



### TTCL Public Company Limited



JOY OF ENGINEERING AND ACHIEVEMENT



## VISION



is to be **"First Class International Engineering Company"** with **"Build up warmth and trust"...."Stay young".... "Unite in Harmony"...."Speak our mind"** 

### **MISSION**

**OF ENGINEERING AND ACHIEVEMENT** TTCL aims to be a company where everybody works with joy of engineering and achievement



First Prize « Mr. Arnupap Supap | Field Engineer

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### **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 an Integrated EPC firm with international recognition

The Company's ability to deliver high quality design and construction works for customers in the petroleum and petrochemical industries, including the ability to control project cost are evident from the awards the Company has received from customers on a continual basis. The Company aims to become one of the leading provider of Integrated EPC recognized internationally. 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 growth opportunity for the business in the future.



**Complimentary Prizes** « Aye Yar Aung | *Field Operator Engineer* 



Complimentary Prizes « Ms. Thiraporn Bunna | Piping Engineer

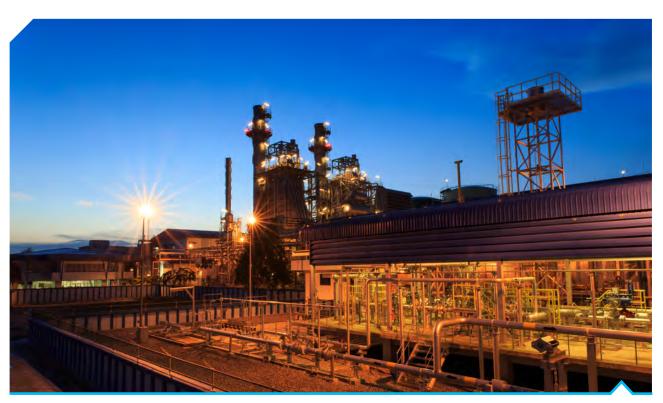


### To achieve the vision, goals and objectives, the Company has defined the following key strategies.

- 1. Strengthen the core to raise the status of the Company as a Regional EPC Contractor and increase its services abroad.
- 2. Look for business opportunities by investing in projects that can generate a good return on investment.
- 3. Use strategies to retain existing partners by delivering quality engineering services up to standard and providing after-sales service continually. This is to create the highest satisfaction level to partners and for them to trust and return for the service with the Company.
- 4. Maintain a good relationship with the manufacturers, supplier of machinery, equipment,

and construction materials, with the selection of outsourcing quality and responsible subcontractors in order for the Company to perform and deliver quality works to clients within the deadlines given.

- 5. Utilization of advanced engineering design programs to enable the Company to produce accurate designs, reduce errors, and to able to examine the design of the plant model in 3D virtual reality.
- 6. 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 TSI 18001 from Intertek Industry and Certification Services (Thailand) Ltd.
- 7. Target customer's distribution and sales channels.



Complimentary Prizes « Mr. Jaturawat Somkaew | Steel Structure Supervisor |



## **Company Profile**



Third Prize « Mr. Chayut Buranabunwong | Instrument Engineer

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.



Merit Prizes « Mr. Phanuwat Panyorin | Process Engineer

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 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 Asia 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.



Merit Prizes « Mr. Kittichai Kitipipatkul | Board Man



Merit Prizes « Kaung Myat Htoo | Board Man

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.

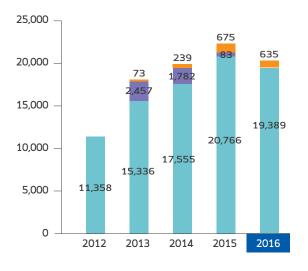


Merit Prizes « Mr. Sarayut W. | Civil Engineer



## **Financial Highlights**

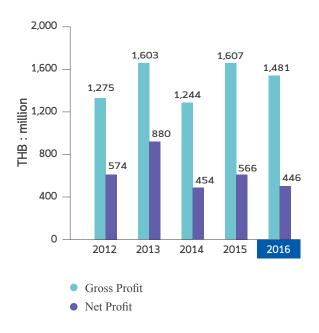
Year Ended Result	2014	2015	2016
Profit (Unit : Million Baht)			
Construction and service revenues	17,554.67	20,765.51	19,389.00
Construction revenues under concession arrangement	1,781.81	83.19	-
Revenues from operating the power plant	238.78	675.00	635.45
Total Revenues	19,575.26	21,523.70	20,024.45
Gross Profit	1,243.59	1,607.30	1,481.00
Net Profit	453.76	566.19	445.53
Financial Ratio			
Gross Profit Margin (%)	6.35	7.47	7.40
Net Profit Margin (%)	2.32	2.63	2.22
Return on Assets (%)	2.00	2.19	1.73
Return on Equity (%)	7.07	9.00	7.03
Earnings Per Share (Baht per Share)	0.84	0.75	0.71



**Total Revenues** 

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

### Gross Profit & Net Profit



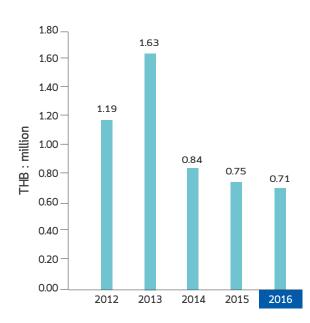


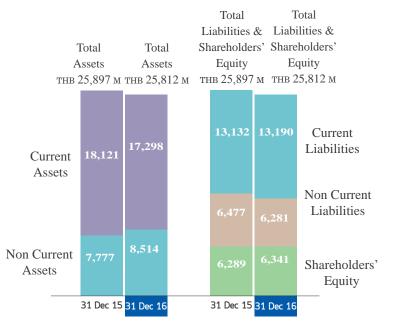


### Profitability

Earning Per Share

### **Balance Sheet**









# Message from President & CEO



### **Dear Shareholders**

On behalf of TTCL's Board of Directors, Management and Staffs, I would like to express my sincere condolences to the Royal Family and the people of Thailand on the death of His Majesty King Bhumipol Adulyadej in October 2016. His Majesty was the world's longest serving monarch and presided over a period of transformative growth and development that saw Thailand emerge as a regional leader and one of South East Asia's major economies. His Majesty guided the Kingdom of Thailand with dignity, dedication and vision throughout his life. He will be always missed and we will be with the people of Thailand at this difficult time.

For our operations in 2016, we've encountered with several challenges either in EPC or power plant businesses. The construction plan in Laos was rescheduled and Myanmar Power Plant experienced with temporary unplanned shutdown, all of which were key factors for the decline in TTCL's top and bottom lines. Nevertheless, under these difficult circumstances, the Directors are proposing a final dividend of THB 0.22 per share. This, when added to the interim dividend paid, THB 0.20 per share, on 12 September 2016 gives a total dividend for the year of THB 0.42 per share. If approved by shareholders at the forthcoming Annual General Meeting, the dividend will be payable on 04 May 2017 to shareholders on the register on 24 April 2017, in which the ex-dividend date will be on 19 April 2017.

Heading into 2017, various risks and uncertainties related to global economy remain broadly the same as in 2016. However, our remaining backlog and proposal books remain high, above THB 15,000 million and THB 185,000 million respectively, together with the recovery of operations from our Power Plant in Myanmar. Besides, potentiality for power plant businesses in the region also looks promising. For these reasons, I felt confident entering the year strong, and I expected to exit it stronger.

Let me close by expressing my pride in every level of TTCL employees for bringing us to this point, and my gratitude to you, our shareholders, for your unwavering support. I hope that you are pleased with how your company is performing and evolving. And I trust that you share our excitement about the future of an enterprise whose storied past is propelling us into a "First Class International Engineering Company".

1. Men

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 General Manager – Finance & Accounting Division was the secretary to the Committee.

In 2016, 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 2016.

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 2016. 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 2016 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 2016, 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. Somchai Jinnovart, Certified Public Accountant No. 3271 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 increased by 25% from THB 3.2 million to THB 4 million due to increasing of accounting complication and new investments in different countries. The appointment has been preceded to the general shareholders' meeting for approval.

#### On behalf of Audit Committee

Ume

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



## Report of the Nomination and Remuneration Committee



Mr. Ryuzo Nagaoka Chairman 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 at least 3 members of TTCL Board of Directors of which at least 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 2016, 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;

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- 1. To consider on 2016 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.
- To consider on special bonus for 2015 Company operation to Board of Directors, Audit Committee and Board of Management.
- 3. No 2016 fixed remuneration for other committee members except Audit Committee.
- 4. Providing Self-Assessment for individual director and committee member and report to the Board of Directors.
- 5. Providing Group Assessment for Board of Directors and Committees and report to the Board of Directors.
- 6. Setting CEO performance appraisal criteria for 2016 evaluation and report to the Board of Directors.

- 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 2017 director at least three months ahead of the Shareholders' meeting through Company Website.
- 8. Nomination and re-appointment of 2 directors, Mr. Makoto Fusayama and Mr. Sivaraks Phinicharomna who retired by rotation in December 2015 to hold their directorship for another term and appoint Ms. Kantika Tanthuvanit to be a new director to replace the resigned director to the Board's consideration before nominating their names to the shareholders' meeting for approval.

On behalf of Nomination and Remuneration Committee

R. Magaela

Mr. Ryuzo Nagaoka Chairman of the Nomination and Remuneration Committee



## The Report of Risk Management Committee



Mr. Gumthorn Utarnwuthipong Chairman of Risk Management Committee There are four meetings of the Risk Management Committee in 2016 in order to monitor and review the risk of the company. The risk management committee systematically and practically conducted through a working group of executives and managers in order to continually monitor risk factors that may occur both outside and inside factors which may impact to the company. Therefore, the committee set up corrective and preventive measurement by assigned clearly responsible personnel to monitor and evaluate them in order to assure that risk management is accomplished efficiently and effectively in accordance with the company's policies and objectives.

Besides, the company clearly defined standard and policy to manage the significant risk for business growth of the company with relevant to the internal control framework in order to develop risk management company continuously.

### The impact assessment to the company

The working group and the risk management committee considered other factors that may impact to the company by consideration to the probability of event occurance and the level of severity that may impact to the company. The comprehensive risk assessment was done to cover significant risk : strategic risk, operational risk, financial risk and risk related to regulatory compliance. Moreover, the risk factors thatwere changed and new risks are revised and to find out the mean to reduce them to be in an acceptable level.

There are 38 topics of risk assessment that the Risk Management Committee informed to the Board of Directors for consideration:

- 1. Risk of revenue from the industrial cycle of petroleum and petrochemical
- 2. Risk from larger domestic and international projects
- 3. Risk from changing costs. i.e. machines, equipment and materials
- 4. Risk from foreign currency exchanges



- 5. Risk from delayed handover of the project to customer
- 6. Risk from brain drain of human resources
- Risk on decision making of investor in considering to environmental and health impact
- 8. Risk on the impact of European crisis
- 9. Risk from insufficient human resources
- 10. Risk on the worst flooding
- 11. Risk on inexperienced project
- 12. Risk from labor shortage
- 13. Risk on short term project
- 14. Risk on joint venture income
- 15. Risk on political uncertainty
- 16. Risk on Asean Economic Community
- 17. Risk on Earthquakes and Tsunami
- 18. Risk on a contagious disease
- 19. Risk on increasing number of new competitors
- 20. Risk on supplier unable to deliver equiment as agreed by contract
- 21. Risk from the impact of USA crisis
- 22. Risk related to Corporate brand
- 23. Risk related to Capital Adequacy
- 24. Risk related to Resource allocation
- 25. Risk related to Subsidiaries management
- 26. Risk related to Accidents, Injuries, illness, mental health
- 27. Risk related to Environmental Impact
- 28. Risk related to Community complaint
- 29. Risk associate with Dispute over intellectual property/ information security
- 30. Risk related to Disclosure of corporate information
- 31. Risk related to Outflow or divulgence of information through IT systems
- 32. Risk related to Information system failure
- 33. Risk related to Dishonesty, Corruption, Fraud
- 34. Risk related to Fund Commitment
- 35. Risk related to Cash Flow problem
- 36. Risk related to Malpractices/ Misconducts

- 37. Risk related to Fluctuation of Project Finance Interest Rate
- 38. Risk from the impact of British leave EU

### **Risk Treatment Plan**

The Risk Management Committee considered the following improvement of Risk treatment plan:-

1. Financial Risk :-Risk on joint venture income, Risk related to capital adequacy, Risk related to Fund Commitment, Risk related to Cash Flow Problem.

- The company has monetary policy, clearly conducted systematically step in consideration such as :-

- To select joint venture project, feasibility of the project, returned on Project, source of capital, financial statement of joint venture.

2. As the Company has been certified to be a member of the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC). TTCL shall comply with provisions and continuously review the Anti-corruption rules to ensure that they are effectively implemented and arranged by considering from the current circumstances of the risks which may change from the previous Corruption Risk Assessment, including the Corruption Risk Assessment should be conducted on biannually basis.

In 2016, In the Risk Management Committee reviewed the Charter of Risk Management Committee by considering whether the determined responsibility was proper. Besides, there was self-evaluation of risk management committee in order to meet the goals and policies of the Board of Directors as part of good corporate governance and reported to the meeting of shareholders for the year 2016

Chairman of Risk Management Committee



## **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 2016, 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:



- Providing the Guidelines of Anti-Corruption to support Self-Assessment of Anti-Corruption which consists of the regulations on the activities to avoid corruption as follows;
  - Political Contributions
  - Charitable contribution or Donations and Aid Grants
  - Sponsorships
  - Gifs, Hospitality and Others
  - Business relationships
- Preparing Self-Evaluation Tool for countering bribery before checking by Internal Audit, reviewing by Audit Committee and obtain approval from the Chairman of Audit Committee respectively.

- The Self-Evaluation Form has been submitted to the Collective Action Coalition Against Corruption (CAC) since September 8, 2016 and obtained the certification from CAC on October 14, 2016.
- 4. 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.

Mg q 2.

Mr. Gumthorn Utarnwuthipong Chairman of the Corporate Governance Committee



## The Nature of Business and Services



Merit Prizes « Mr. Chutchawit Hayashi | Piping Engineer

**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



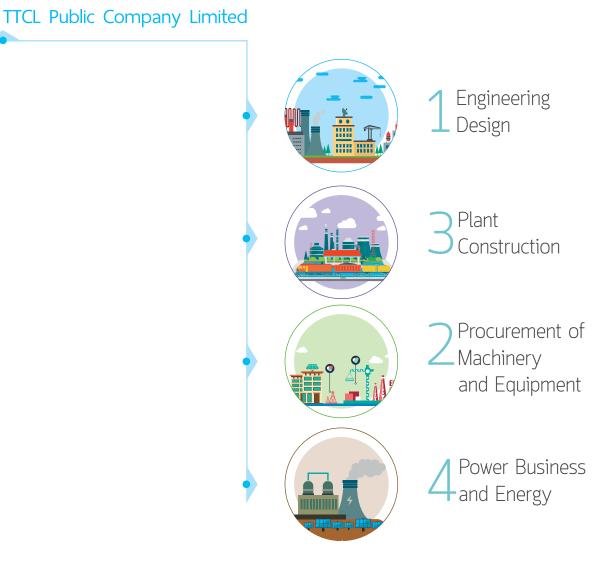
be, jointly co-operate with other contractors, either Thai or foreign partners, in form of joint-venture or consortium.

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:

**Our Services** 

#### **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.

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



**Complimentary Prizes** « Mr. Sarun Saelim | *Mechanical Engineer* 

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.

#### **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



Complimentary Prizes « Ms. Alinthita Choocherd | Process Engineer

and oversees the work of contractors, advisees 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

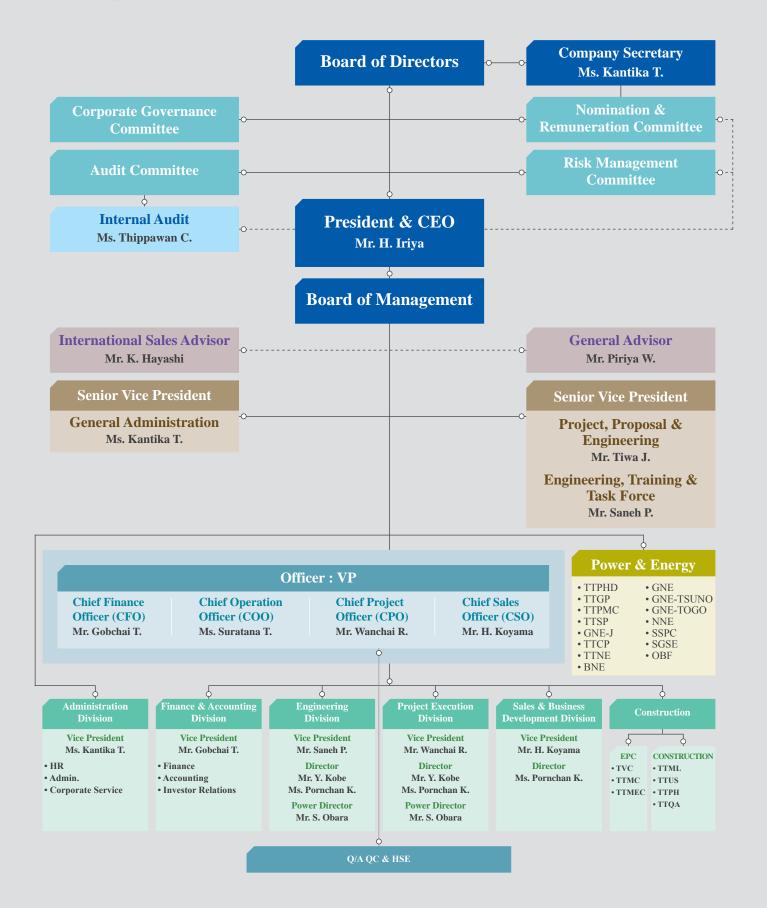
The Company maximizes its knowledge and experiences in engineering with an aim to stabilize its long-term income by investing in power and energy businesses. The Company believes in the industries potentialities and being consistent with its investment policy.

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:

- 1.2MW Biogas Power Plant, operated by Bio Natural Energy Co., Ltd. ("BNE")
- 110MW Gas-fired power plant, operated by Navanakorn Electric Co., Ltd. ("NNE")
- 8MW Solar power plant operated by Siam Solar Power Co., Ltd. ("SSPC")
- 120MW 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. ("SGNE")

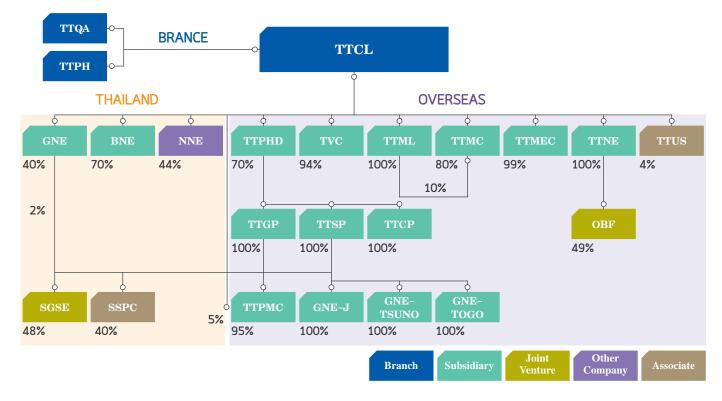


## Organization





### **Subsidiary Companies and Affiliates**



### As of 31st December 2016

Company Name	Abbreviation Type of Business	Head	Paid-up Capital			
		Type of Business	Office		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 Co., Ltd.	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







Director

Mr. Gumthorn Utarnwuthipong Independent Director

Mr. Sivaraks Pinicharomna Independent Director

Ms. Kantika Tanthuvanit Director & Company Secretary

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**

- 1. Mr. Hironobu Iriya President & CEO
- Mr. Tiwa Jaruke Senior Vice President Project, Proposal & 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 Chief Operation Officer (COO), Vice President Operation Division
- 6. Mr. Wanchai Ratinthorn Chief Project Officer (CPO), Vice President Project Execution Division
- 7. Mr. Hideto Koyama Chief Sales Officer (CSO), Vice President Sales & Business Development Division

- 8. Mr. Gobchai Tanasugarn Chief Finance Officer (CFO), Vice President Finance & Accounting Division and Investor Relation
- 9. Mr. Yukio Kobe Director Engineering and Project Execution Division
- 10. Ms. Pornchan Katejularsriroj Director Engineering, Project Execution, Sales and Business Development Division



**Complimentary Prizes** « Aye Yar Aung | *Field Operator Engineer* 



Complimentary Prizes « Mr. Jaturawat Somkaew | Steel Structure Supervisor



# **Board of Directors & Board of Management**

Mr. Hironobu Iriya Chairman of the Board of Directors President & CEO (Authorized to Bind the Company)		
Years of Age	: 62 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 Working Experience	: 9 years (2008 – Present)	
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 ToyoThai-USA Corporation	
	: Chairman of the Board of Directors and Managing Director	
2000 Dressert	TTCL Malaysia Sdn. Bhd.	
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	: None	
/Involving Business Person		
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	: None	
petty offences) Restrict Qualification by the Public Act. B.E. 2535	: None	



Mr. Piriya Wongphayabal Vice Chairman of the Board of Directors General Advisor (Authorized to Bind the Company)		
Years of Age	: 66 years	
Nationality	: Thai	
Education	<ul> <li>Master's Degree Master of Business Administration, Chulalongkorn University</li> <li>Bachelor's Degree Faculty of Engineering (Industrial Engineering) Chulalongkorn University</li> </ul>	
Director Training		
25 July 2008	: Director Accreditation Program (DAP)	
	by Thai Institute of Directors Association (IOD)	
Years of being Board of Directors	: 9 years (2008 – Present)	
Working Experience		
2011 - Present	: General Advisor TTCL Public Company Limited	
2009 - Present	: Director TTCL Vietnam Corporation Ltd.	
2005 - Present	: 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	: None	
/Involving Business Person		
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	



As at 31<sup>st</sup> December 2016

Mr. Makoto Fusayama Director	
(Authorized to Bind the Com	pariy)
Years of Age Nationality Education	<ul><li>: 66 years</li><li>: Japanese</li><li>: Bachelor's Degree Faculty of Law Hitosubashi University, Japan</li></ul>
Director Training 20 August 2008	: Director Accreditation Program (DAP) by Thai Institute of Directors Association (IOD)
Years of being Board of Directors Working Experience 2014 - Present 2013	<ul> <li>9 years (2008 – Present)</li> <li>Chairman Toyo Engineering Corporation</li> <li>Executive Vice President, Division Director, Corporate Planning Unit, Legal Unit, General Affairs and Human Capital Development Unit, Finance and Accounting Unit Toyo Engineering Corporation</li> </ul>
2008 - Present 2004 - 2013	<ul> <li>Director TTCL Public Company Limited</li> <li>Chief Executive Officer Management and Planning Division Toyo Engineering Corporation</li> </ul>
Positions in other listed companies Positions in non-listed companies Positions in competing /Involving Business Person No. of Shareholding in TTCL Legal dispute in criminal cases (other than criminal case with petty offences) Restrict Qualification by the Public Act. B.E. 2535	<ul> <li>: 1</li> <li>: None</li> <li>: None</li> <li>: None</li> </ul>

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Mrs. Nijaporn Charanachitta Director		
(Authorized to Bind the Con	npany)	
<b>X</b> 7 0 A		
Years of Age	: 66 years	
Nationality Education	: Thai Martan's Decare Frankto of Duringer Administration (Finance)	
Education	: Master's Degree Faculty of Business Administration (Finance)	
	<ul><li>University of Wisconsin, U.S.A.</li><li>Bachelor's Degree Faculty of Arts, Chulalongkorn University</li></ul>	
Director Training	: Bachelor's Degree Faculty of Arts, Churalongkorn University	
2-22 March 2005	: Director Certification Program (DCP)	
2-22 March 2005	by Thai Institute of Directors Association (IOD)	
Years of being Board of Directors	: 9 years (2008 - Present)	
Working Experience	· ) years (2000 - Hesenk)	
2007 - Present	: Director TTCL Public Company Limited	
2007 1100000	: 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	: 1	
/Involving Business Person		
No. of Shareholding in TTCL	: 5,297,207 shares equivalent to 0.95% of total shares	
Legal dispute in criminal cases	: None	
(other than criminal case with		
petty offences)		
<b>Restrict Qualification by the Public</b>	: None	
Act. B.E. 2535		



## **Board of Directors & Board of Management**

Mr. Tiwa Jaruke Director (Authorized to Bin Senior Vice President Proje Nomination and Remunerati Corporate Governance Com	ct, Proposal & Engineering ion Committee
Years of Age	: 63 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	: 9 years (2008 - Present)
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
Positions in non-listed companies	: 4
Positions in competing	: None
/Involving Business Person	
No. of Shareholding in TTCL	: 6,924,300 shares equivalent to 1.24% of total shares
Legal dispute in criminal cases (other than criminal case with	: None
petty offences) Restrict Qualification by the Public Act. B.E. 2535	: None



Mr. Sivaraks Phinicharomna Independent Director Chairman of Audit Commit	
Years of Age	: 66 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	Chartened Director (loss (CDC)
	: Chartered Director Class (CDC)
24-25 April 2014 3-4 March 2014	<ul><li>How to Measure the Success of Corporate Strategy (HMS)</li><li>Successful Formulation and Execution of Strategy (SFE)</li></ul>
14-15 October 2009	: Role of the Chairman Program (RCP)
14-15 February 2007	: Audit Committee Program (ACP)
21 May-18 June 2004	: Director Certification Program (DCP)
17 May 2004	: Directors Accreditation Program (DAP)
17 1129 2001	by Thai Institute of Directors Association (IOD)
Years of being Board of Directors	: 9 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	: None
/Involving Business Person	
No. of Shareholding in TTCL	: 104,670 shares equivalent to 0.02% of total shares
Legal dispute in criminal cases	: None
(other than criminal case with	
petty offences)	
<b>Restrict Qualification by the Public</b>	: None
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As at 31<sup>st</sup> December 2016

Mr. Gumthorn Utarnwuthipong Independent Director Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee

Years of Age Nationality Education

**Director Training** 

2,9,16,23 November 2016

20 June 2016

8-9 March 201627 November 2015

17. 24 September 2015

29 October 2014

13 January-10 March 2014

17-18 March 2015

13-14 June 2013

25 June 2009

21-22 August 2008

Working Experience 2010 - Present

2008 - Present

**Positions in competing** 

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/Involving Business Person No. of Shareholding in TTCL

21 November 2008

Years of being Board of Directors

Positions in other listed companies Positions in non-listed companies

27 October 200826 September 2008

27-28 April 2016

: 76 years

- : Thai
- : Master's Degree Faculty of Engineering (Plant Engineering) Darmstadt Institute for Hesse, Germany
- : Bachelor's Degree Faculty of Science (Chemical Engineering) Chulalongkorn University
- : 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)
- : 9 years (2008 Present)
- 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
- : None
- : None
- : None
- inone
- : 114,700 shares equivalent to 0.02% of total shares
- : None

Legal dispute in criminal cases (other than criminal case with petty offences) Restrict Qualification by the Public

: None



### **Board of Directors**

Mr. Ryuzo Nagaoka Independent Director Audit Committee Chairman of Nomination and	d Remuneration Committee
Years of Age	: 81 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	
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	: 9 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	: None
/Involving Business Person	
No. of Shareholding in TTCL	: 100,000 shares equivalent to 0.02% of total shares
Legal dispute in criminal cases	: None
(other than criminal case with	
petty offences)	
Restrict Qualification by the Public	: None
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# **Board of Directors & Board of Management**

As at 31<sup>st</sup> December 2016

Ms. Kantika Tanthuvanit Director (Authorized to Bind the Company) Senior Vice President General Administration Corporate Governance Committee **Company Secretary** 

Years of Age Ν E

#### : 62 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	: 1 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
	: Director TTCL New Energy Pte. Ltd.
2013 - Present	: Director TTCL Power Holdings Pte. Ltd.
2011 - Present	: Director and General Manager Administration Division
	TTCL Malaysia Sdn. Bhd.
2011 - 2013	: Senior Vice President, General Administration & Finance
	TTCL Public Company Limited
2008 - Present	: Company Secretary TTCL Public Company Limited
2007 - Present	: Director Global Business Management Company Limited
2006 - Present	: 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)	

: None

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**Restrict Qualification by the Public** 



Mr. Saneh Poorisat Senior Vice President Engineering, Training and Task Force Risk Management Committee		
Years of Age	: 63 years	
Nationality	: Thai	
Education	<ul> <li>Bachelor's Degree Faculty of Engineering (Electrical Engineering)</li> <li>King Mongkut's University of Technology North Bangkok</li> </ul>	
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	: None	
/Involving Business Person		
No. of Shareholding in TTCL	: 1,550,750 shares equivalent to 0.28% of total shares	
Legal dispute in criminal cases	: None	
(other than criminal case with		
petty offences)		
Restrict Qualification by the Public Act. B.E. 2535	: None	



Ms. Suratana Trinratana Chief Operation Officer (COO) Vice President Operation Division Risk Management Committee		
Years of Age	: 52 years	
Nationality	: Thai	
Education	: Bachelor's Degree Faculty of Engineering (Mechanical Engineering) Prince of Songkla University	
Director Training		
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	: Director and Managing Director	
	TTCL Myanmar Engineering & Construction Co., Ltd.	
2014 - Present	: Chief Operation Officer (COO), Vice President Operation Division	
	TTCL Public Company Limited	
	: Director TTCL New Energy Pte. Ltd.	
2013 - Present	: 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 and Managing Director Toyo Thai Power Myanmar Co., Ltd.	
2012	: Director and Managing Director ToyoThai-Myanmar Corporation Co., Ltd.	
2012	: Vice President, Operation Officer Sales and Procurement Division TTCL Public Company Limited	
2011 - 2015	: Director ToyoThai-USA Corporation	
2011 - 2015 2011 - Present	: Director and General Manager, Sales & Procurement Division	
2011 - 1105011	TTCL Malaysia Sdn. Bhd.	
	: Director Global New Energy Co., Ltd.	
2010 - Present	: Risk Management Committee TTCL Public Company Limited	
Positions in other listed companies	: None	
Positions in non-listed companies	: 10	
Positions in competing	: None	
/Involving Business Person		
No. of Shareholding in TTCL	: 14,835,948 shares equivalent to 2.65% of total shares	
Legal dispute in criminal cases	: None	
(other than criminal case with		
petty offences)		
Restrict Qualification by the Public	: None	
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Mr. Wanchai Ratinthorn Chief Project Officer (CPO) Vice President Project Execution Division Risk Management Committee		
Years of Age	: 51 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.	
2011	: Vice President Project and Proposal Division	
2010 - Present	TTCL Public Company Limited	
Positions in other listed companies	<ul><li>Risk Management Committee TTCL Public Company Limited</li><li>None</li></ul>	
Positions in non-listed companies	: None : 2	
Positions in competing	: Z : None	
/Involving Business Person	• 110110	
No. of Shareholding in TTCL	: 4,300,000 shares equivalent to 0.77% of total shares	
Legal dispute in criminal cases	: None	
(other than criminal case with		
petty offences)		
Restrict Qualification by the Public	: None	
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Mr. Hideto Koyama Chief Sales Officer (CSO) Vice President Sales and Business Development Division		
Years of Age	: 51 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.	
	: 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.	
2015 - 1 resent	: Director TTCL Solar Power Pte. Ltd.	
	: Director Siam GNE Solar Energy Co., Ltd.	
	: Director Global New Energy Japan Co., Ltd.	
2010 - Present	<ul><li>Director Global New Energy Co., Ltd.</li><li>Director Global New Energy Co., Ltd.</li></ul>	
Positions in other listed companies	: None	
Positions in non-listed companies	: 8	
Positions in competing	: None	
/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	: None	
(other than criminal case with		
petty offences)		
Restrict Qualification by the Public Act. B.E. 2535	: None	



As at 31<sup>st</sup> December 2016

Mr Gobchai Tanasugarn

Mr. Gobchai Tanasugarn Chief Finance Officer (CFO) Vice President Finance & Accounting Division and Investor Relation Risk Management Committee		
Years of Age Nationality Education	<ul> <li>52 years</li> <li>Thai</li> <li>Master's Degree MBA (Finance) Florida Public &amp; Business Administration Academy, U.S.A</li> <li>Bachelor's Degree Faculty of Business Administration (Finance)</li> </ul>	
Director Training	<ul><li>Florida Public &amp; Business Administration Academy, U.S.A</li><li>Bachelor of Arts (English), Narasuan University</li></ul>	
Director Training August - September 2016	: Strategic CFO in Capital Markets Program by The Stock Exchange of Thailand (SET)	
<ul><li>18-19 November 2015</li><li>27-28 November 2014</li><li>4 November 2014</li><li>24 July 2014</li></ul>	<ul> <li>: Company Secretary Program (CSP)</li> <li>: Anti-Corruption: The Practical Guide (ACPG)</li> <li>: Company Reporting Program (CRP)</li> <li>: Board Reporting Program (BRP)</li> <li>by Thai Institute of Directors Association (IOD)</li> </ul>	
Years of being Board of Directors Working Experience	: None	
Present 2014 - Present	<ul> <li>Chief Finance Officer (CFO) TTCL Public Company Limited</li> <li>Vice President Finance &amp; Accounting Division and Investor Relation TTCL Public Company Limited</li> <li>Director TTCL New Energy Pte. Ltd.</li> </ul>	
2013 - Present	<ul><li>Director TTCL Coal Power Pte. Ltd.</li><li>Director TTCL Solar Power Pte. Ltd.</li></ul>	
2012 - Present	: Director TTCL Gas Power Pte. Ltd.	
2011 - Present 2011 - 2013	<ul> <li>Risk Management Committee TTCL Public Company Limited</li> <li>General Manager Finance Department and Investor Relation TTCL Public Company Limited</li> </ul>	
Positions in other listed companies Positions in non-listed companies	: None : 4	
Positions in competing /Involving Business Person	: None	
No. of Shareholding in TTCL Legal dispute in criminal cases (other than criminal case with petty offences)	<ul><li>2,500,000 shares equivalent to 0.45% of total shares</li><li>None</li></ul>	
Restrict Qualification by the Public Act. B.E. 2535	: None	



JOY OF ENGINEERING AND ACHIEVEMENT

# **Board of Management**

As at 31<sup>st</sup> December 2016

### Mr. Yukio Kobe Director Engineering and Project Execution Division

Years of Age	: 57 years
Nationality	: Japanese
Education	: Bachelor's Degree Faculty of Engineering (Mechanical Engineering)
	Kyushu University, Japan
Director Training	: None
Years of being Board of Directors	: None
Working Experience	
2014 - Present	: Director Engineering and Project Execution Division
	TTCL Public Company Limited
2013	: Director Petrochemical and Refinery Unit, Power Unit,
	Sales and Business Development Unit
	TTCL Public Company Limited
2012	: Director Engineering, Proposal and Sales Division
	TTCL Public Company Limited
2011	: Director Engineering Division TTCL Public Company Limited
Positions in other listed companies	: None
Positions in non-listed companies	: None
Positions in competing	: None
/Involving Business Person	
No. of Shareholding in TTCL	: 1,139,389 shares equivalent to 0.20% of total shares
Legal dispute in criminal cases	: None
(other than criminal case with	
petty offences)	
<b>Restrict Qualification by the Public</b>	: None
Act. B.E. 2535	



As at 31<sup>st</sup> December 2016

#### Ms. Pornchan Katejulasriroj Director Engineering, Project Execution, Sales and Business Development Division : 53 years Years of Age Nationality : Thai **Education** : Bachelor's Degree Faculty of Science (Chemical Engineering) Chulalongkorn University **Director Training** : None Years of being Board of Directors : None **Working Experience** 2014 - Present : Director Engineering, Project Execution, Sales and Business Development Division TTCL Public Company Limited 2013 - Present : Director Siam GNE Solar Energy Co., Ltd. 2013 : Director Petrochemical and Refinery Unit, Power Unit, Sales and Business Development Unit TTCL Public Company Limited 2012 : Director Engineering, Proposal and Sales Division TTCL Public Company Limited 2011 : Director Engineering Division TTCL Public Company Limited **Positions in other listed companies** : None **Positions in non-listed companies** : 1 **Positions in competing** : None /Involving Business Person No. of Shareholding in TTCL : 1,412,000 shares equivalent to 0.25% 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



# **Roles & Responsibilities**

### Board of Directors

#### **List of Directors**

As of December 31, 2016, 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 TTCL 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.
- 2. 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.

- 3. To constantly monitor the company's operation to ensure that the Board of Management manage the company in accordance with laws and approved policies.
- 4. To arrange for TTCL 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.

- 6. To appoint a director or a group of directors to act on behalf of the Board of Directors.
- 7. To approve the roles and responsibilities of all sub committees as well as to materially amend the composition of the sub committees.
- 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.
- 9. 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.
- 10. To attend the board meetings at least half of the total number of meetings arranged in each year.
- 11. To determine and amend names of authorized directors.
- 12. To consider the remuneration of the directors within the guidelines approved by shareholders.

#### List of Members of Board of Management

13. 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.

#### **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.

As of December 31, 2016 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

Name	Position
7. Mr. Hideto Koyama	Board of Management
8. Mr. Gobchai Tanasugarn	Board of Management
9. Mr. Yukio Kobe	Board of Management
10. Ms. Pornchan Katejulasriroj	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 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. 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 BOM 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).

### 5 TTCL

#### First four level Management and Connected Person Finance & Accounting

As of December 31, 2016, 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	Chief Operation Officer/ Vice President Operation Division
6. Mr. Wanchai Ratinthorn	Chief Project Officer / Vice President Project Execution Division
7. Mr. Hideto Koyama	Chief Sales Officer / Vice President Sales & Business Development Division
8. Mr. Gobchai Tanasugarn	Chief Finance Officer / Vice President Finance & Accounting Division and Investor Relation
9. Mr. Jittapon Sittisak	Deputy General Manager Finance and Accounting Division
10. Mr. Paibun Sribanphai	Department Manager Accounting Department
11. 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;

- 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, 2016, 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**

- 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 Director 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, 2016 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. Tiwa Jaruke	Nomination and Remuneration Committee Member

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

# Roles and Responsibilities of Nomination & Remuneration Committee

 To recommend the structure and composition of the Board of Directors together with the qualification of Independent Director, Audit Committee and Corporate Governance Committee.

 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 in case of casual vacancies.

- 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. Review and propose structure of remuneration for Directors and Executives, e.g. bonus or other kinds of remuneration of monetary or non-monetary nature.
- 5. 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.
- Disclose the remuneration policy and the various types of remunerations in the Annual Report of the Company.
- Determine a criteria to evaluate the performance and annually conduct Self-Assessment of the Board of Directors, Sub Committee and the President & CEO and report the result to Board of Directors.
- 8. Report on progress and results of its work to the Board of Directors after every meeting of the Nomination and Remuneration Committee.
- 9. Review and propose 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.
- 10. Other assignments relating to nominating and 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.
- The Nomination and Remuneration Committee shall be appointed by President & CEO and consist of at least 3 members.
- The Nomination and Remuneration Committee shall have to appoint at least 2 independent directors for being 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 31<sup>st</sup> 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

- 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

- 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.

- 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 report 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 report the Board of Directors for acknowledgement. The Board of Directors has resolved the appointment of the Risk Management Committee since 12 November 2010. As at December 31, 2016 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 31<sup>st</sup> 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 shall consider remuneration of the Risk Management Committee as deems appropriate. The President & CEOthrough the Nomination & Remuneration Committee proposed the remuneration of Risk Management Committee and report 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. Mallika Charoensap served as secretary of Corporate Governance 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 31<sup>st</sup> 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 :
  - 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 2016, the directors attended the meetings are as follow :

				Meeting	g in the ye	ar 2016		
Name	Position	Board of Director	later board of Management	Audit Committee	Risk Management Committee	Paper Nomination & Remuneration Committee	to Corporate Governance Et Committee	tot Shareholders Meeting
		6 times	22 times	6 times	4 times	3 times	6 times	1 time
1. Mr. Hironobu Iriya	Chairman of Board of Director President & CEO	6/6	22/22	-	-	-	-	1/1
2. Mr. Piriya Wongphayabal	Vice Chairman of Board of Directors	6/6	-	-	-	-	-	1/1
3. Mrs. Nijaporn Charanachitta	Director	6/6	-	-	-	-	-	0/1
4. Mr. Makoto Fusayama	Director	6/6	-	-	-	-	-	1/1
5. Mr. Tiwa Jaruke	Director Board of Management Nomination & Remuneration Committee Corporate Governance Committee	6/6	22/22	-	-	3/3	5/6	1/1
6. Ms. Kantika Tanthuvanit	Director Board of Management Corporate Governance Committee	6/6	22/22	-	-	-	6/6	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	4/4	3/3	6/6	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 30th, 2016

	Name of Major Shareholders	Holding as o December 30 <sup>th</sup> ,	
		Number of shares	% of shares
1.	TOYO ENGINEERING CORPORATION	84,000,001	15.00
2.	GLOBAL BUSINESS MANAGEMENT CO., LTD.	38,634,900	6.90
3.	MR. HIRONOBU IRIYA	34,161,134	6.10
4.	THAI NVDR COMPANY LIMITED	32,766,439	5.85
5.	MR. SAKCHAI SAKCHAICHAROENKUL	23,350,000	4.17
6.	MS. SURATANA TRINRATANA	14,835,948	2.65
7.	MR. JIARANAI LERTRATCHKUL	12,655,200	2.26
8.	MS. KANTIKA TANTHUVANIT	9,458,041	1.69
9.	STATE STREET BANK EUROPE LIMITED	7,478,739	1.34
10.	MR. TIWA JARUKE	6,924,300	1.24
11.	MR. VICHAI VACHIRAPONG	6,900,900	1.23
12.	NORTRUST NOMINEES LTD-CL AC	6,820,000	1.22
13.	MR. PIRIYA WONGPHAYABAL	6,444,000	1.15
14.	THAI TRIGGER FUND 3% PLUS 3% (5) (T3P3 (5))	5,301,400	0.95
15.	MRS. NIJAPORN CHARANACHITTA	5,297,207	0.95
16.	MR. SUTHEP PATTANASIN	5,200,000	0.93
17.	MR. NUTTHAPONG PANRATANAMONGKOL	4,450,300	0.80
18.	MR. HIDETO KOYAMA	4,337,360	0.78
19.	MR. WANCHAI RATINTHORN	4,300,000	0.77
20.	KRUNGTHAI-AXA LIFE INSURANCE – KTAM GROWTH BY KTAM	4,197,400	0.75



### Securities Holding Report of Board of Directors and Management as of 31 December 2016

Name	Position	Number of Shares Holding as of December 2015	Percentage (%)	Number of Shares Holding as of December 2016	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2016
<ol> <li>Mr. Hironobu Iriya Spouse/Immature Children Related Juristic Person</li> </ol>	Chairman of Board of Directors President & CEO en	34,161,134 - -	6.10 - -	34,161,134 - -	6.10 - -	-
<ol> <li>Mr. Piriya Wongphayaba Spouse/Immature Childro Related Juristic Person</li> </ol>	General Advisor	6,444,000 - -	1.15 - -	6,444,000 - -	1.15 - -	-
<ol> <li>Mrs. Nijaporn Charanaci Spouse/Immature Childred Related Juristic Person</li> </ol>		5,297,207	0.95 - -	5,297,207 - -	0.95 - -	- -
<ol> <li>Mr. Makoto Fusayama Spouse/Immature Childred Related Juristic Person</li> </ol>	Director	- - -	- - -	- - -	- -	- -
<ol> <li>Mr. Tiwa Jaruke</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Director Senior Vice President Project, Proposal and Engineering Nomination & Remuneration Committee Corporate Governance Committee	6,924,300	0.21	6,924,300	0.21	-
<ol> <li>Ms. Kantika Tanthuvanit</li> <li>Spouse/Immature Childred Related Juristic Person</li> </ol>	Director Senior Vice President General Administration Corporate Governance Committee Company Secretary	9,458,041 - -	1.69 - -	9,458,041 - -	1.69 - -	-
<ol> <li>Mr. Sivaraks Pinicharon Spouse/Immature Children Related Juristic Person</li> </ol>	Chairman of Audit Committee	104,670 - -	0.02	104,670 - -	0.02 - -	-
<ol> <li>Mr. Gumthorn Utarnwut</li> <li>Spouse/Immature Childre Related Juristic Person</li> </ol>	Chairman of Risk Management Committee Chairman of Corporate Governance Committee Audit Committee Nomination & Remuneration Committee		0.02	-	0.02	-
<ol> <li>Mr. Ryuzo Nagaoka</li> <li>Spouse/Immature Childred Related Juristic Person</li> </ol>	Independent Director Chairman of Nomination & Remuneration Committee Audit Committee	-	0.02	-	0.02	-





Name	Position	Number of Shares Holding as of December 2015	Percentage (%)	Number of Shares Holding as of December 2016	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2016
<ol> <li>Mr. Saneh Poorisat</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Senior Vice President Engineering, Training and Task Force Risk Management Committee	1,700,750 - -	0.30 - -	1,550,750 - -	0.28 - -	(150,000) - -
<ol> <li>Ms. Suratana Trinratana</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Chief Operation Officer Vice President Operation Division Risk Management Committee	13,235,948 2,800,000 -	2.36 0.50	14,835,948 1,200,000 -	0.21	1,600,000 (1,600,000) -
<ol> <li>Mr. Wanchai Ratinthorn</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Chief Project Officer Vice President Project Execution Division Risk Management Committee	4,300,000 - -	0.77	4,300,000 - -	0.77	-
<ol> <li>Mr. Hideto Koyama</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Chief Sales Officer Vice President Sales & Business Development Division	4,337,360 - -	0.77	4,337,360 - -	0.77	-
<ol> <li>Mr. Gobchai Tanasugarn</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Chief Finance Officer Vice President Finance & Accounting Division / Investor Relation Risk Management Committee	2,500,000 - -	0.45 - -	2,500,000 - -	0.45 - -	-
<ol> <li>Mr. Jittapon Sittisak</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Deputy General Manager Finance and Accounting Division	- - -	-	-	-	-
<ol> <li>Mr. Paibun Sribanphai</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Department Manager Accounting Department	100,000 - -	0.02 - -	100,000 - -	0.02 - -	-
<ol> <li>Ms. Nisachol Rittayamai</li> <li>Spouse/Immature Children Related Juristic Person</li> </ol>	Department Manager Accounting Department (International)	-	-	-	-	-



### Remuneration of Board of Directors / Sub-Committee / Managements

Remuneration in Cash for the year ended 31 December 2016 Total Cash remuneration of the Board of Directors in forms of annual remuneration and special bonus amounted to THB 6,900,000 and THB 4,565,000

				Remuneration	of Year 2016			
Directors	Position	Board of Directors	Board of Management	Audit Committee	Nominations & Remuneration Committee	Risk Management Committee	CG Committee	Total Remuneration (THB)
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 Utarnwuthipong	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 / 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



			Special	Bonus (from 20	)15 operation r	esult)		
Directors	Position	Board of Directors	Board of Management	Audit Committee	Nominations & Remuneration Committee	Risk Management Committee	CG Committee	Total Remuneration (THB)
1. Mr. Hironobu Iriya	Chairman of Board of Director / President & CEO	400,000.00	465,000.00	-	-	-	-	865,000.00
2. Mr. Piriya Wongphayabal	Vice Chairman of Board of Director	330,000.00	-	-	-	-	-	330,000.00
3. Mr. Makoto Fusayama	Director	330,000.00	-	-	-	-	-	330,000.00
4. Mrs. Nijaporn Charanachitta	Director	330,000.00	-	-	-	-	-	330,000.00
5. Mr. Tiwa Jaruke	Director / Member of Board of Management / Member of Nomination & Remuneration Committee / Member of CG Committee	330,000.00	400,000.00	-	-	-	-	730,000.00
6. Ms. Kantika Tanthuvanit	Director / Member of Board of Management / Member of CG Committee	330,000.00	400,000.00	-	-	-	-	730,000.00
7. Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	330,000.00	-	130,000.00	-	-	-	460,000.00
8. Mr. Gumthorn Utarnwuthipong	Independent Director / Member of Audit Committee / Member of Nomination & Remuneration Committee / Chairman of Risk Management Committee / Chairman of CG Committee	330,000.00	-	65,000.00	-	-	-	395,000.00
9. Mr. Ryuzo Nagaoka	Independent Director / Chairman of Nomination & Remuneration Committee	330,000.00	-	65,000.00	-	-	-	395,000.00
Total		3,040,000.00	1,265,000.00	260,000.00		-		4,565,000.00

Remarks : The remuneration paid to Director conforms to the policies and the Board resolutions. Special bonus is reflected from previous year of Management Operation Performance of which the Nomination & Remuneration Committee proposed to the Board for consideration and approval.

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

	Ye	ar 2016	Year 2015		
Remuneration	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)	
Salary	11	45,181,200.00	9	43,795,200.00	
Bonus	11	8,568,300.00	9	9,259,900.00	
Benefit after retirement	11	2,095,840.00	9	1,919,688.00	
Total		55,845,340.00		54,974,788.00	

#### Other Remunerations for the year ended 31 December 2016

	Yea	ar 2016	Year 2015		
Remuneration	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)	
Contribution to Provident Fund	11	3,581,940.00	9	3,338,280.00	
Total		3,581,940.00		3,338,280.00	

- Remarks: "Executives" means the first four level executives including the executive who related to finance & accounting
  - Year 2015, there were nine executives, namely, Mr. Hironobu Iriya, Mr. Tiwa Jaruke, Ms. Kantika Tanthuvanit, Mr. Saneh Poorisat, Ms. Suratana Trinratana, Mr. Wanchai Ratinthorn, Mr. Hideto Koyama, Mr. Gobchai Tanasugarn and Mr. Jittapon Sittisak.
  - Year 2016, there were eleven executives, namely, Mr. Hironobu Iriya, Mr. Tiwa Jaruke, Ms. Kantika Tanthuvanit, Mr. Saneh Poorisat, Ms. Suratana Trinratana, Mr. Wanchai Ratinthorn, Mr. Hideto Koyama, 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 9001:2008, ISO 14001: 2004 and TSI 18001: 2011 by Intertek Industry and Certification Services (Thailand) Co., Ltd. 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. growth was expected to continue given Brexit. The Euro area economies were directly affected through trade and private sector's sentiment, while the US and Japanese economies were affected mainly through exchange rates. Asia economies were indirectly affected through exports to the Euro area and financial market volatility. Nonetheless, Asian economies were expected to slowly pick up thanks to fiscal measures and an improved export outlook that benefited from the technology cycle with the launch of new product models. Meanwhile, China's growth continues to slow down as a result of ongoing economic reforms and measures to foster macroeconomic stability (Monetary Policy Bank of Thailand – September 2016).

However, The International Monetary Fund predicts the global economic growth in Asian Economic Community (AEC), will be higher than the other regions.

ITEMS	2016F	2017F
World Trade Volume	2.7 %	3.9 %
World Economic Growth	3.1 %	3.4 %
- The United States of America	1.6 %	2.2 %
- Europe Union	1.7 %	1.5 %
- Japan	0.5 %	0.6 %
- China	6.6 %	6.2 %
- AEC	4.8 %	5.1 %

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

The global economy in the second quarter grew at a slower pace due to a slowdown in major economies. Going forward, the slowdown in global The Bank of Thailand has revised down the assumption on Dubai oil price over the forecast period, from the average of 41.0 and 50.0 US dollars per barrel in 2016 and 2017 respectively from the previous assessment of 43.1 and 53.0 US dollars per barrel, respectively. This is on account of weak global demand from the slower-than-expected global economic recovery. Concurrently, supply conditions remain unchanged from the previous assessment as OPEC production is expected to slow down slightly due to production outages in many countries, while production in Non-OPEC countries remains low despite the fact that shale oil producers in the US are likely to raise production levels as prices gradually increase.

In addition, the outlook for the petrochemical industry in 2017 is expected to increase from the recovery of domestic economy and the growth in downstream industries such as packaging, plastic, and automobile. As a result, demand for the petrochemical products in the country is expected to increase. Furthermore, the Government has implemented a special economic policy incentive in cluster format, especially for petrochemical and chemical industry that are eco - friendly. Although affected by the volatility of crude oil prices, petrochemical spreads are expected to remain good. Similar to that of crude oil prices, the cost of Naphtha is at a low level and the demand for petrochemical products from downstream industries is likely to rise. Therefore, the profits from petrochemical industry are expected to grow continually until 2018.

### 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. Weak global economy recovery together with the slowdown of investment in oil industry may increase the intensity of competition.

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 industries in 2014 - 2016 are as follows:-

Unit : Million Baht									
Industry	Operated by	2014		2015		2016			
		Amount	%	Amount	%	Amount	%		
Petrochemical	TTCL Plc.	3,655.71	18.68	5,647.34	26.24	7,217.64	36.04		
	TTCL Vietnam Corporation Limited	1,638.94	8.37	575.53	2.67	538.03	2.69		
	TTCL Malaysia Sdn. Bhd.	1,428.35	7.30	1,395.51	6.48	3,902.31	19.49		
	ToyoThai-USA Corporation	2,051.52	10.48	236.62	1.10	-	-		
Total Revenue	e from Petrochemical Construction	8,774.52	44.82	7,855.00	36.49	11,657.98	58.22		
Power	TTCL Plc.	4,031.48	20.59	5,273.65	24.50	3,095.61	15.46		
	Global New Energy Co., Ltd.	1,309.07	6.69	2,502.40	11.63	-	-		
Total Revenue	e from Power Construction	5,340.55	27.28	7,776.05	36.13	3,095.61	15.46		
Other	TTCL Plc.	3,438.76	17.57	5,134.46	23.85	4,635.41	23.15		
Total Revenue	e from Other Construction	3,438.76	17.57	5,134.46	23.85	4,635.41	23.15		
Construction Service Concession	Toyo Thai Power Myanmar Co., Ltd.	1,781.81	9.10	83.19	0.39	-	-		
Total Revenue	e from Construction Service Concession	1,781.81	9.10	83.19	0.39	-	-		
Electricity Generation	Toyo Thai Power Myanmar Co., Ltd.	238.78	1.22	674.99	3.14	635.45	3.17		
Total Revenue	e from Electricity Generation	238.78	1.22	674.99	3.14	635.45	3.17		
Grand Total		19,575.26	100.00	21,523.70	100.00	20,024.45	100.00		

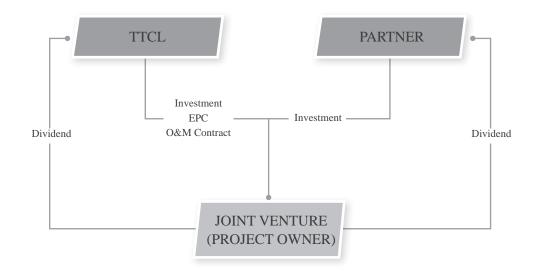




### New Business Development Plan

#### 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. Then the Risk Management Working Group under the oversight of Risk Management Committee has assessed both internal and external risk factors that may affect the Company's objectives and goals, including considered and reviewed the sufficiency of policies, control measure and controlling approaches, determined the necessary of risk treatment plan which being aligned with current situation to maintain risks at acceptable levels.

The Risk Management Committee monitored and reviewed an overall risk of the Company, which covered 4 risk categories which are Strategic Risk, Operational Risk, Financial Risk and Compliance Risk. The risk assessment would be done with consideration of impact and likelihood of those risks.

For the conclusion of the year 2016, there are risk factors at high and medium risk level as the following;

# 1. Risk of revenue from petroleum and petrochemical industrial cycle

At present, the global economic situation is still in recovery period and the investments in the oil industry are likely to decelerate. However, the petrochemical industry is expected to increase from the recovery of domestic economy and the growth in downstream industries. Furthermore, The Government has implemented a special economic policy incentive in cluster format, especially for petrochemical and chemical industries that are eco – friendly. In addition, the petrochemical spreads are expected to remain good. Although affected by the volatility of crude oil prices. As the result, the expansion and investment in the petroleum and petrochemical industries are uncertain, particularly, an investment to expand manufacturing base for new plant or increase productivity for the existing plant of investment in the petroleum and petrochemical industries which is one of main customers for EPC Services of the Company.

The Company has determined the market plan to increase proportion of service for clients in other industries such as chemical, bio-energy and other renewable energy industries and co-invested in the project which is not only to reduce the risk from the petroleum and petrochemical cycle but also increase the business opportunity of the Company in the future.

# 2. Risk from large project execution both domestic and international project

From the Company's policy, to take the large projects with high value both domestic and international. Especially for oversea projects which have additional risks due to foreign business environment, social, cultures, law and regulations including political situation in such countries. Then before bidding in each project, the Company will analyze risk factors that concerned with the project and determine control measure to minimize and control those risks.

The Company policy in execution of oversea project is to aligned with local partner to minimize the risks derived from unacquainted with foreign business environment, social, cultures, law and regulations including political situation in that countries. The Company has also emphasized that the project manager and responsible management must carefully plan for project execution and closely monitors their progress to prevent an occurrence of potential problems.

In addition, the project execution policy which taking into account the financial burden, by identifying the schedule and amount of currency to be used in the project, shall be prepared and communicated to finance department in advance. So, the financial management for these projects would be managed appropriately.



3. Financial Risk (i.e. risk form currency exchange, risk on joint venture income, risk associate with capital adequacy, risk associate with fund commitment and risk associate with cash flow problem)

According to the Company's business development plan to provide EPC services together with joint investment in the project (EPC & Project investment business). As the Company may invest in the large scale projects or some EPC projects has no advance payment. If the progress or financial plan of these projects 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 regarding to the projects and co-investor. The investment climate, project's feasibility, project's potential, qualification, experience and financial status of project's co-investor including the stability and continuity of project's return should be studied and considered for investment worthiness. Besides, find out and compare the funding terms from each funding 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. In addition during project execution period, project manager need to 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 Director 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 2016, the company also received assessments by the various organizations and agencies, as follows:

- Scored full 100 points for the 2016 annual general meeting of shareholders (AGM Checklist) by Thai Investors Association (TIA).
- Rated "Excellent" according to Corporate Governance Report of Thai Listed Companies (CGR 2016) by the Thai Institute of Directors (IOD).
- Certified membership from the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC).

TTCL's 2016 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 minimise 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 2016, the Company organized AGM on April 8, 2016 at Head Office 27<sup>th</sup> Floor Serm-mit Tower Sukhumvit 21(Asoke) Road Bangkok and there was no extraordinary meeting of the Shareholders during the year, with a total attendance of 402 shareholders comprising of 127 shareholders and 275 representatives by proxy, representing 349,390,066 shares or 62.39 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:**

- 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.
- The bar code system was implemented to facilitate each shareholders' 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.
- 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:

 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).
- The Company consider 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 the 2014 AGM 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 2016, 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 2016, 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 : 2008 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 adhere 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 various areas and activities, such as kids' room, breastfeeding room and activities during school vacation, 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 2016, the Company has 2,566 employees and attended courses and trainings for an average of 17.04 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 2016, the Company had total workers man hours at 16,006,295 working man hours with the Injury Frequency Rate (I.F.R.) at 0.10 case per 200,000 working hours (Incidence rates of nonfatal occupational injuries and illnesses by case type and ownership, selected industries, 2014 (Construction), Bureau of Labor Statistics, U.S. Department of Labor : BLS = 3.6).

# 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 emphasises on respect intellectual properties, patented or otherwise, of customers, partners and others and protect 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: 2004) 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 operates by giving precedence to corporate governance under the management framework of business ethics, transparency and accountability; specifically in related processes or risk of corruption in all forms, either directly or indirectly 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.

**Corruption Risk Assessment:** In 2016, 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.

**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.

**Dissemination and Promotion of the Anti-Corruption policy:** In 2016, the Company has implement 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).
- New employee orientation for understanding and implementing of the policy.
- The Company organized the "Anti-Corruption Practices" for executives and employees in order to enhance the understanding of the Anti-Corruption and applied in practice correctly.

**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 26, 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 14, 2016.

- The Company executives and staff representative joined the "National Anti-Corruption Day 2016" which organized by the Anti-Corruption Organization of Thailand (ACT) along with participants from the government and private sectors at Sanam Luang.
- 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, Sermmit Tower 27<sup>th</sup> - 30<sup>th</sup> 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 2016, 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 2016, 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 company 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 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.
- Disclosing material information fairly and equitably. All stakeholders must be able to access to the information and conveniently contact Investor Relations Officers for clarification.
- 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 Sermmit 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 2016, 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 31, 2016. 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 strategic goal for the Company. Overseeing and monitoring the implementation of the Company's strategies, with an annual revision and approval. In 2016, the Board of Directors meeting no. 1/2559 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;

- Audit Committee: The Board of Directors has appointed the Audit Committee since December 9, 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 12, 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.
- Risk Management Committee: The Board of Directors has appointed the Risk Management Committee since November 12, 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 14, 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

- 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.
- 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

 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;

- 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.

- 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

 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. A quorum of a meeting of the Board of Directors requires at least half (1/2) of total number of Directors. In the absence of the chairman, directors attending the meeting shall elect one of them to act as chairman of that meeting.

- 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.
- 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.
- 4) 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.
- 5) In 2016, 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 is authorized to approve the Company's various businesses such as key business directions and policies, the annual business plans and budgets etc. under the scope stipulated by law, Company's regulations, and shareholders' resolutions. An approval demarcation has been clearly defined for the Board and the management on various matters, including personnel administration, finance, and accounting.



**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. 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;

- 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.
- 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.
- 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 Improveme	ent

# 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 2016 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 2016 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 2016 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 2016 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 2016, the following directors underwent training and seminars;



Name of Directors	Position	Course/ Seminar 2016
Mr. Tiwa Jaruke	Board of Directors Nomination & Remuneration Committee Corporate Governance Committee	Seminar on CG Forum 1/2016 "Ethics : Conscious Corporate Governance" by SET Financial Statement for Directors (FSD 30/2016) by IOD Ethical Leadership Program (ELP 4/2016) by IOD
Mr. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	Seminar on The UK Experience on Implementing the Enhanced Auditor Reporting by SEC Seminar on IOD Director Briefing 1/2016 "Economic and Business Outlook in 2016: Hot-button Issues for Directors" by IOD Seminar on IOD Tea Talk 2016 "Thailand+1: Japanese Companies' Regional Strategy under AEC" by IOD Seminar on Thailand IFRS Conference 2016 by FAP Seminar on IOD Luncheon Briefing 2/2016 "How can Corporate Directors Help Nurture Social Enterprise?" by IOD Seminar on National Director Conference 2016 "Enhancing Growth Through Governance in Fami- ly Controlled Business" by IOD Seminar on Tone at the Top Series 3/2016 "Operating Transparency Business in Asia" by IOD Seminar on Director Forum 2016 "Managing Conflicts in the Boardroom" by IOD Seminar on Nikkei Asia300 Global Management Forum "Sharpening Asia's competitive edge" by Nikkei Inc. Seminar on IOD Dinner Talk 2/2016 "Ten practical guidelines to improving board communication" by IOD
Mr. Gumthorn Utarnwuthipong	Independent Director Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee	Seminar on IOD Director Briefing 1/2016 "Economic and Business Outlook in 2016: Hot-button Issues for Directors" by IOD Seminar on CG Forum 1/2016 "Ethics : Conscious Corporate Governance" by SET Boards that Make a Difference (BMD 1/2016) by IOD Driving Company Success with IT Governance (ITG 1/2016) by IOD Ethical Leadership Program (ELP 4/2016) by IOD Seminar on Audit Committee Forum "New Auditor's Report: What is it for you?" by IOD Seminar on Current Issue Seminar 1/2016 "Act. Facilitate the development of effective customs and the private sector will be beneficial" by IOD Seminar on Corporate Governance Code by IOD, SEC and SET IT Risk and IT Governance (รุ่นที่ 1) by FAP Seminar on IOD Dinner Talk 2/2016 "Ethical Leadership: Combating Corruption Together" by IOD Seminar on IOD Dinner Talk 2/2016 "Ten practical guidelines to improving board communication" by IOD
Mr. Ryuzo Nagoka	Independent Director Audit Committee Chairman of Nomination and Remuneration Committee	Seminar on IOD Tea Talk 2016 "Thailand+1: Japanese Companies' Regional Strategy under AEC" by IOD Boards that Make a Difference (BMD 2/2016) by IOD Seminar on Tone at the Top Series 3/2016 "Operating Transparency Business in Asia" by IOD



Name of Directors	Position	Course/ Seminar 2016
Ms. Kantika Tanthuvanit	Board of Directors Corporate Governance Committee Company Secretary	Seminar on CG Forum 1/2016 "Ethics : Conscious Corporate Governance" by SET Seminar on Smart Disclosure Program (SDP) by SET & SEC Financial Statement for Directors (FSD 30/2016) by IOD Seminar on Responsibilities of Directors and enterprises by Legal Guardians Co., Ltd. Company Secretary Program (CSP 71/2016) by IOD Ethical Leadership Program (ELP 4/2016) by IOD Seminar on National Research Alliance Dialogue on Corporate Governance 2016 by IOD
Ms. Suratana Trinratana	Board of Management Risk Management Committee	Ethical Leadership Program (ELP 4/2016) by IOD Risk management Program for Corporate Leaders (RCL 5/2016) by IOD
Mr. Wanchai Ratinthorn	Board of Management Risk Management Committee	Ethical Leadership Program (ELP 4/2016) by IOD
Mr. Gobchai Tanasugarn	Board of Management Risk Management Committee Investor Relation	Seminar on Technical management Inside a typical professional managers by SET Strategic CFO in Capital Markets Program by SET
Ms. Jaruwan Sookthauyart	Corporate Governance Committee	Seminar on CG Forum 1/2016 "Ethics : Conscious Corporate Governance" by SET Seminar on Smart Disclosure Program (SDP) by SET & SEC Seminar on Responsibilities of Directors and enterprises by Legal Guardians Co., Ltd. Company Secretary Program (CSP 71/2016) by IOD Seminar on Technical management Inside a typical professional managers by SET Seminar on Corporate Governance Code by IOD, SEC & SET Seminar on CAC Conference 2016 "Ethical Leadership: Combating Corruption Together" by IOD Seminar on National Research Alliance Dialogue on Corporate Governance 2016 by IOD Seminar on Remuneration of Directors and Executives of Listed Companies in 2016 by IOD
Mr. Nuttapol Sinkajohn	Corporate Governance Committee	Seminar on SD Forum 1/2016 "Direction to Drive Business Goals of Sustainable Development" by SET Seminar on CG Forum 1/2016 "Ethics : Conscious Corporate Governance" by SET Seminar on Current Issue Seminar 1/2016 "Act. Facilitate the development of effective customs and the private sector will be beneficial" by IOD Seminar on Corporate Governance Code by IOD, SEC & SET Seminar on CAC Conference 2016 "Ethical Leadership: Combating Corruption Together" by IOD
Ms. Nisachol	Corporate Governance Committee	Seminar on Executive Briefing 1/2016 "The Alignment Private Practice in Thailand to Anti – Corruption" by IOD

FAP=Federation of Accounting Professions / IOD=Thai Institute of Directors Association / SET=The Stock Exchange of Thailand / SEC=The Securities and Exchange Commis-

The Company arranges important information for new director, whereby Managing Director, concerned Management, Corporate Secretary shall present the information regarding shareholding structure, organization chart, nature of business, performance of the Company, subsidiaries, the Board

of Directors' meeting 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.
- 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.
- 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.

# 5.15 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".

# 5.16 Compliance

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

# <u>Compliance with the Good Corporate Governance</u> <u>Principles in Other Matters under consideration:</u>

- 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.
- There is no female independent director since the current Board of Directors has already fulfilled and covered all aspects of duties.

# The Internal Control and Risk Management

The Board of Directors entrusts the Audit Committee to oversight the company and subsidiaries to have appropriate and effective internal control systems, risk management and governance principles. The Audit Committee also oversees compliance with rules and regulations, deterring conflict of interest, reviews connected transaction. All of these are practices in accordance with COSO Internal Control and Enterprise Risk Management Integrated Frameworks. The company expected the internal control and risk management to be appropriate according to good principles and international standards.

# • Control Environment

The company establishes proper organizational structure, describes duties and responsibilities as well as power of authority, clear reporting lines enabling oversight and control in order to achieve objective and targets, including prepares written procedures as guideline for operation.

The company and subsidiaries encourage management and employee to commit on good corporate governance and business ethics. Code of conducts of the Board also indicates written requirement of management and employee to conduct their duties with honesty, transparency and fairness to all stakeholders.

The SEC (Securities and Exchange Commission of Thailand) adopted internal control of COSO which was enhanced its framework in 2013 to develop internal control assessment form for listed companies in SET (Security Exchange of Thailand)

In 2016, the company utilized the form of SEC to continuously assess internal control

sufficiency and increase management understanding in all levels to ensure assessment effectiveness.

On 14<sup>th</sup> October, 2016, the company has become a certified member of the CAC (Thailand's Private Sector Collective Action Coalition against Corruption)

# Risk Management

The Risk Management Committee oversees the company to systematically and practically perform risk management through a working group of executives and managers in continually managing both outside and inside risks. The risks were classified into the following categories: strategy, performance, finance and compliance. The risk assessment was conducted with consideration to its likelihood and significant impact on the company. The protective and corrective measurement and responsible staff were clearly assigned regarding implementation, report and monitor in order to assure that risk management is accomplished efficiently and effectively in accordance with the company's policies and objectives.

In 2016, the Risk Management Committee reviewed policy and company risks, then; reported to the Audit Committee and the Board of Directors on the quarterly basis the significant risks that changed its status as well as new incurred risks including mitigated the risks into an acceptable level. Besides, the company also established clear guideline in managing significant risks that could impact to its business growth in which the guideline was consistent with Enterprise Risk Management and Internal Control Integrated Frameworks to assure continuous development of the company's risk management.



# Control Activities

The Company has set up policy and procedures to achieve the objectives of internal control including authorized delegation, responsibility assignment, review consideration, security of property and auditing etc. There are protective and corrective measurements to manage internal control deficiencies which will avoid repetition in the future as well.

In 2016, the company reviewed policies and procedures to enhance controls of the company to its subsidiaries that included prevention and detection of fraud activities as well.

#### • Information & Communication

The Company recognizes the importance of information and communication by encouraging continued development of information technology so that the information is accurate and up to date. Besides, the company also focuses on the security of data storage, processing, implementation and monitoring in order to provide data for decision making of the management and staff with completeness, accuracy and timely manner.

The intranet system is a communication channel of the company so it is enable communication of policies, rules, regulations, orders, manuals and required information throughout the organization.

In 2016, the company established whistle blowing channels for employees and external stakeholders to report indicators that could lead to fraud activities.

#### • Monitoring Activities

The scope, duration and responsible staff for monitoring and evaluation were determined by management whom conducted it on the regular basis. The Company also required the internal auditor to establish annual audit plan based on the results of risk assessment. Significant deficiencies would be informed to the responsible person in order to determine its cause and corrective actions. The significant deficiencies were also reported to the Audit Committee, the Board of Directors and the independent auditors on the quarterly basis.

In 2016, internal auditing department committed audit assignment according to annual audit plan, however; the Audit Committee commented in the audit committee satisfaction form that the internal audit department should assure internal auditing effectiveness by adding resources particularly internal auditors who has been recognized by international internal auditing profession.



# Occupational Health, Safety and Environmental Implementation

TTCL Public Company Limited recognizes the Safety and Occupational Health of employees, partners and concerned parties including the prevention of environmental impact with the highest priority. Then TTCL aims to establish and maintain safe working conditions with no injuries or illnesses and also prevent environmental impacts by adopted the Occupational Health, Safety and Environmental Management System as part of company's execution in order to achieve the HSE's objective.



• Occupational Health and Safety Management System Certificate (OHSAS 18001: 2007)

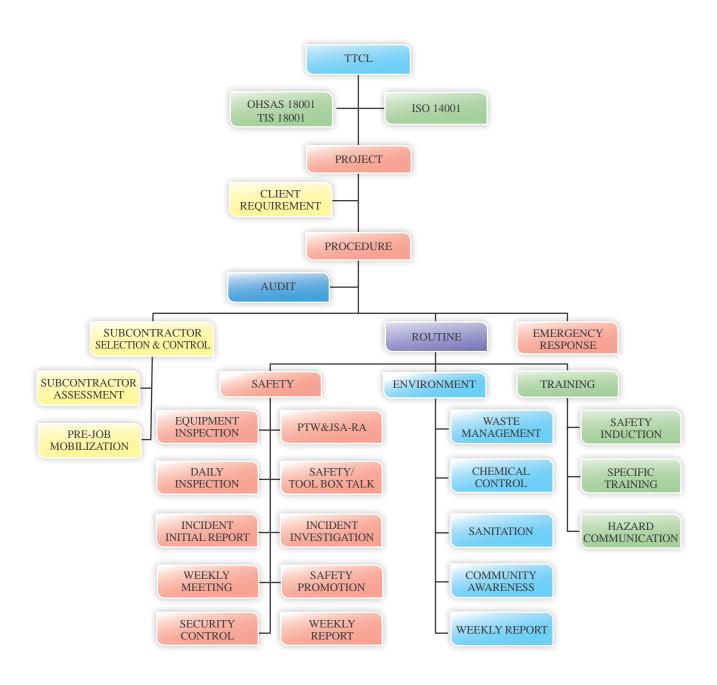


• Environmental Management System Certificate (ISO 14001: 2004)



# Occupational Health, Safety and **Environmental Management System**

TTCL Public Company Limited has developed Occupational Health, Safety and Environmental Management System in order to successfully achieve HSE's Policy and HSE's Objectives as following;



• Occupational Health, Safety and Environmental Management System





# **Emergency Response**

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



▲ Emergency Drill at Head Office

<image>

Lemergency Evacuation Drill at Project Site

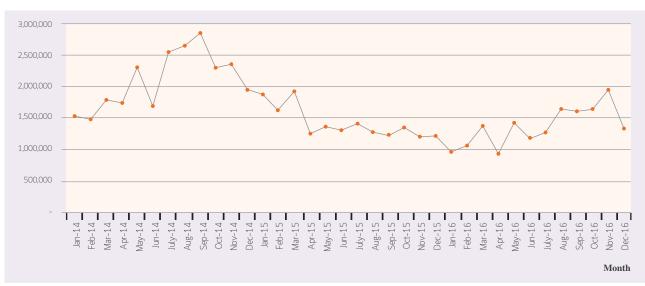
TTCL established Emergency Rescue Team (ERT) to help children and patient in the event of emergency such as fire, earthquake at Head Office.



▲ Emergency Rescue Team meeting at Head Office

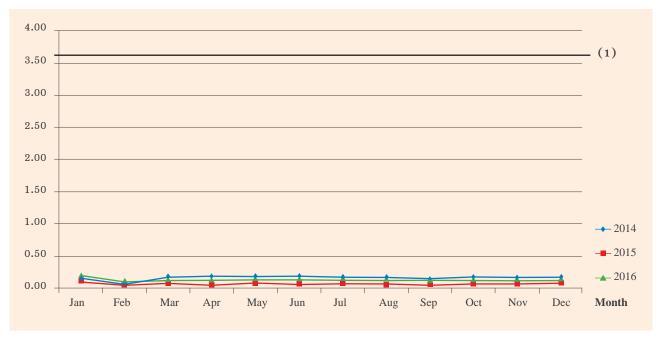


# WORKING MAN-HOUR 2014-2016



#### WORKING MAN-HOUR

# **INCIDENT FREQUENCY RATE 2014-2016**



**INCIDENT FREQUENCY RATE (IFR)** 

(1) Source: Incidence rates of nonfatal occupational injuries and illnesses by case type and ownership, selected industries, 2014 (Construction), U.S. Bureau of Labor Statistics, U.S. Department of Labor.





# The achievement in Occupation Health, Safety and Environmental

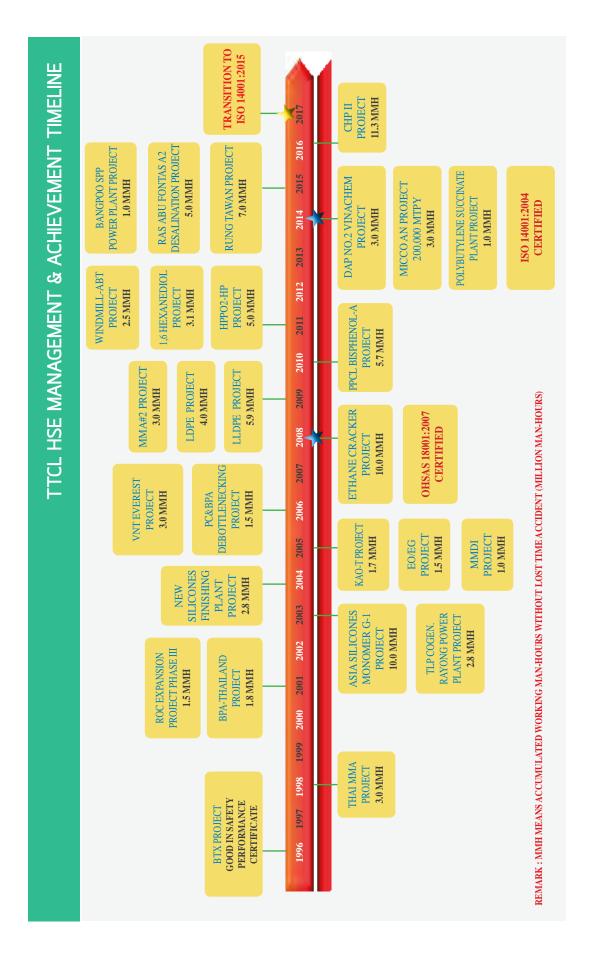
TTCL Public Company Limited has been succeeded in Occupational Health, Safety and Environment in 2016 as following;



#### **CHP II Project**

Owner (Client) Project Site Location Project's Description Achievement Award Date

- : IRPC Public Company Limited
- : IRPC Industrial Area, Rayong, Thailand
- : Constructing a combined Heat and Power (CHP) Plant
- : Accumulated 11,345,068 Working Man-Hours without an Accident
- : 24<sup>th</sup> November 2016





# **Corporate Social Responsibility (CSR)**

TTCL Public Company Limited 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 both economics, social and environment by the purpose of implementation of corporate social responsibility, where in 2016 the company was conducted to operating business along with TTCL's corporate social responsibility. Which contain the topics such as economics, social and environment details as follow;



#### **Economics**

TTCL 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, TTCL is increasing number of branches in both local and abroad for strong business growth.

#### Social

TTCL prioritize and care 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

TTCL 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

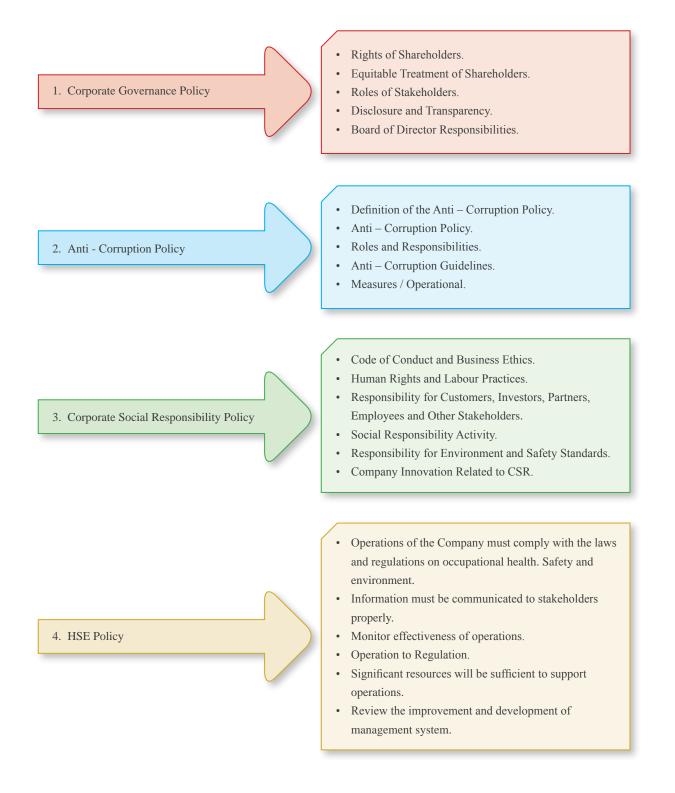
TTCL has identified the scope and relevance of construction project based on company's supply chain to consider and analyze the issues and responsibilities arising from operations. As the company held on service mind principles that build with confidence and trust to stakeholders such as customers and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



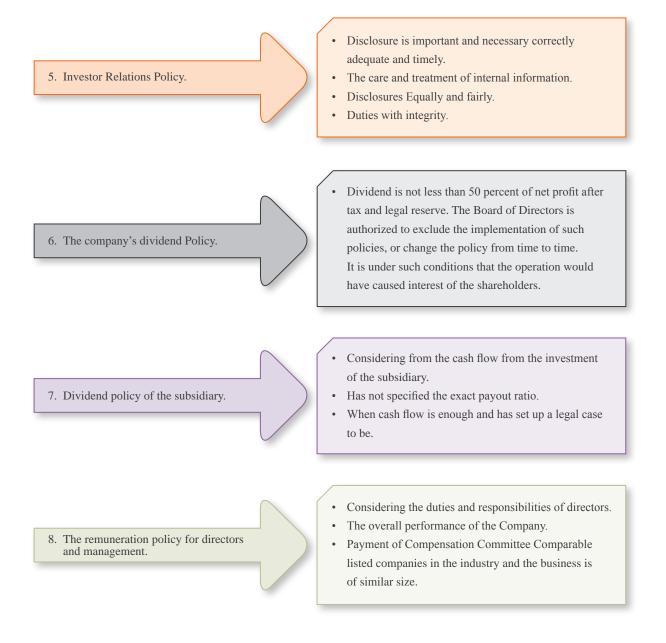


The Company has guides to adhere of good business policy according to the principle of disclosure and clean information. The operation policy has been state to strengthen knowledge and understanding of

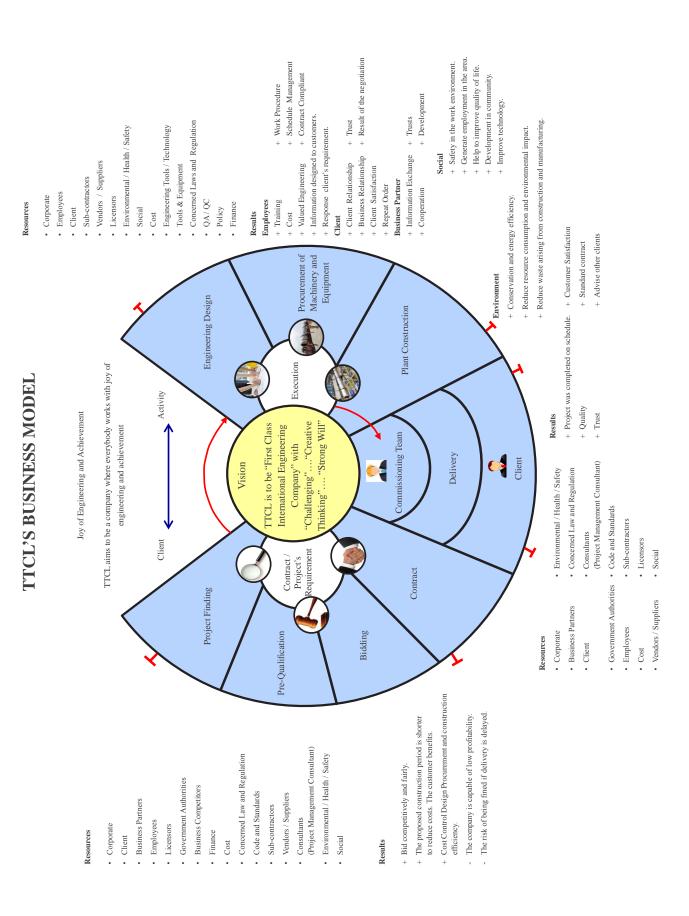
the business operations of stakeholders, director, management and employees to understand and follow company's policy to comply with the policies. The policies are as follow;







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;



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# **Corporate Social Responsibility (CSR)**

TTCL Public Company Limited, by the resolution of Board of Directors' Meeting No. 4/2557

dated August 13, 2014, authorized the Board of Management consist of;

1.	Mr. Hironobu	Iriya	President & CEO
2.	Mr. Tiwa	Jaruke	Director and Senior Vice President Project, Proposal and Engineering Division
3.	Mr. Saneh	Poorisat	Senior Vice President Engineering, Training and Task Force
4.	Ms. Kantika	Tanthuvanit	Senior Vice President General Administration and Company Secretary
5.	Ms. Suratana	Trinratana	Chief Operation Officer (COO) Vice President-Operation Division
6.	Mr. Wanchai	Ratinthorn	Chief Project Officer (CPO) Vice President-Project Execution Division
7.	Mr. Hideto	Koyama	Chief Sales Officer (CSO) Vice President Sales & Business Development Division
8.	Mr. Gobchai	Tanasugarn	Chief Finance Officer (CFO) Vice President-Finance & Accounting Division and Investor Relations
9.	Mr. Yukio	Kobe	Director Engineering and Project Execution Division
10.	Ms. Pornchan	Katejulasriroj	Director Engineering, Project Execution and 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.	Mr. Anuchit	Piyamanit	Staff
3.	Mrs. Kritsanee	Meksikarin	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;

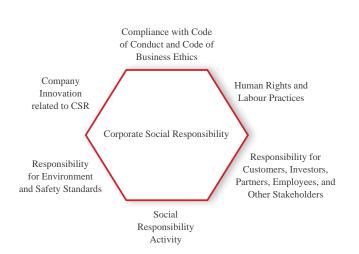
- To follow up and act according to the CSR Policy.
- 2. To propose action planed in order to achieve the specified objectives.
- To report the operational progress to Board of Management and to coordinate with other related units to achieve the objectives under CSR Policy.
- 4. To consider the Company's 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.

TTCL has operated in various aspects as consistent with the Human Rights and Labour Practices as follows.

#### The Operation of Human Resource Management

The Company recognizes the importance of employees that they are valuable resources to drive the company's business. By the company will recruit staff with motivating while retain quality employees, and focus on developing employee's knowledge and skills to be able to support new business for effective and sustainable company.

#### Recruitment

TTCL employs a systematic recruitment system and selection process by recruiting from

various channels to obtain diverse applicants. The Human Resource Department works with other Division such as Engineering Division, Project Execution Division to analyze staffing needs, identify essential skill requirements and develop acquisition plans to recruit and select capable applicants to serve business needs in a timely manner.

#### **Internal recruitment**

Recruitment within the organization is a staff recruiting by selection or promoted within the organization, considered on their knowledge and appropriate by 2 major points as follow;

- To publicize within company.
- To allocate manpower from Headquarters to the site project.

#### **External Recruitment**

TTCL recruit staff with knowledge, attitudes and appreciate experiences to join the organization by giving opportunity for students who are about to graduate from the bachelor degree in Engineering field from those university that the company has joined the labor market, both in Bangkok and surrounding provinces. Students can hand in resume directly at the company and many other channel, as following ways;

#### Job Fair Project at University

- 1. "KKU Job Fair 2015" and "KKU Job Fair" at Khon Kaen University.
- "Engineering KMUTT Job Fair 2016" at King Mongkut's University of Technology Thonburi.
- "13<sup>th</sup> KU Job Fair 2016" at Kasetsart University.
- 4. "Engineering Job Fair" project at Naresuan University.
- 5. "Engineering Job Fair 2015" at Prince of Songkla University.
- "SUT Job Fair & Cooperative Education Job Fair 2015" at Suranaree University of Technology.



### **External Organization**

- 1. Recommendations from current staff.
- 2. People who uses to work with the organization.
- 3. People who walks in for application directly at the company.
- 4. Job posting.
- 5. Employment agency.

### **Selection of Candidates**

Company fairly selects candidates who are interested in joining the organization by interview and testing in skills of knowledge, ideas and job position expertise to comply with our performance and match with appropriate department.

#### **Employment**

The employees including the foreign nationality get the minimum benefit according to the law on labour protection. Concerning the employment, Human Resource will strictly verify all employee background in order to solve human trafficking problems, illegal labor, labor violation and child labor. The employee's employment is divided into 3 categories as follows.

- Permanent employees gain minimum benefits under the labor and welfare services according to company policy. The salary will be paid directly into employees' bank account at the end of month.
- Contracted employees, work under 18 month contract, starting from the first working day to gain minimum benefits under the labor and welfare services according to company policy.
- 3. Daily employees, The salary will be paid directly into employees' bank account at the end of month, having the working period during the employment contract to gain minimum benefits under the labor and welfare services according to company

policy such as salary, compensation, social security and annual leave, etc. The salary will be paid twice a month into employees' bank account.

### **Talent Attraction & Retention**

TTCL policies for attracting employee cover financial and non-financial incentive. The Company considered the remuneration by consideration from Individual employee's performance in the previous year is evaluated before incorporated into the annual merit increase and to compare with the general market norm and the similar industry gathering with promoting from work performance.

Moreover, the company also gives precedence of employee's motivation for their commitment and affiliation to the organization in long term. By providing appropriate, fair rewards and benefits, such as, contribution provident fund for employees at a rate of 1%-3% for employees who has been serve the company for more than 10 years and increase the welfare of life and accident insurance.

# **Compliance with Occupational Health, Safety and Environmental Laws and Regulations**

To ensure that all activities of project site are complied with Occupational Health, Safety and Environmental Laws, Regulations and other applicable requirement. Therefore, the HSE's audit shall be conducted with the following objectives;

- 1. To evaluate compliance of applicable laws, regulations and other requirements.
- 2. To monitor the implementation of Occupational Health, Safety and Environmental Management System regularly and continuously.

#### **Environmental Management Strategy**

TTCL has established Environmental Management Strategy in accordance with PDCA Principle (Plan-Do-Check-Action) to ensure that the Environmental Management has effective and continuous improvement in the table below;



No.	Process	Objective
1	Plan	<ol> <li>Environmental Laws and Regulations Compliance Evaluation</li> <li>Environmental Aspect Identification</li> <li>Establish Environmental Management and Control Plan to prevent community and environment impact.</li> </ol>
2	Do	<ol> <li>Implementation of Environment Management and Control Plan.</li> <li>Implementation of Environmental Impact Mitigation Measure which indicated in Environmental Impact Assessment (EIA) Report.</li> </ol>
3	Check	<ol> <li>Monitoring the effectiveness of Environment Management and Control Plan and Environmental Impact Mitigation Measure execution.</li> <li>Perform Environment Audit to monitor the effectiveness of Environment Management System.</li> </ol>
4	Action	<ol> <li>Result from monitoring and audit activities will be used to correct and improve Project Environment Management System as necessary.</li> </ol>

# 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.

#### **Responsibility for the Stakeholders Engagement**

Building relationship with Stakeholders, TTCL divides Stakeholders into 8 groups, including Shareholder, Customer, Business Partners, Business Competitors, Creditors, Employees, Community and Society and Investor Relations.

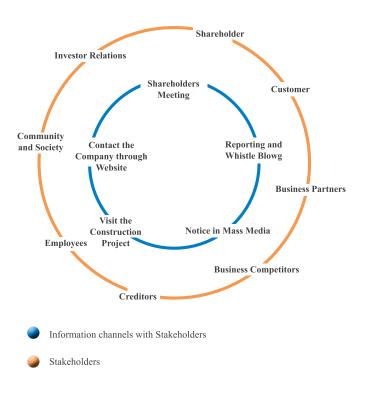




		Table Showing Detai	ils of Stakeholder Eng		
Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Shareholder	<ul> <li>Annual Report</li> <li>Minutes of Annual General Meeting of Shareholders.</li> <li>Complaint receipt via complaint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



Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
Customer	<ul> <li>Documentary, Newsletter.</li> <li>Complaint receipt via complaint channel.</li> </ul>	<ul> <li>To deliver quality products which meet their requirements.</li> <li>To be complied with according to the Code of Conduct, Good Corporate Governance and law in a strict manner.</li> <li>To keep and safekeeping client information and confidentiality by not using the information in a negative way.</li> </ul>	- Customers Responsibility Chapter.	<ul> <li>To disclose complete, correct, sufficient and undistorted information on the products and services.</li> <li>To provide a communication channel for customers tosubmit any complaint.</li> </ul>	<ul> <li>To build customer satisfactions.</li> <li>The quality policy and quality management system of ISO 9001:2008.</li> <li>Do not stipulate unfair trade per customer.</li> <li>Comply with the terms or conditions, towards customer transparently and equal.</li> </ul>
Business Partners	<ul> <li>Communicate via e-mail and telephone.</li> <li>Complaint receipt via complaint channel.</li> </ul>	<ul> <li>The criteria exist in the evaluation and selection of business partners.</li> <li>To be transparently and equally observe contracts, agreements and conditions given to business partners.</li> <li>To refrain from demanding from accepting and paying improper commercial benefits to business partners.</li> <li>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</li> </ul>	<ul> <li>Corporate Governance Chapter.</li> <li>Supply Chain.</li> </ul>	<ul> <li>To disclose complete, correct, sufficient and undistorted information on the products and services.</li> <li>To provide a communication channel for customers to submit any complaint.</li> </ul>	- In compliance with corporate governance principles, based on good governance, transparency, and accountability.
Business Competitors	<ul> <li>Annual Report</li> <li>Minutes of Annual General Meeting of Shareholders.</li> <li>Complaint receipt via complaint channel.</li> </ul>	<ul> <li>The related laws and regulations, as well as concepts related to Business Code of Conduct.</li> <li>Not engage in slander or discredit- ing its competitors.</li> </ul>	<ul> <li>Corporate Social Responsibility to Business Competitors</li> <li>Corporate Governance Chapter.</li> </ul>	<ul><li>Annual Report on Company's website.</li><li>News on Media.</li></ul>	- A policy to operate in an upright and transparent manner in dealings with its business competitors.



Stakeholders	Stakeholders Engagement Methods	Key Concerns	Response to Each Group of Stakeholder	Communication Channels	Outcomes
		- Not seek to find information about Competitors through dishonest or inappropriate means. The Company does not engage in slander or discrediting its competitors.			
Creditors	<ul> <li>Communicate via e-mail and telephone.</li> <li>Complaint receipt via complaint channel.</li> <li>Investor Relations Activity.</li> </ul>	- 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.	<ul> <li>Corporate Governance Chapter.</li> <li>Supply Chain.</li> </ul>	<ul> <li>To arrange AGM meeting.</li> <li>Minutes of Annual General Meeting of Shareholders through Stock Exchange of Thailand.</li> </ul>	<ul> <li>Not conceal any information or hide any facts that might possibly result in the realization of losses for its creditors.</li> <li>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.</li> </ul>
Employees	<ul> <li>Orientation for employees.</li> <li>Complaint receipt via complaint channel of employees.</li> </ul>	<ul> <li>The Company has always regarded its employees as valuable resources, whose roles are fundamental to the success of the Company.</li> <li>The Company places importance on the welfare and safety of its employees.</li> <li>To support and develop the potential of employees.</li> <li>To be strengthen the culture and good working atmosphere, promote teamwork.</li> </ul>	<ul> <li>Corporate Social Responsibility to employees</li> <li>Corporate Governance Chapter.</li> </ul>	<ul> <li>Announcement on Board.</li> <li>Inform on E-Mail.</li> <li>Announcement on company's Intranet.</li> </ul>	- 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
Community and Society	<ul> <li>Projects and Activities for Community and Society.</li> <li>Meeting with community and Local organization.</li> </ul>	<ul> <li>To run activities to support the Corporate Social Responsibility.</li> <li>The related activities and community development many activities.</li> </ul>	<ul> <li>Corporate Social Responsibility to Community and Society.</li> <li>Corporate Governance Chapter.</li> </ul>	- To include Social and Community, Environmental Conservation, Educational etc.	<ul> <li>To realize the importance of Corporate Social Responsibility (CSR),</li> <li>CSR Policy.</li> </ul>
Investor Relations	<ul> <li>Minutes of Annual General Meeting of Shareholders.</li> <li>Complaint receipt via complaint channel.</li> <li>Via electronic media of company.</li> </ul>	<ul> <li>The great importance to investor relations.</li> <li>Disclosing material information accurately, sufficiently and in timely fashion.</li> <li>Not using inside information for their own or their related parties' benefit.</li> <li>Disclosing material information fairly and equitably. All stakeholders must be able to access to the information and conveniently contact Investor Relations Officers for clarification.</li> </ul>	<ul> <li>Arranged operating details of company for shareholders, investor through interested persons and the results for the quarter transparency and accountability in their operations.</li> <li>Dividend ongoing and in line with earnings the business operations of the company.</li> </ul>	<ul> <li>Company's website.</li> <li>Company's road shows are participat- ed in with domestic and international investors.</li> <li>To publish the results of the operation in webcast on the Company's website.</li> <li>To provide shareholders and institutional investors to visit and meet business executives in order to generate understandings in the business of the Company.</li> </ul>	<ul> <li>To adhere to the basic principles and practices of "Investor Relations Code of conduct" published by Good governance development &amp; Alliance department, The stock exchange of Thailand, 2014, as a framework.</li> <li>Performing their duties with professionalism, integrity and equitability.</li> <li>Preferential treatment that may undermine the benefits of the company and all stakeholders is not acceptable.</li> </ul>

#### **Empowering employees**

Supporting and developing our employees are the main mission of the company as our employees are major force in driving the company's business forward. Thus sets the program to develop potential employees to extend the capabilities of their own and create a company with solid needle and fair. Company willing to spend a significant amount each year to focus on the performance of our employees.

Employee development is divided into two topics which are in house training and outside training. The company recognizes that employees are critical to the operation of the company to the operate in tandem with the company's progress along the way. So the company had organized trainers where they are able to generate ideas, knowledge, skill of dialogue and communication in both inside and outside the company to the employee as follows:

#### **In-house Training**

Each department in the organization held a training workshop on topics where they are critical to related staff. By the trainers are experienced with degree of professionals, supervisors and also qualified experts within the organization or externally from institutions to be invited as a lecturer at the company. Topics that included in staff training as follow;



- Orientation for new employees and trainees.
- To educate our TTCL's staff about "OFFICE SYNDROME".
- The Basic Safety & Company Management System Awareness course for New Employees.
- "Quality Management System" for employees.
- "Rule, Regulation and Welfare" training.
- The Safety Officer, Management Level training for Management Officer.
- Held the meeting to build public relation between community by inviting the representative from government and community in association with Environmental Impact Assessment (EIA).
- "Photocopy Machine" training for employees.
- The Basic Safety training for New Employees in order to raise awareness of Occupational Health, Safety and Environment.
- "High Impact Communication", "Proactive People", "Mindset & 4 Steps for Success" and "Management & Motivation Psychology" training in order to strengthen and develop all staff's communication skill & knowledge.
- The First Aid and Rescue training for Employees in order to enhance knowledge and understanding of basic first aid and rescue in emergency situation.
- "Healthy Food for Good Life" in order to provide knowledge and understanding about nutrient food selection to employees.
- Basic Fire Fighting training in cooperation with Klong Toei Fire and Rescue Station in order to enlighten the staffs the knowledge of Occupational Health, Safety and Environment at Klong Toei Fire and Rescue Station.

- "Internal Audit ISO 9001: 2015" training in order to gain knowledge & understanding of requirements and can be applied company's internal audit.
- "Internal Audit ISO 14001: 2015" training in order to gain knowledge & understanding of requirements and can be applied company's internal audit.

# **Public Training**

TTCL has organized a training workshop on topics that are necessary to bring knowledge for developing and optimized work quality for more efficiently. So the company has arranged employees in each department to attended external training by those trainers are experienced professionals, supervisors and specialists within the organization and the employees will also attended training sessions with externally from institutions. Topics that are included in training will be as follow;

- "1<sup>st</sup> Construction Supervision Development Training" to order to improve construction management and strengthen responsibility of the construction management to have precise quality in part of construction work.
- "3<sup>rd</sup> Management Development Training" to refresh and improved understanding for Quality Manual & Quality Procedure of TTCL Management & Project Management Team.
- "QP Development Training for TTMEC" to implement development of Quality Manual & Quality Procedure for TTMEC's Management & Staff.
- Basic Fire Fighting training in cooperation with Klong Toei Fire and Rescue Station in order to enlighten the staffs the knowledge of Occupational Health, Safety and Environment.



- "Corporate Social Initiatives for Sustainable Development" training course organized by The Stock Exchange of Thailand in order to enhance the importance of sustainable development for each listed company to achieve their business sustainability.
- "Management for Sustainable Development"
- "The 1<sup>st</sup> Project Risk Assessment Brainstorming" for management and employees in order to raise awareness of bringing the knowledge to their responsibility.
- "Management for Sustainable Development", organized by CSR Club of Thai Listed Companies Association.

Description		Person (s)	
Description	2016	2015	2014
Orientation for New Employees			
- Company's Law and Regulation	149	252	206
- Basic Safety Training Course for New Employees	134	204	197
- Quality, Occupational Health, Safety and Environmental	134	204	197
Management Systems Awareness Training Course			
Orientation for Existing Employees	1,606	-	-

## **Employees Training of Year 2014 - 2016**

#### Welfare in the Workplace

The company has set up a welfare committee in the workplace of business under Section 96 of the Labour Protection of Act B.E. 2541 it is an organization of employees who have been elected in the workplace to represent the employee discussions with the employer for the welfare of the employees, so the welfare committee in the workplace is a medium to convey the welfare needed from the employee to employer, and also discuss with recommendations along together while monitoring welfare within the workplace.

#### Welfare and Benefits

The company has provided welfare and benefits and a variety of forms over the legal limit by providing comprehensive age range of employees. Some benefits are the event that needed employees to be participating in the event. Benefits are as follow;

#### **Annual Medical Examination**

TTCL arranged Annual Medical Examination by Phyathai Sriracha Hospital for staffs both Head and Site Office, i.e Bangpoo SPP Power Plant Project (D-174), Samut Prakan, Fabrication Workshop, Rayong.

#### **Influenza Vaccination**

TTCL participate with Kluaynamthai Hospital arranged the Influenza Vaccination (Southern Strains) for Employees at TTCL (Head Office), D-176 Project in Rayong and D-174 Bangpoo SPP Power Plant Project in Samut Prakan.

#### **Child Care Room**

TTCL held a child care room for all employees who have children and in the company. The employee has no time in child care, can bring their children to leave the child care room. TTCL has provided baby sitter who graduate the nurse assistant and child care introduction course from the Kluaynamthai hospital.



The child care room is available for the 1 year-old children and above and the ones under 1 year old with their own caregivers and is opened on Monday - Friday at 8.00 a.m. - 8.00 p.m. and on Saturdays at 8.00 a.m.- 5.00 p.m. TTCL has scheduled daily activities to enhance learning skills to children by teaching from baby-sitters.

#### **Nursing Room**

TTCL provided professional doctor and nurse from Kluaynamthai hospital to have a treatment to staff who feel slight sick when working at office. In case of severe urgent sickness the nurse will inform the company welfare section to take the patient to the hospital nearly the office. The doctor will be on duty on Thursdays from 1.00 p.m. – 5.30 p.m. and Nursing Room is opened on Mondays – Fridays from 8.30 a.m. – 5.30 p.m.

### **Muslim Prayer Room**

TTCL equally treats all religious staff. For Muslim staff, the Muslim prayer room is available from 8.30 a.m. - 5.30 p.m.

### **Exercise Room**

TTCL promotes good the employee's physical health to organize the exercise activity by professional trainer after working. There are many fitness activities such as yoga, aerobics and bodyweight the schedule is on Monday - Thursday at 5.45 p.m. - 6.45 p.m. Moreover, TTCL provides table tennis equipment for employees during lunch break on Monday - Friday at 12.00 – 13.00 hrs. and on Thursday – Friday at 5.45 p.m. - 10.00 p.m..

#### **Public Relation Office**

Public Relation Office is important to company to sustain good relational impression between company and visitor via phone or in person. In addition they are assistant to book meeting room, welcome visitor, and assist the walk-in applicant to apply for the job.

#### **Volunteer employees**

The company encourages employees to have the opportunity to do things together like TTCL Walk - Run for Health. It has been actively involved in the community and benefits the environment, such as Blood Donation Program, Platelets Donation program and Reforestation.

#### **Company activities**

In addition to the practice of employees in the organization, TTCL has organized various activities within the company to let employees took part of the event. The events are divided into the following subjects;

#### **Sports Day**

"TTCL Sports day" was held at Chulalongkorn University Stadium in order to build our interpersonal relationship and unity between Management and all staffs.

#### **Awards Presentation 2016**

TTCL has arranged the awards ceremony for employees who work with the company until retirement and also frequently participated in the company's activities through the year 2016 at TTCL's Head Office.

# "New Year's Gift" Special movie for TTCL's employees

TTCL has announced to invite 99 employees to join special movie "New Year's Gift" at Quatier Cineart, Bangkok, to commemorate and admire the musical talent of His Majesty King Bhumibol Adulyadej. A portion of ticket sales will be donated to The Chaipattana Foundation.

#### 4. Social Responsibility Activity

The Company continuously supports activities for society and community such as educational program, knowledgeable opportunity on information technology for social sustainability.



#### **Corporate Social Responsibility**

TTCL provides engineering and design services and foresees the growing tendency of Integrated EPC. from both domestic and overseas customers with the team of skillfully specialized engineer and TTCL had never neglected the corporate social responsibility and has continually supported the social and community in education and environment in order that all employee has social awareness in coordination with activities organized by company or external organization. The activities are divided into various projects according to CSR plans as follows.

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	<ul> <li>Socail &amp; Community</li> <li>Education</li> <li>Environment</li> </ul>	ı		<u> </u>	-	•	<u></u>				-				-	<u>.  </u>		<u></u>	-		-	<u></u>				- 1				1 1	<u> </u>		- 1		-			-



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8	As	sociated community committee meeting	Plan																																					
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#### CSR Project of Year 2016 at Construction Projects (Activities)

#### CSR Project of Year 2016 at Construction Projects (Training)

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2	Quality, Occupational Health, Safety and Environmental Management Systems	Plan																																						
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3	Working Procedure Refreshment Training Course	Plan																																						
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4	Basic Fire Prevention and Fire Fighting Training Course	Plan																																						
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	Safety Officer at Management Level Training Course	Plan																																						
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6	Quality Management Systems Internal Audit Training Course	Plan																																						
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7	First Aid and Basic Rescue Training Course	Plan																																						
<i>'</i>	r na vid and base rescue rianning course	Action																													26	Septemb	er 2016							
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Social & Community
 Education 
 Environment

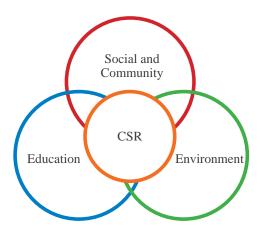
Participation in the social and community support for education and environmental. TTCL continuously focus on the project by planning operation for social responsibility on the year 2017, as follow;



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	Rajavithi Hospital (Head Office)	Plan	-	T	r r	_		• 2				1						•	23 Ma				1	T T				23 Auro		1	1		1	1	-1						-
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Socail & Community Education 🔺 Environment

# Corporate Social Responsibility Project of TTCL consists of 3 mains as follows;



## **Social and Community**

TTCL has supported Social and Community such as equipment, food, educational materials, toys, books and bookshelf, including employees' assistance, etc. in Bangkok and other province. TTCL's projects are divided into various projects as follows.

# Social

# **TTCL Blood Donation Project**

- TTCL participated with Rajavithi Hospital to donate blood for patients Treatment at TTCL's Head Office and Project D-176, Rayong.





## **TTCL Platelets Donation Project**

- TTCL cooperated with Rajavithi Hospital in "TTCL Platelets Donation Project" to support patients who has an immediate major surgery.





## Walk-Run for Health Project

- "Run Hero Run 2016" Project.
- "Eye Run World Glaucoma Day" Project in order to campaign for eyes check to prevent from Glaucoma.
- "Rajpruek....the Celebrations on the Auspicious of His Majesty the King" Project.
- "The Rainbow Run 2016" The 5<sup>th</sup> Walk-Run Project.
- " Thai PBS Mini Marathon & Water Sharing Run " Project.
- "August 12<sup>th</sup> Half Marathon Bangkok 2016" Project.
- "FB Battery River Kwai Half Marathon Thailand Championship 2016" Project.





TTCL Unusable Office Equipments Donation **Project** 

- Donated the unusable electric appliances and office equipment to Kanlayano Suankaew Foundation.





- "TTCL Volunteer for The Patients" Project to Out Patient Department at Police General Hospital.





# **TTCL Valuable Aluminium for Disabled Project**

 Donated Reusable Aluminium and Equipments under the project "TTCL Valuable Aluminium for Disabled" to Prosthetics Factory at Don Tum Hospital, Nakhon Pathom.



# The Set of Computer Handover

 Offered 8 sets of computer to Wang Rong Yai Tambon Health Promoting Hospital in Nakhon Ratchasima and offered 5 sets of computer to Don Tum Hospital, Nakhon Pathom.



 Donated Baht 100,000 worth to Prince of Songkla University Foundation and Special Fund of the 100<sup>th</sup> year Prince Mahidol Award Foundation in Songkla.



- Arranged "Mother's Day" event at RAPID SCC (F-042) in Malaysia to let the Management and all staffs join together in candle-lighting ceremony in honor of Her Majesty Queen Sirikit's 84<sup>th</sup> birthday in order to create affection and national unity.



- To observe one minute silence to mourning to the pass of His Majesty King Bhumibol Adulyadej at Bangpoo SPP Power Plant Project (D-174) in Samut Prakan, Polybutylene Succinate Plant Project (D-172) in Rayong, RAS ABU FONTAS A3 REVERSE OSMOSIS (F-043) in Qatar, Klongluang Utilities Project (D-182) in Pratum Thani, SECG1 Renovation Project (D-185) in Rayong, Rock Salt Exploitation and Processing (F-044) in Laos PDR.
- Participated with The Industrial Estate Authority of Thailand in associated and the Ministry of Industry has launch Jasmine Rice 100% campaign to support Thai Farmers.



# Community

- Participated in Songkran Festival 2016 in order to preserve Thai customs with the villagers and make a good relation between the company and community in Rayong and Toyo Thai Power Myanmar Co., Ltd. (TTPMC) invited the monks to chant the great drama and offered the food in occasion of Songkran Festival in Republic of the Union of Myanmar.
- Cooperated host to provide the bath-robe and candle to the monk during the period of the Buddhist Lent as well as offered the

amount of 8,499 baht to Wat Chulamuni in Rayong.

- Invited the monks to chant the great drama for better luck and well-being and offered lunch to 9 monks.
- Provided the truck in order to relieve the transport difficulty of people in the community at Bangpoo Industrial Estate due to heavy rain and drainage flood in Samut Prakan.
- TTCL project site D-182 has publicized the project "Information Public Relation" as EIA requirements in radius of 5 kilometers by car, including post the information on the community boards.
- Held the meeting to build public relation between community by inviting the representative from government and community in association with Environmental Impact Assessment (EIA).
- Supported the necessities to NLD Aids Center in Republic of the Union of Myanmar.
- Provided financial support to Ban Bueang San Terng, Nong Bok, Khammouane in Laos PDR. The amount of 184,000 THB (46,000,000 LAK) was handed over to the village headman of Ban Bueang San Terng for repair to the road between Ban Bueang San Terng and Ban Muang Khai. Furthermore our company also uses this road, where it is beneficial to transport of our project equipment.
- Participated in "Bang Bird Canal Dredging Project" with Nongfab community in Rayong and provide 70 ton mobile crane and manpower in order to reinforce the concrete pile along the edge of canal for the prevention of water erosion.
- Supported Drinking Water, food, snacks and other necessity to flood victims at Mango Plant Village in Republic of the Union of Myanmar.



- Supported 8 tables to White House's Seniors Association for the Public Benefit of Community at Klongluang Utilities Project (D-182), Pathum Thani.

# Education

## **Sharing Knowledge**

TTCL is focusing on education at first priority, as the educational is a foundation in developing those children's knowledge and creating better opportunities. Thus, when they grow up, those children can adopt their knowledge and apply to their future careers. For this reason, TTCL had an idea of building 3 schools. And they all close by the construction projects of the company in Rayong, that's including the donation of school supplies such as computer desks and textbooks. With school building, it creates source of quality human resources with potential and valuable to follow company's ways of responsibility and sustainability. The building of 3 schools, company are still continuously monitoring the usage of the building steadily. The details are as follows;

## **First School Building**

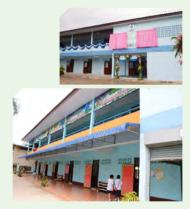
"Toyo-Thai Upathum 2553" building was built and handed over to Baan Khlong Sai school in Rayong on June 19, 2010 as the number of total student was 97 people. Since that time, the amount of students



were increased and graduated at year 6 in many generations. Currently in 2016, there are 162 students enrolled on that year.

#### **Second School Building**

"Toyo-Thai Upathum 2554" building was built and handed over to Wat Baan Kai school in Rayong on September 24, 2011 as the number of total student was 144 people. Since that time, the amount of students were increased and graduated at year 6 in many generations. Currently in 2016, there are 185 students enrolled on that year.



#### **Third School Building**

"Toyo-Thai Upathum 2555" building was built and handed over to Wat Lahan Rai school in Rayong on November 10, 2012 as the number of total student was 97 people. Since that time, the amount of students were increased and graduated at year 6 in many generations. Currently in 2016, there are 155 students enrolled on that year.



In addition, the Company also organized various activities for staff to join, such as;



## **Children's Day Project**

 Donated books and bookshelf, computers, Sport Equipment (for having a good attitude toward health by exercise) water cooler, toys, dolls, snacks, soft drink, fruits, etc. to School in Chai Nat, Pathum Thani, Kanjanaburi and The Republic of the Union of Myanmar.







#### **Quiz Competition Project**

 Arranged the HSE Delivery activity for employees to participate in inquiring about Health, Safety and Environment. There were a great number of staffs to join this activity at TTCL's Head Office.



# 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 duties and responsibilities on community and environment.

# Occupational Health, Safety and Environmental Policy

In order to achieve our desired goals, the President & CEO has established a HSE 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 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 20<sup>th</sup> July 2015 to 19<sup>th</sup> July 2017.

1.	Ms. Suratana	Trinratana	Chairman
2.	Ms. Jaruwan	Sookthauyart	Committee (Employer Representative)
3.	Mr. San	Jaisong	Committee (Employer Representative)
4.	Mr. Somboon	Tachasevarakul	Committee (Employer Representative)
5.	Mr. Anuchit	Piyamanit	Committee (Employer Representative)
6.	Mr. Somchai	Klomraksa	Committee (Employee Representative)
7.	Ms. Yana	Phetorm	Committee (Employee Representative)
8.	Mr. Kachain	Thongparn	Committee (Employee Representative)
9.	Mr. Pitak	Sukwan	Committee (Employee Representative)
10.	Mr. Ronnapoom	Chanmon	Committee (Employee Representative)
11.	Mr. Nuttapol	Sinkajohn	Committee and Secretary
			(Professional Safety Officer)

### **Occupational Health, Safety and Working Environment Committee consist of;**



# Environment Environmental Conservation

# **Cleaned Out on Public Road Project**

- Held the project to clean the dust and soil up in the workplace and the community area in vicinity of the site.



- Participated in "The Safety Day" at RAPID SCC (F-042) in Malaysia.



# **Saving Box Project**

- TTCL created the project "Saving Box" in order to reduce paper consumption and get the most out of it. This project has been run since July 2015 up to now.





# **Conserve and Mangrove Forests Project**

 TTCL's volunteers united together to reforest and build check dam for King Bhumibol Adulyadej. With the kind cooperation of Tha Thung Na Forest Protection Unit, Salakpra Wildlife Sanctuary in Kanchanaburi to reforest by making seed balls, and shooting at the deforest areas and build check dam irrigation to decrease the chance of flooding and the purpose of water harvesting and participated to reforestation amount 999 trees. In order to inherit the royal wish of natural resources and environmental conservation and giving to royal charity for the passing of His Majesty King Bhumibol Adulyadej in Rayong.







## **Sustainability Highlights**

- Gave the occupational health and safety award to the outstanding staffs in order to build up the consciousness of occupational safety and be the good model in the workplace.





- TTCL received the plaque in appreciation of being the corporation to annually support university student to be trainee as always at King Mongkut's Institute of Technology Ladkrabang.  TTCL attended "11 Million safe MH Celebration" in order to receive the safety certificate 11,000,000 safe MH without LTA for good occupational health, safety and environmental management from IRPC Clean Power Company Limited at CHP II Project Site (D-176), Rayong.



 TTCL attended "IRPC Contractor Safety Day 2016" to receive 4<sup>th</sup> the Platinum level certificate of working 11,345,068 man-hours without LTA from IRPC Public Company Limited at IRPC Auditorium, Rayong.

> บริษัท ไออาร์พีซี จำกัด (มหาขน) ขอมอบเกียรติบัตรฉบับนี้ให้ไว้เพื่อแสดงว่า









# 6. Company Innovation related to CSR

The Company's policies on operational innovation and organization-level innovation are as follows;

## **Operation Innovation**

- 1. Improve the organizational values, by raising awareness and promoting social and environmental responsibility among employees which will shape employee behavior.
- 2. Promote and encourage employee's social activities and employee participation in the activities initiated by Company and employees.
- 3. Company was cooperated with several local government administration offices in several provinces to conduct local community participation for giving the education and information related to municipal waste management by thermal process technology for production of electricity resulting successful acceptance by the communities in various areas.

## **Organization-Level Innovation**

 TTCL Public Company Limited has collaborate with local and Japanese business partners to study for applying Fuel Cell Technology for industrial plants such as chemical plant and petrochemical plant to utilize by product hydrocarbon in gaseous form to produce electricity for their own consumption or export to the nation grid.

The projects are in progress and discussion with the Japanese and Thailand institution for promotion of this advance clean technology to Thai's industries.

The business development and investment above said will not only generate the sustainable

income but it will help to reduce of the magnitude of direct and indirect environmental impact, reduce fossil fuel import, national energy security and in line with sustainable development in environment, economic and social, which can be summarized as follows;

- Electricity generation from fuel cell is an alternative energy which precisely useful for environmental conservation by convert the hydrocarbon residues in gaseous form (as by-products) without combustion into electricity in respect of reduction of pollutions and energy efficient. (products from Fuel Cells are electricity and water)
- Promoting energy security for the country and private organization.
- Reducing of imported fossils fuel like coal, natural gas and petroleum.
- Able to obtain Carbon Credit in category of Certified Emission Reductions: CERs in accordance to jointed cooperation program, Japan's Joint Crediting Mechanism: JCM which will get Japan's government grant to support in reduction of financing cost and substitute of government subsidy in alternative energy policy.
- Revenue from electricity sale will be partially deducted to Thailand's Power Development Fund according to Energy Regulation Commission's regulation (in case of project development in Thailand) or likewise in other countries for purpose of local communities development or rehabilitation which may have impact from company operation to responsible on local communities development and overall electricity generation system.



2. TTCL Public Company Limited together with its joint venture, Siam Solar Power Company Limited and their subsidiary are continue developing municipal waste management project to convert the municipal solid waste (MSW) to be electricity in several provinces by applying various technologies included Sorting and Mechanical Biological Treatment for production of Refuse Derived Fuel (RDF), Gasification System, Incineration, Fly Ash, Sulfur Dioxide, Nitrogen Dioxide removal in order to have the proper Waste to Energy plant that suitable for Thailand's MSW. The electricity which produced from the Waste to Energy Plant will sell to Provincial Electricity Authority.

The project is now in progression related to legislation process to obtain the necessary licenses and if the project can be materialized, it would generate stable revenue, the Company reduces direct and indirect environmental effects. Moreover, it is in line within sustainable development in respects of environmental, economy, and society, which can be summarized as follows;

- Electricity generation from MSW is an alternative energy which precisely useful for environmental conservation by not consumes any fossils fuel like coal, natural gas and petroleum both in respect of reduction of pollutions in addition with reducing of waste land filling which is source of accumulated pollutants, diseases and spread of diseases.
- Reduction of water pollution to the natural water way included underground water.
- Reduction of air pollution, smell disturbance and releasing of greenhouse gas (methane gas).

- Biogas from conversion of organic waste obtained from sorting plant will able to produce electricity or the other use. The residual from digestion can be an organic fertilizer.
- Ashes from combustion process can be as mixture of cement or organic fertilizer.
- Metal and plastics from sorting plant can be recycled.
- Promoting energy security for the country and private organization.
- Reducing of imported fossils fuel like coal, natural gas and petroleum
- Able to obtain Carbon Credit in category of Certified Emission Reductions: CERs in accordance to jointed cooperation program, Japan's Joint Crediting Mechanism: JCM which will get Japan's government grant to support in reduction of financing cost and substitute of government subsidy in alternative energy policy.
- Revenue from electricity sale will be partially deducted to Thailand's Power Development Fund according to Energy Regulation Commission's regulation (in case of project development in Thailand) or likewise in other countries for purpose of local communities development or rehabilitation which may have impact from company operation to responsible on local communities development and overall electricity generation system.
- 3. TTCL Public Company Limited and local universities are discussing for collaboration in development of electricity solar power generation projects for self-consumption, grid parity type which will be in line with government's promotion of solar energy utilization in government organization.



The business development and investment above said will not only generate the sustainable income but it will help to reduce of the magnitude of direct and indirect environmental impact, reduce fossil fuel import, national energy security and in line with sustainable development in environment, economic and social, which can be summarized as follows;

Addition to generating of stable revenue, the Company reduces direct and indirect environmental effects. Moreover, it is in line within sustainable development in respects of environmental, economy, and society, which can be summarized as follows;

- Electricity generation from solar energy is an alternative energy which precisely useful for environmental conservation by not consumes any fossils fuel like coal, natural gas and petroleum both in respect of reduction of pollutions.
- Promoting energy security for the country and government organization.
- Reducing of imported fossils fuel like coal, natural gas and petroleum.
- Support the education in solar energy utilization with the University.
- Reduce the utilization of government budget on the utility cost.



# **Auditor Remuneration**

# Audit fee

The Company and its subsidiaries paid annual audit fee for the year amounting to THB 10,847,387.00 comprising of

- The Company's audit fee amounting to THB 3,200,000
- Branches and Subsidiary Companies' audit fee amounting to THB 7,647,387.00

# Non Audit Fee

The Company and its subsidiaries paid tax advisory fee to the Auditor amounting to THB 2,652,105.00

Value and Outstanding Around of Commerced Transactions with potential conflict of interest parties as follows:       Data: Theosonal Bath         During 2015 - 2016, the Company has connected Transactions with potential conflict of interest parties as follows:       Data: Theosonal Bath         During 2015 - 2016, the Company has connected Transactions with potential conflict of interest parties as follows:       Data: Theosonal Bath         Name / Busines       Relationship       Type       Value of       Outstanding as of       Audit Committee Comments         1<       Toyo Engineering       TECis major shareholder       - Construction and Service       33.25.35       31.24,542       During 2015 and 2016 TTCL's         1       Toyo Engineering       TTCL at 17.43% in income       33.25.35       31.24,542       Tab ar 2016 TTCL's         1       Toyo Engineering       TTCL at 17.43% in income       33.25.35       31.24,542       The Art and Unbilled Contract View         1       Toyo Engineering       TTCL at 17.43% in income       33.25.32       31.24,547       The Art and Unbilled Contract View         1       Toyo Engineering       TTCL at 17.43% in income       2016       2015       32.942       The Art and Unbilled Contract View         1       Proves and the Art and Unbilled Contract Revenue       The Art and the Art and Unbilled Contract View       1.507.982 <td< th=""><th></th></td<>	
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Value and Outstanding Amount of Connected Transactions with nersons who may have notential conflict of interest



**Connected Transactions** 

ht							
Unit : Thousand Baht	Audit Committee Comments for Transaction Rationality		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.	Cost of the operation during 2015 were engineering service and technical advice provided to the Company amounting THB 1.31 million (2016, None).	The Audit Committee considered the transaction was done in a normal course of business practice.	During 2015 and 2016, TTCL - Malaysia Sdn. Bhd who is Subsidiaries of The Company had generated from TEC – Malaysia were amounting THB 297.42 million and 2,597.96 million respectively.
	Outstanding as of	31 Dec 2016			1		
	Outstand	31 Dec 2015			1		
	Value of Transactions	2016			1		297,419 2,597,960
	Valu Transa	2015			1,311		297,419
	Type				- Cost of construction and services		- Construction and Service income
	Relationship						TEC-Malaysia is Subsidiaries of TEC – Japan (who is a major shareholder in TTCL)
	Name / Business						2. Toyo – Engineering & Construction Sdn.Bhd.(Malaysia) (TEC–Malaysia)

5 TTCL

Unit : Thousand Baht	Audit Committee Comments	for Transaction Rationality	Trade A/R as of December 2016 amounting THB 1,390.42 million (2015 none)	365,422 1,030,369 Deferred Construction revenue as of December 2015 and 2016 amounting THB 365.42 million and 1,030.37 million respectively.	82,381 Advances Received from customers under Construction Contracts as of December 2015 and 2016 amounting THB 177.40 million and 82.38 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
	Outstanding as of	31 Dec 2016	1,390,421	1,030,369	82,381		
	Outstand	31 Dec 2015	I	365,422	177,402		
	Value of Transactions	2016					
	Valı Transa	2015					
	Name / Business Relationship Type		- Trade Accounts Receivable	- Deferred Construction revenue	- Advances Received from customers under Construc- tion Contracts.		



Rental S Service Fee
Accrued Income
- Cost of Construction and Service





# 11.2 Measure and procedure of approval for making connected transactions

The Company will arrange to have a department responsible for transaction verification in relation to reasonableness, price comparisons, 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.

- In case of general trading terms and conditions as well as normal course of business of the Company and its subsidiaries, such as providing or receiving services, and sales and purchases of raw materials etc. 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, such as the purchase of material fixed assets, 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 meeting for consideration and approval.

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 of the Company or its subsidiaries that may create conflict of interest to stakeholders or possible conflict of interest in the future, the audit committee shall review and provide opinions in terms of its necessity and reasonableness by considering the conditions and price comparisons to be in line with normal course of business and general trading terms and conditions of the Company. In the event that the audit committee does not have the expertise to consider a particular connected transaction, the Company may appoint an independent 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 in order to ensure that the said transaction will not be a form of transfer of interests between the Company and its shareholders but that the Company has taken into account the best interests of all its shareholders. 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.

# **11.3** Policy or tendency of further connected transactions

In the future, the Company may enter into connected transactions as it deems appropriate 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.

# 11.4 Measure for conflict of interest with individual or juristic persons who may have potential 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 taken 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 specialization and competitiveness of each party. The consortium will have a higher chance to win if there is suitable scope of work and responsibility of each party. After the partition of the task is cleared, each consortium member will prepare proposal on its scope and jointly combine each party proposal to be consortium proposal.

To prepare proposal on price basis, the company considers that the proposal shall be benefit to the company. The proposal is prepared based on thorough and rigorous assessment of cost plus a reasonable profit margin with approval from the Board of Directors as well as the Board of Management. The 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. For example, ITD engages in Civil Engineering for large scale infrastructure projects and essentially differs from the Company's core Integrated EPC businesses. Therefore, ITD and the Company have no direct competition in the bidding process. 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, as ITD will not be treated differently from other subcontractors.

For TEC who appears to be in the similar business as the Company, 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 follows:

- TEC emphasizes its efforts to project size over USD 1,000 million while the Company has been focusing on providing scope of services for projects with value USD 300 – 500 million.
- Technological complexity and past experiences (Track Record) required for a specific project.
- Relationship and Customers' Preferences.
- Competitiveness, especially in terms of operating costs when compares to



competitors. For example, in some smaller scale projects or projects with bidders from other developing countries like Korea, TEC might not enter bidding due to their higher operating costs.

For other companies within TEC group mainly focus in a specific area or scope of EPC such as Engineering and Design, 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, for local subcontractor dealing, suppliers negotiation, etc. Nevertheless, this does not mean that the network is interdependent.

In addition, the Company also has the balance of power in the shareholding structure of the Company and the Board of Directors. Current shareholders of the Company can be categorized into four groups: (1) TEC, 15.00%,(2) ITD group, 1.67%, (3) direct holding by the Company's management, 16.55%, and indirectly holding by the Company's management through Global Business Management Co., Ltd., 6.90%, (4) the

Company's employees 3.28%, and (5) other investor, 56.60%.

Furthermore, the balance of the shareholding structure as mentioned above 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 group (1), and Executive Directors (3). The board of directors of the Company consists of the Company's management, which does not comprise of any representative of TEC or ITD group. Consequently, any decision relating to the business of the Company will be carried out under the consideration of the Board of Management without the influence of TEC or ITD.

The Company's connected 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 major shareholders. The Audit Committee will monitor and report the shareholding structure in the future to reflect if it would compromise the independence of the Company's business operation.

# 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 Director's Report on their Responsibilities for Financial Reports for the year 2016

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 2016.

( Mr.Hironobu Iriya) Chairman of Board of Directors

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(Mr.Tiwa Jaruke) Director



# 1. The Operating Performance for the Year Ended 2016

The Company's Gross Profit dropped -7.86% and booked at THB 1.48 billion mainly caused by the decline in both EPC and Operation of Power Plant Revenues. The delay of construction plan, especially for overseas project in Lao's Rock Salt Processing, and the partially shutdown of Ahlone's power plant in Myanmar during the 1st half of 2016 were the main causes of such decline. The Net Profit was further deteriorated to THB 445.5 million, -21% down from last year as Gain from Exchange Rate was less and Financial Costs was more at -84% and 21% respectively than last year.

The Foreign Exchange Difference on Translation Financial Statement was recorded at

THB -127 million caused by Baht appreciation during the period affecting the Company's foreign currency deposit received from the construction project in Qatar, THB -56 million and equity investment in foreign subsidiaries, mainly TTPHD Group in Singapore, THB -50 million. Therefore, the Comprehensive Income for the Period was further down to THB 332 million. Also, the above Net Profit, THB 445.5 million was attributed to the Company at THB 400 million and the Basic Earnings per share were calculated at THB 0.71 per share.

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

	For the Year Ended				
	31 Dec. 2016		31 Dec. 2015		Change
Revenues	THB Mln.	%	THB Mln.	%	%
Construction and service revenues (EPC) Construction revenues from service concession arrangement Revenue from operation power plant	19,389.0 635.5	96.83% 0.00% 3.17%	20,765.5 83.2 675.0	96.48% 0.39% 3.14%	(6.63%) - nil - (5.86%)
Total Revenues	20,024.5	100.00%	21,523.7	100.00%	(6.97%)
<u>Less</u> Cost of constructions and services (EPC) <u>Less</u> Construction costs from service concession arrangement <u>Less</u> Costs of operation power plant	(18,310.0) (233.5)	91.44% 0.00% 1.17%	(19,684.1) (78.2) (154.1)	91.45% 0.36% 0.72%	(6.98%) - nil - 51.47%
Total Costs	(18,543.5)	92.60%	(19,916.4)	92.53%	(6.89%)
Gross profit	1,481.0	7.40%	1,607.3	7.47%	(7.86%)
<u>Add</u> Other income <u>Less</u> Gain (Loss) on Exchange Rate, net <u>Less</u> Administrative Expenses <u>Add</u> Share of Profit/(Loss) of Associate Add Share of Profit/(Loss) of joint venture	273.0 44.6 (847.4) 15.3 0.8	1.36% 0.22% (4.23%) 0.08% 0.00%	184.7 286.0 (869.5) 25.4 (155.3)	0.86% 1.33% (4.04%) 0.12% (0.72%)	(40.06%)
Profit before Financial Costs & Income Tax Less Financial Costs	967.2 (427.5)	4.83% 2.13%	1,078.6 (354.5)	5.01% (1.65%)	(10.33%) 20.60%
Profit before Income Tax Less Income Tax	539.7 (94.1)	2.69% 0.47%	724.1 (157.9)	3.36% 0.73%	(25.47%) (40.39%)
Net Profit for this Period	445.5	2.22%	566.2	2.63%	(21.31%)
<u>Add/(Less)</u> FX Translation on Financial Statements and Others Total Comprehensive Income for the Period	(113.5) 332.0	(0.57%) 1.66%	375.2 941.4	(1.74%) 4.37%	(130.26%) (64.73%)
Profit Attributable to: Owners of the parent Non-controlling interests	400.1 45.4		422.5 143.6		(5.30%) (68.36%)
	445.5		566.1		(21.30%)
Basic earnings per share (THB)	0.71		0.75		(5.30%)



# 2.1 Analysis of Revenues, Costs and Expenses

# 2.1.1 Revenues

Total Revenues was dropped -7.0% and recorded at THB 20.0 billion.

Revenues	31 Dec. 2016	31 Dec. 2016	% Change
Construction and service revenues (EPC)	19,389.0	20,765.5	(6.63%)
Construction revenues from service concession arrangement		83.2	- nil -
Revenue from operation power plant	635.5	675.0	(5.86%)
Total Revenues	20,024.5	21,523.7	(6.97%)

• EPC Businesses

The Revenue from EPC Construction and Services was down to THB 19.4 billion or declined -6.6% from last year. The Top-5 projects account for more than 75% of the total including:

#	Project	Amount Million THB	% of EPC Revenues	% Progress of Contract
1	Malaysia's Utility for SCC in RAPID Project	5,722.50	29.51%	64%
2	Qatar's Desalination Phase 2 Project	3,151.26	16.25%	100%
3	PTTGC's LLDPE Expansion and Hexene-1 Project	2,969.05	15.31%	65%
4	Laos's Rock Salt Exploitation & Processing Plant Project	2,022.47	10.43%	44%
5	IRPC's Combined Heat and Power Plant Project	1,506.15	7.77%	99%
	Subtotal	15,371.43	79.28%	
6	Others	4,017.57	20.72%	
	Grand Total	19,389.00	100.00%	

The overall construction progresses were preceded as planed excepting for #4 Lao's Rock Salt Project. The slowdown for the project construction was caused by the changes in the Critical Process Unit design and the logistic plan for material transportation to the site. Since the construction was started in early 2016, the project was rescheduled (Extension of Time) during the period and expected to be expedited in a later stage to meet its schedule in 2018. Power Plant Businesses

Revenue from Operation of Power Plant declined -6% to THB 635 million due to partially shutting down of its operation in the 1st Half 2016 and was then normalized from the 3<sup>rd</sup> Quarter 2016 onward. Claiming against repairing costs and loss of revenues from the machines breakdown with the insurance company process was still ongoing and some was realized during the 2<sup>nd</sup> half of 2016 as part of the Other Income.



# 2.1.2 Costs & Gross Profit

# **Gross Profit Margin Comparison**

31 Dec. 2016	Revenue	Cost	Gross Profit	Margin %
EPC Construction	19,389.0	(18,310.0)	1,078.96	5.56%
Service Concession Construction	0.0	0.0	-	-
Operation of Power Plant	635.5	(233.5)	401.99	63.26%
Total	20,024.5	(18,543.5)	1,480.95	7.40%
31 Dec. 2015	Revenue	Cost	Gross Profit	Margin %
31 Dec. 2015 EPC Construction	<b>Revenue</b> 20,765.5	Cost (19,684.1)	Gross Profit 1,081.40	Margin % 5.21%
			_	
EPC Construction	20,765.5	(19,684.1)	1,081.40	5.21%

Gross Profit was slightly dropped from 7.47% to 7.40% mainly caused by the Operation of Power Plant businesses. EPC Construction margin was slightly improved from 5.2% to almost 5.6% contributed by higher margin projects won in 2015, for example, Laos's Rock Salt Exploitation and Processing Plant Project, Qatar's Desalination Phase 2 Project and PTTGC's LLDPE Expansion and Hexene-1 Project.

The Operation of Power Plant margin was dropped to 63% as a result of declined revenue from operation during the 1st half of 2016. The plant's operation was recovered in the 3<sup>rd</sup> Quarter and normalized until the year end.

# 2.1.3 Other income and Gain (Loss) on Exchange Rate

The Other Income significantly rose almost 50% and recorded at THB 273 million. The major component of the Other Income was interest income and came from TTPMC, at THB 133 million plus insurance claimed, THB 88 million, compensated by insurance company during the period.

Gain (Loss) on exchange rate dropped sharply -84% and recorded at THB 45 million due to the Baht appreciation during the period.

## 2.1.4 Administrative expenses

The Administration Expenses dropped -2.5% to THB 847 million or 4% of revenues mainly caused

by the reduction in BNE's costs of impairment when compared to last year at THB 55 million.

# 2.1.5 Share of Profit of Associate and Joint Venture

The Company realized Share of Profit of Associate from investment in Siam Solar Power Co., Ltd. (SSP), the owner of 8 MW Solar Farm Power Plant in Ang Thong, at THB 15 million dropped 40% from last year. The reason for a weakened result came from the incurring of higher administrative expenses since SSP was under the plan for IPO process in the capital market in 2017.

Share of Profit of Joint Venture was booked at THB 0.8 million which came from Siam GNE Solar Energy Co., Ltd., the owner of 0.7MW Solar Roof-Top in Rayong significantly improved from last year which incurred huge lost from Vietnam joint venture (OBF).

# 2.1.6 Finance Cost and Income Tax

The financial cost for the year surged 20% to THB -428 million reflecting fund raising activities to support the Company's investment and working capital in both Power Plant and EPC businesses. Together with THB -94 million for Income Tax Expenses for the period, the Company recorded the Net Profit for the period at THB 445.5 million or -21% decreased from last year.



Figures in THB Million	31 Dec. 2016	31 Dec. 2015	Increase/(Decrease)	% Change
Current assets	17,298.00	18,120.66	(822.66)	(4.54%)
Non-current assets	8,514.10	7,776.63	737.47	9.48%
Total assets	25,812.10	25,897.28	(85.18)	(0.33%)

# 3.1 Analysis of Financial Status3.1 Analysis of Assets

For the year ended 2016, Total Assets slightly decreased by -0.3% and recorded at THB 25.8 billion. Total Current Assets declined THB -823 million, mainly due to the changes in following items:

- Cash & Cash Equivalent, Trade Accounts Receivable – Third Parties and Advance Payments to Sub-Contractors - Third Parties increased amount THB 636 million, 1.3 billion and 327 million respectively mainly from progress of Malaysia's Utility for SCC in RAPID Project.
- Unbilled Contract Revenue Third Parties declined THB -2.1 billion which was presented by Qatar's Desalination Phase 2 Project, THB -800 million, and several domestic power plants and petrochemical projects, THB -1.2 billion mainly from PPTC Power Plan Project, IRPC's CPH II Project and PTTGC's LLDPE Expansion and Hexene-1 Project.

 Construction in Progress - Third Parties dropped THB -1.1 billion due to the reclassification of TTUS's assets into Loan to Related Parties.

Total Non-current Assets increased 9.5% or THB 737 million. The main reason for rise in Non-current Assets came from Loan to Related Parties, TTUS, at THB 1.1 billion. TTUS decided to increase capital during the period to support their future business expansion. The increasing has caused TTCL's holding portion in TTUS diluted from 80% to 4% and TTUS was no longer classified as TTCL's subsidiary. As a result, previous transactions in the Unbilled Contract Revenue – Third Parties and the Construction in Progress - Third Parties which were switched and presented under Loan to Related Parties account. In the other hand, the decline in Financial Assets Under Concession Agreement at -262 million was amortized over Ahlone Power Plant Project in Myanmar in accordance with its concession life.

Figures in THB Million	31 Dec. 2016	31 Dec. 2015	Increase/(Decrease)	% Change
Current Liabilities	13,190.27	13,131.90	58.37	0.44%
Non-current Liabilities	6,280.96	6,476.52	(195.56)	(3.02%)
Total Liabilities	19,471.23	19,608.42	(137.19)	(0.70%)
Shareholders' equity	6,340.87	6,288.86	52.01	0.83%
Total Liabilities and shareholders' equity	25,812.10	25,897.28	(85.18)	(0.33%)

# 3.2 Analysis of Liabilities and Shareholders' Equity

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

<u>Total Liabilities</u> slightly decreased by THB -137 million, or -0.7%, which was caused from a combination of decrement in Current Liabilities and Non-Current Liabilities, amounting THB 58 million and THB -196 million, respectively.

The major movement of Current Liabilities, mainly due to the changes in following items:

o The repayment of Short-Term Loan from Financial Institution, amounting THB -1,808 million.

o Trade Account Payable – Third Parties decreased THB -497 million from Qatar's Desalination Phase 2 Project which was entering into final state of the project's construction.

o The Debenture due within 1 – year amounted THB 999 million which was 3-Year Debenture TTCL175A issued in 2014 and the mature date would be on 02 May 2017.

o Accrued Construction Cost and Deferred Construction Revenue – Related Parties increased amount THB 1.1 billion and THB 665 million respectively came from Malaysia's Utility for SCC in RAPID Project.

o Advance Received from Customer decreased THB -522 million which was mainly from Malaysia's Utility for SCC in RAPID Project and PTTGC's LLDPE Expansion and Hexene-1 Project.

Total Non-current Liabilities decreased by THB -196 million mainly from the repayment in the Long-Term Loan from Financial Institution in accordance with the Loan Agreement for Ahlone's Project Financing at THB -305 million.

Shareholder's equity increased by 1%. The Shareholders' Equity Opening Balance as at the beginning of the year was THB 6.28 billion. During the period, dividend was paid to shareholders at THB -280 million and the increase in the Total Comprehensive income for the year at THB 332 million. Therefore, the Closing Balance of Shareholders' Equity as of 31 December 2016 became THB 6.34 billion.

4.1. Profitability Ratios	31 Dec. 2016	31 Dec. 2015	Favorable/Unfavorable
4.1.1. Gross profit margin	7.40%	7.47%	Neutral
4.1.2. Net profit margin	2.22%	2.63%	Unfavorable
4.1.3. Times Interest Earned ratio	2.26	3.04	Unfavorable
4.1.4. Earnings per share	0.71	0.75	Neutral
4.2. Leverage Ratios			
4.2.1. Current ratio	1.31	1.38	Neutral
4.2.2. Debt/ Equity ratio	3.07	3.12	Neutral
4.3. Shareholders Value Ratios			
4.3.1. Net Book Value	11.32	11.23	Favorable
4.3.2. Return on total assets	1.73%	2.19%	Unfavorable
4.3.3. Return on equity	7.03%	9.00%	Unfavorable

# 4. Major Financial Ratios



Figures in THB Million	31 Dec. 2016	31 Dec. 2015
Net cash (used in)/generated from operating activities	2,079.68	(953.79)
Net cash (used in)/generated from investing activities	(196.50)	(841.60)
Net cash (used in)/receipts from financing activities	(1,231.30)	1,680.41
Net (decrease)/increase in cash and cash equivalents	651.88	(114.98)
Beginning balance	1,571.59	1,611.31
Exchange rate gains (loss) on cash and cash equivalent	(15.12)	75.26
Ending balance	2,208.35	1,571.59

# 5. Analysis of Cash Flows

For the year ended 2016, the ending balance of cash and cash equivalents was THB 2.2 billion increased THB 637 million from last year. Such change was caused by a combination of the Net cash generated from operating activities, THB 2.1 billion and the Net cash used in investing activities, THB –197 million and Net cash used in financing activities, THB –1.2 billion, all of which are detailed in the following explanations.

- 5.1 Net cash generated from operating activities, THB 2.1 billion. The significant changes came from:
  - + Earning before Income Tax THB 540 million
  - + Change in Unbilled Contract Revenue THB 1,823 million
  - + Change in Accrued Construction Costs THB 1,090 million
  - + Change in Deferred Construction Revenue THB 665 million
  - Change in Trade Accounts Receivable THB -1,315 million
  - Change in Trade Account Payable THB -449 million
  - Change in Advance Received from Customer under Construction Contract THB -522 million

- 5.2 Net cash used in investing activities, THB -197 million. The significant changes came from:
  - + Cash receipts from interest income THB 173 million
  - Advance payment for share subscription THB -150 million
  - Payment for Loan to Related Party THB -120 million
- 5.3 Net cash used in financing activities, THB -1.2 billion. The significant changes came from:
  - + Cash receipts from issuing debentures THB 1,075 million
  - Cash payment for short-term loans from financial institutions THB -1.8 billion
  - Cash payment for long-term loan from financial institutions THB -299 million
  - Cash payment for Dividend to Shareholders THB -280 million
- 5.4 Exchange rate loss on cash and cash equivalents THB -15 million.



The Company gives a high priority to the management of investor relations by providing investor relations that serves as a hub of activities and means of communicating information to investors, analysts, the media and stakeholders to ensure maximum efficiency and adhere to the basic principles on duty as follows.

- 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 IROs for clarification.
- Performing their duties with professionalism, integrity and equitability. No preferential treatment that may undermine the benefits of the company and stakeholders exist.

# **Investor Relations' Activities**

The overview of the company's investor relations in 2016 can be summarized as follows:

- Press releases and articles published in the media 209 times.
- Meetings and interviews with company executives 31 times.
- Investor relations activities 4 times:
  - May 30, 2016 "One-on-One Meeting", By Kasikorn Asset Management Company Limited.
  - June 30, 2016 "dbAccess Thailand Construction Materials & Services Corporate Day", By Deutsche Tisco Investment Advisory Company Limited.
  - September 2, 2016 "Thailand Focus 2016", By The Stock Exchange of Thailand, Phatra Securities Public Company Limited and Bank of America Merrill Lynch
  - September 9, 2016, "Opportunity Day", By The Stock Exchange of Thailand





## **Investor Relations Evaluation Results**

In 2016, TTCL has participated in the Investor Relations Evaluation which was arranged by the Stock Exchange of Thailand and independently assessed by TRIS Rating Co., Ltd. From the above evaluation, TTCL was classified as one of a group of 44 companies with market capitalization from 3,000-10,000 million baht. As for the results in 2016, TTCL was rated and achieved better results compared to 2015 as detailed in the following table:

		TTCL's			
	TTCL's Scores	Group's Average	Group's Max.	Group's Min.	Scores in 2015
Overall Scores	84.95%	68.85%	88.56%	35.41%	80.37%
1.1. Supports from Board of Directors and Management	91.54%	76.57%	97.69%	44.23%	87.69%
1.2. IR Activities	73.13%	55.82%	86.25%	16.88%	71.33%
1.3. Completion and Update of Information in IR Webpage	86.30%	69.39%	91.85%	40.37%	76.00%

Based from information yielded from the above evaluation, TTCL will consider them as a tool for

practice guideline and improvement in Investor Relations in the future.



TTCL PUBLIC COMPANY LIMITED



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31 DECEMBER 2016





# **Independent Auditor's Report**

# To the shareholders of TTCL Public Company Limited

## My opinion

In my opinion, 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 2016, 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

I have audited the accompanying consolidated and separate financial statements of the Group and the Company, which comprise the consolidated and separate statements of financial position as at 31 December 2016, and the related consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes to the consolidated and separate financial statements, including a summary of significant accounting policies.

### Basis for opinion

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 my 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 significant accounting judgments and estimates in Note 4.1 and Note 4.2 to the financial statements.

#### Revenue recognition on construction contracts

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.

#### Accrued construction cost

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 the significant values involved 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
- 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 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 18 to the financial statements.

During 2016, the Group management reviewed the adequacy of the allowance for impairment of the power plant amounting to Baht 36.73 million, which was recorded in 2015. The Group management 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 e.g. future performance, the discount rate and the Company's growth rate. My procedures in relation to the management's impairment assessment included:

- assessing the valuation methodology used by management
- challenging 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. I found that it was consistent with the Company's cost of capital, and
- 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.

And I performed a sensitivity analysis around the key drivers of growth rates within the cash flow projection to ascertain 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 allowance for impairment of the power plant was adequate and no additional impairment loss was required in 2016.



#### 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 2017



# TTCL Public Company Limited Statement of Financial Position As at 31 December 2016

		Consolidated fina	ncial statements	Separate fina	ncial statements
		31 December	31 December	31 December	31 December
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Assets					
Current assets					
Cash and cash equivalents	7	2,208,345,528	1,571,593,289	558,459,569	242,604,630
Trade accounts receivable					
- related parties	8, 11	1,678,615,475	332,902,880	939,467,736	1,012,740,839
- third parties	8	2,497,836,841	2,605,800,992	2,161,126,332	1,875,477,511
Accounts receivable from operation power plant		147,492,171	178,052,244	-	-
Financial assets under concession arrangement					
due within one year	10	189,884,600	168,022,621	-	-
Unbilled contract revenue					
- related parties	9.1, 11	1,325,640,167	1,514,942,439	1,873,993,445	2,139,398,816
- third parties	9.2	2,398,000,028	4,470,972,116	1,940,436,495	3,483,251,968
Other accounts receivable					
- related parties	11	1,160,916	-	16,422,177	21,263,372
- third parties		113,668,661	43,206,991	89,826,922	39,088,605
Construction in progress					
- related parties	11	-	298,957,302	-	120,287,945
- third parties		5,155,153,664	6,260,601,909	4,453,867,744	4,559,476,608
Advance payments to sub-contractors					
- related parties	11	-	-	18,973,754	25,569,822
- third parties		633,183,509	305,925,153	30,443,174	188,819,572
Advance payments for share subscription	12	153,953,908	-	-	-
Retention receivable - due within one year					
- related parties	11	-	25,000,000	-	25,000,000
Loans to related parties - due within one year	11	374,029,870	1,526,316	372,503,554	1,306,530,421
Interest receivable from loan					
to related parties	11	2,589,464	361,894	32,326,306	46,438,228
Withholding income tax		310,376,793	186,088,655	306,534,824	184,150,218
Input tax refundable		49,037,503	94,849,606	32,450,160	70,866,934
Other current assets		59,031,599	61,852,757	9,850,521	14,290,774
Total current assets		17,298,000,697	18,120,657,164	12,836,682,713	15,355,256,263



# TTCL Public Company Limited Statement of Financial Position As at 31 December 2016

	Consolidated financial statemer		incial statements	Separate fina	ncial statements
		31 December	31 December	31 December	31 December
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Assets (Cont'd)					
Non-current assets					
Trade accounts receivable					
- related party	11	-	-	66,833,707	63,018,988
Deposit at bank used as collateral	13	143,359,430	144,376,615	-	-
Retention					
- third parties		8,825,793	-	8,825,793	-
Held-to-maturity investments		-	584,350	-	584,350
Loan to related parties	11	1,106,532,509	11,447,368	1,135,741,206	28,977,368
Financial assets under concession arrangement					
due over one year	10	5,572,245,328	5,834,582,842	-	-
Investments in subsidiary, net	14	-	-	2,323,537,631	2,324,770,831
Investments in associate, net	15	223,999,215	189,251,036	1,233,200	-
Interests in joint venture	16	11,677,739	11,052,259	-	-
General investment	17	726,379,900	757,159,890	726,379,900	757,159,890
Spare parts		179,565,303	196,602,989	-	-
Property, plant and equipment, net	18	336,515,486	308,994,976	66,070,210	82,862,527
Intangible assets, net	19	35,722,793	29,889,888	30,696,685	28,344,625
Deferred tax assets	24	127,865,499	125,151,293	28,431,847	27,852,623
Advance payment to sub-contractor		-	125,037,039	-	-
Other non-current assets		41,411,723	42,497,017	21,832,057	29,500,118
Total non-current assets		8,514,100,718	7,776,627,562	4,409,582,236	3,343,071,320
Total assets		25,812,101,415	25,897,284,726	17,246,264,949	18,698,327,583

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# **TTCL Public Company Limited Statement of Financial Position** As at 31 December 2016

		Consolidated fina	ncial statements	Separate fina	ncial statements
		31 December	31 December	31 December	31 December
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions	20	1,379,480,505	3,187,715,104	1,379,480,505	3,187,715,104
Trade accounts payable					
- related parties	11	-	193,088	5,551,514	16,790,755
- third parties		2,149,358,465	2,646,462,022	1,616,625,971	1,897,403,359
Other accounts payable					
- related parties	11	123,477	-	123,477	888,218
- third parties		35,319,990	48,630,062	34,919,742	45,668,352
Long-term loan from financial institution, net					
- current portion	21	400,380,057	398,611,654	-	-
Debentures due within one year, net	22	999,617,976	-	999,617,976	-
Short-term loans from related parties	11	77,036,005	-	-	163,142,100
Interest payable from related parties	11	454,311	-	-	552,870
Retention payable to sub-contractors		306,576,650	268,729,359	297,047,985	255,779,415
Accrued construction costs		5,051,461,712	3,961,054,952	3,591,129,387	3,217,433,397
Advances received from customers					
under construction contracts					
- related parties	11	114,928,653	307,537,548	32,548,096	130,135,879
- third parties		1,259,341,422	1,588,273,079	607,589,504	1,135,035,049
Deferred construction revenue					
- related parties	9.3, 11	1,030,369,460	365,421,575	-	-
Corporate income tax payable		16,276,288	17,518,611	16,411,725	15,648,159
Accrued expenses		197,502,328	220,151,185	121,599,299	114,626,811
Liability from joint venture agreement	16	37,015,299	37,452,387	-	-
Other current liabilities		135,023,798	84,153,108	76,437,557	63,556,954
Total current liabilities		13,190,266,396	13,131,903,734	8,779,082,738	10,244,376,422
Non-current liabilities					
Long-term loan from financial institution, net	21	2,874,823,163	3,179,744,613	-	-
Debentures, net	22	2,993,801,785	2,918,297,324	2,993,801,785	2,918,297,324
Deferred income	23	145,453,951	146,567,792	-	-
Deferred tax liabilities	24	121,822,871	89,821,368	697,475	584,023
Employee benefits obligation	25	145,063,111	142,085,589	142,159,234	139,263,117
Total non-current liabilities		6,280,964,881	6,476,516,686	3,136,658,494	3,058,144,464
Total liabilities		10 /71 024 077	10 609 420 420	11 015 744 000	13 303 530 880
Total liabilities		19,471,231,277	19,608,420,420	11,915,741,232	13,302,520,886



# TTCL Public Company Limited Statement of Financial Position As at 31 December 2016

		Consolidated fina	incial statements	Separate fina	ncial statements
		31 December	31 December	31 December	31 December
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Liabilities and equity (Cont'd)					
Equity					
Share capital					
Authorised share capital	26				
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	26	2,905,496,747	2,905,496,747	2,905,496,747	2,905,496,747
Retained earnings					
Appropriated - legal reserve	27	56,000,000	56,000,000	56,000,000	56,000,000
Unappropriated		2,031,577,259	1,898,033,415	1,797,082,437	1,805,880,874
Premium on share capital from					
share-based payment	28	23,188,454	23,188,454	23,188,454	23,188,454
Discount from dilution of investment in subsidiaries		(465,610,157)	(462,876,761)	-	-
Other components of equity		176,466,272	256,856,127	(11,243,921)	45,240,622
Equity attributable to owners of the parent		5,287,118,575	5,236,697,982	5,330,523,717	5,395,806,697
Non-controlling interests		1,053,751,563	1,052,166,324	-	-
Total equity		6,340,870,138	6,288,864,306	5,330,523,717	5,395,806,697
Total liabilities and equity		25,812,101,415	25,897,284,726	17,246,264,949	18,698,327,583

## TTCL Public Company Limited

# Statement of Comprehensive Income

For the year ended 31 December 2016

		Consolidated fin		· · ·	ancial statements
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Revenues					
Construction and service revenues	6, 11	19,388,998,895	20,765,514,154	15,241,169,743	16,571,260,883
Construction revenues under					
concession arrangement		-	83,192,754	-	-
Revenues from operating the power plant		635,449,048	674,990,240	49,888,800	51,052,847
Fotal revenues		20,024,447,943	21,523,697,148	15,291,058,543	16,622,313,730
Costs					
Costs of construction and services	11, 33	(18,310,037,822)	(19,684,104,859)	(14,225,101,414)	(15,427,357,221)
Costs of construction from concession arrangement		-	(78,195,265)	-	-
Costs of operating the power plant		(233,458,634)	(154,125,723)	(20,649,708)	(27,029,041)
Fotal costs		(18,543,496,456)	(19,916,425,847)	(14,245,751,122)	(15,454,386,262)
Gross profit		1,480,951,487	1,607,271,301	1,045,307,421	1,167,927,468
Dther income	31	272,951,782	184,685,432	70,389,189	143,399,184
inance costs	34	(427,519,089)	(354,501,631)	(239,697,879)	(185,394,273)
Sain on exchange rate, net		44,642,132	285,950,914	111,235,976	279,601,250
dministrative expenses	11, 33	(847,425,566)	(869,503,448)	(664,237,165)	(674,395,540)
hare of profit of associates	15	15,254,422	25,438,324	-	-
Share of profit (loss) of joint ventures	16	805,039	(155,248,171)		
Profit before income tax		539,660,207	724,092,721	322,997,542	731,138,089
ncome tax expense	32	(94,129,846)	(157,899,553)	(65,240,661)	(150,579,717)
Profit for the year		445,530,361	566,193,168	257,756,881	580,558,372
Other comprehensive income (expense)					
Items that will not be reclassified subsequently					
to profit or loss, net of taxes					
Remeasurements of post-employment benefit		13,432,422	(8,215,399)	13,432,422	(8,215,399)
Share of other comprehensive loss of associate					
from equity method	15	(443,541)	-	-	
Item that will be reclassified subsequently					
to profit or loss, net of taxes					
Exchange differences on translating					
financial statements		(126,525,670)	383,420,405	(56,484,543)	96,125,855
Other comprehensive income (expense)					
for the year, net of tax		(113,536,789)	375,205,006	(43,052,121)	87,910,456
otal comprehensive income for the year		331,993,572	941,398,174	214,704,760	668,468,828
Profit attributable to:					
Owners of the parent		400,099,162	422,549,789	257,756,881	580,558,372
Non-controlling interests		45,431,199	143,643,379	-	-
		445,530,361	566,193,168	257,756,881	580,558,372
otal comprehensive income attributable to :					
-		222 4 44 720	007 044 575	044 704 700	CC0 4C0 000
Dwners of the parent		333,141,729	627,611,575	214,704,760	668,468,828
Ion-controlling interests		(1,148,157)	313,786,599		
		331,993,572	941,398,174	214,704,760	668,468,828
Earnings per share for the owners of the parent					

													0	Consolidated financial statements	cial statements
							Attributable to ov	Attributable to owners of the parent	ıt						
									Other com	Other components of equity					
									Other com	Other comprehensive income	e				
						Premium on	Discount from								
		Issued and		Retained	Retained earnings	share capital from	dilution	Premium	Remeasurements of	Currency	Other	Total other			
		paid-up share	Premium on Appropriated-	Appropriated-		share-based	of investment	on dilution	post-employment	translation co	translation comprehensive loss	component	Total owners	Total owners Non-controlling	
		capital	share capital Legal reserve	Legal reserve	Unappropriated	payment	in subsidiary	of investment	benefit obligation	differences	from associate	of equity	of the parent	interest	Total equity
	Notes	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Opening balance															
as at 1 January 2015		560,000,000	560,000,000 2,905,496,747	56,000,000	1,780,492,969	23,188,454	(44,548,774)	9,410,796	•	34,168,146		43,578,942	5,324,208,338	1,090,684,164	6,414,892,502
Change in equity for the year															
Dividends paid	30		•	'	(296,793,944)	•	'	,				•	(296,793,944)	,	(296,793,944)
Total comprehensive income															
for the year					422,549,789				(8,215,399)	213,277,185		205,061,786	627,611,575	313,786,599	941,398,174
Transfer from actuarial loss					(8,215,399)				8,215,399			8,215,399			
Discount from dilution of															
investment in subsidiary	14		,	'			(418,327,987)						(418,327,987)	(352,409,662)	(770,737,649)
Increase capital of subsidiary		'	'		'							•	'	105,223	105,223
Closing balance															
as at 31 December 2015		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
Opening balance															
as at 1 January 2016		560,000,000	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	30	'	'	'	(279,987,740)	•	'		•	,		•	(279,987,740)		(279,987,740)
Total comprehensive income															
for the year			'	'	400,099,162		'		13,432,422	(79,946,314)	(443,541)	(66,957,433)	333,141,729	(1,148,157)	331,993,572
Transfer from actuarial gain		'	,	'	13,432,422	•	'	'	(13,432,422)	,		(13,432,422)	,	'	
Discount from dilution of															
investment in subsidiary	14	'	'	•	'		(2,733,396)	'		'		'	(2,733,396)	2,733,396	1
Closing balance as at 31 December 2016		560.000.000	560.000.000 2.905.496.747	56,000,000	2 031 577 259	23 188 454	(465,610,157)	9410.796		167 499 017	(443.541)	443 541) 176 466 272	5 287 118 575	1.053.751.563	6.340.870.138
							( (				(				

The notes to the consolidated and separate financial statements on pages 166 to 230 are an integral part of these financial statements.

TTCL Public Company Limited Statement of Changes in Equity For the year ended 31 December 2016



	TTCL Public Statement of For the year e
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TTCL Public Company Limited	Statement of Changes in Equity	For the year ended 31 December 2016		
TTCL Public Company Limited	Statement of Changes in Equity	For the year ended 31 December 20		

							Other	Other component of equity	
		Issued and		Retainec	Retained earning	Premium on	Premium on Remeasurements of		
		paid-up share capital on sha	Premium on share capital	Premium Appropriated re capital -Legal reserve I		share capital share-based pay	post-employment benefit obligation	post-employment Currency translation benefit obligation difference	Total equity
- Opening balance as at 1 January 2015	NOIE	560,000,000	<b>Dam</b> 2,905,496,747	56,000,000	56,000,000 1,530,331,845	<b>Dam</b> 23,188,454	Dam -	<b>50,885,233</b>	5,024,131,813
<b>Change in equity for the year</b> Dividends paid Total comprehensive income for the year Transfer from actuarial losses	30				(296,793,944) 580,558,372 (8,215,399)		- (8,215,399) 8,215,399	- 96,125,855 -	(296,793,944) 668,468,828 -
Closing balance as at 31 December 2015		560,000,000	2,905,496,747	56,000,000	1,805,880,874	23,188,454	·	45,240,622	5,395,806,697
Opening balance as at 1 January 2016		560,000,000	2,905,496,747	56,000,000	1,805,880,874	23,188,454		45,240,622	5,395,806,697
<b>Change in equity for the year</b> Dividends paid Total comprehensive income for the year Transfer from actuarial gains	30				(279,987,740) 257,756,881 13,432,422		- 13,432,422 (13,432,422)	- (56,484,543) -	(279,987,740) 214,704,760 -
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

# TTCL

#### TTCL Public Company Limited Statement of Cash Flows For the year ended 31 December 2016

		Consolidated fina	ncial statements	Separate fina	ncial statements
		2016	2015	. 2016	2015
	Notes	Baht	Baht	Baht	Baht
Cash flows from operating activities					
Profit before income tax		539,660,207	724,092,721	322,997,542	731,138,089
Adjustments					
- Depreciation and amortisation	18, 19	51,045,732	48,934,410	35,152,560	31,238,413
- Write-off equipment		7,379	-	7,379	-
- (Gains) losses from disposals of equipment		(1,514,874)	148,838	(1,514,874)	203,814
- Gains from sales investment in associate		-	-	-	(92,669,892)
- Doubtful debts expense		-	-	-	18,013,652
- Unrealised (gains) losses from exchange rate		279,909,767	575,528,651	(77,615,613)	(44,100,489)
- Impairment loss on assets		-	40,797,954	-	-
- Interest income		(179,276,183)	(174,206,290)	(66,320,040)	(46,688,810)
- Share of profit of associate	15	(15,254,422)	(25,438,324)	-	-
- Share of (profit) loss of joint venture	16	(805,039)	155,248,172	-	-
- Employee benefit expenses	25	24,366,764	20,359,327	24,227,644	20,195,482
- Amortisation of deferred financing fee		26,701,894	16,093,374	3,639,312	2,146,752
- Amortisation of income from government grant		(1,113,840)	(1,115,603)	-	-
- Interest expenses		400,817,195	338,408,257	236,058,567	183,247,521
Cash flows before changes in operating assets and liabilities		1,124,544,580	1,718,851,487	476,632,477	802,724,532
Changes in operating assets and liabilities			4 220 000		
- Temporary investments		-	4,320,000	-	-
- Trade accounts receivable		(1,314,677,534)	(984,935,328)	(254,552,259)	(938,679,345)
- Accounts receivable from operation power plant		30,560,073	(147,238,583)	-	-
- Financial assets under concession arrangement		233,581,218	(508,086,894)	-	-
- Unbilled contract revenue		1,823,222,547	(197,553,299)	1,809,403,650	(951,985,020)
- Other accounts receivable		(35,789,386)	9,582,696	(30,795,005)	153,427,433
- Construction in progress		104,147,144	(2,474,172,150)	225,896,809	(1,582,007,297)
- Advance payments to sub-contractors		(202,221,317)	1,222,678,082	156,321,769	(76,483,964)
- Withholding income tax		(124,288,138)	(116,791,268)	(122,947,232)	(108,895,368)
- Input tax refundable		45,812,103	123,858,097	38,397,499	131,624,373
- Other current assets		(3,527,611)	14,715,285	4,499,382	(6,866,268)
- Retention receivable		16,174,207	21,285,200	16,598,518	21,285,200
- Spareparts		17,037,686	(43,933,484)	-	-
- Other non-current assets		1,071,903	(115,457,397)	7,668,062	(3,354,564)
- Trade accounts payable		(448,538,854)	473,407,044	(284,794,189)	324,704,520
- Other accounts payable		(11,279,504)	1,571,551	(11,716,425)	(149,645,078)
- Retention payable to sub-contractors		37,847,291	24,760,102	41,268,570	87,791,722
- Accrued construction costs		1,090,406,761	1,409,611,140	373,695,989	1,785,616,181
- Advance received from customers		/	<i>.</i>		
under construction contracts		(521,540,551)	(1,153,230,915)	(591,043,181)	776,217,280
- Deferred construction revenue		664,947,885	285,973,414	-	(79,448,161)
- Accrued expense		(35,056,250)	57,196,119	3,910,040	17,976,098
- Other current liabilities		50,870,689	(60,601,012)	3,068,171	(32,779,022)
- Employee benefit obligations	25	(4,598,715)	(711,400)	(4,541,000)	(711,400)
Cash generated from (used in) operations		2,538,706,227	(434,901,513)	1,856,971,645	170,511,852
- Interest paid		(388,416,067)	(328,458,528)	(223,773,278)	(175,573,139)
- Income tax paid		(70,610,479)	(190,425,793)	(68,070,108)	(144,899,783)
Net cash generated from (used in) operating activities		2,079,679,681	(953,785,834)	1,565,128,259	(149,961,070)



## TTCL Public Company Limited

# Statement of Cash Flows

For the year ended 31 December 2016

		Consolidated fina	ncial statements	Separate fina	ncial statements
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Cash flows from investing activities					
Cash receipt from deposit at financial institution used as collater	al	232,000,000	-	-	-
Payment for deposit at financial institution used as collateral		(232,000,000)	-	-	-
Payment for held to maturities security		-	(584,350)	-	(584,350)
Cash receipt from held to maturities security		584,350	-	-	-
Payment for share to related party		-	(762,522,250)	-	(762,522,250)
Payment for share subscription	12	(150,340,366)	-	-	-
Payment for shares in joint venture	16	-	(135,570,123)	-	-
Cash payment for changing from subsidiary to associate		(4,327,411)	-	-	-
Payment for shares in associate	15	(20,000,000)	-	-	-
Proceeds from disposal of subsidiaries		-	-	-	1,108,462
Payment for general investment	17	-	(83,719,900)	-	(83,719,900)
Payment for loan to a subsidiary	11	-	-	(5,500,000)	(838,560,800)
Payment for loan to related party	11	(120,300,000)	-	(120,300,000)	-
Cash receipts from loan repayment in related party	11	13,812,097	35,302,732	12,285,781	300,210,595
Cash receipts from interest income		172,720,188	171,716,738	28,776,503	9,194,530
Purchases of plant and equipment	18	(77,418,535)	(96,501,372)	(12,913,137)	(31,155,826)
Proceeds from disposals of equipment		1,530,467	41,633,567	1,530,467	281,920
Purchases of computer software	19	(12,764,359)	(11,355,839)	(7,822,290)	(9,797,833)
Net cash used in investing activities		(196,503,569)	(841,600,797)	(103,942,676)	(1,415,545,452)
Cash flows from financing activities					
Cash receipts from short-term loan from financial institutions		3,819,895,025	8,626,334,455	3,819,895,025	8,626,334,455
Cash payment for short-term loan from financial institutions		(5,618,272,119)	(8,567,895,296)	(5,618,272,119)	(8,567,895,296)
Cash payment for long-term loan from financial institution	21	(299,190,080)	-	-	-
Cash receipts from short-term loan from related party	11	-	-	-	328,048,000
Cash receipts from issuing debentures	22	1,075,000,000	1,925,000,000	1,075,000,000	1,925,000,000
Cash payment for financing fee in issuing debenture	22	(3,516,875)	(6,237,266)	(3,516,875)	(6,237,266)
Dividends paid to shareholders	30	(279,987,740)	(296,793,944)	(279,987,740)	(296,793,944)
Cash payment from short-term loan from related party	11	-	-	(143,954,160)	(489,178,700)
Cash receipts from short-term loan from related party	11	74,773,130		-	
Net cash receipts from (payments for) financing activities		(1,231,298,659)	1,680,407,949	(1,150,835,869)	1,519,277,249
Net increase (decrease) in cash and cash equivalents		651,877,453	(114,978,682)	310,349,714	(46,229,273)
Cash and cash equivalents at the beginning of the year		1,571,593,289	1,611,307,931	242,604,630	283,185,927
Exchange rate gains(losses) on cash and cash equivalents		(15,125,214)	75,264,040	5,505,225	5,647,976
Cash and cash equivalents at the ending of the year	7	2,208,345,528	1,571,593,289	558,459,569	242,604,630



### TTCL Public Company Limited Statement of Cash Flows For the year ended 31 December 2016

		Consolidated finance	ial statements	Separate finance	cial statements
		2016	2015	2016	2015
	Notes	Baht	Baht	Baht	Baht
Non-cash items					
Accounts payable for purchases of equipment	18	113,466	1,238,656	113,466	1,093,800
Settle-off loan from related party with					
accounts receivable related party	11	-	-	-	18,300,517
Accounts payable for acquired shares in a joint venture	16	-	500,000	-	-
Increase in advance payment to related party due to					
settle-off account receivable from related party		-	-	8,977,975	64,976,000
Accounts payable for share subscription		-	-	-	152,902,419
Accounts receivable for share subscription		-	-	-	155,000,000
Liability from joint venture agreement		-	37,452,387	-	-
Reclassifying accounts receivable - associate					
to loan to associate	11	1,665,825	-	1,665,825	-
Reclassifying other accounts receivable					
to loan to associate	11	16,924,689	-	16,924,689	-
Reclassifying interest receivable - associate					
to loan to associate	11	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	-	-	-
Decrease in other payable from liquidation of a joint venture	16	500,000	-	-	-
Reclassifying interst receivable - subsidairy					
to loan to subsidiary		-	-	4,562,382	-
Decrease in account receivable - related party					
due to settle-off accounts payable - related party		-	-	1,350,388	-
Decrease in other account receivable - related party					
due to settle-off accounts payable - related party		-	-	294,594	-
Other account receivable from selling general investment	17	35,833,200	-	35,833,200	-

#### 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 Semmit Tower Floor 27-30, Soi Sukhumvit 21, Asoke Road, Klong-Toeynua, Wattana, Bangkok 10110.

Philippines Branch: Suite B, 5<sup>th</sup> 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 2017.

#### 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 New/revised financial reporting standards interpretations are effective on 1 January 2016 and adopted by the Group

2.2.1 New/revised financial reporting standards and interpretation which are relevant and have a significant impact to the Group are as follows:

TAS 16 (revised 2015)	Property, plant and equipment
TAS 19 (revised 2015)	Employee benefits
TAS 24 (revised 2015)	Related party disclosures
TAS 27 (revised 2015)	Separate financial statements
TAS 36 (revised 2015)	Impairment of assets
TAS 38 (revised 2015)	Intangible assets
TAS 40 (revised 2015)	Investment property
TAS 41 (revised 2015)	Agriculture
TFRS 2 (revised 2015)	Share-based payment
TFRS 3 (revised 2015)	Business combinations
TFRS 4 (revised 2015)	Insurance contracts
TFRS 8 (revised 2015)	Operating segments



### 2 Accounting policies (Cont'd)

# 2.2 New/revised financial reporting standards and interpretations are effective on 1 January 2016 and adopted by the Group

2.2.2 New/revised financial reporting standards and interpretations with minor changes and do not have impact to the Group are as follows:

TAS 1 (revised 2015)	Presentation of financial statements
TAS 2 (revised 2015)	Inventories
TAS 7 (revised 2015)	Statement of cash flows
TAS 8 (revised 2015)	Accounting policies, changes in accounting estimates and errors
TAS 10 (revised 2015)	Events after the reporting period
TAS 11 (revised 2015)	Construction contracts
TAS 12 (revised 2015)	Income taxes
TAS 17 (revised 2015)	Leases
TAS 18 (revised 2015)	Revenue
TAS 20 (revised 2015)	Accounting for government grants and disclosure of government assistance
TAS 21 (revised 2015)	The effects of changes in foreign exchange rates
TAS 23 (revised 2015)	Borrowing costs
TAS 26 (revised 2015)	Accounting and reporting by retirement benefit plans
TAS 28 (revised 2015)	Investments in associates and joint ventures
TAS 29 (revised 2015)	Financial reporting in hyperinflationary economies
TAS 33 (revised 2015)	Earnings per share
TAS 34 (revised 2015)	Interim financial reporting
TAS 37 (revised 2015)	Provisions, contingent liabilities and contingent assets
TFRS 5 (revised 2015)	Non-current assets held for sale and discontinued operations
TFRS 6 (revised 2015)	Exploration for and evaluation of mineral resources
TFRS 11 (revised 2015)	Joint arrangements
TSIC 10 (revised 2015)	Government assistance - No specific relation to operating activities
TSIC 15 (revised 2015)	Operating leases - Incentives
TSIC 25 (revised 2015)	Income taxes - changes in the tax status of an entity or its shareholders
TSIC 27 (revised 2015)	Evaluating the substance of transactions involving the legal form of a lease
TSIC 29 (revised 2015)	Service concession arrangements: Disclosures
TSIC 31 (revised 2015)	Revenue - barter transactions involving advertising services
TSIC 32 (revised 2015)	Intangible assets - Web site costs
TFRIC 1 (revised 2015)	Changes in existing decommissioning, restoration and similar liabilities
TFRIC 4 (revised 2015)	Determining whether an arrangement contains a lease
TFRIC 5 (revised 2015)	Rights to interests arising from decommissioning, restoration and
	environmental rehabilitation funds
TFRIC 7 (revised 2015)	Applying the restatement approach under TAS29 Financial reporting in
TFRIC 10 (revised 2015)	hyperinflationary economies
· · · · · · · · · · · · · · · · · · ·	Interim financial reporting and impairment
TFRIC 12 (revised 2015)	Service concession arrangements
TFRIC 13 (revised 2015)	Customer loyalty programmes
TFRIC 14 (revised 2015)	TAS 19 - The limit on a defined benefit asset, minimum funding
	requirements and their interaction
TFRIC 15 (revised 2015)	Agreements for the construction of real estate
TFRIC 17 (revised 2015)	Distributions of non-cash assets to owners
TFRIC 18 (revised 2015)	Transfers of assets from customers
TFRIC 20 (revised 2015)	Stripping costs in the production phase of a surface mine



#### 2 Accounting policies (Cont'd)

# 2.3 Revised financial reporting standards are effective for annual periods beginning on or after 1 January 2017. The Group has not yet early adopted these revised standards.

2.3.1 Financial reporting standards, which have significant changes and are relevant to the Group:

The Group's management has been in process of assessing impact of those accounting standards. Significant changes in those accounting standards are summarised as below.

TAS 1 (revised 2016)	Presentation of financial statements
TAS 16 (revised 2016)	Property, plant and equipment
TAS 19 (revised 2016)	Employee benefits
TAS 27 (revised 2016)	Separate financial statements
TAS 28 (revised 2016)	Investments in associates and joint ventures
TAS 34 (revised 2016)	Interim financial reporting
TAS 38 (revised 2016)	Intangible assets
TAS 41(revised 2016)	Agriculture
TFRS 5 (revised 2016)	Non-current assets held for sale and discontinued operations
TFRS 10 (revised 2016)	Consolidated financial statements
TFRS 11 (revised 2016)	Joint arrangements
TFRS 12 (revised 2016)	Disclosure of interests in other entities

TAS 1 (revised 2016), the amendments provide clarifications on a number of issues, including:

- Materiality an entity should not aggregate or disaggregate information in a manner that obscures useful information. Where items are material, sufficient information must be provided to explain the impact on the financial position or performance.
- Disaggregation and subtotals line items specified in TAS 1 may need to be disaggregated where this is relevant to an understanding of the entity's financial position or performance. There is also new guidance on the use of subtotals.
- Notes confirmation that the notes do not need to be presented in a particular order.
- Other comprehensive income (OCI) arising from investments accounted for under the equity method the share of OCI arising from equity-accounted investments is grouped based on whether the items will or will not subsequently be reclassified to profit or loss. Each group should then be presented as a single line item in the statement of other comprehensive income.

TAS 16 (revised 2016), key amendments are 1) The amendments clarify that depreciation of an item of property, plant and equipment based on revenue generated by using the asset is not appropriate and 2) The amendments include bearer plants in scope of TAS 16.

TAS 19 (revised 2016), the amendments clarify that when determining the discount rate for post-employment benefit obligations, it is the currency that the liabilities are denominated in that is important and not the country where they arise.

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. While current TAS 27 allows entities to measure their investments in subsidiaries, joint ventures and associates either at cost or at fair value (when announced). 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.

TAS 28 (revised 2016), the significant changes are 1) the amendments allow an entity which is not an investment entity, but has an interest in an associate or joint venture which is an investment entity, a policy choice when applying the equity method of accounting. The entity may choose to retain the fair value measurement applied by the investment entity associate or joint venture, or to unwind the fair value measurement and instead perform a consolidation at the level of the investment entity associate or joint venture and 2) 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.

TAS 34 (revised 2016), the amendments clarify that what is meant by the reference in the standard to 'information disclosed elsewhere in the interim financial report'; entities taking advantage of the relief must provide a cross-reference from the interim financial statements to the location of that information and make the information available to users on the same terms and at the same time as the interim financial statements.



#### 2 Accounting policies (Cont'd)

# 2.3 Revised financial reporting standards are effective for annual periods beginning on or after 1 January 2017. The Group has not yet early adopted these revised standards. (Cont'd)

#### 2.3.1 Financial reporting standards, which have significant changes and are relevant to the Group: (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.

TAS 41 (revised 2016), the amendments align with the accounting guidance for the measurement and recognition of bearer plants issued by the FAP in 2015.

TFRS 5 (revised 2016), the amendments clarify that when an asset (or disposal group) is reclassified from 'held for sale' to 'held for distribution' or vice versa, this does not constitute a change to a plan of sale or distribution and does not have to be accounted for as such.

TFRS 10 (revised 2016), the amendments clarify that: 1) the exception from preparing consolidated financial statements is also available to intermediate parent entities which are subsidiaries of investment entities and 2) an investment entity should consolidate a subsidiary which is not an investment entity and whose main purpose and activity is to provide services in support of the investment entity's investment activities.

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.

TFRS 12 (revised 2016), the amendments clarify the disclosure requirements of an entity which is an investment entity and exception from preparing consolidated financial statement and instead measured its subsidiaries at fair value is required to disclose information of its subsidiaries according to the requirement in TFRS 12.

#### 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 though 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 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 achieves 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-measured are recognised in profit or loss.

Any contingent consideration to be transferred by the Group is regcognised 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 remeasured, 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 recognise 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.



#### 2 Accounting policies (Cont'd)

#### 2.4 Group Accounting - Investments in subsidiaries, associate and joint ventures (Cont'd)

#### 2.4.1 Investments in subsidiaries (Cont'd)

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 right to received 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 14.

#### 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.

#### 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 identifies 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.



#### 2 Accounting policies (Cont'd)

#### 2.4 Group Accounting - Investments in subsidiaries, associate and joint ventures (Cont'd)

#### 2.4.4 Associates (Cont'd)

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 15.

#### 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 whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement.

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.

A joint operation, the group recognises and measures the assets and liabilities and recognise the related revenues and expenses in relation to its interest in the arrangement to the particular assets, liabilities, revenues and expenses. Accounting policies of the joint operation have been changed for to the particular assets, liabilities, revenues and expenses where necessary to ensure consistency with the policies adopted by the group. The Group does not recognise its share of profits or losses from the joint operation that result from the purchase of assets by the Group from the joint operation until it resells the assets to an independent party. However, if a loss on the transaction provides evidence of a reduction in the net realisable value of current assets or an impairment loss, the loss is recognised immediately.

A list of the joint venture is shown in Note 16.



#### 2 Accounting policies (Cont'd)

#### 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 hyperinflationary 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.

#### 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 selling expenses.



#### 2 Accounting policies (Cont'd)

#### 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.

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 Accounting policies (Cont'd)

#### 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 that are acquired principally for the purpose of generating a profit from short-term fluctuations in price are classified as trading investments and included in current assets.
- Investments in non-marketable equity securities are classified as general investments.

Three 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.

Available for sale investments are subsequently measured at fair value. The fair value of investments is based on quoted bid price at the close of business on the statement of financial position date by reference to the Stock Exchange of Thailand. The unrealised gains and losses of available for sales investments are recognised in income statement. The unrealised gains and losses of available for sale investments are recognised in other comprehensive income.

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.



#### 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
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 capitalised and amortised using the straight-line method over the useful life of 10 years. Intangible assets are not revalued.

#### 2.14 Goodwill

Goodwill represents the excess of the consideration transferred over the fair value of the Group's share of the net identifiable assets, liabilities and contingent liability of the acquired subsidiary and the fair value of the non-controlling interest in the acquired subsidiary undertaking at the date of acquisition. Goodwill on acquisitions of subsidiaries is separately reported in the consolidated statement of financial position.

Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose, identified according to operating segment.



#### 2 Accounting policies (Cont'd)

#### 2.15 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.

#### 2.16 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.

#### Leases - where the Group is the lessor

Leases in which a significant portion of risks and rewards of ownership are retained by the lessee are classified as finance lease. Where a Group company is the lessor, when assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Finance lease income (interest income from finance leases) is recognised over the term of the lease using the net investment method, which reflects a constant periodic rate of return. Revenue recognition mentioned in the accounting policy in Note 2.22

#### 2.17 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.

#### 2.18 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.



#### 2 Accounting policies (Cont'd)

#### 2.19 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.

#### 2.20 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.

#### 2.20.1 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.

#### 2.20.2 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.

#### 2.21 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.



#### 2 Accounting policies (Cont'd)

#### 2.22 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 (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.

#### 2.23 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.

#### 2.24 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.



### 2 Accounting policies (Cont'd)

### 2.25 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.

### 2.26 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.



### 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 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 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 carrying amounts of financial assets and liabilities with a maturity of less than one year are assumed to approximate their fair values.



### 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 25.

### 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.

### 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 for petrochemical plants and power plants 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.

The Chief Operating Decision Maker considers the following reporting segments.

	Consolidated financial statements				cial statements
-	Er	nergy business	Constr	uction business	
	Projects providing services in Thailand Baht	Projects providing services overseas Baht	Projects providing services in Thailand Baht	Projects providing services overseas Baht	Total Baht
For the year ended 31 December 2016 Construction and	_	635,449,048	6,811,674,043	12,577,324,852	20.024,447,943
service income	-	035,449,040	0,011,074,043	12,577,524,652	20,024,447,943
Gross profit	-	401,990,414	326,648,939	752,312,134	1,480,951,487
Unallocated costs					(1,035,421,126)
Net profit for the year					445,530,361
As at 31 December 2016 Fixed assets	117,133,852	149,756,618	56,586,055	13,038,961	336,515,486
Consolidated total assets	244,412,554	5,201,945,611	6,561,047,279	13,804,695,971	25,812,101,415

Consolidated financial statements					
	En	ergy business	Constru	uction business	
_	Projects providing services in Thailand Baht	Projects providing services overseas Baht	Projects providing services in Thailand Baht	Projects providing services overseas Baht	Total Baht
For the year ended 31 December 2015 Construction and service income	-	674,990,240	9,473,723,328	11,374,983,580	21,523,697,148
Gross profit	-	520,864,517	479,098,367	607,308,417	1,607,271,301
Unallocated costs					(1,041,078,133)
Net profit for the year					566,193,168
As at 31 December 2015 Fixed assets	124,823,116	97,104,438	72,715,772	14,351,650	308,994,976
Consolidated total assets	249,281,851	5,148,587,051	7,056,209,320	13,443,206,504	25,897,284,726

Chief Operating Decision Maker considers gross profit in monthly performance of reporting segments.



### 6 Segment information (Cont'd)

### Main Group customer

During the year ended 31 December 2016, the Group had revenue from 2 major customers who contributed 30.73% of the Group's total revenues, which was approximately Baht 6,150.63 million (2015: the Group had revenue from 4 major customers who contributed 59.64% of the Group's total revenues, which was approximately Baht 9,118.96 million).

### 7 Cash and cash equivalents

	Consolidated fina	incial statements	Separate financial statements	
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Cash on hand Saving accounts Current accounts Fixed deposits due within	2,826,096 914,807,842 1,254,527,670	3,632,404 658,679,401 769,542,754	1,390,688 518,461,983 19,748,429	3,024,303 224,654,501 12,708,115
3 months Cheque on hand	17,325,451 18,858,469	137,521,019 2,217,711	- 18,858,469	۔ 2,217,711
Cash and cash equivalents	2,208,345,528	1,571,593,289	558,459,569	242,604,630

The saving accounts' interest rate was 0.01% - 4.30% per annum (2015: 0.01% - 4.60% per annum).

### 8 Trade accounts receivable

	Consolidated final	ncial statements	Separate financial statements	
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Related parties				
Not yet due	1,028,151,845	231,915,540	299,155,356	244,947,418
Overdue				
- up to 3 months	647,014,694	-	13,892,870	143,779,052
- 3 - 6 months	57,465	97,595,869	48,959,171	397,917,976
- 6 - 12 months	-	-	26,844,829	226,096,393
- more than 12 months	3,391,471	3,391,471	550,615,510	-
Total	1,678,615,475	332,902,880	939,467,736	1,012,740,839

The management assessed and considered the outstanding trade account receivable - related parties which over a period of 6 months in a separate financial statements amounted to Baht 577.46 million has the potential for cash collection. The management has no considered the allowance for doubtful debt.

	Consolidated fina	incial statements	Separate financial statements	
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Third parties				
Not yet due	1,419,931,132	1,337,012,072	1,089,581,673	692,010,878
Overdue				
- up to 3 months	572,302,132	785,380,752	571,451,698	778,986,973
- 3 - 6 months	1,250,039	265,582,437	504,890	224,186,072
- 6 - 12 months	106,089,246	37,532,144	105,847,617	-
- more than 12 months	398,264,292	180,293,587	393,740,454	180,293,588
Total	2,497,836,841	2,605,800,992	2,161,126,332	1,875,477,511

The management assessed and considered the outstanding trade account receivable - third parties which over a period of 6 months in consolidated and separate financial statements amounted to Baht 504.35 million and Baht 499.59 million respectively and has the potential for cash collection. The management has no considered the allowance for doubtful debt.

### 9 Unbilled contracts revenue and deferred construction revenue

### 9.1 Unbilled contract revenue - related parties

	Consolidated fir		Separate fi	nancial statements
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Contract costs to date Recognised profits to date	12,556,979,883 1,158,757,538	14,241,203,165 1,473,489,116	17,406,939,873 1,847,156,076	14,241,203,165 1,481,598,799
Contract costs incurred and recognised profits to date <u>Less</u> Progress billings	13,715,737,421 (12,390,097,254)	15,714,692,281 (14,199,749,842)	19,254,095,949 (17,380,102,504)	15,722,801,964 (13,583,403,148)
	1,325,640,167	1,514,942,439	1,873,993,445	2,139,398,816

### 9.2 Unbilled contract revenue - third parties

	Consolidated financial st		Separate fin	ancial statements
As at 31 December	2016	2015	2016	2015
	Baht	Baht	Baht	Baht
Contract costs to date	51,074,777,935	48,474,852,788	39,991,619,117	34,110,074,812
Recognised profits to date	3,799,015,048	3,738,416,821	3,025,213,686	2,950,705,162
Contract costs incurred and recognised profits to date	54,873,792,983	52,213,269,609	43,016,832,803	37,060,779,974
Less Progress billings	(52,475,792,955)	(47,742,297,493)	(41,076,396,308)	(33,577,528,006)
	2,398,000,028	4,470,972,116	1,940,436,495	3,483,251,968

### 9.3 Deferred construction revenue - related parties

	Consolidated final	ncial statements	Separate financial statements	
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Contract costs to date Recognised profits to date	2,839,754,081 57,632,784	293,469,391 5,957,536	-	-
Contract costs incurred and recognised profits to date <u>Less</u> Progress billings	2,897,386,865 (3,927,756,325)	299,426,927 (664,848,502)	-	-
	(1,030,369,460)	(365,421,575)	-	-



### 10 Financial assets under concession arrangement

	Consolidated financial statements			
	Minimum	lease payments	Present value of minimur lease payment	
	2016 2015 Baht Baht		2016 Baht	2015 Baht
Financial assets under concession arrangement				
- within one year - later than one year	321,930,872	339,866,122	189,884,600	168,022,621
but not later than five years	1,191,055,638	1,302,931,171	702,112,054	662,125,739
- after five years	6,280,369,472	7,026,233,631	4,870,133,274	5,172,457,103
Less: unearned finance income	7,793,355,982 (2,031,226,054)	8,669,030,924 (2,666,425,461)	5,762,129,928	6,002,605,463
Present value of minimum lease payments receivable	5,762,129,928	6,002,605,463	5,762,129,928	6,002,605,463

Financial assets under concession arrangement can be analysed as follows;

<ul> <li>Financial assets under concession arrangement</li></ul>	189,884,600	168,022,621
due within one year <li>Financial assets due over one year</li>	5,572,245,328	5,834,582,842
	5,762,129,928	6,002,605,463

As at 31 December 2016 the fair value of financial assets under concession arrangement was disclosed in note 35.

### 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 14, 15 and 16. As at 31 December 2016, the major shareholders are as follows:

		Shareholding (%)
•	Toyo Engineering Corporation (incorporated in Japan)	15.00
٠	Global Business Management Company Limited	6.90
٠	Mr. Hironobu Iriya	6.10
٠	Mr. Sukchai Sukchaicharoenkul	4.17
٠	Mrs. Suratana Trinratana	2.65
٠	Others	65.18

### 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.

	Consolidated fina	incial statements	Separate finan	cial statements
For the years ended 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
<b>Services income</b> Major shareholders Subsidiaries	3,124,541,552	3,826,386,860	3,124,541,552 292,852,262	3,826,386,860 515,810,939
Associates Related parties - others	161,688 2,603,304,738	297,419,464	161,688	-
	5,728,007,978	4,123,806,324	3,417,555,502	4,342,197,799
Revenue from operation and maintenance				
Subsidiaries		-	49,888,800	51,052,847
		-	49,888,800	51,052,847
Interest income Subsidiaries Associates Joint ventures	- 35,869,567 587,375	- - 787,878	29,053,177 35,869,567	45,780,059
Joint ventures	36,456,942	787,878	64,922,744	45,780,059
<b>Interest expense</b> Subsidiaries Related parties - others	448,047 448,047	-	1,811,697 - 1,811,697	3,658,035 - 3,658,035
<b>Cost of services</b> Major shareholders Subsidiaries Joint venture	-	391,805 - 5,825,634	- 11,565,433 -	391,805 9,859,317 5,825,634
	-	6,217,439	11,565,433	16,076,756
<b>Dividends paid</b> Major shareholders Related parties - shareholders	42,000,001 56,270,171 98,270,172	66,144,000 48,036,497 114,180,497	42,000,001 56,270,171 98,270,172	66,144,000 48,036,497 114,180,497
	96,270,172	114,160,497	90,270,172	114,100,497
Director and management remuneration				
Short-term employee benefits Post-employee benefits	92,510,373 2,468,496	79,296,015 2,029,233	83,216,200 2,545,212	70,220,000 2,058,122
	94,978,869	81,325,248	85,761,412	72,278,122



### 11 Related party transactions (Cont'd)

	Consolidated fina	ancial statements	Separate finance	cial statements
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Trade accounts receivable - related parties				
Current assets Major shareholders Subsidiaries Associates Joint ventures Related parties - others	284,742,222 60,674 3,391,471 1,390,421,108	231,915,540 - 3,391,471 97,595,869	284,742,222 654,664,840 60,674 - -	231,817,725 683,327,245 - 97,595,869
	1,678,615,475	332,902,880	939,467,736	1,012,740,839
Non-current asset Subsidiaries <u>Less</u> Allowance for doubtful accounts	-	-	78,824,727 (11,991,020)	75,010,008 (11,991,020)
			66,833,707	63,018,988
Unbilled contract revenue - related parties				
Major shareholders Subsidiaries Associates	1,014,453,915 - 304,225,579	1,507,981,766 - -	1,014,453,915 555,031,331 304,225,579	1,507,981,766 631,134,430 -
Joint ventures	6,960,673	6,960,673	282,620	282,620
	1,325,640,167	1,514,942,439	1,873,993,445	2,139,398,816
<b>Others receivable - related parties</b> Subsidiaries Associates	1,160,916	-	15,261,261 1,160,916	21,263,372
	1,160,916	-	16,422,177	21,263,372
Construction in progress - related parties				
Related parties - shareholders Related parties - others	-	120,287,945 178,669,357	-	120,287,945 -
		298,957,302	-	120,287,945
Advance payments to sub-contractors - related parties				
Subsidiaries		-	18,973,754	25,569,822
		-	18,973,754	25,569,822
Interest receivable from loans to subsidiaries - related parties Subsidiaries Associates Joint ventures	- 2,311,879 277,585	- - 361,894	30,014,427 2,311,879	46,438,228 - -
	2,589,464	361,894	32,326,306	46,438,228
	2,303,404	301,094	32,320,300	70,700,220



### 11 Related party transactions (Cont'd)

	Consolidated final	ncial statements	Separate finar	icial statements
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Retention receivable - related parties Associate		25,000,000	-	25,000,000
	<u> </u>	25,000,000	-	25,000,000
Loans to related parties Current asset				
Subsidiaries Associate Joint ventures	- 372,503,554 1,526,316	- - 1,526,316	- 372,503,554 -	1,306,530,421 - -
Total	374,029,870	1,526,316	372,503,554	1,306,530,421
Non-current asset Subsidiaries Associate Joint ventures <u>Less</u> Allowance for doubtful debt	- 1,096,611,457 9,921,052 -	- - 11,447,368 -	45,152,381 1,096,611,457 - (6,022,632)	35,000,000 - - (6,022,632)
Total	1,106,532,509	11,447,368	1,135,741,206	28,977,368
Total loans to related parties	1,480,562,379	12,973,684	1,508,244,760	1,335,507,789

### Loans to related parties

### Separate financial statements

As at 31 December 2016, the outstanding loans to related parties of Baht 1,508.24 million (31 December 2015: Baht 1,335.51 million) comprise the following long-term loans;

- a) Long-term loan granted to ToyoThai-USA Corporation (TTUS), an associate, of USD 41.20 million, equivalent to Baht 1,469.11 million (31 December 2015: short-term loans to TTUS, a subsidiary, of USD 36.37 million, equivalent to Baht 1,306.53 million). The loan bears interest at 4% per annum (2015: BIBOR (3 months) plus 2.3% per annum), with the interest repayment and the principal instalment repayments specified in the loan agreement, with payment starting in 2016 which is USD 10.45 million or equivalent to Baht 372.50 million due within one year and USD 30.75 million or equivalent to Baht 1,096.61 million, which is due within 2019.
- b) Long-term loan granted to Bio Natural Energy Co., Ltd., a subsidiary, net of allowance for doubtful debt Baht 39.13 million (31 December 2015: Baht 28.98 million), and the loan bears interest at 4.35% per annum. The principal repayments are due within 45 days from the date on which the Company calls.

### Consolidated financial statements

As at 31 December 2016, the outstanding loans to related parties of Baht 1,480.56 million (31 December 2015: Baht 12.97 million) comprise the following long-term loans;

- a) 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 11.45 million (31 December 2015: Baht 12.97 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.
- b) Long-term loan granted to ToyoThai-USA Corporation (TTUS), an associate, of USD 41.20 million, equivalent to Baht 1,469.11 million. The loan bears interest at 4% per annum, with the interest repayment and the principal instalment repayments specified in the loan agreement, and the payments starting in 2016 which is USD 10.45 million or equivalent to Baht 372.50 million due within one year and USD 30.75 million or equivalent to Baht 1,096.61 million which is due within 2019.



### 11 Related party transactions (Cont'd)

### The movements in loans to related parties can be analysed as follow:

			Consolidated financial statements	Separate financial statements
For the year ended 31 December 20	)16	-	Baht	Baht
Opening balance Increase from loan to subsidiaries Increase from reclassifying interest re	acivable subsidiarios	to loop	12,973,684 -	1,335,507,789 5,500,000
to loan to subsidiaries Increase from loan to associate Increase from reclassifying account re		to loan	- 120,300,000	4,652,382 120,300,000
to loan to associate Increase from reclassifying other acco		iate	1,665,825	1,665,825
to loan to associate Increase from reclassifying interest re			16,924,689	16,924,689
to loan to associate Increase from reclassifying investmen			45,448,582	45,448,582
to investment in associate Decrease from loan repayment Gain (loss) from exchange rate	,		1,270,552,348 (13,812,097) 26,509,348	- (12,285,781) (9,468,726)
Ending balance		-	1,480,562,379	1,508,244,760
	Consolidated finance	cial statements	Separate finar	ncial statements
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Account payable - related parties				
Major shareholders Subsidiaries	- -	193,088 -	- 5,551,514	193,088 16,597,667
	<u> </u>	193,088	5,551,514	16,790,755
Other payable - related parties				
Subsidiaries Associates	- 123,477	-	- 123,477	888,218
	123,477	-	123,477	888,218
Short-term loans - related parties				
Subsidiaries Related parties - others	- 77,036,005	-		163,142,100
	77,036,005	-		163,142,100



### 11 Related party transactions (Cont'd)

### Short-term loans from related parties

### Separate financial statements

During 2016, the Company has fully repaid the short-term loan to TTCL Power Holdings Pte. Ltd. (TTPHD), a subsidiary, (31 December 2015: USD 4.50 million or equivalent to Baht 163.14 million).

### Consolidated financial statements

As at 31 December 2016, the outstanding short-term loan from related party of USD 2.15 million or equivalent to Baht 77.04 million is a short-term loan of TTCL Power Holding Pte. Ltd. (TTPHD), a subsidiary, borrows from 8 Coins Capital Pte Ltd (8 Coins), a TTPHD's shareholder. 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.

### The movements in loans from subsidiaries can be analysed as follows:

	Consolidated financial statements	Separate financial statements
For the year ended 31 December 2016	Baht	Baht
Opening balance Increase Decrease Gain from exchange rate Currency translation differences	74,773,130  2,262,875	163,142,100 - (143,954,160) (19,187,940) -
Ending balance	77,036,005	-

	Consolio	dated financial statements	financ	Separate ial statements
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Interest payable from loan from related parties				
Subsidiaries	-	-	-	552,870
Related parties - others	454,311		-	-
	454,311		<u> </u>	552,870
Advance received from customers under construction contract - related parties				
Major shareholders	32,548,096	307,537,548	32,548,096	130,135,879
Related parties - others	82,380,557	-	-	-
	114,928,653	307,537,548	32,548,096	130,135,879
Deferred construction revenue - related parties				
Related parties - others	1,030,369,460	365,421,575	-	-
	1,030,369,460	365,421,575	-	-



### 12 Advance payment for share subscription

On 26 August 2016, the Board of Directors' meeting of TTCL Solar Power Pte. Ltd. (TTSP) granted approval to invest in a company in Japan to operate an energy business in Japan. The authorised share capital for the company is JPY 10 million, and it wholly owns 100% of the authorised shares. As at 31 December 2016, TTSP made an advance payment for shares for a share subscription of JPY 440 million, equivalent to Baht 153.95 million, in accordance with the share purchase agreement dated on 7 September 2016, and TTSP needs to make an additional payment of JPY 1,760 million or equivalent to Baht 596.39 million if the party complies with the conditions specified in the share purchase agreement.

### 13 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 143.36 million. They bear interest at the rate of 0.01% per annum (31 December 2015; the deposits were used as collateral amounting to USD 4 million which is equivalent to Baht 144.37 million and were bearing interest at the rate of 0.01% per annum).



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mited	Notes to the Consolidated and Separate Financial Statements	cember 2016
<b>TTCL Public Company Limited</b>	Notes to the Consolidated	For the year ended 31 December 2016

14 Investment in subsidiaries, net

		Proportion of ordinary share held by parent	ordinary parent	Proportion of ordinary share held by the group	ordinary ne group	Cost method	lethod	Dividend	
As at 31 December	Type of business	2016 %	2015 %	2016 %	2015 %	2016 Baht	2015 Baht	2016 Baht	2015 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	90.00	90.00	7,526,661	7,526,661	,	·
ToyoThai-USA Corporation	Constructions and engineering services		80.00		·	ı	1,233,200		,
Toyo-Thai Power Myanmar Corporation Co., Ltd.	Electricity generating services	5.00	5.00	71.29	71.29	83,793,909	83,793,909	·	ı
TTCL Power Holding Pte. Ltd.	Investing in energy business	69.78	69.78	,		2,000,537,250	2,000,537,250		
Global New Energy Company Limited	Renewable energy development	40.00	40.00	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	00.66	<u>99.00</u>	,	·	1,751,666	1,751,666	'	'
Total						2,323,537,631	2,324,770,831	·	

14 Investment in subsidiaries, net (Cont'd)

		Proportion of ordinary share held by parent	rdinary oarent	Proportion of ordinary share held by the group	ordinary he group	Cost method	ğ	Dividend	
As at 31 December	Type of business	2016 %	2015 %	2016 %	2015 %	2016 Baht	2015 Baht	2016 Baht	2015 Baht
TTCL Gas Power Pte. Ltd.	Investing in energy business			69.78	69.78		•		·
TTCL Solar Power Pte. Ltd.	Investing in energy business	,		69.78	69.78	ı	ı		
Global New Energy Japan Co., Ltd.	Operating and maintenance solar power plant		ı	69.78	69.78			·	ı
TTCL Coal Power Pte. Ltd.	Investing in energy business	ı	ı	69.78	69.78	ı	ı	ı	ı
Global New Energy Togo Co., Ltd.	Electricity generating from solar power	ı	ı	69.78	69.78	ı	ı	ı	ı
Global New Energy Tsuno Co., Ltd.	Electricity generating from solar power		I	69.78	69.78	ı	ı	ı	ı





### **14** 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	2016 Baht
Opening net book value Decrease due to changing from subsidiary to associate (Note 15)	2,324,770,831 (1,233,200)
Closing net book value	2,323,537,631

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 1,053 million, of which Baht 1,039 million is for the group of companies under TTCL Power Holdings Pte. Ltd and other companies Baht 14 million is not material.

### Transaction with non-controlling interest

### Acquisition of additional interest in a subsidiary

On 12 November 2015, the Company acquired common shares of TTCL Power Holdings Pte. Ltd (TTPHD) from Pacific New Power Co., Ltd, a non-controlling interest of TTPHD, for 8,500,000 shares at USD 2.50 for USD 21.50 million or equivalent to Baht 770.74 million. The Company's 57.55% holding will rise to a 69.78% holding. The carrying amount of the non-controlling interest in TTPHD on the date of acquisition was Baht 352.41 million. The group derecognised non-controlling interests of Baht 352.41 million and recorded a decrease in equity attributable to owners of the parent of Baht 418.33 million.

The effect of changes in the interest on the equity attributable to owners of the Company during the year is summarised as follows:

	2016 Baht	2015 Baht
Carrying amount of non-controlling interests acquired Consideration paid to non-controlling interests	-	352,409,662 (770,737,649)
Exceed of consideration paid recognised in parent's equity	<u> </u>	(418,327,987)

### 14 Investment in subsidiaries, net (Cont'd)

### Transaction with non-controlling interest (Cont'd)

### Disposal of interest in a subsidiary with loss control

The Company has changing its investment in subsidiary to associate in note 15. On 1 April 2016, ToyoThai-USA Corporation (TTUS) increased its registered capital from USD 50,000 to USD 200,000. The Company did not increase its registered capital in TTUS thus decreasing the Company's holding in TTUS from 80% to 20%. And, on 25 May 2016, TTUS increased its registered capital from USD 200,000 to USD 1,000,000, thereby decreasing the Company's holding in TTUS from 20% to 4%. However, the Company determined that it has significant influence in TTUS and TTUS is therefore presented as an investment in an associate. The carrying amount of the non-controlling interest in TTUS on the date of disposal was Baht 2.73 million (representing 96% interest). The group derecognised non-controlling interests of Baht 2.73 million and recorded an increase in equity attributable to owners of the parent of Baht 2.73 million.

The effect of changes in the interest on the equity of TTUS attribute to owners of the Company during the year is summarised as follows:

	2016 Baht	2015 Baht
Carrying amount of non-controlling interests disposed Consideration received to non-controlling interests	2,733,396	-
Decrease in parent's equity	2,733,396	-

The effect of changes in the interest on the equity attributable to owners of the Company for the year is summarised as follows:

	2016 Baht	2015 Baht
<ul> <li>Changes in equity attributable to shareholders of the company arising from:</li> <li>Acquisition of additional interests in a subsidiary</li> <li>Decrease interest in a subsidiary</li> </ul>	- (2,733,396)	(418,327,987)
Net effect on parent's equity	(2,733,396)	(418,327,987)

### 14 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 Power Holding	Holding Pte.	Toyo Thai- Power Myanmar	wer Myanmar						
	Bio Natural Energy Co., Ltd.	nergy Co., Ltd.	ī	Ltd	Corporation Co., Ltd	n Co., Ltd.	TTCL Coal Po	TCL Coal Power Pte. Ltd.	Global New Energy Co., Ltd.	ergy Co., Ltd.	Total	al
	As at 31 December	Jecember	As at 31 December	December	As at 31 December	December	As at 31 December	ecember	As at 31 December	ecember	As at 31 December	ecember
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht
<b>Current</b> Assets Liabilities	19,068,474 (210,254)	16,772,441 (3,137,898)	365,641,877 (80,498,278)	157,714,875 (3,866,902)	835,641,940 (953,210,169)	623,241,949 (965,240,633)	468,220,725 (295,003,855)	403,444,192 (228,679,813)	410,825,623 (352,903,739)	451,105,812 (389,804,344)	2,099,398,639 (1,681,826,295)	1,652,279,269 (1,590,729,590)
Total current net assets	18,858,220	13,634,543	18,858,220 13,634,543 285,143,599	153,847,973	(117,568,229)	(341,998,684)	173,216,870	174,764,379	57,921,884	61,301,468	417,572,344	61,549,679
<b>Non-current</b> Assets Liabilities	135,854,222 (270,081,901)	145,175,292 (263,139,033)	135,854,222 145,175,292 2,101,730,278 2,276,617,379 270,081,901) (263,139,033)	2,276,617,379 (86,865)	5,994,559,470 (2,994,622,410)	6,221,172,399 (3,246,651,465)			11,865,514 -	13,297,284	8,244,009,484 (3,264,704,311)	8,656,262,354 (3,509,877,363)
Total non- current net assets	(134,227,679)	(117,963,741)	(134,227,679) <u>(117,963,741)</u> 2,101,730,278 <u>2,276,530,514</u>	2,276,530,514	2,999,937,060	2,999,937,060 2,974,520,934	'	'	11,865,514	13,297,284	4,979,305,173	5,146,384,991
Net assets	(115,369,459)	(104,329,198)	(115,369,459) (104,329,198) 2,386,873,877 2,430,378,487	2,430,378,487	2,882,368,831	2,632,522,250	173,216,870	174,764,379	69,787,398	74,598,752	5,396,877,517	5,207,934,670

Investment in subsidiaries, net (Cont'd) 14

## Summarised statement of comprehensive income

					Toyo Thai -Power	i -Power						
	Bio Natural Lt	Bio Natural Energy Co., Ltd.	TTCL Power Lt	TTCL Power Holding Pte. Ltd.	Myanmar Corporation Co., Ltd.	poration Co., d.	TTCL Coal Power Pte. Ltd.	ower Pte.	Global New Energy Co., Ltd.	w Energy Ltd.	Total	al
	For the y 31 Dec	For the year ended 31 December	For the ye 31 Dec	year ended Jecember	For the year ended 31 December	ar ended ember	For the year ended 31 December	r ended nber	For the year ended 31 December	ear ended ember	For the year ended 31 December	ar ended ember
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Revenue Other income Profit (loss) before income tax Income tax (expense) income	- 1,114,977 (11,040,261) -	- 1,114,977 1,116,804 1,828,527 (11,040,261) (58,195,428) (25,715,512) -	- 1,828,527 (25,715,512) -	- 3,681,470 (20,582,850) -	635,449,048 222,165,130 311,039,922 (47,879,221)	758,182,995 167,206,931 399,000,817 16,293,801	- 8,976 (293,892) -	- 24,894 (701,252) -	- 594,142 (4,811,354)	2,502,402,816 1,170,611 41,692,359 (3,891,343)	635,449,048 225,711,752 269,178,903 (47,879,221)	3,260,585,811 173,200,710 361,213,646 12,402,458
Post-tax profit (loss) from continuing operations Post-tax profit (loss) from discontinued operations Other comprehensive income	· · ·	(11,040,261) (58,195,428) (25,715,51) - -	(25,715,512) -	(20,582,850) -	263,160,701 -	415,294,618 -	(293,892) -	(701,252) -	(4,811,354) -	37,801,016 -	221,299,682 -	373,616,104 -
Total comprehensive income (expense)	(11,040,261)	(11,040,261) (58,195,428) (25,715,512)	(25,715,512)	(20,582,850)	263,160,701	415,294,618	(293,892)	(701,252)	(4,811,354)	37,801,016	221,299,682	373,616,104
Total comprehensive income (expense) allocated to non-controlling interests	(3,312,078)	(3,312,078) (17,458,628) (7,771,228)	(7,771,228)	(8,421,668)	75,553,437	159,662,821	(88,814)	(289,101)	(2,886,812)	22,680,610	61,494,504	156,174,034
Dividends paid to non-controlling interests												



	Bio Natural Energy Co., Ltd	ergy Co.,	TTCL Power Holding Pte. Ltd.	r Holding Pte. .td.	Toyo Thai- Power Myanma Corporation Co., Ltd.	wer Myanmar n Co., Ltd.	TTCL Coal Power Pte. Ltd.	wer Pte. Ltd.	Global New Energy Co., Ltd.	w Energy Ltd.	Total	al
	For the year ended 31 December	ended ber	For the year ended 31 December	ar ended ember	For the year ended 31 December	ear ended ember	For the year ended 31 December	ar ended ember	For the year ended 31 December	ar ended ember	For the year ended 31 December	ar ended ember
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Cash flow from operating activities												
Cash generated from operations Interest paid	(3,544,107) -	268,375 -	268,375 (33,585,136) - (6.364)	4,595,002 -	568,075,097 (166_746_291)	(155,203,820) (171_761_041)	(5,728,181) -	(5,728,181) (80,306,544) 	4,533,763 -	(294,892,216) (26.054)	529,751,436 (166,752,655)	(525,539,203) (171,787,095)
Income tax paid			(163,329)	(125,650)	(1,402,752)	(5,376,989)			(2,003,826)	(1,878,746)	(3,569,907)	(7,381,385)
Net cash generated from (used in) operating activities Net cash generated from	(3,544,107)	268,375	268,375 (33,754,829)	4,469,352	399,926,054	399,926,054 (332,341,850)	(5,728,181) (80,306,544)	(80,306,544)	2,529,937	(296,797,016)	389,428,874 (704,707,682)	(704,707,682)
(used in) investing activities	(2,864)	1,201	1,201 (33,896,653)	(41,944,998)	139,661,560	142,363,346	8,976	24,894	2,204,766	9,957,362	107,975,785	110,401,805
used in) financing activities	5,500,000	•	76,974,216	(56,154)	(299,190,080)	•	•		•	•	(216,715,864)	(56,154)
Net (decrease)/increase in cash and cash equivalents Cash, cash equivalents and	1,953,029	269,576	9,322,734	(37,531,800)	240,397,534	(189,978,504)	(5,719,205)	(80,281,650)	4,734,703	(286,839,654)	250,688,795	(594,362,032)
bank overdrafts at beginning of year	343,103	73,527	4,930,727	42,249,540	199,358,479	48,265,360	20,893,517	100,072,248	230,977,821	446,895,651	456,503,647	637,556,326
cash and cash equivalents	   	'	110,385	212,987	6,405,460	341,071,623	192,666	1,102,919	(22,146,917)	70,921,824	(15,438,406)	413,309,353
Cash and cash equivalents at end of year	2,296,132	343,103	14,363,846	4,930,727	446,161,473	199,358,479	15,366,978	20,893,517	213,565,607	230,977,821	691,754,036	456,503,647

The information above is the amount before inter-company eliminations.

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TTCL Public Company Limited Notes to the Consolidated and Separate Financial Statements For the year ended 31 December 2016

Investment in subsidiaries, net (Cont'd)

4

Summarised statement of cash flows



### 15 Investment in associates, net

As at 31 December 2016, the Group has 2 investments in 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 4,000,000 registered ordinary shares which has paid-up capital 3,000,000 ordinary shares with a par value of Baht 100 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 1,200,000 ordinary shares amounting to Baht 222.14 million, and fully paid-up capital.

### ToyoThai-USA Corporation

The Company changed its investment in a subsidiary to an investment in an associate (Note 14). On 1 April 2016, ToyoThai-USA Corporation (TTUS) increased its registered capital from USD 50,000 to USD 200,000. The Company did not increase its registered capital in TTUS thus decreasing the Company's holding in TTUS from 80% to 20%. And, on 25 May 2016, TTUS increased its registered capital from USD 200,000 to USD 1,000,000, thereby decreasing the Company's holding in TTUS from 20% to 4%. However, the Company determined that it has significant influence in TTUS and TTUS is therefore presented as an investment in an associate.

The movements in investment in an associates can be analysed as follows:

	Consolidated financial statements	Separate financial statements
For the year ended 31 December 2016	Baht	Baht
Opening book value	189,251,036	-
Increase investment in associate	20,000,000	-
Increase due to changing from subsidiary to associate (Note 14)	1,233,200	1,233,200
Share of profit of associates	15,254,422	-
Share of other comprehensive loss of associates	(443,541)	-
Currency translation differences	(1,295,902)	-
Closing book value	223,999,215	1,233,200

### Increase in share capital in Siam Solar Power Public Company Limited

The Board of Directors' meeting of TTCL Solar Power Pte. Ltd. (TTSP), the subsidiary of TTCL Power Holdings Pte. Ltd. (TTPHD), granted approval to increase the authorised share capital in Siam Solar Power Public Company Limited to 200,000 common shares at a par value of 100 Baht per share, totalling Baht 20 million in proportion of 40% holding. The Company has fully paid-up these shares in February 2016.

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 2016. And the share of the associate's loss is calculated on the Company's 20% interest during 1 April to 24 May 2016 and 4% interest during 25 May to 31 December 2016; this was based on TTUS's unaudited financial statements.

### **15** Investment in associates, net (Cont'd)

Set out below are the associates of the group as at 31 December 2016, which, in the opinion of the directors, are material to the group. The associates 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 associates for the year 2016 and 2015:

	Place of business/	% of owners	ship interest	
Name of entity	country of incorporation	2016 %	<b>2015</b> %	Nature of the relationship
Siam Solar Power - Public Company Limited ToyoThai - USA	Thailand	40	40	Note 1
Corporation	USA	4	80	Note 2

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 private company and there is no quoted market price available for its shares. There are no contingent liabilities relating to the group's interest in the associates.

Note 2: ToyoThai - USA Corporation (TTUS) engaged in construction business and engineering services. TTUS is strategic partnership for the group in construction business and engineering services.

### Summarised financial information for associates

Set out below are the summarised financial information for Siam Solar Power Public Company Limited which are accounted for using the equity method.



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### TTCL Public Company Limited Notes to the Consolidated and Separate Financial Statements For the year ended 31 December 2016

### 15 Investment in associates, net (Cont'd)

### Summarised statement of financial position

	Siam Solar P Company	
	As at 31 D	ecember
	2016 Baht	2015 Baht
<b>Current assets</b> Cash and cash equivalents Other current assets (excluding cash)	33,935,215 30,256,672	724,587 34,203,200
Total current assets	64,191,887	34,927,787
Non-current assets	646,471,075	699,175,487
	710,662,962	734,103,274
<b>Current liabilities</b> Financial liabilities (excluding trade payables) Other current liabilities (including trade payables)	(106,830,000) (11,078,117)	(101,267,369) (30,039,588)
Total current liabilities	(117,908,117)	(131,306,957)
<b>Non-current liabilities</b> Financial liabilities Other liabilities	(98,450,000) (8,038,465)	(196,970,000) (2,858,636)
Total non-current liabilities	(106,488,465)	(199,828,636)
	(224,396,582)	(331,135,593)
Net assets	486,266,380	402,967,681

### Summarised statement of comprehensive income

	Siam Solar Po Company	
	For the year 31 Dece	
	2016 Baht	2015 Baht
Revenue Depreciation and amortisation Interest expense	167,086,978 (62,749,241) (13,036,111)	179,263,445 (59,729,491) (18,072,581)
Profit from continuing operations Income tax expense	34,374,526 	56,407,440 230,550
Post-tax profit from continuing operations Post-tax profit from discontinued operations Other comprehensive income (expense)	34,606,253 (1,108,852)	56,466,225 - 47,042
Total comprehensive income (expense)	33,497,401	56,454,482
Dividends received from associate		-

The information above reflects the amounts presented in the financial statements of the associates (and not the Group's share of those amounts) adjusted for differences in accounting policies between the group and the associates.



### 15 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 2016

	Siam Solar Power Public Company Limited
	Baht
<b>Opening net assets 1 January 2016</b> Increase capital Profit for the period Currency translation differences	473,127,589 50,000,000 40,110,203 (3,239,754)
Closing net assets Interest in associates	559,998,038 40%
Total carrying value as at 31 December 2016	223,999,215
As at 31 December 2015	Siam Solar Power Public Company Limited
	Baht
<b>Opening net assets 1 January 2015</b> Profit for the period	338,730,272 56,454,455
Closing net assets Interest in associates	395,184,727 25%
Carrying value 31 December 2015	98,796,182
	Siam Solar Power Public Company Limited
	Baht
<b>Opening net assets 1 January 2015</b> Profit for the period	480,376,160 75,498,067

Profit for the period Currency translation differences

### Closing net assets Interest in associates

Carrying value 31 December 2015

	Siam Solar Power Public Company Limited
	Baht
<b>Opening net assets 1 January 2015</b> Profit for the period Currency translation differences	502,010,680 75,498,068 33,156,982
Closing net assets Interest in associates	610,665,730 10%
Carrying value 31 December 2015	61,066,573
Total carrying value as of 31 December 2015	189,251,036

31,891,392

587,765,619

29,388,281

5%



### **15** Investment in associates, net (Cont'd)

### Individual immaterial associates

In additional to the interest in associates disclosed above, the group also has interests in a number of individually immaterial associates that are accounted for using the equity method.

	2016 Baht	2015 Baht
Aggregate carrying account of individually immaterial associates	<u> </u>	-
Aggregate amounts of reporting entity's share of Loss from continuing activities Post-tax gain (loss) from discontinued activity Other comprehensive income	(69,893,684) 	- - -
Total comprehensive income	(69,893,684)	-

### 16 Interest in joint venture

As at 31 December 2016, 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 8.83 million and Baht 0.32 million, respectively and fully paid-up capital.

### b) Orient Bio-Fuels Company Limited

As at 31 December 2016, 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 4.10 million or equivalent to Baht 135.57 million and has an outstanding commitment in respect of the unpaid capital of USD 1.03 million or equivalent to Baht 37.02 million.

The movements in interest in joint venture can be analysed as follow:

	Consolidated financial statement
For the year ended 31 December 2016	Baht
Opening book value - as previously reported	11,052,259
Decrease in interest in joint venture	(500,000)
Share of profit from joint venture	805,039
Currency translation difference	320,441
Closing book value	11,677,739

### Decrease in interest in joint venture

On 19 August 2015, the Board of Directors' meeting of TTCL Solar Power Pte. Ltd. (TTSP) granted the approval to invest in 40% of the registered capital of Highgrade Energy Company Limited (HGE), located in Thailand, to invest in renewable energy business with a total of 50,000 registered ordinary shares at a par value of Baht 100 per share. During 2015, HGE called 25% of the portion of TTSP holding amounting to Baht 500,000 and TTSP has not paid for such amount.

On 1 June 2016, The Board of Directors' meeting of TTSP entered into a Termination of Shareholder's Agreement between TTSP and another joint ventures with HGE as HGE did not win the project. As at 31 December 2016, HGE registered to dissolve the Company and in the liquidated.



### **16** Interest in joint venture (Cont'd)

### b) Orient Bio-Fuels Company Limited (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 2016 but was not reviewed 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 2016.

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 2016 and 2015

	Place of	% of owners interest	hip	
Name of entities	Business/country of incorporation	2016 %	2015 %	Nature of the relationship
Siam GNE Solar Energy Co., Ltd.	Thailand	50	50	Note 1
Orient Bio-Fuels Company Limited Highgrade Energy Company Limited	Vietnam Thailand	49 -	49 40	Note 2 Note 3

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.

Note 3: Highgrade Energy Company Limited is located in Thailand, to invest in renewable energy business. Highgrade Energy 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 financia	al statements
	2016 Baht	2015 Baht
Capital commitment of the undue portion of investment	37,015,299	37,452,387

Summarised financial information for joint ventures

Set out below are the summarised financial information which are accounted for using the equity method.



### 16 Interest in joint venture (Cont'd)

### b) Orient Bio-Fuels Company Limited (Cont'd)

Summarised statement of financial position

	Orient B Company	Limited
	As at 31 D	
	2016 Baht	2015 Baht
Current assets		
Cash and cash equivalents	13,684,206	18,518,037
Other current assets(excluding cash)	14,571,257	16,722,208
Total current assets	28,255,463	35,240,245
Non-current assets	2,014,707,815	2,253,567,375
	2,042,963,278	2,288,807,620
Current liabilities		
Financial liabilities (excluding trade payables)	-	-
Other current liabilities (including trade payables)	(111,369,977)	(108,827,124)
Total current liabilities	(111,369,977)	(108,827,124)
Non-current liabilities		
Financial liabilities	(2,240,414,891)	(2,321,507,885)
Other liabilities		
Total non-current liabilities	(2,240,414,891)	(2,321,507,885)
	(2,351,784,868)	(2,430,335,009)
Net assets	(308,821,590)	(141,527,389)

### Summarised statement of comprehensive income

Summarised statement or comprehensive income	Orient Bic Company For the yea 31 Dece	Limited r ended
	2016 Baht	2015 Baht
Revenue Depreciation and amortisation Interest income Interest expense	1,045,018 (137,446,742) 8,876,007 (170,222,320)	2,400,972 (137,446,120) 3,938,523 (195,059,469)
Loss from continuing operations Income tax expense	(311,547,974)	(360,078,373)
Post-tax loss from continuing operations Post-tax loss from discontinued operations Other comprehensive income	(311,547,974) - -	(360,078,373) - -
Total comprehensive income	(311,547,974)	(360,078,373)
Dividends received from joint ventures	<u> </u>	-

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).



### **16** Interest in joint venture (Cont'd)

### b) Orient Bio-Fuels Company Limited (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 Company I	
	For the period ende	d 31 December
	2016 Baht	2015 Baht
Net assets as at 1 January Opening net assets Loss for the year	- 	8,206,526 (8,206,526)
Closing net assets Interest in joint venture	- 49%	- 49%_
Carrying value	<u> </u>	

### 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.

	2016 Baht	2015 Baht
Aggregate carrying amount of individually immaterial joint ventures	11,677,738	11,052,260
Aggregate amounts of the reporting entity's share of: Profit from continuing activities Other comprehensive income	1,598,975	2,316,451
Total comprehensive income	1,598,975	2,316,451

### 17 General investment

As at 31 December 2016, the Group has 1 general investment 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.



### 17 General investment (Cont'd)

### The movements in general investment can be analysed as follows:

	Consolidated and Separate financial statements
For the year ended 31 December 2016	Baht
Beginning balance	757,159,890
Disposal in general investment	(35,833,200)
Gain on exchange rate	5,053,210
Ending balance	726,379,900

### Disposal of investment in general investment

On 27 December 2016, the company entered into a sales agreement to sell preferred shares in Skyonic Corporation to International Energy Holding Inc. (IEH). The agreement was for 610,948 shares at USD 1.6368 per share, a total of USD 1,000,000 which is equivalent to Baht 35.83 million. The company received the full total on 16 January 2017.

œ	Property, plant and equipment, net					Ö	Consolidated financial statements	tial 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
	At 1 January 2015 Cost Less Accumulated depreciation	17,808,673		160,421,250 (88,847,315)	36,887,862 (23,838,953)	185,247,110 (13,679,485)	14,318,770	414,683,665 (126,365,753)
	Net book amount	17,808,673		71,573,935	13,048,909	171,567,625	14,318,770	288,317,912
	For the year ended 31 December 2015 Opening net book amount Additions Disposals, net Write-off, net Depreciation charge	17,808,673 6,067,026 - - (128,821)	4,735,255 - - (221,110)	71,573,935 17,797,561 (63,485) (10) (25,534,817)	13,048,909 21,443,872 (421,650) (171,668) (7,205,183)	171,567,625 - - (10,100,733)	14,318,770 47,696,314 - (44,630)	288,317,912 97,740,028 (485,135) (216,308) (43,190,664)
	Currency translation differences Allowance for impairment	1,042,052 -	, <b>I</b> I	555,682	612,297 -	(36,732,393)	1,351,505 -	3,561,536 (36,732,393)
	Closing net book amount	24,788,930	4,514,145	64,328,866	27,306,577	124,734,499	63,321,959	308,994,976
	At 31 December 2015 Cost Less Accumulated depreciation Less Allowance for impairment	24,917,751 (128,821) -	4,735,255 (221,110) -	178,970,333 (114,641,467) -	57,285,320 (29,978,743) -	185,247,110 (23,780,218) (36,732,393)	63,367,720 (45,761) -	514,523,489 (168,796,120) (36,732,393)
	Net book amount	24,788,930	4,514,145	64,328,866	27,306,577	124,734,499	63,321,959	308,994,976

TTCL Public Company Limited	Notes to the Consolidated and Separate Financial Statements	For the year ended 31 December 2016	
TTCL Pul	Notes to	For the y	

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TTCL Public Company Limited



### Property, plant and equipment, net (Cont'd) 18

	Land		Furniture,			Assets	
	and land improvement	Building	fixtures and equipment	Motor vehicles	Power plant	under installation	Total
	Baht	Baht	Baht	Baht	Baht	Baht	Baht
For the year ended 31 December 2016							
Opening net book amount Additions	24,788,930 -	4,514,145 -	64,328,866 10.477_738	27,306,577 5,974,102	124,734,499 -	63,321,959 60,853,229	308,994,976 77,305,069
Transfer out due to changing from							
subsidiary to associate		•	(49,621)	•		•	(49,621)
Disposals, net		•	(15,588)	(9)		•	(15,594)
Write-off, net			(7,368)		I		(7,368)
Depreciation charge	(217,273)	(165,155)	(27,152,519)	(8,926,286)	(7,660,594)	•	(44,121,827)
Currency translation differences	339,272	1	(67,279)	(151,201)	1	(5,710,941)	(5,590,149)
Closing net book amount	24,910,929	4,348,990	47,514,229	24,203,186	117,073,905	118,464,247	336,515,486
At 31 December 2016							
Cost	25,257,023	4,735,255	188,856,551	58,865,860	185,247,110	118,464,247	581,426,046
Less Accumulated depreciation	(346,094)	(386,265)	(141,342,322)	(34,662,674)	(31,440,812)		(208,178,167)
Less Allowance for impairment	•	1	•	•	(36,732,393)	•	(36,732,393)
Net book amount	24,910,929	4,348,990	47,514,229	24,203,186	117,073,905	118,464,247	336,515,486

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 3.40% per annum. As at 31 December 2010, the Group had allowance for impairment of the power plant 1.2 MWY located at Ayutthaya province amounting to Bant 36.73 million due to the power plant power plant generation plant generation plant using as fuel to operate the power plant, and the ethanol plant generation plant using as fuel to operate the power plant, and the ethanol plant generation plant using as fuel to operate the power plant, and the ethanol plant generation plant using as fuel to operate the power plant.



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### 18 Property, plant and equipment, net (Cont'd)

			Separate fina	ncial statement
	Land Baht	Furniture, fixtures and equipment Baht	Motor vehicles Baht	Total Baht
At 1 January 2015 Cost Less Accumulated depreciation	6,750,000	140,934,310 (79,953,702)	31,098,025 (21,114,249)	178,782,335 (101,067,951)
Net book amount	6,750,000	60,980,608	9,983,776	77,714,384
For the year ended 31 December 2015 Opening net book amount Additions Write-off, net Disposals, net Depreciation charge Currency translation differences	6,750,000 - - - -	60,980,608 15,301,000 (10) (63,485) (20,664,694) 12,503	9,983,776 16,338,102 (421,650) (5,908,763) 555,140	77,714,384 31,639,102 (10) (485,135) (26,573,457) 567,643
Closing net book amount	6,750,000	55,565,922	20,546,605	82,862,527
At 31 December 2015 Cost Less Accumulated depreciation	6,750,000	155,990,813 (100,424,891)	47,334,820 (26,788,215)	210,075,633 (127,213,106)
Net book amount	6,750,000	55,565,922	20,546,605	82,862,527
For the year ended 31 December 2016 Opening net book amount Additions Write-off, net Disposals, net Depreciation charge Currency translation differences	6,750,000 - - - -	55,565,922 8,613,525 (7,368) (15,588) (22,776,042) (1,422)	20,546,605 4,413,078 (6) (6,906,299) (112,195)	82,862,527 13,026,603 (7,368) (15,594) (29,682,341) (113,617)
Closing net book amount	6,750,000	41,379,027	17,941,183	66,070,210
At 31 December 2016 Cost Less Accumulated depreciation	6,750,000 -	164,167,632 (122,788,605)	47,376,239 (29,435,056)	218,293,871 (152,223,661)
Net book amount	6,750,000	41,379,027	17,941,183	66,070,210



### 19 Intangible assets, net

	Consolidated financial statements		
	Computer software Baht	Golf membership Baht	Total Baht
At 1 January 2015			
Cost	45,637,481	4,119,865	49,757,346
Less Accumulated amortisation	(23,780,440)	(1,776,948)	(25,557,388)
Net book amount	21,857,041	2,342,917	24,199,958
For the year ended 31 December 2015			
Opening net book amount	21,857,041	2,342,917	24,199,958
Additions	11,355,839	-	11,355,839
Amortisation charge	(5,409,960)	(333,786)	(5,743,746)
Currency translation differences	77,837		77,837
Closing net book amount	27,880,757	2,009,131	29,889,888
At 31 December 2015			
Cost	57,105,737	4,119,865	61,225,602
Less Accumulated amortisation	(29,224,980)	(2,110,734)	(31,335,714)
Net book amount	27,880,757	2,009,131	29,889,888
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	34,047,448	1,675,345	35,722,793
At 31 December 2016			
Cost	68,195,170	4,119,865	72,315,035
Less Accumulated amortisation	(34,147,722)	(2,444,520)	(36,592,242)
Net book amount	34,047,448	1,675,345	35,722,793

Computer software Baht         Golf membership Baht         Total Baht           At 1 January 2015 Cost         43,977,744         4,119,865         48,097,609           Less         Accumulated amortisation         (23,108,913)         (1,776,947)         (24,885,860)           Net book amount         20,868,831         2,342,918         23,211,749           For the year ended 31 December 2015 Opening net book amount         20,868,831         2,342,918         23,211,749           Additions         9,797,832         -         9,797,832         -         9,797,832           Amortisation charge         (4,331,170)         (333,786)         (4,664,956)         (4,664,956)           Closing net book amount         26,335,493         2,009,132         28,344,625           At 31 December 2015 Cost         53,775,576         4,119,866         57,895,442           Less         Accumulated amortisation         (27,440,083)         (2,110,734)         (29,550,817)           Net book amount         26,335,493         2,009,132         28,344,625           For the year ended 31 December 2016 Opening net book amount         26,335,493         2,009,132         28,344,625           Additions         7,822,290         -         7,822,290         -         7,822,290           <	19	Intangible assets, net (Cont'd)	:	Separate financ	ial statements
Baht         Baht         Baht         Baht           At 1 January 2015         Cost         43,977,744         4,119,865         48,097,609           Less         Accumulated amortisation         (23,108,913)         (1,776,947)         (24,885,860)           Net book amount         20,868,831         2,342,918         23,211,749           For the year ended 31 December 2015         0         9,797,832         -         9,797,832           Amortisation charge         (4,331,170)         (333,786)         (4,664,956)           Closing net book amount         26,335,493         2,009,132         28,344,625           At 31 December 2015         Cost         53,775,576         4,119,866         57,895,442           Less         Accumulated amortisation         (27,440,083)         (2,110,734)         (29,550,817)           Net book amount         26,335,493         2,009,132         28,344,625           Gottions         7,822,290         -         7,822,290           Write-off, net         (11)         -         (11)           Amortisation charge         (5,136,432)         (333,787)         (5,470,219)           Closing net book amount         29,021,340         1,675,345         30,696,685           At 31 December 201					
At 1 January 2015       43,977,744       4,119,865       48,097,609         Cost       43,977,744       4,119,865       48,097,609         Less       Accumulated amortisation       (23,108,913)       (1,776,947)       (24,885,860)         Net book amount       20,868,831       2,342,918       23,211,749         For the year ended 31 December 2015       20,868,831       2,342,918       23,211,749         Additions       9,797,832       -       9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       20,99,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)       -       (11)       -<			software	membership	Total
Cost       43,977,744       4,119,865       48,097,609         Less       Accumulated amortisation       (23,108,913)       (1,776,947)       (24,885,860)         Net book amount       20,868,831       2,342,918       23,211,749         For the year ended 31 December 2015       0       9,797,832       9,797,832         Additions       9,797,832       9,797,832       9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       0       0       7,822,290       7,822,290         Write-off, net       (11)       (11)       (11)       (11)         Additions       7,822,290       7,822,290       7,822,290         Write-off, net       (11)       (11)       (11)       (11)         Closing net book amount       29,021,340       1,675,345       30,696,685			Baht	Baht	Baht
Cost       43,977,744       4,119,865       48,097,609         Less       Accumulated amortisation       (23,108,913)       (1,776,947)       (24,885,860)         Net book amount       20,868,831       2,342,918       23,211,749         For the year ended 31 December 2015       0       9,797,832       9,797,832         Additions       9,797,832       9,797,832       9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       0       0       7,822,290       7,822,290         Write-off, net       (11)       (11)       (11)       (11)         Additions       7,822,290       7,822,290       7,822,290         Write-off, net       (11)       (11)       (11)       (11)         Closing net book amount       29,021,340       1,675,345       30,696,685		At 1 January 2015			
Less       Accumulated amortisation       (23,108,913)       (1,776,947)       (24,885,860)         Net book amount       20,868,831       2,342,918       23,211,749         For the year ended 31 December 2015       20,868,831       2,342,918       23,211,749         Additions       9,797,832       - 9,797,832       - 9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       (21,10,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       (11)       - 7,822,290       - 7,822,290         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       - 7,822,290       - 7,822,290         Write-off, net       (11)       - (11)       - (11)       - (11) <td></td> <td>•</td> <td>43.977.744</td> <td>4.119.865</td> <td>48.097.609</td>		•	43.977.744	4.119.865	48.097.609
For the year ended 31 December 2015Opening net book amount $20,868,831$ $2,342,918$ $23,211,749$ Additions $9,797,832$ $ 9,797,832$ Amortisation charge $(4,331,170)$ $(333,786)$ $(4,664,956)$ Closing net book amount $26,335,493$ $2,009,132$ $28,344,625$ At 31 December 2015Cost $53,775,576$ $4,119,866$ $57,895,442$ LessAccumulated amortisation $(27,440,083)$ $(2,110,734)$ $(29,550,817)$ Net book amount $26,335,493$ $2,009,132$ $28,344,625$ For the year ended 31 December 2016 $0$ $26,335,493$ $2,009,132$ $28,344,625$ Additions $7,822,290$ $ 7,822,290$ $ 7,822,290$ Write-off, net $(11)$ $ (11)$ $ (11)$ Amortisation charge $(5,136,432)$ $(333,787)$ $(5,470,219)$ Closing net book amount $29,021,340$ $1,675,345$ $30,696,685$ At 31 December 2016 $59,930,367$ $4,119,866$ $64,050,233$ LessAccumulated amortisation $(30,909,027)$ $(2,444,521)$ $(33,353,548)$		Less Accumulated amortisation	(23,108,913)	(1,776,947)	(24,885,860)
Opening net book amount       20,868,831       2,342,918       23,211,749         Additions       9,797,832       9,797,832       9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Cost       59,930,367       4,119,866       64,050,233         Less Accumulated amortisation       (30,909,027)       (		Net book amount	20,868,831	2,342,918	23,211,749
Opening net book amount       20,868,831       2,342,918       23,211,749         Additions       9,797,832       9,797,832       9,797,832         Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Cost       59,930,367       4,119,866       64,050,233         Less Accumulated amortisation       (30,909,027)       (		For the year ended 31 December 2015			
Amortisation charge       (4,331,170)       (333,786)       (4,664,956)         Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Virite-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)			20,868,831	2,342,918	23,211,749
Closing net book amount       26,335,493       2,009,132       28,344,625         At 31 December 2015       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Virite-off, net       (11)       -       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Cost       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Additions	9,797,832	-	9,797,832
At 31 December 2015         Cost       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       7,822,290       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Cost       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Amortisation charge	(4,331,170)	(333,786)	(4,664,956)
Cost       53,775,576       4,119,866       57,895,442         Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Cost       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Closing net book amount	26,335,493	2,009,132	28,344,625
Less       Accumulated amortisation       (27,440,083)       (2,110,734)       (29,550,817)         Net book amount       26,335,493       2,009,132       28,344,625         For the year ended 31 December 2016       26,335,493       2,009,132       28,344,625         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       7,822,290       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		At 31 December 2015			
Image: Additional additinterviewed additionadditerviewed additional additional additional		Cost	53,775,576	4,119,866	57,895,442
For the year ended 31 December 2016         Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Less Accumulated amortisation	(27,440,083)	(2,110,734)	(29,550,817)
Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Net book amount	26,335,493	2,009,132	28,344,625
Opening net book amount       26,335,493       2,009,132       28,344,625         Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		For the year ended 31 December 2016			
Additions       7,822,290       -       7,822,290         Write-off, net       (11)       -       (11)         Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)			26.335.493	2.009.132	28.344.625
Amortisation charge       (5,136,432)       (333,787)       (5,470,219)         Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)			, ,	-	
Closing net book amount       29,021,340       1,675,345       30,696,685         At 31 December 2016       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Write-off, net	(11)	-	(11)
At 31 December 2016         Cost       59,930,367       4,119,866       64,050,233         Less       Accumulated amortisation       (30,909,027)       (2,444,521)       (33,353,548)		Amortisation charge	(5,136,432)	(333,787)	(5,470,219)
Cost59,930,3674,119,86664,050,233LessAccumulated amortisation(30,909,027)(2,444,521)(33,353,548)		Closing net book amount	29,021,340	1,675,345	30,696,685
Cost59,930,3674,119,86664,050,233LessAccumulated amortisation(30,909,027)(2,444,521)(33,353,548)		At 31 December 2016			
Less Accumulated amortisation (30,909,027) (2,444,521) (33,353,548)			59,930,367	4,119,866	64,050,233
Net book amount 29,021,340 1,675,345 30,696,685		Less Accumulated amortisation			, ,
		Net book amount	29,021,340	1,675,345	30,696,685

### 20 Short term loan from financial institutions

	Consolidated financial statements		Separate financial statements	
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Short-term loans from financial institutions - Promissory note - Bill of exchanges	380,000,000 999,480,505	827,915,660 2,359,799,444	380,000,000 999,480,505	827,915,660 2,359,799,444
Total	1,379,480,505	3,187,715,104	1,379,480,505	3,187,715,104

As at 31 December 2016, the Company had short-term loans from local financial institutions in the form of a promissory note not over 6 month and bill of exchange not over 7 months for import machinery and equipment. These interest bear 2.41% - 2.45% and 2.70% - 2.80% per annum (As at 31 December 2015, short-term loans totaled 1.83% - 2.72% and 1.54% - 2.95% per annum).

### **Credit facilities**

As at 31 December 2016, the Group has unused credit facilities amounting of Baht 18,959 million which is the Company's credit facilities of Baht 17,247 million (2015: Baht 10,366.32 million which is the Company's credit facilities of Baht 8,593 million).



### 21 Long-term loan from financial institution, net

### 21.1 The long-term loan from financial institution is as follows

	Consolidated financial statements	
	2016 Baht	2015 Baht
Long-term loans in US Dollars Less Deferred financing fee, net	3,282,092,120 (6,888,900)	3,608,860,000 (30,503,733)
Total long-term loans from financial institution, net	3,275,203,220	3,578,356,267

### 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 3,296 million, 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 13).

### 21.2 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	
	2016 Baht	2015 Baht
Opening net book value Repayment long-term loan Amortisation of deferred financing fee Currency translation differences	3,578,356,267 (299,190,080) 23,062,582 (27,025,549)	3,255,050,429 - 13,861,989 309,443,849
Closing net book value	3,275,203,220	3,578,356,267

### 21.3 Maturity of long-term loan is as follows:

	Consolidated financial statements	
	2016 2016 2016 2016	
Within 1 year Later than 1 year and not later than 5 years Later than 5 years		398,611,654 1,599,595,069 1,580,149,544
Total long-term loan, net	3,275,203,220	3,578,356,267

As at 31 December 2016, 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 35.

As at 31 December 2016 the company effective interest rates of long term borrowing were 5.00% per annum (31 December 2015: 4.70% per annum).

### 22 Debentures, net

The debentures are Thai Baht debenture as follows:

	Consolidated and separate financial statements		
As at 31 December	2016 Baht	2015 Baht	
<b>Debentures</b> Unsubordinated and unsecured debentures <u>Less</u> Deferred financing fee amortised	4,000,000,000 (6,580,239)	2,925,000,000 (6,702,676)	
Unsubordinated and unsecured debentures, net	3,993,419,761	2,918,297,324	

The movements in debenture can be analysed as follows:

	Consolidated and separate financial statements	
For the year ended 31 December	2016 Baht	2015 Baht
Opening net book value Issuing of debentures Financing fee for issuing debentures Amortisation of deferred financing fee	2,918,297,324 1,075,000,000 (3,516,875) 3,639,312	997,387,838 1,925,000,000 (6,237,266) 2,146,752
Closing net book value	3,993,419,761	2,918,297,324

During 28 April - 2 May 2014, the Company issue such unsubordinated and unsecured with a debenture holders' representative in the name-registered certificate debentures of Baht 1,000 million for 1,000,000 shares at par value of Baht 1,000 per share at selling price Baht 1,000 per share for 3 years at fixed interest rate 4.65% per annum with quarterly interest payment and due in 2017.

During 11-14 May 2015, the Company issued such unsubordinated and unsecured debentures of Baht 2,000 million for 2,000,000 shares at par value of Baht 1,000 per share at selling price Baht 1,000 per share for 3 and 5 years at fixed interest rate 3.90% - 4.55% per annum with quarterly interest payment. The maturity of debentures Baht 1,425 million will be due in 2018 and Baht 500 million due in 2020.

On 15 January 2016, the Company issued such unsubordinated and unsecured debentures of Baht 1,075 million for 1,075,000 shares at par value of Baht 1,000 per share, term of debentures 5 years, maturity in 2021, fixed interest rate 4.40% per annum with quarterly interest payment.

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 2016, the Company had debentures which are unsubordinated and unsecured debentures, totalling Baht 6,000 million (31 December 2015: Baht 4,000 million) which the Company issued debentures of Baht 4,000 million (31 December 2015; issued Baht 2,925 million). The term of the debentures is 3-5 years maturity and the fixed interest rate 3.90% - 4.65% per annum with quarterly interest payment.



#### 22 Debentures, net (Cont'd)

As at 31 December 2016, the fair value of debentures has been disclosed in note 34.

The maturities of debentures are as follows:

	Consolidated and separate	e financial statements
As at 31 December	2016	2015
	Baht	Baht
<ul> <li>Within 1 year</li> <li>Unsubordinated and unsecured debenture</li> <li>Later than 1 year and not later than 5 years</li> </ul>	999,617,976	-
Unsubordinated and unsecured debentures	2,993,801,785	2,918,297,324
Total unsubordinated and unsecured debentures	3,993,419,761	2,918,297,324

The Group and the Company have the following undrawn committed for debenture:

	Consolidated and separate financial statements		
	2016 Baht	2015 Baht	
Fixed rate - expiring within one year - expiring beyond one year	2,000,000,000	1,075,000,000	
	2,000,000,000	1,075,000,000	

The facilities expiring within one year have been arranged to help finance the proposed expansion of the Group and the Company activities.

As at 31 December 2016 the company effective interest rates of debenture were 3.997% - 4.764% per annum (31 December 2015: 3.997% - 4.764% per annum).

#### 23 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 2016, the group recorded government grants relating to assets of Baht 20 million and recognised revenue of Baht 1.12 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 2016, the government grants of Baht 145.45 million were included in non-current liabilities as deferred revenue (31 December 2015: Baht 146.57 million).

#### 24 Deferred tax assets, net

Corporate income tax for the years ended 31 December 2016 and 2015 are calculated based on the net profit (tax base) which excluded the interests in joint ventures. The rates are as follows:

	2016	2015
Thailand	20%	20%
Singapore	17%	17%
Philippines	30%	30%
Qatar	10%	10%
Japan	34%	25.5%
Vietnam	20%	22%
Malaysia	24%	25%
United State of America	34%	34%
Myanmar	25%	25%

Deferred tax assets and liabilities can be summarised as follows;

	f	Consolidated inancial statements	finan	Separate cial statements
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Deferred tax assets Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered	-	-	-	-
after 12 months	127,865,499	125,151,293	28,431,847	27,852,623
Total deferred tax assets	127,865,499	125,151,293	28,431,847	27,852,623
Deferred tax liabilities Deferred tax liabilities to be recovered within 12 months	(7,934,746)	(8,456,737)	(672,609)	(584,023)
Deferred tax liabilities to be recovered after 12 months	(113,888,125)	(81,364,631)	(24,866)	
Total deferred tax liabilities	(121,822,871)	(89,821,368)	(697,475)	(584,023)



#### 24 Deferred tax assets, net (Cont'd)

The movement in deferred tax assets and liabilities during the year are as follows:

	Consolidated financial statem		
	Employee benefit obligation Baht	Fixed assets Baht	Total Baht
Deferred tax assets			
At 1 January 2016	28,437,522	96,713,771	125,151,293
(Charged)/credited to profit or loss	3,937,329	2,597,002	6,534,331
(Charged)/credited to comprehensive income	(3,358,105)	-	(3,358,105)
Translation adjustment	-	705,484	705,484
Decreased from changing investment			
from subsidiary to associate	<u> </u>	(1,167,504)	(1,167,504)
At 31 December 2016	29,016,746	98,848,753	127,865,499
At 1 January 2015	22,486,856	83,880,554	106,367,410
(Charged)/credited to profit or loss	3,896,817	12,810,417	16,707,234
(Charged)/credited to comprehensive income	2,053,849		2,053,849
Translation adjustment		22,800	22,800
At 31 December 2015	28,437,522	96,713,771	125,151,293

	Consolidated financial statements		
		Construction	
	Fixed assets Baht	in progress Baht	Total Baht
Deferred tax liabilities			
At 1 January 2016	67,115,856	22,705,512	89,821,368
Charged/(credited) to profit or loss	24,867	(14,594,820)	(14,569,953)
Changing in accounting estimate	46,927,277	-	46,927,277
Translation adjustment	(355,821)	-	(355,821)
At 31 December 2016	113,712,179	8,110,692	121,822,871
Deferred tax liabilities			
At 1 January 2015	81,737,323	10,031,417	91,768,740
Charged/(credited) to profit or loss	(14,621,467)	(2,126,382)	(16,747,849)
Translation adjustment		14,800,477	14,800,477
At 31 December 2015	67,115,856	22,705,512	89,821,368

#### 24 Deferred tax assets, net (Cont'd)

The movement in deferred tax assets and liabilities during the year are as follows

	Separate financial statements		
	Employee benefit obligation Baht	Total Baht	
Deferred tax assets			
At 1 January 2016	27,852,623	27,852,623	
(Charged)/credited to profit or loss	3,937,329	3,937,329	
(Charged)/credited to comprehensive income	(3,358,105)	(3,358,105)	
At 31 December 2016	28,431,847	28,431,847	
At 1 January 2015	21,901,958	21,901,958	
(Charged)/credited to profit or loss	3,896,816	3,896,816	
(Charged)/credited to comprehensive income	2,053,849	2,053,849	
At 31 December 2015	27,852,623	27,852,623	

At 31 December 2015

#### Separate financial statements

	Loss on exchange rate Baht	Fixed asset Baht	Total Baht
<b>Deferred tax liabilities</b> At 1 January 2016 Charged/(credited) to profit or loss Translation adjustment	584,023 88,586 	- 24,866 -	584,023 113,452 -
At 31 December 2016	672,609	24,866	697,475
At 1 January 2015 Charged/(credited) to profit or loss Translation adjustment	32,322 - 551,701	- - -	32,322 - 551,701
At 31 December 2015	584,023	-	584,023



#### 25 Employee benefit obligations

	Consolidated financial statements		Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Statement of financial position Expenses of employee benefits for the year Remeasurement for:	145,063,111 24,366,764	142,085,589 20,359,327	142,159,234 24,227,644	139,263,117 20,195,482
Gain (loss) from retirement benefits	16,790,527	(10,269,247)	16,790,527	(10,269,247)

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	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
As at 1 January Current service cost Interest expense	142,085,589 18,260,255 6,106,509	112,168,415 14,880,922 5,478,405	139,263,117 18,121,135 6,106,509	109,509,788 14,717,077 5,478,405
	166,452,353	132,527,742	163,490,761	129,705,270
Remeasurements: Gain from change in demographic assumptions (Gain) loss from change in financial	(12,638,862)	(2,952,899)	(12,638,862)	(2,952,899)
assumptions	(4,151,665)	13,222,146	(4,151,665)	13,222,146
	149,661,826	142,796,989	146,700,234	139,974,517
Payment from plans: Benefit payment	(4,598,715)	(711,400)	(4,541,000)	(711,400)
As at 31 December	145,063,111	142,085,589	142,159,234	139,263,117

The principal actuarial assumptions used were as follows:

	2016	2015
Discount rate	3.55%	3.88%
Salary growth rate	6.41%	7.55%

#### Impact on defined benefit obligation

				mp		icht obligation
	Change in assumption Incre		Increase	in assumption	Decrease	in assumption
	2016	2015	2016	2015	2016	2015
Discount rate	0.5%	0.5%	Decrease by 5.83%	Decrease by 5.92%	Increase by 6.47%	Increase by 6.57%
Salary growth rate	0.5%	0.5%	Increase by 5.66%	Increase by 5.75%	Decrease by 5.15%	Decrease by 5.23%
Pension growth rate	0.5%	0.5%	Decrease by 6.20%	Decrease by 6.32%	Increase by 7.87%	Increase by 7.01%

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.

#### 25 Employee benefit obligations (Cont'd)

As at 31 December 2016 the weighted average duration of the defined 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 2016 Retirement benefit		35,069,219	20,721,727	132,413,488	188,204,434			
Total		35,069,219	20,721,727	132,413,488	188,204,434			
			Sep	oarate financia	al statements			
	Less than a	Between 1-2	Between 2-5	Over 5				
	year Baht	years Baht	years Baht	years Baht	Total Baht			
As at 31 December 2016 Retirement benefit		35,069,219	17,817,850	132,413,488	185,300,557			
Total	_	35,069,219	17.817.850	132,413,488	185,300,557			

#### 26 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 2015 Issued of shares	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747
At 31 December 2015 Issued of shares	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747
At 31 December 2016	560,000,000	560,000,000	560,000,000	2,905,496,747	3,465,496,747

As at 31 December 2016, the total authorised ordinary shares are 560 million shares at Baht 1 par value (2015: 560 million shares at Baht 1 par value).

#### 27 Legal reserve

	Consolida	ated financial statements	Separate financial statements		
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Beginning balance Appropriation during the year	56,000,000	56,000,000 -	56,000,000	56,000,000	
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.



#### 28 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%.

#### 29 Earnings per share

Basic earnings per share attributable to equity holders of the parent is calculated by dividing the net profit attributable to equity holders of the parent by the weighted average number of ordinary shares issued during the year.

	Consolid	ated financial statements	Separate financial statements		
	2016	2015	2016	2015	
Net profit attributable to equity holders of the parent (Baht) Weighted average number of	400,099,162	422,549,789	257,756,881	580,558,372	
ordinary shares in issue (Shares)	560,000,000	560,000,000	560,000,000	560,000,000	
Basic earnings per share (Baht)	0.71	0.75	0.46	1.04	

There are no dilutive potential ordinary shares issued in years presented above.

#### 30 Dividends

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.

At the Annual General Meeting of the Shareholders on 9 April 2015, the shareholders approved a dividend payment for 2014 at Baht 0.60 per share totalling Baht 336 million. The Company paid interim dividends in September 2014 at Baht 0.30 per share for 560 million shares, totalling Baht 168 million. The remaining dividends of Baht 0.30 per share for 560 million shares, totalling Baht 168 million, were paid to the shareholders on 8 May 2015.

At the Board of Directors' meeting held on 13 August 2015, the Board of Directors' meeting approved a interim dividend payment in respect of the half-year 2015 performance of 560 million shares at Baht 0.23 per share, totalling Baht 128.80 million. The company paid the interim dividend on 11 September 2015.

#### 31 Other income

	Consolid	ated financial statements	Separate financial statements		
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Interest income Gain (loss) from disposal equipment Gain from disposal investment in associate	179,276,183 1,507,494	174,098,495 (96,018)	66,320,040 1,507,494	46,688,810 - 92,669,892	
Compensation from insurance claim Other income	88,442,500 3,725,605	10,682,955	2,561,655	4,040,482	
Total	272,951,782	184,685,432	70,389,189	143,399,184	

#### 32 Income tax

	Consolid	ated financial statements	Separate financial statements		
	2016	2015	2016	2015	
	Baht	Baht	Baht	Baht	
Current tax	69,368,158	191,354,636	69,064,538	155,028,234	
Deferred tax (Note 23)	24,761,688	(33,455,083)	(3,823,877)	(4,448,517)	
Total tax expense	94,129,846	157,899,553	65,240,661	150,579,717	

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:

	Consolid	lated financial statements	Separate financial statements		
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Profit before tax	539,660,207	724,092,721	322,997,692	731,138,089	
Tax rate Tax calculated at a tax rate	20% 107,932,041	20% 144,818,544	20% 64,599,538	20% 146,227,618	
Tax effect of Income not subject to tax Expenses not deductible for tax purpose Tax losses for which no deferred income tax asset was recognised Share of profit of associate Share of (profit) loss of joint venture Employee benefit obligation Unrealised (gain) loss on exchange rate Fixed assets and construction in progress Re-measurement of deferred tax - change in tax rate Others	(86,961,757)* 45,533,522 (3,050,884) (161,008) (3,953,610) (14,454,746) (14,666,742) 46,927,277 16,985,753	(26,819,206) 44,583,764 (5,353,255) (5,087,665) 31,049,634 (3,876,413) 14,581,141 (43,135,244)	(761,157) 5,744,981 - - (3,937,329) (120,417) 24,867 - (309,822)	(639,119) 8,007,118 - - (3,896,816) 551,701 - - 329,215	
Tax charge	94,129,846	157,899,553	65,240,661	150,579,717	

\* 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 19% to 20% (2015: 20% to 22%).



#### 32 Income tax (Cont'd)

The tax (charge)/credit relating to component of other comprehensive income is as follows:

				Cons	olidated financi	al statements		
		2016			2015			
	Before tax	Tax (charge) credit	After tax	Before tax	Tax (charge) credit	After tax		
	Baht	Baht	Baht	Baht	Baht	Baht		
Share of other comprehensive	(554.400)	(440,005)						
income of associates Remeasurement on retirement benefit	(554,426)	(110,885)	(443,541)	-	-	-		
obligations Currency translation	16,790,527	3,358,105	13,432,422	(10,269,248)	(2,053,849)	(8,215,399)		
difference	(158,157,088)	(31,631,418)	(126,525,670)	479,275,506	95,855,101	383,420,405		
Other comprehensive								
income	(141,920,987)	(28,384,198)	(113,536,789)	469,006,258	93,801,252	375,205,006		
Current tax		-			-			
Deferred tax (note 24)		(3,358,105)			2,053,849			
		(3,358,105)			2,053,849			

				5	Separate financia	al statements
		2016			2015	
	Before tax	Tax (charge) credit	After tax	Before tax	Tax (charge) credit	After tax
	Baht	Baht	Baht	Baht	Baht	Baht
Remeasurement on retirement benefit						
obligations Currency translation	16,790,527	3,358,105	13,432,422	(10,629,248)	(2,053,849)	(8,215,399)
difference	(70,605,679)	(14,121,136)	(56,484,543)	120,157,319	24,031,464	96,125,855
Other comprehensive income	(53,815,152)	(10,763,031)	(43,052,121)	109,888,071	21,977,615	87,910,456
Current tax		-			-	
Deferred tax (note 24)		(3,358,105)			2,053,849	
		(3,358,105)			2,053,849	

#### 33 Expenses by nature

	Consolidated fina	ancial statements	Separate financial statements		
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Construction supplies and					
subcontractor charges	11,517,263,327	17,085,748,657	8,352,736,855	11,048,450,229	
Salaries, wages and					
other employee benefits	2,364,230,508	2,544,419,900	2,165,186,573	2,449,129,327	
Consultant expenses	19,176,549	37,060,976	26,350,555	30,620,688	
Rental expenses	463,585,090	630,035,846	436,372,482	585,592,733	
Depreciation and amortisation					
expenses	51,045,733	48,934,410	35,152,560	31,238,413	

#### 34 Finance costs

	Consolidated fina	ancial statements	Separate financial statements		
	2016 Baht		2016 Baht	2015 Baht	
Interest charges	427,519,089	354,501,631	239,697,879	185,394,273	
Total finance costs	427,519,089	354,501,631	239,697,879	185,394,273	

#### 35 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:

(Unit : Baht/foreign currency)							
	Consolid	lated financial statements	Sepa	rate financial statements	Exchange rate		
	Financial	Financial	Financial	Financial	31 Dece	As at mber 2016	
Currency	assets	liabilities	assets	liabilities	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	



#### 35 Financial instruments (Cont'd)

#### a) Financial assets and financial liabilities (Cont'd)

As at 31 December, the Company and the subsidiary had outstanding balances of financial assets and financial liabilities denominated in foreign currencies as follows: (Cont'd)

(Unit : Baht/foreign currency)					currency)	
	Consoli	dated financial statements	Sep	barate financial statements	Exchange rate	
	Financial	Financial	Financial	Financial	31 Dece	As at ember 2015
Currency	assets	liabilities	assets	liabilities	Buying	Selling
United State dollar	893,947,685	1,531,151,097	2,833,957,865	1,710,099,561	35.9233	36.2538
Yen Japan	188,835	161,749,191	20,240	161,749,191	0.2965	0.3028
Euro	9,571,969	353,064,835	13,128,343	353,231,770	39.0780	39.7995
Pound England	-	1,051,298	-	1,051,298	53.0726	53.9343
Singapore Dollar	4,243,574	2,234,456	-	2,234,456	25.2484	25.7905
Philippines Peso	1,356,605	230,893	1,356,605	230,893	0.7555	0.7827
Sweden Krona	636,298,365	403,139,293	-	14,021,739	4.2624	4.3535
Malaysia Ringgit	9,280,498	227,259	-	192,994	8.2898	8.5661
Myanmar Kyat	8,759,471	10,302,111	-	-	0.0274	0.0276
Riyal Qatar	12,696,905	57,188,765	12,696,905	57,188,765	9.8677	9.9585
Kip Laos	36,577,040	34,505,043	30,698,436	34,505,043	0.0044	0.0044
Baht Thailand	464,192	1,088,649	345,082	-	1	1

#### b) Foreign currency risk

At 31 December, the Group had forward foreign exchange contracts amounting to USD 9.35 million. The settlement dates on open forward contracts ranged between 4 days and 90 days. Amounts in US dollar to be settled and contractual exchange rates of the outstanding contracts were:

	Consolidated fin	ancial statements	Separate financial statements		
As at 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Japanese Yen:					
<ul> <li>Average exchange rate</li> </ul>					
(Yen/US dollars)	117.70 - 120.52	115.19 - 120.52	117.70 - 120.52	115.19 - 120.52	
- Foreign currency					
(Yen)	550,000,000	2,585,092,000	550,000,000	1,534,000,000	
- Local currency					
(Baht)	166,824,458	796,140,136	166,824,458	468,768,322	
Euro :					
<ul> <li>Average exchange rate</li> </ul>					
(Euro/US dollars)	0.9543	0.867 - 0.882	0.9543	-	
- Foreign currency					
(Euro)	1,152,120	2,700,000	1,152,120	-	
- Local currency					
(Baht)	43,466,054	111,989,257	43,466,054	-	
Singapore Dollar:					
- Average exchange rate					
(Singapore Dollars					
/US dollars)	1.4450	-	1.4450	-	
- Foreign currency					
(Singapore Dollars)	12,000	-	12,000	-	
<ul> <li>Local currency</li> </ul>					
(Baht)	298,983	-	298,983	-	
Baht :					
<ul> <li>Average exchange rate</li> </ul>					
(Baht/US dollars)	35.438 - 36.000	-	35.438 - 36.000	-	
<ul> <li>Foreign currency</li> </ul>					
(Baht)	125,473,350	-	125,473,350	-	
<ul> <li>Local currency</li> </ul>					
(Baht)	126,008,750	-	126,008,750	-	



#### 35 Financial instruments (Cont'd)

#### 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 2016 as follow;

	Consoli	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht	
Financial assets under concession arrangement	5,762,129,928	5,779,165,171	-	-	

#### 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 2016 are as follows:

	Consolidated financial statements		Separate financial statements	
	Contract Baht	Fair value Baht	Contract Baht	Fair value Baht
Account receivable and long-term loan - related party	1,480,562,379	1,606,941,166	1,575,078,467	1,712,688,887

#### 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 2016 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 Unsubordinated and unsecured	3,282,092,120	3,473,591,260	-	-
debentures	4,000,000,000	4,136,624,739	4,000,000,000	4,136,624,739



#### 35 Financial instruments (Cont'd)

#### c) Fair values (Cont'd)

#### Foreign exchange forward contract

The fair value of foreign exchange forward contract is calculated using rates quoted by the Company's bankers as though the contract is terminated at the statement of financial position (This is a level 2 fair value measurement).

The fair values of the derivative financial instruments at the statement of financial position date were:

	Baht
Favourable forward foreign exchange contracts	305,088,998
Unfavourable forward foreign exchange contracts	35,960,460

#### 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	320,092,651
Unfavourable forward foreign exchange contracts	316,678,886

#### 36 Commitments and contingent liabilities

As at 31 December 2016, the Group had commitments and contingent liabilities including contracts as following:

#### 1) Capital commitments

The Company has an outstanding commitment in respect of the undue portion of investment in Orient Bio-Fuels Company Limited (OBF), a joint venture in Vietnam, of USD 1.03 million or equivalent to approximately Baht 37.02 million.

#### 2) 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 2016 and 2015, the non-cancellable rental payable under these contractual obligations is as follows:

Paid within	2016 Million Baht	2015 Million Baht
1 year 2 - 5 years Later than 5 years	97.36 113.15 15.32	87.98 49.40 16.16
Total	225.83	153.54

#### 36 Commitments and contingent liabilities (Cont'd)

#### 3) Guarantees

- 3.1) As at 31 December 2016, the Company has guaranteed bank credit facilities of its subsidiary up to USD 39.50 million or equivalent to Baht 1,422.10 million (2015 to USD 39.50 million or equivalent to Baht 1,425.50 million) and MYR 148 million or equivalent to Baht 1,197.69 million.
- 3.2) As at 31 December 2016, the Group had outstanding bank guarantees in respect of certain performance bond and contractual performance as follows:
  - 3.2.1) Letter of guarantee for contractual performance as required in the normal course of the business of the Group amounting to USD 203.15 million (2015: USD 245.70 million) and Baht 2,916.79 million (2015: Baht 3,177.14 million) and SEK 251.79 million (2015: SEK 249.85 million.)
  - 3.2.2) Letter of guarantee for electricity use and others amounting to Baht 10.87 million (2015: Baht 9.80 million) and letter of guarantee to guarantee litigation case in court of Baht 10.48 million (2015: Baht 10.48 million).

#### 4) Litigations

As at 31 December 2016, the Group have litigations as follows;

#### 4.1) Old case

- 4.1.1) 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 is for Baht 18.79 million. The Court of First Instance ordered the Company to pay a total of Baht 8.88 million plus 7.5% per annum from 3 May 2014. However, the Company filed a statement of defence to the Appeal Court on 12 November 2015. The Court of Appeal had made judgement to confirm the Lower Court judgment. The parties were seeking the extension period for billing appeal to the Supreme Court. The Supreme Court shall take approximately 3 to 4 years to declare the final judgement of the case. 2) The second construction project is for Baht 66.18 million. The Court of First Instance has made appointments for further trial proceedings on 14 to 15 June and 20 to 21 June 2017.
- 4.1.2) The plaintiff as foreign subcontractor has filed a plaint claiming that the Company has refused to pay invoices to the plaintiff because the plaintiff defaulted on the agreement. The plaintiff has filed the plaint claiming a total of USD 0.33 million or equivalent to Baht 12.08 million plus interest of 4% per annum. However, the Company has filed a statement of defense and counter-claim for a total of MYR 1.16 million or equivalent to Baht 9.90 million plus interest of 4% per annum. In March 2016, it has been confirmed that no action will be taken against plaintiff and the Company for the subject matter in any jurisdiction.
- 4.1.3) The plaintiff as subcontractor has filed a plaint claiming that the Company has refused to pay invoices to the plaintiff due to low qualification to the International Court of Arbitration of ICC claiming a total of Baht 12.53 million. The Company has filed a statement of defence and counter-claim for a total of Baht 172.73 million plus interest of 7.50% per annum. The arbitrator is in the process of setting the Terms of Reference. Consideration is now being given to the request for a joinder by additional parties of which had been finished the trial of witnesses on 28 July 2016. The Arbitrator made an appointment on 7 March 2017.



- 36 Commitments and contingent liabilities (Cont'd)
  - 4) Litigations (Cont'd)
    - **4.1)** Old case (Cont'd)
      - 4.1.4) The plaintiff as supplier has filed a plaint claiming that the Company made dishonestly filling the request for joinder of additional parties to be liable with subcontractor of Baht 1,275 million. The Company has received the plaint and made statement of defence filed to Court on 18 January 2016. The court made further appointment on 1 to 3 August 2017 to fix the issue of the case.
      - 4.1.5) 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 THB 461.87 million plus USD 0.08 million as well as the default interest at the rate of 7.50% per annum 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 THB 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 THB 18.25 million plus the default interest at the rate of 7.50% per annum. As the arbitral tribunal of this case is consisted of three arbitrators, two out of three have been selected. The Thai Arbitration shall made an appointment on 28 April 2017 and 19 May 2017.
      - 4.1.6) The Company has claimed against the project owner for terminating the contract without fault, which caused damage to integrated engineering, procurement and construction services totalling Baht 376.24 million. The Court of First Instance convened a conciliation meeting on 30 June 2016, 9 August 2016 and 27 September 2016 respectively. However, the Company and the project owner are still unable to settle the case amicably. Consequently, the Court has designed to schedule the Determination of issues in this dispute appointment on 23 to 26 May 2017 and 7 to 9 June 2017. This case is currently in the Civil Court of Southern Bangkok (Court of First Instance).

#### 4.2) New case during the year ended 31 December 2016.

- 4.2.1) The plaintiff has claimed damages from the Company of Baht 1.60 million incurred from the collapse of a building after the Company had finished construction. The case was withdrawn on 4 July 2016 since the plaintiff accepted payment from the Insurer. The Company has no liability in this case and the case has been finalised.
- 4.2.2) 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 22,520,000 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 arbitrator has scheduled a case management conference for parties on 27 February 2017. This case is currently in the International Court of Arbitration of International Chamber of Commerce.



#### 37 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.

#### 38 Post statement of financial position events

#### **Dividend payment**

At the Board of Directors' meeting no. 1/2017 on 28 February 2017, the Board approved a dividend payment for the operating results of 2016 at Baht 0.42 per share for 560 million shares, totalling Baht 235.20 million. The dividend payment is scheduled for consideration and approval the Annual General Shareholders' Meeting in 2017. The Company already paid interim dividend at Baht 0.20 per share totalling Baht 112 million in September 2016 (see note 30 Dividend). Therefore, the remaining dividend payment will be Baht 0.22 per share totalling Baht 123.20 million.



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For more information please visit www.sec.or.th or www.ttcl.com



Complimentary Prizes « Ms. Phakabordee Saengkham | Admin. Officer



**Complimentary Prizes** « Ms. Thittaya Chumroenpurk | *HR Staff* 



**Complimentary Prizes** « Mr. Tana Srivimontian | *Mechanical Engineer* 



**Complimentary Prizes** « Ms. Chonticha Chantarawichai | *Department Staff* 



**Complimentary Prizes** « Ms. Pakpimol Surawatasilp | Instrument Engineer

# Company Profile

Name of Company	:	TTCL Public Company Limited		
Head Office located at	:	159/41-44, Sermmit Tower, 27th – 30th Floor,		
		Sukhumvit 21 Road (Asoke),		
		North Klongtoey, Wattana,		
		Bangkok 10110, Thailand		
Tel.	:	(66) 2260 8505		
Fax.	:	(66) 2260 8525-6		
Home Page	:	www.ttcl.com		
Type of Business	:	Engineering Service and Construction	(Integrated EPC)	
<b>Registration No.</b>	:	0107551000185		
<b>Registered Capital</b>	:	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 B	uilding	
		Rachadapisek Road, Klongtoey,		
		Bangkok 10110, Thailand		
		Tel. : (66) 2229 2800		
		Fax. : (66) 2359 1259		
Audit Firm	:	PricewaterhouseCoopers ABAS Ltd.		
		15th Floor, Bangkok City Tower		
		179/74-80 South Sathorn Road		
		Bangkok 10120, Thailand		
		Tel. : (66) 2344 1000		
		Fax. : (66) 2286 5050		
<b>Independent Auditor</b>	:	Mr. Vichien Khingmontri	C.P.A. No. 3977	
		Mr. Somchai Jinnovart	C.P.A. No. 3271	
		Ms. Amornrat Pearmpoonvattanasuk	C.P.A. No. 4599	



### **TTCL Public Company Limited**

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