	-0.4	3.0	0.5 – 1.5
Import (%)	-10.8	-2.7	5.0	1.0 – 2.0
Tourism (Trillion THB)	1.54	1.76	1.98	2.21

Source: The Office of the National Economic and Social Development Board, 20th November 2017

The above report is consistent with the Ministry of Industry's Industrial Economy Report Quarter 3/2017 and Outlook Report which stated "For the Petrochemical Industry in Quarter 3 2017, the NAPHTHA price in Asia market was continually moving upward in line with the increase in oil price from the end of Quarter 3 and 4. The petrochemical industry is in the period of capacity expansion". This is considered as benefit for the Company's business opportunities from new petrochemical investment projects.

3. Status of Competition

As previously mentioned the Company is currently in transition into a Regional EPC contractor and undertaking larger size projects in overseas market. Therefore, business environment

and competition have significantly changed over the course. The global economy is still in a recovery stage and, therefore, the intensity of competition remains high.

Nevertheless, the Company found that project owners continue to value the quality of work, as well as the reliability and capability of EPC contractors as the most important factor. In addition, the Company's major competitors are large international EPC contractors in which the Company has been familiar with. This in turn has allowed the Company to continue to be at advantages in many aspects, including the emphasis of doing business in ASEAN countries; The Company and its subsidiaries have high experience and expertise in the area or better yet, a strong business network.

Sales Structure

Sale Structure of the company and its subsidiaries of each industry in 2015 – 2017 are as follows:-

Unit : Million Baht

Industry	Operated by	2015		2016		2017	
		Amount	%	Amount	%	Amount	%
Petrochemical	TTCL Plc.	5,647.34	26.24	7,217.64	36.04	5,005.71	47.91
	TTCL Vietnam Corporation Limited	575.53	2.67	538.03	2.69	253.27	2.42
	TTCL Malaysia Sdn. Bhd.	1,395.51	6.48	3,902.31	19.49	3,279.07	31.39
	ToyoThai-USA Corporation	236.62	1.10	-	-	-	-
Total Revenue from Petrochemical Construction		7,855.00	36.49	11,657.98	58.22	8,538.05	81.73
Power	TTCL Plc.	5,273.65	24.50	3,095.61	15.46	315.30	3.02
	Global New Energy Co., Ltd.	2,502.40	11.63	-	-	-	-
Total Revenue from Power Construction		7,776.05	36.13	3,095.61	15.46	315.30	3.02
Other	TTCL Plc.	5,134.46	23.85	4,635.41	23.15	839.60	8.04
Total Revenue from Other Construction		5,134.46	23.85	4,635.41	23.15	839.60	8.04
Construction Service Concession	Toyo Thai Power Myanmar Co., Ltd.	83.19	0.39	-	-	-	-
Total Revenue from Construction Service Concession		83.19	0.39	-	-	-	-
Electricity Generation	Toyo Thai Power Myanmar Co., Ltd.	674.99	3.14	635.45	3.17	753.16	7.21
	Bio Natural Energy Company Limited	-	-	-	-	0.997	0.01
Total Revenue from Electricity Generation		674.99	3.14	635.45	3.17	754.16	7.22
Grand Total		21,523.70	100.00	20,024.45	100.00	10,447.11	100.00

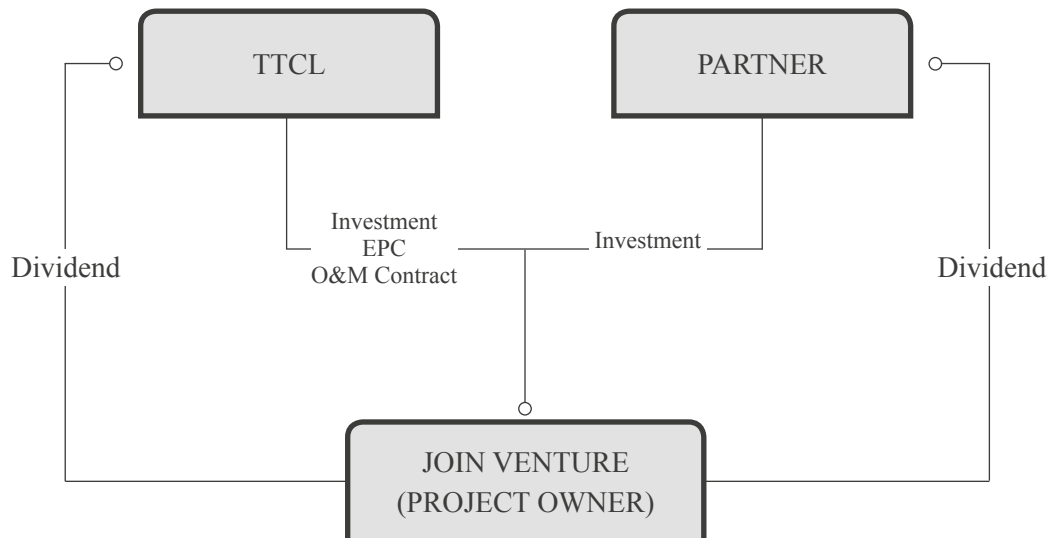
New Business Development Plan

New Business Model : The 2-Prong Strategy

Since 2010, TTCL has set the Strategic Business Direction to expand its businesses beyond its core business i.e. Integrated Engineering, Procurement and Construction (EPC) which TTCL has specialized for more than 30 years. With its strong financial status, TTCL has been able to not only undertake integrated

EPC construction work but also make parallel joint-investment upon a mutual agreement with the project owner and justify the return on investment. TTCL is on a prompted-stand to seek these opportunities for optimization of its assets, as shown in the diagram below.

Parallel Investment Strategy



Risk Management

TTCL Public Company Limited has realized the importance of risk management as an essential tool to enable the Company to achieve its objectives and goals, adding value to the Company, shareholders and stakeholders. The Board of Directors has stipulated the continual and effective risk management process to manage risks.

The risk management process has been systematically implemented through the Risk Management Working Group under the oversight of Risk Management Committee. Risk Management Working Group continually monitored and assessed main risk categories which are Strategic Risk, Operational Risk, Financial Risk and Compliance Risk. The assessment shall be included reviewed identified risks for any change and identified new risks by considering both internal and external risk factors that may affect the Company's objectives and goals. In addition, risk control measures have been determined by considering current circumstance and company's direction in order to control the risk at acceptable level. Responsible person and monitoring method are also determined to ensure that risk management processes are efficiently and effectively implemented.

The Company also encourages the adoption of risk management at all levels of the organization. Then "the project risk management working group" has been appointed in order to assess and monitor risk factors of the projects which may affect to project schedule, cost, compliance, occupational health and safety of concerned parties, environment, communities and company's reputation.

For the conclusion of 2017, there are identified risks at high and medium risk level as the following;

1. Risk of revenue from petroleum and petrochemical industrial cycle

As global and domestic economic are in recovery period along with the growth in downstream industries, the investment projects for new plant construction or existing plant expansion in petroleum and petrochemical industries are increased. However, the competition intensity in both domestic and oversea market remains high.

Since entrepreneur in petroleum and petrochemical industries are main customers for EPC Services of the Company. Then the Company has determined the policy and market plan to increase proportion of service in other industries such as chemical, energy or renewable energy industries including investment in potential projects which is not only to reduce the risk from the petroleum and petrochemical cycle but also increase the business opportunities of the Company in the future.

2. Risk of increasing numbers of new competitors

As the Company turned into Regional EPC contractor to undertake large scale projects with high valued in overseas market such as Vietnam, China, USA, Malaysia, Myanmar, Philippines and the Middle East countries. Consequently, Company's business environment and competition have significantly changed along with global economic recovery. Then competition intensity in domestic and oversea market is increased.

Besides the ability to meet customers' needs and requirements from past experience, reliability, capability and quality of work, the Company also has advantages in the emphasis of doing business in ASEAN countries which the Company and subsidiaries have an experience and acquaintance. In addition, the Company has lower operating cost and strong business network.

3. Risk of political instability and regulatory compliance of international project

Political instability in foreign country which may lead to change in policies, laws and regulations of government agencies probably affected to project execution, especially for project with high valued and long execution period. However, the Company has regularly monitored and determined appropriate risk treatment to response with the situation timely.

4. Financial Risk (i.e. Risk form currency exchange, Risk of income from investment, Risk associated with capital adequacy, Risk associated with fund commitment and Risk associated with cash flow problem)

According to the Company business plan for providing EPC services together with investment in the potential project. For large scale projects investment or EPC projects with no advance payment, if financial plan or project's progress was not achieved as planned, the liquidity and financial status of the Company may be significantly affected. However, before decided to invest in any project, the management would make an appropriate

selective screening by considering investment climate, project's feasibility, project's potential, qualification, experience and financial status of project's co-investor. Moreover, the stability and continuity of project's return should be studied and considered for investment worthiness. In addition, find out and compare the funding terms from each source, and select the one that would be suitable with the Company. In order to reduce the risk from currency exchange fluctuation which may affect estimated cost, the company manages the risk by means of Natural Hedge or entering into a Currency Forward Contracts with financial institutes. Furthermore, during project execution period, project manager shall closely monitor work progress against financial targets in order to control project's revenues and expenses according to the plan.

Good Corporate Governance

TTCL Public Company Limited has realized the Good Corporate Governance. The Company has established the good corporate governance policy and devised a clear policy for strict conformance and comply with regulations to the principles of good corporate governance for listed companies 2012 of The Stock Exchange of Thailand (SET) and the Corporate Governance Report of Thai Listed Companies (CGR) of Thai Institute of Directors (IOD), ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard) and The Office of Securities and Exchange Commission (SEC). The Governance Committee takes charge of considering and proposing to the Board of Directors the establishment and implementation of the policy and guidelines for their approval. For issues that have not yet been covered or implemented, the Management is to report to the Corporate Governance Committee for review on an annual basis.

Corporate Governance Policy:

The Company aims to operating under the principles of Good Corporate Governance which reflects the management with efficiency, transparency, and examinable, leading to the creating of the confidence and creditability to the shareholders, investors, the stakeholders, and all related parties. It directs to encourage the company's competitiveness, growth and long-term shareholder value, taking into account the interests of Company stakeholders. The principles and practices of Good Corporate Governance are presented in 5 categories, namely;

1. Rights of Shareholders
2. Equitable Treatment of Shareholders
3. Roles of Stakeholders
4. Disclosure and Transparency
5. Board of Directors Responsibilities

The principles through the organizational communication to director, management and employees

and can be found on the Company's website (www.ttcl.com).

Compliance with the Principles of Good Corporate Governance

The Company is committed to ensuring that the Company will strictly comply with corporate governance policies and best practice guidelines. The Company will continue to focus on developing and improving corporate governance. In 2017, the Company also received assessments by the various organizations and agencies, as follows:

- ❖ Scored full 100 points for the 2017 annual general meeting of shareholders (AGM Checklist) by Thai Investors Association (TIA).
- ❖ Rated "Excellent" according to Corporate Governance Report of Thai Listed Companies (CGR 2017) by the Thai Institute of Directors (IOD).
- ❖ Pass the SET Assessment criteria of the Thailand Sustainability Investment (THSI) for 2017.

TTCL's 2017 activities report of good corporate governance can be summarized as follows:

Section 1 Rights of Shareholders

The Company recognizes the importance of good corporate governance and values the shareholders' right by encourages the shareholders to exercise their rights including legal fundamental rights such as the right to attend and vote in the shareholders' meeting, the appointment or removal of directors, the remuneration of directors, the right to share in the profit (Dividend), the right to receive adequate information, etc. Beyond such fundamental rights, the Company endeavors to provide essential information to shareholders via website, to arrange the Company's site visits, etc.

The Company has a policy to support and facilitate the shareholders, including institutional investors, to attend the general meetings of shareholders by selecting the meeting venues where the mass transit system are available and sufficient for the shareholders to conveniently commute to attend the meetings. The Company provides opportunities for the shareholders to submit registration documents for attending the meeting in advance of the meeting date in order to minimize the time for documents verification on the meeting date. The Company also provides registration channels at the meeting venue specifically for individual shareholders and institutional investors and also arranges for a barcode system for registration and vote counting to expedite the registration and vote computation process. To facilitate the shareholders, the Company also provides stamp duty for the appointment of proxies.

Annual General Meeting of Shareholders (AGM):

The Company held the Annual General Meeting of Shareholders (AGM) every year within four months after the end of each fiscal year. If there is an urgent need to consider any special matter that may or in connection with the interests of shareholders, which need shareholders' approval, the Board of Directors can call an extraordinary meeting of shareholders on case by case.

In 2017, the Company organized AGM on April 7, 2017 at Head Office 27th Floor Sermmit Tower Sukhumvit 21 (Asoke) Road Bangkok and there was no extraordinary meeting of the Shareholders during the year, with a total attendance of 467 shareholders comprising of 116 shareholders and 351 representatives by proxy, representing 318,218,924 shares or 56.82 percent of the total issued share capital of the Company. The meeting was organized in accordance with the processes and procedures of the AGM Checklist, which prepared by Thai Investors Association (TIA) as follow:

Before the AGM:

- 1) Provide minority shareholders the opportunity to raise items for inclusion on the meeting agenda and nominate qualified director candidates to be elected individually at least three months ahead of the shareholders' meeting. The shareholders who wish to propose agenda must be one single shareholder or several shareholders together hold the Company's shares at least 5 percent of total voting rights of the Company. Invitations and notifications with guidelines and procedures will be delivered to shareholders through the Stock Exchange of Thailand's news portal and a posting on Company's website www.ttcl.com
- 2) The Company shall disseminate invitation notice, meeting agenda with the opinion of the Board of Directors and minutes of the previous AGM along with proxy forms, comprised of form A, B, and C (for foreign shareholders that have appointed custodians in Thailand), in accordance with the Ministry of Commerce, meeting map in both Thai and English via the Company's website at least 30 days in advance of the AGM and prior to the delivery of the meeting notice.
- 3) Disseminate the AGM meeting and other relevant documents notices to shareholders not less than 14 days prior to the meeting. This is to ensure that the information related to voting decision received by the shareholders is sufficient, accurate, complete and transparent. The information must also be announced in the newspapers in Thai for three consecutive days and at least three days prior to the AGM for the shareholders to prepare themselves in joining the meeting.

On the Date of the AGM:

- 1) Arranged each shareholder's meeting at a venue that is convenient, easy to access, and adequate size in Bangkok.
- 2) The Company's policy is to facilitate all shareholders, including major shareholders, minor shareholders, and institutional shareholders at the meeting date. The Company will make registration process available two hours prior to the meeting, by using bar code system to shorten the registration process. Furthermore, after this registration period has lapsed, shareholders who wish to attend the meeting can register to attend without losing their rights and assign adequate number of officers shall be assigned to welcome and check registration documents.
- 3) The bar code system was implemented to facilitate each shareholder's registration process and counting of vote for accuracy and more convenience.
- 4) The Company must not deprive the rights of shareholders to attend their meetings. All shareholders can exercise their rights to attend the entire meetings, provide opportunity for shareholders to raise questions as well as express their opinion independently within suitable time limit.
- 5) The Company's directors, subcommittee, management, auditors and legal representatives should attend the meeting. Before the meeting, the Chairman of the Board will clarify rules and criteria in relation to the meeting, such as the opening of the meetings, voting procedures and counting of shareholders' vote for each session, in accordance to the Company's Article of Association.
- 6) A legal advisor from IPCT Associates Law Office Co., Ltd. was assigned by the Company to review and inspect the validity of the proxy appointments, adequacy of quorum, and tabulation and reporting of votes. Therefore, the voting results for each agenda item were reported to the meeting in a timely, accurate and transparent manner.
- 7) The Company has specified director's interest in the invitation letter and in the AGM. If any directors have particular interest or involved in any agenda, chairman of the meeting must notify the participants prior to the meeting. The directors involved in the interests must not participate in the meeting and must abstain from voting on such matter.
- 8) The Meeting was convened according to the order of the agenda, no other agenda were proposed than those already specified in the invitation. The Company shall support the shareholders to exercise their rights in protecting their own interests by asking questions, expressing opinions, and making recommendations at the AGM. The shareholders also have rights to participate in the decision of important issues, which may affect the Company, for instance, the appointment or removal of directors, the selection of nominees to become independent directors, the approval of auditors, the dividend payment, the reduction or addition of capital funds, set or revises rules and regulations, and the approval of memorandum items, etc.

After the AGM:

- 1) The Company discloses the resolutions of the AGM along with the voting results on the following working day after the meeting to the Stock Exchange of Thailand (SET) and on the Company's website (www.ttcl.com).
- 2) The Company must prepare the minutes of the shareholder's meeting in Thai and English and shall notify the Stock Exchange of Thailand (SET) within 14 days after the meeting, in accordance to the SET regulations, and disseminate full details of the meeting. This includes complete and appropriate records of the meeting, the resolutions reached together with the number of approval, disapproval and abstain votes, questioning process of the shareholders in each session, along with the allocation of video recordings of the AGM for their acknowledgment in the Company's website (www.ttcl.com).
- 3) The Company considers the recommendations and opinions received from the shareholders in the quality assessment of the AGM to make improvement plan for the future AGM.

Section 2 Equitable Treatment of Shareholders

As stipulated in the Company's Corporate Governance Policy, all shareholders are entitled to shareholder's right and to be treated on an equitable and fair basis as follows;

- 2.1 The Company provides an opportunity for shareholders to propose agenda and to nominate director candidates to be elected in Annual General Meeting at least 3 months prior to the year ended. The Company also posted the criteria and procedures in relation thereto in the form of a newsletter to the Stock Exchange of Thailand and on the Company's website (www.ttcl.com).
- 2.2 The Company provides flexibilities to shareholders who cannot attend the meeting in person to assign proxies to the meeting and vote for them. The Company prepared proxy forms as prescribed by the Ministry of Commerce (Form A, B and C), whereby the shareholders may give their proxies voting instruction. The proxy forms were delivered (Form A and B) to the shareholders together with the invitation notice to the meeting. Additionally, the shareholders could download the proxy forms (Form A, B and C) from the Company's website.
- 2.3 The AGM shall be conducted according to the agenda notified in the notice and it is our policy not to add items to the agenda without advance notice to shareholders and to provide equal opportunities for shareholders to express their opinions, ask questions and exercise the rights to elect individual directors.
- 2.4 The Company issued only one class of shares, for which one share was equal to one vote. Shareholders vote on every item using the polling card distributed at the meeting. The Company would use a computer system to count the voting by deducting the abstaining votes or disapproving votes from the total shares represented in the Meeting.
- 2.5 Current information shall be published at the Company's website to inform shareholders of major Company's data and information which have changed, including information sheets disclosed in accordance with various

regulations. After disclosure to SET, the information shall be published at the Company's website both in Thai and English.

- 2.6 The Company clearly discloses shareholding structure of the Company and its subsidiaries to ensure shareholders that organization structure is transparent, verifiable, and does not constitute any forms of cross or pyramidal-shareholding structure.
- 2.7 The Company established ethical codes on maintaining confidential information and the use of inside information in the corporate governance manual. The corporate set policy on conflict of interest of Committee, Management and Employee, as part of code of business ethics and of code of conduct. Generally the corporate policy is set to avoid conflict of interest when corporate members focus on their private interest against corporate objectives and execution.
- 2.8 The Directors, Management and Management who related to finance and accounting, including Employee who possess the internal confidential information must avoid trading TTCL's shares with advantage of such information and refrain from the security trading within 45 days before disclosure of financial statement.
- 2.9 The Company has set the policy for the Directors, first four level management and Management who related to finance and accounting, including their spouses and dependent children who intend to trade TTCL's shares must report and disclose any change in the Company's

shareholding to the Securities and Exchange Commission (SEC) within 3 days and reported these to the Board of Directors. In 2017, the Board of Directors together held no more than 25% of Company issued and paid-up shares.

- 2.10 In case of connected transactions, the Company has complied in accordance with the Stock Exchange of Thailand (SET)'s rules, regulations, instructions, and notifications as well as in compliance with the requirement in information disclosure regarding connected transactions or acquisition/disposition of assets of the Company and its subsidiaries and also in compliance with the Thai Accounting Standard (TAS). The transaction shall be fair and at arm's length basis. The Company also disclosure details of the related transaction in the Annual Report with clarification of its reason and necessity.
- 2.11 In 2017, The Company has never been any case that the Company's directors and management abuse insider information to seek personal interests or others' interests. Including, 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 (SET) and the Office of the Securities and Exchange Commission (SEC).

Section 3 Right of Stakeholders

The corporate realizes the legitimate right of all groups of stakeholders, whether inside or outside the Company, such as shareholder, customer, business partners, business competitors, creditors, the public sector, employees, society, communities and the

environment and compiled policies and principles with in the Corporate Governance manual and Code of Conduct handbook, in order to create confidence and stability for the Company and its stakeholders and increase the ability of the Company to compete in the long term as detailed below:

3.1 Shareholder

The Company is determined to represent all shareholders efficiently through generating maximum long-term returns on investment and is committed to conducting business with transparency, to put in place reliable financial and accounting systems, and to deliver optimum shareholder satisfaction with regular and sustainable strong operational performance and continued growth. The Board of Director, Management and all employees shall perform duties with integrity and make decisions in good faith and in fairness to major and minor shareholders alike, as well as for the good of relevant parties. They shall refrain from any activities that could cause conflicts of interest and serve self-interest. Confidential information shall not be divulged to outside parties while simultaneously paying attention to accurate, complete and punctual disclosure of material information to all shareholders in response to their unwavering trust and support given to the Company and provide the investment returns that satisfy the shareholders the most.

3.2 Customer

The Company has a qualitative assurance policy and qualitative management system of ISO 9001:2015 that aims to build customer satisfactions shall be achieved by deliver quality products which meet their agreement, including to disclose complete, correct, sufficient and undistorted information on the products and services, provide a communication channel for customers to submit any complaint. Also, contracts and conditions mutually agreed upon shall

be complied with the Code of Conduct, Good Corporate Governance and law in a strict manner, safekeeping client information and confidentiality by not using the information for their own benefit.

3.3 Business Partners

The Company adheres to business operations on mutual benefits and complies with systematic operation, fair, transparent and supporting business partners as follows;

- Comply with agreed commercial terms, to notify business partners. Notify business partners on any point that cannot be fulfilled, in order to seek and obtain mutual solution.
- Select suppliers / contractors following Company procedure unless specifying in the contract.
- The Company has set up purchasing procedure, business partners should have their permanent establishment. Successful partners will be evaluated on the basis of price, quality of goods and services, satisfactory performance records, etc.
- The Company refrains from demanding, accepting or engaging in bribery to business partners. Keep business partners confidential information according to secrecy agreement.

3.4 Business Competitors

The Company has a policy to operate in an upright and transparent manner in dealings with its business competitors. The framework of this policy has been shaped by related laws and regulations, as well as concepts related to Business Code of Conduct. It does not seek to find information about Competitors through dishonest or inappropriate means. The Company does not engage in slander or discrediting its competitors.

3.5 Creditors

The Company makes sure to strictly comply with all terms of any loan agreement it enters into in a responsible and transparent manner especially guarantee condition, capital management and payment. The Company will not conceal any information or hide any facts that might possibly result in the realization of losses for its creditors. In the event that the Company unable to meet any of the criteria it agreed to, it will make immediate notification to that particular creditor to allow for a course of action to be taken to rectify the situation.

3.6 The Government Sector

The Company strictly complies with the laws, rules and regulations of the government sectors both in Thailand and abroad based on transparency and honesty which prevents Company and the nation from gaining bad reputations. The Company is prompted to provide its information and to participate in activities arranged by the authorities.

3.7 Employees

The Company has always regarded its employees as valuable resources, whose roles are fundamental to the success of the Company. Accordingly, the Company places importance on the welfare and safety of its employees, as well as providing every employee with an opportunity to improve its career path on an equitable basis. The following are guidelines to achieving this:

- Recruitment, selection and hiring are to be based on fairness and equal opportunities to all applicants, with priority given to knowledgeable, competent, experienced and righteous persons for a given position and attitude compatible with the Company's corporate values.
- The Company establishes offering appropriate compensation and welfare

to its employees as fitting their knowledge, responsibilities. The Company measures the performances of its personnel and regularly reviews its compensation and welfare in line with its short-term and long-term performances.

- Short-term compensation, the Company has defines comparable rates to those in the same industry. Its also provides bonuses in line with the company's performance.
- Long-term compensation, the Company emphasizes sustainable welfare for the staff such as provident fund to enhance the security of lives after the end of employment or retirement. Employee contributes 2% - 6% and the Company contributes 2% - 9% from the employee monthly salary subject to company's regulations.
- The Company provides fundamental welfare and benefits as required by law, as well as social security, compensation fund and constantly communicates all benefits to its employees.
- In addition to those as prescribed by law, the Company also provides other welfare to its employees, such as health insurance, which covers outpatient and inpatient treatment and dental care, life insurance, personal accident insurance, annual health check-up, and in-house medical and nursing treatment with doctors and nurses standing by at the Company's office during working hours, as well as providing healthcare measure. Furthermore, the Company encourages its employees to exercise for good health by providing facilities, sport equipment and other sport activities, such as yoga

and aerobics, etc. The Company also promotes good family relationship by providing kids' room, breastfeeding room and activities to encourage the children's employees in learning. to support employees who have the necessity to bring their children to the work place. In addition, the Company also provides financial aid to its employees in various cases, such as wedding, childbirth, ordination, death of close relatives and natural disasters, etc.

- Giving priority and promoting staff's development of their knowledge and capacities by encouraging them to attend training curriculum in the short and long terms, academic and technical to enhance their skills and competency. In 2017, the Company has 2,568 employees and attended courses and trainings for an average of 14.30 hours/person/year.
- Creating the work environment on the basis of occupational health and safety for life and property of staff and the Company, whereby the Company takes into account the safety of staff operation and as such, organizes regular training provided before commencing of works and specialty training in specific area of risks so that they can identify any exposure and protection, consequently, promoting a more safety working environment. In 2017, the Company had total workers man hours at 16,996,765 working man hours with the Injury Frequency Rate (I.F.R.) at 0.06 case per 200,000 working hours (Incidence rates of nonfatal occupational injuries and illnesses by case type and ownership, selected industries, 2016 (Construction),

Bureau of Labor Statistics, U.S. Department of Labor : BLS = 3.5).

3.8 Respect for Human Rights

The Company has policy and practices towards the respect of human rights. It is the responsibility of every director, management, and employee of the Company to fully respect the human rights that specified in Code of Conduct such as;

- We realize and respect the history, culture and customs of each country in which we operate.
- We respect human rights and refrain from discrimination by race, religion, creed, gender, social status, nationality, age, disability, not associating with forced labor, child labor and human trafficking.
- We maintain a work environment that is free from discrimination and harassment. Great care is taken not to cause recourse to legal proceeding as a consequence of discrimination, harassment, abuse of power, etc.

3.9 Respect intellectual properties, patented

The Company also emphasizes on respect intellectual properties, patented or otherwise, of customers, partners and others and protects those of TTCL Policy and Guidelines as follows;

- Recognize the value of confidential and proprietary information of TTCL. We protect such information in accordance with our Information Security Policy.
- Not divulge confidential information of TTCL to any third parties. We shall not use confidential and proprietary information for personal interests or any purposes against the interests of TTCL.
- Treat the intellectual property as well as confidential and proprietary information

of our customers, partners and other with the greatest care in accordance with applicable laws and regulations.

3.10 Community and Society

The Company realizes the importance of Corporate Social Responsibility (CSR), by establishing CSR Policy, and conducts activities that support CSR and community development. Include Social and Community, Environmental Conservation and Educational etc.

3.11 Responsibility towards Environment and Resources

The Company has Occupational Health, Safety and Environment policy, operate business by adopting the provisions of Occupational Health and Safety Management System (OHSAS 18001:2007, TIS 18001:2011 and ISO 14001:2015) Encourages employee education and training with regard to environmental matters. We also promote the development and conservation activities of energy and environment which are achieved by encouragement of efficient resource usage. We issue campaign activities to promote economical and efficient resource usage such as saving box project, the campaigns for electric energy and disposal of garbage and waste from both the Company office and project site. This is to make all employees aware of the duties and responsibilities on community and environment.

3.12 Anti-Corruption

TTCL Public Company Limited is aware of the importance of Anti-Corruption and emphasizes the management of business ethics; fairness, transparency and accountability; specifically in related processes or risk of corruption in all forms, either directly or indirectly according to good corporate governance in order to enhance stakeholders' trust and indoctrinate good awareness and establish good value for directors,

managements and employees in all level of the company.

Anti-Corruption Policy: The Company established the Anti-Corruption policy and has been reviewed and approved by the Board of Directors; "Director, Management and employee are prohibited from operating or accepting every type of corruption both direct or indirect manner covering every business including subsidiaries, associated companies, or any other companies under its control and company representative in every countries including people relating to its business operations to comply with Anti-Corruption Policy. The Anti-Corruption Policy is needed to be reviewed regularly, including with a possible revision of such policy and implementation provision shall comply with business transformation, rules, regulations and laws" Apart from the policy, the Company provides definitions of the Anti-Corruption policy, roles and responsibilities, Anti-Corruption guidelines and measures /operational.

The Company provides the Anti-Corruption guidelines concerning with political contributions, corporate philanthropy or public charity, sponsorship, giving and receiving gifts, hospitality and other Benefits. The Director, Management and employees are required to comply with this guideline.

In the year 2017, the Company has followed the guidelines for giving or receiving gifts, hospitality and other benefits. Furthermore, the Company communicates to the executive and all employees in order to be a good standard.

Corruption Risk Assessment:

The Company conducts meeting among relevant units whose transactions may create corruption risks, such as Project, Procurement, HR. & Administration, Sales, Finance & Accounting, etc. to assess corruption risk. Cause and chances of the corruption risks in the entire business process are

identified while practice guidelines, regulations and rules used for control such risks are prepared.

In 2017, the Company has appointed the Risk Management working group and Corruption Risk Assessment working group consisting of representatives from related divisions, to regularly review and assess corruption risks that may arise in each process which cover bribery, business relationship, Conflict of interest, facilitation, political contribution, donations for charity, public benefit activities, sponsorships, tax evasion or avoidance, through considering likelihood and impact of corruption on business activities. Furthermore, determine guideline, rules, regulations and standard for risk control. The company reassessed for corruption risk at least twice a year.

As the conclusion of the year 2017, the corruption risk of the Company is at moderate level and the most of risk level has not changed except risk regarding Company, authorized person or representative give gifts or other expenses in order to build up business relationship with customer, business partners or related persons more than necessary which might be corruption has been decreased the risk level.

Monitoring and review: the Corporate Governance Committee shall review the Anti-Corruption policy on an annual basis and propose the amendment to the board for approval. The Corporate Governance Committee will also monitor the implementation of the policy and make recommendations accordingly.

The Company has the internal control system and risk management that is appropriate, including the internal control measures are adequate to prevent fraudulent risks.

Details of the internal control and risk management in 2017 are referred to “The Internal Control and Risk Management”.

Dissemination and Promotion of the Anti-Corruption policy: In 2017, the Company has implemented the Anti-Corruption policy related as below.

- Promote the Anti-Corruption policy and practice them both inside and outside the Company. The Company announces the policy to the Director, Management and employees. For external communication, the Company publishes the policy via its website (www.ttcl.com).
- Provide knowledge of anti-corruption policies and practices for new employee orientation as well as management and employees for understanding and implementing of the policy.

Committed to Countering Corruption: In addition to the above activities, the Company has participated with external agencies in the following activities.

- The Company signed on declaration to join the Thailand’s Private Sector Collective Action Coalition Against Corruption (CAC) Project and has been accepted on December 26th, 2014.
- The Company developed a self-assessment form for Anti-Corruption measures, which accompanies supporting evidence related to business policy, measures and procedures and its internal control system. In addition, the Audit Committee has also reviewed the Company’s completeness and adequacy of Anti-Corruption practice to meet requirements of Collective Action Coalition’s certification process. All documents were submitted to the CAC panel as part of the Company’s application for CAC membership at the end of Quarter 3/2016. The Company was certified

by Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) Project in October 14th, 2016.

- In the year 2017, the Company has issued a letter to the vendors and business partners for the purpose of prevention of exploitation and conflict of interests, which is consistent with good corporate governance.
- The Company encourages Director, Management and employees to attend trainings and seminars on Anti-Corruption held by external organizations.

3.13 Reporting and Whistleblowing Channel

The Company arranges for whistle-blowing channels, complaint-filing of any behavior which may indicate corruption or misconduct. Employees and stakeholders who detect or have reasonable grounds for suspecting Misconduct should report to one of the following channels;

➤ **channel 1 by E-mail:**

To: Internal Audit or Company Secretary

e-mail: ir@ttcl.com

➤ **channel 2 by Letter:**

To: Internal Audit or Company Secretary
address:

TTCL Public Company Limited,
159/41-44, Sermmmit Tower 27th - 30th
Floor, Soi Sukhumvit 21 (Asoke),
North Klongtoey, Wattana, Bangkok
10110, Thailand.

3.14 Whistle-Blowing Measures and Protection

The Company stipulates measures to protect and maintain confidentiality including actions taken upon receipt of complaint as follows:

Measurement of protecting the violation's reporters and appellants: The Company shall provide

appropriate protection to the persons who report misconduct and other related persons in good faith. Including report-related information shall be kept confidential and shall not be disclosed to unrelated person except the disclosure is required by law. In the event where there is clear evidence that whistleblowers make a false report, the Company shall undertake as applicable to protect the reputation of subject of a report.

Procedure after receiving complaint: Upon receipt of complaint, the Company will complaint verification on the line of command (An Investigator must not possess any conflict of interest with regards to a complaint under investigation), then, the Company will appoint an investigation committee as appropriate and reported to the Whistleblower, Subject of a complaint, Investigation Participant and any other relevant persons. Disciplinary action shall be in line with the Employee's Disciplinary Action Regulations issued by the Company and/or relevant laws.

In 2017, the Company did not receive any complaints regarding bribery and corruption, as well as no legal dispute concerning, human rights and the environment.

Section 4 Disclosure and Transparency

The policy on correct, complete and punctual disclosure of material financial and non-financial information through dissemination channels of the Stock Exchange of Thailand and investor relations section on corporate website in both English and Thai languages so as to provide equitable and credible access opportunity for shareholders, institution investors and any persons interested in obtaining such information, as follows;

4.1 Information Disclose in the Company's Website

To ensure that the shareholders, investors, and interested persons can quickly search and retrieve the

Company's public information, the Company provided the following information in both Thai and English via Company's website (www.ttcl.com).

- **About TTCL Public Company Limited** comprises of visions, missions, business structure, organization charts, nature of business and competition, financial and operation information, risk factors etc.
- **Good Corporate Governance (CG)** comprises of Code of Business Ethics, Code of Conduct, Corporate Governance Policy, Anti-Corruption Policy, Role and Responsibilities of Board of Directors, Management and Sub-Committees etc.
- **Investor Relations (IR)** comprises of financial information, stock information, shareholder information, annual general meeting of shareholders, minutes of the latest annual general meeting of shareholders and publish notice annual report within 120 days after each financial year-end etc.
- **Corporate Social Responsibility (CSR)** comprises of CSR activities, for example, Educational Support Project, Environmental Development Project, Social Support Project, Human Resources Development Program and etc.
- **Corporate News** comprises of executives news, Chief Executive Officer's (CEO) articles, etc.

4.2 Disclosure Information of Board of Directors and Executive Management Remuneration Fee and Shareholding

Information of the Board of Directors and executive management remuneration fee and shareholding must be reported in the annual registration statement (Form 56-1), annual report (Form 56-2), and also published at the Company's

website. Under Article 59 of the Securities and Securities Exchange Act, directors and management must report their share portfolios with each purchase, sale, or transfer of shares to SEC.

The Company establishes policy regarding report of interested of directors and management which required them to report the Company, their or their related persons' interest, 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 by the Capital Market Supervisory Board.

4.3 Financial Reports Preparation

The Company provides report of financial statements together with report of auditor in annual report and using appropriate and consistent accounting policy, and with reasonable and circumspect considering to enhance the stakeholders' confidence to the financial reports. The Board of Directors has appointed the Audit Committee to assume key duties and responsibilities of reviewing the Company's financial statements and operation reports to ensure its correctness and completeness. In addition, the Board of Directors provides Report of the Board of Directors' Responsibilities for Financial Statements and the Company establishes the internal control policy within each department or section to prevent confidential information from being disclosed to the public prior to formal announcement.

In 2017, the auditors from Pricewaterhouse-Coopers ABAS Limited, the Company's external auditors had knowledge, competence, independency, and was approved by the Office of the SEC. The Company's financial statements were approved with unqualified opinion and accurate in accordance with the generally accepted accounting principles, and assented by the Audit Committee/the Board of Directors before disclosing to shareholders.

The Company has to prevent confidential information from being disclosed to the public prior to formal announcement. Employees must not apply the Company's confidential information for personal or others' gains. They should maintain inside information and sensitive documents that could lead to undue exploitation for themselves, their families, or their associates, including any information influencing stock prices and the Company's proprietary commercial secrets, formula, and inventions. Those who disclose important information and news to outsiders without approval from the Chief Executive Officer shall be subject to disciplinary action according to Company procedures and may face legal action.

4.4 Disclosure Information of the Company

The Company shall disclose information on material matters regarding the Company, including financial reports, non-financial information and other information as stipulated by SET and SEC that are accurate, clear, complete, easy to understand, transparent, adequate, reliable and timely, and which have been screened according to prescribed procedures. The Company disclosed information to ensure equitable access by shareholders in the following channels:

- SET's Community Portal system and SEC.
- Annual Registration Statement (Form 56-1) and Annual Report (Form 56-2).
- Company's website at www.ttcl.com in both Thai and English.
- Company's visit and analysts meetings.
- Road shows for both domestic and overseas investors.
- Annual exhibition such as SET in the City and Money Expo.
- Invitation to the AGM via post.

4.5 Customer Satisfaction Evaluation

The Company is committed to operate its business by considering to the most benefit of the customers. The Company has therefore prepared a customer satisfaction evaluation form. Each customer assesses the performance of the Company including recommendation after the project has been completed. The Company sets the following topics for evaluation:

1. Engineering;
2. Procurement;
3. Construction.

The customer satisfaction level is divided into 4 levels:

- 4.01-5.00 highly satisfied;
- 3.51-4.00 satisfied;
- 2.51-3.50 less satisfied;
- 1.00-2.50 not satisfied.

In the year 2017, the Company has been evaluated from customers, which the customer satisfaction result is at 'satisfied' level with average score of 3.90 of 5. The results of customer satisfaction evaluation are applied to improve the Company's performance being more efficient and sustainable.

Furthermore, the Company has been trusted by the existing customers who are satisfied and confident in the Company's work performance. In 2017, the Company received the opportunity from its existing customers to participate in 14 bidding projects.

4.6 Investor Relations (IR)

TTCL Public Company Limited attaches great importance to investor relations. Company has set up the Investor Relations Department as a focal point in conducting proactive investor relations activities, according to best practices of leading international organizations, to promote effective communication channels with investors, analysts and other related

parties. Opportunities are also provided for investors to raise questions and receive Company information through various channels, such as the Company's road shows are participated in with domestic and international investors; presentations for analyst meetings; report on the operations of Investor Relations to the Board of Directors quarterly; publish the results of the operation in webcast on the Company's website; provide shareholders and institutional investors to visit and meet management in order to generate understandings in the business of the Company.

To conduct the above activities, the Company adheres to the basic principles and practices of "Investor Relations Code of conduct" published by Good governance development & Alliance department, The stock exchange of Thailand, 2014, as a framework. When confronting difficult situations, Investor Relations Officers should select the best alternative that does not violate the four principles which are;

- 1) Disclosing material information accurately, sufficiently and in timely fashion.
- 2) Not using inside information for their own or their related parties' benefit.
- 3) Disclosing material information fairly and equitably. All stakeholders must be able to access to the information and conveniently contact Investor Relations Officers for clarification.
- 4) Performing their duties with professionalism, integrity and equitability. Preferential treatment that may undermine the benefits of the Company and all stakeholders is not acceptable.

Investor or the others who may interest could make inquiries to investor relations department via the following channels;

Investor Relations (IR)

Mr. Gobchai Tanasugarn

Chief Finance Officer (CFO),

Vice President Finance & Accounting Division and Investor Relation

Address: *TTCL Public Company Limited*

*159/41-44 Sermmmit Tower 27th - 30th Floor,
Soi Sukhumvit 21 (Asoke), North Klongtoey,
Wattana, Bangkok 10110, Thailand.*

Telephone: 0-2260-8505

Fax: 0-2260-8525-6

E-mail: ir@ttcl.com

In 2017, there was no action taken against the Company by the relevant regulators on the basis of any non-disclosure of any material information within the requisite timeframe.

Section 5 Board Responsibilities

The Corporate Board consists of qualified and experienced in development and stipulation business trends, policy and corporate strategy with corporate objective to internal control system, internal audit, risk management and revision procedure to ensure that operation is compliance with applicable laws and reasonable decision.

5.1 The Board of Directors

- 1) The Board of Directors represent variety from a range of perspectives including gender, age, well knowledge, ability and experienced in fields such as engineer, petroleum, petrochemicals, energy, accounting and finance, management, law and support strategic plans that are beneficial to the Company's business. The Board of Directors understands its responsibilities in upholding the law and adhering to all regulations and rules, as well

as principles of Good Corporate Governance. It must avoid any actions which would be against the best interests of the Company and avoid conflicts of interest with the Company that would decrease efficiencies.

- 2) The Company shall have a Board of Directors consisting of executive directors, non-executive directors and independent directors at least five (5) directors but not exceeding twenty (20) persons (At least one-third must be independent directors of the total number of Board members and must be equivalent or more than 3 members). Half of the directors shall have place of residences in the Kingdom of Thailand.

As of December 31st, 2017. Board of Directors are consists of 9 Directors;

- 3 members of Executive directors (33%)
 - 6 members of non-executive directors (67%) (there were totally 3 independent directors to be at one-third of the total number of Board members or the proportion accounts for 33.33%).
- 3) The Board of Directors has the duty determining the Company's vision, mission, the business direction and the overall strategy for the Company, with an annual revision and approval. Including, oversee and monitor the implementation of the Company's strategies by quarterly reporting the Company's performance to the Board of Directors. In 2017, the Board of Directors meeting no. 1/2017 considers and reviews the company's vision and business strategies plan to keep pace with the current economic and social conditions also shapes the company's management to ensure that the executives and employees are working towards to same goal.

Details of Roles and Responsibilities of the subcommittees are referred to "Roles and Responsibilities".

5.2 Subcommittee

The Board of Directors nominates the following subcommittees;

1) Audit Committee: The Board of Directors has appointed the Audit Committee since December 9th, 2008. Consists of three (3) independent directors, at least one (1) of whom has knowledge and understanding or experience in accounting or finance. The committee has the duty in monitoring the Company's operations. To reviewing of the financial reports, the internal control system and internal audit system. Considering and selecting or removal the Company's auditor and inclusive propose compensation.

2) Nomination and Remuneration Committee: The Board of Directors has appointed the Nomination and Remuneration Committee since November 12th, 2010. Consists of three (3) directors, being two (2) independent directors and one (1) board of management. The committee has the duty in considering rules and procedures for recruiting qualified personnel to take position as directors and management, in accordance with the required recruiting process, and consider the criteria and forms of remuneration of directors and management, and offer opinions to the Board of Directors for further consideration.

3) Risk Management Committee: The Board of Directors has appointed the Risk Management Committee since November 12th, 2010. Consists of five (5) directors,

being one (1) independent director and four (4) board of management. The committee has the duty in establishing and implementing a risk management framework that is suitable and practical for efficient business management, as well as meeting international standards throughout the organization (including the Company and its subsidiaries).

4) Corporate Governance Committee:

The Board of Directors has appointed the Corporate Governance Committee since November 14th, 2014. Consists of seven (7) directors, being one (1) independent director, two (2) board of managements and four (4) managements. The committee has the duty in reviewing Corporate Governance Policy and its Code of Conduct and to conduct self-evaluation for sufficiency of Anti-corruption practices as it is one of the Anti-corruption progress indicators of Thailand Private Sector Collective Action Coalition Against Corruption.

Details of Roles and Responsibilities of the subcommittees are referred to “Roles and Responsibilities”.

5.3 Chairman of the Board and President & CEO

The Principles of Good Corporate Governance require that the Chairman should act as an Independent Director, although this is not the case presently. However, the Chairman is a highly knowledgeable and experienced individual who is recognized both domestically and internationally for his ability to perform his duties independently, and this will help the Company to be more secure and progress in an efficient way.

Details of Roles and Responsibilities of the President & CEO are referred to “Roles and Responsibilities”.

5.4 Nomination of Board Members

- 1) Regarding the selection of qualified candidates for nomination as directors in replacement of those who are retired by rotation, the Company gives the opportunity to our shareholders to nominate candidates with qualifications required by Securities and Exchange laws and by the Company’s regulations to be elected as directors. Announcement has been posted on the Company’s website to invite nomination from shareholders.
- 2) The Nomination and Remuneration Committee will then select qualified candidates for variety and good mix of gender, age, knowledge, expertise, experience and skills necessary to support strategic plans and good corporate governance principle and propose to the Board of Directors for consideration.
- 3) After the Board’s agreement, the list of such candidates will be proposed to the Annual General Meeting of Shareholders to approve the election by majority votes.

Details of Nominating for Directors and Member of Board of Management are referred to “Roles and Responsibilities”.

5.5 The directorship term

- 1) Terms of Board of Directors has been definitely prescribed in articles of association of the Company that one-third of the directors who has longest term should be retired. If it is not a multiple of three, then the number nearest to one-third (1/3) must

retire from office. In choosing those directors who retire, the length of service on the board should be considered the Directors who occupy the position for longest period shall retire. Nevertheless, a retiring director is eligible for re-election.

- 2) As for independent directors, The Company's independent director shall be appointed for a term of 3 years and being re-election no more than 2 times continuously (9 years). At end of the term, the Board of Directors may nominate their names to be re-elected at the Annual General Meeting of Shareholders as deemed fit.
- 3) The Board of Directors has set stipulated the numbers of companies that a director shall possess the position of director in other listed companies of no more than 5 companies. In case the President & CEO is appointed as director of other listed company, the matter will be proposed to the Board of Directors for approval.

5.6 Control of Subsidiaries and Associated Companies' Business Operations

The Company's Board of Directors shall be responsible for business management and operation of the Company as well as the operation of subsidiaries in compliance with our main business plan, with honesty and maximum benefits for the Company and its shareholders. Under the laws as well as objectives and Articles of Association of the Company and must control the operations of the Company and subsidiaries to comply with the regulations of The Stock Exchange of Thailand (SET), the operation of subsidiaries or associated companies are as follows;

- 1) The Board of Directors has delegated to the President and CEO the authority to appoint

eligible persons for the director and/or executive position of the Board of Directors of the subsidiaries and associates. Selection criteria of the director and/or executive position is based on qualification, skill and working experiences.

- 2) The Board of Directors designs the organization structure including management of subsidiaries or associated companies to maximize their business operation efficiency and suit current business circumstances.
- 3) The Board of Directors monitor and control the business operation of subsidiaries or associated companies to meet the approved business policy, goals, operation plan, strategy and budget.
- 4) The Board of Directors shall consider approving the budget and spending for investment, operations, transactions of acquisition or disposition of assets, borrowing from financial institutions, lending, capital increase and decrease or Company dissolution that may significantly affect subsidiaries or associated companies' operations.
- 5) The nominated director and/or executive shall operate and oversee the activities of the subsidiaries and associates in accordance with the Company's policies and report performance to the Board of Management or Board of Directors of the Company as deem appropriate.

5.7 Board of Directors' meeting

- 1) Board meetings are scheduled in advance so that directors can schedule themselves to attend. The Company is responsible for setting agenda clearly and delivering relevant documents to all directors well in

advance at least 14 days prior to meeting date to give them enough time to study, deliberate, make sound decisions on all agenda items. In emergency or necessary case for protecting the Company's right or benefit, a meeting may be called by other method and the meeting date may be arranged sooner.

- 2) According to the Company's article of association, the Board of Directors shall hold a meeting at least once in every three (3) months and a quorum of a meeting of the Board of Directors requires at least half (1/2) of total number of directors. As the Company is committed to comply with the principles of good corporate governance, the Board of Directors has determined the charter of the Board of Directors covering a quorum of a meeting which requires at least two-thirds (2/3) of all directors. Including, all resolutions of the meeting require at least two-thirds (2/3) of all directors. In the absence of the chairman, directors attending the meeting shall elect one of them to act as chairman of that meeting.
- 3) All resolutions of the meeting require a majority vote. Each Director has one vote but a Director who has any interest in any matter shall not cast a vote on that matter. In case of equal vote event, the chairman of the meeting will cast his vote to reach a resolution.
- 4) A clear agenda is set for each meeting and adequate supporting documents are distributed sufficiently in advance to allow directors to thoroughly review the details. Minutes of Board meetings, including its meeting outcomes must be made clear for future reference.

- 5) The Company nominates a secretary, organizer for the meeting arrangement, invitation letter sending, minutes of meeting record and other duties that are related to general responsibility as well as information filing of Committee and Management with their accomplices. Educational background, work experience, and training records of the Company secretary mentioned above are provided in company secretary.
- 6) In 2017, the Company held a total of six (6) Board of Directors Meetings and one (1) Non-executive Directors Meeting.

5.8 Board Approval Authority

The Board of Directors: The Board of Directors has authority to approve in the general operation such as asset purchasing, investment, and loans in excess of the Board of Management authority, including determining and reviewing vision, mission, and strategy in operations, risk management policy, budget plan and annual business plan. Furthermore, determining objective, monitor and evaluate the performance according to the plan.

The Board of Management: the Board of Directors may appoint the Board of Management on a case by case basis and have the power to approve the following financial transactions.

- a) In case that the business plan or the annual budget has already been approved by BOD, the BOM may execute such matters without financial constraints.
- b) In case that the financial transaction is in the condition other than a) BOM has an executable limit of Baht 20 million.

President & CEO: For administration of the company, he may engage into business contract within the limit that a board of management could approve, pre-approved by BOD and has the authority

to approve within the limit up to 5 (five) million Baht for the transaction that the BOD or BOM did not specifically approve.

Details of Board approval authority, the Board of Management, President & CEO are referred to “Roles and Responsibilities”.

5.9 Remuneration for Directors and Management

Remuneration for Directors: The Company has policy to compensate Directors at reasonable levels to motivate and retain qualified directors, or at levels comparable to industrial practices. The Nomination and Remuneration Committee shall consider remuneration of the directors before proposing to the Shareholders’ annual meeting for approval.

Remuneration for Management: Remuneration for the management 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 management.

Details of remuneration payments to Directors and management in 2016 are referred to “Remuneration of the Board of Director & Management”.

5.10 Board of Directors and Subcommittees Self-assessment

The Company organizes the self-assessment once a year to allow the directors, subcommittees and each individual to review the previous performance to improve the board performance. The evaluation criteria and process are as follow;

- 1) The Company uses the self-assessment form by the Stock Exchange of Thailand as a guideline. The self-assessment is annually reviewed by the Nomination and Remuneration Committee to cover all aspects of the Board’s performance and to

fit the Company’s nature of business and environment. The self-assessment forms compose of (1) the self-assessment form of the Board of Directors (2) the self-assessment form of Subcommittee (3) the self-assessment form of individual.

- 2) The company secretary will gather all the self-assessment forms, score and present to the Nomination and Remuneration Committee.
- 3) The Nomination and Remuneration Committee will present the evaluation result to the board of directors for acknowledge and use as guidelines in improving the board management and potential for individual directors.
- 4) The criteria for the evaluation represent the percentage in each category are as follows:
 - Over 85% = Excellent
 - Over 75% = Very Good
 - Over 65% = Good
 - Over 50% = Satisfactory
 - Under 50% = Need Improvement

Self-assessment of the Board of Directors:

The self-assessment form of the Board of Directors consists of 4 main items i.e. 1) Board structure and qualifications 2) The board meeting 3) Roles, duties and responsibilities of the board of director 4) Others. *The assessment result for the year 2017 revealed that the Board of Directors has been rated “Excellent”.*

Self-assessment of Subcommittee:

The self-assessment form of subcommittee consists of 3 main items i.e. 1) Board structure and qualifications 2) The committee meeting 3) Roles, duties and responsibilities of particular committee. The assessment result for the year 2017 revealed that

the Subcommittee as follow;

- *Audit Committee has been rated “Excellent”*
- *Nomination & Remuneration Committee has been rated “Excellent”*
- *Risk Management Committee has been rated “Excellent”*
- *Corporate Governance Committee has been rated “Excellent”*

Individual self-assessment:

The individual self-assessment form consists of 3 main items i.e. 1) Qualifications 2) Meeting 3) Roles, duties and responsibilities of the individual. *The individual self-assessment result for the year 2017 revealed that the board has been rated “Excellent”.*

5.11 The Chief Executive Officer’s Performance Assessment

The Nomination and Remuneration Committee, in charge of the annual performance assessment of the Chief Executive Officer, must forward the assessment outcome to the Board for endorsement. The performance assessment for the Chief Executive Officer in the area which are leadership, strategy,

implementation of strategy, financial planning and performance, relationship with the Board of Directors, relationship with external parties, management and relationship with staff, succession plan, knowledge about products and services and personal qualifications.

The performance assessment for the year 2017 of the Chief Executive Officer is accepted and appreciated to maintain the position to perform his duties and responsibilities for the success of the Company objectives as a whole.

5.12 Development of directors and management

The Company encourages directors, subcommittee, management, company secretary to join the training courses or activities arranged by Thai Institute of Directors Association (IOD), The Securities and Exchange Commission (SEC) or other independent organizations to enhance their knowledge and operational efficiency, realize their duties and responsibilities. Most directors have undergone training with the IOD courses and shown in each director’s profile.

In 2017, the following directors underwent training and seminars;

Name of Directors	Position	Course/ Seminar 2017
Mr. Tiwa Jaruke	Board of Directors Nomination & Remuneration Committee Corporate Governance Committee	Seminar on IOD Annual General Meeting & Dinner Talk 1/2017 “ <i>Board of Directors and their roles in driving Thailand forward</i> ” by IOD

Name of Directors	Position	Course/ Seminar 2017
Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	Seminar on PwC Forensics Summit by PWC Seminar on Nikkei Asia300 Global Business Forum by Nikkei Inc. Seminar on SET SD Forum 3/2017 <i>"Sustainable Investment: Opportunity of Long Term Growth for Businesses and Investors"</i> by SET
Mr. Gumthorn Utarnwuthipong	Independent Director Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee	Seminar on IOD Annual General Meeting & Dinner Talk 1/2017 <i>"Board of Directors and their roles in driving Thailand forward"</i> by IOD Board Matters and Trends (BMT 3/2017) by IOD Seminar on Nikkei Asia300 Global Business Forum by Nikkei Inc. Seminar on SET SD Forum 3/2017 <i>"Sustainable Investment: Opportunity of Long Term Growth for Businesses and Investors"</i> by SET Seminar on Independent Investor and Independent Director by TIA and FAP Seminar on Independent Director Forum 2017 <i>"Updated COSO Enterprise Risk Management: Integrating with Strategy and Performance"</i> by IOD
Mr. Ryuzo Nagoka	Independent Director Audit Committee Chairman of Nomination and Remuneration Committee	Infrastructure Project Financing & Public Private Partnership by OMEGAWORLDCLASS
Ms. Kantika Tanthuvanit	Board of Directors Corporate Governance Committee Company Secretary	Seminar on IOD opening house for company secretary by IOD Seminar on IOD Annual General Meeting & Dinner Talk 1/2017 <i>"Board of Directors and their roles in driving Thailand forward"</i> by IOD
Ms. Suratana Trinratana	Board of Management Risk Management Committee	The Executive Training Course version 25 (Capital market academy leaders programe contents) by CMA

Name of Directors	Position	Course/ Seminar 2017
Mr. Wanchai Ratinthorn	Board of Management Risk Management Committee	No Training
Mr. Gobchai Tanasugarn	Board of Management Risk Management Committee Investor Relation	No Training
Ms. Jaruwan Sookthauyart	Corporate Governance Committee	Seminar on The 2016 Annual Meeting for Issuer by TSD Principles of Good Corporate Governance: CG Principles by SET and SEC Seminar on Corporate Governance Code 2017 by Twin P Consulting Co.,Ltd. Seminar on Worksheet for Anti-Corruption Measures by CAC, IOD, FAP
Mr. Nuttapol Sinkajohn	Corporate Governance Committee	Seminar on Say “No” to Corruption (Rolls Royce) by ACT Seminar on Audit Working Papers and Audit Evidence by IIA Seminar on CAC Briefing 1/2017 “Preparing to apply for Re-certification” by IOD Seminar on Internal Control Thailand 4.0 by FAP and SET Seminar on Worksheet for Anti-Corruption Measures by CAC, IOD, FAP
Ms. Nisachol Rittayamai	Corporate Governance Committee	Seminar on Anti-Corruption the Practical Guide (ACPG 38/2017) by IOD

The Company arranges important information for new director, whereby Managing Director and Corporate Secretary shall present the information regarding shareholding structure, organization chart, nature of business, performance of the Company, subsidiaries, and other relevant information. In addition, the Company provided a manual of Company Operation Document to Directors.

The Company has prepared the succession plan for important positions, by specifying in the Company's strategic plan to be the benefit for the management's work succession and development, and to work in place of Managing Director and the managements when they cannot perform their duties.

5.13 Conflicts of Interest and Internal Information

It is very important to prevent its directors, management and staff from using their status for personal gain. The Good Corporate Governance Manual clearly states that directors, management and staff should avoid a connected transaction that may lead to circumstances where their personal interest conflicts with the Company's interest, particularly in the matters relating to government, suppliers, partners or competitors. The Conflict of interest includes the attempt to reveal the company's confidential information to outsiders during or after the employment period of employee or the office of director, regardless that such information is electronic information, financial information, business information, the company's future plans, etc. and prohibited to use internal information for their own or other's advantage.

5.14 Internal Control and Internal Audit System

Internal control is the process set up by the Board of Directors, managements, and other staff in order to ensure that the Company shall carry out to achieve the following 4 goals;

- 1) To carry out the business to achieve its goals with efficiency and effectiveness.
- 2) To ensure reliable financial reports and other information significantly affecting to the reliability of the financial reports.
- 3) To comply with laws and regulations both in domestic and aboard including other standards and rules such as rules of SET, accounting standards, and Company regulations.
- 4) To control and maintain the appropriate acquisition, usage, and disposal of the Company's properties.

The Company has implemented effective and appropriated internal control systems by adopting Internal Control-Integrated Framework of COSO (The Committee of Sponsoring Organization of the Treadway Commission) and guideline in evaluating internal control sufficiency by SEC (The Securities and Exchange Commission, Thailand). The Company supports internal auditing to adopt the International Standards for Professional Practices of the IIA (Internal Auditing of the Institute of Internal Auditors) as well.

a. Risk Management

The Board is responsible for assuring the risks management to cover situation that hinder the Company from its strategic goals is in place. In doing so, the Board has appointed the Risk Management Committee to determine risk management policy and framework, to monitor and promote, and to ensure that the risk management of the Company is properly functioned and effective. The Risk Management Committee has also been assigned to assess risks which are of significance at the organization as

well as project levels, to develop operational, monitoring and evaluation plans, to implement and continuously revise them to mitigate and reduce the risks down to the acceptable levels, and to report the results to the Board periodically or immediately. Details are set out in “*Risk Management*”.

b. Compliance

Compliance aligns with good corporate governance principles is under monitoring of the company secretary.

Compliance with the Good Corporate Governance Principles in Other Matters under consideration:

- 1) The Committee accounted for 66.7% of all independent directors. The Company believed that was the appropriate portion for the business as well as efficiently performed their duties as independent directors of the Company.
- 2) There is no female independent director since the current Board of Directors has already fulfilled and covered all aspects of duties.

The Board of Directors Meeting No.3/2560 dated 15 May 2017 acknowledges Corporate Governance Code for Listed Companies 2017.

The CG Code is based on the Stock Exchange of Thailand Principle of Good Corporate Governance

for Listed Company 2012 but reflects current international standard and trend by focusing on the roles and responsibilities of the board for each aspect of governance. Implementation of the CG Code is on an ‘*apply or explain*’ basis intends to encourage the board to comprehensively apply the CG code to the Company’s business in the interest of long-term sustainable value creation. New CG Code consists of 2 main parts; “*Principles and Sub-Principles*” and “*Guideline and Explanations*”, which has 8 principles as follows:

1. Establish Clear Leadership Role and Responsibilities of the Board
2. Define Objectives that Promote Sustainable Value Creation
3. Strengthen Board Effectiveness
4. Ensure Effective CEO and People Management
5. Nurture Innovation and Responsible Business
6. Strengthen Effective Risk Management and Internal Control
7. Ensure Disclosure and Financial Integrity
8. Ensure Engagement and Communication with Shareholders

In 2018, the Company will prepare to comply with Corporate Governance Code 2017 for Listed Companies 2017. The guide and the principles of Corporate Governance Code 2017 will be issued in 2019.

Internal Control and Risk Management

The Board of Directors entrusts the Audit Committee for review the appropriateness and effectiveness of internal control, risk management and corporate governance of the company and its subsidiaries including compliance with applicable laws and regulations, deterring conflict of interest or any fraud and reviews reasonable and beneficial of connected transaction.

The Company adopted COSO's Internal Control and Enterprise Risk Management Integrated Framework to ensure that the internal control and risk management to be appropriated with good corporate governance.

• Control Environment

The company establishes proper organizational structure, determines duties and responsibilities as well as power of authority, enabling clear reporting lines for oversight and control in order to achieve objective and targets. In addition, necessary instruction, procedures and guidelines were also established for Company's execution.

The Company encouraged good corporate governance awareness for managements and employees of the Company and subsidiaries by determined Code of Conduct and Ethics for Directors, Executives and Employees as the guidelines for integrity, transparency and fairness to all stakeholders.

The Company has certified into the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) since 14th October, 2016.

In 2017, the Company continues to utilize self assessment form which issued by SEC in accordance with COSO 2013 to evaluate the adequacy of internal control system and raise understanding to all levels of management.

• Risk Management

The Company has realized the importance of risk management as an essential tool to enable the Company to achieve its objectives and goals, adding value to the Company, shareholders and stakeholders. The Board of Directors has stipulated the continual and effective risk management process to manage risks and entrusted the Risk Management Committee for oversight risk management activities. Risk Management was systematically and practically performed by considering both internal and external factors which may affect Company's operation. In addition, risk control measures have been determined to control the risks at acceptable level.

In 2017, the Risk Management Committee reviewed policy and company risk profile including reported significant risks to the Audit Committee and the Board of Directors on quarterly basis.

• Control Activities

The Company establishes efficient and effective control activities to control risks and increase confidence in achievement of desired objectives. The policies and procedures including determination of

authority, segregation of duties, safeguarding of assets and auditing has been determined. In case of control deficiency existed, appropriate corrective and protective measures shall be employed to prevent the recurrence of detected deficiency in the future.

In 2017, the company reviewed policies and procedures and expanded scope of internal control to covered subsidiaries and modified existing procedures to be inconsistent with anti-corruption policy.

• Information & Communication

The Company recognizes the importance of information and communication by encourage continuous development to ensure that all information is accurate and up to date. Besides, the company also focuses on data security, storage, processing, usage and monitoring in order to support decision making of managements and employees with completeness, accuracy and timely manner. The Company communicates necessary information such as policies, regulations, commands and procedures through intranet and other channels.

Furthermore, the Company established whistle-blowing or complaint channels for any illegal, misconduct or behavior which may indicate corruption. Employees or stakeholders can report or complaint via E-mail or letter as well.

• Monitoring Activities

The Company establishes monitoring activities for Company's operation to ensure that the internal control system is appropriately implemented. In order to evaluate the effectiveness of internal control, internal auditor performed risk-based audited as annual planned. In case of control deficiencies, it would be reported to the responsible person in order to determine root cause including appropriate corrective and preventive measures, and for significant control deficiencies, it would be reported to the Audit Committee and the Board of Directors in order to take appropriate corrective and preventive measures in timely manner.

In 2017, internal audit department performed audit assignment according to approved annual audit plan. However, the Audit Committee recommended that the internal audit department should increase necessary resources particularly internal auditors who have been certified by international internal auditing profession for more effectiveness.

Occupational Health, Safety and Environmental System

TTCL emphasizes the Occupational Health and Safety of employees, partners and concerned parties. Therefore, the company aims to establish and maintain safe working conditions with no injuries or illnesses

including prevent environmental impacts by adopted the Occupational Health, Safety and Environmental Management System as part of company's execution.

Occupational Health and Safety Management System Certificate (OHSAS 18001:2007, TIS 18001:2011)



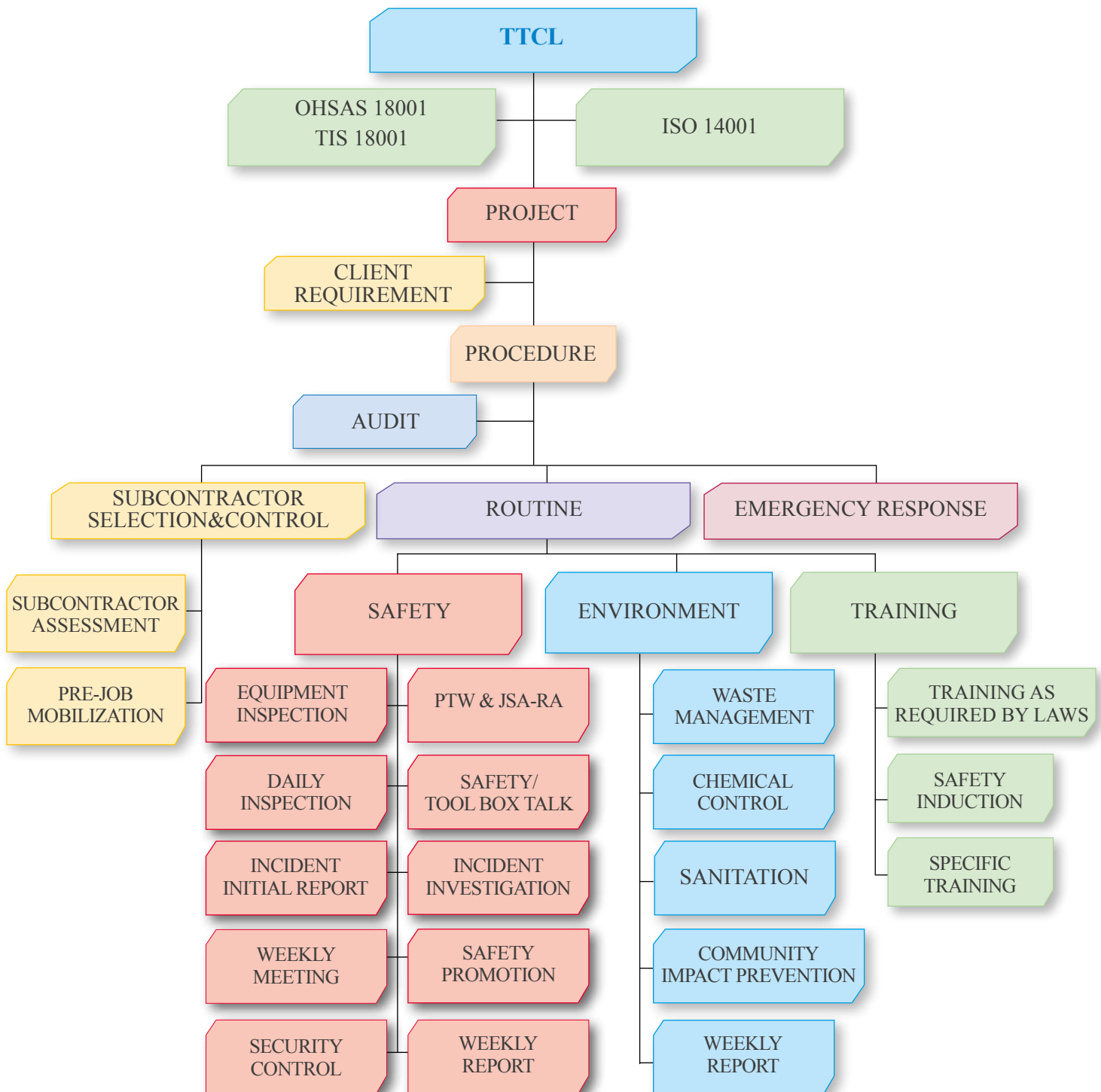
Environmental Management System Certificate (ISO 14001:2015)



Occupational Health, Safety and Environmental Implementation

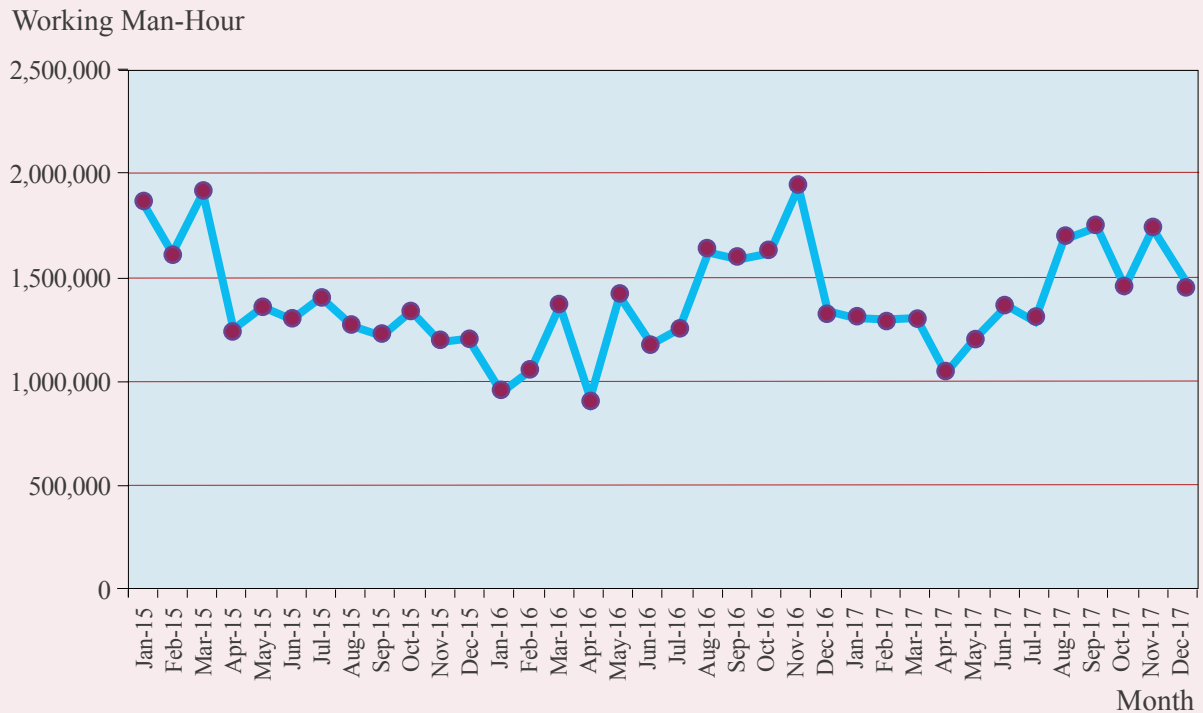
TTCL has developed Occupational Health, Safety and Environmental implementation guideline

in order to successfully achieve the HSE's Policy and Objectives as following;

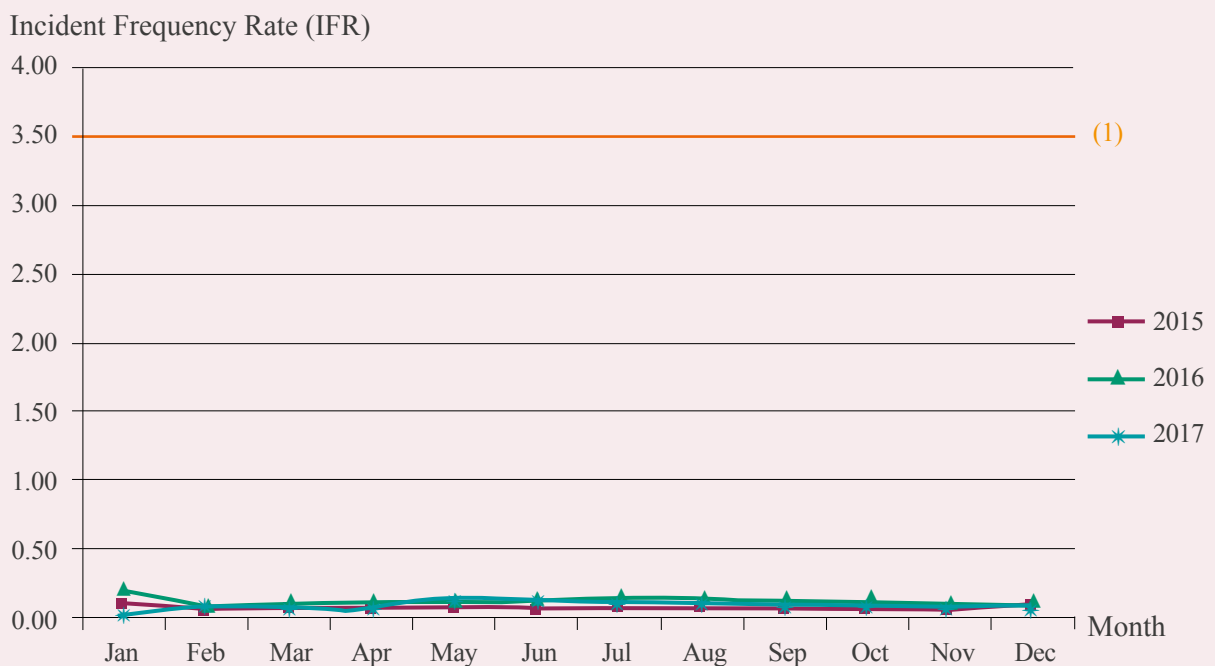


Occupational Health, Safety and Environmental Implementation

Working Man-Hour 2015-2017



Incident Frequency Rate 2015-2017



(1) Source: Incidence rates of nonfatal occupational injuries and illnesses by case type and ownership, selected industries, 2015 (Construction), U.S. Bureau of Labor Statistics, U.S. Department of Labor.

Environmental Management

The objective and goal of environmental management in project execution is that the company will carry out project by considering environmental impact prevention and construction activities will be complied with the applicable laws and project's requirements including no environmental complaint from the community. Therefore, TTCL has developed environmental plan to control environmental aspects and reporting result to concern parties continuously.

Air Quality Control

TTCL provided water spray on transportation route within the project and surrounding areas included cleaning vehicle wheels before departure from project site to prevent and minimize dust emission from construction and transportation activities.



TTCL provided water spray on transportation route within the project and surrounding areas

Noise Control

In construction activities, noise from piling and flushing activities may be affected to nearby communities. The company has determined mitigation

and control measures to prevent and minimize the impact by consider using bored pile and fitting a silencer during flushing activity including limited work time and inform nearby communities in advance.



Fitting a silencer during flushing activity

Waste Management

TTCL has implemented waste management guideline according to 3 R principle; Reduce, Reuse and Recycle. The various activities such as hazard communication & waste management awareness training and waste separation program are conducted to properly manage waste.

Discharge Water Control

The discharge water from construction activities which generated from runoff water, surface water, hydrotest water and flushing water has been monitored water quality parameters such as pH and turbidity before drain to gutter in order to ensure that discharge water quality will be complied with applicable standard.

Occupational Health, Safety and Environmental Awareness Program

TTCL organized safety day in order to encourage employees to participate and raise their awareness

which consist of many activities such as 5S principle, safety suggestion, exhibition about safety in workplace, safety in daily life and demonstration of proper personal protection equipment (PPE) usage.

<< Safety Day Activity <<



Emergency Response

TTCL has conducted Emergency Drill at least once a year, both head office and project sites.

<< On 10th November 2017, TTCL cooperated with Sermmitt tower juristic person to conduct emergency drill at head office <<



<< Emergency Drill at Project Site <<



At head office, TTCL also established Emergency Rescue Team (ERT) in order to assist employee who get injury or illness and children in child care room

to evacuate from building in emergency situations such as fire and earthquake.

<< Emergency Rescue Team Meeting at Head Office <<



Resources Utilization Awareness Program

TTCL recognizes the global climate change problem. Activities and campaigns were organized in order to raise employee's awareness and recognize value of limited resources. There are many activities have been conducted such as provide paper saving box program to utilize used paper, encourage to

review and read document in electronic file to reduce amount of printed paper, the campaign for water and electricity consumption saving including replacing fluorescent lamp by LED lamp. As the result, the amount of utilized resources has been reduced.

<< The campaign for water and electricity consumption saving <<



<< Paper Saving Box Program <<



The Achievement in Occupational Health, Safety and Environment

TTCL has achieved in Occupational Health, Safety and Environmental implementation in 2017 as following;



Klongluang Utilities Project

Owner (Client)	: Klongluang Utilities Company Limited, The EGCO Group Company
Project Site Location	: Klongluang, Pathumthani, Thailand
Project's Description	: Constructing a combined Heat and Power Plant 110 MW
Achievement	: Accumulated 2,000,000 Safe Man-Hours without Lost Time Accident
Award Date	: 1 st February 2017



LLDPE EXPANSION AND HEXENE-1 Project

Owner (Client)	: PTT Global Chemical Public Company Limited
Project Site Location	: Map Ta Phut Industrial Estate, Rayong, Thailand
Project's Description	: Constructing LLDPE and HEXENE-1 plant
Achievement	: Accumulated 2,500,000 Safe Man-Hours without Lost Time Accident
Award Date	: 27 th February 2017

Corporate Social Responsibility

Commitment

The company is committed to create and improve the quality of life, society and the environment for a sustainable society. By creating a trust for stakeholders with responsibilities towards society and the environment to associate with success in business.

Goal

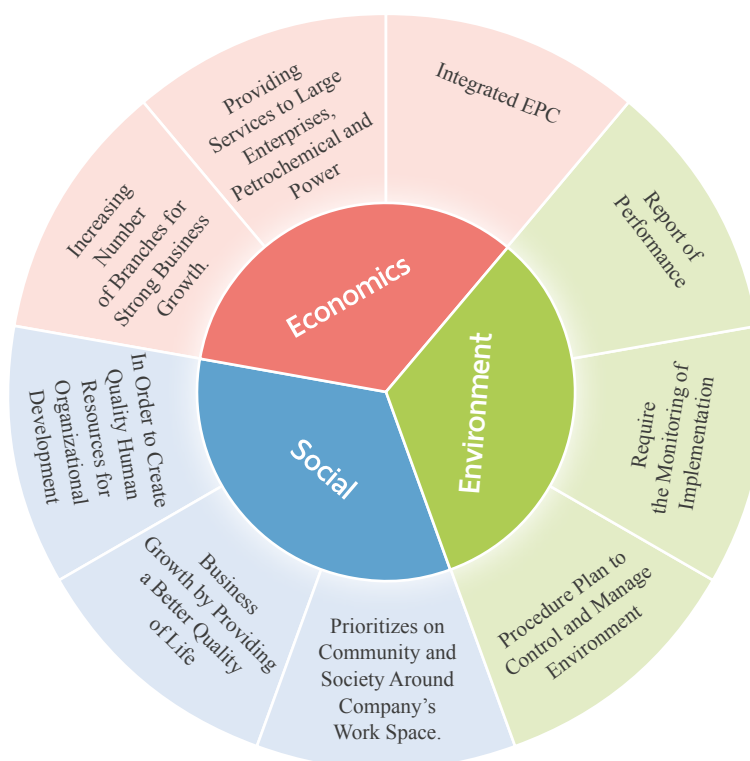
The company aims to establish and carry out a project on corporate social responsibility values shared between companies, community and society by developing from the existing corporate social responsibility project of the company to develop the project to achieve a maximum value to society and economy.

Challenges and Business Opportunities

Company's social responsibility through business activities and stakeholder participation is as approach for creating mutual benefit between the

company, communities and society. To enhance the business competitiveness to associate with promoting the economic, society and environment and the activities to sustainable society and growth, leads to the development and enhance the economy for the better that it appropriates with United Nations Sustainable Development Goals such as better employee potentiality development, promoting health and well-being of the community around the project and promoting continuing education, etc.

The company has realized the important to operating the business corporate with social responsibility and urging management staff in every department to be aware and responsible to stakeholders involved for cooperate and bring mutual benefits to economics, social and environment by the purpose of implementation of corporate social responsibility. In year 2016 the company has conducted to operating business along with corporate social responsibility, which consist of 3 topics such as economics, social and environment as follows;



Economics

The company is a first and only Integrated EPC company in Thailand by providing services to large enterprises, mainly focusing in the industry of petrochemicals, chemicals, energy businesses and also in other similar industry. Currently, The company is increasing number of branches in both local and abroad for strong business growth.

Social

The company prioritizes and cares in order to create quality human resources for organizational development and business growth by providing a better quality of life with in corporate and family. Moreover, the company always prioritizes on the community and the society around the company's work space.

Environment

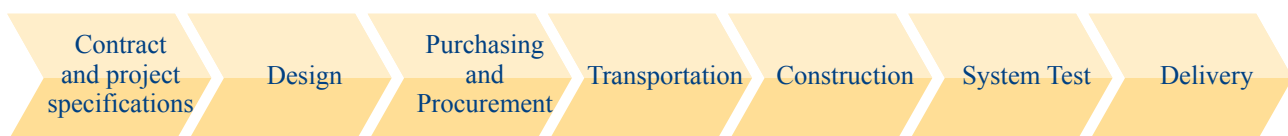
The company has a procedure plan to control and manage environment to prevent and reduce

environmental impact by the plan must comply along with the environmental impact study project (Environmental Impact Assessment; EIA) and require the monitoring of the implementation regularly with report of performance to inform those who are involved constantly. Management is divided into three points Management of air pollution, Management of noise pollution and Management of garbage and hazardous waste.

Providing construction project based on supply chain

TTCL has identified the scope and relevance of construction project based on company's supply chain to consider and analyze the issues and responsibilities arising from operations. As the company held on service mind principles that build with confidence and trust to stakeholders such as customers and partners by operation process as follows;

Supply Chain Services Project



The Company has guides to adhere of good business policy according to the principle of disclosure and clean information. The operation policy has been state to strengthen knowledge and understanding of

the business operations of stakeholders, directors, management and employees to understand and follow company's policy to comply with the policies, which are as follows;

1. Code of Conduct

- Customers Trust.
- Compliance with Laws and Regulations.
- Compliance with Corporation.
- Operation Policies and Regulations.
- Respect for Humanity.

2. Code of Business Ethics

- Compliance with Code of Conduct.
- Guideline of Business Operation.
- Conflict of Interest.
- Rewards and Entertainment.
- Responsibility for Shareholders.
- Relationship with Suppliers and Contractors.
- Safety and Health in Workplace.
- Security of the Company's Properties.
- Computer System.
- Responsible for Environment.

3. Corporate Governance Policy

- Rights of Shareholders.
- Equitable Treatment of Shareholders.
- Roles of Stakeholders.
- Disclosure and Transparency.
- Board of Directors Responsibilities.

4. Anti - Corruption Policy

- Definition of the Anti – Corruption Policy.
- Anti – Corruption Policy.
- Roles and Responsibilities.
- Anti – Corruption Guidelines.
- Measures / Operational.

5. Corporate Social Responsibility Policy

- Code of Conduct and Business Ethics.
- Human Rights and Labour Practices.
- Responsibility for Customers, Investors, Partners, Employees and Other Stakeholders.
- Social Responsibility Activity.
- Responsibility for Environment and Safety Standards.
- Company Innovation Related to CSR.

6. HSE Policy

- Operations of the Company must comply with the laws and regulations on occupational health. Safety and environment.
- Information must be communicated to stakeholders properly.
- Monitor effectiveness of operations.
- Operation to Regulation.
- Significant resources will be sufficient to support operations.
- Review the improvement and development of management system.

7. Investor Relations Policy.

- Disclosure is important and necessary correctly adequate and timely.
- The care and treatment of internal information.
- Disclosures Equally and fairly.
- Duties with integrity.

8. The company's dividend Policy.

- Dividend is not less than 50 percent of net profit after tax and legal reserve. The Board of Directors is authorized to exclude the implementation of such policies, or change the policy from time to time. It is under such conditions that the operation would have caused interest of the shareholders.

9. Dividend policy of the subsidiary.

- Considering from the cash flow from the investment of the subsidiary.
- Has not specified the exact payout ratio.
- When cash flow is enough and has set up a legal case to be considered as a dividend.

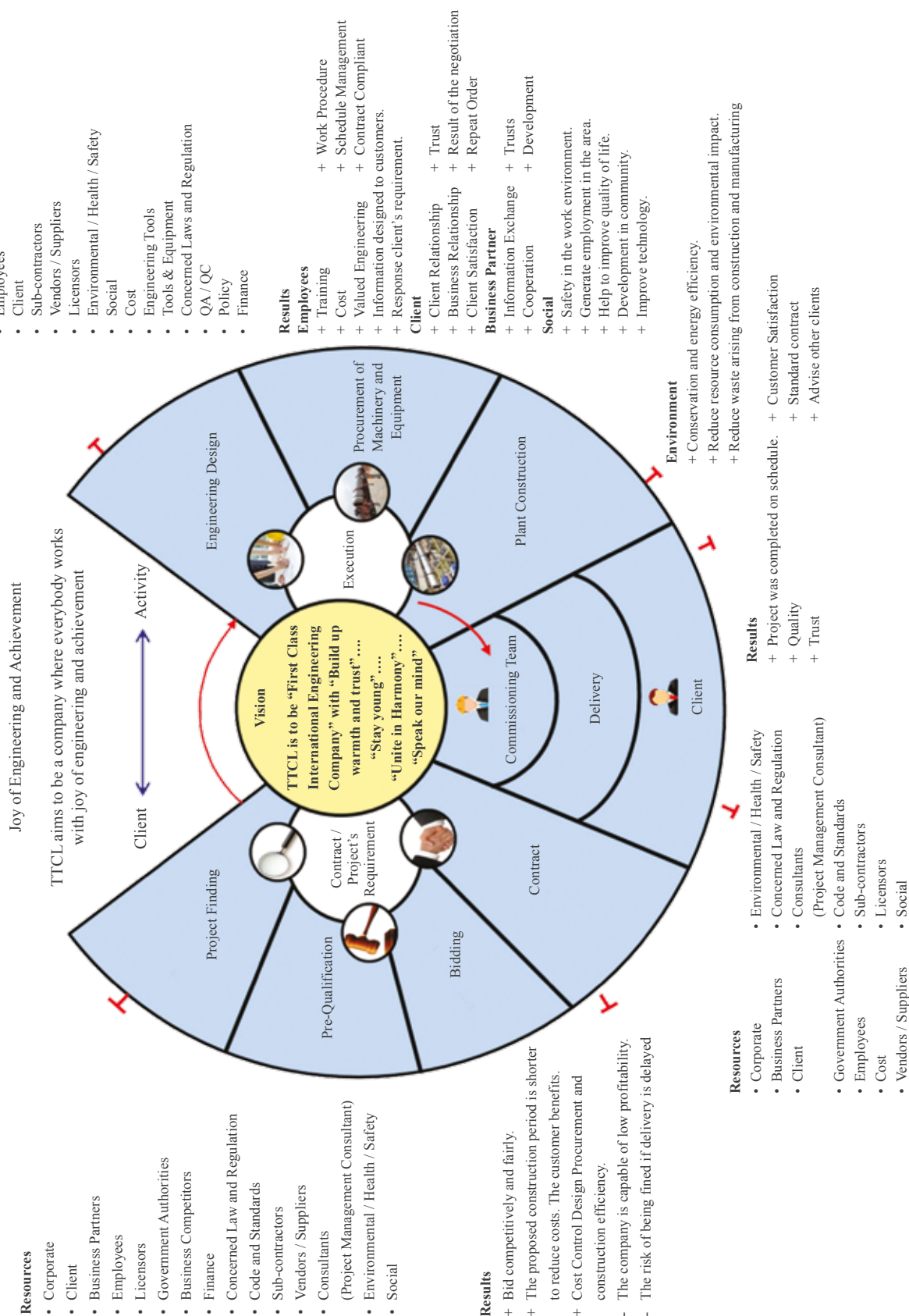
10. The remuneration policy for directors and management.

- Considering the duties and responsibilities of directors.
- The overall performance of the Company.
- Payment of Compensation Committee Comparable listed companies in the industry and the business is of similar size.

TTCL has business model structure to be informed of the company's turnkey projects, starting from the project research until delivery project to

customer with related concern people (Stakeholders), and results from project, which are summarized as follows;

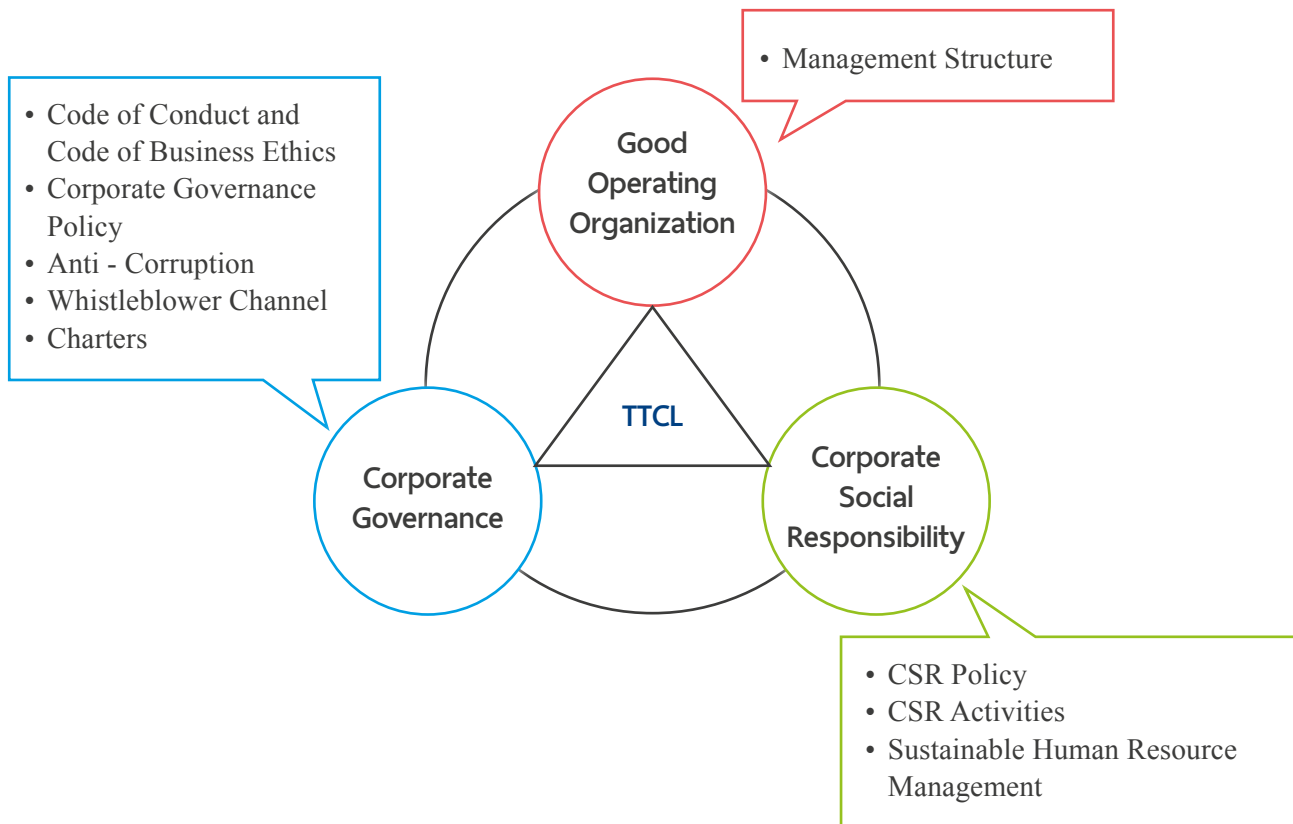
TTCL'S BUSINESS MODEL



The sustainable materiality consists of 3 dimensions such as Economic, Social and Environment as follows;

Sustainability Dimension	Materiality	GRI Framework	Scopes of Impact											
			Shareholder	Investor Relations	Employee	Customer	Vendor	Business Partner	Business Competitor	Creditor	Community and Society	Government Authority	Media	Joint Venture
Economic	• Anti-Corruption	• Corporate Governance	●	●	●	●	●	●		●		●		●
	• Optimizing the Company’s Business	• Economic Potential	●	●	●	●	●	●		●	●	●	●	●
	• Code of Conduct and Code of Business Ethics	• Corporate Governance	●	●	●	●	●	●		●	●	●	●	●
	• Engaging with Partners	• Participation with Stakeholders	●	●	●	●	●	●	●	●	●	●	●	●
	• Corporate Governance	• Corporate Governance	●	●	●	●	●	●	●		●			●
	• Maximum Customer Satisfaction and Vendors	• Services			●	●	●	●						
	• Supply Chain Management	• Services			●	●	●	●						
	• Innovation Development	• Participation with Stakeholders			●	●	●	●						
Social	• Safety and Security	• Health and Safety			●	●	●			●				
	• Access to the Construction Site	• Services			●	●	●			●	●			
	• Participation with Stakeholders	• Participation with Stakeholders	●	●	●	●	●	●	●	●	●	●	●	●
	• Impact on the Community	• Corporate Governance			●	●	●			●				
	• Human Resources Development	• Training and Education.			●		●							
	• Motivation and Maintaining Quality Employees	• Human Resources Management			●									
	• Occupational Safety, Health and Working Environment	• Occupational Safety and Health			●					●	●			
	• Refrain from Child Labor.	• Treaty Workers Fairly			●		●							
	• Advocating Equality, Non - Discrimination by Gender and Social Class	• Equality	●		●	●	●	●	●	●	●	●	●	●
	• Corporate Social Responsibility	• Community Development and Social Participation	●		●	●	●	●	●	●	●	●	●	●
Environment	• Efficiently Energy	• Energy			●		●	●			●	●		
	• Environmental Management	• Environment			●		●	●			●	●		
	• Garbage and Sewage Management	• Garbage and Sewage			●		●	●			●	●		
	• Chemical Control	• Chemical			●		●	●			●	●		
	• Air Pollution Management	• Air			●		●	●			●	●		
	• Noise Pollution Management	• Noise			●		●	●			●	●		

Sustainability Framework of Organization



Reporting and Implementation of Sustainable Corporate Social Responsibility

1. Reporting

The Sustainable Corporate Social Responsibility reporting, TTCL regards the stakeholders engagement an important to several business such as Shareholders, Investor Relations, Employees, Customers, Vendors, Business Partners, Business Competitors, Creditors, Community and Society, Government Authorities, Media and Investors, so the stakeholders engagement identifies the important sustainability through several communication channel such as shareholders meeting, reporting and whistle blower, notice in media, visit the construction project and contact the company through website.

2. The implementation is in accordance with the policy disclosed by the company.

The company ensures to proceed as following company's several policies and the implementation verification is operation by internal department, that is specific issues the Occupational Health, Safety and Environment including Internal Audit procedure.

Corporate Social Responsibility (CSR)

TTCL Public Company Limited, by the resolution of Board of Directors' Meeting No. 4/2560 dated August 15, 2017, authorized the Board of Management consist of;

1. Mr. Hironobu Iriya
President & CEO
2. Mr. Tiwa Jaruke
Senior Vice President
Project, Proposal and Engineering

3. Ms. Kantika Tanthuvanit
Senior Vice President
General Administration
4. Mr. Saneh Poorisat
Senior Vice President
Engineering, Training and Task Force
5. Ms. Suratana Trinratana
Senior Vice President
General Consultation of
Myanmar Development Task
6. Mr. Wanchai Ratinthorn
Chief Project Officer (CPO)
Vice President
Project Execution Division
7. Mr. Gobchai Tanasugarn
Chief Finance Officer
Vice President
Finance & Accounting Division
and Investor Relations
8. Mr. Hideto Koyama
Chief Sales Officer (CSO)
Vice President
Sales & Business Development Division

as practitioners the Corporate Social Responsibility of company for effectively and maximum benefit to company.

The Board of Management's duties on CSR are as follows;

1. Determine and roll-out the Company's CSR Policy.
2. Propose the Working Group Name lists to communicate with all levels of employees, partners, and stakeholders to understand and realize in CSR.
3. Determine appropriate plan in line with the Company Operation Policy.
4. Determine the suitable budget, follow up, evaluate and review the performance in relation with the planed policy.
5. Encourage the exchange of knowledge, success, and experience on CSR between internal and external units.
6. Continuously report CSR activities to the Board of Directors.

To support CSR activities and to achieve its objectives, the following persons are appointed as CSR Working Group;

1. Ms. Jaruwan Sookthauyart
Leader
2. Mrs. Kritsanee Meksikarin
Staff
3. Mr. Anuchit Piyamanit
Staff
4. Mr. Nuttapol Sinkajohn
Staff
5. Ms. Wantanee Padungthod
Staff
6. Ms. Mallika Charoensap
Staff
7. Mr. Attapon Sophapongse
Staff
8. Ms. Wanida Khakham
Staff
9. Ms. Natcha Viwattanateerakul
Staff and Secretary

Roles and Responsibilities of CSR Working Group are as follows;

1. To follow up and act according to the CSR Policy.
2. To propose action plan in order to achieve the specified objectives.
3. To report the operational progress to Board of Management and to coordinate with other related units to achieve the objectives under CSR Policy.
4. To consider the Company's activities for communities and environment to be proposed to the Board of Management.
5. Undertake any other actions concerning CSR activities as authorized by the Board of Management.

CORPORATE SOCIAL RESPONSIBILITY POLICY

TTCL Public Company Limited is engaging business in accordance with Corporate Social Responsibility (CSR), having intention to co-operate with company's stakeholders. The Company is

committed to create and maintain good relationship based on trust and mutual respect, realize any possible impact on company's stakeholders such as shareholders, employees, clients, partners, and government. We also place high priority on environmental conservation and support continuously on corporate social responsibility activities.

There are 6 principles of CSR Practice as follows;

1. Compliance with Code of Conduct and Code of Business Ethics.
2. Human Rights and Labour Practices.
3. Responsibility for Customers, Investors, Partners, Employees, and Other Stakeholders.
4. Social Responsibility Activity.
5. Responsibility for Environment and Safety Standards.
6. Company Innovation related to CSR.

1. Compliance with Code of Conduct and Code of Business Ethics.

Comply with Code of Conduct to maintain integrity and transparency in business operation. Moreover, all employees shall be encouraged to understand Code of Business Ethics of the company.

In order that the company has published the details of Code of Conduct and Code of Business Ethics for Management, Employees and Stakeholders is accessible on the company website at http://www.ttcl.com/sustainability/corporate_governance/code_of_conduct_and_business_ethics

2. Human Rights and Labour Practices.

Respect human rights, advocate non - discrimination by gender and social class. Manage the compensation for employees to be at the same level with those of other business in the industry, and refrain from child labour. Any improvement, structural change and organization management shall be under Thai law. Moreover, we shall strictly comply with law and regulations related to occupational health and safety. We shall create work environment which is healthy and safe for employees and contractors to prevent any possible accident or damage.

Human Resources Management

A success key of the Company is paying attention to employees and all labor groups as employees are valuable resources and important stakeholders in the business. Moreover human resources also is a key to drives the organization to the sustainable development. So that the company is focuses on human resource planning and staff development to be able to support future business expansion in the future starting from the process of recruitment to meet the requirement of each department by considering the suitability of the knowledge capacity.

Recruitment

The Company provides opportunities to person that has potential to become a key force in the development of the organization to grow steadily and sustainably through a systematic recruitment and requirements in the same standard of position and same career. And also focus on the equality in racial, religious, gender, and educational institutions including the disabled and other disadvantaged groups by advertising the job opportunities through various channels to get a variety of candidates whether participating in the job fair project that held by each educational institution continuously every year. The project cooperate with the department of Human Resources and others such as Engineering Department, Project Management Department, etc. in order to prepare recruitment plan to recruit and select the potential candidates to meet the needs of the business.

Internal recruitment

The company transfer and rotate employee within the organization by considering from staff knowledge and ability that match with each work field. Moreover the company also provides an opportunity to 3rd years and 4th year's student from various universities, both within country and abroad to be an internship in order to prepare the joint with the company after graduation. The company have seek and selected new generation staff that have an ability and potential which suit with the organization's

culture by learning through the practical work under the teaching and suggestions from senior employees. And in the year of 2017, there are total 85 internships which work under our company.

External recruitment

The company provides an opportunity to a person whom is interested in being a part of the company through various channels such as mail delivery, company website, online website and Walk in.

In 2017, Company has been recruiting staff by attending in the job fair project that held by the educational institutions in order to provide opportunities to student who is going to graduate or graduated in bachelor's degree to apply the job directly to the company. So that company can seek for the personal that have knowledge, ability and appropriate experience which causes to company diversity.

The job fair project we have attended in year 2017 as follows:

1. Dindaeng Market Project and Job Fair Project at Khon Kaen University.
2. KMUTT Job Fair project at King Mongkut's University of Technology Thonburi.
3. Engineering Market Project at Prince of Songkla University.
4. Establishment Meet Student Project at King Mongkut's Institute of Technology Ladkrabang.
5. SUT Job fair & Coop Fair Project at Suranaree University.
6. Engineering Career Day Project at Chiang Mai University

Applicant Selection

The Companies fairly select and seek for the candidates who are interested to join with us from every channel by interviewing and testing knowledge and skills that match with the position which the applicant has to pay attention and have a positive thinking. It is a factor for the company achievement and goals. Human resource department will check the education background, work historical and criminal records in order to evaluate applicant's ability and skills appropriately to assign and hire staff with the right position and also to prevent the use of illegal labor, forced labor and child labor strictly.

Employment

Company focuses on employment process and compensation payment fairly with same standards to all staff. And also give the precedent to human rights equally by experiences with no gender or nationality classification. Moreover the company have launch the policy that can be guide operate performance of employee. In conclude, all employees will be provided the benefit and welfare under Thailand labor law.

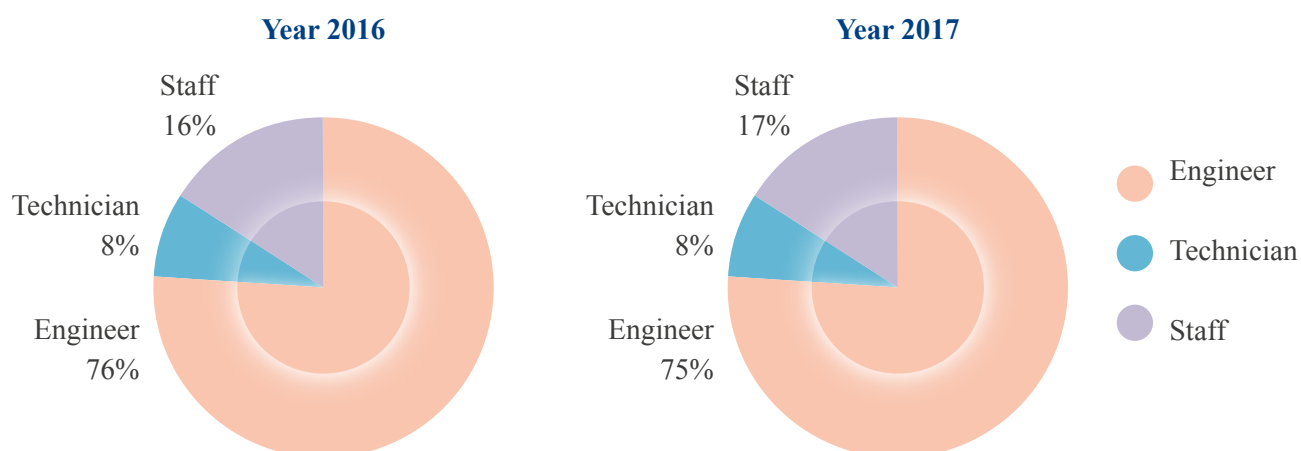
Attraction and Retention

The company is encouraging and supporting employee's skills and knowledge to motivate talent employees staying with the company. Budgeting Welfare and Compensation Structure by evaluating individuals performance through yearly increment including promoting according to their work performance. The evaluation is done by leader, supervisor and manager within the department respectively. The results of the assessment are to be presented to the Executive Board for final consideration which makes assessment straight forward and righteous caused the turnover rate reducing from 8.9% in Y2016 to 6.7% in Y2017.

Ratio of Resignation Employee

Gender		Y2016		Y2017	
		Amount (Person)	Total (Person)	Amount (Person)	Total (Person)
Male		139	228	158	247
Female		89		89	
Posititon		Amount (Person)	Total (Person)	Amount (Person)	Total (Person)
Permanent Staff	Engineer	113	129	136	161
	Technician	7		8	
	Support Staff	9		17	
Contract Staff	Engineer	61	99	49	86
	Technician	10		13	
	Support Staff	28		24	
Percent		8.9%		6.7%	
Numbers of employee at the end of the year		2,568 (Person)		3,679 (Person)	

A Graph of Employee resignation Ratio



* Calculated from the amount of resigned staff in the year of 2016, 228 persons and 2017, 247 person

Number of employee and Types of employment

2 years historical statistics of staff numbers as of December 31, 2016 is 2,586 persons and December 31, 2017 is 3,679 persons by divided as follows;

Proportion of employment

Description	Y2016		Y2017	
	Amount (Person)	Percent	Amount (Person)	Percent
Gender				
Male	1,824	71%	2,737	74%
Female	762	29%	942	26%
Types of employment				
Permanent Employee	1,456	57%	1,444	39%
Contract Employee	651	25%	502	14%
Daily -Employee	479	18%	1,733	47%
Level				
Top Management	41	1%	43	1%
Middle Management	286	11%	295	8%
Operational	2,259	88%	3,341	91%
Age				
18-30 years old	1,179	46%	1,325	36%
31-50 years old	1,244	48%	2,058	56%
Above 51 years old	163	6%	296	8%
Workplace				
Head office	1,406	55%	1,362	37%
Domestic sites	1,039	40%	2,168	59%
Overseas sites	141	5%	149	4%

Employment and Termination

Description	Y2016		Y2017	
	Amount (Person)	Percent	Amount (Person)	Percent
New Employee classified by Gender				
Male	523	20%	1,956	53%
Female	121	5%	455	12%
New Employee classified by Age				
18-30 years old	310	12%	885	24%
31-50 years old	294	11%	1,366	37%
Above 51 years old	40	2%	160	4%
Termination classified by Gender				
Male	310	12%	829	23%
Female	117	5%	213	6%
Termination classified by Age				
18-30 years old	255	10%	525	14%
31-50 years old	150	6%	475	13%
Above 51 years old.	22	1%	42	1%

* Termination means employee who resigned, dismissed, retired or deceased

The number of female employees took maternity leave and resume work.

Description	Y2016	Y2017
On maternity leave	22	19
Resume work.	21	19

Hence the company have been reviewing manning plan on a yearly basis in order to prepare human resources and personnel to be ready for the workload and the number of department that are expected to occur in each year. So that company can get the efficiency employee with the appropriate amount and time.

Types of Employment and Earnings

Types of Employment

The company has 3 types of employment as follows;

1. Permanent Employee

An employee who is employed without predetermined end date by get paid monthly and able to work until retirement as long as rules and regulation

is compiled and not violated, including no intention to do harm with the company.

2. Contract Employee

An employee who is employed with predetermined end date and gets paid monthly.

3. Daily Employee

An employee who is employed with daily/ hourly or piece of work rate with the nature of work that may works shifts.

Earnings

Company realizes that remuneration is a main factor for employee to have a good quality of life and sustainable careers which caused employees to work with dignity and create values within the organization. In consequence we practically determine employee

earnings appropriately and consistent with the company's operating results by considering in short-time and long-time plan relevant to the same industry along with additional welfare for a good quality of life.

Salary rate and remuneration by Gender

Gender	Y2016 (THB)	Y2017 (THB)
Male	83,452,839	105,868,699
Female	29,620,351	30,738,125

Policy for special incentives (Bonus)

The Special incentives (bonus) will be paid based on the performance of the organization indicates that reflects the achievement of employee efforts dedicated to the organization and pay bonuses to this format. Encourages employees to attempt to make the company has good performance. Which will affect his bonus and also attracted to people who are interested in joining the organization include helping maintain employee relations within the organization.

The evaluation will be done by leader, supervisor and manager within the department employees belong to, respectively. The results of the assessment are to be presented to the Executive Board for final consideration.

Provident Fund

The Provident Fund is voluntarily established by the employer and the employees with objectives to promote the saving of employees, provide the members and their families the guarantee of future security also tax relief benefit.

Compliance with Occupational Health, Safety and Environmental Laws, Regulations and Requirements

The company determined that all construction projects shall conduct compliance assessment with occupational health, safety and environmental laws, regulations and other requirements that applicable to project. Furthermore, an internal audit was performed for monitoring to ensure that project's execution complied with that laws, regulations and requirements.

Moreover company focusing on time of payment of wages and welfare to employee on time according to company's plan to manage compensation and welfare for employee effectively.

3. Responsibility for Customers, Investors, Partners, Employees, and Other Stakeholders

The customers, investors, partners, employees, and other stakeholders should be treated equally under accurately disclose, transparency and timely information. We also provide standard services to serve customers' need and lead to gain revenue and business sustainability.

Moreover, the Company realizes that all employees are the most valuable resource, therefore we place an importance on potential development, benefits, and work opportunity for the employees by encouragement of knowledge and competence development. Welfare and other employee benefit are provided including activities in relationship creation between employees and managements.

Empowerment and Human Resources Development

The company aims to develop employees potential, knowledge and skills in an appropriate way continuously in line with business growth and employee needs in each job description focusing on enhancing skills for new employees and increase employee proficiency. Training program focused on developing the skills and capabilities and communication skills comply with company business plan. Apart from training, company also has outings activities to enhance professional skills and expertise in jobs. Encourage employee to be creative and have a better understanding the work procedure. In year 2017, there are 3 types of training as follows:

Employee Potential Development

1. The course was designed to support the basic safety to reduce staff health problem and to



support the safety at work; for example “Basic Safety and Company Management System Awareness” There are 139 persons who attended the course.



2. The company conducted quality, occupational health, safety and environmental management systems awareness training course for



new employees to make understanding of the company management system.



3. The company conducted basic firefighting training course at Klong Toey fire station in order to provide knowledge and understanding about fire



prevention and basic firefighting to employees. The course was instructed by Disaster prevention and mitigation officers.



4. The company conducted first aid and basic rescue training course in order to provide knowledge and understanding about first aid and basic rescue principles to employees. These principles could be

applied in an occurrence of emergency situation appropriately. The course was instructed by nurse from Kluaynumthai hospital and TTCL's HSE department.



5. The company conducted Occupational health, safety and working environment committee training course for the committee and concerned persons to provide knowledge and understanding about roles and responsibility of committee by

instructor from Safety and Environmental Technology Center Company Limited. In order to encourage and support occupational health, safety and environmental programs with efficiency.



6. The company conducted Company's quality management system training course for refreshment of work instruction, procedure and

knowledge sharing as a part of the organization's continual and sustainable knowledge management.



7. Training for Operation Level

7.1 English training course to support the business expanding and growth in overseas market



which is divided into 3 courses for 6 groups. Total attendee is 180 persons.



7.2 The training for developing staff communication and systematic learning divided

into 4 courses with 12 groups. Total attendee is 399 persons.



7.3 Training for drivers in the topic of “Professional driver” in order to enhance staff

to aware on the safety and social responsibility. Total attendee is 41 persons.



7.4 Seminar on the project for knowledge exchanging in Business planning. Total attendee

65 persons by attending in the continuing course 3 times.



8. Training and Seminar for Executives Level
- Topic “Don’t give space for the rogue in AOT, PTT, and Thailand. In case of Rolls Royce bribe”.

- IOD Open House 1/2017.
- PWC Forensics Summit.
- Open new CG Code (“Next Step for Company registration with Thailand 4.0”).
- IOD Dinner Talk 1/2017 “Board of Directors and their roles in driving Thailand forward”.
- Board Matters and Trends (BMT) Gen 3/2017.
- Nikkei Asia 300 Global Business Forum.

- Sustainable Investment: Opportunity of Long Term Growth for Businesses and Investors.

- Top executive course, CAPITAL MARKET ACADEMY Gen 25th.

- Infrastructure Project Financing & Public Private Partnership.

- Workshop CG Code.

- Independent Director, role, and Hope of personal shareholder.

- Updated COSO Enterprise Risk Management: Integrating with Strategy and Performance.

- Seminar on Worksheet for Anti-Corruption Measures by CAC, IOD, FAB.

Budget for developing potential staff in year 2017

Type	Cost	Average per person
Training courses for both in-house and outside	4,204,709.28	1,637.34
Outside seminar	1,529,991.76	595.79
Total	5,734,701.04	2,233.13

Achievement

Type	Particulars	Cost	Total
(In-House Training)	- (Company General Training)	892,004.10	305 courses
	- (On the Job Training)	-	
	- (Special Training)	27,200	
	- (Engineering and Project Execution Training)	393,784	
(Public Training)	- Sending staff to train by external academy.	1,361,729.42	67 courses
(Seminar)	- Seminar for sharing the knowledge and brainstorm for business development plan	15,299,991.76	19 topics

Corporate Social Responsibility Activities of QA/QC Department

The company recognizes that employees are valuable and essential resources in driving to achieve business goals. Therefore, the company conducted programs and activities to develop knowledge and skills of employees. The programs and activities were organized by QA/QC department as table below;

Programs and Activities	Participants		
	2017	2016	2015
1. New Employee Training Course			
1.1 Basic safety training.	134	144	167
1.2 Quality, occupational health, safety and environmental management systems awareness training.	133	144	167
2. Employee Potential Development			
2.1 Basic firefighting training.	118	120	105
2.2 First aid and rescue training.	53	62	52
2.3 Occupational health, safety and working environment committee training.	23	-	4
2.4 Company's quality management system training	195	125	81
3. Programs and Activities			
3.1 Healthy TTCL	52	107	24
3.2 HSE Delivery	123	17	34
3.3 Used calendar donation for Disability Empowerment Center in Northeast of Thailand.	-	-	-

Hours of annual training 2017

Statistic from 2,568 persons categorize as follows :

Description	Amount (hours)	Amount (hours)
Classified by Job function		
Management (7 persons)	360	51.42
Project (1,473 persons)	24,421	16.57
Engineering (824 persons)	9,607	11.65
Support (264 persons)	2,344	8.87
Classified by Gender		
Female (1,757 persons)	25,581	14.56
Male (811 persons)	11,151	13.74

Description	Amount (hours)	Amount (hours)
Classified by Type		
Internal Training (2,201 persons)	32,267	14.66
External Training (125 persons)	3,029	24.23
Seminar (242 persons)	1,436	5.93
Total of training hour	36,732	14.30

After training and developing personnel, we have surveyed staff contentment for training course improvement.

Employee Welfare

A part from the minimum welfare according to the labor law we also provide the additional welfare to employee by establish the welfare committee which come from the election in every 2 years in order to receive a comment and suggestion from employee. This is encouraging cooperation between company and employee for employee benefit. In addition we also arrange activities to create harmony among staff such as Company sport Day and New Year party.

In year 2017, TTCL is registered and contributed with Social Security Fund as details below:

Employer part is 27,172,385 Baht

Employee part is 27,172,385 Baht

The ensuring all employees have rights and accessible to this welfare for health insurance and medical treatment. Furthermore employees were enlightened for the Retirement Mutual Fund including Financial Planning Program to gain more knowledge and able to have a financial planning and savings. There were 67 persons attended.



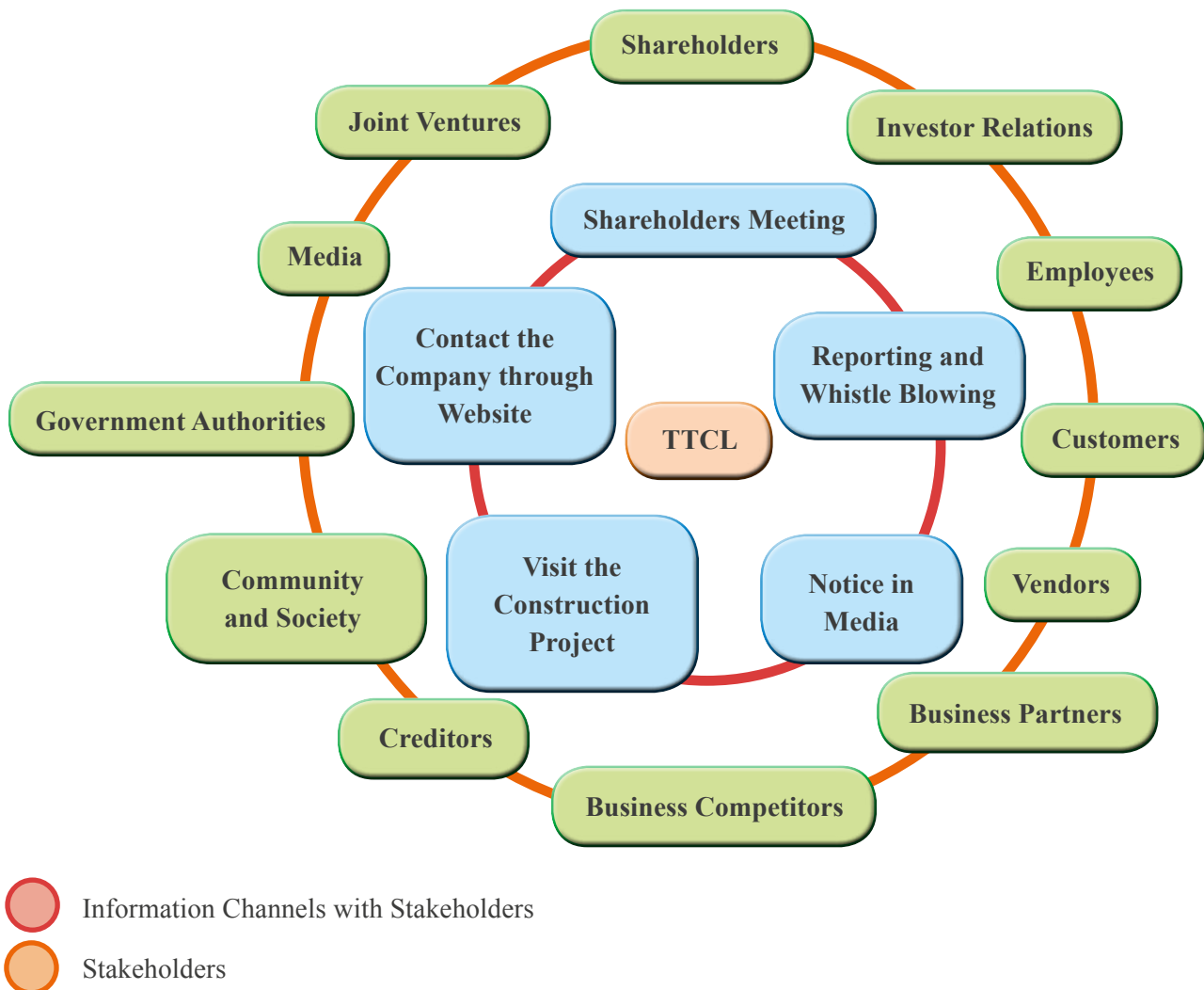
Summary welfares;

Description	Y2016 (Person)	Y2017 (Person)
Annual Health Checkup	1,293	1,381
Health Insurance	1,492	1,448
Vaccination for influenza	703	816
Welfare for employee retirement	3	2
Provident Fund	1,248	1,218
Others		
- Get Well Soon Basket	33	55
- Wreath	13	29
- Staff Funeral	1	7
- Direct relative's staff Funeral	34	51
- Marriage welfare	45	43
- Medical care for foreign staff	5	5
- Medical care for daily employee	-	17

Responsibility for the Stakeholders Engagement

Building relationship with Stakeholders, TTCL divides Stakeholders into 12 groups, including Shareholders, Investor Relations, Employees,

Customers, Vendors, Business Partners, Business Competitors, Creditors, Community and Society, Government Authorities, Media and Joint Ventures.



The table of the stakeholders engagement is one of important process in TTCL operations. Along to be realized that the opinions and suggestions from partners would be the inspiration to lead to the success of TTCL. To be committed to improve for the better services is to meet the customer and partner need. TTCL has prepared for the participation in the different way by consider about the proper partners in different group to communicate about the goals

and the result of operations including to recognize the opinions and suggestions such as shareholder meeting, notification of clues and complaints, revealing information for the society, also visiting the construction project and contact the company by website, and so on. TTCL has gathered, analyzed, and brought the result to be improved the company in the future.

Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Shareholder	- Annual Report - Minutes of Annual General Meeting of Shareholders. - Complaint receipt via complaint channel. - Proposal of Annual General Meeting's agendas and to nominate a candidate to be appointed as a director.	- To be determined to represent all shareholders - To be committed to conducting business with transparency. - To put in place reliable financial and accounting systems, and to deliver optimum shareholder satisfaction.	- Sustainability within an Organization Chapter - Corporate Governance Chapter	- To arrange AGM meeting. - Minutes of Annual General Meeting of Shareholders through Stock Exchange of Thailand.	- To be efficiently through generating maximum long-term returns on investment. - The regular and sustainable strong operational performance and continued growth. - To perform duties with integrity and make decisions in good faith and in fairness to major and minor shareholders alike, as well as for the good of relevant parties. - To refrain from any activities that could cause conflicts of interest and serve self-interest. - Confidential information shall not be divulged to outside parties. - To be simultaneously paying attention to accurate, complete and punctual disclosure of material information to all shareholders. - In response to their unwavering trust and support given to the Company and provide the investment returns that satisfy the shareholders the most.

Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Investor Relations	- Minutes of Annual General Meeting of Shareholders. - Complaint receipt via complaint channel. - Via electronic media of company.	- The great importance to investor relations. - Disclosing material information accurately, sufficiently and in timely fashion. - Not using inside information for their own or their related parties' benefit. - Disclosing material information fairly and equitably. All stakeholders must be able to access to the information and conveniently contact Investor Relations Officers for clarification.	- Arranged operating details of company for shareholders, investor through interested persons and the results for the quarter transparency and accountability in their operations. - Dividend ongoing and in line with earnings the business operations of the company.	- Company's website. - Company's road shows are participated in with domestic and international investors. - To publish the results of the operation in webcast on the Company's website. - To provide shareholders and institutional investors to visit and meet business executives in order to generate understandings in the business of the Company.	- To adhere to the basic principles and practices of "Investor Relations Code of conduct" published by Good governance development & Alliance department, The stock exchange of Thailand, 2014, as a framework. - Performing their duties with professionalism, integrity and equitability. - Preferential treatment that may undermine the benefits of the company and all stakeholders is not acceptable.
Employees	- Orientation for employees. - Complaint receipt via complaint channel of employees.	- The Company has always regarded its employees as valuable resources, whose roles are fundamental to the success of the Company. - The Company places importance on the welfare and safety of its employees. - To support and develop the potential of employees. - To be strengthening the culture and good working atmosphere, promote teamwork.	- Corporate Social Responsibility to employees - Corporate Governance Chapter.	- Announcement on Board. - Inform on E-Mail. - Announcement on company's Intranet.	- To provide every employee with an opportunity to improve its career path on an equitable basis.

Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Customer	Documentary, Newsletter. - Complaint receipt via complaint channel.	- To deliver quality products which meet their requirements. - To be complied with according to the Code of Conduct, Good Corporate Governance and law in a strict manner. - To keep and safekeeping client information and confidentiality by not using the information in a negative way.	- Customers Responsibility Chapter.	- To disclose complete, correct, sufficient and undistorted information on the products and services. - To provide a communication channel for customers to submit any complaint.	- To build customer satisfactions. - The quality policy and quality management system of ISO 9001:2008. - Do not stipulate unfair trade per customer. - Comply with the terms or conditions, towards customer transparently and equal.
Vendors	- Communicate via e-mail and telephone. - Complaint receipt via complaint channel.	- The criteria exist in the evaluation and selection of business partners. - To be transparently and equally observe contracts, agreements and conditions given to business partners. - To refrain from demanding from accepting and paying improper commercial benefits to business partners. - To be attention to their commercial confidentiality and seeks to notify suppliers / contractors as soon as possible in the case that one or more of the agreements cannot be fulfilled.	- Corporate Governance Chapter. - Supply Chain.	- To disclose complete, correct, sufficient and undistorted information on the products and services. - To provide a communication channel for customers to submit any complaint.	- In compliance with corporate governance principles, based on good governance, transparency, and accountability.

Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Business Partners	- Registration Business Partners - Registration Subcontractors - Follow up system quality guarantee	- Equitable Competition with Business Competitors under law framework and Code of Business Ethics. - Do not seek confidential information from Business Competitors with dishonest or inappropriate implement.	- Corporate Social Responsibility to Business Partners. - Corporate Governance. - Supply Chain.	- Annual Report. - News on Media. - Meeting with Business Competitors.	- Ethical and Transparent Business Policy.
Business Competitors	- Annual Report. - Minutes of Annual General Meeting of Shareholders. - Complaint receipt via complaint channel.	- The related laws and regulations, as well as concepts related to Business Code of Conduct. - Not engage in slander or discrediting its competitors. - Not seek to find information about Competitors through dishonest or inappropriate means. The Company does not engage in slander or discrediting its competitors.	- Corporate Social Responsibility to Business Competitors . - Corporate Governance Chapter.	- Annual Report on Company's website. - News on Media.	- A policy to operate in an upright and transparent manner in dealings with its business competitors.
Creditors	- Communicate via e-mail and telephone. - Complaint receipt via complaint channel. - Investor Relations Activity.	- To strictly comply with all terms of any loan agreement it enters into in a responsible and transparent manner especially guarantee condition, capital management and payment.	- Corporate Governance Chapter. - Supply Chain.	- To arrange AGM meeting. - Minutes of Annual General Meeting of Shareholders through Stock Exchange of Thailand.	- Not conceal any information or hide any facts that might possibly result in the realization of losses for its creditors. - The company unable to meet any of the criteria it agreed to, it will make immediate notification to that particular creditor to allow for a course of action to be taken to rectify the situation.

Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Community and Society	- Project and activity for Community and Society. - Meeting with community and local government.	- Activity for supporting the Corporate Social Responsibility. - Activity is concerned with community development.	- Community and Social Responsibility. - Corporate Governance.	- Assisting community and social, environmental conservation and sharing knowledge the education.	- Emphasizing with Corporate Social Responsibility. - Corporate Social Responsibility Policy.
Government Authorities	- Communicate via telephone. - Direct contact with officer via telephone, letter and e-mail. - Complaint receipt via complaint channel.	- Strict compliance with the laws governing the conduct of business.	- Corporate Governance.	- Annual Report. - Minutes of Annual General Meeting of Shareholders.	- Ethical and Transparent Business Policy. - Strictly legal compliance policy.
Media	- Public Relations and Newsletter. - Direct contact with media via telephone and e-mail.	- The timely and accurate public relations.	- The timely and accurate public relations.	- Newsletter. - News on Website. - Public Relations. - Press conference.	- Responsibility and Transparency not conceal information or the fact is advantage and disadvantage result with shareholders, vendors and employees.
Joint Venture	- Minutes of Annual General Meeting of Shareholders. - Meeting with Board of Directors.	- High relation to the related management with investors. - Important information disclosure and necessary to decision in the business of the joint venture company to be infallibly, sufficient and timely.	- Corporate Governance. - Continuous dividend payment and according with the operating results of the company's business.	- Regular meeting with Board of Management and Board of Directors as law.	- Ethical and Transparent Business Policy. - Business Performance Policy for the best benefit of shareholders on basic transparent and code of business ethics.

Sustainable Development Goals (SDGs)

TTCL is committed to contribute to the achievements of both national and global sustainable goals by prioritizing and integrating selected SDGs into the operational activities of the organization, which is conducted by leading global organizations to serve as operational guidance for the business sector to achieve Sustainable Development Goals. TTCL has focused to be integrated into the operational activities and projects of the company to promote sustainable development on the international level. TTCL has followed the Sustainable Development Goals as follows;

1. No poverty
2. Zero hunger
3. Good health and well-being
4. Quality education
5. Gender equality
6. Clean water and sanitation
7. Affordable and clean energy
8. Decent work and economic growth
9. Industry innovation infrastructure
10. Reduced inequalities
11. Sustainable cities and communities
12. Responsible consumption production
13. Climate action, Goal
14. Life below water
15. Life on land
16. Peace justice and strong institutions
17. Partnerships for the goals



Source : <http://www.un.org/globalgoals/th/the-goals/>

Sustainable Development Goals of TTCL

[illegible]

Management and Responsible Operations	                																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Directly supervise TTCL business activities, followed by the human rights					*					*							
Support the supply chain operations in construction project services to relate with the human rights					*					*							
Reinforce the business growth by concerning about the environmental effect and stakeholders engagement						*					*		*				
Environmental management						*						*					
Reduce the import of fuel and fossil							*				*		*				
Electrical generating from the renewable energy							*				*		*				
Reduce the carbon dioxide							*				*		*				
Acknowledge about the energy for employees							*				*		*				
Build up the personnel and quality of life in working to lead to the highest effective organization and having good health								*									
Innovation in organization level									*								
Solar energy safe environment									*								
To develop the locality from operating the power plant									*								
Recycle material substitutes using natural resources									*				*		*		
Improve services to approach the customer need									*								
Creating sustainable innovations and services									*								
Provide the working and services security standard									*								
Management the organization by corporate governance										*						*	
Code of conduct and code of business ethics and regulation to management, employees and business partners										*						*	
Supervisory the operations to be related TTCL's policies and regulation										*						*	
Saving energy for the construction project													*				
Encourage the knowledge and understanding in the principle of corporate governance for every employees																*	
Manage the effective valued supply chain																*	
Adhere the business operations fairly and transparent																*	
Checking and create the knowledge and understanding																*	*

Long-Term Social Responsibility Project (Continuing)		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TTCL Platelets Donation			*																		
TTCL Blood Donation			*																		
Medical Treatment			*																		
Reusable Aluminium and Equipments			*			*													*		*
Library Upatham for 50 schools in the provinces					*	*													*		*
The Basic Fire and Emergency Drill					*	*							*								
Cleaning Public Road			*																		
Reward for good model in the workplace			*																*		
Job Fair & Cooperative Education		*	*		*	*			*										*		
Clean Canal for Environment			*			*			*										*		*
Development of Potential Employees					*	*													*		*
Training for regulations, rule and welfare of company					*	*			*										*		*
Short-Term Social Responsibility Project																					
Public benefit						*										*			*		*
TTCL's reforestation and check dam building																*		*			*
Thai Farmers		*	*		*	*									*		*				
Drinking water for the community			*		*				*												
Advocating Department of Labour Protection and Welfare for society		*	*		*	*			*										*		*
TTCL Sandalwood Flowers Volunteer						*													*		*
Abilympics Thailand		*																	*		*

		Year	2018																																																			
No.	Project	Month	January	February	March	April	May	June	July	August	September	October	November	December																																								
		Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
CSR Activities																																																						
1	Children's Day Activities TTCL Public Company Limite (Head Office) Baen Nong Fah School	Plan																																																				
		Action	■ 11 January 2018																																																			
		Plan	■ 12 January 2018																																																			
2	TTCL Platelets Donation Project (Rajavithi Hospital)	Plan																																																				
		Action	● January 2018 ● February 2018 ● March 2018 ● April 2018 ● May 2018 ● June 2018 ● July 2018 ● August 2018 ● September 2018 ● October 2018 ● November 2018 ● December 2018																																																			
		Plan																																																				
3	TTCL Blood donation project Rajavithi Hospital (Head Office) Rayong Province Red Cross Chapter (Site Office)	Plan																																																				
		Action	● 22 February 2018 ● 22 February 2018 ● 22 May 2018 ● 22 August 2018 ● 22 November 2018																																																			
		Plan																																																				
4	Project "TTCL supports poppies flower for War Veleren Family Assist Foundation"	Plan																																																				
		Action	● 12 February 2018																																																			
		Plan																																																				
5	Project "TTCL Donation Unused Household, Equipments, Appliances, etc." -TTCL donated the unused household, appliances and office equipments to Kanlayano Suankraew Foundation (Pick up items at Head Office) -TTCL Donation Staples for Association of Persons with Physcial Disability International -TTCL Donation Unused Household, Equipments, Appliances, etc for soldier in the 3 southernmost provinces -TTCL Valuable Aluminium for Disabled to Don Tum Hospital, Nakhon Pathom	Plan																																																				
		Action	● 10 February 2018 ● 24 May 2018 ● 27 August 2018 ● 24 November 2018																																																			
		Plan																																																				
6	Project "TTCL Cleft Lip and cleft palate at Hospital in Myanmar"	Plan																																																				
		Action	● 10 February 2018 ● 24 May 2018 ● 27 August 2018 ● 24 November 2018																																																			
		Plan																																																				
7	Walk-Run Activities Sponsorship "50 Years PSU Engineering Run" Sponsorship "12 August Half Marathon Bangkok" Sponsorship "Run for Charity 750 km. Bangkok - Payao"	Plan																																																				
		Action	● 10 February 2018 ● 12 August 2018 ● 10 July - 19 August 2018																																																			
		Plan																																																				
8	The Project "Library Uptham for 50 schools in the provinces"	Plan																																																				
		Action	■ April 2017 - March 2018																																																			
		Plan																																																				
9	The Project "TTCL Volunteer" TTCL " ARTIFICIAL VOLUNTEER PROJECT " TTCL Volunteer for The Patients	Plan																																																				
		Action	● 12 September 2018																																																			
		Plan																																																				
10	TTCL supports books to school in distant area	Plan																																																				
		Action	● 10 May 2018 ● 22 November 2018																																																			
		Plan																																																				
11	BOD Golf Challenge Cup 14/2018	Plan																																																				
		Action	■ 12 June 2018 ■ 14 December 2018																																																			
		Plan																																																				
Company's Activities																																																						
12	TTCL Sports Day 2016 Chulalongkorn University Stadium, Bangkok	Plan																																																				
		Action	● 10 August 2018																																																			
		Plan																																																				
13	Awards Presentation -Retirement Trophy -TTCL Photo Contest for Annual Report 2016 -Reward for employee who participate in the company's activities	Plan																																																				
		Action	● 22 November 2018																																																			
		Plan																																																				
14	TTCL New Year Party 2016	Plan																																																				
		Action	● 22 November 2018																																																			
		Plan																																																				
Training / Seminar																																																						
15	In-House Training - Engineering Course - Project Course - English Training Course - Staff Communication Course - Support Training Course - TTCL Outing Training (Engineering And Project) Public Training - Engineering Course - Project Course - Support Training Course	Plan																																																				
		Action	● January - June 2018 ● July - December 2018																																																			
		Plan																																																				
15	TTCL Outing Training (Engineering And Project)	Plan																																																				
		Action	● 22-23 April 2018 ● 14-15 July 2018 ● September 2018 ● December 2018																																																			
		Plan																																																				
15	Public Training - Engineering Course - Project Course - Support Training Course	Plan																																																				
		Action	● January - June 2018 ● July - December 2018																																																			
		Plan																																																				

● Social & Community

■ Education

▲ Environment

TTCL social responsibility divided into 3 main principles which are community and society, education, and environment.

Long-Term Social Responsibility Project (Continuing)

The company proceeds the business with the social responsibility and encourages the stakeholders engagement through the activities for the benefit of the company, community, locality, and society by

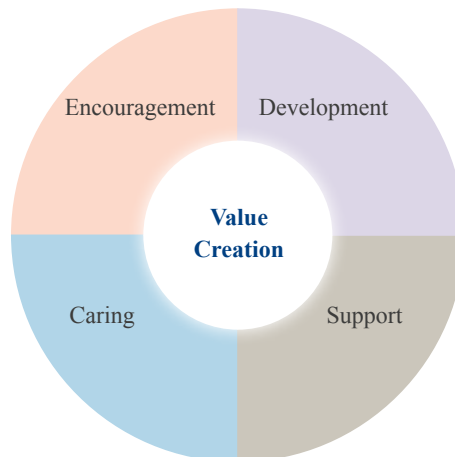
the company operations that focus on reinforcement and improvement the quality of life. Also protects the environment for the sustainable improvement which is related to the goals of SDGs. It is the process to be improved activities of social responsibility and ready to build the balance with the company growth. The company has conducted several projects that would be the lead to the max success for society and business to be strength, valuable, and make a good relationship with stakeholders.

Health

- TTCL Platelets Donation
- TTCL Blood Donation
- Medical Treatment
- Run Hero Run
- The Walk-Run “12 August Half Marathon Bangkok 2017”
- Eye Run World Glaucoma Day
- Walk – Run for Honor in Coronation Day
- Walk-Run-Bike 100 Years Chulalongkorn University
- Promote Good Health to Employee

Environment

- TTCL's reforestation and check dam building
- Cleaning Public Road
- Saving Box
- Conserve and Mangrove Forests
- Clean Canal for Environment
- Volunteer Spirit to Build Water Dam



Economics

- Solving Problems for Communities
- Helping Social and Community
- Hiring the Community for a Good Occupation
- Community Responsibility around the Working Area
- Community and Stakeholders Engagement
- Innovation in Organization

Education

- Library Upatham for 50 Schools in the Province
- Professional Microsoft Office for Provincial Teachers
- Course Training for Employees
- Support the Computers for Education

Long-Term Project (Continuing)		Summary
TTCL Blood Donation		Cooperated with Rajavithi Hospital in “TTCL Blood Donation Project” in order to be a reliable supply of safe blood for patients at Head Office.
TTCL Platelets Donation		Cooperated with Rajavithi Hospital in “TTCL Platelets Donation Project” to help patients survive major surgeries or serious injuries.
Unusable Electric Appliances and Office Equipment		Donated the unusable electric appliances and office equipment to Kanlayano Suankaew Foundation. The handover activity was held at Head Office.

Long-Term Project (Continuing)		Summary
Medical Treatment		Supported USD 4,946 (163,218 Baht) to help medical treatment for 22 children of surgical mission at Mawlamyaing General Hospital and Thanbyuzayat hospital in Republic of the Union of Myanmar.
Children's Day		Arranged Children's Day for students at Ban Nong Fab School, Rayong to offer lunch and donated computers, books, bookshelf, toys, dolls, snacks, etc. Supported 50 sets of stationery to students at Baan Klong Sai School, Rayong, in order to make a good relationship with the communities around the project site. Organized Children's Day for employee's children at Head Office to make a good relationship and do activities together between parents and children such as games, gifts and food.
HSE Delivery		Published HSE Delivery program to communicate Occupational health, safety and environmental articles to employees. Furthermore, TTCL also encouraged employees to participate in this program to raise awareness in Occupational health, safety and environmental protection.
Reusable Aluminium and Equipments		Donated the 5 th Reusable Aluminium and Equipments under the project "TTCL Valuable Aluminium for Disabled" to Prosthetics Factory at Don Tum Hospital, Nakhon Pathom.
Cleaning Public Road		Held the project to clean the dust and soil up in the workplace and the community area in vicinity of the site.
Saving Box		"Saving Box" in order to reduce paper consumption and get the most out of it.

Long-Term Project (Continuing)		Summary
Used Ink and Toner Cartridges Return and Recycling.		Company emphasizes on the environmental impact prevention in every step of work, in order to reduce hazardous waste from office activities, the company has participated in the HP Planet Partners Program to return used ink and toner cartridges to manufacturer, these returned cartridges will be recycled by digest and transform in to raw material for reproduction (close loop). In 2017, 494 Units of used ink and toner cartridges were returned to manufacturer for recycling.

The company sees the important in education which is the main foundation to improve children with the good opportunity in work when they grow up in the future. Therefore, The company has the concept about building three school buildings near the construction project of the company in Rayong province. Also provide the education material such

as computers, tables, and study books. Generating the human resource that have potential to the society is one of the goals of the company, to be related to social responsibility. In order to build three school buildings, the company still keeps a look of the process and construction by these following:

Professional Microsoft Office Training		Arranged “Professional Microsoft Office Training” for teacher team of two schools where TTCL has built two in three school buildings in order to develop their skills how to use Microsoft Office properly and efficiently.
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Short-Term Social Responsibility Project

The company proceeds the business with the social responsibility and encourages in both internal and external stakeholders to participate in company

activities for participation to stakeholders by consider about the community and society, education, and environment.

Short-Term Project		Summary
Walk-Run-Bike 100 Years Chulalongkorn University		Promoted for our staff health consciousness through exercise at Chulalongkorn University.
Flood Victims		Supported 20 packs of drinking water to Social Security Office Area 12, Bangkok, in order to help flood victims in South of Thailand.
Veteran's Family Foundation Poppy Flower	 	Honored by The Veteran's Family Foundation to support "Veteran's Family Foundation, Poppy Flower Project" in total of 1,500 flowers amount 31,687 baht to assist veteran's families.
Sandalwood Flowers	 	Arranged "SANDALWOOD FLOWERS VOLUNTEER PROJECT" for TTCL's volunteer staffs to participate in making the sandalwood flowers. The Royal Cremation Ceremony of His Majesty King Bhumibol Adulyadej is scheduled on 25-29 October 2017. This participation in making sandalwood flowers is seen as an activity that enables TTCL's staff to show their love and respect to His Majesty the late King. This activity is arranged at Head Office. Supported 2,864 Sandalwood Flowers (Dararat) for the Royal Cremation Ceremony of His Majesty King Bhumibol Adulyadej through Khlongtoei Bangkok Vocational Training School.
Candle Festival Parade		Provided the bath-robe and candle to the monk during the period of the Buddhist Lent at Wat Plokket in Rayong.

Short-Term Project		Summary
Volunteer Spirit to Build Water Dam	 	Supported 180 bottles of drinking water for “Volunteer Spirit to Build Water Dam Project” to be commemorated of His Majesty the King in the occasion of the King’s Birthday, July 28, 2017. This activity was organized by The Crown Property Bureau at Ban Pu Sawan School in Phetchaburi province.
The Walk-Run “12 August Half Marathon Bangkok 2017”		Become the major sponsor of the walk-run event “August 12th Half Marathon Bangkok 2017” for 4 years continuously in order to promote for our staff health consciousness through exercise with a series of walk-run at Queen Sirikit National Convention Center.
Healthy TTCL	 	Conducted Pilates exercise activity to provide knowledge about office syndrome prevention for employees which could be properly applied in daily life. The activity was instructed by physiotherapist who specialists in Pilates.
Office Equipment	 	Donated some of money to repair the roof of Toyo-Thai Upatham Building and office equipment to Baan Klong Sai School, Rayong Province. The handover activity was held at Head Office.
The Buddhist Statue		Donated 5,000 THB to Department of Labor Protection and Welfare in creation of Buddhist statue at Wat Pariwasratchasongkram in Bangkok.
Received the certificate		Received the certificate of Occupational Health and Safety in Working Environment at Roc Eco Turnaround 2016 from Rayong Olefins Company Limited.

Short-Term Project		Summary
“Photocopy Machine” Training		Conducted “Photocopy Machine” training at Head Office in order to instruct the staffs how to use photocopy machine properly and efficiently as well as maintain and basically solve some breakdown for the prevention of spare part loss.
Computer Handover		Offered 5 sets of computer to Sahakon Bamrung Wit School and 5 sets of computer to Ban Pong Leuk Border Patrol Police School in Phetchaburi province for supporting the education to students.
Social Contribution		Supported milk to Child’s Development Center, Klongluang Municipal 1 (White House), Pathum Thani.
Sandalwood Flower Materials		Donated the Sandalwood Flower Materials to Rajavithi Hospital Foundation. This activity was arranged at Rajavithi Hospital Foundation.
TTCL Handbooks Donation		Supported the handbooks for Children and Youth through MRT activity “Give Books Get Back with MRT” at Sukhumvit MRT Station.
Kathin Ceremony		Become the cooperative host for Kathin Ceremony to offer 16,300 Baht to Wat Nong Fab in Rayong.
Calendar to Disability Empowerment		Donated used calendar to Disability Empowerment Center in Northeast of Thailand to produce learning material for the blind.

5. Responsibility for Environment and Safety Standards

The Company operates business by adopting the provisions of Occupational Health and Safety Management System (OHSAS 18001, TIS. 18001 and ISO 14001). The Company also advocates the development and conservation activities of energy and environment which are achieved by encouragement of efficient resource usage. The Company arranges campaign activities supporting economical and efficient resource usage such as the electric saving campaigns and disposal of garbage and waste from both at the office and project site. This aims to increase all employees' awareness of social responsibility duties and environment.

Occupational Health, Safety and Environmental Policy.

TTCL has established the Occupational Health, Safety and Environmental Policy Statement. This policy states:

1. All company activities shall comply with all HSE legal and other applicable requirements.
2. HSE Policy and related HSE information shall be communicated to employees, partners and concerned parties to make them understand their duties and responsibilities regarding the occupational health, safety and environmental management system and perform their tasks correctly.
3. HSE objectives for the company and projects shall be established. A monitoring, measurement and control system shall be established to monitor HSE performance.
4. HSE procedures and documentation for each project and functional organizations shall be established and implemented so that all activities are performed safely with concern for the environment.
5. The necessary resources shall be provided to support the implementation of the occupational health, safety and environmental management systems.

6. Top management shall review the HSE policy and objectives annually for its effectiveness and suitability and seek out the opportunity for improvement of the occupational health, safety and environmental management systems.

Occupational Health, Safety and Working Environment Committee

TTCL has established the Occupational health, safety and working environment committee in compliance with the Ministerial regulation set standard in administration and management of safety, occupational health, and work environment B.E. 2549 to support and encourage the occupational health, safety and environment activities to ensure that all activities are effectively complied with HSE's Policy. The committee has a two-year term from 21st July 2017 to 19th July 2019 (2 years).

Occupational Health, Safety and Working Environment Committee Consist of;

1. Mr. Ong-art Tunprawat
Chairman (Employer's representative in management level)
2. Ms. Jaruwan Sookthauyart
Committee (Employer's representative in commanding level)
3. Mr. San Jaisong
Committee (Employer's representative in commanding level)
4. Mr. Somboon Tachasevarakul
Committee (Employer's representative in commanding level)
5. Mr. Anuchit Piyamanit
Committee (Employer's representative in commanding level)
6. Mr. Somchai Klomraksa
Committee (Employee's representative)
7. Ms. Natthapat Sirikongsuwan
Committee (Employee's representative)
8. Ms. Inthira Manoonyo
Committee (Employee's representative)

9. Ms. Kanyawee Unsue
Committee (Employee's representative)
10. Mr. Sitthan Chaipong
Committee (Employee's representative)
11. Mr. Nuttapol Sinkajohn
Committee and Secretary
(Safety officer in professional level)

Sustainability Highlights

- TTCL received the certificate of working 2,500,000 man-hours without LTA from PTT Global Chemical Public Company Limited at LLDPE EXPANSION AND HEXENE-1 PROJECT (D-184), Rayong.



- TTCL attended “Klongluang Utilities Project” to receive 1st certificate of working 2,000,000 man-hours without Lost Time Accident (LTA) from The EGCO Group Company, Pathum Thani.



- TTCL received the certificate of Occupational Health and Safety in Working Environment at ROC ECO TURNAROUND 2016 from Rayong Olefins Company Limited.



6. Company Innovation related to CSR

The Company has encouraged the innovation, research and development to accord with Sustainability Development as valued to economic, social and environment.

TTCL's Innovation Management

Innovation is the essence to support the organization to success in sustainable growth and continue delivers the values to stakeholders under economics, social and environmental as well as competition in innovation among Engineering, Procurement and Construction Business (EPC) and Energy Business.

With our commitment to increase our business potentiality (competency) and sustainable growth development meanwhile values development in economic, social and environmental perspective, the company has the policy to extend from organization internal to the related supply chain, from upstream to downstream. Company has put business ethics, standards, safety, social responsibility and environmental as priority by promote to establish the Innovation Management System to promote of creation of supportive innovations for present business and initiate new businesses in the future.

To achieve the innovation target, the organization has to plan to make a systematic innovation management i.e. Context, Innovation Management Planning, Driving Factors, Innovation Management Process and Assessment of Innovation Management System

Innovation for Future

With our commitment to be leader in engineering and energy business and to improve life quality, stable and sustainable business growth, company has planned strategies on innovation development and innovation management system as a business driving force as well as knowledge management on transferred knowledge and experiences, focusing on collaboration with business alliances both domestic and overseas, this will add both business values and competency to the company and its affiliates. The

company has designate innovation development plant, set up a committee and working group as well as supporting activities to be in line with long term innovation development approach.

The company has designated innovation development directive to be in line with the company business development plan and collaborate with outside entities i.e. business alliances and affiliated companies both domestic and overseas, for examples Carbon Capture Project in USA.

Master Plan

1. Increase present business competitiveness

Achievement

Engineering Business Unit

1. Apply of modern design and engineering technologies as following;

- 1.1 Apply of latest 3D computer aid design to design, review and check prior to procurement, construction and installation in order to improve the construction efficiency and avoid any mistake in every step of works.
- 1.2 Apply of 3D visualization for presentation to clients and stakeholders.
- 1.3 Apply of 3D printing technology to build the plastic plant model for presentation to clients and stakeholders.
- 1.4 Apply of Solar PV specific design and engineering software which will assist to having Solar PV site selection, layout design and installation for optimum efficiency while still competitive costing.
- 1.5 In-house software development in Process Engineering as following;
 - Calculation of Boil-Off gasses in storage.
 - Sea Water Intake Sizing calculation.
 - Knock –Out Drum calculation.
 - 2-Phase Flow Pattern Predication.
 - Emergency Hatch Sizing.
 - Pressure Safety Valve design calculation.

- Software development for piping material take-off for procurement and material management.

2. Construction cost data collection and analysis in projects.

3. Introduce of Waste Water Treatment Innovation for Chemical plant having Tetrahydro Furan in waste water which rarely found in conventional process as the first of a kind in Thailand.

4. Knowledge Management to collect and analysis of knowledge, experiences and mistake in execution of projects included searching system for internal study and avoid repeating mistake for present and future projects (Lesson Learn System).

5. Apply of modern inspection techniques as following;

- Inspection of welding works and materials with PAUT (Phase Array Ultrasonic Test) to reduce inspection time, improve accuracy and reduce difficulty which normal found in X-RAY welding work inspection.

6. Collaborate with Skyonic Corporation Inc. in USA as EPC Contractor and equity investor successfully built the commercial scale carbon capture plant from cement factory to convert into carbonate compound and useful chemical as first of a kind in the world.

Energy Business Unit

1. Collaborate with business alliance from overseas to design the IGCC : Integrated Gasification Combined Cycle Power Plant with RDF as fuel to generate electricity and heat for VSPP (Very Small Power Producer) in Thailand. The project is now in the state that of development, obtaining the PPA (Power Purchase Agreement).

2. Collaborate with Siam Solar Power Plc., JV Company and Tokyo Electron in Japan, testing the commercial prototype to collect and analysis of Dust Collection Effect to Production Yield, Degradation Monitoring and Calculation of suitable panel cleaning timing for cleaning cost reduction.

3. Collaborate with Pornvilai Co., Ltd. develop Biogas Project to generate biogas as fuel for electricity generation under VSPP (Very Small Power Producer) program which utilize TTCL own develop biogas technology. The project has entitled to obtained CER (Certified Emission Reduction) from UNFCC according UNFCC's CDM.

Continuing Development

1. To develop innovation related to design technology for reduction of time, losses in procurement of equipment and materials, increase of design accuracy and efficiency.

2. To improve and development of system for quality control, quality management and reduction of construction cost and time.

3. To improve and development of system for health, safety and environment control.

4. Seeking for technology which can be extended and value added to the business in industrial segment which the company is continuing having engineering and construction works.

5. Promote and support to establish new innovation which can be applied into industrial segment where the company continuing having engineering and construction works.

6. Collaborate with technology owners which their technologies can be added values to the industrial segment which company continuing having engineering and construction works for project development and co-investment or propose to clients.

2. Increase potential business growth in new industrials or markets.

Achievement

1. Seeking for advance engineering and design which related to Process Simulation to add values to company's engineering works.

2. Collaborate with domestic and overseas alliances for development of biomass quality for the purpose of co-firing in coal-fired power plant, target to increase of carbon dioxide emission reduction and reduce of logistic cost and storage.

3. Collaborate with business alliances for

development of hybrid power generation in conjunction with energy storage for remote area application which don't need external energy source.

Continuing Development Plan

1. Seeking and development of innovation and knowledge to support future projects which will be in the industrial sector which company is having business and other new industrial segments in the target markets.

2. Seeking for new business alliances who own the innovations which can be add values to present business segment and new industrial segment in target markets for project development, investment of engineering business.

3. Support for future business growth.

Achievement

1. Development of process related to energy business both alternative energy and commercial fuel to obtain clean energy, environmental friendly, efficient and acceptable to stakeholders.

2. Seeking for potential technologies which can be create future works and add values to company related industrial segment i.e. Energy Storage, Waste Heat Recovery and Waste Energy Conversion.

3. Seeking and development of innovation and knowledge related to artificial intelligence i.e. Machine Learning and Deep Learning which can be apply to engineering business and energy business.

4. Seeking and development of innovation and knowledge related to industrial IoT (Industrial-Internet of Things).

5. Development and improve of engineering and design to be the last updated technology.

6. Development and seeking of new innovation technology to build up the competitiveness, reduction of time and add values.

The company has realized the essential in innovation management. In order or achieve the objective in engineering business, design to increase the quality of life of stakeholders and sustainable business growth.

Auditor Remuneration

Audit fee

The Company and its subsidiaries paid annual audit fee for the year amounting to THB 11,224,972.00 comprising of

- The Company's audit fee amounting to THB 4,000,000.00
- Branches and Subsidiary Companies' audit fee amounting to THB 7,224,972.00

Non Audit Fee

The Company and its subsidiaries paid tax advisory fee to the Auditor amounting to THB 3,683,750.00

Connected Transactions

Value and Outstanding Amount of Connected Transactions that might lead to Conflict of Interest

For 2016 – 2017, the Company has connected transactions with the related parties as follows:

Unit: Thousand Baht

NAME/ BUSINESS	RELATIONSHIP	TYPE	VALUE OF TRANSACTIONS		Outstanding as of		Audit Committee Comments for Transaction Rationality
			2016	2017	31 Dec 2016	31 Dec 2017	
1. Toyo Engineering Corporation – Japan “TEC” / EPC Contractor	TEC is main shareholder in TTCL at 15.00% in 2016 and 10.00 % in 2017 of Paid-Up Registered Capital with a jointed director, Mr. Makoto Fusayama.	- Construction and Service income - Trade Accounts Receivable - Unbilled Contract Revenue - Advances Received from customers under Construction Contracts.	3,124,542	1,306,284			In 2016 and 2017 TTCL's revenue generated from TEC were amounting THB 3,124.54 million and 1,306.28 million respectively. Trade A/R and Unbilled Contract Revenue in 2016 and 2017 as amounting THB 1,739.80 million and THB 1,299.20 million and THB 654.51 respectively. Advances Received from customers under Construction Contracts in 2016 as THB 32.55 million The Company had provided engineering services and procurement services to Toyo Engineering Corporation – Japan The Audit Committee considered the transaction was done in a normal course of business practice

Unit: Thousand Baht

NAME/ BUSINESS	RELATIONSHIP	TYPE	VALUE OF TRANSACTIONS		Outstanding as of		Audit Committee Comments for Transaction Rationality
			2016	2017	31 Dec 2016	31 Dec 2017	
2. Toyo – Engineering & Construction . Sdn . Bhd. (Malaysia) (TEC – Malaysia)	TEC–Malaysia is Subsidiaries of TEC – Japan (who is main shareholder in TTCL)	- Construction and Service income	2,597,960	3,038,278			In 2016 and 2017, TTCL - Malaysia Sdn. Bhd who is Subsidiaries of The Company had generated from TEC – Malaysia were amounting THB 2,597.96 million and 3,038.28 million respectively.
		- Trade Accounts Receivable			1,390,421	97,837	Trade A/R in 2016 and 2017 as amounting THB 1,390.42 million and THB 97.84 million
		- Deferred Construction revenue			1,030,369	299,785	Deferred Construction revenue in 2016 and 2017 as amounting THB 1,030.37 million and THB 299.79 million respectively.
		- Advances Received from customers under Construction Contracts			82,381	13,222	Advances Received from customers under Construction Contracts in 2016 and 2017 as amounting THB 82.38 million and 13.22 million respectively.
							TTCL–Malaysia had provided Construction service, Engineering services & procurement services to Toyo Engineering Corporation – Malaysia The Audit Committee considered the transaction was done in a normal course of business practice.

Unit: Thousand Baht

NAME/ BUSINESS	RELATIONSHIP	TYPE	VALUE OF TRANSACTIONS		Outstanding as of		Audit Committee Comments for Transaction Rationality
			2016	2017	31 Dec 2016	31 Dec 2017	
3. Global New Energy Company Limited	TTCL is shareholder at 40% and The Company owned by TTCL's Management is shareholder at 60%	- Rental Service and Service Fee - Account Receivable - Accrued Income	216	303			In 2016 and 2017 TTCL's revenue generated from Global New Energy Co., Ltd. were amounting THB 0.22 million and 0.30 million respectively. Account Receivable in 2016 and 2017 as amounting THB 0.02 and 0.03 million and 0.07 million Accrued Income in 2016 as amounting THB 0.02 million and 0.03 million. The Company had provided Rental services and Service fee to Global New Energy Co., Ltd. The Audit Committee considered the transaction was done in a normal course
4. Italian-Thai Development Plc. ("ITD") /Construction, Contractor	2015 to 2016, ITD held 3.29% in TTCL's paid-up registered capital. In 2013 and 2014, One of ITD's major shareholders, Mrs. Nijaporn Charanachitta, represented one seat of TTCL's board of directors.	- Cost of Construction and Service	-	-	164	53	In 2016 and 2017 TTCL's expenses generated from Italian-Thai Development Plc. was amounting THB 0.16 and THB 0.05 million respectively.

Connected Transactions with Related Parties

Measure and procedure of approval for making connected transaction

The Company will arrange to have a department responsible for transaction verification in relation to reasonableness, general trading terms and conditions, and other details of the transaction to be in the normal course of business. The Company shall proceed as following.

- 1) In case of general trading terms and conditions as well as normal course of business, the board of directors or the person assigned by the board of directors shall proceed with the transactions and shall report those transactions to the Audit Committee quarterly
- 2) In any case other than 1) above, the transaction shall be reviewed and provided with opinions by the audit committee prior to the submission for approval by the board of directors and/or shareholders

After the initial public offering, the board of directors shall manage the Company in accordance with the Stock Exchange of Thailand (SET)'s rules, regulations, instructions, and notifications as well as in compliance with the requirement in information disclosure regarding connected transactions or acquisition/disposition of assets of the Company and its subsidiaries and also in compliance with the Thai Accounting Standard (TAS)

In case of connected transactions, the audit committee shall review and provide opinions in terms of its necessity and reasonableness by considering the conditions to be in line with normal course of business and general trading terms and conditions of the Company. The Company may appoint a professional or the Company's auditor to provide opinions regarding the connected transactions to the audit committee and/or the board of directors and/or shareholders as necessary for the best interest of the Company and transparency of the transactions. The Company shall disclose the connected transactions in the notes to its audited financial statements.

The Company has set up the scope of normal trade transaction for the Company and its subsidiaries, the transaction shall have the nature of normal trade terms and conditions per the following details:

Normal Course of Business shall refer to:

The provision of integrated engineering, procurement and construction services including consultancy to industrial clients or other project's contractors, both individual and juristic person.

The purchase of raw material, construction material, consumable goods, machine and equipment, as well as the engagement of a sub contractor, which is required in the Company's business operation including other expenses normally incurred in the business course such as warehouse rental fee, transportation charge, etc. from an individual or a juristic person.

Fair Price shall refer to:

The price in which the buyer and the supplier agree to exchange goods or services when both parties have knowledge and willingness to enter into an agreement and the price is independently negotiable. The price shall be specified based on a market price, resulting from an independent negotiation on the same basis for all parties.

Policy or tendency of further connected transactions

There may be a doing connected transactions by the Company in the future that need to comply with the law concerning securities and exchanges, regulations, notification, orders or rules of the Stock Exchange of Thailand including the Accounting Standard Re: the Disclosure of information concerning Related Persons or Activities, required by the Institute of Certified Accountants and Auditors of Thailand.

Measure for conflict of interest with third party who has other types of conflict of interest.

In addition to connected transaction, the company has connected transaction with the other party who may have conflict of interest i.e. collaboration as consortium or compete in business. The company has measurement as follows:

Work together with other company as consortium

In case of jointly bid or work together as consortium, the company and its consortium member will jointly consider scope of work and responsibility in each section of such project base on its specialized and competitiveness. The consortium will have

chance to win if there is suitable scope of work and responsibility of each members. Each consortium member will prepare proposal on its scope and combined each party proposal to be consortium proposal.

To prepare proposal, the company considers that the proposal shall be benefit to the company. The proposal is prepared based on accurate actual cost plus appropriate profit with approval from the Board of Directors and Board of Management. Audit Committee will review scope of work and benefit sharing amount consortium to ensure that such division of scope of work is reasonable and maximize benefit of the company.

In Consortium Operation, the Company and consortium members will separately be responsible for income and expenses in accordance with each party's scope of works.

Competition between the Company and the third party which is defined as Conflict of Interest Transaction

In competition, the Company has never practiced a conflict of interest transaction. Competition with any third party. ITD, for example, engages in Civil Engineering for large scale infrastructure projects and essentially differs from the Company's core businesses, integrated EPC. Competition, if any, will not be directly effect to the Company. In terms of transparency and fair competition, ITD might be involved as subcontractor provided that it has conformed to the Company's criteria and procedures in subcontractor selection and its offering is best for the Company's benefit compared to others.

For TEC who appears to be in the same business, relationship seems to be more on supportive to the Company rather than competition. In bidding for a project, factors that bar competition between TEC and the Company are as follow:

- TEC emphasizes its efforts to project size over USD 500 million while the Company is focusing on USD 300 – 500 million project.
- Technological complexity and past experiences (Track Record) required for a specific project.
- Relationship and Customers' Preferences.
- Fixed cost differences between TEC and

the Company. This also holds true for competitors from other developing country like Korea. Entry for low scale competition is impossible due to their high fixed costs.

For other companies within in TEC group and located in other countries, some of them concentrate only in a specific area or scope of EPC, therefore, their engagement differ from the Company's nature of businesses, integrated EPC contractor. For this reason, from the Company's point of view, theses companies act as global network and risk mitigation rather than competitors whenever overseas assistance from overseas is required, local subcontractor dealing, suppliers negotiation, etc.

Besides, considering the balance of the Company's shareholders structure and board of directors, the shareholders can be categorized into 4 groups, (1) TEC, 15.00%, (2) ITD, 1.02%, (3) direct holding by the Company's management, 15.33%, and indirectly holding by the Company's management through Global Business Management Co., Ltd., 6.90%, (4) the Company's employees 3.25%, and (5) other investor, 63.50%.

In addition, the management structure is designed independently apart from any group of shareholders' influence. The Board of Directors consists of 9 seats, Independent Directors (3), TEC's Representative (1), ITD (1), and Executive Directors (4). None of these shareholders represents in the Board of Management, therefore, decision being made will be carried out under business norm and free of any shareholders' interference.

The Audit Committee's Comments on Related Party Transactions

The Company's related transactions are considered and addressed by its Audit Committee to ensure that they are normal business transactions with no special conditions and no transfer of interest among the Company, subsidiaries, associate companies, related companies or shareholders. In addition, regarding pricing, the policy for related transactions between the Company and related business is similar to the policy between the Company and non-related persons/businesses and carried out in the Company's interests.

The Company's Dividend Policy

The Company has a policy to pay dividend at the rate of not less than 50% of the net profit after tax and reservation required by law. However, the Board of Directors of the Company has the authority to consider the exception of compliance to this policy or change the policy from time to time but subject to the conditions

that in all aspect it shall be proceeded for the best benefit of the shareholders for example to maintain the reserved fund to repay the loan, to invest in expansion of Company's business or to use as working capital in case of there is any change in the market situation which effecting the company's cash flow in the future.

Dividend Policy of the subsidiary

Dividend Policy of the subsidiary shall be considered by the Board of Directors of the subsidiary by taking into the remaining cash flows to compare with the investment of the subsidiary without having to pay any fixed rates of dividend.

In case the cash flows has sufficient amount after satisfaction to the reservation law, the Board of Directors of such subsidiary has the right to consider for payment of dividend in each case.

The Board of Directors' Report on their Responsibilities for Financial Reports for the year 2017

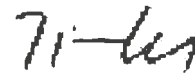
The Financial Statements for TTCL Public Company Limited and its subsidiaries have been prepared in accordance with generally accepted accounting principles by choosing a proper accounting policy which has been regularly observed. Due circumspection of estimation has also been given in the preparation of the financial statements to adequately reflect substantial performance for the interest of the shareholders and investors.

In this regard, the Board of Directors has appointed the Audit Committee comprising independent members of the Board to oversee the quality of the financial statements and internal control system. The Committee's comments have already been shown in this annual report.

The Board is of an opinion that the overall picture of Company's internal control system is at a satisfactory level which can reasonably create confidence upon the reliability of the financial statements of the Company and its subsidiaries as of 31 December 2017.



(Mr. Hironobu Iriya)
Chairman of Board of Directors



(Mr. Tiwa Jaruke)
Director

Management Discussion and Analysis

1. The Operating Performance for the Year Ended 2017

The Company reported its Gross Profit at THB 852 million, weakened -42% mainly caused by sharp drop in construction backlog value and the new EPC contract awarded in 2017 has not yet been fully implemented during the period. However, the recovery of the Ahlone Power Plant operation in the 2nd Half of 2017 has helped the Company's overall performance stronger. However, the Net Profit was further down -79% to THB 95 million as a result of a 13% surge in Administrative Expenses which was incurred from both at TTCL's level and subsidiaries especially the Ahlone Power Plant.

The Foreign Exchange Difference on Translation Financial Statement was recorded at THB -450 million caused by USD weakened during the period affecting the exchange different on translating financial statement of branch in Qatar, THB -139 million and equity investment in foreign subsidiaries, mainly TTPHD Group in Singapore, THB -311 million. Therefore, the Comprehensive Income for the Period was further down to THB -354 million. The above Net Profit, THB 95 million, was attributed to the Company at THB 53 million and the Basic Earnings per share were calculated at THB 0.09 per share.

2. Management Discussion and Analysis Report according to consolidated financial statements

For the Period Ended

Revenues	31 Dec. 2017		31 Dec. 2016		Change
	THB Min.	%	THB Min.	%	%
Construction and service revenues (EPC)	9,693.0	92.78%	19,389.0	96.83%	(50.01%)
Revenue from operation power plant	754.2	7.22%	635.5	3.17%	18.68%
Total Revenues	10,447.2	100.00%	20,024.5	100.00%	(47.83%)
<u>Less</u> Cost of constructions and services (EPC)	(9,082.5)	86.94%	(18,310.0)	91.44%	(50.40%)
<u>Less</u> Costs of operation power plant	(512.7)	4.91%	(233.5)	1.17%	119.62%
Total Costs	(9,595.2)	91.85%	(18,543.5)	92.60%	(48.26%)
Gross profit	852.0	8.15%	1,481.0	7.40%	(42.48%)
<u>Add</u> Other income	464.1	4.44%	273.0	1.36%	70.03%
<u>Less</u> Gain (Loss) on Exchange Rate, net	64.4	0.62%	44.6	0.22%	44.22%
<u>Less</u> Administrative Expenses	(953.7)	(9.13%)	(847.4)	(4.23%)	12.54%
<u>Add</u> Share of Profit/(Loss) of Associate	18.5	0.18%	15.3	0.08%	21.05%
<u>Add</u> Share of Profit/(Loss) of joint venture	0.7	0.01%	0.8	0.00%	(9.88%)
Profit before Financial Costs & Income Tax	445.8	4.27%	967.2	4.83%	(53.91%)
<u>Less</u> Financial Costs	(419.4)	4.01%	(427.5)	2.13%	(1.89%)
Profit before Income Tax	26.4	0.25%	539.7	2.69%	(95.11%)
<u>Less</u> Income Tax	68.6	0.66%	(94.1)	0.47%	(172.88%)
Net Profit for this Period	95.0	0.91%	445.5	2.22%	(78.68%)
<u>Add/(Less)</u> FX Translation on Financial Statements and Others	(449.4)	(4.30%)	(113.5)	0.57%	295.77%
Total Comprehensive Income for the Period	(354.4)	(3.39%)	332.0	1.66%	(206.74%)
Profit Attributable to:					
Owners of the parent	52.5		400.0		(86.88%)
Non-controlling interests	42.5		45.4		(6.45)
	95.0		445.4		(78.68%)
Basic earnings per share (THB)	0.09		0.71		(86.88%)

2.1 Analysis of Revenues, Costs and Expenses

2.1.1 Revenues

Total Revenues fall -48% and recorded at THB 10.4 billion at the end of the Year 2017.

Revenues	31 Dec. 2017	31 Dec. 2016	% Change
Construction and service revenues (EPC)	9,693.0	19,389.0	(50.01%)
Revenue from operation power plant	754.2	635.5	18.68%
Total Revenues	10,447.2	20,024.5	(47.83%)

- EPC Businesses

The Revenue from EPC Construction and Services was down to THB 9.7 billion or declined -50% from last year. The Top-4 projects accounted for more than 80% of the total including:

#	Project	Amount Million THB	% of EPC Revenues	Approx. % of Contract Completion
1	Malaysia's Utility for SCC in RAPID Project	4,333.48	44.71%	97%
2	PTTGC's LLDPE Expansion and Hexene-1 Project	1,860.85	19.20%	99%
3	ASM's Chemical Plant Project	811.82	8.38%	80%
4	Laos's Rock Salt Exploitation and Processing Plant Project	778.59	8.03%	44%
	Subtotal		7,784.74	80.31%
5	Others	1,908.26	19.69%	
	Grand Total	9,693.00	100.00%	

- Power Plant Businesses

Revenue from Operation of Power Plant increased 20% to THB 754 million as the plant was recovered and resumed its normal operation since the 2nd Quarter 2017.

2.1.2 Costs & Gross Profit

Gross Profit Margin Comparison

31 Dec. 2017	Revenue	Cost	Gross Profit	Margin %
EPC Construction	9,693.0	(9,082.5)	610.41	6.30%
Operation of Power Plant	754.2	(512.7)	241.44	32.01%
Total	10,447.2	(9,595.3)	851.85	8.15%
31 Dec. 2016	Revenue	Cost	Gross Profit	Margin %
EPC Construction	19,389.0	(18,310.0)	1,078.96	5.56%
Operation of Power Plant	635.5	(233.5)	401.99	63.26%
Total	20,024.5	(18,543.5)	1,480.95	7.40%

Gross Profit Margin was improved from 7.4% to 8.2% mainly caused by the higher margin in EPC Construction. The margin from Operation of Power Plant businesses was also improved to 32.0% on QoQ basis but still behind from that of 2016's. This was due to the repairing and replacement costs incurred in the 1st Quarter and the normal operation was just resumed in operation again in the 2nd Quarter.

2.1.3 Other income and Gain (Loss) on Exchange Rate

The Other Income grew 70% and recorded at THB 464 million. The majority of the Other Income came from TTPMC for insurance claims and interest income at THB 237 million and THB 125 million respectively.

The Company also recorded Gain on Exchange Rate at THB 64 million of which most of them are Unrealized from overseas subsidiaries mainly TTCL Malaysia and Singapore resulting from weakened USD during the period.

2.1.4 Administrative expenses

The Administration Expenses increased 13% to nearly THB 954 million mainly caused by

the combination of the increase in TTCL's Staff Salary, THB 114 million, and the Ahlone Power Plant in Myanmar.

2.1.5 Share of Profit of Associate and Joint Venture

Share of Profit of Associate and Joint Venture were slightly changed which came from investment in Siam Solar Power Co., Ltd. (SSP), the owner of 8MW Solar Farm Power Plant in Ang Thong, at THB 18.5 million and Siam GNE Solar Energy Co., Ltd., the owner of 0.7MW Solar Roof-Top in Rayong, at THB 0.7 million.

2.1.6 Finance Cost and Income Tax

The financial cost for the period was slightly dropped to THB 419 million and Income Tax became positive and booked at THB 69 million when the consolidated statement took into account of the Deferred tax asset from TTCL's statement. As a result, the Company recorded the Net Profit for the period at THB 95 million or around -79% lower than last year.

3. Analysis of Financial Status

3.1 Analysis of Assets

Figures in THB Million	31-Dec-17	31-Dec-16	Increase/ (Decrease)	% Change
Current assets	16,037.37	17,298.00	(1,260.63)	(7.29%)
Non-current assets	7,827.58	8,514.10	(686.52)	(8.06%)
Total assets	23,864.95	(1,947.15)	(7.54%)	

For the year ended 2017, Total Assets decreased by -7.5% and recorded at THB 23.8 billion.

Total Current Assets declined THB -1.26 billion, mainly comprised of following items:

- Trade Accounts Receivable decreased amount THB -2.1 billion mainly from Malaysia's Utility for SCC in RAPID Project, THB -1.3 billion and the domestic PTTGC's LLDPE Expansion Project, THB -450 million, both of which have been completed more than 90% of the contracts' value.

- Unbilled Contract Revenue - Related Parties decreased THB -836 million, mainly caused by the RAPID Project, THB -527 million, with the same reason for the above Trade Account Receivables. Unbilled Contract Revenue - Third Party, in the other hand, increased approximately THB 530 million mainly caused by the stagnant construction project in Laos's, Rock Salt Exploitation Project. Out of the

total THB 2.9 billion, the Rock Salt Project occupied THB 1.7 billion and negotiation with the Owner was ongoing.

- Construction in Progress - Third Parties increased THB 1,028 million, mainly from PTTGC's LLDPE Expansion Project THB 543 million.

- Loans to third parties - due within one year increased THB 675 million whereas the Loans to related parties - due within one year declined by THB 373 million as a result of reclassification of TTUS status and in accordance with the Loan Agreement.

Total Non-current Assets declined THB -687 million, chiefly from the amortization of Financial Assets Under Concession Agreement (the Ahlone Power Plant Project) THB -641 million over its concession life.

3.2 Analysis of Liabilities and Shareholders' Equity

Liabilities + Equity				
Figures in THB Million	31-Dec-17	31-Dec-16	Increase/ (Decrease)	% Change
Current Liabilities	12,528.92	13,190.27	(661.34)	(5.01%)
Non-Current Liabilities	7,241.13	6,280.97	960.16	15.29%
Total Liabilities	19,770.05	19,471.24	292.82	1.53%
Shareholders' equity	4,094.90	6,340.87	(2,245.97)	(35.42%)
Total Liabilities and shareholders' equity	23,864.95	25,812.11	(1,947.15)	(7.54%)

Significant changes in Liabilities and Shareholder's equity were as follows:

Total Liabilities slightly increased by THB 293 million, or 2% compared to previous year.

Total Current Liabilities dropped -5%, amounting THB -661 million from the increment in Short-Term Loan from Financial Institution recorded THB 3,500 million with the replacement of the reduction in the following major Current Liabilities items:

- Trade Account Payable – Third Parties (THB 1.1 billion)
- Accrued Construction Costs (THB -1.0 billion)
- Advance Received from Customers (THB -270 million)
- Deferred Construction Revenue to Related Parties (THB -731 million)

The above phenomenon were partially explained by the over 90% construction completion in Malaysia's Utility for SCC in RAPID Project and PTTGC's LLDPE Project during the period.

Total Non-current Liabilities increased THB 1.0 billion from last year as a result of the Company's issuance of 3-year and 5-year debentures amounting THB 3.0 billion and the proceed was partially repaid to a THB 1.0 billion debenture which was due during the period. Also, the Long-Term Loan from Financial Institution for Ahlone's Project Financing decreased THB -613 million in accordance with the repayment Long term Loan THB -384 million and Currency Translation Difference THB -270 million.

Shareholder's equity significantly dropped THB -2.2 billion, or -35% approximately. The Shareholders' Equity Opening Balance as at the beginning of the year was THB 6.3 billion. During the period, dividend was paid to shareholders THB -123 million and decrease in the Total Comprehensive Income for the year THB -354 million. Discount from dilution of investment in subsidiary was booked THB -1.8 billion. Therefore, the Closing Balance of Shareholders' Equity as of 31 December 2017 recorded THB 4.1 billion.

4. Major Financial Ratios

4.1. Profitability Ratios	31-Dec-17	31-Dec-16	Favorable/Unfavorable
4.1.1. Gross profit margin	8.15%	7.40%	Favorable
4.1.2. Net profit margin	0.91%	2.22%	Unfavorable
4.1.3. Times Interest Earned ratio	1.06	2.26	Unfavorable
4.1.4. Earnings per share	0.09	0.71	Unfavorable
4.2. Leverage Ratios			
4.2.1. Current ratio	1.28	1.31	Neutral
4.2.2. Debt/ Equity ratio	4.83	3.07	Unfavorable
4.3. Shareholders Value Ratios			
4.3.1. Net Book Value	7.31	11.32	Unfavorable
4.3.2. Return on total assets	0.40%	1.73%	Unfavorable
4.3.3. Return on equity	2.32%	7.03%	Unfavorable

5. Analysis of Cash Flows

Figures in THB Million	31-Dec-17	31-Dec-16
Net cash (used in) generated from operating activities	(2,199.93)	2,079.68
Net cash generated from (used in) investing activities	403.36	(196.50)
Net cash generated from (used in) financing activities	1,835.43	(1,231.30)
Net increase (decrease) in cash and cash equivalents	38.85	651.88
Beginning balance	2,208.35	1,571.59
Exchange rate gains/(loss) on cash and cash equivalents	(11.30)	(15.12)
Ending Balance	2,235.90	2,208.35

For the year ended 2017, the ending balance of cash and cash equivalents was THB 2,236 million, slightly increased THB 27 million from previous year. Such change was caused by a combination of the Net cash used in operating activities, THB -2,200 million and the Net cash used in investing activities, THB 403 million and Net cash generated from financing activities, THB 1,835 million. All of which were detailed in the following.

5.1 Net cash generated from operating activities, THB -2.2 billion. The significant changes were:

- + Earning before Income Tax THB 26.4 million
- + Change in Trade Accounts Receivable THB 1,675 million
- Change in Construction in Progress THB -1,043 million
- Change in Trade Account Payable THB -911 million
- Change in Accrued Construction Costs THB -1,252 million
- Change in Deferred Construction Revenue THB -704 million

5.2 Net cash used in investing activities, THB 403 million. The significant changes were:

- + Cash receipts from interest income THB 204 million
- + Cash receipts from loan repayment in related party THB 292 million
- Purchase of plant and equipment THB -116 million

5.3 Net cash used in financing activities, THB 1.8 billion. The significant changes were:

- + Cash receipts from issuing debentures THB 3,000 million
- + Cash receipts from short-term loan from financial institutions THB 7,680 million
- Cash payment for short-term loans from financial institutions THB -5,560 million
- Cash payment for long-term loan from financial institutions THB -384 million
- Cash payment for issuing debentures THB -1,000 million
- Payment for general investment in non- controlling interests THB -1,768 million

5.4 Exchange rate loss on cash and cash equivalents THB -11 million.



TTCL PUBLIC COMPANY LIMITED

CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

31 DECEMBER 2017



Independent Auditor's Report

To the shareholders of TTCL Public Company Limited

Qualified opinion

In my opinion, except for the possible effects of the matters described in the Basis for qualified opinion paragraph, the consolidated financial statements of TTCL Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial statements of the Company present fairly, in all material respects, the consolidated and separate financial position of the Group and of the Company as at 31 December 2017, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

What I have audited

The consolidated financial statements and separate financial statement comprise:

- the consolidated and separate statements of financial position as at 31 December 2017;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include a summary of significant accounting policies.

Basis for qualified opinion

The Group has a construction project in Laos People's Democratic Republic, Rock Salt project. The project is engaged by the state enterprise in an oversea and started in 2015. During 2017, the project was temporarily suspended and ceased the business transactions related to the project as a result of changing in the authorised person of the customer. The Group had outstanding accounts receivable overdue for more than twelve months of Baht 635 million and Baht 554 million in the consolidated financial statement and the separate financial statements, respectively; unbilled contract revenue of Baht 1,788 million and Baht 1,735 million in the consolidated financial statement and the separate financial statement, respectively; and construction in progress of Baht 108 million and Baht 13 million in the consolidated financial statement and the separate financial statement, respectively.

Currently, the Group management is negotiating with the authorised person of the customer to resume the project in the future to complete it within the contract period. Management is also negotiating the collection plan for the above outstanding accounts receivable and unbilled contract revenue. Management assesses that the Group will be able to collect the outstanding and unbilled amount so has not considered an allowance for doubtful debt as disclosed in note 8 to the financial statement. However, there is uncertainty relating to the operational direction of the authorised person of the customer to the project and it depends on the result of negotiation with this customer. I was unable to obtain sufficient appropriate audit evidences to determine whether an allowance for doubtful debts was required. Therefore, I was unable to determine whether any adjustments to accounts receivable, unbilled contract revenue and construction in progress were necessary. If any adjustments are made, it will impact the consolidated and separate financial position, and the consolidated and separate performance for the current year.

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and Company in accordance with the Federation of Accounting Professions under the Royal Patronage of his Majesty the King's Code of Ethics for Professional Accountants together with the ethical requirements that are relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for qualified opinion.

Key audit matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Key audit matter	How my audit addressed the key audit matter
Revenue recognition on construction contracts and accrued construction costs Refer to Accounting policies - 2.10 and Note 4.1 Accrued construction costs and 4.2 Construction revenue. <i>Revenue recognition on construction contracts</i> Construction revenue and construction costs are recognised by using the percentage of completion method. The stage of completion is measured by reference to the physical proportion of the contracted work performed as assessed by the project engineers and owners or customers. <i>Accrued construction cost</i> Accrued construction costs are estimated based on management's experience, the consideration for work in progress, and the updated budget project costs incurred as appropriate. I focused on these areas due to a material impact on the financial statement of the revenue recognition using the percentage of completion method and management's judgement over the stage of completion and estimated budget project costs.	I assessed and tested the design and operating effectiveness of the key controls related to the budgeting process and the process to record contract revenue and contract costs that are in place. For the budgeting process, I inspected the price breakdown, which was the source of information used to prepare the budget, by: - challenging management on the significant difference between the stage of completion measurement by reference to the completion of the physical proportion of the contract work performed as assessed by the project engineers, the relationship of contract costs incurred for work performed to date, compared to the estimated total costs for the contract - assessing the estimated budget project costs by examining a detailed breakdown of supporting documents concerning budget costs to the actual costs incurred and inquiring management that the budget was updated to reflect the current situation - testing the actual costs incurred to underlying documents e.g. shipping documents, invoices and goods received for equipment and machineries, including hours incurred to assess the status of the project - recalculating the percentage of completion in the monthly progress report, which was reviewed by the Company's project managers and owner's project managers, and - performing site visits and observing the method used for measuring progress I found that management's judgements and estimates associated with revenue recognition on construction contracts and accrued construction costs were appropriately supported by the available evidence.

Key audit matter	How my audit addressed the key audit matter
Impairment of property, plant and equipment Refer to property plant and equipment in note 19 to the financial statements. The Group management reviewed the allowance for impairment of the power plant in a subsidiary, amounting to Baht 36.73 million, which was recorded in 2015. During 2017, the Group management reviewed the adequacy of such allowance for impairment amount and prepared the estimation of the value in use of the power plant, including significant judgement relating to the Company's future performance e.g. waste volume, selling price, cost of operation and maintenance, and estimating the cash flow projection that was expected to be derived from the asset and the appropriated discount rate to discount such cash flows. I focused on this area due to the significant values and the subjectivity of management's judgement on the reasonableness of key assumptions used in the cash flow projection.	My procedures in relation to the management's impairment assessment included: • assessing the reasonable valuation method used by management • challenging management on the reasonableness of key assumptions in the following supporting documents by: - testing the assumptions used in the Company's future performance and the Company's growth rates to compute the cash flow projection expected to be derived from the asset - assessing the appropriate discount rate use to discount the estimates for the cash flow projection. • testing a sample to ascertain the accuracy and relevance of the input data in estimating the value in use of the power plant e.g. waste volume, selling price and cost of operation and maintenance. I conducted a knowledge valuation of the Company's internal and external factors to assess the reasonableness of the assumptions used by management. I also performed a sensitivity analysis around the key drivers of growth rates within the cash flow projection to consider the extent of the change in those assumptions that would be required for the assets to be further impaired. Based on the procedures above, I found management's assumptions and factors used in relation to the calculation of the value in use of the power plant to be reasonable based on available evidence. The Group recorded the adequacy of allowance for impairment of the power plant and no additional impairment loss was required in 2017.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group and Company'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 the directors either intend to liquidate the Group and Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group and Company's financial reporting process.

Auditor's responsibilities for the audit of the consolidated and separate financial statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate 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 TSAs 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 consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate 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 and Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' 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 and Company'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 consolidated and separate 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 and Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate 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 the audit committee 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 the audit committee 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 the audit committee, I determine those matters that were of most significance in the audit of the consolidated 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.

PricewaterhouseCoopers ABAS Ltd.



Vichien Khingmontri
Certified Public Accountant (Thailand) No. 3977
Bangkok
28 February 2018

TTCL Public Company Limited
Statement of Financial Position
As at 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		31 December	31 December	31 December	31 December
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Assets					
Current assets					
Cash and cash equivalents	7	2,235,896,443	2,208,345,528	218,599,272	558,459,569
Trade accounts receivable, net					
- related parties	8, 11	264,596,256	1,678,615,475	475,703,926	939,467,736
- third parties	8	1,759,308,556	2,497,836,841	1,419,545,391	2,161,126,332
Accounts receivable from operation power plant		141,125,449	147,492,171	-	-
Financial assets under concession arrangement					
due within one year	10	113,787,473	189,884,600	-	-
Unbilled contract revenue					
- related parties	9.1, 11	489,544,731	1,325,640,167	1,408,197,549	1,873,993,445
- third parties	9.2	2,927,998,625	2,398,000,028	2,560,261,777	1,940,436,495
Other accounts receivable					
- related parties	11	28,341,853	1,160,916	19,701,122	16,422,177
- third parties		72,648,192	113,668,661	51,628,664	89,826,922
Construction in progress					
- related parties	11	-	-	81,726	-
- third parties		6,183,503,598	5,155,153,664	5,462,797,685	4,453,867,744
Advance payments to sub-contractors					
- related parties	11	-	-	56,346,029	18,973,754
- third parties		462,429,769	633,183,509	17,484,354	30,443,174
Advance payments for share subscription	12	141,314,917	153,953,908	-	-
Loans to related parties - due within one year	11	1,526,316	374,029,870	96,361,869	372,503,554
Loans to third parties - due within one year	13	674,597,075	-	674,597,075	-
Interest receivable from loan					
to related parties	11	211,322	2,589,464	39,877,879	32,326,306
Withholding income tax		326,204,059	310,376,793	323,126,072	306,534,824
Input tax refundable		71,803,313	49,037,503	14,800,938	32,450,160
Other current assets		142,535,587	59,031,599	74,177,590	9,850,521
Total current assets		16,037,373,534	17,298,000,697	12,913,288,918	12,836,682,713

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Financial Position
As at 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		31 December	31 December	31 December	31 December
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Assets (Cont'd)					
Non-current assets					
Trade accounts receivable					
- related party	11	-	-	70,579,416	66,833,707
- third parties		330,862,991	-	330,862,991	-
Deposit at bank used as collateral	14	130,770,231	143,359,430	-	-
Retention					
- related party		-	8,825,793	-	8,825,793
- third parties		27,016,552	-	27,016,552	-
Held-to-maturity investments		71,999	-	71,999	-
Loan to related parties	11	7,631,578	1,106,532,509	43,629,749	1,135,741,206
Loan to third parties	13	325,321,119	-	325,321,119	-
Financial assets under concession arrangement					
due over one year	10	4,931,057,267	5,572,245,328	-	-
Investments in subsidiary, net	15	-	-	4,091,976,063	2,323,537,631
Investments in associate, net	16	222,933,576	223,999,215	-	1,233,200
Interests in joint venture	17	11,636,058	11,677,739	-	-
General investment	18	726,379,900	726,379,900	726,379,900	726,379,900
Spare parts		183,320,856	179,565,303	-	-
Property, plant and equipment, net	19	653,645,825	336,515,486	58,096,059	66,070,210
Intangible assets, net	20	28,821,808	35,722,793	25,767,867	30,696,685
Deferred tax assets	25	209,144,763	127,865,499	132,511,327	28,431,847
Other non-current assets		38,970,079	41,411,723	16,585,418	21,832,057
Total non-current assets		7,827,584,602	8,514,100,718	5,848,798,460	4,409,582,236
Total assets		23,864,958,136	25,812,101,415	18,762,087,378	17,246,264,949

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Financial Position
As at 31 December 2017

		Consolidated financial statements		Separate financial statements	
		31 December 2017 Baht	31 December 2016 Baht	31 December 2017 Baht	31 December 2016 Baht
Notes					
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions	21	3,499,748,609	1,379,480,505	3,475,237,934	1,379,480,505
Trade accounts payable					
- related parties	11	389,016	-	1,285,884,205	5,551,514
- third parties		1,090,809,874	2,149,358,465	625,329,583	1,616,625,971
Other accounts payable					
- related parties	11	-	123,477	-	123,477
- third parties		38,254,397	35,319,990	37,048,099	34,919,742
Long-term loan from financial institution, net					
- current portion	22	366,026,064	400,380,057	-	-
Debentures due within one year, net	23	1,424,414,935	999,617,976	1,424,414,935	999,617,976
Short-term loans from related parties	11	70,263,935	77,036,005	-	-
Interest payable from related parties	11	2,152,222	454,311	-	-
Retention payable to sub-contractors		249,072,803	306,576,650	176,317,828	297,047,985
Accrued construction costs		4,037,688,795	5,051,461,712	1,781,641,155	3,591,129,387
Advances received from customers					
under construction contracts					
- related parties	11	13,222,248	114,928,653	-	32,548,096
- third parties		1,090,904,228	1,259,341,422	514,820,740	607,589,504
Deferred construction revenue					
- related parties	9.3, 11	299,784,912	1,030,369,460	-	-
- third parties	9.4	26,140,013	-	26,140,013	-
Corporate income tax payable		2,207,583	16,276,288	74,349	16,411,725
Accrued expenses		270,136,677	197,502,328	103,330,031	121,599,299
Liability from joint venture agreement	17	-	37,015,299	-	-
Other current liabilities		47,704,726	135,023,798	37,580,640	76,437,557
Total current liabilities		12,528,921,037	13,190,266,396	9,487,819,512	8,779,082,738
Non-current liabilities					
Long-term loan from financial institution, net	22	2,261,518,273	2,874,823,163	-	-
Debentures, net	23	4,564,606,887	2,993,801,785	4,564,606,887	2,993,801,785
Deferred income	24	144,340,111	145,453,951	-	-
Deferred tax liabilities	25	114,314,908	121,822,871	-	697,475
Employee benefits obligation	26	156,355,795	145,063,111	153,797,465	142,159,234
Total non-current liabilities		7,241,135,974	6,280,964,881	4,718,404,352	3,136,658,494
Total liabilities		19,770,057,011	19,471,231,277	14,206,223,864	11,915,741,232

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Financial Position
As at 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		31 December	31 December	31 December	31 December
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Liabilities and equity (Cont'd)					
Equity					
Share capital					
Authorised share capital	27				
Ordinary shares 560,000,000 shares					
of par 1 Baht each		560,000,000	560,000,000	560,000,000	560,000,000
Issued and paid-up share capital					
Ordinary shares 560,000,000 shares					
of par 1 Baht each		560,000,000	560,000,000	560,000,000	560,000,000
Premium on share capital	27	2,905,496,747	2,905,496,747	2,905,496,747	2,905,496,747
Retained earnings					
Appropriated - legal reserve	28	56,000,000	56,000,000	56,000,000	56,000,000
Unappropriated		1,966,927,532	2,031,577,259	1,155,156,416	1,797,082,437
Premium on share capital from					
share-based payment	29	23,188,454	23,188,454	23,188,454	23,188,454
Discount from dilution of investment in subsidiaries		(1,214,269,245)	(465,610,157)	-	-
Other components of equity		(215,366,069)	176,466,272	(143,978,103)	(11,243,921)
Equity attributable to owners of the parent		4,081,977,419	5,287,118,575	4,555,863,514	5,330,523,717
Non-controlling interests		12,923,706	1,053,751,563	-	-
Total equity		4,094,901,125	6,340,870,138	4,555,863,514	5,330,523,717
Total liabilities and equity		23,864,958,136	25,812,101,415	18,762,087,378	17,246,264,949

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		2017 Baht	2016 Baht	2017 Baht	2016 Baht
Revenues					
Construction and service revenues	6, 11	9,692,949,012	19,388,998,895	6,566,684,937	15,241,169,743
Revenues from operating the power plant		754,157,896	635,449,048	51,884,352	49,888,800
Total revenues		10,447,106,908	20,024,447,943	6,618,569,289	15,291,058,543
Costs					
Costs of construction and services	11, 34	(9,082,544,003)	(18,310,037,822)	(6,147,769,790)	(14,225,101,414)
Costs of operating the power plant		(512,722,344)	(233,458,634)	(16,324,562)	(20,649,708)
Total costs		(9,595,266,347)	(18,543,496,456)	(6,164,094,352)	(14,245,751,122)
Gross profit		851,840,561	1,480,951,487	454,474,937	1,045,307,421
Other income	32	464,087,072	272,951,782	71,248,156	70,389,189
Administrative expenses	11, 34	(953,705,617)	(847,425,566)	(769,123,504)	(664,237,165)
Gain on exchange rate, net		64,384,652	44,642,132	(130,027,523)	111,235,976
Finance costs	35	(419,420,642)	(427,519,089)	(254,237,527)	(239,697,879)
Share of profit of associates	16	18,462,294	15,254,422	-	-
Share of profit of joint ventures	17	734,543	805,039	-	-
Profit (loss) before income tax		26,382,863	539,660,207	(627,665,461)	322,997,542
Income tax expense	33	68,646,230	(94,129,846)	102,948,128	(65,240,661)
Profit (loss) for the year		95,029,093	445,530,361	(524,717,333)	257,756,881
Other comprehensive income (expense)					
Items that will not be reclassified subsequently to profit or loss, net of taxes					
Remeasurements of post-employment benefit		5,990,454	13,432,422	5,990,454	13,432,422
Share of other comprehensive loss of associate from equity method	16	-	(443,541)	-	-
Item that will be reclassified subsequently to profit or loss, net of taxes					
Exchange differences on translating financial statements		(455,350,986)	(126,525,670)	(132,734,182)	(56,484,543)
Other comprehensive expense for the year, net of tax		(449,360,532)	(113,536,789)	(126,743,728)	(43,052,121)
Total comprehensive income (expense) for the year		(354,331,439)	331,993,572	(651,461,061)	214,704,760
Profit (loss) attributable to:					
Owners of the parent		52,558,961	400,099,162	(524,717,333)	257,756,881
Non-controlling interests		42,470,132	45,431,199	-	-
		95,029,093	445,530,361	(524,717,333)	257,756,881
Total comprehensive income (expense) attributable to:					
Owners of the parent		(333,282,926)	333,141,729	(651,461,061)	214,704,760
Non-controlling interests		(21,048,513)	(1,148,157)	-	-
		(354,331,439)	331,993,572	(651,461,061)	214,704,760
Earnings (loss) per share for the owners of the parent					
Basic earnings (loss) per share	30	0.09	0.71	(0.94)	0.46

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2017

	Attributable to owners of the parent										Consolidated financial statements			
	Other components of equity													
	Other comprehensive income													
	Issued and paid-up share capital	Premium on share capital	Retained earnings	Premium on share capital from payment	Discount from dilution of investment in subsidiary	Premium on dilution of investment	Remeasurements of post-employment benefit obligation	Currency translation differences	Other comprehensive loss from associate	Total other component of equity	Total owners of the parent	Non-controlling interest	Total equity	
Notes	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Opening balance as at 1 January 2016	560,000,000	2,905,496,747	56,000,000	1,898,033,415	23,188,454	(462,876,761)	9,410,796	247,445,331	-	256,856,127	5,236,697,982	1,052,166,324	6,288,864,306	
Change in equity for the year														
Dividends paid	-	-	-	(279,987,740)	-	-	-	-	-	-	(279,987,740)	-	(279,987,740)	
Total comprehensive income for the year	-	-	-	400,099,162	-	-	-	(79,946,314)	(443,541)	(65,967,433)	333,141,729	(1,148,157)	331,993,572	
Transfer from actuarial gain	-	-	-	13,432,422	-	-	-	-	-	(13,432,422)	-	-	-	
Discount from dilution of investment in subsidiary	-	-	-	-	-	(2,733,396)	-	-	-	-	(2,733,396)	2,733,396	-	
Closing balance as at 31 December 2016	560,000,000	2,905,496,747	56,000,000	2,031,577,259	23,188,454	(465,610,157)	9,410,796	167,499,017	(443,541)	176,466,272	5,287,118,575	1,053,751,563	6,340,870,138	
Opening balance as at 1 January 2017	560,000,000	2,905,496,747	56,000,000	2,031,577,259	23,188,454	(465,610,157)	9,410,796	167,499,017	(443,541)	176,466,272	5,287,118,575	1,053,751,563	6,340,870,138	
Dividends paid	-	-	-	(123,199,142)	-	-	-	-	-	-	(123,199,142)	-	(123,199,142)	
Total comprehensive income (expense) for the year	-	-	-	52,558,961	-	-	-	(391,832,341)	-	(385,841,887)	(333,282,926)	(21,048,513)	(354,331,439)	
Transfer from actuarial gain	-	-	-	5,990,454	-	-	-	-	-	(5,990,454)	-	-	-	
Discount from dilution of investment in subsidiary	-	-	-	-	-	(748,659,088)	-	-	-	-	(748,659,088)	(1,019,779,344)	(1,768,438,432)	
Closing balance as at 31 December 2017	560,000,000	2,905,496,747	56,000,000	1,966,927,532	23,188,454	(1,214,269,245)	9,410,796	(224,333,324)	(443,541)	(215,366,069)	4,081,977,419	12,923,706	4,094,901,125	

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2017

Separate financial statements													
Other component of equity													
Issued and paid-up share capital		Premium on share capital	Retained earning		Premium on share capital from share-based payment	Remeasurements of post-employment benefit obligation		Currency translation difference	Total equity				
Note	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht			
Opening balance as at 1 January 2016													
Change in equity for the year													
31	-	-	-	-	(279,987,740)	-	-	-	-	(279,987,740)			
	-	-	-	-	257,756,881	-	-	13,432,422	(56,484,543)	214,704,760			
	-	-	-	-	13,432,422	-	-	(13,432,422)	-	-			
Closing balance as at 31 December 2016													
	560,000,000	2,905,496,747	56,000,000	1,797,082,437	23,188,454	-	-	(11,243,921)	5,330,523,717				
Opening balance as at 1 January 2017													
Change in equity for the year													
31	-	-	-	-	(123,199,142)	-	-	-	-	(123,199,142)			
	-	-	-	-	(524,717,333)	-	-	5,990,454	(132,734,182)	(651,461,061)			
	-	-	-	-	5,990,454	-	-	(5,990,454)	-	-			
Closing balance as at 31 December 2017													
	560,000,000	2,905,496,747	56,000,000	1,155,156,416	23,188,454	-	-	(143,978,103)	4,555,863,514				

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		2017 Baht	2016 Baht	2017 Baht	2016 Baht
Cash flows from operating activities					
Profit (loss) before income tax		26,382,863	539,660,207	(627,665,461)	322,997,542
Adjustments					
- Depreciation and amortisation	19, 20	49,759,194	51,045,732	29,088,039	35,152,559
- Write-off equipment	19, 20	9,489	7,379	7,872	7,379
- (Gains) losses from disposals of equipment		(193,516)	(1,514,874)	(193,516)	(1,514,874)
- Unrealised (gains) losses from exchange rate		(557,952,878)	279,909,767	25,525,750	(77,615,612)
- Interest income	32	(199,165,545)	(179,276,183)	(66,225,053)	(66,320,040)
- Share of profit of associate	16	(18,462,294)	(15,254,422)	-	-
- Share of (profit) loss of joint venture	17	(734,543)	(805,039)	-	-
- Employee benefit expenses	26	22,327,901	24,366,764	22,225,298	24,227,644
- Provision for litigations		12,139,892	-	12,139,892	-
- Impairment loss on investment	18	-	-	1,233,200	-
- Amortisation of deferred financing fee		11,357,961	26,701,894	4,469,061	3,639,312
- Amortisation of income from government grant		(1,113,840)	(1,113,840)	-	-
- Interest expenses		408,062,682	400,817,195	249,768,467	236,058,567
Cash flows before changes in operating assets and liabilities		(247,582,634)	1,124,544,580	(349,626,451)	476,632,477
Changes in operating assets and liabilities					
- Trade accounts receivable		1,674,584,306	(1,314,677,534)	667,275,390	(254,552,259)
- Accounts receivable from operation power plant		3,956,364	30,560,073	-	-
- Financial assets under concession arrangement		717,285,189	233,581,218	-	-
- Unbilled contract revenue		306,096,839	1,823,222,547	(153,249,836)	1,809,403,650
- Other accounts receivable		13,716,056	(35,789,386)	33,769,560	(30,795,005)
- Construction in progress		(1,043,362,424)	104,147,144	(1,009,011,667)	225,896,809
- Advance payments to sub-contractors		170,753,740	(202,221,317)	(28,916,815)	156,321,769
- Withholding income tax		(15,827,266)	(124,288,138)	(28,745,593)	(122,947,232)
- Input tax refundable		(22,765,809)	45,812,103	17,649,223	38,397,499
- Other current assets		(84,417,648)	(3,527,611)	(64,345,962)	4,499,382
- Retention receivable		(18,190,759)	16,174,207	(18,342,853)	16,598,518
- Spareparts		(3,755,553)	17,037,686	-	-
- Other non-current assets		2,441,642	1,071,903	5,246,642	7,668,062
- Trade accounts payable		(911,059,370)	(448,538,854)	466,056,561	(284,794,189)
- Other accounts payable		2,538,959	(11,279,504)	1,735,263	(11,716,425)
- Retention payable to sub-contractors		(57,503,847)	37,847,291	(120,730,157)	41,268,570
- Accrued construction costs		(1,252,089,677)	1,090,406,761	(1,809,488,232)	373,695,989
- Advance received from customers under construction contracts		(270,143,599)	(521,540,551)	(108,874,211)	(591,043,181)
- Deferred construction revenue		(704,444,535)	664,947,885	26,140,013	-
- Accrued expense		47,019,532	(35,056,250)	(43,910,579)	3,910,040
- Other current liabilities		(87,319,073)	50,870,689	(38,856,916)	3,068,171
- Employee benefit obligations	26	(3,184,165)	(4,598,715)	(3,099,000)	(4,541,000)
Cash generated from (used in) operations		(1,783,253,732)	2,538,706,227	(2,559,325,620)	1,856,971,645
- Interest paid		(392,889,846)	(388,416,067)	(236,267,047)	(223,773,278)
- Income tax paid		(23,786,105)	(70,610,479)	(14,310,587)	(68,070,108)
Net cash generated from (used in) operating activities		(2,199,929,683)	2,079,679,681	(2,809,903,254)	1,565,128,259

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited

Statement of Cash Flows

For the year ended 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Cash flows from investing activities					
Cash receipt from deposit at financial institution used as collateral		-	232,000,000	-	-
Payment for deposit at financial institution used as collateral		-	(232,000,000)	-	-
Cash receipt from held to maturities security		-	584,350	-	-
Payment for share subscription		-	(150,340,366)	-	-
Payment for shares in joint venture		(33,761,363)	-	-	-
Cash payment for changing from subsidiary to associate		-	(4,327,411)	-	-
Payment for shares in associate		-	(20,000,000)	-	-
Payment for general investment to maturities		(75,548)	-	(75,548)	-
Payment for loan to a subsidiary		-	-	-	(5,500,000)
Payment for loan to related party	11	-	(120,300,000)	(104,795,464)	(120,300,000)
Cash receipts from loan repayment in related party	11	291,676,245	13,812,097	289,386,771	12,285,781
Cash receipts from loan repayment in third party		55,925,578	-	55,925,578	-
Cash receipts from interest income		203,972,939	172,720,188	55,907,526	28,776,503
Purchases of plant and equipment	19	(116,126,183)	(77,418,535)	(17,719,262)	(12,913,137)
Proceeds from disposals of equipment		2,213,937	1,530,467	1,417,481	1,530,467
Purchases of computer software	20	(468,976)	(12,764,359)	(10,600)	(7,822,290)
Net cash receipts from (used in) investing activities		403,356,629	(196,503,569)	280,036,482	(103,942,676)
Cash flows from financing activities					
Cash receipts from short-term loan from financial institutions		7,680,000,533	3,819,895,025	7,655,489,858	3,819,895,025
Cash payment for short-term loan from financial institutions		(5,559,732,430)	(5,618,272,119)	(5,559,732,430)	(5,618,272,119)
Cash payment for long-term loan from financial institution	22	(384,337,240)	(299,190,080)	-	-
Cash receipts from issuing debentures	23	3,000,000,000	1,075,000,000	3,000,000,000	1,075,000,000
Cash payment for issuing debentures	23	(1,000,000,000)	-	(1,000,000,000)	-
Cash payment for financing fee in issuing debenture	23	(8,867,000)	(3,516,875)	(8,867,000)	(3,516,875)
Dividends paid to shareholders	31	(123,199,142)	(279,987,740)	(123,199,142)	(279,987,740)
Payment for general investment in non-controlling interests	15	(1,768,438,432)	-	(1,768,438,432)	-
Cash payment from short-term loan from related party		-	-	-	(143,954,160)
Cash receipts from short-term loan from related party		-	74,773,130	-	-
Net cash receipts from (payments for) financing activities		1,835,426,289	(1,231,298,659)	2,195,252,854	(1,150,835,869)
Net increase (decrease) in cash and cash equivalents		38,853,235	651,877,453	(334,613,918)	310,349,714
Cash and cash equivalents at the beginning of the year		2,208,345,528	1,571,593,289	558,459,569	242,604,630
Exchange rate gains(losses) on cash and cash equivalents		(11,302,320)	(15,125,214)	(5,246,379)	5,505,225
Cash and cash equivalents at the ending of the year	7	2,235,896,443	2,208,345,528	218,599,272	558,459,569

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2017

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Notes	Baht	Baht	Baht	Baht
Non-cash items				
Accounts payable for purchases of equipment	253,724,698	113,466	395,448	113,466
Reclassifying accounts receivable - associate				
to loan to associate	-	1,665,825	-	1,665,825
Reclassifying other accounts receivable				
to loan to associate	-	16,924,689	-	16,924,689
Reclassifying interest receivable - associate				
to loan to associate	-	45,448,582	-	45,448,582
Increase in loan due to changing from subsidiary to associate	-	1,270,552,348	-	-
Disposals of equipment due to changing from				
subsidiary to associate	-	49,622	-	-
Reclassifying interst receivable - subsidiary				
to loan to subsidiary	-	-	-	4,562,382
Other account receivable from selling general investment	-	35,833,200	-	35,833,200
Increase in loan due to changing from associate to				
general invetsment	13	1,052,452,513	-	1,052,452,513
Increase in general investment from lose significant influence				
in associate	-	-	1,233,200	-

The notes to the consolidated and separate financial statements on pages 177 to 239 are an integral part of these financial statements.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

1 General information

TTCL Public Company Limited ("Company") is a public limited company incorporated in Thailand. The address of head office of the Company's registered office is at 159 Sermit Tower Floor 27-30, Soi Sukhumvit 21, Asoke Road, Klong-Toeynua, Wattana, Bangkok 10110.

Philippines Branch: Suite B, 5th Floor Builder's Center, 170 Salcedo Street, Legaspi Village, Makati City

Qatar Branch: Area No.90, Street No.720, Sheikh Abdulrahman Bin Jassim Street, Building No.24, Plot No.26, Flat No.90, P.O.Box 80364 A1 Wakra-Qatar

The Company is listed on the Stock Exchange of Thailand. For reporting purposes, the Company and its subsidiaries are referred to as the Group.

The principal business operations of the Group are engineering services including design, procurement and construction for integrated industrial factories and energy business.

These consolidated and separate financial statements were authorised by the Board of Directors on 28 February 2018.

2 Accounting policies

The principal accounting policies applied in the preparation of these consolidated and separate financial statements are set out below:

2.1 Basis of preparation

The consolidated and separate financial statements (referred as the financial statement) have been prepared in accordance with Thai generally accepted accounting principles under the Accounting Act BE 2543, being those Accounting Standards issued under the Accounting Profession Act BE 2547, and the financial statement reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention.

The preparation of financial statements in conformity with Thai generally accepted accounting principles requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

An English version of the consolidated and separate financial statements have been prepared from the statutory financial statement that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

2.2 Revised financial reporting standards and related interpretations are effective for the accounting periods beginning on or after 1 January 2017

Revised financial reporting standards which have significant changes and are relevant to the Group are as follows:

TAS 27 (revised 2016)	Separate financial statements
TAS 38 (revised 2016)	Intangible assets
TFRS 11 (revised 2016)	Joint arrangements

TAS 27 (revised 2016), the amendments allow an entity a policy choice to account for investments in subsidiaries, joint ventures and associates in its separate financial statements using the equity method as described in TAS 28 (revised 2016) in addition to measurement at cost or at fair value (when announced) previously allowed. The election can be made independently for each category of investment (subsidiaries, joint ventures and associates). Entities wishing to change to the equity method must do so retrospectively. The Group has selected the accounting of investments in separate financial statement using the cost method therefore this standard has no impact to the Group.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.2 Revised financial reporting standards and related interpretations are effective for the accounting periods beginning on or after 1 January 2017 (Cont'd)

TAS 38 (revised 2016), the amendments include a rebuttable presumption that the amortisation of intangible assets based on revenue is inappropriate. This presumption can be overcome if either the intangible asset is expressed as a measure of revenue (i.e. where a measure of revenue is the limiting factor on the value that can be derived from the asset), or it can be shown that revenue and the consumption of economic benefits generated by the asset are highly correlated. The Group has no amortisation of intangible assets based on revenue therefore this standard has no impact to the Group.

TFRS 11 (revised 2016), the amendments clarify that 1) the accounting for the acquisition of an interest in a joint operation where the activities of the operation constitute a business. They require an investor to apply the principles of business combination accounting and 2) existing interests in the joint operation are not remeasured on acquisition of an additional interest, provided joint control is maintained. The Group has no joint operation, therefore this financial reporting standard not impact to the Group.

The Group has adopted the aforementioned standards which have no material impact to the group.

2.3 Revised financial reporting standards are effective for annual periods beginning on or after 1 January 2018

Revised financial reporting standards which have significant changes and are relevant to the Group which the Group has not yet adopted these revised standards are as follows:

TAS 7 (revised 2017)	Statement of cash flows
TAS 12 (revised 2017)	Income taxes
TFRS 12 (revised 2017)	Disclosure of interests in other entities

TAS 7 (revised 2017), the amendments require additional disclosure of changes in liabilities arising from financing activities. This includes changes arising from cash and non-cash.

TAS 12 (revised 2017), the amendments clarify the accounting for deferred tax where an asset is measured at fair value and that fair value is below the asset's tax base. Specifically, the amendments confirm that:

- A temporary difference exists whenever the carrying amount of an asset is less than its tax base at the end of the reporting period.
- An entity can assume that it will recover an amount higher than the carrying amount of an asset to estimate its future taxable profit.
- Where the tax law restricts the source of taxable profits against which particular types of deferred tax assets can be recovered, the recoverability of the deferred tax assets can only be assessed in combination with other deferred tax assets of the same type.
- Tax deductions resulting from the reversal of deferred tax assets are excluded from the estimated future taxable profits.

TFRS 12 (revised 2017), the amendments clarify that the disclosure requirements of TFRS 12 apply to interests in entities that are classified as held for sale in the scope of TFRS 5 (revised 2017), except for the summarised financial information.

The Group's management assessed and considered that the above revised standards will not have a material impact on the Group except for disclosure.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.4 Group Accounting - Investments in subsidiaries, associate and joint ventures

2.4.1 Investments in subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree at the non-controlling interest's proportionate share of the acquiree's net assets.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurements are recognised in profit or loss.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If the total of consideration transferred, non-controlling interest recognised and previously held interest measured is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in profit or loss.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

In the Separate financial statements, investments in subsidiaries are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment. The Company recognises dividend from subsidiaries in profit or loss when the Company has the right to receive dividend.

A test for impairment for investments in subsidiaries is carried out when there is a factor indicating that investments might be impaired. If the carrying value of the investments is higher than its recoverable amount, impairment loss is charged to the profit or loss.

A list of the Group's subsidiaries is shown in Note 15.

2.4.2 Transactions Non-controlling interests

The Group presents non-controlling interests in the consolidated statement of financial position within equity, separately from the equity of the owners of the parent. Any changes in the Group's ownership interest in a subsidiary that do not result in the Group losing control of the subsidiary are equity transactions. The differences between fair value of any consideration paid and relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.4 Group Accounting - Investments in subsidiaries, associate and joint ventures (Cont'd)

2.4.3 Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities.

2.4.4 Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

The Group's share of its associates' post-acquisition profits or losses is recognised in the profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this the case, the group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to share of profit/(loss) of associates in the income statement.

Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses arising in investments in associates are recognised in the profit or loss.

In the separate financial statements, investments in associates are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

A list of the Group's associate is shown in Note 16.

2.4.5 Joint arrangements

A joint arrangement is an arrangement of which two or more parties have joint control. A joint control as the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement.

The Group has considered and classified the joint arrangement to be a joint venture. A list of the joint venture is shown in Note 17.

TTCL Public Company Limited
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2 Accounting policies (Cont'd)

2.4 Group Accounting - Investments in subsidiaries, associate and joint ventures (Cont'd)

2.4.5 Joint arrangements (Cont'd)

Under the equity method of accounting, interests in joint ventures are initially recognised at cost and adjusted thereafter to recognise the group's share of the post-acquisition profits or losses and movements in other comprehensive income. When the group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the group's net investment in the joint ventures), the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures. Unrealised gains on transactions between the group and its joint ventures are eliminated to the extent of the group's interest in the joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the group.

In the Company's separate financial statements, investments in joint ventures are accounted for using the cost method less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

2.5 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The financial statements are presented in Thai Baht, which is the Company's functional currency and the Group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit and loss, any exchange component of that gain or loss is recognised in profit and loss.

(c) Group companies

The results and financial position of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses for each statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.6 Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits held with financial institutions and short-term highly liquid investments with maturities of three months or less from the date of acquisition.

2.7 Trade accounts receivable

Trade accounts receivable are recognised initially at original invoice amount and subsequently measured at the remaining amount less allowance for doubtful receivable based on a review of all outstanding amounts at the year end. The amount of the allowance is the difference between the carrying amount of the receivable and the amount expected to be collectible. Bad debts (if any) are written off during the year in which they are identified and recognised in the profit or loss as administrative expenses.

2.8 Service concession arrangements

A service concession arrangement is an arrangement involving an operator constructing and/or upgrading, operating and maintaining infrastructure used to provide a public service for a specified period of time. The operator is paid for its services over the period of the arrangement. The arrangement is governed by a contract that sets out performance standards, mechanisms for adjusting prices and arrangements for arbitrating disputes. The grantor controls (through ownership, beneficial entitlement or otherwise) any significant residual interest in the infrastructure at the end of the term of the arrangement.

The Group, as the operator for constructing and operating infrastructure, recognises receivable arising from a service concession arrangement to the extent that it has an unconditional right to receive cash or another financial asset from or at the direction of the grantor, for the construction of concession assets. Receivable recognised as a result of the service concession arrangement are measured at fair value upon initial recognition. Revenue from construction services is recognised using the percentage of completion method. The stage of completion is measured by considering the physical inspection in accordance with the condition agreed with the customers. Revenue from service from operation power plant is recognised when the services have been rendered.

The contractual obligation in commitment repair and maintenance such infrastructure which are not performed in order to improve the condition of infrastructure are measured and recognized based on the best estimation of expending to pay for the commitment as at the end of accounting period.

2.9 Spare parts

Spare parts and supplies that do not meet definitions of property, plant and equipment are carried at cost less allowance for obsolescence. Cost of spare parts and supplies is determined by the weighted average method.

The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of spare parts and supplies such as import duties and transportation charges, less all attributable discounts, allowances or rebates. The Group reviews the allowance for obsolete, slow-moving and defective spare parts and supplies on a specific case.

2.10 Construction contracts

A construction contract is a contract specifically negotiated for the construction of an asset or a combination of assets that are closely interrelated or interdependent in terms of their design, technology and functions or their ultimate purpose of use.

When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognised to the extent of contract costs incurred where it is probable those costs will be recoverable. Contract costs are recognised when incurred.

When the outcome of a construction contract can be estimated reliably, contract revenue and contract costs are recognised by using the percentage of completion method. The stage of completion is measured by referencing to the completion of a physical proportion of the contract work performed as per the conditions agreed with customers. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Costs incurred in the year in connection with future activity on a contract are excluded and shown as work in process.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
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2 Accounting policies (Cont'd)

2.10 Construction contracts (Cont'd)

The aggregate of the costs incurred and the profit/loss recognised on each contract is compared against the progress billings up to the year end. Where the total costs incurred and recognised profits (less recognised losses) exceed progress billings, the balance is shown as "Unbilled contract revenue" under current assets in the statement of financial position. Where progress billings exceed total costs incurred plus recognised profits (less recognised losses), the balance is shown as "Deferred construction revenue" under current liabilities in the statement of financial position.

2.11 Investments

Investments other than investments in subsidiaries and interests in joint ventures are classified into the following three categories: held-to-maturity, available for sale investments and general investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

- Investments with fixed maturity that the management has the intent and ability to hold to maturity are classified as held-to-maturity and are included in non-current assets, except those with maturities within 12 months from the end of the reporting period, which are classified as current assets.
- Investments in non-marketable equity securities are classified as general investments.

Two categories of investments are initially recognised at cost, which is the fair value to purchase the investments. Cost of investment includes transaction costs.

Held-to-maturity investments are carried at amortised cost using the effective yield method and less impairment.

General investments are carried at cost less impairment.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is charged to the profit or loss.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the profit or loss. When disposing of part of the Group's holding of a particular investment in debt or equity securities, the carrying amount of the disposed part is determined by the weighted average carrying amount of the total holding of the investment.

2.12 Property, plant and equipment

All property, plant and equipment are initially recorded at cost. Subsequently all plant and equipment is stated at historical cost less accumulated depreciation and impairment (if any). The costs of property, plant and equipment comprise both the purchase price and any costs directly attributable to bringing the assets to location and condition necessary for them to be capable of operating in the manner intended by management. Their costs also include the initial estimate of the costs of dismantling and removing the item and restoring the site on which they are located, the obligation for which the Group incurs either when the items are acquired or as a consequence of having used the items during a particular period.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

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Notes to the Consolidated and Separate Financial Statements
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2 Accounting policies (Cont'd)

2.12 Property, plant and equipment (Cont'd)

Depreciation is calculated on the straight-line basis to write off the cost of each asset, except for land which is considered to have an indefinite life.

Power plant	20 years
Land Improvement	20 years
Building	20 years
Furniture and fixtures	5 - 10 years
Office equipment	5 years
Motor vehicles	5 years

The asset's residual values and useful lives are reviewed and adjusted if appropriate, at the end of each reporting period.

Spare part, stand-by equipment and servicing equipment are recognised as property, plant and equipment when they meet the definition of property, plant and equipment. Otherwise such items are classified as inventory and spare part for other repair and maintenance which are recognised in profit or loss when they are utilised.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with carrying amount and are included in the profit or loss.

Borrowing costs that are directly attributable to the acquisition or construction of qualifying assets are capitalised as part of cost of the assets, during the period of time required to complete and prepare the assets for their intended use. All other borrowing costs are recognised as expenses in the income statement.

2.13 Intangible assets

2.13.1 Computer software

Acquired computer software licenses are capitalised based on the costs incurred to acquire and for intended bring into use of the specific software acquired. These costs are amortised using straight-line method over their estimated useful lives of 10 years.

2.13.2 Golf membership

Expenditure associated with golf membership acquisition is capitalized at cost and amortised using the straight-line method over the useful life of 10 years.

2.14 Impairment of assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

TTCL Public Company Limited
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For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.15 Leases - where the Group is the lessee

Leases of assets which substantially transfer all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased property or the present value of the minimum lease payments. Each lease payment is allocated to the principal and to the finance charges so as to achieve a constant rate on the finance balance outstanding. The outstanding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to the statement of income over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant or equipment acquired under finance leases is depreciated over the shorter period of the useful life of the asset or the lease term.

Leases not transferring a significant portion of the risks and rewards of ownership to the lessee are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the statement of income on a straight-line basis over the period of the lease.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which termination takes place.

2.16 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain.

2.17 Government grant

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grant relating to assets

The Group initially recognise government grant relating to assets as deferred income and systematically recognise as revenue in the income statement in accordance with depreciation expense incurred from the related assets in each accounting period.

Government grant relating to revenue

The Group initially recognise government grant relating to revenue as deferred income and systematically recognise as revenue in the income statement in accordance with carbon credit portion delivered to the government in each accounting period compare to all carbon credit required to deliver.

TTCL Public Company Limited
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For the year ended 31 December 2017

2 Accounting policies (Cont'd)

2.18 Borrowings and debentures

Long term loans and debentures are recognised initially at the fair value, net of transaction costs incurred. Long term loans and debentures are subsequently stated at amortised cost using the effective yield method; any difference between proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of long term loans and debentures.

Fees paid on the establishment of long term loans and debentures facilities are recognised as transaction costs of the debentures to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of reporting date.

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

2.19 Employee benefits

The Group has post-employment benefits consisting of both defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age of employee, years of service and compensation.

2.19.1 Defined benefit plan - retirement benefit

The Group provides for post-employment benefits, payable to employees under the labour laws applicable in Thailand and other countries in which the Group has its operations. The liability in respect of employee benefits is the present value of the defined benefit obligation which is calculated by an independent actuary in accordance with the actuarial technique. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on government bonds which have terms to maturity approximating the terms of the related liability. The estimated future cash flows shall reflect employee salaries, turnover rate, mortality, length of service and other factors. Actuarial gains or losses will be recognised in the profit or loss in the period to which they relate. The costs associated with providing these benefits are charged to the profit or loss so as to spread the cost over the employment period during which the entitlement to benefits is earned.

2.19.2 Defined contribution plan - provident fund

The Group operates a provident fund that is a defined contribution plan. The assets are held in a separate fund which is managed by an external fund. The provident fund is funded by payments from employees and by the Group. Contributions to the provident fund are charged to the profit or loss in the year to which they relate.

2.20 Share capital

Ordinary shares and non-redeemable preference shares with discretionary dividends are classified as equity. Other shares including mandatory redeemable preference shares are classified as liabilities.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

TTCL Public Company Limited
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2 Accounting policies (Cont'd)

2.21 Revenue recognition

a) Construction revenues

Revenues from construction contracts are recognised using the percentage-of-completion method by reference to the completion of a physical proportion of the contract work performed as assessed by the project engineers and owners or customers. Provision for anticipated loss on construction project will be made in the accounts as soon as the possibility of loss is ascertained

Revenues from additional works and other services are recognised using the percentage-of-completion method and billings to customers.

(accounting policy no. 2.10 construction contracts).

b) Revenue from operating the power plant

Service income under finance lease agreements related to power purchase agreements and recognised as income when service have been rendered in according to the agreement. Service income comprises of other service income received from financial asset with respect to the leased assets.

c) Interest income

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

d) Dividends

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

e) Government grants

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to the purchase of property, plant and equipment are included in non-current liabilities as other liabilities and are credited to the income statement when related conditions are met, on a straight line basis over the expected lives of the related assets.

Government grants relating to revenue are included in deferred income and are credited to the income statement in accordance with the portion of carbon credit delivered to government in each accounting period compare to carbon credit required to deliver.

2.22 Costs of construction

Costs of construction contracts comprise the costs of labour, subcontractors' charges, other services and overheads which are recognised on the percentage-of-completion method.

Contracts of which incurred construction costs exceed calculated costs of construction, and costs of project of which revenue have not yet been recognised are shown as "Construction in progress" under current assets in the statement of financial position, while contracts of which calculated costs of construction exceed incurred costs of construction are shown as "Accrued construction costs" under current liabilities in the statement of financial position.

2.23 Dividends

Dividends are recorded in the consolidated and company's financial statements in the period in which they are approved by the shareholders of the Group Interim dividends are recorded in the consolidated and separate financial statements when they are approved by the Board of Directors of the Company and subsidiaries.

TTCL Public Company Limited
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2 Accounting policies (Cont'd)

2.24 Corporate income tax

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In such case the tax is also recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company's subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which the applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial information. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates and laws that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2.25 Segment reporting

Reporting segments are referred from the Group's internal report which is reviewed by the Chief Operating Decision Maker (CODM). CODM is the President and Chief Executive Officer who makes decisions about resource allocation and assesses the segment performance.

3 Financial risk management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks, including the effects of changes in debt and equity market prices, foreign currency exchange rates and interest rates. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses derivative financial instruments such as foreign currency forward contracts to hedge certain exposures.

Risk management is carried out by management in accordance with policies approved by the Board of Directors. The Board provides principles for overall risk management, as well as policies covering specific areas, such as foreign exchange risk, credit risk, use of derivative financial instruments and investing excess liquidity.

3.1.1 Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to US Dollars. Entities in the Group use foreign currency forward contracts to hedge their exposure to foreign currency risk in connection with measurement currency.

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3 Financial risk management (Cont'd)

3.1 Financial risk factors (Cont'd)

3.1.2 Interest rate risk

The Group's income and operating cash flows are substantially independent of changes in market interest rates. All interest rate derivative transactions are subject to approval by the Finance Director before execution. The Group has no significant interest-bearing assets. The Group policy is to maintain approximately 70% of its borrowings in fixed rate instruments. At the year ended, 1.15% - 4.76% was the fixed rate. The Group sometimes borrows at variable rates and uses interest rate swaps as cash flow hedges of future interest payments, which has the economic effect of converting borrowings from floating rates to fixed rates. The interest rate swaps allow the Group to raise long-term borrowings at floating rates and swap them into fixed rates that are lower than those available if the Group borrowed at fixed rates directly. Under the interest rate swaps, the Group agrees with the other parties to exchange, at specified intervals (generally monthly), the difference between fixed contract rates and floating rate interest amounts calculated by reference to the agreed notional principal amounts. Any differential to be paid or received on an interest rate swap agreement is recognised as a component of interest revenue or expense over the period of the agreement. Gains and losses on early termination of interest rate swaps or on repayment of the borrowing are taken to profit or loss.

3.1.3 Credit risk

The Group has no significant concentrations of credit risks. The Group has policies in place to ensure that sales of products and services are made to customers with an appropriate credit history. Derivative counterparties and cash transactions are limited to high credit quality financial institutions. The Group has policies that limit the amount of credit exposure to any one financial institution.

3.1.4 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions.

3.2 Accounting for derivative financial instruments and hedging activities

The Group is party to derivative financial instruments, which mainly comprise foreign currency forward contracts. Such instruments are not recognised in the financial statements on inception.

Foreign currency forward contracts protect the Group from movements in exchange rates by establishing the rate at which a foreign currency asset will be realised or a foreign currency liability settled. Any increase or decrease in the amount required to realise the asset or settle the liability is offset by a corresponding movement in the value of the forward exchange contract. The gains and losses on the derivative instruments and the underlying financial asset or liability are therefore offset for financial reporting purposes and are not recognised in the financial statements. The fee incurred in establishing each agreement is amortised over the contract period, if any.

3.3 Fair value estimation

The different levels have been defined as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The fair value of publicly traded derivatives and trading investments is based on quoted market prices at the statement of financial position date. The fair value of foreign currency forward contracts is determined using forward exchange market rates at the statement of financial position date. The fair value was disclosed in note 36.

The carrying amounts of financial assets and liabilities with a maturity of less than one year are assumed to approximate their fair values.

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4 Significant accounting judgments and estimates

The Group makes estimations and assumptions concerning the future. The result of accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are set out below.

4.1 Accrued construction costs

Accrued construction costs are estimated based from management experience after taking into consideration of work progress and updated budget project costs incurred as part of the budget.

4.2 Construction revenue

Construction revenue and construction costs are recognised by using the percentage of completion method. The stage of completion is measured by reference to the completion of a physical proportion of the contract work performed as assessed by the project engineers and owners or customers.

4.3 Leases

In determining whether a lease is to be classified as an operating lease or finance lease, the management is required to use judgment regarding whether significant risk and rewards of ownership of the leased asset has been transferred, taking into consideration terms and conditions of the arrangement.

4.4 Employee benefits

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will have an impact on the carrying amount of pension obligations. The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Group considers the market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability.

The key assumptions for defined benefit obligations and other long-term benefits are based in part on current market conditions is disclosed in Note 26.

4.5 Provision and contingent liabilities

The Group has contractual obligations to maintain or restore infrastructure which be estimated from maintenance plan over concession period.

The Group has contingent liabilities as a regarding of litigation. The Group's management has used judgment to assess of the results of the litigation and believes that no significant loss will result apart from provision for liabilities which already recorded at each reporting date.

4.6 Allowance for doubtful account

Estimation of allowance for doubtful account, the management has used judgment for the estimated losses that may occur in collection of receivables. The allowance is generally based on collection experiences, analysis of debtor aging and economic conditions.

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5 Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares, or sell assets to reduce debt.

6 Segment information

The Group has two segments report which are comprised of energy business and construction business. Energy business is to provide service for generating and sell electricity to the government both in Thailand and overseas. Construction business is to provide construction service in Thailand and overseas.

Reporting segments are referred from the Group's internal report which is reviewed by the Chief Operating Decision Maker (CODM). CODM is the President and Chief Executive Officer who makes decisions about resource allocation and assesses the segment performance.

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6 Segment information (Cont'd)

Chief Operating Decision Maker considers gross profit in monthly performance of reporting segments.

	Consolidated financial statements						
	Energy business			Construction business			Total Baht
	Thailand Baht	Myanmar Baht	Japan Baht	Other Baht	Thailand Baht	Malaysia Baht	
For the year ended 31 December 2017							
Construction and service revenues	-	-	-	-	4,276,090,072	4,333,484,660	9,692,949,012
Revenues from operating the power plant	997,261	753,160,635	-	-	-	-	754,157,896
Costs of construction and service	-	-	-	-	(3,843,103,103)	(4,114,139,334)	(9,082,544,003)
Costs of operating the power plant	(3,819,120)	(508,903,224)	-	-	-	-	(512,722,344)
Gross profit	(2,821,859)	244,257,411	-	-	432,986,969	219,345,326	851,840,561
Gross profit ratio	-	32%	-	-	10%	5%	8%
Other income	1,120,360	362,111,026	1,354	14,159	6,720,840	41,546,560	464,087,072
Profit (loss) from operation before interest expenses and cooperate income tax benefit	(1,701,499)	606,368,437	1,354	14,159	439,707,809	260,891,886	1,315,927,633
Financial costs							(419,420,642)
Gain on exchange rate, net							64,384,652
Administrative expenses							(953,705,617)
Share of profit of associates							18,462,294
Share of profit of joint ventures							734,543
Income tax expense							68,646,230
Profit for the year							95,029,093
Fixed assets	109,121,364	71,791,531	411,739,696	394,048	52,324,973	1,386,501	653,645,825
Consolidated total assets	1,087,182,515	7,019,649,765	596,035,527	15,104,648	6,030,425,025	2,878,399,244	23,864,958,136

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
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6 Segment information (Cont'd)

	Consolidated financial statements						
	Energy business			Construction business			Total Baht
	Thailand Baht	Myanmar Baht	Japan Baht	Other Baht	Thailand Baht	Malaysia Baht	
For the year ended 31 December 2016							
Construction and service revenues	-	-	-	-	8,116,028,669	5,722,501,489	19,388,998,895
Revenues from operating the power plant	-	635,449,048	-	-	-	-	635,449,048
Costs of construction and service	-	-	-	-	(7,749,615,540)	(5,405,023,965)	(18,310,037,822)
Costs of operating the power plant	-	(233,458,634)	-	-	-	-	(233,458,634)
Gross profit	-	401,990,414	-	-	366,413,129	317,477,524	1,480,951,487
Gross profit ratio	-	63%	-	-	5%	6%	7%
Other income	1,114,977	221,218,719	5,865	13,395	48,827,662	867,327	272,951,782
Profit (loss) from operation before interest expenses and cooperate income tax benefit	1,114,977	623,209,133	5,865	13,395	415,240,791	318,344,851	1,753,903,269
Financial costs							(427,519,089)
Gain on exchange rate, net							44,642,132
Administrative expenses							(847,425,566)
Share of profit of associates							15,254,422
Share of profit of joint ventures							805,039
Income tax expense							(94,129,846)
Profit for the year							445,530,361
Fixed assets	117,133,852	64,993,878	83,796,590	966,149	56,586,037	2,066,567	336,515,466
Consolidated total assets	1,095,420,404	6,939,743,225	238,957,130	23,782,506	5,755,650,410	4,364,779,200	25,812,101,415

Chief Operating Decision Maker considers gross profit in monthly performance of reporting segments.

TTCL Public Company Limited
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6 Segment information (Cont'd)

Major customer of the Group

During the year 2017, the Group had revenue from 3 major customers from construction business who contributed 60.91% of the Group's total revenues, which was approximately Baht 6,355.54 million (2016: the Group had revenue from 4 major customers from construction business who contributed 59.14% of the Group's total revenues, which was approximately Baht 11,842.81 million).

7 Cash and cash equivalents

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Cash on hand	1,669,118	2,826,096	1,334,785	1,390,688
Saving accounts	598,502,334	914,807,842	201,776,002	518,461,983
Current accounts	1,629,027,903	1,254,527,670	8,791,397	19,748,429
Fixed deposits due within 3 months	-	17,325,451	-	-
Cheque on hand	6,697,088	18,858,469	6,697,088	18,858,469
	<u>2,235,896,443</u>	<u>2,208,345,528</u>	<u>218,599,272</u>	<u>558,459,569</u>

Interest rate on deposits in saving accounts are 0.01% - 4.30% per annum (2016: 0.01% - 4.30% per annum).

8 Trade accounts receivable

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Related parties				
Not yet due	264,596,256	1,028,151,845	181,712,328	299,155,356
Overdue				
- up to 3 months	-	647,014,694	15,214,359	13,892,870
- 3 - 6 months	-	57,465	13,201,334	48,959,171
- 6 - 12 months	-	-	27,329,364	26,844,829
- more than 12 months	-	3,391,471	238,246,541	550,615,510
Total	<u>264,596,256</u>	<u>1,678,615,475</u>	<u>475,703,926</u>	<u>939,467,736</u>

The management assessed and considered the outstanding trade accounts receivable - related parties which over a period of 6 months in a separate financial statements amounted to Baht 265.58 million (31 December 2016: Baht 577.46 million) has the potential for cash collection. The management has not considered the allowance for doubtful debt.

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Third parties				
Not yet due	614,903,492	1,419,931,132	396,694,933	1,089,581,673
Overdue				
- up to 3 months	74,819,279	572,302,132	69,241,251	571,451,698
- 3 - 6 months	329,739	1,250,039	-	504,890
- 6 - 12 months	231,483,406	106,089,246	221,309,587	105,847,617
- more than 12 months	837,772,640	398,264,292	732,299,620	393,740,454
Total	<u>1,759,308,556</u>	<u>2,497,836,841</u>	<u>1,419,545,391</u>	<u>2,161,126,332</u>

The management assessed and considered the outstanding trade accounts receivable-third parties which over a period of 6 months in consolidated and separate financial statements amounted to Baht 1,069.25 million and Baht 953.61 million, respectively (31 December 2016: Baht 504.35 million and Baht 499.59 million, respectively) and has the potential for cash collection. The management has not considered the allowance for doubtful debt.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
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8 Trade accounts receivable (Cont'd)

However, the Group has the construction Rock Salt project in Laos People's Democratic Republic which is engaged by the state enterprise in an overseas and started the construction in 2015. During 2017, such construction project has temporarily been suspended and stopped the business transactions relating to this project as a result of changing in the authorised person of the customer. The Group had outstanding accounts receivable for overdue more than twelve months of Baht 635 million and Baht 554 million in the consolidated financial statement and the separate financial statements, respectively (31 December 2016: Baht 618 million and Baht 538 million, respectively); unbilled contract revenue of Baht 1,788 million and Baht 1,735 million in the consolidated financial statement and the separate financial statement, respectively (31 December 2016: Baht 1,025 million and Baht 618 million, respectively) (Note 9.2).

Currently, the Group management is in the process of negotiation with the authorised person of the customer for the resumed project in the near future and complete within the contract period including the collection plan for the above outstanding accounts receivable and unbilled contract revenue. The management assesses that the project will be resumed in the near future and expected to complete in 2020 and the Group is able to collect such amount. The management has not considered the allowance for doubtful debt.

9 Unbilled contracts revenue and deferred construction revenue

9.1 Unbilled contract revenue - related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Contract costs to date	9,695,794,340	12,556,979,883	9,589,247,747	17,406,939,873
Recognised profits to date	942,562,226	1,158,757,538	1,215,202,756	1,847,156,076
Contract costs incurred and recognised profits to date	10,638,356,566	13,715,737,421	10,804,477,503	19,254,095,949
<u>Less</u> Progress billings	(10,148,811,835)	(12,390,097,254)	(9,396,279,954)	(17,380,102,504)
	<u>489,544,731</u>	<u>1,325,640,167</u>	<u>1,408,197,549</u>	<u>1,873,993,445</u>

9.2 Unbilled contract revenue - third parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Contract costs to date	26,665,484,928	51,074,777,935	21,087,367,905	39,991,619,117
Recognised profits to date	2,870,485,643	3,799,015,048	2,031,178,827	3,025,213,686
Contract costs incurred and recognised profits to date	29,535,970,571	54,873,792,983	23,118,546,732	43,016,832,803
<u>Less</u> Progress billings	(26,607,971,946)	(52,475,792,955)	(20,558,284,955)	(41,076,396,308)
	<u>2,927,998,625</u>	<u>2,398,000,028</u>	<u>2,560,261,777</u>	<u>1,940,436,495</u>

TTCL Public Company Limited
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9 Unbilled contracts revenue and deferred construction revenue (Cont'd)

9.3 Deferred construction revenue - related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Contract costs to date	5,804,807,520	2,839,754,081	-	-
Recognised profits to date	130,856,949	57,632,784	-	-
Contract costs incurred and recognised profits to date	5,935,664,469	2,897,386,865	-	-
<u>Less</u> Progress billings	(6,235,449,381)	(3,927,756,325)	-	-
	(299,784,912)	(1,030,369,460)	-	-

9.4 Deferred construction revenue - third parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Contract costs to date	23,027,300	-	23,027,300	-
Recognised profits to date	4,397,651	-	4,397,651	-
Contract costs incurred and recognised profits to date	27,424,951	-	27,424,951	-
<u>Less</u> Progress billings	(53,564,964)	-	(53,564,964)	-
	(26,140,013)	-	(26,140,013)	-

10 Financial assets under concession arrangement

	Consolidated financial statements			
	Minimum lease payments under concession arrangement		Present value of minimum lease payments	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Financial assets under concession arrangement				
- within one year	229,842,628	321,930,872	113,787,473	189,884,600
- later than one year but not later than five years	1,086,312,019	1,191,055,638	656,760,242	702,112,054
- after five years	5,374,466,921	6,280,369,472	4,274,297,025	4,870,133,274
	6,690,621,568	7,793,355,982	5,044,844,740	5,762,129,928
<u>Less</u> : unearned finance income	(1,645,776,828)	(2,031,226,054)	-	-
Present value of minimum lease payments receivable	5,044,844,740	5,762,129,928	5,044,844,740	5,762,129,928

Financial assets under concession arrangement can be analysed as follows:

- Financial assets under concession arrangement due within one year	113,787,473	189,884,600
- Financial assets due over one year	4,931,057,267	5,572,245,328
	5,044,844,740	5,762,129,928

As at 31 December 2017, the fair value of financial assets under concession arrangement was disclosed in note 36.

TTCL Public Company Limited
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11 Related party transactions

Enterprises and individuals that directly, or indirectly through one or more intermediaries control, or are controlled by or are under common control with, the Company, including holding companies, subsidiaries and fellow subsidiaries are related parties of the Company. Associates and individuals owning, directly or indirectly, an interest in the voting power of the Company that gives them significant influence over the enterprise, key management personnel, including directors and officers of the Company and close family members of these individuals and companies associated with these individuals also constitute related parties.

In considering each possible related party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

Related parties are those parties connected with the Group and the Company through shareholders, common shareholders or directors. The significant investments in subsidiaries, associates and joint ventures are set out in Notes 15, 16 and 17. As at 31 December 2017, the major shareholders are as follows:

	Relationship
Toyo Engineering Corporation (incorporated in Japan)	10% of common shareholder, the major shareholder
Global Business Management Company Limited	6.90% of common shareholder by having common director
Mr. Hironobu Iriya	6.10% of common shareholder, Chief executive officer
Mr. Sukchai Sukchaicharoenkul	6.05% of common shareholder, the major shareholder
Mrs. Suratana Trinratana	2.83% of common shareholder, Executive director
Toyo Engineering & Construction Sdn Bhd (incorporated in Malaysia)	A related party of Toyo Engineering Corporation by having common shareholder
8 Coin Capital Pte Ltd	A related party of TTCL Power Holdings Pte. Ltd. by having common director

Transaction item	Pricing policy
Service income	The prices as agrees in the agreement
Revenue from operation and maintenance	The prices as agrees in the agreement
Other income	The prices as agrees in the agreement
Cost of service	The prices as agrees in the agreement
Administrative expense	The prices as agrees in the agreement
Interest expense	The prices as agrees in the agreement
Dividends paid	From approval of shareholders and directors
Director and management remuneration e.g. salary, bonus, meeting allowance and etc.	From approval of shareholders

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11 Related party transactions (Cont'd)

The significant trading transactions with subsidiaries and related parties are shown below. These transactions are considered to be in the normal course of business and are based on the prices as agreed in related contracts.

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Services income				
Major shareholders	1,306,283,915	3,124,541,552	1,306,283,915	3,124,541,552
Subsidiaries	-	-	406,075,620	292,852,262
Associates	-	161,688	-	161,688
Related parties - shareholders	91,403	-	91,403	-
Related parties - others	3,038,277,605	2,603,304,738	-	-
	<u>4,344,652,923</u>	<u>5,728,007,978</u>	<u>1,712,450,938</u>	<u>3,417,555,502</u>
Revenue from operation and maintenance				
Subsidiaries	-	-	51,884,352	49,888,800
	<u>-</u>	<u>-</u>	<u>51,884,352</u>	<u>49,888,800</u>
Interest income				
Subsidiaries	-	-	12,606,669	29,053,177
Associates	50,919,073	35,869,567	50,919,073	35,869,567
Joint ventures	458,360	587,375	-	-
	<u>51,377,433</u>	<u>36,456,942</u>	<u>63,525,742</u>	<u>64,922,744</u>
Interest expense				
Subsidiaries	-	-	-	1,811,697
Related parties - others	1,801,323	448,047	-	-
	<u>1,801,323</u>	<u>448,047</u>	<u>-</u>	<u>1,811,697</u>
Cost of services				
Subsidiaries	-	-	9,653,092	11,565,433
	<u>-</u>	<u>-</u>	<u>9,653,092</u>	<u>11,565,433</u>
Administrative expenses				
Subsidiaries	-	-	3,431,894	-
	<u>-</u>	<u>-</u>	<u>3,431,894</u>	<u>-</u>
Dividends paid				
Major shareholders	12,320,000	42,000,001	12,320,000	42,000,001
Related parties - shareholders	26,957,036	56,270,171	26,957,036	56,270,171
	<u>39,277,036</u>	<u>98,270,172</u>	<u>39,277,036</u>	<u>98,270,172</u>
Director and management remuneration				
Short-term employee benefits	71,976,421	92,510,373	67,517,600	83,216,200
Post-employee benefits	2,940,375	2,468,496	2,420,185	2,545,212
	<u>74,916,796</u>	<u>94,978,869</u>	<u>69,937,785</u>	<u>85,761,412</u>

TTCL Public Company Limited
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11 Related party transactions (Cont'd)

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Trade accounts receivable - related parties				
Current assets				
Major shareholders	166,758,832	284,742,222	166,758,832	284,742,222
Subsidiaries	-	-	308,945,094	654,664,840
Associates	-	60,674	-	60,674
Joint ventures	-	3,391,471	-	-
Related parties - others	97,837,424	1,390,421,108	-	-
	<u>264,596,256</u>	<u>1,678,615,475</u>	<u>475,703,926</u>	<u>939,467,736</u>
Non-current asset				
Subsidiaries	-	-	82,570,436	78,824,727
<u>Less</u> Allowance for doubtful accounts	-	-	(11,991,020)	(11,991,020)
	<u>-</u>	<u>-</u>	<u>70,579,416</u>	<u>66,833,707</u>
Unbilled contract revenue - related parties				
Major shareholders	487,754,253	1,014,453,915	487,754,253	1,014,453,915
Subsidiaries	-	-	920,160,676	555,031,331
Associates	-	304,225,579	-	304,225,579
Joint ventures	1,790,478	6,960,673	282,620	282,620
	<u>489,544,731</u>	<u>1,325,640,167</u>	<u>1,408,197,549</u>	<u>1,873,993,445</u>
Others receivable - related parties				
Subsidiaries	-	-	19,701,122	15,261,261
Associates	-	1,160,916	-	1,160,916
Joint ventures	28,341,853	-	-	-
	<u>28,341,853</u>	<u>1,160,916</u>	<u>19,701,122</u>	<u>16,422,177</u>
Construction in progress - related parties				
Subsidiaries	-	-	81,726	-
	<u>-</u>	<u>-</u>	<u>81,726</u>	<u>-</u>
Advance payments to sub-contractors - related parties				
Subsidiaries	-	-	56,346,029	18,973,754
	<u>-</u>	<u>-</u>	<u>56,346,029</u>	<u>18,973,754</u>
Interest receivable from loans to subsidiaries - related parties				
Subsidiaries	-	-	39,877,879	30,014,427
Associates	-	2,311,879	-	2,311,879
Joint ventures	211,322	277,585	-	-
	<u>211,322</u>	<u>2,589,464</u>	<u>39,877,879</u>	<u>32,326,306</u>

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11 Related party transactions (Cont'd)

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Loans to related parties				
Current asset				
Subsidiaries	-	-	96,361,869	-
Associate	-	372,503,554	-	372,503,554
Joint ventures	1,526,316	1,526,316	-	-
Total	1,526,316	374,029,870	96,361,869	372,503,554
Non-current asset				
Subsidiaries	-	-	49,652,831	45,152,381
Associate	-	1,096,611,457	-	1,096,611,457
Joint ventures	7,631,578	9,921,052	-	-
<u>Less</u> Allowance for doubtful debt	-	-	(6,022,632)	(6,022,632)
Total	7,631,578	1,106,532,509	43,629,749	1,135,741,206
Total loans to related parties	9,157,894	1,480,562,379	139,991,618	1,508,244,760

As at 31 December 2017, the fair value of loan to a related parties was disclosed in note 36 (c).

Loans to related parties

Separate financial statements

As at 31 December 2017, the outstanding loans to related parties of Baht 139.99 million (31 December 2016: Baht 1,508.24 million) comprise the following long-term loans;

- A long-term loan was granted to TTCL Power Holdings Pte. Ltd. (TTPHD), a subsidiary, of USD 0.75 million, equivalent to Baht 24.39 million, and the loan bears interest at 4.35% per annum with quarterly interest repayment. The principal repayments are due within 30 days from the date on which the Company calls.
- A long-term loan was granted to TTCL Vietnam Corporation Limited (TVC), a subsidiary, of USD 2.21 million, equivalent to Baht 71.97 million, and the loan bears interest at 4.55% per annum with quarterly interest repayment. The principal repayments are due within 1 year from the date of the first drawdown or within 30 days from the date on which the Company calls.
- A long-term loan was granted to Bio Natural Energy Co., Ltd., a subsidiary, net of allowance for doubtful debt Baht 43.63 million (31 December 2016: Baht 39.13 million). The loan bears interest at 4.35% per annum (2016: 4.35 % per annum) with quarterly interest repayment. The principal repayments are due within 45 days from the date on which the Company calls, including the conditions specified in the loan agreement.

Consolidated financial statements

As at 31 December 2017, the outstanding loans to related parties of Baht 9.16 million (31 December 2016: Baht 1,480.56 million) comprise the following long-term loans;

- Long-term loan granted that Global New Energy Co., Ltd., a subsidiary, granted to Siam GNE Solar Energy Co., Ltd., a joint venture, of Baht 9.16 million (31 December 2016: Baht 11.45 million). This loan bears interest at 5% per annum, with the interest payment due every six months and the principal instalment repayments specified in the loan agreement which started from 2015 until 2024.

TTCL Public Company Limited
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11 Related party transactions (Cont'd)

The movements in loans to related parties can be analysed as follows:

		Consolidated financial statements	Separate financial statements
		Baht	Baht
For the year ended 31 December 2017			
Opening balance		1,480,562,379	1,508,244,760
Increase from loan to subsidiaries		-	104,795,464
Decrease from loan repayment		(291,676,245)	(289,386,771)
Loss from exchange rate		(127,275,727)	(131,209,322)
Decrease from reclassifying loan to associate to loan to third parties		(1,052,452,513)	(1,052,452,513)
Ending balance		9,157,894	139,991,618
		Consolidated financial statements	
		2017	2016
		Baht	Baht
As at 31 December			
Account payable - related parties			
Subsidiaries	-	-	1,285,884,205
Related parties - others	389,016	-	-
	<u>389,016</u>	<u>-</u>	<u>1,285,884,205</u>
Other payable - related parties			
Associates	-	123,477	-
	<u>-</u>	<u>123,477</u>	<u>123,477</u>
Short-term loans - related parties			
Related parties - others	70,263,935	77,036,005	-
	<u>70,263,935</u>	<u>77,036,005</u>	<u>-</u>

Short-term loans from related parties

Consolidated financial statements

As at 31 December 2017, the outstanding short-term loan from related party of USD 2.15 million or equivalent to Baht 70.26 million is a short-term loan of TTCL Power Holding Pte. Ltd. (TTPHD), a subsidiary, borrows from 8 Coins Capital Pte Ltd (8 Coins). This loan bears interest at LIBOR (3 months) plus 1.15% per annum. The principal repayment are due within one month from the date on which 8 Coins call or at any time within one month following advance notice from TTPHD given to 8 Coins.

TTCL Public Company Limited
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11 Related party transactions (Cont'd)

The movements in loans from subsidiaries can be analysed as follows:

	Consolidated financial statements	Separate financial statements
	Baht	Baht
For the year ended 31 December 2017		
Opening balance	77,036,005	-
Currency translation differences	(6,772,070)	-
Ending balance	70,263,935	-

	Consolidated financial statements	Separate financial statements		
	2017	2016	2017	2016
	Baht	Baht	Baht	Baht
As at 31 December				
Interest payable from loan from related parties				
Related parties - others	2,152,222	454,311	-	-
	2,152,222	454,311	-	-
Advance received from customers under construction contract - related parties				
Major shareholders	-	32,548,096	-	32,548,096
Related parties - others	13,222,248	82,380,557	-	-
	13,222,248	114,928,653	-	32,548,096
Deferred construction revenue - related parties				
Related parties - others	299,784,912	1,030,369,460	-	-
	299,784,912	1,030,369,460	-	-

12 Advance payment for share subscription

On 26 August 2016, the Board of Directors' meeting of TTCL Solar Power Pte. Ltd. (TTSP), an indirect subsidiary, granted approval to invest 100% in a company in Japan to operate an energy business in Japan.

As at 31 December 2017, TTSP had an outstanding balance of advance payment for share subscription of JPY 440 million, equivalent to Baht 141.31 million (31 December 2016: TTSP had an outstanding balance of advance payment for share subscription of JPY 440 million, equivalent to Baht 153.95 million), in accordance with the share purchase agreement dated on 7 September 2016. However, TTSP will receive the advance payment for share subscription refundable within April 2018.

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13 Loan to third parties

A long-term loan was granted to ToyoThai-USA Corporation (TTUS), of USD 30.75 million, equivalent to Baht 999.92 million. This loan bears interest at 4% per annum with the interest repayment and principal instalment repayments specified in the loan agreement, with payment starting in 2016 which is USD 20.75 million or equivalent to Baht 674.60 million due within one year and USD 10.00 million or equivalent to Baht 325.32 million, which is due in 2019.

The movements in loans to third parties can be analysed as follows:

	Consolidated and Separate financial statements
For the year ended 31 December	2017 Baht
Beginning balance	-
Increase from reclassifying loan to subsidiary to loan to third parties	1,052,452,513
Decrease from loan repayment	(55,925,578)
Gain from exchange rate	3,391,259
Ending balance	<u>999,918,194</u>

As at 31 December 2017, the fair value of loan to third parties was disclosed in note 36 (c).

14 Deposit at bank used as collateral

Deposits in debt service accounts are mainly cash reserves maintained under the long-term loan and debenture agreements referred to in Note 21, in order to repay the principal and payments of interest. These cash reserves (denominated in US Dollars) are provided from the proceeds of services. The reserves are deposits at a financial institution and amount to USD 4 million, which is equivalent to Baht 130.77 million. They bear interest at the rate of 0.01% per annum (31 December 2016; the deposits were used as collateral amounting to USD 4 million which is equivalent to Baht 143.36 million and were bearing interest at the rate of 0.01% per annum).

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15 Investment in subsidiaries, net

As at 31 December	Type of business	Proportion of ordinary share held by parent				Proportion of ordinary share held by subsidiaries				Cost method				Separate financial statements			
		2017		2016		2017		2016		2017		2016		2017		2016	
		%		%		%		%		Baht		Baht		Baht		Baht	
TTCL Vietnam Corporation Ltd.	Constructions and engineering services	93.34		93.34		-		-		43,985,494		43,985,494		-		-	
Bio Natural Energy Co., Ltd.	Renewable energy development	70.00		70.00		-		-		3,500,000		3,500,000		-		-	
TTCL Malaysia SDN. BHD.	Constructions and engineering services	100.00		100.00		-		-		7,593,351		7,593,351		-		-	
Toyo-Thai Myanmar Corporation Co., Ltd.	Constructions and engineering services	80.00		80.00		10.00		10.00		7,526,661		7,526,661		-		-	
Global New Energy Company Limited	Renewable energy development	40.00		40.00		-		-		24,000,000		24,000,000		-		-	
TTCL New Energy Pte. Ltd.	Investing in renewable energy business	100.00		100.00		-		-		150,849,300		150,849,300		-		-	
TTCL Myanmar Engineering & Construction Company Limited	Constructions and engineering services	99.00		99.00		-		-		1,751,666		1,751,666		-		-	

Note - The Company has control over Global New Energy Company Limited, a subsidiary, with the ownership interest 40% because the management and directors of the Company and such subsidiaries, who have authorization in making decision, are the same persons.

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15 Investment in subsidiaries, net (Cont'd)

As at 31 December	Type of business	Proportion of ordinary share held by parent		Proportion of ordinary share held by subsidiaries		Cost method		Dividend	
		2017 %	2016 %	2017 %	2016 %	2017 Baht	2016 Baht	2017 Baht	2016 Baht
TTCL Power Holdings Pte. Ltd. (TTPHD)	Investing in energy business	100.00	69.78	-	-	3,768,975,682	2,000,537,250	-	-
Subsidiaries of TTPHD:									
- TTCL Gas Power Pte. Ltd.	Investing in energy business	-	-	100.00	100.00	-	-	-	-
- Toyo-Thai Power Myanmar Cooperation Co., Ltd.	Electricity Generation	5.00	5.00	95.00	95.00	83,793,909	83,793,909	-	-
- TTCL Coal Power Pte. Ltd.	Investing in energy business	-	-	100.00	100.00	-	-	-	-
- TTCL Solar Power Pte. Ltd.	Investing in energy business	-	-	100.00	100.00	-	-	-	-
- Global New Energy Japan Co., Ltd.	Operating and maintenance solar power plant	-	-	100.00	100.00	-	-	-	-
- Global New Energy Togo Co., Ltd.	Electricity generating from solar power	-	-	100.00	100.00	-	-	-	-
- Global New Energy Tsuno Co., Ltd.	Electricity generating from solar power	-	-	100.00	100.00	-	-	-	-
Total						4,091,976,063	2,323,537,631	-	-

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15 Investment in subsidiaries, net (Cont'd)

A summary of movements in investment in subsidiaries are as follows:

	Separate financial statements
For the year ended 31 December	2017 Baht
Opening net book value	2,323,537,631
Payment for shares in a subsidiary	1,768,438,432
Closing net book value	4,091,976,063

All subsidiary undertakings are included in the consolidation. The proportion of the voting rights in the subsidiary undertakings held directly by the parent company do not differ from the proportion of ordinary shares held. The parent company further does not have any shareholdings in the preference shares of subsidiary undertaking included in the group.

The total non-controlling interest for the year is Baht 12.92 million, of which Baht 12.49 million is for Global New Energy Co., Ltd, Bio Natural Energy Co., Ltd, and TTCL Vietnam Corporation Limited and Baht 0.43 million is for other companies which are not material.

Transaction with non-controlling interest

Acquisition of additional interest in a subsidiary

On 6 June 2017, the Company acquired common shares of TTCL Power Holdings Pte. Ltd. (TTPHD) from 8 Coins Capital Pte Ltd., a non-controlling interest of TTPHD, for 8,500,000 shares at USD 2.50 per share amounting to USD 21.25 million or equivalent to Baht 726.19 million. The Company's 69.78% holding will rise to an 82.01% holding. The Company has fully paid-up these shares.

The resolution of Board of Director's Meeting held on 15 August 2017, the Board of Directors approved the Company to acquire common shares of TTPHD from TTP Partners LP ("TTPLP") for 12,500,000 shares at USD 2.50 per share amounting to USD 31.25 million or equivalent to Baht 1,042.25 million. On 16 October 2017, the Company acquired common shares of TTPHD and fully paid-up these shares. The Company's 82.01% holding will rise to 100% holding.

The effect of changes in the interest on the equity attributable to owners of the Company during the year is summarised as follows:

	2017 Baht	2016 Baht
Carrying amount of non-controlling interests acquired	1,019,779,344	-
Consideration paid to non-controlling interests	(1,768,438,432)	-
Exceed of consideration paid recognised in parent's equity	(748,659,088)	-

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15 Investment in subsidiaries, net (Cont'd)

Summarised financial information on subsidiaries with material non-controlling interests

Set out below are the summarised financial information for each subsidiary that has non-controlling interests that are material to the group.

Summarised statement of financial position

	TTCL Vietnam Corporation Limited		Bio Natural Energy Co., Ltd.		Global New Energy Co., Ltd.		Total	
	As at 31 December		As at 31 December		As at 31 December		As at 31 December	
	2017	2016	2017	2016	2017	2016	2017	2016
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Current								
Assets	510,772,529	615,366,618	19,980,993	19,068,474	415,328,092	410,825,623	946,081,614	1,045,260,715
Liabilities	(354,948,701)	(362,825,564)	(658,705)	(210,254)	(353,279,246)	(352,903,739)	(708,886,652)	(715,939,557)
Total current net assets	155,823,828	252,541,054	19,322,288	18,858,220	62,048,846	57,921,884	237,194,962	329,321,158
Non-current								
Assets	8,265,796	4,858,086	126,559,722	135,854,222	8,068,527	11,865,514	142,894,045	152,577,822
Liabilities	(7,952,650)	(2,903,877)	(279,176,038)	(270,081,901)	-	-	(287,128,688)	(272,985,778)
Total non-current net assets	313,146	(1,954,209)	(152,616,316)	(134,227,679)	8,068,527	11,865,514	(144,234,643)	(120,407,956)
Net assets (liabilities)	156,136,974	254,495,263	(133,294,028)	(115,369,459)	70,117,373	69,787,398	92,960,319	208,913,202
Non-controlling interest	10,398,722	16,949,385	(39,988,209)	(34,610,838)	42,070,424	41,872,439	12,480,938	24,210,986

The information above is the amount before inter-company eliminations.

TTCL Public Company Limited
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15 Investment in subsidiaries, net (Cont'd)

Summarised statement of comprehensive income

	TTCL Vietnam Corporation Limited		Bio Natural Energy Co., Ltd.		Global New Energy Co., Ltd.		Total	
	For the year ended 31 December		For the year ended 31 December		For the year ended 31 December		For the year ended 31 December	
	2017	2016	2017	2016	2017	2016	2017	2016
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Revenue	220,238,775	538,028,474	997,261	-	-	-	221,236,036	538,028,474
Other income	184,721	807,478	1,120,360	1,114,977	467,411	594,142	1,772,492	2,526,597
Profit (loss) before income tax	(67,506,432)	835,739	(17,924,568)	(11,040,261)	329,975	(4,811,354)	(85,101,025)	(15,015,876)
Income tax (expense) income	960,052	610,576	-	-	-	-	960,052	610,576
Post-tax profit (loss) from continuing operations	(66,546,380)	1,446,315	(17,924,568)	(11,040,261)	329,975	(4,811,354)	(84,140,973)	(14,405,300)
Post-tax profit (loss) from discontinued operations	-	-	-	-	-	-	-	-
Other comprehensive income (expense)	-	-	-	-	-	-	-	-
Total comprehensive income (expense)	(66,546,380)	1,446,315	(17,924,568)	(11,040,261)	329,975	(4,811,354)	(84,140,973)	(14,405,300)
Total income (expense) allocated to non-controlling interests	(4,431,989)	96,325	(5,377,370)	(3,312,078)	197,985	(2,886,812)	(9,611,374)	(6,102,565)
Dividends paid to non-controlling interests	-	-	-	-	-	-	-	-

The information above is the amount before inter-company eliminations.

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15 Investment in subsidiaries, net (Cont'd)

Summarised statement of cash flows

	TTCL Vietnam Corporation Limited		Bio Natural Energy Co., Ltd		Global New Energy Co., Ltd.		Total	
	For the year ended		For the year ended		For the year ended		For the year ended	
	31 December	2016	31 December	2016	31 December	2016	31 December	2016
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Cash flow from operating activities								
Cash generated from (used in) operations	(106,926,667)	(37,090,151)	(4,855,402)	(3,544,107)	(10,008,272)	4,533,763	(121,790,341)	(36,100,495)
Interest paid	-	-	-	-	-	-	-	-
Income tax paid	-	-	-	-	-	(2,003,826)	-	(2,003,826)
Net cash generated from (used in) operating activities	(106,926,667)	(37,090,151)	(4,855,402)	(3,544,107)	(10,008,272)	2,529,937	(121,790,341)	(38,104,321)
Net cash generated from (used in) investing activities	(891,596)	(4,858,236)	(34,350)	(2,864)	2,289,474	2,204,766	1,363,528	(2,656,334)
Net cash generated from financing activities	70,413,172	-	4,500,000	5,500,000	-	-	74,913,172	5,500,000
Net (decrease)/increase in cash and cash equivalents	(37,405,091)	(41,948,387)	(389,752)	1,953,029	(7,718,798)	4,734,703	(45,513,641)	(35,260,655)
Cash, cash equivalents and bank overdrafts at beginning of year	206,634,408	246,325,470	2,296,132	343,103	213,565,607	230,977,821	422,496,147	477,646,394
Exchange gains/(losses) on cash and cash equivalents	(26,123,399)	2,257,326	-	-	9,887,424	(22,146,917)	(16,235,975)	(19,889,591)
Cash and cash equivalents at end of year	143,105,918	206,634,409	1,906,380	2,296,132	215,734,233	213,565,607	360,746,531	422,496,148

The information above is the amount before inter-company eliminations.

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16 Investment in associate, net

As at 31 December 2017, the Group has investment in an associate as follows:

Siam Solar Power Public Company Limited

The Group holds in Siam Solar Power Public Company Limited, an associate. The associate engages in electricity generation using solar power which has 400,000,000 registered ordinary shares which has paid-up capital of 300,000,000 ordinary shares with a par value of Baht 1 per share. TTCL Solar Power Pte. Ltd. (TTSP), a subsidiary of TTCL Power Holdings Pte. Ltd. (TTPHD) held 40% of Siam Solar Power's authorised share capital at 120,000,000 ordinary shares amounting to Baht 202.61 million, and fully paid-up capital.

The movements in investment in an associate can be analysed as follows:

	Consolidated financial statements	Separate financial statements
	Baht	Baht
For the year ended 31 December 2017		
Opening book value	223,999,215	1,233,200
Decrease due to changing from associate to general investment (Note 18)	-	(1,233,200)
Share of profit of associates	18,462,294	-
Currency translation differences	(19,527,933)	-
Closing book value	<u>222,933,576</u>	<u>-</u>

The reclassifying from investment in associate to general investment

On 19 December 2017, a director of the Company resigned from Board of Director of ToyoThai-USA Corporation (TTUS) which affected the Company has no power to vote on significant matter to be significant in determining the financial and operating policies of TTUS. The Company ceases its significant influence but not control over TTUS. Therefore, the Company considered to classify this investment from investment in associate to general investment since 19 December 2017 (The date significant influence cease) (Note 18).

The share of the associate's profit is calculated on the Company's 40% interest based on Siam Solar Power Public Company Limited's statement of income audited by its auditor for year ended 31 December 2017.

Set out below are the associate of the group as at 31 December 2017, which, in the opinion of the directors, are material to the group. The associate as listed below have share capital consisting solely of ordinary shares, which are held directly by the group; the country of incorporation or registration is also their principal place of business.

Nature of investment in associate for the year 2017 and 2016:

Name of entity	Place of business/ country of incorporation	% of ownership interest		Nature of the relationship
		2017 %	2016 %	
Siam Solar Power Public Company Limited	Thailand	40	40	Note 1

Note 1: Siam Solar Power Public Company Limited (SSP) engaged in electricity generation using solar power. SSP is strategic for the group's growth in renewable energy business.

Siam Solar Power Public Company Limited is a public company which is not registered to Stock Exchange of Thailand. There are no contingent liabilities relating to the group's interest in the associate.

Set out below are the summarised financial information for the associate that are material to the Group. The information disclosed reflects the amounting presented in the financial statements of the relevant associate (not the Group's shares of those amounts). They have been amended to reflect adjustments made using the equity method, including fair value adjustments and modifications for differences in accounting policy.

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16 Investment in associates, net (Cont'd)

Summarised statement of financial position

		Siam Solar Power Public Company Limited	
		As at 31 December	
		2017 Baht	2016 Baht
Current assets			
Cash and cash equivalents		25,218,640	33,935,215
Other current assets (excluding cash)		27,775,129	30,193,542
Total current assets		52,993,769	64,128,757
Non-current assets		656,208,877	749,409,023
		<u>709,202,646</u>	<u>813,537,780</u>
Current liabilities			
Financial liabilities (excluding trade payables)		(112,823,585)	(102,799,503)
Other current liabilities (including trade payables)		(10,324,381)	(19,428,570)
Total current liabilities		(123,147,966)	(122,228,073)
Non-current liabilities			
Financial liabilities		-	(102,726,462)
Other liabilities		(28,720,741)	(28,585,207)
Total non-current liabilities		(28,720,741)	(131,311,669)
		<u>(151,868,707)</u>	<u>(253,539,742)</u>
Net assets		<u>557,333,939</u>	<u>559,998,038</u>

Summarised statement of comprehensive income

		Siam Solar Power Public Company Limited	
		For the year ended 31 December	
		2017 Baht	2016 Baht
Revenue		173,850,364	167,086,978
Depreciation and amortisation		(57,239,612)	(56,718,139)
Interest expense		(7,693,647)	(13,036,111)
Profit from continuing operations		44,886,572	40,399,402
Income tax expense		1,269,163	819,654
Post-tax profit from continuing operations		46,155,735	41,219,056
Other comprehensive income (expense)		-	(1,108,852)
Total comprehensive income (expense)		46,155,735	40,110,204
Dividends received from associate		-	-

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16 Investment in associates, net (Cont'd)

Reconciliation of summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in associate.

As at 31 December 2017

	Siam Solar Power Public Company Limited
	Baht
Opening net assets 1 January 2017	559,998,038
Profit for the period	46,155,735
Currency translation differences	(48,819,834)
Closing net assets	557,333,939
Interest in associates	40%
Carrying value 31 December 2017	222,933,576

As at 31 December 2017

	Siam Solar Power Public Company Limited
	Baht
Opening net assets 1 January 2016	473,127,589
Increase capital	50,000,000
Profit for the period	40,110,203
Currency translation differences	(3,239,754)
Closing net assets	559,998,038
Interest in associates	40%
Carrying value as at 31 December 2016	223,999,215

17 Interest in joint venture

As at 31 December 2017, the Group has 2 investments in interest in joint ventures as follows;

a) Siam GNE Solar Energy Co., Ltd

Siam GNE Solar Energy Co., Ltd, a joint venture of the Group, the joint venture engaged in a renewable energy business with a total of 160,000 registered ordinary shares at a par value of Baht 100 per share. TTCL Solar Power Pte. Ltd. (TTSP) and Global New Energy Company Limited (GNE), subsidiaries, hold 48% and 2% of its authorised share capital amounting to Baht 8.05 million and Baht 0.32 million, respectively and fully paid-up capital.

b) Orient Bio-Fuels Company Limited

As at 31 December 2017, TTCL New Energy Pte. Ltd (TTNE), a subsidiary, holds 49% of its total shares totalling USD 5.13 million or equivalent to Baht 183.89 million in a joint venture named "Orient Bio-Fuels Company Limited (OBF)". TTNE paid shares of USD 5.13 million or equivalent to Baht 167.73 million and fully paid-up.

The Group has considered and classified the joint arrangement to be a joint venture. A list of the joint venture is shown in Note 2.4.5.

The movements in interest in joint venture can be analysed as follow:

	Consolidated financial statement
	Baht
For the year ended 31 December 2017	
Opening book value - as previously reported	11,677,739
Share of profit from joint venture	734,543
Currency translation difference	(776,224)
Closing book value	11,636,058

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17 Interest in joint venture (Cont'd)

Share of profit from joint venture

The share of the joint venture's profit is calculated on the Company's 48% and 2% interest based on Siam GNE Solar Energy Co., Ltd.'s statement of income for year ended 31 December 2017 but was not audited by its auditor. And the share of the associate's loss is calculated on the Company's 49% interest based on OBF's statement of income audited by its auditor for the year ended 31 December 2017.

The joint venture listed below has share capital consisting solely of ordinary shares, which is held directly by the group.

Nature of investment in joint ventures for the year 2017 and 2016

Name of entities	Place of Business/country of incorporation	% of ownership interest		Nature of the relationship
		2017 %	2016 %	
Siam GNE Solar Energy Co., Ltd.	Thailand	50	50	Note 1
Orient Bio-Fuels Company Limited	Vietnam	49	49	Note 2

Note 1: Siam GNE Solar Energy Co., Ltd.'s major business is to generate and transmit electricity from renewable energy. Siam GNE Solar Energy Co., Ltd is a strategic partnership for the group to invest in renewable energy.

Note 2: Orient Bio-Fuels Company Limited's major business is to engage in renewable energy in Vietnam. Orient Bio-Fuels Company Limited is a strategic partnership for the group to invest in renewable energy.

Commitments and contingent liabilities in respect of joint venture

The group has commitment and contingent liabilities in respect of joint venture is as follows;

	Consolidated financial statements	
	2017 Baht	2016 Baht
Capital commitment of the undue portion of investment	-	37,015,299

Summarised statement of financial position

Set out below are the summarised financial information for joint ventures that are material to the Group. The information disclosed reflects the amounting presented in the financial statements of the relevant joint ventures (not the Group's shares of those amounts). They have been amended to reflect adjustments made using the equity method, including fair value adjustments and modifications for differences in accounting policy.

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17 Interest in joint venture (Cont'd)

Summarised statement of financial position

		Orient Bio-Fuels Company Limited	
		As at 31 December	
		2017 Baht	2016 Baht
Current assets			
Cash and cash equivalents		25,755,497	13,684,206
Other current assets(excluding cash)		12,658,593	13,512,057
Total current assets		38,414,090	27,196,263
Non-current assets		1,639,000,328	2,005,139,155
		<u>1,677,414,418</u>	<u>2,032,335,418</u>
Current liabilities			
Financial liabilities (excluding trade payables)		(59,836,000)	-
Other current liabilities(including trade payables)		(174,566,360)	(111,537,977)
Total current liabilities		(234,402,360)	(111,537,977)
Non-current liabilities			
Financial liabilities		(1,951,142,840)	(2,240,414,891)
Other liabilities		-	-
Total non-current liabilities		(1,951,142,840)	(2,240,414,891)
		<u>(2,185,545,200)</u>	<u>(2,351,952,868)</u>
Net liabilities		<u>(508,130,782)</u>	<u>(319,617,450)</u>

Summarised statement of comprehensive income

		Orient Bio-Fuels Company Limited	
		For the year ended 31 December	
		2017 Baht	2016 Baht
Revenue		3,383,523	1,045,018
Depreciation and amortisation		(127,324,765)	(136,335,569)
Interest income		3,207,635	8,876,007
Interest expense		(141,260,745)	(170,222,320)
Loss from continuing operations		(279,687,984)	(310,436,800)
Income tax expense		-	-
Post-tax loss from continuing operations		(279,687,984)	(310,436,800)
Other comprehensive income (expense)		-	-
Total comprehensive income (expense)		<u>(279,687,984)</u>	<u>(310,436,800)</u>
Dividends received from joint ventures		-	-

The information above reflects the amounts presented in the financial statements of the joint venture adjusted for differences in accounting policies between the group and the joint venture (and not the group's share of those amounts).

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17 Interest in joint venture (Cont'd)

Reconciliation of summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in joint venture

	Orient Bio-Fuels Company Limited	
	For the period ended 31 December	
	2017	2016
	Baht	Baht
Net assets as at 1 January		
Opening net assets	-	-
Loss for the year	-	-
Closing net assets	-	-
Interest in joint venture	49%	49%
Carrying value	-	-

Individually immaterial joint ventures

In addition to the interests in joint ventures disclosed above, the Group also has interests in a number of individually immaterial joint ventures that are accounted for using the equity method.

	2017	2016
	Baht	Baht
Aggregate carrying amount of individually immaterial joint ventures	11,636,058	11,677,738
Aggregate amounts of the reporting entity's share of:		
Profit from continuing activities	1,471,737	1,598,975
Other comprehensive income	-	-
Total comprehensive income	1,471,737	1,598,975

18 General investment

As at 31 December 2017, the Group has 2 general investments as follows:

Navanakorn Electric Company Limited

The Company has investment in preferred shares of Navanakorn Electric Company Limited which has its authorised share capital of 16,500,000 share at par value of Baht 100 per share. The Company hold 44.02% of its authorised share capital or 7,263,799 share of Baht 726.38 million. One Company fully paid-up capital and represents less than 1% of total voting rights.

The investment in preferred shares limits the voting right of the Company to the maximum of 1% of the total voting rights in which the Company will receive its return on investment through accumulative dividends at a fixed rate. The overall objective of such investment transaction is to invest in a good prospective project in which the Company will not be involved in routine management as outlined in various terms and conditions in the Shareholders' agreement dated 26 January 2011.

ToyoThai-USA Corporation

On 19 December 2017, investment in Toyo Thai-USA Corporation (TTUS) was reclassified from investment in associate to general investment as mention in Note 16. The Company reclassified the remaining amount of investment with fair value.

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18 General investment (Cont'd)

The movements in general investment can be analysed as follows:

	Consolidated financial statements	Separate financial statements
For the year ended 31 December 2017	Baht	Baht
Beginning balance	726,379,900	726,379,900
Increase due to changing from associate to general investment (Note 16)	-	1,233,200
Impairment on general investment	-	(1,233,200)
Ending balance	726,379,900	726,379,900

TTCL Public Company Limited
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19 Property, plant and equipment, net (Cont'd)

	Consolidated financial statements				
	Land and land improvement Baht	Building Baht	Furniture, fixtures and equipment Baht	Motor vehicles Baht	Power plant Baht
				Assets under installation Baht	Total Baht
For the year ended 31 December 2017					
Opening net book amount	24,910,929	4,348,990	47,514,229	24,203,186	117,073,905
Additions	71,116,157	-	11,759,352	8,953,130	-
Disposals, net	-	-	-	(2,020,421)	-
Write-off, net	-	-	(9,483)	-	62,005,306
Depreciation charge	(216,679)	(164,705)	(21,746,650)	(7,138,888)	(13,641,572)
Currency translation differences	(2,397,471)	-	(563,573)	(1,143,162)	(5,055)
Closing net book amount	93,412,936	4,184,285	36,953,455	22,853,845	165,432,584
At 31 December 2017					
Cost	93,975,709	4,735,255	193,755,110	61,340,604	247,247,295
Less Accumulated depreciation	(562,773)	(550,970)	(156,801,655)	(38,486,759)	(45,082,318)
Less Allowance for impairment	-	-	-	-	(36,732,393)
Net book amount	93,412,936	4,184,285	36,953,455	22,853,845	165,432,584
				Assets under installation Baht	Total Baht
				330,808,720	653,645,825

As at 31 December 2017, the Group had allowance for impairment of the power plant 1.2 MW located at Ayutthaya province amounting to Baht 36.73 million due to the power plant generation plan are not in line with the forecast plan because no volume of wastewater from ethanol plant using as fuel to operate the power plant, and the ethanol plant has stopped its operation for long time. The Company estimated the value in use using a cash flow projection covering the volume of wastewater from the ethanol plant and the period of Power Purchase Agreement. The cash flow projection is based on the electricity volume to sell and the estimated tariff rate in according to the power plant capacity and conditions specified in the Power Purchase Agreement. The discount rate used in the calculation is 10.63% per annum.

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19 Property, plant and equipment, net (Cont'd)

	Separate financial statement			
	Land Baht	Furniture, fixtures and equipment Baht	Motor vehicles Baht	Total Baht
At 1 January 2016				
Cost	6,750,000	155,990,813	47,334,820	210,075,633
<u>Less</u> Accumulated depreciation	-	(100,424,891)	(26,788,215)	(127,213,106)
Net book amount	<u>6,750,000</u>	<u>55,565,922</u>	<u>20,546,605</u>	<u>82,862,527</u>
For the year ended 31 December 2016				
Opening net book amount	6,750,000	55,565,922	20,546,605	82,862,527
Additions	-	8,613,525	4,413,078	13,026,603
Write-off, net	-	(7,368)	-	(7,368)
Disposals, net	-	(15,588)	(6)	(15,594)
Depreciation charge	-	(22,776,042)	(6,906,299)	(29,682,341)
Currency translation differences	-	(1,422)	(112,195)	(113,617)
Closing net book amount	<u>6,750,000</u>	<u>41,379,027</u>	<u>17,941,183</u>	<u>66,070,210</u>
At 31 December 2016				
Cost	6,750,000	164,167,632	47,376,239	218,293,871
<u>Less</u> Accumulated depreciation	-	(122,788,605)	(29,435,056)	(152,223,661)
Net book amount	<u>6,750,000</u>	<u>41,379,027</u>	<u>17,941,183</u>	<u>66,070,210</u>
For the year ended 31 December 2017				
Opening net book amount	6,750,000	41,379,027	17,941,183	66,070,210
Additions	-	9,161,581	8,953,130	18,114,711
Write-off, net	-	(7,866)	-	(7,866)
Disposals, net	-	-	(1,223,965)	(1,223,965)
Depreciation charge	-	(18,493,934)	(5,654,693)	(24,148,627)
Currency translation differences	-	(4,194)	(704,210)	(708,404)
Closing net book amount	<u>6,750,000</u>	<u>32,034,614</u>	<u>19,311,445</u>	<u>58,096,059</u>
At 31 December 2017				
Cost	6,750,000	169,298,578	51,720,536	227,769,114
<u>Less</u> Accumulated depreciation	-	(137,263,964)	(32,409,091)	(169,673,055)
Net book amount	<u>6,750,000</u>	<u>32,034,614</u>	<u>19,311,445</u>	<u>58,096,059</u>

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20 Intangible assets, net

	Consolidated financial statements		
	Computer software Baht	Golf membership Baht	Total Baht
At 1 January 2016			
Cost	57,105,737	4,119,865	61,225,602
<u>Less</u> Accumulated amortisation	(29,224,980)	(2,110,734)	(31,335,714)
Net book amount	<u>27,880,757</u>	<u>2,009,131</u>	<u>29,889,888</u>
For the year ended 31 December 2016			
Opening net book amount	27,880,757	2,009,131	29,889,888
Additions	12,764,359	-	12,764,359
Write-off, net	(11)	-	(11)
Amortisation charge	(6,590,119)	(333,786)	(6,923,905)
Currency translation differences	(7,538)	-	(7,538)
Closing net book amount	<u>34,047,448</u>	<u>1,675,345</u>	<u>35,722,793</u>
At 31 December 2017			
Cost	68,195,170	4,119,865	72,315,035
<u>Less</u> Accumulated amortisation	(34,147,722)	(2,444,520)	(36,592,242)
Net book amount	<u>34,047,448</u>	<u>1,675,345</u>	<u>35,722,793</u>
For the year ended 31 December 2017			
Opening net book amount	34,047,448	1,675,345	35,722,793
Additions	468,976	-	468,976
Write-off, net	(6)	-	(6)
Amortisation charge	(6,516,913)	(333,787)	(6,850,700)
Currency translation differences	(519,255)	-	(519,255)
Closing net book amount	<u>27,480,250</u>	<u>1,341,558</u>	<u>28,821,808</u>
At 31 December 2017			
Cost	65,543,447	4,119,865	69,663,312
<u>Less</u> Accumulated amortisation	(38,063,197)	(2,778,307)	(40,841,504)
Net book amount	<u>27,480,250</u>	<u>1,341,558</u>	<u>28,821,808</u>

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20 Intangible assets, net (Cont'd)

	Separate financial statements		
	Computer software Baht	Golf membership Baht	Total Baht
At 1 January 2016			
Cost	53,775,576	4,119,865	57,895,441
<u>Less</u> Accumulated amortisation	(27,440,083)	(2,110,734)	(29,550,817)
Net book amount	<u>26,335,493</u>	<u>2,009,131</u>	<u>28,344,624</u>
For the year ended 31 December 2016			
Opening net book amount	26,335,493	2,009,131	28,344,624
Additions	7,822,290	-	7,822,290
Write-off, net	(11)	-	(11)
Amortisation charge	(5,136,432)	(333,786)	(5,470,218)
Closing net book amount	<u>29,021,340</u>	<u>1,675,345</u>	<u>30,696,685</u>
At 31 December 2016			
Cost	59,930,367	4,119,865	64,050,232
<u>Less</u> Accumulated amortisation	(30,909,027)	(2,444,520)	(33,353,547)
Net book amount	<u>29,021,340</u>	<u>1,675,345</u>	<u>30,696,685</u>
For the year ended 31 December 2017			
Opening net book amount	29,021,340	1,675,345	30,696,685
Additions	10,600	-	10,600
Write-off, net	(6)	-	(6)
Amortisation charge	(4,605,625)	(333,787)	(4,939,412)
Closing net book amount	<u>24,426,309</u>	<u>1,341,558</u>	<u>25,767,867</u>
At 31 December 2017			
Cost	57,858,767	4,119,865	61,978,632
<u>Less</u> Accumulated amortisation	(33,432,458)	(2,778,307)	(36,210,765)
Net book amount	<u>24,426,309</u>	<u>1,341,558</u>	<u>25,767,867</u>

21 Short term loan from financial institutions

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
As at 31 December				
Short-term loans from financial institutions				
- Promissory note	2,494,510,675	380,000,000	2,470,000,000	380,000,000
- Bill of exchanges	1,005,237,934	999,480,505	1,005,237,934	999,480,505
Total	<u>3,499,748,609</u>	<u>1,379,480,505</u>	<u>3,475,237,934</u>	<u>1,379,480,505</u>

As at 31 December 2017, the Company had short-term loans from local financial institutions in the form of promissory notes (interest of, 2.10% - 2.91% per annum), bills of exchange (interest of 2.30% - 2.50% per annum) not over six months for working capital and purchases machinery and equipment. (31 December 2016: short-term loans in the form of promissory notes bearing interest 2.41% - 2.45% per annum and bills of exchange bearing interest 2.70% - 2.80% per annum).

Credit facilities

As at 31 December 2017, the Group has unused credit facilities amounting of Baht 18,751 million which is the Company's credit facilities of Baht 17,129 million (31 December 2016: Baht 18,959 million which is the Company's credit facilities of Baht 17,247 million).

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22 Long-term loan from financial institution, net

22.1 The long-term loan from financial institution is as follows

	Consolidated financial statements	
	2017 Baht	2016 Baht
Long-term loans in US Dollars	2,627,544,337	3,282,092,120
<u>Less</u> Deferred financing fee, net	-	(6,888,900)
Total long-term loans from financial institution, net	<u>2,627,544,337</u>	<u>3,275,203,220</u>

Long-term loans from financial institutions of subsidiary

Toyo-Thai Power Myanmar Co., Ltd. (TTPMC), a subsidiary, entered into a facility agreement with the Export-Import Bank of Thailand (EXIM Bank) for USD 100 million, or equivalent to Baht 3,045 million, loan agreement date 28 May 2014, the annual interest at LIBOR plus a margin. The principal will be repaid in 36 quarterly instalments scheduled at 35 equal instalments and the remaining amount in the last instalment. The first repayment date was on 19 January 2016.

The loan is for the construction of the power plant in Myanmar and its operations. It's secured with the right to receive compensation under an investment insurance policy, the share charge, and the guarantee agreement with TTCL Gas Power Pte. Ltd. (TTGP). Under the facility agreement, the subsidiary is required to comply with certain terms and conditions, such as maintaining a debt-to-equity ratio, maintaining a debt coverage ratio and setting a reserve in the deposit accounts as a provision to cover loan and interest payments (Note 14).

22.2 The movement of the long-term loan from financial institution

The movement of the long-term loan from financial institution can be analysed as follows:

	Consolidated financial statements	
	2017 Baht	2016 Baht
Opening net book value	3,275,203,220	3,578,356,267
Repayment long-term loan	(384,337,240)	(299,190,080)
Amortisation of deferred financing fee	6,888,900	23,062,582
Currency translation differences	(270,210,543)	(27,025,549)
Closing net book value	<u>2,627,544,337</u>	<u>3,275,203,220</u>

22.3 Maturity of long-term loan is as follows:

	Consolidated financial statements	
	2017 Baht	2016 Baht
Within 1 year	366,026,064	400,380,057
Later than 1 year and not later than 5 years	1,464,104,313	1,601,618,034
Later than 5 years	797,413,960	1,273,205,129
Total long-term loan, net	<u>2,627,544,337</u>	<u>3,275,203,220</u>

As at 31 December 2017, the Group and the Company had drawn down the full amount of a long-term loan from a financial institution.

The fair value of a long term loan from a financial institution was disclosed in note 36 (c).

As at 31 December 2017 the Group's effective interest rates of long term borrowing were 5.30% per annum (31 December 2016: 5.00% per annum).

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23 Debentures, net

The debentures are Thai Baht debenture as follows:

As at 31 December	Consolidated and separate financial statements	
	2017 Baht	2016 Baht
Debentures		
Unsubordinated and unsecured debentures	6,000,000,000	4,000,000,000
<u>Less</u> Deferred financing fee amortised	(10,978,178)	(6,580,239)
Unsubordinated and unsecured debentures, net	<u>5,989,021,822</u>	<u>3,993,419,761</u>

The movements in debenture can be analysed as follows:

For the year ended 31 December	Consolidated and separate financial statements	
	2017 Baht	2016 Baht
Opening net book value	3,993,419,761	2,918,297,324
Issuing of debentures	3,000,000,000	1,075,000,000
Repayment of debentures	(1,000,000,000)	-
Financing fee for issuing debentures	(8,867,000)	(3,516,875)
Amortisation of deferred financing fee	4,469,061	3,639,312
Closing net book value	<u>5,989,021,822</u>	<u>3,993,419,761</u>

On 12 May 2017, the Company issued such unsubordinated and unsecured debentures of Baht 3,000 million for 3,000,000 shares at par value of Baht 1,000 per share at selling price Baht 1,000 per share which the Company issued debentures of Baht 1,900 million for 3 years, maturity in 2020, at fixed interest rate 3.90% per annum with quarterly interest payment, and debentures Baht 1,100 million for 5 years, maturity in 2022, at fixed interest rate 4.20 per annum with quarterly.

The objective of issuing debentures is to expand business and financial management. The issue was approved in the resolution of the Annual General Meeting on 8 April 2016, which granted the Company the right to issue unsubordinated and unsecured debenture for up to Baht 6,000 million.

At 31 December 2017, the Company had debentures which are unsubordinated and unsecured debentures, totalling Baht 6,000 million (31 December 2016: Baht 6,000 million) which the Company issued debentures of Baht 6,000 million (31 December 2016; issued Baht 4,000 million). The term of the debentures is 3-5 years maturity and the fixed interest rate 3.90% - 4.55% per annum with quarterly interest payment.

As at 31 December 2017, the fair value of debentures has been disclosed in note 36.

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23 Debentures, net (Cont'd)

The maturities of debentures are as follows:

As at 31 December	Consolidated and separate financial statements	
	2017 Baht	2016 Baht
- Within 1 year		
Unsubordinated and unsecured debenture	1,424,414,935	999,617,976
- Later than 1 year and not later than 5 years		
Unsubordinated and unsecured debentures	4,564,606,887	2,993,801,785
Total unsubordinated and unsecured debentures	5,989,021,822	3,993,419,761

The Group and the Company have the following undrawn committed for debenture:

	Consolidated and separate financial statements	
	2017 Baht	2016 Baht
Fixed rate		
- expiring within one year	-	-
- expiring beyond one year	-	2,000,000,000
	-	2,000,000,000

24 Government grants

During the year 2010, Bio Natural Energy Co., Ltd., the subsidiary, entered into the government grant assistance agreement with the Energy Policy and Planning Office (EPPO) of Thailand in 2010. This government programme enabled Bio Natural Energy to receive subsidy with a total credit facility line of Baht 20 million from the Energy Conservation Promotion Fund support programme for industrial biogas technology. To receive the subsidy, the subsidiary has to operate the power plant using the biogas generated from the wastewater of Ethanol plants at the minimum volume specified in the agreement.

Bio Natural Energy is also receive a subsidy from the Ministry of Environment of Japan (MOE) to construct the biogas power plant and to sell back the carbon credit generated from production to MOE at the volume stipulated in the agreement. The subsidy received will be based on the percentage of completion of the plant not to exceed Yen 350 million or Baht 129.16 million.

During the year 2017, the group recorded government grants relating to assets of Baht 20 million and recognised revenue of Baht 1.11 million in comprehensive income statement. The group has not recognised any revenue from government grant relating to revenue of Baht 129.16 million since the Group did not start deliver carbon credit to government yet.

As at 31 December 2017, the government grants of Baht 144.34 million were included in non-current liabilities as deferred revenue (31 December 2016: Baht 145.45 million).

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25 Deferred income taxes, net

Corporate income tax for the years ended 31 December 2017 and 2016 are calculated based on the net profit (tax base) which excluded the interests in joint ventures. The rates are as follows:

	2017	2016
Thailand	20%	20%
Singapore	17%	17%
Philippines	30%	30%
Qatar	10%	10%
Japan	33%	34%
Vietnam	20%	20%
Malaysia	24%	24%
Myanmar	25%	25%

Deferred tax assets and liabilities can be summarised as follows:

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	Baht	Baht	Baht	Baht
Deferred tax assets				
Deferred tax assets to be recovered within 12 months	679,910	-	-	-
Deferred tax assets to be recovered after 12 months	208,464,853	127,865,499	135,511,327	28,431,847
Total deferred tax assets	209,144,763	127,865,499	135,511,327	28,431,847
Deferred tax liabilities				
Deferred tax liabilities to be recovered within 12 months	(8,828,729)	(7,934,746)	-	(672,609)
Deferred tax liabilities to be recovered after 12 months	(105,486,179)	(113,888,125)	-	(24,866)
Total deferred tax liabilities	(114,314,908)	(121,822,871)	-	(697,475)

The movement in deferred tax assets and liabilities during the year are as follows:

	Consolidated financial statements				
	Baht				
	At 1 January 2017	Charged to profit or loss	Credit to Other comprehensive income or expense	Translation adjustments	At 31 December 2017
Deferred income tax assets:					
Employee benefit obligation	29,016,746	3,825,260	(1,497,614)	-	31,344,392
Fixed asset	68,994,338	4,900,680	-	27,221	73,922,239
Loss carry forward	29,326,711	71,594,697	-	(151,165)	100,770,243
Others	527,704	2,580,185	-	-	3,107,889
Total deferred income tax assets	127,865,499	82,900,822	(1,497,614)	(123,944)	209,144,763
Deferred income tax liabilities:					
Employee benefit obligation	580,775	3,488	-	(72,597)	511,666
Fixed asset	(113,010,442)	(2,144,445)	-	10,005,597	(105,149,290)
Construction in progress	(848,554)	-	-	-	(848,554)
Unbilled contract revenue	(33,309,154)	7,930,122	-	4,163,645	(21,215,387)
Accrued construction costs	12,080,709	3,709,569	-	(1,510,089)	14,280,189
Trade accounts payable	13,791,552	(10,508,043)	-	(1,723,944)	1,559,565
Others	(1,107,757)	(2,396,092)	-	50,752	(3,453,097)
Total deferred income tax liabilities	(121,822,871)	(3,405,401)	-	10,913,364	(114,314,908)
Deferred income taxes, net	6,042,628	79,495,421	(1,497,614)	10,789,420	94,829,855

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25 Deferred income taxes, net (Cont'd)

	Consolidated financial statements				Baht
	At 1 January 2016	Charged to profit or loss	Credit to Other comprehensive income or expense	Translation Adjustments	At 31 December 2016
Deferred income tax assets:					
Employee benefit obligation	28,437,522	3,937,329	(3,358,105)	-	29,016,746
Fixed asset	55,470,248	13,522,227	-	1,864	68,994,339
Loss carry forward	41,421,304	(11,883,507)	-	(211,086)	29,326,711
Others	(177,781)	705,484	-	-	527,703
Total deferred income tax assets	125,151,293	6,281,533	(3,358,105)	(209,222)	127,865,499
Deferred income tax liabilities:					
Employee benefit obligation	564,494	16,281	-	-	580,775
Fixed asset	(66,058,298)	(46,952,144)	-	-	(113,010,442)
Construction in progress	(14,832,798)	13,984,244	-	-	(848,554)
Unbilled contract revenue	(41,161,351)	7,852,197	-	-	(33,309,154)
Accrued construction costs	19,361,281	(7,280,572)	-	-	12,080,709
Trade accounts payable	13,178,080	613,472	-	-	13,791,552
Others	(872,776)	(234,981)	-	-	(1,107,757)
Total deferred income tax liabilities	(89,821,368)	(32,001,503)	-	-	(121,822,871)
Deferred income taxes, net	35,329,925	(25,719,970)	(3,358,105)	(209,222)	6,042,628

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25 Deferred income taxes, net (Cont'd)

	Separate financial statements		
	Baht		
	At 1 January 2017	Charged to profit or loss	Credit to other comprehensive income or expense
			At 31 December 2017
Deferred income tax assets:			
Employee benefit obligation	28,431,847	3,825,260	(1,497,614)
Fixed asset	-	98,958	-
Loss carry forward	-	99,201,821	-
Others	-	2,451,055	-
Total deferred income tax assets	28,431,847	105,577,094	(1,497,614)
Deferred income tax liabilities:			
Loss on exchange rate	(672,609)	672,609	-
Fixed Asset	(24,866)	24,866	-
Total deferred income tax liabilities	(697,475)	697,475	-
Deferred income taxes, net	27,734,372	106,274,569	(1,497,614)
	Separate financial statements		
	Baht		
	At 1 January 2016	Charged to profit or loss	Credit to other comprehensive income or expense
			At 31 December 2016
Deferred income tax assets:			
Employee benefit obligation	27,852,623	3,937,329	(3,358,105)
Total deferred income tax assets	27,852,623	3,937,329	(3,358,105)
Deferred income tax liabilities:			
Loss on exchange rate	(584,023)	(88,586)	-
Fixed Asset	-	(24,866)	-
Total deferred income tax liabilities	(584,023)	(113,452)	-
Deferred income taxes, net	27,268,600	3,823,877	(3,358,105)

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26 Employee benefit obligations

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Statement of financial position:				
Employee benefits obligation	156,355,795	145,063,111	153,797,465	142,159,234
Statement of income:				
Expenses of employee benefits for the year	22,327,901	24,366,764	22,225,298	24,227,644
Statement of comprehensive income:				
(Gain) loss from change in financial assumptions	(362,985)	-	-	-
Remeasurement for:				
Gain (loss) from retirement benefits	7,488,067	16,790,527	7,488,067	16,790,527

The plans are final salary retirement plans, which provide benefits to members in the form of a guaranteed level of pension payable. The level of benefits provided depends on members' length of service and their salary in the final years leading up to retirement.

The movement in the employee benefit obligation over the year is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
As at 1 January	145,063,111	142,085,589	142,159,234	139,263,117
Current service cost	16,692,313	18,260,255	16,589,710	18,121,135
Interest expense	5,635,588	6,106,509	5,635,588	6,106,509
Currency translation difference	(362,985)	-	-	-
	167,028,027	166,452,353	164,384,532	163,490,761
Remeasurements:				
Loss from change in demographic assumptions	4,301,944	155,959	4,301,944	155,959
Gain from change in financial assumptions	(7,490,697)	(12,638,862)	(7,490,697)	(12,638,862)
Experience gain	(4,299,314)	(4,307,624)	(4,299,314)	(4,307,624)
	159,539,960	149,661,826	156,896,465	146,700,234
Payment from plans:				
Benefit payment	(3,184,165)	(4,598,715)	(3,099,000)	(4,541,000)
As at 31 December	156,355,795	145,063,111	153,797,465	142,159,234

The principal actuarial assumptions used were as follows:

	2017	2016
Discount rate	3.29%	3.55%
Salary growth rate	5.66%	6.41%

	Impact on defined benefit obligation					
	Change in assumption		Increase in assumption		Decrease in assumption	
	2017	2016	2017	2016	2017	2016
Discount rate	0.5%	0.5%	Decrease by 5.78%	Decrease by 5.83%	Increase by 6.40%	Increase by 6.47%
Salary growth rate	0.5%	0.5%	Increase by 5.59%	Increase by 5.66%	Decrease by 5.09%	Decrease by 5.15%
Employee turnover	0.5%	0.5%	Decrease by 6.12%	Decrease by 6.20%	Increase by 6.77%	Increase by 7.87%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position. The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous period.

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26 Employee benefit obligations (Cont'd)

As at 31 December 2017 the weighted average duration of the defined benefit obligation of the group is between 5 years to 23 years, for the duration of company is 24 years (2016: benefit obligation of the group is between 3 years to 24 years, for the duration of company is 24 years).

Expected maturity analysis of undiscounted retirement benefits:

	Consolidated financial statements				
	Less than a year Baht	Between 1-2 years Baht	Between 2-5 years Baht	Over 5 years Baht	Total Baht
As at 31 December 2017					
Retirement benefit	-	40,323,432	15,335,196	145,838,969	201,497,597
Total	-	40,323,432	15,335,196	145,838,969	201,497,597

	Separate financial statements				
	Less than a year Baht	Between 1-2 years Baht	Between 2-5 years Baht	Over 5 years Baht	Total Baht
As at 31 December 2017					
Retirement benefit	-	40,323,432	12,776,865	145,838,969	198,939,266
Total	-	40,323,432	12,776,865	145,838,969	198,939,266

27 Share capital and premium on share capital

	Authorised ordinary shares	Issued and paid-up shares	Issued and paid-up Baht	Premium on share capital Baht	Total Baht
At 1 January 2016	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747
Issued of shares	-	-	-	-	-
At 31 December 2016	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747
Issued of shares	-	-	-	-	-
At 31 December 2017	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747

As at 31 December 2017, the total authorised ordinary shares are 560 million shares at Baht 1 par value (31 December 2016: 560 million shares at Baht 1 par value).

28 Legal reserve

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Beginning balance	56,000,000	56,000,000	56,000,000	56,000,000
Appropriation during the year	-	-	-	-
Ending balance	56,000,000	56,000,000	56,000,000	56,000,000

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after the accumulated deficit is brought forward (if any) until the reserve is not less than 10% of the registered capital.

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29 Share-based payment

The Group has option to directors and employees for purchase new common shares of 8,388,000 shares issued by TTCL Power Holdings Pte. Ltd. (TTPHD), a subsidiary located in Singapore. The option to purchase share is USD 1 per share or equivalent to Baht 30 per share. The grant date is on 1 January 2014 and option period is the first quarter of 2014 in the condition of employees is able to purchase shares and resign without condition of working period with the Company.

Employee exercise the option to purchase all common shares in the first quarter of 2014 and the transaction cost is Baht 1.41 million which is recognised as net amount with the consideration.

The weighted average fair value of options granted during the period determined using the Black-Scholes valuation model was USD 1.084 per option or equivalent to Baht of 32.75 per option. The significant inputs into the model were a weighted average share price of USD 1.084 or equivalent to Baht 32.75 per share at the grant date, exercise price shown above, volatility of 10%, dividend yield of 2% and an annual risk-free interest rate of 2.85%.

30 Earnings (loss) per share

Basic earnings (loss) per share attributable to equity holders of the parent is calculated by dividing the net profit (loss) attributable to equity holders of the parent by the weighted average number of ordinary shares issued during the year.

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Net profit (loss) attributable to equity holders of the parent (Baht)	52,558,961	400,099,162	(524,717,333)	257,756,881
Weighted average number of ordinary shares in issue (Shares)	560,000,000	560,000,000	560,000,000	560,000,000
Basic earnings (loss) per share (Baht)	0.09	0.71	(0.94)	0.46

There are no dilutive potential ordinary shares issued in years presented above.

31 Dividends

At the Annual General Meeting of the Shareholders on 7 April 2017, the shareholders approved a dividend payment for 2016 at Baht 0.42 per share totalling Baht 235.20 million. The Company paid interim dividends in September 2016 at Baht 0.20 per share for 560 million shares, totalling Baht 112 million. The remaining dividends of Baht 0.22 per share for 560 million shares, totalling Baht 123.20 million, were paid to the shareholders on 4 May 2017.

At the Annual General Meeting of the Shareholders on 8 April 2016, the shareholders approved a dividend payment for 2015 at Baht 0.53 per share totalling Baht 296.80 million. The Company paid interim dividends in September 2015 at Baht 0.23 per share for 560 million shares, totalling Baht 128.80 million. The remaining dividends of Baht 0.30 per share for 560 million shares, totalling Baht 168 million, were paid to the shareholders on 4 May 2016.

At the Board of Directors' meeting held on 15 August 2016, the Board of Directors' meeting approved an interim dividend payment in respect of the half-year 2016 performance of 560 million shares at Baht 0.20 per share, totalling Baht 112 million. The company paid the interim dividend on 12 September 2016.

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32 Other income

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Interest income	199,165,545	179,276,183	66,225,053	66,320,040
Gain from disposal equipment	185,647	1,507,494	185,652	1,507,494
Compensation from insurance claim	238,105,203	88,442,500	1,126,250	2,300,778
Other income	26,630,677	3,725,605	3,711,201	260,877
Total	464,086,072	272,951,782	71,248,156	70,389,189

33 Income tax

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Current tax	10,849,191	68,409,876	3,326,441	69,064,538
Deferred tax (Note 25)	(79,495,421)	25,719,970	(106,274,569)	(3,823,877)
Total tax expense	(68,646,230)	94,129,846	(102,948,128)	65,240,661

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate of the home country of the Company as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Profit before tax	26,382,863	539,660,207	(627,665,461)	322,997,542
Tax rate	20%	20%	20%	20%
Tax calculated at a tax rate	5,276,573	107,932,041	(125,533,092)	64,599,508
Tax effect of Income not subject to tax	(135,167,123)*	(86,961,757)*	(16,443)	(761,157)
Expenses not deductible for tax purpose	41,037,871	45,533,522	26,408,927	5,744,981
Tax losses for which no deferred income tax asset was recognised	8,611,368	-	-	-
Share of profit of associate	(3,692,459)	(3,050,884)	-	-
Share of (profit) loss of joint venture	(146,909)	(161,008)	-	-
Employee benefit obligation	(3,825,260)	(3,953,610)	(3,825,260)	(3,937,329)
Unrealised (gain) loss on exchange rate	(3,456,440)	(14,454,746)	600,893	(120,417)
Fixed assets and construction in progress	2,260,080	(14,666,742)	(41,321)	24,867
Re-measurement of deferred tax - change in tax rate	-	46,927,277	-	-
Tax effect from different tax rates of foreign entities	20,456,069	16,985,753	(541,832)	(309,792)
Tax charge	(68,646,230)	94,129,846	(102,948,128)	65,240,661

* As at 31 December 2017, result of the accounting profit multiplied by the tax rate of Baht 81.45 million is calculated from the profit under tax exemption from foreign source income and Baht 52.65 million from the profit under promotional privileges from the Board of Investment for period of 5 years after the Group issued the first sales invoice.

* As at 31 December 2016, result of the accounting profit multiplied by the tax rate of Baht 62.21 million is calculated from the profit under promotional privileges from the Board of Investment for period of 5 years after the Group issued the first sales invoice.

The weighted average applicable tax rate for the Group and the Company was 260% and 16%, respectively (2016: 17% and 20%).

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33 Income tax (Cont'd)

The tax (charge)/credit relating to component of other comprehensive income is as follows:

	Consolidated financial statements					
	2017			2016		
	Before tax Baht	Tax credit Baht	After tax Baht	Before tax Baht	Tax credit Baht	After tax Baht
Share of other comprehensive income of associates	-	-	-	(443,541)	-	(443,541)
Remeasurement on retirement benefit obligations	7,488,068	(1,497,614)	5,990,454	16,790,527	(3,358,105)	13,432,422
Currency translation difference	(455,360,979)	-	(455,350,979)	(126,525,670)	-	(126,525,670)
Other comprehensive income	(447,862,911)	(1,497,614)	(449,360,525)	(110,178,684)	(3,358,105)	(113,536,789)
Current tax		-			-	
Deferred tax (note 25)		(1,497,614)			(3,358,105)	
		<u>(1,497,614)</u>			<u>(3,358,105)</u>	
	Separate financial statements					
	2017			2016		
	Before tax Baht	Tax credit Baht	After tax Baht	Before tax Baht	Tax credit Baht	After tax Baht
Remeasurement on retirement benefit obligations	7,488,068	(1,497,614)	5,990,454	16,790,527	(3,358,105)	13,432,422
Currency translation difference	(132,734,176)	-	(132,734,176)	(56,484,543)	-	(56,484,543)
Other comprehensive income	(125,246,108)	(1,497,614)	(126,743,722)	(39,694,016)	(3,358,105)	(43,052,121)
Current tax		-			-	
Deferred tax (note 25)		(1,497,614)			(3,358,105)	
		<u>(1,497,614)</u>			<u>(3,358,105)</u>	

34 Expenses by nature

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Construction supplies and subcontractor charges	5,016,096,885	11,517,263,327	3,527,577,009	8,352,736,855
Salaries, wages and other employee benefits	2,253,117,531	2,364,230,508	1,898,753,955	2,165,186,573
Consultant expenses	42,701,831	19,176,549	48,633,294	26,350,555
Rental expenses	290,476,359	463,585,090	267,519,592	436,372,482
Depreciation and amortisation expenses	49,759,194	51,045,733	29,088,039	35,152,560

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35 Finance costs

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Interest charges	419,420,642	427,519,089	254,237,527	239,697,879
Total finance costs	419,420,642	427,519,089	254,237,527	239,697,879

36 Financial instruments

a) Financial assets and financial liabilities

As at 31 December, the Company and the subsidiary had outstanding balances of financial assets and financial liabilities denominated in foreign currencies as follows:

Currency	(Unit : Baht/foreign currency)					
	Consolidated financial statements		Separate financial statements		Exchange rate	
	Financial assets	Financial liabilities	Financial assets	Financial liabilities	As at 31 December 2017	
					Buying	Selling
United State dollar	1,764,530,566	1,800,605,115	2,708,815,921	1,490,521,236	32.5146	32.8472
Yen Japan	358,350,601	9,650,335	308,813	9,650,335	0.28598	0.29363
Euro	520,884,020	502,274,915	496,423,932	59,300,504	38.6607	39.3938
Singapore Dollar	5,630,180	4,373,020	-	826,392	24.1711	24.7294
Philippines Peso	1,116,678	7,778	1,116,678	7,778	0.6433	0.6678
Sweden Krona	777,184,492	388,225,541	-	10,678,938	3.9257	4.0025
Malaysia Ringgit	1,139,119,733	311,045,822	-	-	7.9427	8.1741
Myanmar Kyat	27,483,560	1,008,440	-	-	0.0238	0.0240
Riyal Qatar	6,564,387	1,535,259	6,564,387	1,535,259	8.9301	9.0215
Kip Laos	1,406,950	31,083,276	1,389,946	31,083,276	0.0039	0.0039
Baht Thailand	4,580,341	1,173,854	-	-	1	1

Currency	(Unit : Baht/foreign currency)					
	Consolidated financial statements		Separate financial statements		Exchange rate	
	Financial assets	Financial liabilities	Financial assets	Financial liabilities	As at 31 December 2016	
					Buying	Selling
United State dollar	2,984,967,826	450,525,517	4,033,406,417	312,169,987	35.6588	36.0025
Yen Japan	383,571,302	173,125,308	2,264,440	173,125,308	0.3046	0.3113
Euro	508,791,588	430,383,445	479,995,641	396,876,208	37.3791	38.1362
Singapore Dollar	3,304,969	5,298,837	-	1,513,941	24.5265	25.0755
Philippines Peso	1,934,281	194,007	1,934,281	194,007	0.7124	0.7372
Sweden Krona	821,521,115	352,793,222	-	-	3.9016	3.9828
Malaysia Ringgit	230,076,309	192,762,325	-	43,376	7.8867	8.0925
Myanmar Kyat	23,472,117	1,235,420	-	-	0.0261	0.0263
Riyal Qatar	19,231,930	19,760,618	19,231,930	19,760,618	9.7929	9.8873
Kip Laos	5,765,066	58,973,000	5,730,424	35,694,343	0.0044	0.0044
United Arab Emirates Dirham	-	83,153	-	83,153	9.7099	9.8035
Baht Thailand	1,219,633	1,988,241	-	-	1	1

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36 Financial instruments

b) Foreign currency risk

At 31 December 2017, the Group had no forward foreign exchange contracts (31 December 2016: the Group had forward foreign exchange contracts amounting to USD 9.35 million). Amounts in US dollar to be settled and contractual exchange rates of the outstanding contracts were:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Japanese Yen:				
- Average exchange rate (Yen/US dollars)	-	117.70 - 120.52	-	117.70 - 120.52
- Foreign currency (Yen)	-	550,000,000	-	550,000,000
- Local currency (Baht)	-	166,824,458	-	166,824,458
Euro :				
- Average exchange rate (Euro/US dollars)	-	0.9543	-	0.9543
- Foreign currency (Euro)	-	1,152,120	-	1,152,120
- Local currency (Baht)	-	43,466,054	-	43,466,054
Singapore Dollar:				
- Average exchange rate (Singapore Dollars /US dollars)	-	1.4450	-	1.4450
- Foreign currency (Singapore Dollars)	-	12,000	-	12,000
- Local currency (Baht)	-	298,983	-	298,983
Baht :				
- Average exchange rate (Baht/US dollars)	-	35.438 - 36.000	-	35.438 - 36.000
- Foreign currency (Baht)	-	125,473,350	-	125,473,350
- Local currency (Baht)	-	126,008,750	-	126,008,750

c) Fair values

The carrying amount of cash and cash equivalents, deposits of financial institution pledged as collateral, accounts receivable, amounts due to related parties, accounts payable, amount due from related parties, short-term loan and accrued expenses approximates the fair value due to the short maturities.

Financial assets under concession arrangement

The fair values of financial assets under concession arrangement with fixed interest rates have been calculated from the net present value of future cash flows discounted by market interest rates using rates at the date of financial statements (This is a level 2 fair value measurement)

The fair value of financial assets under concession arrangement as at 31 December 2017 as follow;

	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht
Financial assets under concession arrangement	5,079,753,693	4,805,803,185	-	-

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36 Financial instruments (Cont'd)

c) Fair values (Cont'd)

Long-term loan to related party and accounts receivable to related party

The fair values of certain long-term loan to related party and accounts receivable to related party with fixed interest rates have been calculated from the net present value of future cash flows discounted by market interest rates using rates at the date of financial statements (This is a level 2 fair value measurement).

The fair values of certain long-term loan to related party and accounts receivable to related party as at 31 December 2017 are as follows:

	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht
Long-term loan - related party	7,631,578	7,895,496	43,629,749	44,765,609
Account receivable - related party	-	-	70,579,416	54,835,062

Long-term loan and account receivable third parties

The fair values of certain long-term loan and account receivable third parties with fixed interest rates have been calculated from the net present value of future cash flows discounted by market interest rates using rates at the date of financial statements (This is a level 2 fair value measurement).

The fair values of certain long-term loan and account receivable third parties as at 31 December 2017 are as follows:

	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht
Long-term loan - third party	999,918,194	1,048,869,787	999,918,194	1,048,869,787
Account receivable - third parties	330,862,991	317,226,120	330,862,991	317,226,120

Long-term loans from financial institutions and unsubordinated and unsecured debentures

The fair values of long-term loans from financial institutions and unsubordinated and unsecured debentures with fixed interest rates have been calculated from the net present value of future cash flows discounted by market interest rates using rates at the date of financial statements (This is a level 2 fair value measurement).

Fair values of certain long-term loans from financial institutions and unsubordinated and unsecured debentures with fixed interest rates as at 31 December 2017 are as follows:

	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht
Long-term loan from financial institution	2,627,544,337	2,656,831,953	-	-
Unsubordinated and unsecured debentures	6,000,000,000	6,133,882,374	6,000,000,000	6,133,882,374

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36 Financial instruments (Cont'd)

c) Fair values (Cont'd)

Interest rate swap contract

The fair value of interest rate swap contract is calculated using rates quoted by the Company's bankers as though the contract is terminated at the statement of financial position.

The fair values of the derivative financial instruments at the statement of financial position date were:

	Baht
Favourable forward foreign exchange contracts	4,032,444
Unfavourable forward foreign exchange contracts	-

37 Commitments and contingent liabilities

As at 31 December 2017, the Group had commitments and contingent liabilities including contracts as following:

1) Operating leases and services commitments

The Company and its subsidiary have entered into lease agreements in respect of the lease of office building space and services and the rental of vehicles. As at 31 December 2017 and 2016, the non-cancellable rental payable under these contractual obligations is as follows:

	2017	2016
Paid within	Million Baht	Million Baht
1 year	99.23	97.36
2 - 5 years	47.89	113.15
Later than 5 years	13.14	15.32
Total	160.26	225.83

2) Guarantees

2.1) As at 31 December 2017, the Company has guaranteed bank credit facilities of its subsidiary up to USD 39.50 million or equivalent to Baht 1,297.46 million (2016 to USD 39.50 million or equivalent to Baht 1,422.10 million) and MYR 148 million or equivalent to Baht 1,210.00 million.

2.2) As at 31 December 2017, the Group had outstanding bank guarantees in respect of certain performance bond and contractual performance as follows:

2.2.1) Letter of guarantee for contractual performance as required in the normal course of the business of the Group amounting to USD 224.49 million (2016: USD 203.15 million) or equivalent to approximately Baht 7,347.72 million (2016: Baht 2,916.79 million) and THB 3,119.98 million and SEK 251.80 million (2016: SEK 251.79 million.) or equivalent to approximately Baht 986.80 million and QAR 2.18 million or equivalent to approximately Baht 19.60 million

2.2.2) Letter of guarantee for electricity use and others amounting to Baht 5.10 million (2016: Baht 10.87 million) and letter of guarantee to guarantee litigation case in court of Baht 12.70 million (2016: Baht 10.48 million).

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37 Commitments and contingent liabilities (Cont'd)

3) Litigations

As at 31 December 2017, the Group have litigations as follows:

- 3.1) The plaintiff as subcontractor has filed a plaint claiming that the Company has defaulted on the agreement for payment of additional costs for two construction projects 1) The first construction project, the Plaintiff claimed for Baht 18.79 million. The Court of First Instance had made the judgement to order the Company to pay a total of Baht 8.88 million plus 7.50% per annum from 3 May 2014 until the entire amount has been settled. Both parties filed appeal, the Court of Appeal had made judgement to confirm the Lower Court judgment. Both parties then filed appeal to the Supreme Court. The case is under consideration of the Supreme Court of which shall take approximately 1 to 3 years to declare the final judgement. 2) The second construction project, the Plaintiff claimed for Baht 66.18 million. The Company has filed a statement of defence and counter-claim for a total of Baht 65.05 million. This case is On proceedings date 12 December 2017, the Plaintiff requested for mediation to the Court, then the parties can reach the compromise agreement; the company shall pay for the pending invoice and the approved additional work, with deduction to the lost material. The company shall pay in total 24,340,625 Baht without interest. The parties shall no more claim each other. The case had been finished. The management has appropriately recorded the provision for this lawsuit.
- 3.2) The claimant as product dealer claimed that the Company has defaulted in payment of invoices to the claimant and then filed a Request to the International Court of Arbitration of ICC according to the contract clause, claiming for the payment a total of Baht 12.53 million. The Company as Respondent has filed a statement of defence and counter-claim for a total of Baht 172.73 million plus interest of 7.50% per annum due to the damage from the low quality of product supplied. On 26 February 2018, the case has already finished trial proceedings of all parties the Arbitrator set the date for submission of the Closing Statements of the parties within 45 days. The Arbitrator, after that, will announce the award of the case to the parties which expected to be done within 3 months. However, the management believes that there will be no significant liability from the result of this lawsuit case, so the Company has not recorded any provision in respect of this lawsuit.
- 3.3) The plaintiff as manufacturer and supplier of product has filed a plaint claiming that the Company dishonestly made the request for joinder of additional parties to be liable with its dealer in arbitration case, causing damage of Baht 1,275 million. The Company has filed the statement of defense to Court refused at all. The court of First Instance made further appointment for trial proceedings of both parties on 13 - 15 March 2018. However, the management believes that there will be no significant liability from the result of this lawsuit case, so the Company has not recorded any provision in respect of this lawsuit.
- 3.4) On 11 May 2015, the Company (as claimant) submitted the statement of claim to Thai Arbitration Institute, Office of Judiciary ("TAI"), against a project owner for construction in Maptaphut Industrial Estate (as respondent) for liable as follows: a) payment of outstanding fees and costs in the amount of Baht 461.87 million plus USD 0.08 million as well as the default interest at the rate of 7.50% per annum and claim for additional in amount of Baht 376.24 million b) return the bank guarantees and the retention bonds to the claimant c) payment of bank guarantees and retention bonds fees which the claimant has had to pay to the bank during the period where the respondent had no right to hold and not return such them to the claimant and d) compensation for the lawyer's fees and arbitration fees and expenses.

However, the respondent has submitted the statement of defense and counter-claim in response to the statement of claims as follows: a) the claimant failed to achieve its performance of works by the guaranteed milestones and as a result would be liable to the liquidated damages in an amount of USD 6.11 million and Baht 198.50 million plus the default interest at the rate of 7.50% per annum b) the respondent claims for the negative change order in amount of Baht 67.47 million plus the default interest at the rate of 7.50% per annum c) the respondent claims for the equipment failure claim in the amount of Baht 18.25 million plus the default interest at the rate of 7.50% per annum.

The arbitral tribunal of this case is consisted of three arbitrators. The arbitral tribunal has determined the specific issues in dispute of the case on 28 April 2017. On the same date, the arbitral tribunal dismissed the additional statement of claim with regard on the additional claim amount of Baht 376.24 million. On January 19, 2018, the Parties submitted their Witnesses statements with TAI and the Tribunal. The court scheduled the next appointment to proceed with the examination of evidence from May 2018 to December 2018. However, the management believes that there will be no significant liability from the result of this lawsuit case, so the Company has not recorded any provision in respect of this lawsuit.

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37 Commitments and contingent liabilities (Cont'd)

3) Litigations (Cont'd)

- 3.5) The claimant had provided services to the Company by dispatching technicians from Japan to Thailand to supervising for undertaking and inspection and start-up and commissioning for machines and dispatching technicians for electric support works. The Company also purchased Sight Glass from the claimant. However, the Company is in default of all payments.

As a result, the claimant made the following claims against the Company arising from such breach; a) payment for outstanding service fees and purchase price in the amount of JPY 22,552,000 b) including defaulting interest at the rate of 7.5% per annum c) legal fees in connection with this arbitration proceeding in the amount of USD 45,000 d) costs and disbursement of this arbitration and e) other relief, which the arbitral tribunal deems fit. The Company filed the answer to request and counterclaims against the claimant, stating that the Company is not liable for such damages and have counter-claim for a total of Baht 0.53 million due to defects arising out of claimant's goods. The Respondent received a copy of Final Award on January 2, 2018 which the orders of the tribunal are as follows; 1) The respondent is to pay the Claimant in the sum of JPY 17,917,000 (the overtime fees was dismissed) including the interest at the rate of 7.5 percent per annum from November 28, 2014 until fully paid within 30 days of this Final award. 2) The respondent's counterclaim on the claimant's liable for defects arising out of its goods was dismissed. The management has appropriately recorded the provision for this lawsuit.

38 Significant contracts

Interest rate swap contract

On 30 December 2014, the Group entered into an Interest Rate Swap contract to manage the exposure of its floating rate loan to interest rate risk from long-term loan amount of USD 10 million. With the IRS contract, the Company receives interest at a floating rate based on 3-month LIBOR plus certain margin per annum and pays interest at a fixed rate of 1.99 % per annum from 5 January 2015 to 17 December 2021.

On 21 January 2015, the Group entered into an Interest Rate Swap contract to manage the exposure of its floating rate loan to interest rate risk from long-term loan amount of USD 10 million. Under the IRS contract, the Group received interest at a floating rate based on 3 month LIBOR plus certain margin per annum and paid interest at a fixed rate of 1.40 % per annum from 23 January 2015 to 17 January 2020.

Power purchase agreement

Bio Natural Energy Co., Ltd., a subsidiary, entered into power purchase agreement dated 9 February 2011 with Provincial of Electricity Authority. The term of this agreement began on the agreement date and will continue for 5 years and automatically continue 5 years and effective until terminated the agreement.

Service concession arrangements

Toyo Thai-Power Myanmar Corporation Ltd., a subsidiary, agreed into Power Purchase Agreement dated 15 May 2013 with Ministry of Electric of Myanmar. The term of this agreement began on the agreement date and will continue for 30 years from the commercial operation date at the rate and formula specified in the agreement. The Group has obligations to supply minimum quantities of electricity and steam to customers in each contract year. If in any contract year, the customers have not taken the minimum quantities of electricity according to the Power Purchase Agreements, customers shall pay for quantities of electricity and steam not taken ("Take-or-Pay"). The quantities of electricity that the customers have paid for but have not taken in that year ("Make-up") can be taken free of charge in subsequent years. Under the concession arrangement, the Group must deliver the specified assets to the grantor at the end of concession period (Built-Operate-Transfer). In addition, the Group has obligation for major overhaul every three years.

Land rental contract

Toyo Thai-Power Myanmar Corporation Ltd., a subsidiary, entered into land rental contract with Ministry of Electric of Myanmar for 30 years land rental. The term of this agreement began on the agreement date and will continue for 30 years from 15 May 2013.

TTCL Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2017

39 Post statement of financial position events

1) Changing in major shareholder

On 6 February 2018, Toyo Engineering Corporation (TEC) as a major shareholder sold its shares of total 56,000,001 shares which represents 10% holding of total issued and paid-up share capital to an institutional investor.

2) Dividend

On 6 February 2018, the Board of Directors' meeting of TTCL Malaysia SDN.BHD. (TTML), a subsidiary, the Board approved a dividend payment for the operating results of 2017 at Ringgit 40.00 per share, totalling Ringgit 30.00 million or equivalent to Baht 238.60 million. TTML paid the dividend on 14 February 2018.

3) Establishment of subsidiaries

- 3.1) On 27 February 2018, the Board of Directors' meeting of TTPHD granted the approval to establish a new subsidiary in Singapore named TTCL LNG Power Pte. Ltd., with registered share capital 1 share at a par value 1 USD. The purpose of this new subsidiary is to invest in TTCL Power Myanmar Co., Ltd.
- 3.2) On 28 February 2018, the Board of Directors' meeting of the Company and TTCL LNG Power Pte. Ltd., granted the approval to establish a new subsidiary in Myanmar named TTCL Power Myanmar Co., Ltd with registered share capital 500,000 shares at a par value 1 USD, the Company hold 5% and TTCL LNG Power Pte. Ltd hold 95%. The purpose of this new subsidiary is to invest in electrical generating from gas.

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For more information please visit www.sec.or.th or www.ttcl.com

Company Profile

Name of Company	: TTCL Public Company Limited	
Head Office located at	: 159/41-44, Sermmit Tower, 27 th – 30 th Floor, Sukhumvit 21 Road (Asoke), North Klongtoey, Wattana, Bangkok 10110, Thailand	
Tel.	: (66) 2260 8505	
Fax.	: (66) 2260 8525-6	
Website	: www.ttcl.com	
Type of Business	: Engineering Service and Construction (Integrated EPC)	
Registration No.	: 0107551000185	
Registered Capital	: 560,000,000.00 Baht	
Paid-up Capital	: 560,000,000.00 Baht	
Par Value	: 1.00 Baht	
Securities Registrar	: Thailand Securities Depository Co., Ltd. 62 The Stock Exchange of Thailand Building Rachadapisek Road, Klongtoey, Bangkok 10110, Thailand Tel. : (66) 2229 2800 Fax. : (66) 2359 1259	
Audit Firm	: PricewaterhouseCoopers ABAS Ltd. 15 th Floor, Bangkok City Tower 179/74-80 South Sathorn Road Bangkok 10120, Thailand Tel. : (66) 2344 1000 Fax. : (66) 2286 5050	
Independent Auditor	Mr. Vichien Khingmontri	C.P.A. No. 3977
	Mr. Somchai Jinnovart	C.P.A. No. 3271
	Ms. Amornrat Pearmpoonvattanasuk	C.P.A. No. 4599



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