



Connecting
people to united / in harmony

ANNUAL REGISTRATION STATEMENT /

(Form 56-1 One Report)

ANNUAL REPORT

TTCL PUBLIC COMPANY LIMITED

2022

VISION

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

MISSION

**JOY OF ENGINEERING
AND ACHIEVEMENT WITH
ALL OUR MIGHT**

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

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FINANCIAL HIGHLIGHTS

(Unit : Million Baht)

Year Ended Result	units	2022	2021	2020
Liquidity Ratio				
Current Ratio	times	1.01	0.91	1.08
Quick Ratio	times	0.35	0.33	0.35
Operating Cash Flow to Current Liabilities	times	0.28	(0.02)	(0.04)
Receivable Turnover	times	4.89	2.59	3.51
Collection Period	days	74.62	141.14	103.96
Account Payable Turnover Ratio	times	4.95	3.39	4.28
Payment Period	days	73.71	107.79	85.23
Cash Cycle	days	0.91	33.35	18.73
Profitability Ratio				
Gross profit Margin	%	8.14	13.73	12.96
Operating profit Margin	%	7.27	8.37	6.56
Net profit Margin	%	6.00	4.61	1.79
Return on Equity (ROE)	%	22.86	9.96	4.91
Efficiency Ratio				
Return on Assets (ROA)	%	4.29	2.13	0.82
Fixed Assets Turnover	%	120.61	49.67	33.44
Total Assets Turnover	times	0.71	0.46	0.46
Financial Policy Ratio				
Debt to equity : D/E ratio	times	5.05	3.65	4.54
Interest coverage ratio : ICR	times			
*Interest bearing debt to equity : IBD/E ratio	times	0.88	1.02	1.39

MESSAGE

FROM PRESIDENT AND CEO

Dear Shareholders,

Despite the persistent challenge of the COVID-19 pandemic and the economic uncertainty due to Russia-Ukraine Crisis, the world economy continued to recover in 2022. We have complemented our strategic positioning as an integrated EPC company, proven by the numbers of announced successful tender EPC projects. As always, we are committed ourselves to maintaining a healthy relationship with our EPC customers by securing satisfactory integrated EPC services.

In correspond to the environmental targets, namely Carbon Neutrality and Net-zero Emissions, announced by the governments and leading companies internationally, we steered our business direction and strengthened our performance to sustain energy transformation. We have a positive view of the upcoming demand on environmentally friendly EPC projects, accelerating by rising fossil fuel price. We are ready to be a part in leading towards this energy transformation and supporting our customers to achieve their environmental targets by providing professional EPC services.

Mr. Hironobu Iriya

President and Chief Executive Officer



On top of the EPC services, we have concentrated on investment in renewable energy businesses. We have successfully launched the torrefied biomass pellet demonstration plant for the first time in Thailand, proving our best-in-class torrefied biomass pellet production technology, FlashTor® which support our clients to achieve decarbonization by the most efficient and economical way. This project contributes to the environment and society by reducing greenhouse gas emissions from burning of coal and agricultural residues. With this successful demonstration plant, we received an approval letter for subsidy from the Ministry of Economy, Trade and Industry (METI), Japan, to build the first commercial-scale project in Thailand, having a yearly production capacity of 75,000 tons. To accelerate the contributions to environment and society, we are ready to offer an integrated EPC service with FlashTor® technology to public.

On behalf of the Board of Directors, management, and employees, we do appreciate all shareholders' consistent trust and support all these years. Please rest assured that all of us would join hands in improving TTCL and achieve our goals.

(Mr. Hironobu Iriya)

President and Chief Executive Officer

BUSINESS OPERATIONS AND PERFORMANCE

1. STRUCTURE AND BUSINESS OPERATIONS OF TTCL

1.1 POLICY AND BUSINESS OVERVIEW

TTCL Public Company Limited (the Company) is the first integrated Engineering, Procurement and Construction (Integrated EPC) company in Thailand, was incorporated in 1985 and became a listed company in the Stock Exchange of Thailand (SET) in 2009. The Company 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.

The Company has experiences and expertises in providing integrated EPC of turnkey projects for industrial and process plants, mainly in energy, petrochemical, chemical and power industries. The Company has observed an increasing and continual growth in demand of integrated EPC services from both domestic and overseas customers, especially for energy, petrochemical and power industries. The Company's competitive advantage in terms of cost and specialized engineering teams for operating mega projects and complex technologies enables the Company to expand its international businesses to overseas markets, particularly Asia Economics Community Countries (AEC).

In 2010 and 2012, the Company expanded its business by developing and jointly investing in power plant businesses through Navanakorn Electric Company Limited for a 120 MW Combined Cycle Gas Turbine

(CCGT) power plant in Thailand, and Toyo Thai Power Myanmar Company Limited for a 120 MW CCGT power plant in Myanmar respectively. By investing such projects, it enables the Company to secure a long-term and stable income under Power Purchase Agreement (PPA).

Later, in accordance with global climate policy and deep decarbonization of energy-intensive industries, the Company participated in biomass fuels business in compliance with coal phase-out policy announced by many leading countries. The Company acquired Blackwood Technology, a Dutch intellectual property company for the cutting-edge FlashTor® technology, in order to develop and reinforced its owned torrefied biomass pellets business in Thailand and other ASEAN countries. This allows the Company to provide an efficient torrefied biomass pellets to its clients for transiting their consumption of fossil-based fuels to biomass which is a renewable energy.

Currently, the Company has successfully developed several biomass projects together with Idemitsu Kosan Company Limited (IKC) as a strategic partner. Thus, the Company becomes not only an integrated EPC contractor, but also a project developer who has rich experiences and expertises in providing integrated EPC. The Company continuously provides a first-class integrated EPC service and expands its investment portfolio especially in renewable energy business.

1.2 COMPANY PROFILE AND MILESTONES OF THE PAST

Company Profile

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

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

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 THB 560 million with the objective to support the working capital requirements and investment in power plants.

In 27 April 2018, the Annual General Meeting of Shareholders of the Company resolved to approve the increase of the Company's registered capital of THB 336 million from the existing registered capital of THB 560 million to THB 896 million by issuing 336 newly issued ordinary shares with a par value 1 Baht to support the exercise of TTCL-W1 of 112 million shares, the issuance and allocation to the existing shareholders (Right Offering) of 168 million shares and the allocation to the specific persons (Private Placement) of 56 million shares.

In 2018, the Company has issued and offered of 56 million newly issued ordinary shares to specific persons (Private Placement) to Sojitz Corporation ("Sojitz"), in which Sojitz has become a major shareholder instead of TEC as they sold the Company's shares since the beginning of the year 2018. The objective of increase capital is for enhancing the business collaboration in the future. Thus, at present, the Company's paid-up capital was changed to THB 616 million.



In 2020, accordance with global climate policy and deep decarbonization of energy-intensive industries, the Company participated in biomass fuels business in compliance with coal phase-out policy announced by many leading countries. The Company acquired Blackwood Technology, a Dutch intellectual property company for the cutting-edge torrefaction technology, in order to develop and reinforced its owned torrefied biomass pellets business in Thailand and other ASEAN countries. This allows the Company to provide an efficient torrefied biomass pellets to its clients for transiting their consumption of fossil-based fuels to biomass which is a renewable energy.

Currently, the Company has successfully developed several biomass projects together with Idemitsu Kosan Company Limited (IKC) as a strategic partner. Thus, the Company becomes not only an integrated EPC contractor, but also a project developer who has rich experiences and expertises in providing integrated EPC. The Company continuously provides a first-class integrated EPC service and expands its investment portfolio especially in renewable energy business.

Milestones of the Past Three Years

2020

- TTPHD has issued and offered preference shares in the amount of 4,700,000 shares to subscribers and connected persons of the company at the value of USD 1 per share. The capital increase resulted in a dilution of the shareholder's shareholding proportion of the company in TTPHD to 93.67 percent with the other shareholder's shareholding of preference share at 6.33 percent.
- TTPHD established BKB Power Pte. Ltd. (BKB) and TTCL Bio Company Pte. Ltd. (TTBC) has registered capital of USD 100.00 in Singapore.
- TTCL has acquisition the share of Blackwood Technology B.V. in the total amount of 42,513 shares, representing 51 percent of the total issued of Blackwood Technology B.V.

2021

- TTCL has acquisition the common share of TTCL Bio Company Pte. Ltd. (TTBC) the total amount of 75 shares at USD 1 per share totaling of USD 75 or equivalent to Baht 2,231 which is 75% of total share.
- TTCL Bio Company Pte. Ltd. a subsidiary of the Company paid-up share capital of 1,000 share at par value of Euro 0.10 per share with total amount of Euro 100 or equivalent to Baht 3,776, accounting for 50% of the total share capital and Blackwood Technology B.V. paid-up share capital of 1,000 share at par value of Euro 0.10 per share with total amount of Euro 100 or equivalent to Baht 3,789, accounting for 50% of the total share capital after establish Shimanto B.V., registered in Netherland on 9 December 2020

- TTCL Power Myanmar Company Limited (TPMC) a subsidiary of the Company signed the Power Purchase Agreement with Electric Power Generation Enterprise, under the Ministry of Electricity and Energy, the Government of the Republic of the Union of Myanmar for Ahlone LNG to Power Project with a capacity of 388 MW, total approximated project value USD 685 million or equivalent to THB 20,550 million at Yangon province.
- TTCL has established a subsidiary under the name of TKC Solar Technology Corporation in Vietnam to conduct business Solar Power Electricity Generation by having its shareholding 100%.
- TTCL disposed of the common shares in Global New Energy Tsuno Company Limited (GNE Tsuno) to conduct business Solar Power Electricity Generation with a capacity of 10 MWac, an indirect subsidiary of the Company, representing 100% of the total shares including outstanding debt of THB 104 million. The purpose of disposal was for supporting the working of the Company, therefore, GNE Tsuno was no longer an indirect subsidiary of the Company.
- TTCL disposed of the common shares in Bio New Energy Co., Ltd. (BNE) to conduct business Bio Power Electricity Generation with a capacity of 1.2 MW, a subsidiary of the Company, representing 70% of the total shares, totaling THB 17.64 million. The purpose of disposal was discontinuing the operation due to unstable supply of west water from the Ethanol Plant which used as raw material to produce Methane Gas, therefore, BNE was no longer a subsidiary of the Company.
- Global New Energy Co., Ltd. and TTCL Solar Power Pte. Ltd., a subsidiary of the Company has increased capital in Siam GNE Solar Energy Co., Ltd. which is a Joint Venture Company with SCG Cleanergy Co., Ltd. representing 2% and 48% respectively, totaling THB 9 million for investment in Suranaree University of Technology in order to develop Solar Floating with a capacity of 1.5 MW with the Power Purchase Agreement for 20 years, total approximated project value of THB 36 million.
- TTCL disposed of common shares in Ha Tien Energy Corporation (HATIECO) to conduct business in manufacturing Bio Fuels (White Pellets) with a capacity 150,000 ton per year, a subsidiary company of the Company, representing 100% of the total shares to Idemitsu Kosan Co., Ltd. (IKC) with totaling THB 390 million. The purpose of disposal to develop more projects with IKC as a long term strategic partner, therefore, HATIECO was no longer a subsidiary of the Company.
- TTCL Vietnam Corporation Limited a subsidiary of the Company invested in MEDEP JSC Company (Medical Devices And Biomaterial Plant Joint Stock Company), registered in Vietnam. The subsidiary had fully paid-up share capital of 750,000 shares at par value of VND 10,000 per share with total amount of VND 7,500 million or equivalent to Baht 11.25 million, accounting for 5% of the total share capital.

2022

TTCL and TTCL Bio Company Pte. Ltd. have established a subsidiary under the name of NT Biomass Product Co.,Ltd. In Thailand to research and experimental development on biotechnology by having its shareholding 51% and 49% reprehensively, Both of company had fully paid-up share capital of 300,000 shares at par value of THB 100 per share with total amount of THB 30 million.

1.3 THE NATURE OF BUSINESS AND SERVICES

The Company's core business is an integrated Engineering, Procurement, Construction (EPC) and commissioning which has a long-standing experience and expertise as an EPC contractor in various projects. Furthermore, throughout the years, the Company has expanded its business and services beyond its core business in order to keep ahead of competition.

The Company has developed its business models including Build-Operate-Transfer (BOT), mainly for Power Generation, and Biomass Fuel Supply in addition to EPC turnkey projects. Accordingly, the Company is a comprehensive service provider to the clients and diversifies the profit portfolio which makes the Company profit more sustainable.

Table of Business and Services Breakdown

Business and Services	Basic Business Models		
	EPC Contract	BOT Contract	Biomass Fuel Supply
1.1 Engineering	O	O	O
1.2 Procurement	O	O	O
1.3 Construction	O	O	O
1.4 Investment	X	O	O
1.5 Operation and Maintenance (O & M)	X	O	O
1.6 Other Services			
1.6.1 Feasibility study	O	O	O
1.6.2 Patent License	X	X	O
1.6.3 Arrangement of Off-taker	X	X	O
Arrangement of Finance	X	O	O
1.6.4 Arrangement of Feedstock	X	O	O
Target Sectors	All sectors including Petrochemical	Power Generation	Biomass Fuel Supply

Note: "O" means "Service" and "X" means "Not Service"



1. Business and Services

The Company provides a variety of services including Project Management Engineering, Procurement, Construction, Commissioning Investment, Operation and Maintenance (O & M), and Other Services.

1.1 Engineering

In providing the engineering design services, the Company's engineering team, consisting of all necessary engineering fields, is capable of designing overall industrial plants such as petrochemical, chemical, power and fertilizer plants. The Engineering design steps will commence with the client's objective and requirement analysis in every dimension before performing design works in full details.

1.2 Procurement

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 negotiates for purchase conditions, execute inspection keep high quality and machine specifications, and equipment to conform to the engineering design and project schedule as an overall project.

1.3 Construction

Throughout the construction project life cycle, the Company has responsibilities to control the quality of construction works within the project budget and schedule. To maintain a high performance and competitiveness, the Company assigns most appropriate construction and engineering teams that best fit to each particular project, and preserves a good relationship with project stakeholders including sub-contractors, vendors, and all concerned party.

1.4 Investment

In response to requirement from clients, both Private and Governmental Entity, the Company can provide an investment services in addition to EPC, and this transaction can stabilize the Company income for a long term. The Company may invest into joint venture (JV) entity together with strategic partners.

1.5 Operation and Maintenance (O&M)

In response to requirement for a stable plant operation for the long term, the Company provides O&M services to maintain an effective operation for the plants, mainly in power generation and torrefied pellet.

1.6 Other Services

1.6.1 Feasibility Study

The Company can support the review of project's feasibility technically and commercially. During the feasibility study the Company will verify the followings:

- Technology selection,
- Project cost estimation,
- Economics and sensitivity study,
- Financial arrangement,
- Market investigation,
- Facility design,
- Optimizing process configuration,
- Law and regulations.

1.6.2 Patent and License

The Company has acquired Blackwood Technology (Blackwood) as torrefied pellet technology licensor. Accordingly, it is the business synergy that the Company can provide EPC service together with a license service via Blackwood and the Company can diversify the group profit.

1.6.3 Arrangement of Off-taker and Finance

By the Company's broad network based on EPC and investment experiences. The Company is able to arrange a reliable off-takers and lenders for the projects.

1.6.4 Arrangement of Feedstock

Together with strategic partners, the Company is able to arrange feedstock to biomass projects.



2. Business Models

For the time being, the Company has expanded its Business Model beyond EPC Service to participate in other potential areas of businesses, and diversify its income portfolio.

2.1 EPC Contract

Since the EPC Contract has been the Company's core business, the Company has successfully developed a variety of projects, and obtained the project owners' satisfaction. Comparing to other business models, EPC Contract is the business model which allows the Company to receive cash inflow first before spending on provided services to the clients, including engineering, procurement, and construction.

2.2 BOT Contract

To diversify the portfolio, the Company had participated in a BOT for power project which the Company provides various services including EPC services, investment and O & M. This business model allows the Company to gain a variety of revenue sources for a long-term which consists of revenue from EPC and O & M, capital gain, and income gain. Furthermore, comparing to EPC business model, this business model enables the Company to leverage and participate in a large-scale project.

2.3 Biomass Fuel Supply

In accordance with the Company new business plan, the Company has seen opportunities from upcoming demands of renewable energies, especially, biomass torrefied fuel supply. In this business model, the Company provides various services including feasibility study, EPC services, investment, O&M, patented license, off-taker arrangement, and feedstock supply to the project. The Company has intention to expand this business model to diversify the Company's portfolio which consists of revenues from EPC, license, O&M, capital gain, and income gain.





3. Target Sectors

The Company maximizes its knowledge and experiences in engineering with an aim to stabilize its long-term income by investing in a variety of target sectors.



3.1 Petrochemical

Petrochemical Sector requires highest quality standard of EPC services, which the Company has the know-how through a great deal of experience and expertise in the past, and is able to follow the customers' requirements.

3.2 Power Generation

In Power Generation Sector, the Company provides not only an EPC service but also investment under BOT Contract if clients require. This sector allows the Company to gain a variety of income sources from the BOT Contract and diversify its portfolio. For large-scale projects, the Company has been associating and working together with strategic investment partners as a joint venture partner.

3.3 Renewable Energy

Renewable Energy is one of the global mega trends which the Company has seen opportunities from upcoming demands. The Company believes that this sector has great potential to continue increasing in demand, and it also allows the Company to provide its services in order to gain most benefit. As mentioned, the Company has intention to promote this sector to diversify its income structure, for the time being, the Company has been developing Biomass Fuel Plants in ASEAN and others countries.

1.3.2 BUSINESS OPERATIONS OF GROUP COMPANIES, THE SUBSIDIARIES AND ASSOCIATED COMPANIES

Business operations of group companies, subsidiaries and associated companies as of December 31, 2022

1. TTCL Public Company Limited

TTCL Public Company Limited ("the Company"), formerly known as Toyo-Thai Corporation Public Company Limited, provides integrated EPC service, Engineering design service, Procurement of machinery and equipment, and Construction of turnkey projects. The target customers are companies in energy, petrochemical and chemical industries both in domestic and overseas.

2. TTCL Vietnam Corporation Limited

TTCL Vietnam Corporation Limited ("TVC"), formerly known as Toyo - Vietnam Corporation Limited, was incorporated in Vietnam on February 19, 1997 to provide integrated EPC service, Engineering design service, Procurement of machinery and equipment, and Construction of turnkey projects in Vietnam.

3. Global New Energy Company Limited

Global New Energy Company Limited ("GNE") was incorporated on March 19, 2009 to operate businesses related to the development and implementation of Clean Development Mechanism (CDM) projects. Low temperature gas, which is used for the process in the factory and normally emitted to the air after use, can be re-used by applying this technology. GNE can support installation of this system. Also, GNE is an importer and distributor of solar panel.

4. TTCL Malaysia Sdn. Bhd.

TTCL Malaysia Sdn. Bhd. ("TTML"), formerly known as Toyo - Thai Malaysia Sdn. Bhd., was incorporated in Malaysia on August 8, 2011 to provide integrated EPC service, Engineering design service, Procurement of machinery and equipment, and Construction of turnkey projects in Malaysia

5. ToyoThai - Myanmar Corporation Co., Ltd.

ToyoThai - Myanmar Corporations Co., Ltd. ("TTMC") was incorporated in Myanmar on January 27, 2012 to support various projects in Myanmar.

6. TTCL Gas Power Pte. Ltd.

TTCL Gas Power Pte. Ltd. ("TTGP"), formerly known as Toyo - Thai Power Corporation Pte. Ltd., was incorporated in Singapore on July 11, 2012 as a holding company for investment in companies that operate the business of generating electricity from natural gas.

7. TTCL Power Holdings Pte. Ltd.

TTCL Power Holdings Pte. Ltd. ("TTPHD"), formerly known as Toyo - Thai Power Holdings Pte. Ltd., was incorporated in Singapore on January 23, 2013 as a holding company by TTPHD. TTPHD invests companies that operate various types of energy business, such as companies that generate electricity from natural gas, and companies that operate the business of generating electricity from solar power and etc. TTPHD intends to invest through a subsidiary that owns shares of other companies (Holding Company) by separating such subsidiaries according to the type of power plants for the benefit of finding joint venture investors in the future. In addition, tax benefit is expected..

8. Toyo Thai Power Myanmar Co., Ltd.

Toyo Thai Power Myanmar Co., Ltd. ("TTPMC") was incorporated in Myanmar on November 15, 2012 to operate a 120 megawatt of natural gas fired power plant at Ahlone Township, Yangon, Myanmar.

9. TTCL Solar Power Pte. Ltd.

TTCL Solar Power Pte. Ltd. ("TTSP"), formerly known as Toyo Thai Solar Power Pte. Ltd., was incorporated in Singapore on April 9, 2013 as a holding company for investment in the companies that operates the business of generating electricity from solar energy.

10. Global New Energy Japan Co., Ltd.

Global New Energy Japan Co., Ltd. (GNE-JAPAN) was incorporated in Japan on January 21, 2014 to operate maintenance services in Japan.

11. TTCL New Energy Pte. Ltd.

TTCL New Energy Pte. Ltd. ("TTNE"), formerly known as Toyo Thai New Energy Pte. Ltd., was incorporated in the Republic of Singapore on April 17, 2014 as a holding company for investment in companies that operate renewable energy business.

12. TTCL Coal Power Pte. Ltd.

TTCL Coal Power Pte. Ltd. ("TTCP"), formerly known as Toyo Thai Coal Power Pte. Ltd., was incorporated in the Republic of Singapore on November 10, 2014 as a holding company for investment in companies that operates the business of generating electricity from coal power.

13. TTCL Myanmar Engineering and Construction Co., Ltd.

TTCL Myanmar Engineering and Construction Co., Ltd. ("TTMEC") was incorporated in Myanmar on August 13, 2015 to support projects in Myanmar.

14. Siam GNE Solar Energy Company Limited

Siam GNE Solar Energy Company Limited ("SGSE") was incorporated on August 29, 2013 as a joint venture between GNE as a subsidiary, and Siam Eco Energy Business Company Limited for joint investment in the solar power plant business.

15. Orient Bio-Fuels Co., Ltd.

Orient Bio-Fuels Co., Ltd. ("OBF") registered in Vietnam. To operate the business of production and supply of ethanol.

16. TTCL LNG Power Pte Ltd.

TTCL LNG Power Pte Ltd. ("TTLP") was incorporated in Singapore on February 27, 2018 to support gas fired power plant business in the region.

17. TTCL Power Myanmar Co., Ltd.

TTCL Power Myanmar Co., Ltd. ("TPMC") was incorporated in Myanmar on March 23, 2018 to operate a 388 megawatt natural gas fired power plant at Ahlone Township, Yangon, Myanmar.

18. TMSP Malaysia Sdn. Bhd.

TMSP Sdn. Bhd. ("TMSP") was incorporated in Malaysia on December 3, 2019 to provide integrated EPC service, Engineering design service, Procurement of machinery and equipment, and Construction of turnkey projects in Malaysia.

19. BKB POWER PTE. LTD.

BKB POWER PTE. LTD. was incorporated in Singapore on May 14, 2020 to operate natural gas fired power plant in Myanmar.

20. MYANMAR BKB POWER CO., LTD.

MYANMAR BKB POWER CO., LTD. was incorporated in Myanmar on May 22, 2020 to operate a natural gas fired power plant business in Myanmar.

21. TTCL BIO COMPANY PTE. LTD.

TTCL BIO COMPANY PTE. LTD. was incorporated in the Republic of Singapore on June 2, 2020 to operate the business of producing and supplying biomass energy in Vietnam.

22. JSM Power Pte. Ltd.

JSM Power Pte. Ltd. (JSM) was incorporated in Singapore on May 4, 2018 to operate power generation business in Myanmar.

23. IDEMITSU GREEN ENERGY VIETNAM LIMITED COMPANY (IGEV)

Incorporated in Vietnam to operate the business of biomass energy production and distribution in Vietnam, formerly known as Ha Tien Energy Corporation (HATIEN).

24. Blackwood Technology B.V.

Blackwood Technology B.V. ("Blackwood") was incorporated in the Netherlands on November 11, 2015 to provide engineering services and procurement of equipment and facilities related to proprietary torrefaction systems to be a torrefied pellet (Bio-coal). In addition, Blackwood also develops intellectual property of FlashTor technology.

25. TKC Solar Technology Corporation ("TKST")

TKST was established in Vietnam on May 19, 2021 to operate a solar power plant business in Vietnam.

26. Medical Devices and Biomaterial Plant Joint Stock Company ("MEDEP")

MEDEP was established in Vietnam on 2021 to operate manufacturing and distribution of medical equipment in Vietnam.

27. Shimanto B.V

Shimanto B.V was registered in Netherland on 9 December 2020 to Investing in Energy Business in Netherland.

28. NT BIOMASS PRODUCTS CO., LTD ("NTBC")

NTBC was registered in Thailand on 13 December 2022 to Research and experimental development on biotechnology in Thailand.

The Significance and reputation of TTCL's Performances

Client Name / Location	Project Type	Business Type /1	Period	Approximate Amount (Million Baht)
Yen Hung Petrochemical Joint Stock Company / Vietnam	Petrochemical Plant Construction	E.P.C.	Jan'23 - Jun'25	49
NatureWorks Asia Pacific Co., Ltd. / Thailand	Chemical Plant Construction	E.P.C.	Oct'22 - Feb'25	3,400
Thai Tokai Carbon Product Co., Ltd. / Thailand	Chemical Plant Construction	E.P.C.	Oct'22 - Mar'26	6,500
CITY GROUP / Bangladesh	Petrochemical Plant Construction	E.P.C.	Aug'22 - Jul'23	145
AGC Vinythai Public Company Limited / Thailand	Chemical Plant Construction	E.P.C.	Jun'22 - Dec'24	4,500
Bangchak Corporation Public Company Limited / Thailand	Petrochemical Plant Construction	E.P.C.	Jul'21 - Jul'24	31
PROVINCIAL ELECTRICITY AUTHORITY / ประเทศไทย	Power Plant Construction	E.P.C.	Sep'21 - Feb'23	225
PTTEP SP LIMITED / Thailand	Oil and Gas Plant Construction	E.P.C.	Feb'22 - Jul'24	1,600
Rayong Engineering & Plant Service Co.,Ltd. / Thailand	Petrochemical Plant Construction	E.P.C.	May'22 - Mar'24	1,000
EGCO Cogeneration Co.,Ltd / Thailand	Power Plant Construction	E.P.C.	Jan'22 - Mar'24	2,250
DHG Pharmaceutical Joint Stock Company / Vietnam	Chemical Plant Construction	E.P.C.	Jun'22 - May'23	700
TOA (Thailand) Co.,Ltd. / Thailand	Chemical Plant Construction	E.P.C.	Feb'21 - Apr'22	200
Shin-Etsu Silicones (Thailand) Limited / Thailand	Chemical Plant Construction	E.P.C.	Jun'17 - Sep'21	106

Client Name / Location	Project Type	Business Type /1	Period	Approximate Amount (Million Baht)
Shin-Etsu Engineering Co.,Ltd / Thailand	Chemical Plant Construction	E.P.C.	Aug'17 - Dec'21	32
Shin-Etsu Engineering Co.,Ltd / Thailand	Petrochemical Plant Construction	E.P.C.	Jul'21 - Mar'22	50
TOP SPP Company Limited / Thailand	Power Plant Construction	E.P.C.	Dec'20 - Feb'23	3,300
PTT Public Company Limited / Thailand	Petrochemical Plant Construction	E.P.C.	Mar'22 - Jan'24	2,330
PTT Public Company Limited	Gas Storage Tank Construction	E.P.C.	Nov'21 - Sep'23	1,530
Idemitsu Green Energy Vietnam Limited Company	Biomass Fuel Production	E.P.C.	Dec'21 - Dec'22	900
Thang Long Energy Environment JSC	Waste-to-Energy Plant	E.P.C.	Dec'21 - Dec'23	2,000
Nghi Son Refinery and Petrochemical Limited Liability Company	Waste Water Management	E.P.C.	Jul'21 - Jul'22	500
Qatar Petrochemical Company / Qatar	Steam Power Plants	E.P.C.	Jul'21 - Jul'23	1,000
Qatar Petrochemical Company / Qatar	Steam Power Plants	E.P.C.	Jun'22 - Feb'24	396
Idemitsu Advanced Materials (Malaysia) Sdn. Bhd. / Malaysia	Chemical Plant Construction	E.P.C.	Jan'18 - Jun'22	1,860
Long Son Petrochemicals Co.Ltd. / Vietnam	Petrochemical Plant Construction	E.P.C.	Oct'18 - Oct'22	6,800
Map Ta Phut Olefins Co., Ltd./ Thailand	Petrochemical Plant Construction	P.C.	Jul'18 - Jan'21	4,700
Denko Petrochemical Management Co., Ltd./ Republic of the Union of Myanmar	Oil & Gas Plant Construction	E.P.C.	May'18 - Dec'19	1,400

Client Name / Location	Project Type	Business Type /1	Period	Approximate Amount (Million Baht)
Duc Thanh - Mui Ne Joint Stock Company/ Vietnam	Solar Power Plant Construction	E.P.C.	Oct'18 - Jun'19	990
Undisclosed / Thailand	Petrochemical Plant Construction	E.P.C.	Jun'17 - May'20	7,000
Undisclosed / Thailand	Petrochemical Plant Construction	E.P.C.	May'17 - Jun'18	500
Thai MMA Co., Ltd. / Thailand	Petrochemical Plant Construction	E.P.C.	Jan'17 - Jun'18	600
PTT Global Chemical Public Company Limited / Thailand	Petrochemical Plant Construction	E.P.C.	Jul'15 - Jan'18	6,300
Viet-Lao Chemical and Rock Salt Company Limited / People's Democratic Republic Of Laos	Rock Salt Exploitation and Processing Plant Construction	E.P.C.	Aug'15 - Jun'18	6,900
PRPC Refinery and Cracker Sdn. Bhd. / Malaysia	Petrochemical Plant Construction	E.P.C.	Sep'14 - May'19	Undisclosed

1.3.3 MARKETING & COMPETITION

1. Business Strategies

The Company has established business strategies to stay ahead of competition and sustainable long-term growth including Strengthening Strategy, Improvement Strategy, Impact Handling Strategy, and Opportunity Seeking Strategy.

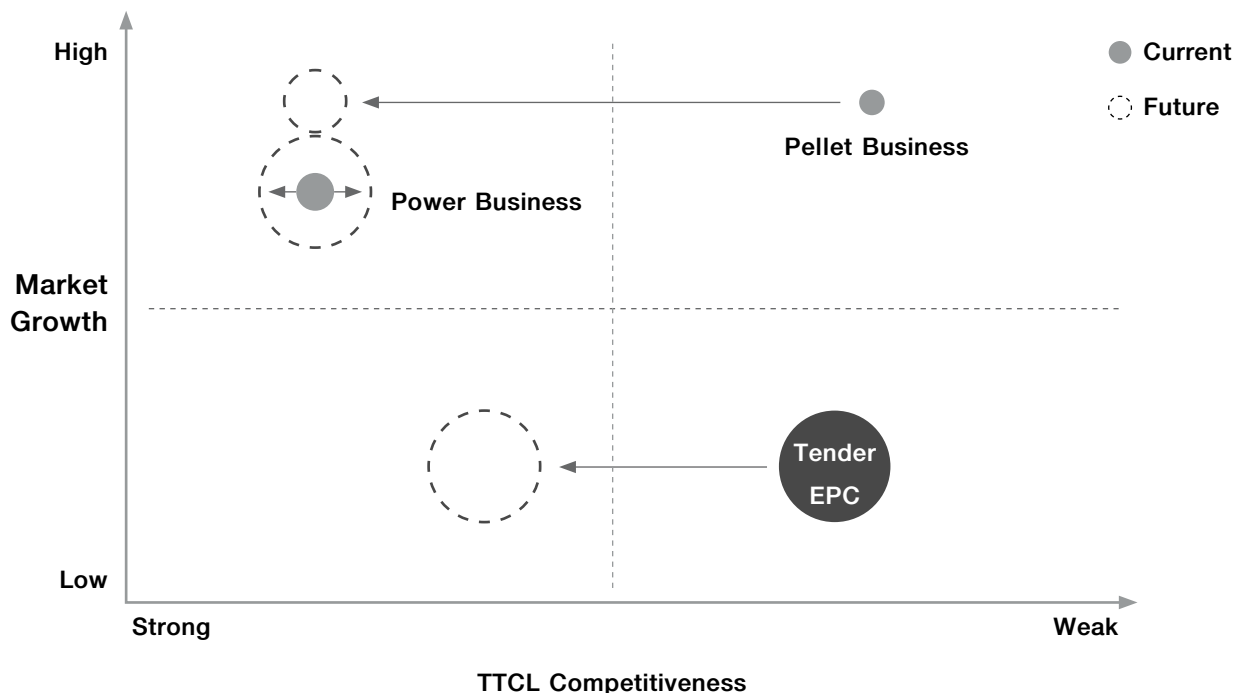
1.1 Strengthening Strategies

Strengthening Strategies have been developed in order to strengthen the Company's competitiveness and diversify its portfolio, which consist of Product Portfolio Management Strategy and Strengthening the Company's Competitiveness Strategy.

1.1.1 Product Portfolio Management

To diversify the portfolio, the Company has developed their business models including Build-Operation-Transfer (BOT) Contract and Biomass

Fuel Supply in addition to EPC Business. As mentioned in The Nature of Business and Services Section, the Company has intention to expand Biomass Fuel Supply Business along with increasingly global demands. BOT Contract Business Model will enable the Company to gain sustainable incomes from EPC and O&M services, capital gain, and income gain for a long-term. Since EPC Contract is the Company's core business, the Company has been improving its performance and capability continuously in order to obtain project owners' satisfaction and gain most benefit out of the project. Moreover, with the Company's broad network, the Company has intention to maintain trust with key clients and stakeholders to achieve strong competitiveness and business grow up.



1.1.2 Strengthening the Company's Competitiveness

To strengthen the Company's competitiveness, it depends on the target sectors of the Company. According to the Nature of Business and Service Section, the Company target sectors can be separated into Petrochemical Sector, Power Generation Sector, and Renewable Energy Sector. In Petrochemical Sector, the key factor to stay ahead of competition is a high standard in EPC services. The Company has maintained its EPC services in highest-quality through a great deal of experience and expertise to comply with the customers' requirements and obtain the customers' satisfaction which will lead to a favor from the project owners and non-tender projects offering. In Power Generation Sector, the Company has expanded its business model, which is BOT Contract, in addition to EPC Contract. As mentioned, the expanded business model allows the Company to achieve more competitive due to a variety of income sources not only EPC but also Operation and Maintenance (O&M), capital gain, and income gain. Furthermore,

working together with strategic partners as a joint venture entity allows the Company to participate in large-scale projects. In Renewable Energy Sector, the Company developed the biomass fuel supply business through the growth in global demand as mentioned in New Business Development Plan Section. For the time being, the Company has been developing biomass fuel plants mainly in ASEAN countries. Participating in this sector enables the Company to gain various incomes including EPC, license, O&M, capital gain, and income gain.

1.2 Improvement Strategy

1.2.1 Customers' Satisfaction Improvement

The Company's customers consist of Private Industry Companies, Utility Companies, and Governmental Entities. To obtain their satisfaction, the Company treats each customer individually to fulfill their particular requirements. Private Industry Companies mainly in Petrochemical Sector require the highest quality of EPC services. To satisfy these customers, the Company has maintained its high-performance to meet their requirements and the projects' specification. Utility Companies mainly in

Power Generation Sector included Renewable Energy Sector which the Company has intention to expand these areas of businesses as mentioned in New Business Development Plan Section. The key factor to satisfy these customers is to fulfill their requirements within an acceptable price. In order to achieve their satisfaction, the Company maintains its performance with a competitive price to the customers. Governmental Entities are mainly Power Generation Sector. In accordance with the Company's strategy, the Company has intention to increase revenue proportion of other services in addition to EPC services in order to diversify the portfolio. As described, with the Company's broad network, the Company has been associating with reliable and potential partners to co-invest into joint venture entity in order to participate in large-scale projects, and make the most out of the projects to fulfill the customers' satisfaction.

1.2.2 Operational Execution Improvement

To gain confidence from the Company's stakeholders, the Company has complied with the international standards to ensure the safety in every function and is proud to be certified with ISO 9001:2015, ISO 14001: 2015 and ISO 45001: 2018 by BSI Group (Thailand) Co., Ltd. Furthermore, based on the Company's long-standing experiences in various projects, there occurred a variety of problems which happened during project execution phase. To improve and prevent the problems, the Company has developed its network and training courses to make the Company's staffs recognize and learn from these lessons.

1.3 Impact Handling Strategy

1.3.1 Myanmar Military Coup

Despite the Myanmar military coup in February 2021, the Company continues operation of 121 MW Ahlone Project which is the one of the lifeline plants for Myanmar people.

1.4 Opportunity Seeking Strategy

1.4.1 Low-Carbon Economy

During COP26 and COP27, Thai Government announced to be carbon neutral in 2050 and Carbon Net Zero on 2065, in meantime of neighboring country such as Vietnam also announced to be carbon net zero in 2050.

In response to the global trend toward Low-Carbon Economy, the Company has seen opportunities from upcoming demands of renewable energies in an impending future and opportunities to invest and develop the clean energy which are essential parts of a low carbon development path. Torrefied Pellet is an advanced form of Biomass Pellet which is produced by torrefaction technology to enhance the quality of product and the elimination of requirement for dry storage and transportation. The Company had acquired Blackwood Technology, the company who owns license of torrefaction technology, in order to expand the business. The company believes that Torrefied Pellet to be produce at ASEAN countries and distribute to the world market. Wherewith the trend demand of Torrefied Pellet in world's market to replace coal consumption partially or totally lead to the opportunities of ASEAN countries to be the main supplier of Torrefied Pellet to the world market.

1.4.2 Emerging Markets

Vietnam

Under the rapid growth of Vietnam economy, the Company has provided EPC service to variety of industries including Petrochemical companies, and expects the growth of EPC business in Vietnam. In addition to EPC business, the Company and Idemitsu Kosan Co., Ltd. are jointly constructing Torrefied Pellet Plant (120,000 ton per year capacity) in Vietnam to export products to Japanese market considering that Vietnam has the reliable infrastructure, road and port, and good access to Japan.

2. Industries Trends and Outlooks

For the time being, the world economy has been recuperated especially in Asian Emerging Markets including ASEAN countries with which the Company has familiar as a regional EPC contractor. Growth in demands from these developing countries allows the Company to achieve opportunities in various industries. To catch up these opportunities, the Company plays a comprehensive role to expand their business and services including investment, arrangement of finance, off-taker and feedstock supply as described in the Nature of Business and Services Section. The comprehensive services enable the Company to participate in a variety of industries including Petrochemical, Power Generation, and Renewable Energy. Since each industry has its own particular characteristic, the Company has developed its business models addition to EPC services including Build-Operation-Transfer (BOT) and Biomass Fuel Supply in order to comply with the Company capabilities and industry trends. Petrochemical Industry mainly in Asian Emerging Markets including ASEAN countries is attractive for both domestic and foreign investors due to cost-competitive and growth in regional demands. The industry trends to continue growing through economic expansion.

Power Generation Industry has been participated by various entities both governments and private, especially, in developing countries in ASEAN. In accordance to the global trend toward Low-Carbon Economy, it is no doubt that Renewable Energy grows up rapidly. Biomass energy is one of the potential renewable energy in which the Company has intention to participate. For the time being, together with its strategic partners, the Company has been developing biomass fuel projects mainly in ASEAN countries. As described in the New Business Development Plan Section, the Company has seen opportunities from the upcoming demands, and believed that

ASEAN countries have potentials to be the most efficient and economical region to produce biomass energy due to abundant biomass resources such as cassava, palm and sugarcane.

3. Status of Competition

Since the Company expanded its business models to a variety of target sectors, the Company's competitive status depends on the business sectors. In accordance with the Nature of Business and Services Section, the Company's target sectors can be classified into 3 sectors which consist of Petrochemical Sector, Power Generation Sector, and Renewable Energy Sector. Even though competition in Petrochemical Sector remains severe, the Company can stay ahead of competition based on a broad business-connection with private industry companies. Since this sector requires the highest quality and international standards in which the Company has a great deal of experiences, it allows the Company to obtain its customers' favor and satisfaction through various petrochemical projects received recently. Power Generation Sector has an intensive competition despite the fact that global demands are continuously growing due to high competitors. However, the Company continuously concludes the EPC contract. In Renewable Energy Sector especially in biomass energy, as mentioned in the New Business Development Section, the Company has already acquired Blackwood Technology Company (Blackwood) which has torrefaction technology's license which allows the Company to expand its biomass fuel business broadly together with its strategic partners.

1.3.4 Nature of Business

Revenue Structure of TTCL Group

Revenue structure of the company and subsidiaries which classification by type of business from 2020-2022 are as follows:



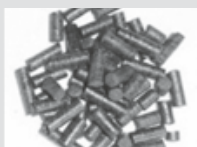

Industry	Operated by	2020		2021		2022	
		Amount	%	Amount	%	Amount	%
Petrochemical	TTCL Plc.	5,790.96	84.30	3,158.78	49.77	2,961.91	26.28
	TTCL Vietnam Corporation Limited	716.56	10.43	731.16	11.52	2,862.16	25.39
	TMSP Sdn. Bhd.	167.10	2.43	463.10	7.30	994.57	8.82
	TTCL Myanmar Engineering & Construction Co., Ltd.	83.49	1.22	3.53	0.06	1.73	0.02
Total Revenue from Petrochemical Construction		6,758.12	98.38	4,356.58	68.64	6,820.37	60.50
Power	TTCL Plc.	52.78	0.77	1,865.02	29.38	3,540.44	31.41
Total Revenue from Power Construction		52.78	0.77	1,865.02	29.38	3,540.44	31.41
Chemical		0.00	0.00	0.00	0.00	697.26	6.19
Total Revenue from Chemical Construction		0.00	0.00	0.00	0.00	697.26	6.19
Other	TTCL Plc.	0.00	0.00	71.53	1.13	157.52	1.40
Total Revenue from Other Construction		0.00	0.00	71.53	1.13	157.52	1.40
Electricity Generation	TTCL Plc.	47.86	0.70	50.32	0.79	56.92	0.50
	Bio Natural Energy Company Limited	1.39	0.02	0.84	0.01	0.00	0.00
Total Revenue from Electricity Generation		49.25	0.72	51.16	0.81	56.92	0.50
Revenue from sale	Ha Tien Energy Corporation	9.26	0.13	2.76	0.04	0.00	0.00
Total Revenue from sale		9.26	0.13	2.76	0.04	0.00	0.00
Grand Total		6,869.41	100.00	6,347.04	100.00	11,272.50	100.00

In 2022, the Company's total revenues consists of 1) Revenue from construction and service (EPC) was THB 11,216 million, representing 99% of the total revenues, divided into the domestic revenues of THB 6,348 million and the overseas revenues of THB 4,868 million. 2) Revenue from operating from power plant in overseas was THB 57 million, representing 1% of the total revenues. In 2022, Revenue from sales was none regards to the Company had divested the common shares in Ha Tien Energy Corporation (HATIECO) which operate business in biomass energy production. Therefore, HATIECO is no longer a subsidiary of the company. As a result, the Company's total revenues for the year ended 2022 was THB 11,273 million, increased 78% when compare to the same period last year, this was anticipated due to the company had been awarded many new EPC contracts during the year.

In Year 2021, the company has revenue from 3 types of business 1) Revenue from construction and service (EPC) with amount THB 6,293 million which contributed 99% of total revenue by THB 5,095 million from domestic and THB 1,198 million from overseas 2) Revenue from operating the power plant with amount THB 51 million which contributed 1% of total revenue by THB 1 million from domestic and THB 50 million from overseas 3) Revenue from sale with amount THB 3 million which contributed 0% of total revenue. The company recorded the total revenue at THB 6,347 million, decreased by 8% compared to last year, this was anticipated due to the effect of Covid-19 which has affected businesses around the world, including in Thailand. Consequently, the petrochemical and power industry sector slowed down their investment. Furthermore, the Government lockdown in Malaysia and Vietnam have adversely impacted the construction progress of the project in both countries, especially during Q2 and Q3 of 2021.

1.3.5 NEW BUSINESS DEVELOPMENT PLAN

In response to the global trend toward Low-Carbon Economy, TTCL has seen opportunities from upcoming demands of renewable energies in an impending future. Jumping at these opportunities not only allows TTCL to sustainably increase returns, but also enable TTCL to uphold its responsibility to the society and environment. Under these circumstances, TTCL has been accelerating Renewable Energy Business, especially Torrefied Biomass Pellet which is biomass fuel but higher calorific value, similar level as sub-bituminous coal.

Type	Shape	CV (kcal/kg)	Characteristics	Co-firing Ratio w/o modification
Wood Chip		1,600 - 2,800	<ul style="list-style-type: none"> High moisture Outdoor storage Low transport efficiency 	3-5%
White Pellet ("WP")		3,600 - 4,000	<ul style="list-style-type: none"> Indoor storage High transport efficiency 	3-5%
Torrefied Pellet ("TP")		4,300 - 5,500	<ul style="list-style-type: none"> Outdoor storage High transport efficiency Good grindability 	30-50%
PKS (Palm Kernel Shell)		-4,500	<ul style="list-style-type: none"> Bad grindability Outdoor storage High transport efficiency 	0%

In year 2022 "Carbon Neutral" was spreading rapidly to all over the world as manifested by each country in The UN Climate Change Conference in Egypt (COP27). In addition to each Government, International and Reputable Private Companies announced the plans how and when to contribute Low-Carbon Economy.

Target to retire coal fire power plant

Country	Target
Austria	Achieved
Sweden	Achieved (2 Years ahead of schdule)
France	Year 2022
UK	Year 2024
Italy	Year 2025
Ireland	Year 2025
Denmark	Year 2030
Spain	Year 2030
Netherlands	Year 2030
Portugal	Year 2030
Finland	Year 2030
Japan	Year 2030 (Low Efficiency Only) Year 2050 (All)
China	Year 2060



On 3rd of July 2020, Japan's Minister of Economy, Trade and Industry (METI), Hiroshi Kajiyama, announced that japan would develop concrete plans to phase out inefficient coal-fired power plants. He provided few details, but suggested that the government was considering shutting down or mothballing about 100 out of a total of 110 existing inefficient coal plants by 2030.



Prime Minister Yoshihide Suga plans to pledge a cut in greenhouse-gas emissions in japan to net zero by 2050 in his first policy speech

Source: Kyodo Jiji, 22 OCT 2020



Nov 15, 2021

Thailand recognizes climate change as a top priority and emphasizes its readiness to work with all countries and sectors of the world for the future of the next generation and for achieving universal goals.

Thailand will strive to lower its GHG emissions by 20% by 2030 (Compared with 2005), achieve "Carbon Neutrality" in 2050 and achieve a Net Zero Emission country by 2065.



In November 2021

Prime Minister Kishida announced additional support for developing countries of up to \$10 billion over five years and emphasized that "We wi" promote zero emissions in Asia as a whole, which is the engine of economic growth".

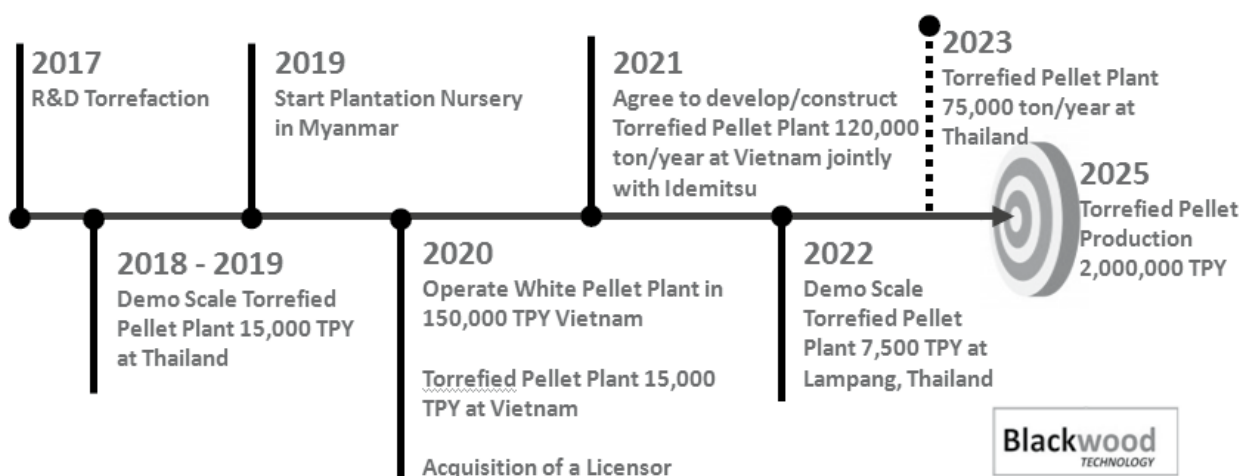
TTCL believes that Torrefied Pellet to be produced at ASEAN countries to the world market can be the most efficient, economical and realistic way to realize coal phase out if Torrefied Pellet replace coal consumption partially or totally, especially at the existing boilers. Since Year 2017, TTCL had tried this business as Value Chain including R&D, Plantation, Plant Construction and Operation, Acquisitions of the existing companies. Production of torrefied pellet requires an innovative technology in order to produce a high quality of torrefied pellet.

To achieve an innovation and technology for this new business, TTCL acquired a Netherland company, Blackwood Technology Company (Blackwood) which has been developing the technology and owning Intellectual Properties about Torrefaction based on the successful co-firing experience in large scale European power plants. The target of the torrefied production is 2 million tons per year within 2025. To achieve that target, the Company has been expanding their torrefied factories continuously in accordance with arrangement of offtakers and biomass feedstock availability.

Year 2022, TTCL developed the demo plant 7,500 Ton/year of Torrefied Pellet at Lampang with FlashTor® Technology for the first time in Thailand. This factory was developed to produce and enhance the quality of biomass fuels in Thailand by torrefaction process patented by Blackwood Technology and “showcase” of the FlashTor® torrefaction technology to prospective customers and produce test volumes for potential offtakers of torrefied pellets.

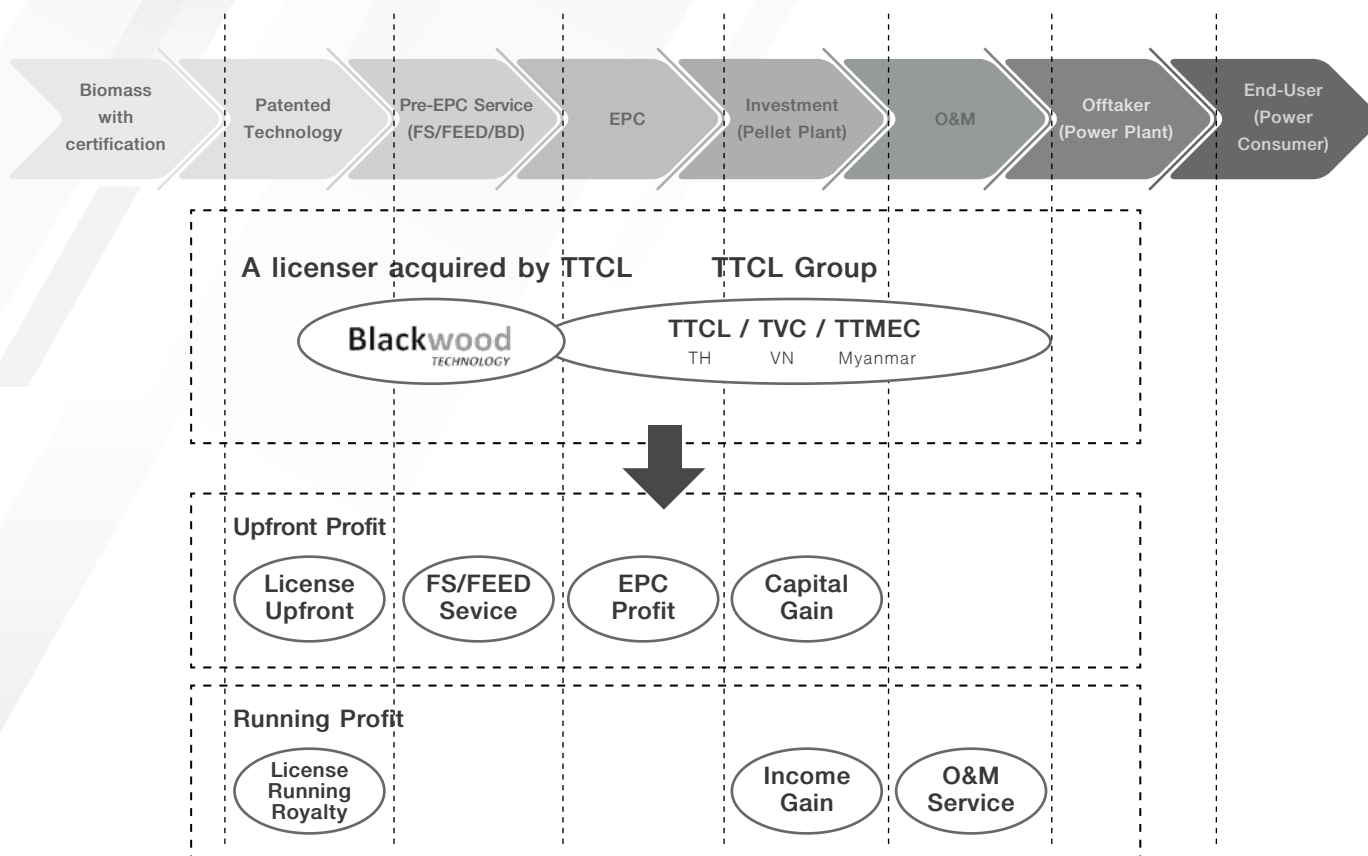


Mr. Kazuya Nashida, Japanese ambassador, Mr. Iriya, CEO of TTCL, and local government managements joined the opening ceremony for demo plant 7,500 ton/year



On year 2023, TTCL is under planning to start operation of the Commercial Plant 75,000 ton/year of Torrefied Pellet to supply more volume of fuel to offtaker in Thailand, Japan and other in future.

To realize the torrefaction projects, TTCL is ready to provide variety of services, license, Pre-EPC services (i.e. Feasibility Study, Front End Engineering and Design (FEED), and Basic Design) and EPC, Investment, Operation and Maintenance (O & M), and then diversify the profit portfolio.



1.3.6 Backlog

As of 31 December 2022, there are 23 projects on processes and THB 21,400 million Baht of revenue has not yet been recognized (Backlog) which separated by industry sectors as follows;

Unrecognized Revenue (Million Baht)		
Industry	Number of Projects	Amount (Million Baht)
Petroleum and Petrochemical	8	3,397
Chemical	7	14,281
Energy	7	2,682
Oil and Gas	1	1,040
Total	23	21,400

1.3.7 Business Assets and Details on Asset Valuation

1) Main fixed assets of the company and group

On 31 December 2022, Fixed assets for operation of the company and group are stated at cost less accumulated depreciation with total amount Baht 376.57 million, as disclosure in the consolidation financial statement the detail as follows.

Item	Description	Net Valued (Million Baht)	proprietary nature	Collateral	Objective for operated business
Consolidate					
Land and land improvement	5 Land Title Deeds as follow; <ul style="list-style-type: none"> • A Land Title Deed No. 15114 of 15 rai in Subdistrict : Phla District : Ban Chang Province : Rayong • A Land Title Deed No. 32301 of 2 rai 1 ngan in Subdistrict : Rong Kho District : Wang Nuea Province : Lampang • A Land Title Deed No. 7232 of 6 rai 3 ngan 47 square wah in Subdistrict : Rong Kho District:Wang Nuea Province : Lampang • A Land Title Deed No. 7235 of 6 rai 3 ngan 15 square wah in Subdistrict : Rong Kho District : Wang Nuea Province : Lampang • A Land Title Deed No. 13968 of 5 rai 1 ngan 81 square wah in Subdistrict : Rong Kho District : Wang Nuea Province : Lampang 	27.72	Ownership	-	- Storage equipment, maintenance & fabricate equipment and labor skill training - Pilot Bio-Black Pellet Plant
Machine and Equipment	Machine and Equipment	0.06	Ownership	-	Pilot Bio-Black Pellet Plant

Item	Description	Net Valued (Million Baht)	proprietary nature	Collateral	Objective for operated business
Furniture, Fixture and Office Equipment	Ari-Conditioner Photocopier and Office Equipment	26.98	Ownership	-	Operated Business
Motor vehicles	8 Vehicles	3.71	Ownership	-	For delivery document and support Staff and Management to Site Office and Office.
Assets under construction and installation	1) Bio Black Pellet Pilot Plant in Lampang province in north of Thailand valued Baht 183.11 million 2) Bio Black Pellet Pilot Plant in Veitnam valued Baht 134.99 million	318.10	Ownership	-	Bio Black Pellet Pilot Plant for demo technology to investor apply to Scale Commercial Plant
Total		376.57			

2) Intangible Assets

On 31 December 2022, the company has intangible assets comprise which program and membership equal to Baht 17.37 million.

3) Right of use

On 31 December 2022, the company and subsidiaries had the contract conveys the right to control the use of an identified asset with the total amount Bath 245.64 million, as comprise with the right to control office space building for operated business Baht 241.95 million, the right to control Vehicle Baht 0.68 million and the right to control land for storage equipment, maintenance & fabricate equipment and temporary Site Office Baht 3.01 million.

4) Lease liabilities

On 31 December 2022, the company and subsidiaries had Lease liabilities for the rights to control the use of an identified asset with the total amount to Bath 258.44 million as comprise with Lease liabilities for the right to control office space building for operated business Baht 254.70 million, Lease liabilities for the rights to control vehicle for management and employees amounting to Baht 0.69 million and Lease liabilities for the right to control land for storage equipment, maintenance & fabricate equipment and temporary Site Office amounting to Baht 3.05 million.

Building Office Area	Description
27 th -30 th Floor, Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : Advance Accord Ltd. Area : 5,314.60 Sqr. Period : 16 June 2020 - 15 June 2025 Retal Fee : 600 Baht/Sqr., Monthly Rental Fee = 3,188,760 Baht
27 th -30 th Floor, Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : Serm-Mit Tower Juristic Condominium Area : 232.89 Sqr. Period : 1 July 2022 - 30 June 2023 Retal Fee : 380 Baht/Sqr., Monthly Rental Fee = 88,498.20 Baht
27 th -30 th Floor, Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : Serm-Mit Tower Juristic Condominium Area : AHU Room Period : 1 July 2022 - 30 June 2023 Retal Fee : Monthly Rental Fee = 9,000 Baht
26 th Floor (Unit 2605), Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : S.P. Building Co., Ltd. Area : 377 Sqr. Peiroad : 1 December 2022 - 31 November 2025 Rental Fee : 600 Baht/ Sqr., Monthly Rental Fee = 137,400 Baht.
25 th Floor (Unit 1501/2), Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : S.P. Building Co., Ltd. Area : 40 Sqr. Peiroad : 1 September 2022 - 31 March 2024 Rental Fee : 600 Baht/ Sqr., Monthly Rental Fee = 137,400 Baht.
25 th Floor (Unit 1501/2), Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : S.P. Building Co., Ltd. Area : 229 Sqr. Peiroad : 1 April 2021 - 31 March 2024 Rental Fee : 600 Baht/ Sqr., Monthly Rental Fee = 137,400 Baht.
25 th Floor (Unit 1501/6), Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : S.P. Building Co., Ltd. Area : 87 Sqr. Peiroad : 1 April 2021 - 31 March 2024 Rental Fee : 600 Baht/ Sqr., Monthly Rental Fee = 52,200 Baht.

Building Office Area	Description
25 th Floor (Unit 1501/3), Serm-Mit Tower North Klongtoey, Wattana, Bangkok	Landlord : S.P. Building Co., Ltd. Area : 52 Sqr. Peirod : 1 April 2021 - 31 March 2024 Rental Fee : 600 Baht/ Sqr., Monthly Rental Fee = 31,200 Baht.
TTCL Vietnam Corporation 11 th Floor, Centre Point Building, 106 Nguyen Van Troi Str., Ward8, Phu Nhuan Dist., HCMC, Vietnam.	Landlord : Nguyen Vu Investment Joint Stock Company Area : 1,186.4 + 30 (Store area) Sqr. Peirod : 4 November 2022 - 3 November 2025 Rental Fee : Monthly Rental Fee = VND 838,325,911
Toyo Thai Power Myanmar Co., Ltd. 16B, 16 th Floor, Centre Point Tower, No. 65 Corner of Sule Pagoda Road and Mercant Street, Kyauktada Township, Yangon, Myanmar	Landlord : LP Holding Co., Ltd. Area : 429 Spr. Period : 1 May 2022 - 30 April 2025 Rental Fee : Monthly Rental Fee = USD. 12,870
TTCL Power Holdings Pte. Ltd. 6 Batter Road #26-06, Singapore	Landlord : HSBC Institutional Trust Seviles (Singapore) Limited. Area : 84 Sqr. Period : 1 April 2022 - 31 March 2025 Retal Fee : Monthly Rental Fee = USD. 8,964
TTCL Public Company Limited - Qatar Branch Sheikh Abdulrahman Bin Jassim Street, Street No. 720, Building No. 26, Flat No. 90, Al Wakra - Qatar	Landlord : M.B.C Services & Trading Area : 92 Sqr. Period : 1 July 2022 - 30 June 2023 Rental Fee : Monthly Rental Fee QAR. 4,000
TMSP Sdn. Bnd. Unit E-6-4 Megan Avenue 1 No. 189 Jalan Tun Razak 50400 Kuala Lumpur, Malaysia	Landlord : Yap Seong Hoong & Fong Yoke Ching Area : 165 Sqr. Period : 1 January 2021 - 31 December 2022 Rental Fee : Monthly Rental Fee MYR 6,000
Land	Description
Toyo Thai Power Myanmar Co., Ltd. 121 MW Gas Fired Combined Cycle Power Plant (Ahlone) โฉนดที่ดินเลขที่ 39	Landlord : Myanmar Electric Power Enterprise Ministry of Electric Power Area : 20,262 Sqr. Period : 15 May 2013 - 31 May 2043 Rental Fee : Yearly Rental Fee USD. 20,262

Significant Contracts :

Interest rate swap contract

On 28 May 2020, Toyo Thai Power Myanmar Co., Ltd., a joint venture, entered into an Interest Rate Swap (IRS) contract to manage the exposure of its floating rate loan to interest rate risk from long-term loan amount of USD 40 million. With the IRS contract, the Company receives interest at a floating rate based on 3-month LIBOR and pays interest at a fixed rate of 0.37% per annum from 17 July 2020 to 17 October 2024.

On 26 May 2022 the Company entered into an Interest Rate Swap (IRS) contract to manage the exposure of its interest rate from the debenture issuance amount of THB 750 million. With the IRS contract, the Company pays interest at a floating rate based on 3-month THOR and receives interest at a fixed rate 1.57% per annum from 27 July 2022 to 27 September 2024.

1.4 GROUP SHAREHOLDING STRUCTURE

1.4.1 Registered Capital and Paid-up Capital as at 31 December 2022

Registered Capital : 896,000,000 Baht divided into 896,000,000 common shares with the par value of 1.00 Baht per share.

Paid-up Capital : 616,000,043 Baht divided into 616,000,043 common shares with the pare value of 1.00 Baht per share.

1.4.2 Shareholders

20 Major shareholders as of December 30th, 2022

Name of Major Shareholders	Holding as of December 30 th , 2022	
	Number of Shares	% of shares
1. MR. HIRONOBU IRIYA	40,516,134	6.577
2. GLOBAL BUSINESS MANAGEMENT CO., LTD.	38,634,900	6.272
3. DAIWA CAPITAL MARKETS SINGAPORE LIMITED	30,800,000	5.000
4. MR. SAKCHAI SAKCHAICHAROENKUL	23,000,000	3.734
5. THAI NVDR CO., LTD.	20,111,918	3.265
6. MR. SUTHEP PATANASIN	17,150,000	2.784
7. MS. SURATANA TRINRATANA	17,079,448	2.773
8. MR. JIARANAI LERTRATCHKUL	16,993,100	2.759
9. MS. BENJAMAS NUNTAWEERAWAT	11,143,000	1.809
10. MR. SUCHAI CHANTARAWIWAT	7,823,900	1.270
11. MR. WORAPONG RAWIRATH	7,617,300	1.237
12. MS. KANTIKA TANTHUVANIT	7,474,141	1.213
13. MR. SUCHEEP CHAROENWONG	7,237,800	1.175
14. MR. TIWA JARUKE	7,194,300	1.168
15. THAILAND SECURITIES DEPOSITORY CO., LTD FOR DEPOSITORS	6,318,460	1.026
16. MR. NARUCHIT CHINAWANARAT	6,200,000	1.006
17. MRS. NIJAPORN CHARANACHITTA	5,297,207	0.860
18. MR. GILBERT EN WONG	4,633,400	0.752
19. MR. WANCHAI RATINTHORN	4,500,000	0.731
20. MS. WANTANEE RUJIRAWANNAKORN	4,420,000	0.718

Securities Holding Report of Board of Directors and Management

as of 30 December 2022

Name	Position	Number of Shares Holding as of 30 December 2021	Percentage (%)	Number of Shares Holding as of 30 December 2022	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2022
1. Mr. Tiwa Jaruke Spouse/Immature Children Related Juristic Person	Chairman of Board of Directors	7,194,300 1,170,000 -	1.17 0.19 -	7,194,300 1,170,000 -	1.17 0.19 -	- - -
2. Mr. Hironobu Iriya Spouse/Immature Children Related Juristic Person	Director President & CEO	40,516,134 - -	6.58 - -	40,516,134 - -	6.58 - -	- - -
3. Mrs. Nijaporn Charanachitta Spouse/Immature Children Related Juristic Person	Director	5,297,207 - -	0.86 - -	5,297,207 - -	0.86 - -	- - -
4. Dr. Seiichi Itakura (NVDR) Spouse/Immature Children Related Juristic Person	Director	110,000 - -	0.02 - -	110,000 - -	0.02 - -	- - -
5. Mr. Eiji Hagiwara Spouse/Immature Children Related Juristic Person	Director	- - -	- - -	- - -	- - -	- - -
6. Mr. Wanchai Ratinthorn Spouse/Immature Children Related Juristic Person	Director Chief Operation Officer (COO) Risk Management Committee Nomination & Remuneration Committee	4,500,000 - -	0.73 - -	4,500,000 - -	0.73 - -	- - -
7. Mr. Makoto Nakadoi The period of being Director for the year 2022 (1 Jan 22 - 15 Aug 22) Spouse/Immature Children Related Juristic Person	Director	- - -	- - -	- - -	- - -	- - -
8. Ms. Kantika Tanthuvanit The period of being Director for the year 2022 (16 Aug 22 - 31 Dec 22) Spouse/Immature Children Related Juristic Person	Director Company Secretary	- - -	- - -	7,474,141 - -	1.21 - -	- - -
9. Mr. Worapong Rawirath The period of being Director for the year 2022 (1 Jan 22 - 16 Dec 22) Spouse/Immature Children Related Juristic Person	Director	7,617,300 - -	1.24 - -	7,617,300 - -	1.24 - -	- - -

Name	Position	Number of Shares Holding as of 30 December 2021	Percentage (%)	Number of Shares Holding as of 30 December 2022	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2022
10. Mr. Brett Lollback The period of being Director for the year 2022 (17 Dec 22 - 31 Dec 22) Spouse/Immature Children Related Juristic Person	Director Vice President Unit Operation Officer EPC Business Unit	-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
11. Pol.Lt. Sivaraks Pinicharomna Spouse/Immature Children Related Juristic Person	Independent Director Chairman of Audit Committee	104,670	0.02	104,670	0.02	-
		-	-	-	-	-
		-	-	-	-	-
12. Mr. Suvit Manomaiyanon Spouse/Immature Children Related Juristic Person	Independent Director Audit Committee Chairman of Risk Management Committee Nomination & Remuneration Committee Chairman of Corporate Governance Committee	100.00	0.00	100.00	0.0	-
		-	-	-	-	-
		-	-	-	-	-
13. Dr. Ryuzo Nagaoka Spouse/Immature Children Related Juristic Person	Independent Director Chairman of Nomination & Remuneration Committee Audit Committee	100,000.00	0.02	100,000.00	0.02	-
		-	-	-	-	-
		-	-	-	-	-
14. Mr. Nuttachat Charuchinda Spouse/Immature Children Related Juristic Person	Independent Director	-	-	-	-	-
		-	-	-	-	-
		-	-	-	-	-
15. Ms. Pennapa Sakchai-chrearnkul Spouse/Immature Children Related Juristic Person	Chief Financial Officer Vice President Finance and Accounting Division Risk Management Committee	850,000	0.14	850,000	0.14	-
		-	-	-	-	-
		-	-	-	-	-
16. Mr. Somchai Chansiripongse Spouse/Immature Children Related Juristic Person	Vice President Project Execution EPC Business Unit	493,000	0.08	493,000	0.08	-
		277,500	0.05	277,500	0.05	-
		-	-	-	-	-
17. Mr. Suchet Watchalayan Spouse/Immature Children Related Juristic Person	Vice President New Business Unit	170,000	0.03	170,000	0.03	-
		-	-	-	-	-
		-	-	-	-	-

Name	Position	Number of Shares Holding as of 30 December 2021	Percentage (%)	Number of Shares Holding as of 30 December 2022	Percentage (%)	Number of Shares Change Increase/ (Decrease) During 2022
18. Mr. Chamnarn Atsanatam	Vice President Energy Business Unit Corporate Governance Committee	386,000	0.06	386,000	0.06	-
Spouse/Immature Children		-	-	-	-	-
Related Juristic Person		-	-	-	-	-
19. Mr. Shinichi Naruuchi (NVDR)	Vice President Unit Operation Officer New Business Unit	424,300	0.07	424,300	0.07	-
Spouse/Immature Children		-	-	-	-	-
Related Juristic Person		-	-	-	-	-
20. Mr. Toshihiro Sasanuma	Vice President Energy Business Unit BIO Unit	-	-	-	-	-
Spouse/Immature Children		-	-	-	-	-
Related Juristic Person		-	-	-	-	-
21. Mr. Paibun Sribanphai	General Manager (Accounting) Finance and Accounting Division Corporate Governance Committee	100,000	0.02	100,000	0.02	-
Spouse/Immature Children		10,000	0.00	10,000	0.00	-
Related Juristic Person		-	-	-	-	-

1.4.3 Issuance of Other Securities

Debt Securities

The company issue an unsubordinated and unsecured debenture in 1series with amount 1,500 Million Baht with the following details.

Series	Amount (Million Baht)	Rate (Per Annum)	Tenor / Maturity date
TTCL249A	1,500	7.15	2 year 5 Months / 27 September 2024

1.5 THE COMPANY'S DIVIDEND POLICY

1.5.1 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.

1.5.2 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.



2. RISK MANAGEMENT

TTCL Public Company Limited has realized the importance of risk management as an essential factor to enable the Company to achieve its objectives and goals, adding value to the Company, shareholders and stakeholders. The Board of Directors has stipulated that the effective risk management process shall be implemented in EPC business and investment activities to evaluate and monitor risk factors which may affect project cost, handover schedule, return on investment, compliance, occupational health, safety and environment, as well as company's financial status and reputation.

The Risk Management Working Group under the oversight of Risk Management Committee has responsibility to identified, assessed and monitored important risk categories which are Strategic Risk, Operational Risk, Financial Risk and Compliance Risk by considering both internal and external risk factors that may affect the Company's objectives and goals. In addition, risk control measures have been determined by considering current circumstance and company's direction in order to control the risk at acceptable level (Medium Risk Level). Responsible person for each monitoring and control activity are also assigned to ensure that risk management processes are efficiently and effectively implemented.

For the conclusion of 2022, there are significant risks identified as the following;

1. Risk from the impact of global economic changes and Risk from changing of the cost i.e. machines, equipments and materials

According to the impact of coronavirus disease or COVID-19 pandemic and war between

Ukraine and Russia, the global economic has not fully recovered and some countries indirectly affected by the war. As a result, the cost of machines, equipments and construction materials of the company have been increased.

However, the company has negotiated and managed to control costs to be at an acceptable level and does not affect with project execution and schedule.

2. Risk of Political Instability

Political instability in The Republic of The Union of Myanmar resulted in decelerated of the project located in that country. However, the Company has closely monitored the situation to define appropriate response so that the project could be proceed as planned.

3. Risk associate with Personal Data Protection Act

The Company realized the importance of protecting personal information. Although, the Company transaction normally be in a form of Business to Business (B2B) that does not collect, use and process personal data of general public. However, the Company has established Personal Data Privacy Policy and assigned responsible person for compliance with the Personal Data Protection Act regarding to personal data under company's responsibility such as information from employees, subcontractor's worker and partnership representative etc.

4. Human Rights Risks

The Company places importance on respecting human rights, which are fundamental rights according to the international standards. Especially in construction activities relating to subcontractors, vendors and employed labor for construction and equipment manufacturing. The Company has taken necessary measures to ensure that no human rights violations occur in the Company's project execution, such as conducting audits for subcontractors and new suppliers, especially in terms of occupational health and safety, before awarding them the contract. During the project execution, the project area will be determined and fenced, identity card will be provided, then only authorized persons can enter the project area, unauthorized person including children and young people are not allowed to access. The Occupational health and safety management system (ISO 45001) is applied to ensure safety of work procedures, Occupational health, safety and environment training is provided before commencing work, personal protective equipments (PPE) must be required, the weather is regularly checked and might temporarily stop work or postpone working hours if it rains or the weather is too hot. Safety officers of the company and subcontractors will monitor and supervise at all time.

In case of accommodation need to be provided for workers, responsible person will be assigned and camp's rules shall be established to ensure that there will be no safety issue or any violence against women and children.

5. Emerging Risk

The Company has considered risk emerging from changes of society, economy, technology and environment. According to construction planning of a new biomass fuel pellets plant, the Company has considered the risks and impacts from water scarcity on production processes. Therefore, an area with sufficient groundwater was selected for usage, which would not affect the community to access and utilize water.

3. OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL IMPLEMENTATION

OCCUPATIONAL HEALTH AND SAFETY IMPLEMENTATION

(GRI 403-1: Occupational health and safety management system)

TTCL emphasizes the importance of Occupational Health and Safety of employees, partners and concerned parties. Therefore, company aims to establish and maintain safe working conditions with no injuries or illnesses by adopted the Occupational Health and Safety Management System as part of company's execution. Then, TTCL continually improves the Occupational Health and Safety Management System. The Occupational Health and Safety Management System has been certified with ISO 45001:2018 by BSI Group (Thailand) Co., Ltd.

bsi.  

Certificate of Registration

OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM - ISO 45001:2018

This is to certify that:

TTCL PUBLIC COMPANY LIMITED 159/41-44, Sermit Tower, 27th - 30th Floor, Sukhumvit 21 Road (Asoke), North Klongtoey, Wattana, Bangkok 10110 Thailand	บริษัท ทีทีซีแอล จำกัด (มหาชน) เลขที่ 159/41-44 อาคารเซรมิตทาวเวอร์ ชั้น 27-30 ถนนสุขุมวิท 21 (อโศก) แขวงคลองเตยเหนือ เขตวัฒนา กรุงเทพมหานคร 10110 ประเทศไทย
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Holds Certificate Number: **OHS 730163**

and operates an Occupational Health and Safety Management System which complies with the requirements of ISO 45001:2018 for the following scope:

Project Management, Design and Engineering, Procurement and Construction Management for Oil, Gas, Refinery, Chemical, Petrochemical and Power Generation Plants.

การบริหารจัดการโครงการก่อสร้าง, การให้บริการด้านการออกแบบวิศวกรรม, การจัดหาเครื่องจักรและอุปกรณ์ และการบริหารงานก่อสร้างโรงงานอุตสาหกรรม ในกลุ่มอุตสาหกรรมปิโตรเคมี เคมีภัณฑ์ สุรภัณฑ์พลังงาน และอุตสาหกรรมใกล้เคียงอื่นๆ

For and on behalf of BSI: 
Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2014-09-10
Latest Revision Date: 2020-07-01

Effective Date: 2020-09-10
Expiry Date: 2023-09-09

Page: 1 of 1

ANAB
ACCREDITED

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated [online](https://www.bsi-global.com/ClientDirectory).
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Further clarifications regarding the scope of this certificate and the applicability of ISO 45001:2018 requirements may be obtained by consulting the organization.
This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Occupational Health
and Safety Management
System Certificate
(ISO 45001: 2018)

The Achievement in Occupational Health, Safety and Environment

(GRI 403-9: Work-related injuries)

TTCL has achieved in Occupational Health, Safety and Environmental implementation in 2022 as following;



LSP LLDPE PROJECT

Owner (Client)	: Long Son Petrochemicals Co., Ltd.
Project Site Location	: Long Son Island, Northwest of Vung Tau City, Ba Ria–Vung Tau Province, Vietnam
Project's Description	: LLDPE Plant
Achievement	: 3,000,000 Safe Working Man Hours without days away from work case
Award Date	: 9 April 2022



2SP PROJECT

Owner (Client)	: Idemitsu Advanced Materials (Malaysia) Sdn. Bhd.
Project Site Location	: PLO 408 Jalan Pekeliling, 81700 Pasir Gudang, Johor, Malaysia
Project's Description	: Syndiotactic Poly-Styrene (SPS)
Achievement	: 2,000,000 Safe Man Hours without Lost Time and Accident
Award Date	: 1 December 2022

Occupational Health, Safety and Environmental Policy

TTCL has established the Occupational Health, Safety and Environmental Policy Statement as stated in Environmental Implementation.

Occupational Health, Safety and Working Environment Committee

(GRI 403-4: Worker participation, consultation and communication on occupational health and safety)

TTCL has established the Occupational health, safety and working environment committee in compliance with the Ministerial regulation set standard in administration and management of safety, occupational health, and work environment B.E. 2549 to support and encourage the occupational health, safety and environment activities to ensure that all activities are effectively complied with HSE's Policy. The committee has a two-year term from 6th August 2021 to 5th August 2023.

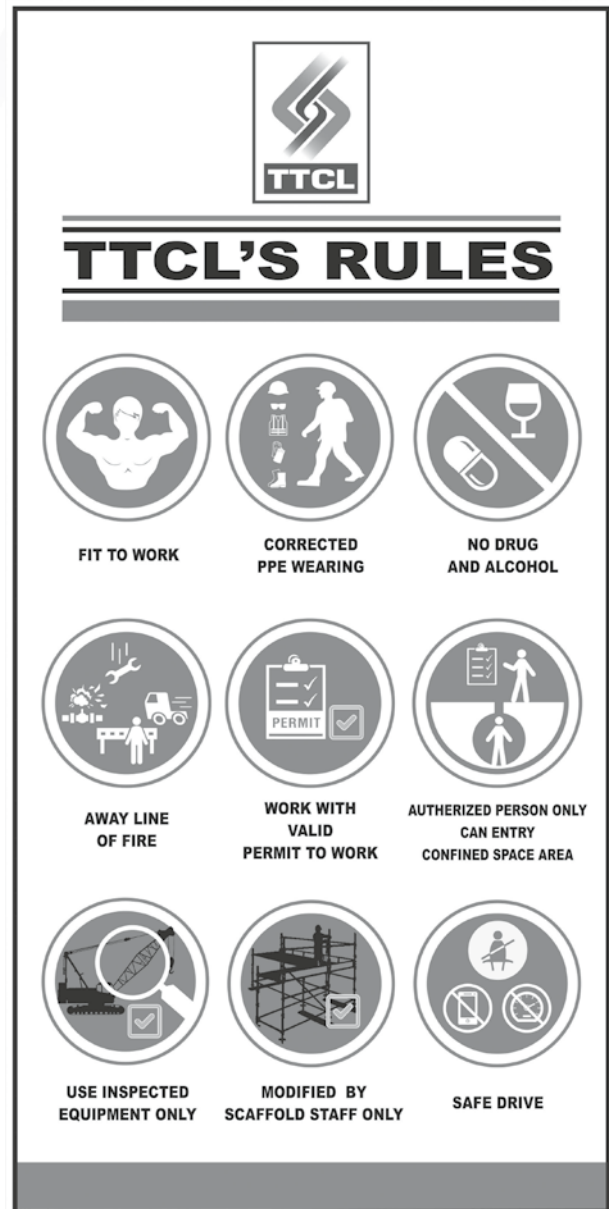
Occupational Health, Safety and Working Environment Committee Consist of;

1. Mr. Taworn	Suksrisaranjitr	Chairman (Employer's representative in management level)
2. Ms. Jaruwan	Sookthauyart	Committee (Employer's representative in commanding level)
3. Mr. San	Jaisong	Committee (Employer's representative in commanding level)
4. Mr. Somboon	Tachasevarakul	Committee (Employer's representative in commanding level)
5. Mr. Phakin	Phaphophiphatphong	Committee (Employer's representative in commanding level)
6. Mr. Rapee	Suwapiromchot	Committee (Employee's representative)
7. Mr. Ronnapoom	Chanmon	Committee (Employee's representative)
8. Mr. Pitak	Sukwan	Committee (Employee's representative)
9. Ms. Thanatchaporn	Swatdee	Committee (Employee's representative)
10. Ms. Papawee	Inseechun	Committee (Employee's representative)
11. Mr. Nuttapol	Sinkajohn	Committee and Secretary (Safety officer in professional level)

Occupational Health, Safety and Environmental Implementation

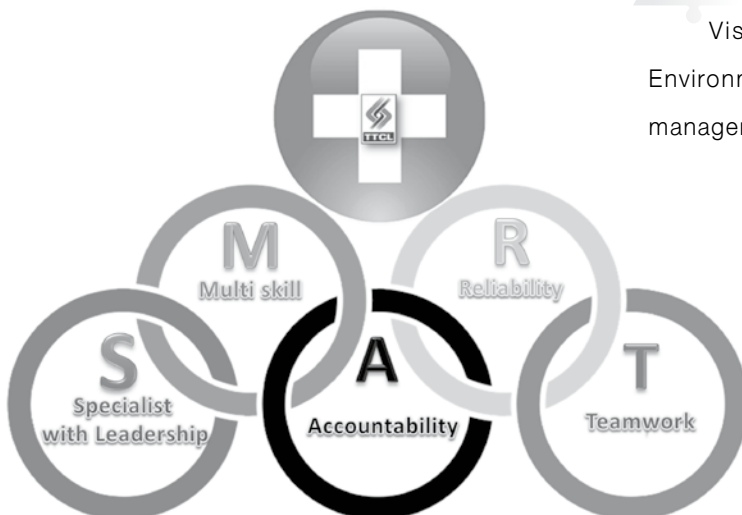
(GRI 403-1: Occupational health and safety management system)

The company determines "TTCL'S RULES" to establish and maintain safe working conditions for construction as following;



HSE VISION

Vision of Occupational Health Safety and Environmental Department (HSE) for organization management and execution is SMART HSE



S is Specialist with Leadership
M is Multi-Function/Multi-Skill
A is Accountability
R is Reliability
T is Teamwork

Incidence Rates 2020-2022

(GRI 403-9: Work-related injuries)

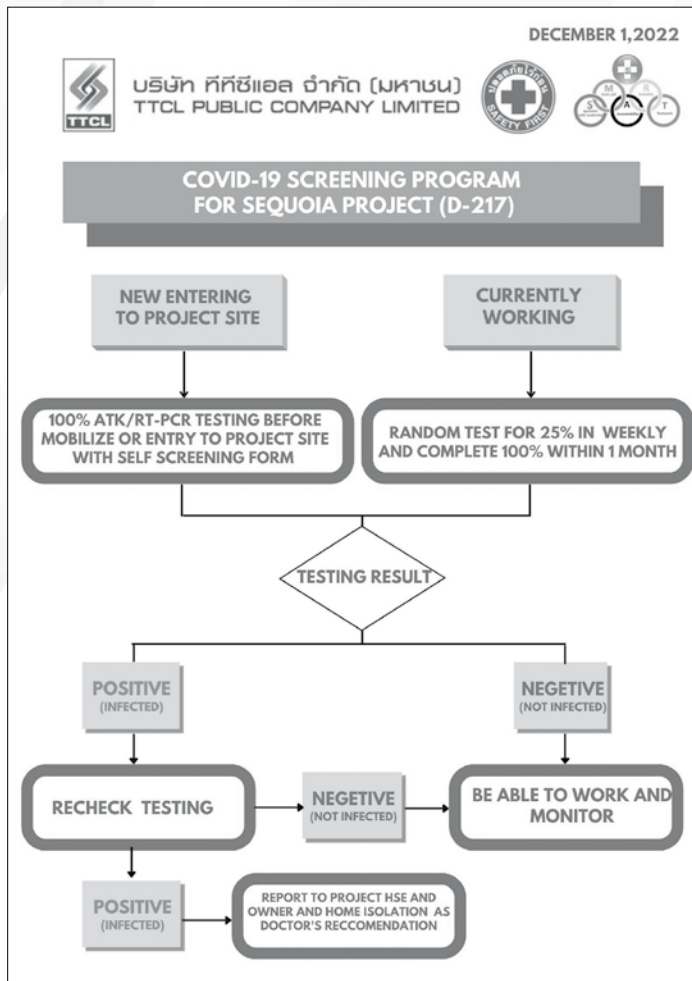
INDICATORS		2020	2021	2022
Total Recordable Incidents Rate: TRIR				
Target	Employees	Not exceeding 3.0	Not exceeding 2.8	Not exceeding 2.5
	Subcontractors			
Performance	Employees	0.063	0.051	0
	Subcontractors			0.027
Lost Time Injury Frequency Rate: LTIFR				
Target	Employees	Not exceeding 1.2	Not exceeding 1.1	Not exceeding 1.1
	Subcontractors			
Performance	Employees	0	0	0
	Subcontractors			0

*Reference : Incidence rates of nonfatal occupational injuries and illnesses by selected industry and case types, private industry, 2018-2020 (Construction), U.S. Bureau of Labor Statistics, U.S. Department of Labor.

**Collected statistics by separated employees and subcontractors have been started the record since 2022 onwards.

Coronavirus 2019 (COVID-19) prevention and control measures

According to situation of Coronavirus 2019 (COVID-19) outbreak in Thailand 2022 has been decreased the level of severity and mitigated the regulations after several years passed, HSE department emphasizes the prevention of Coronavirus 2019 (COVID-19) infection in order to prevent the pandemic in construction area and take care of employee hygiene including the subcontractors. HSE department determined the Coronavirus 2019 (COVID-19) control measures as following



1. Revised regulations and working procedure (Communicable Disease Management Plan for COVID-19) to control the outbreak of Coronavirus 2019 (COVID-19) according to laws, announcement/ command of the government sector including customer requirements in order to use as method and control the pandemic of Coronavirus 2019 (COVID-19) in project site.

COVID-19 Screening Program for Sequoia Project (D-217)

2. Strictly implement the control measures which are specified in the procedure to prevent the outbreak in project site.

3. Random test to monitor and proactive test by Antigen Test Kit (ATK) at least once a week.



Emergency Response

(GRI 403-5: Worker training on occupational health and safety)

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



TTCL cooperated with Sermmitt tower juristic person to conduct emergency drill at head office

Emergency Drill at Project Site



At head office, TTCL also established Emergency Rescue Team (ERT) in order to assist employee who stay for observation at nurse room, children in child care room and person who need assistance to evacuate from building in emergency situations such as fire and earthquake.



Emergency Rescue Team Meeting at Head Office

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

(GRI 403-1: Occupational health and safety management system)

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

HSE Delivery

(GRI 403-4: Worker participation, consultation and communication on occupational health and safety)

TTCL published HSE Delivery program to communicate Occupational health and safety articles to employees. Furthermore, TTCL also encouraged employees to participate in this program to raise awareness in Occupational health and safety.

The image displays three posters from the HSE Delivery program. Each poster includes a QR code for more information and a section for the lucky winner of a TTCL gift.

- Poster 1: Mental Health Care during the COVID-19 Pandemic**
 - Topics: 1. ติดตามข่าวสารที่เป็นประโยชน์ (Follow the news as needed), 2. เลือกรับข่าวสารจากแหล่งเชื่อถือได้เท่านั้น (Choose to receive news from reliable sources), 3. หลีกเลี่ยงการแชร์และโพสต์ข่าวที่ไม่แน่ใจ (Avoid sharing and forwarding unconfirmed news), 4. พยายามไม่ใช้สื่อโซเชียลมากเกินไป (Avoid using social media excessively), 5. จัดเวลาว่างทำกิจกรรมที่สร้างสรรค์ (Do a safe and creative hobby), 6. สื่อสารกับคนในครอบครัวและเพื่อน (Communicate regularly with family and friends).
 - Winner: K. Thanwin C. (Planning & piping dept.)
- Poster 2: โรคเท้าผื่น (ATHLETE'S FOOT)**
 - Symptoms: ผิวหนังลอกเป็นขุย (Flaky skin), มีกลิ่นเหม็น (Bleating room), เจ็บและคันบริเวณเท้า (Sore feet), มีผื่นแดงระหว่างนิ้วเท้า (Itching between the toes), ผิวหนังอักเสบ บวม แดง (Skin inflammation, swelling, redness).
 - Prevention: ไม่ใส่รองเท้าจนเกินไป (Do not wear wet shoes or socks. Wash and dry your socks prior to using it each time.), ใส่รองเท้าทุกครั้ง (When wading in water, always wear boots), หลีกเลี่ยงการใส่รองเท้าที่ชื้นแฉะ (Wash your feet thoroughly with soap and water after wading and then wipe away dry).
 - Winner: K. Yapa N. (Administration Department)
- Poster 3: อันตรายจากไฟฟ้าดูด/ไฟฟ้าช็อต (ELECTRIC SHOCK HAZARD)**
 - Precautions: ตรวจสอบปลั๊กไฟและอุปกรณ์ไฟฟ้าเป็นประจำ (Extension cord and Electrical appliance should be moved to a higher place. Household appliances should be checked regularly.), ห้ามใช้ปลั๊กไฟที่ชำรุด (Do not use flooded Electrical appliance. Before use, it should be inspected by a professional.), ข้อควรระวังในขณะช่วยเหลือผู้ถูกไฟฟ้าดูด (Precautions to take when helping electrocuted people).
 - Precautions: ปิดกระแสไฟฟ้าทันที (Cut off the electricity immediately.), ห้ามสัมผัสผู้ถูกไฟฟ้าช็อตด้วยมือเปล่า (Do not use your bare hands to touch an electric shock victim.), ใช้ถุงมือหรือผ้าแห้งสะอาดเพื่อป้องกันไฟฟ้าช็อต (Use rubber gloves or a thick dry cloth to protect your hands pushing the victims out quickly).
 - Winner: Dung M. (Mechanical Dept.)

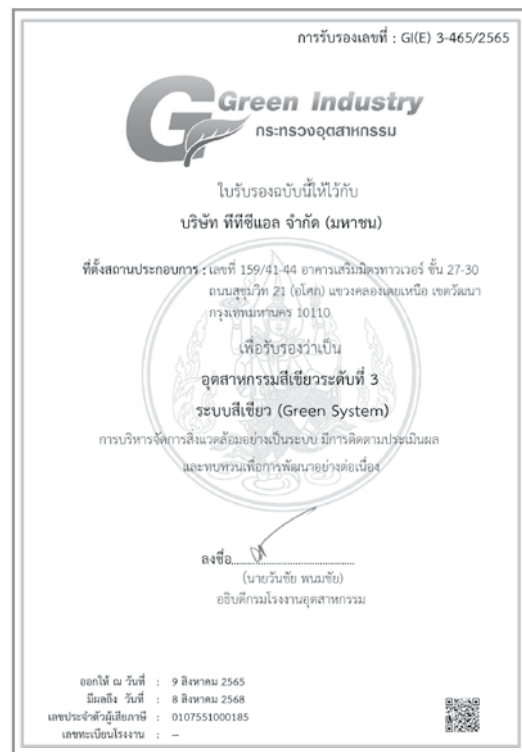
HSE Delivery Activity

ENVIRONMENTAL IMPLEMENTATION

TTCL emphasizes the importance of environmental impact prevention including employees, partners and concerned parties. Therefore, company adopted the Environmental Management System as part of company's execution and continually improves the Environmental Management System. The Environmental Management System has been certified with ISO 14001:2015 by BSI Group (Thailand) Co., Ltd. Moreover, company has been certified for the Green Industry Level 3 (Green system) by Ministry of Industry, Thailand.



Environmental Management System
Certificate (ISO 14001:2015)



Green Industry Level 3 (Green System)
Certificate

Responsibility for Environmental and Safety

(GRI 403-1: Occupational health and safety management system)

TTCL has responsible for environment and safety by implemented the Occupational Health, Safety and Environmental Management System (ISO 45001 and ISO 14001) in order to ensure that employees and concerned parties can execute their work safely and prevent the impact to environment, social and community.

Occupational Health, Safety and Environmental Policy

TTCL has established the Occupational Health, Safety and Environmental Policy Statement.

This policy states:

1. TTCL committed to establish and maintain safe and healthy working conditions in order to prevent injury or ill health of employees and concerned parties including environmental protection.

(GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships)

2. TTCL shall execute project and construction management activities in compliance with applicable legal and other HSE requirements including company and project's procedures.

(GRI 403-1: Occupational health and safety management system)

3. TTCL regards that the compliance with company and project's procedures to establish and maintain safe and healthy working conditions including environmental protection are duty and responsibility of employees and concerned parties which included subcontractors and business partners. Supervisor and manager at all levels have to act as role models by leading, supporting and encouraging their subordinates to be aware of working safely and environmentally conscious.

(GRI 403-1: Occupational health and safety management system, 403-4: Worker participation, consultation and communication on occupational health and safety)

4. TTCL shall provide the necessary resources to support the implementation of the Occupational Health, Safety and Environmental Management Systems including hazard elimination and hazards and HSE risks reduction.

(GRI 403-1: Occupational health and safety management system, 403-2: Hazard identification, risk assessment and incident investigation)

5. TTCL shall support and promote employees' participation and consultation in the implementation of the Occupational Health, Safety and Environmental Management.

(GRI 403-4: Worker participation, consultation and communication on occupational health and safety)

6. HSE Policy, Objectives and its effectiveness shall be reviewed annually by Top management for their suitability and determine the opportunity for continual improvement of the Occupational Health, Safety and Environmental Management Systems.

(GRI 403-2: Hazard identification, risk assessment and incident investigation)

Environmental Management

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

Air Quality Control

(GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships)

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



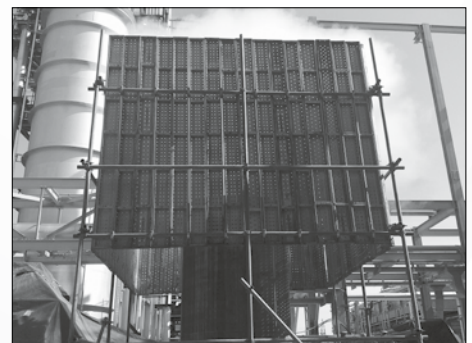
TTCL provided water spray on transportation route within the project and surrounding areas

Noise Control

(GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships)

In construction activities, noise from piling and flushing activities may be affected to nearby communities. The company has determined mitigation and control measures to prevent and minimize the impact by consider using bored pile and fitting a silencer during flushing activity including limited work time and inform nearby communities in advance.

Fitting a silencer in construction site



Waste Management

(GRI 306-2: Waste by type and disposal method)

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



Waste storage and separation

Discharge Water Control

(GRI 306-1: Water discharge by quality and destination)

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



*Water sampling
techniques for water
quality analysis*

Compliance with Environmental Laws, Regulations and Requirements

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

Resources Utilization Awareness Program

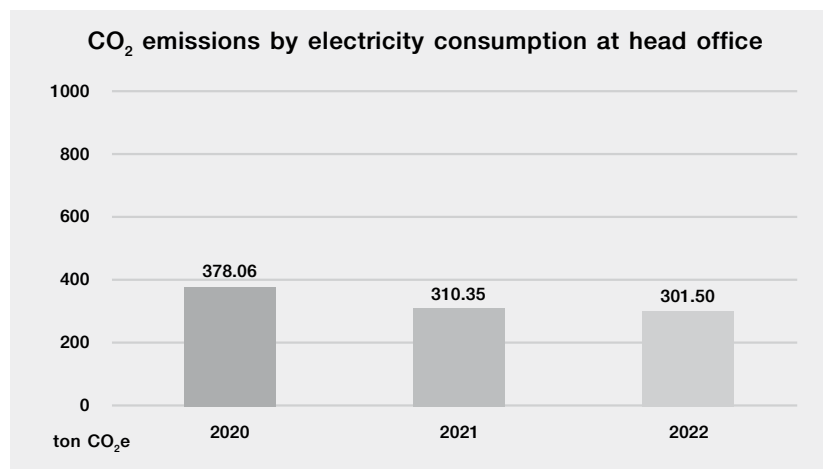
(GRI 302-4: Reduction of energy consumption)

TTCL emphasizes the importance of energy conservation. Accordingly, electricity conservation campaign was organized in order to raise employee's awareness to use electricity efficiently, reduce greenhouse gas emissions and global warming. Therefore, company aims to reduce 5% of electricity consumption and greenhouse gas emissions.

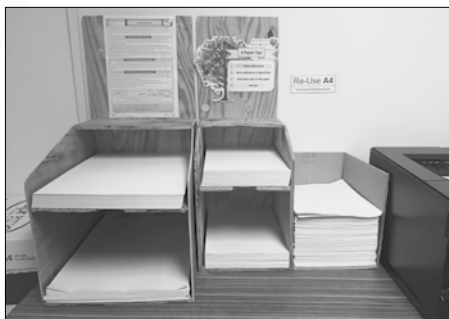
Electricity consumption at head office 2020-2022

Month	Year	Electricity consumption (kWh)		
		2020	2021	2022
January		69,582	52,428	51,960
February		78,343	52,236	49,590
March		75,705	51,426	46,690
April		73,018	54,245	53,772
May		67,390	54,335	50,521
June		65,567	51,811	56,084
July		59,527	55,696	53,484
August		58,531	50,323	50,117
September		52,527	49,844	52,149
October		54,581	49,367	47,511
November		54,166	51,167	45,549
December		47,326	47,942	45,696
Total		756,263	620,820	603,123
Greenhouse gas emissions*		378,056 kgCO₂e/kWh	310,348 kgCO₂e/kWh	301,501 kgCO₂e/kWh

* Emission Factor = 0.4999 kgCO₂e/kWh (http://thaicarbonlabel.tgo.or.th/admin/uploadfiles/emission/ts_578cd2cb78.pdf)



TTCL recognizes the global climate change problem. Activities and campaigns were organized in order to raise employee's awareness and recognize value of limited resources. There are many activities have been conducted such as paper saving program to utilize used paper, encourage to review and read document in electronic file to reduce amount of printed paper, the campaign for water and electricity consumption saving including replacing fluorescent lamp by LED lamp. As the result, the amount of utilized resources has been reduced.



Paper saving program

Electricity and water consumption saving campaign



Reducing Non-Hazardous Waste Program

TTCL emphasizes to the environmental and waste management with our aim to reduce non-hazardous waste caused by construction activities which is the main environmental aspects in construction work. Therefore, TTCL has an idea to transform non-hazardous wastes (uncontaminated wood pallet or wooden case from equipment packaging) by fabricate into the useful things such as table, office desk, shelf and bench etc.

Determined performance targets as following;

Environmental Performance Targets

Performance Targets	Indicators	Short-term within 2022	Long-term 2022-2027	Performance against Targets
Transformed non-hazardous waste into the useful things (wood pallet or wooden case from packaging)	Amount of transformed non-hazardous waste	80%	-	80% (Target achieved)
Reduced non-hazardous waste (wood pallet or wooden case from packaging)	Amount of non-hazardous waste	-	80%	80% (Target achieved)



Furthermore, D-203 project has been transformed wood pallet or wooden case into table to donate to Banthung community, Thung Sukhla sub-district, Si racha district, Chonburi province in order to utilize in the community.



Cleaning of Roads and Public Areas in Nearby Community Program

TTCL emphasizes to community engagement and responsibility with the community which is affected by construction activities. Then, TOP SPP EXPANSION project has participated to clean roads and public areas in the community nearby construction area in order to reduce air pollution and enhance the relationship.



4. DRIVING BUSINESS FOR SUSTAINABILITY

TTCL Overview and Policy

TTCL Public Company Limited (TTCL), the first integrated Engineering, Procurement and Construction (Integrated EPC) company in Thailand, was incorporated in 1985 and issued an initial public offering and became a listed Company in the Stock Exchange of Thailand in 2009.

TTCL has experiences and expertise 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.

Currently, the Company has successfully developed several biomass projects together with Idemitsu Kosan Company Limited (IKC) as a strategic partner. Thus, the Company becomes not only an integrated EPC contractor, but also a project developer who has rich experiences and expertise in providing integrated EPC. The Company continuously provides a first-class integrated EPC service and expands its investment portfolio especially in renewable energy business together with sustainable development.

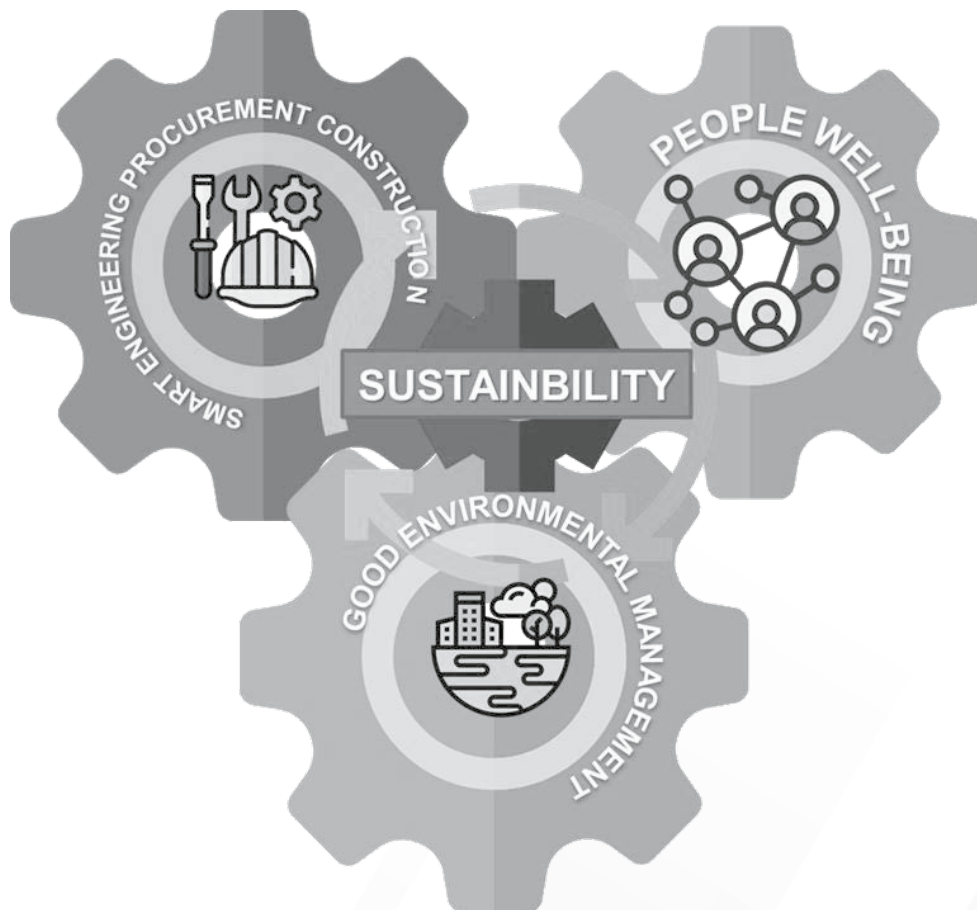
Board of Directors value the company's operation through sustainable development framework and authorize CG Committee to responsible of sustainability management by appointing sustainable working team to drive sustainable management and making ESG policy for strategy formulation of all activities in value chain and taking into account the impact of all groups of stakeholders.

TTCL Goals, Vision and Mission

In order to consistent with sustainable management, the company analyze of impact issues to all stakeholders from plant acceptance including consider outside impact that effect to plant acceptance. The company has set up the goals, vision and mission of company operation and proposed to management aiming to balance in 3 dimensions between Economics, Socials and Environment, and maintain value of the company together with approach into demand of all group of stakeholders.

“Innovative and Trustworthy First Class Integrated EPC for Sustainable Future”

Leader in services of integrated Engineering, Procurement and Construction including project management and project feasibility study over a wide range to Energy, Petrochemical, Chemical and Power industries throughout innovation and technology development for sustainable industry together with social and environment.



TTCL Value Chains

As the goals, vision and mission under the sustainable development framework into determine direction of operation of all activities in value chains and to be created co-value between the company and all group of stakeholders through “SMART” goals.

 <p>SMART Bidding / Contract</p>	<p>Studying and analyzing information of customers and competitors including preliminary engineering design under reasonable price and good quality as per the customers' needs until receiving customers' trust as an integrated service provider of engineering design, procurement of machinery & equipment, and construction (Integrated EPC).</p>
 <p>SMART Engineering</p>	<p>Technology selection and or the owner of the patent of technology to be used in engineering design to maximize efficiency and meet the customers' needs.</p>
 <p>SMART Procurement</p>	<p>Selection of quality partners based on reputation product and service quality reference information from users in the same business Included considering the purchase of machinery and quality equipment that meets customer specifications and does not affect society and the environment under appropriate cost management.</p>
 <p>SMART Construction</p>	<p>Selection of experienced subcontractors with expertise in construction and reliability. The company The Company prioritize on occupational health, safety and environment, quality control of work including testing of the system during operation to make a trustworthy and highest satisfaction to customers.</p>
 <p>SMART Plant Acceptance</p>	<p>Delivery of work on time as specified by the customers with thoroughly inspection, quality control including the warranty of the work after plant acceptance to build trustworthy and highest satisfaction to customers</p>

Therefore, goals setting principles is an important to apply and control the quality of operations in all major activities.



Specific

To create a quality work for customers.



Measurable

Statistically measurable goals to be used as a standard for developing operations and maintain the quality of work for build customer satisfaction and trustworthy leading to continuous service providing.



Achievable

Feasibility study of new projects with together with project owner, joint ventures or investors to create co-value with the company including technology development or study new innovations to be applied in operations and develop the project for project achievement.



Realistic

To achieve the truly requirement of all group of stakeholders



Timely

To set up clearly work schedule, delivery quality work on time to make highest satisfaction to the customers

TTCL's Stakeholders

To be consistence with the vision and mission, the company use the operational information with stakeholders to determine strategic planning for responsible to requirement and expectation of all groups of stakeholders and balancing between values and value of business operation as well as building relationships and trustworthy of operation between the company and stakeholders.

Stakeholders Engagement Processes

1. Stakeholders identification by considering as follows;

- What groups of stakeholders are related to the Company's business operations?
- Does the Company make a lasting impact on the stakeholders?
- Do stakeholders have an influence that will have a lasting impact on the Company?

2. Working processes with stakeholders are as follows;

- Specify the department that operate in all activities of business value chain responsible for relevant stakeholders.
- Systematically determine methods for surveying the needs, expectations and stakeholder' expectations and operation frequencies.
- Gather information about the needs and expectations of stakeholders.

3. Analysis and selection materiality

- Consider the importance of the needs and expectations of the stakeholders in accordance with the context related to the impact, risk, opportunity and conformity with company's policies and goals, including the importance to stakeholders and to the company.

4. Result Processing

- Propose the analysis results to CG Committee who responsible of the company's sustainable policy for making the direction of sustainable operations and company's strategy.

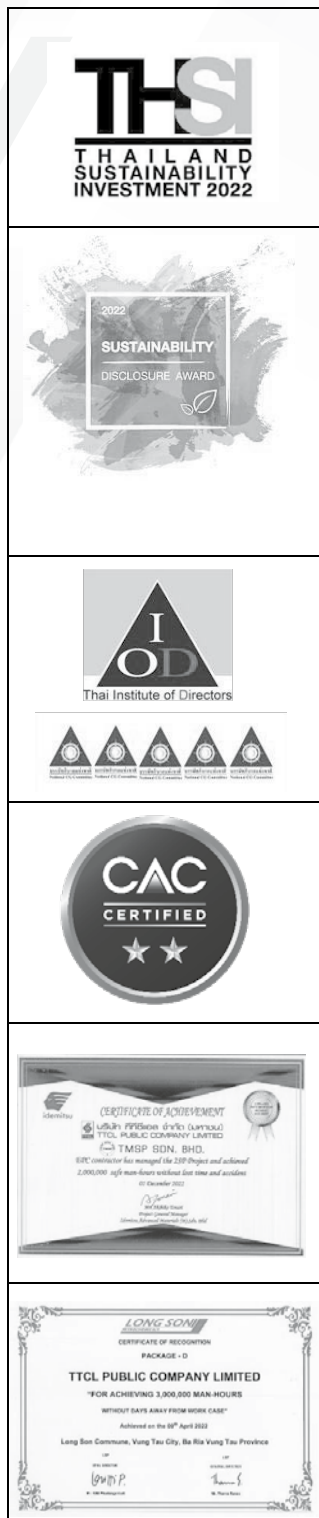
Stakeholder	Method	Needs / Expectation	Responses by the company	Targets of 2022	Results of 2022	Plans of 2023
Customer (Project Owner)	To survey the satisfaction, expectation and needs of customers (Project Owner)	<ul style="list-style-type: none"> • Quality Project • Delivery work on time • Warranty of work's quality 	<ul style="list-style-type: none"> • Diversity of integrated engineering • Reasonable price • Delivery work on time • Warranty of work's quality after delivery of work. 	<ul style="list-style-type: none"> • Get the highest satisfaction from customers (≥80%) • Delivery work on time as the customers' expectation • Warranty of work's quality according to terms and conditions of contract. 	<ul style="list-style-type: none"> • Get the satisfaction from customers (≥70%) • Delivery work on time as the customers' expectation • Warranty of work's quality according to terms and conditions of contract. 	<ul style="list-style-type: none"> • Analyze the customers' satisfaction assessment for improving and development work operation to make the highest satisfaction to the customers (≥80%). • To get the customer's trust and has been hired from the existing customers representing 80% of all customers. • The company has been hired from new customers representing 20% of all customers

Stakeholder	Method	Needs / Expectation	Responses by the company	Targets of 2022	Results of 2022	Plans of 2023
Investors / Shareholders	Accurately, and timely disclosure of information for investors to access company information for making decisions of investment	<ul style="list-style-type: none"> ● Good operating performance ● Good Corporate Governance ● Accurately and timely disclosure of information ● Dividend payment 	<ul style="list-style-type: none"> ● To report company operation performance in AGM 2022. ● To disclosure company information through 56-1 One Report and company website. ● Participate in Good Corporate Governance Survey ● To invest in energy business for expansion the business opportunities in the future. 	<ul style="list-style-type: none"> ● To expand business opportunities in investing in biomass energy business. ● Maintain standards of good corporate governance practices at an excellent level in order to build investors and shareholders' trust ● To disclose the sustainable information covering the environment, socials and governance 	<ul style="list-style-type: none"> ● To join investment with the subsidiaries to establish a new company in relating with produce & supply raw material (Biofuel) in Lampung. ● Passed the evaluation from the 2022 Good Corporate Governance Survey at an excellent level. 	<ul style="list-style-type: none"> ● Maintain standard of Good Corporate Governance practice in the year 2023 at an excellent level to build investors and shareholders' trust. ● Business cost management plan and investment budget in new business for expansion the business opportunities, generate good return for the investors and dividend to shareholders.
Business partners i.e. <ul style="list-style-type: none"> ● Supplier ● Vendor ● Subcontractor 	Satisfaction, expectations and needs of partners survey	<ul style="list-style-type: none"> ● Get a chance to do long term business. ● Mutually accepted employment contract. 	<ul style="list-style-type: none"> ● Fairness of Business Partners selecting procedure. ● Clearly and straightforward communication of company requirement quality to business partners. ● Procurement division was working under prevention of conflict of interest policy. 	<ul style="list-style-type: none"> ● Fairness of Business Partners selecting procedure in order to get qualified business partners according to company specification. ● No complaints from the customers regarding the poor quality products and services. ● No complaints of conflict of interest in the company. 	<ul style="list-style-type: none"> ● Selected qualified business partners according to company's specification including good quality of products and services. ● No complaints from the customers regarding the poor quality of products and services ● No complaints of conflict of interest in the company. 	<ul style="list-style-type: none"> ● To communicate code of conduct for business partners including prevention of conflict of interest policy and human rights policy to both existing and new business partners more than 50% of all business partners of the company.

Stakeholder	Method	Needs / Expectation	Responses by the company	Targets of 2022	Results of 2022	Plans of 2023
Employees	<ul style="list-style-type: none"> ● Satisfaction, expectations and needs of employees survey ● Set up employment procedure related to human rights policy of the company. 	<ul style="list-style-type: none"> ● Sustainable Income, good welfare and bonus. ● Career Path ● Fairness of evaluation performance. ● Fairness of employment 	<ul style="list-style-type: none"> ● Consider to increase salary for employees based on legal minimum wage and remuneration rate in the same business. ● Consider to pay bonus for employees based on company performance in an appropriate proportion for employees' encouragement. ● Consider to promote employees based on performance and comply with company rules and regulation by supervisor together with department manager and proposed to management for fairly consideration and approval. ● Provided of co-working space for employees to rest and working independently, and reduce stress including working more efficiently. ● Added a channel for complaints if unfair actions are found via email. 	<ul style="list-style-type: none"> ● To increase salary & pay bonus. ● To promote employees based on performance and comply with company rules and regulation by supervisor together with department manager and proposed to management for fairly consideration and approval. ● Arrangement of co-working space for employees to rest and working independently, and reduce stress including working more efficiently. 	<ul style="list-style-type: none"> ● Employees are more relaxed and happier at work from improving working environment and cooperate in complying with company's rules and regulation. ● Employees are encouraged and having motivation of work. ● Get more work efficiency. 	<ul style="list-style-type: none"> ● Communication plan of company's information to all employees. ● Human resource development plan in both Hard Skill such as working skill of each department and Soft Skill such as Growth Mindset and attitude etc. ● To improve assessment of employees' satisfaction in 2023 for development of employee's motivation.

Stakeholder	Method	Needs / Expectation	Responses by the company	Targets of 2022	Results of 2022	Plans of 2023
Corporate governance organization	<ul style="list-style-type: none"> ● To comply with rules and regulation of good corporate governance principles. ● Participated in assessment of governance organization i.e. SET, SEC, Thaipat institute IOD and CAC 	<ul style="list-style-type: none"> ● To comply with rules and regulation of corporate governance organization. ● Participated in assessment of Sustainability Management. ● Join of CAC membership. ● Participate in assessment of good corporate governance operation. ● Sustainability information disclosure 	<ul style="list-style-type: none"> ● To strictly comply with rules and regulation of corporate governance organization. ● Participated in assessment of Sustainability Management (THSI). ● Join of CAC membership. ● Participate in assessment of good corporate governance operation (CGR). ● Sustainability information disclosure (ESG) 	<ul style="list-style-type: none"> ● Passed the evaluation from the 2022 Good Corporate Governance Survey at an excellent level from IOD for 7 consecutive years. ● Has been selected as the one of listed companies on the Thailand Sustainability Investment (THSI) from SET for 6 consecutive years. ● Passed the assessment from CAC to be a membership for the 3rd time. ● Received an honorary award for sustainability information disclosure in ESG from Thaipat institute for 2 consecutive years. 	<ul style="list-style-type: none"> ● Passed the evaluation from the 2022 Good Corporate Governance Survey at an excellent level from IOD for 7 consecutive years. ● Has been selected as the one of listed companies on the Thailand Sustainability Investment (THSI) from SET for 6 consecutive years. ● Passed the assessment from CAC to be a membership for the 3rd time. ● Received an honorary award for sustainability information disclosure in ESG from Thaipat institute for 2 consecutive years. 	<ul style="list-style-type: none"> ● Annually review company policies related to corporate governance such as Anti-Corruption Policy, ESG Policy etc. to cover operations and meet the criteria of corporate governance organization.
Community	<p>Satisfaction and expectation survey of community around project area together with project owner through community's leader.</p>	<ul style="list-style-type: none"> ● Safety, no environment impact of community around project area. ● Encouragement and supporting activities of community around project area. 	<ul style="list-style-type: none"> ● Control and responsible of occupational health, safety and environmental management rely on law, rules and regulation. ● Local employment in suitable positions based qualification and job characteristic. ● Participated in traditional activities and supporting other community activities. 	<ul style="list-style-type: none"> ● Participated in community public hearing survey together with project owner before the project construction. ● Local employment ● Participated in community's activities and supporting community's activities in cash, educational equipment etc. ● No complaints of occupational health, safety and environment impact from the community around project area. 	<ul style="list-style-type: none"> ● Has been cooperation from the community in community public hearings survey before project construction. ● Local employment ● Participated in community's activities and supporting community's activities in cash, educational equipment etc. ● No complaints of occupational health, safety and environment impact from the community around project area. 	<ul style="list-style-type: none"> ● Control and responsible of occupational health, safety and environmental management rely on law, rules and regulation. ● Satisfaction and expectation survey of community around project area for developing the operation of community relation.

Awards and Recognition in 2022



TTCL has been selected to pass the SET assessment criteria as one of listed companies on the Thailand Sustainability Investment (THSI) for the year 2022 for 6 consecutive years by considering the operations in economic, social and environment.

Thaipat Institute announced the Sustainability Disclosure 2022 Awards to encourage organization members of Sustainability Disclosure Community to be aware and value the importance of company's information disclosure of ESG issues apart from financial information and to be useful for all stakeholders group. TTCL has been selected to receive the Sustainability Disclosure Recognition for 2022 for 2 consecutive years.

TTCL has participated in the Corporate Governance Assessment in CGR 2022 survey, organized by Thai Institute of Directors Association (IOD). TTCL has been rated as "Excellent" for 7 consecutive years.

TTCL has been obtained the third time of certification from Thai Private Sector Collective Action Against Corruption (CAC) and the Corruption Risk Management Working Group was annually reviewed the corruption risk assessment criteria.

TTCL has been announced the Safety Recognition for 2,000,000 Safe Man Hours without Lost Time and Accident from Idemitsu Advanced Materials (Malaysia) Sdn. Bhd., the owner of Syndiotactic Poly-Styrene (SPS) Project.

TTCL has been announced the Safety Recognition for 3,000,000 Safe Man Hours without Lost Time and Accident from Long Son Petrochemicals Co., Ltd., Vietnam, the owner of LLDPE Plant.

Human Resource Management

TTCL Public Company Limited has pay attention to employees and all labor groups. Human Resource are the important factor to lead company successfully. Employees are valuable resources and important stakeholders in the business to create worth and value for the organization. Moreover human resource also is a key to drive the organization towards sustainable development. The company has established the process, regulation and policy on Human Resource management under a fair system, reveal, apparent according to the labor law, human rights law of country in accordance with the Universal Declaration of Human Rights: UDHR strictly. Therefore, the company has a manpower planning, committed to recruiting staffs, motivate, retains quality employee. Including develop employees to support business expansion in the future, which starts from recruiting and hiring personnel according to the needs of the line of work of each department by considering the suitability of knowledge capacity to support business operations and able to develop new business in long term for the company to be an effective and sustainable organization.

Recruitment

The company provides opportunities to person who has potential to become a key force in the development of the organization to grow steadily and sustainably through a systematic recruitment the same standards in the work placement of job, also give a chance on the equality in race, religion, sex and education institutions including the disabled and other disadvantaged groups attended. However, company has a place of work in provincial areas, opportunity to hire local staff by advertising the job

through various channels both internal and external recruitment by opportunities through various channels to get a variety of applicants. In addition, the company has joined fair project where held in educational institutions continuously every year. Thus, the project cooperate with the department of human resources and others such as Engineering Department, Project Operation Department, etc. To analyze the need of man power, determine the required abilities and recruitment planning to recruit and selection an applicant who has the potential follow the needs of business.

Internal recruitment

The company transfer and rotate employee within the organization by considering from staff knowledge and ability that match with each work field. In addition, the company also provides the opportunity to the 3rd and 4th year's students from various universities within country and abroad to entry the internship with the company, in order to develop the human resource to have knowledge, skill, work process and understand in work function which able to adapt in working and preparing to join the company after graduation. The company have seek and select new generation staff that have the ability and potential which suit to the organization's culture by learning and practical work under the instruction and suggestions from senior employees. In the year of 2022, there are total 72 internships and 2 employees for job rotation.

External recruitment

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

In 2022, the company has recruiting employee by attending in the job fair project that held by the educational institutions in order to provide opportunities to student who is going to graduate or graduated in a bachelor's degree to apply the job directly to the company. The company seeks for the personal that have knowledge, ability, attitude and appropriate experience which causes to company diversity.

Participation in Job Fair with the university as following

1. SUT Graduate Job Fair & Co-op Fair, academic year 2022 at Suranaree University of Technology
2. Student Meeting Project, academic year 2022 at King Mongkut's Institute of Technology Ladkrabang
3. Engineering Career Day 2022 at Chiang Mai University

Applicant selection

The company has a policy to create motivation for employee in the form of monetary and non-monetary. The company fairly settles the compensation for individual follows the annual adjustment. Company has set the fair of compensation without discrimination by consider the human right and treat worker fairly. The rate of compensation, company has evaluated with the related company including promoted following the ability.

Company has planning to encourage employee to have a knowledge and abilities to attract

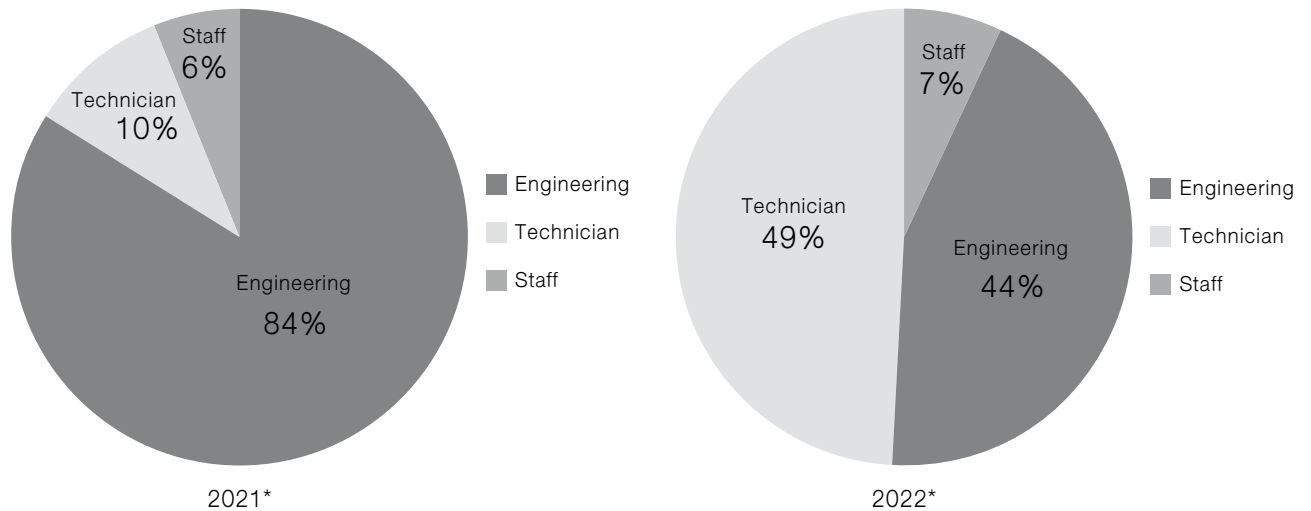
knowledgeable employees to work with our company. There is a structure to manage compensation and benefits for employees. Compensation is evaluated by performance individual by annual adjustment. Including promoted following the work abilities. However, company has an assessment of criteria for employees to evaluate the knowledge, ability and responsibility to encourage employees to work efficiently. Employees are evaluated by their supervisor and manager of their department and summarize the results of the assessment to present to the Executive Committee responsible for consideration of the remuneration with honesty.

Attraction and Retention

The company has a policy to create motivation for employee in the form of monetary and non-monetary. The company fairly settles the compensation for individual follows the annual adjustment. Company has set the fair of compensation without discrimination by consider the human right and treat worker fairly. The rate of compensation, company has evaluated with the related company including promoted following the ability.

Company has planning to encourage employee to have a knowledge and abilities to attract knowledgeable employees to work with our company. There is a structure to manage the compensation and benefits for employees. Compensation is evaluated by performance of individual by annual adjustment. Including promoted following the abilities. However, company has an assessment of criteria for employees to evaluate the knowledge, ability and responsibility to encourage employees to work efficiently. Employees are evaluated by their supervisor and manager of their department and summarize the results of the assessment to present to the Executive Committee responsible for consideration of the remuneration with honesty.

A Graph of Employee resignation Ratio



Number of employees and Type of employment

2 years historical statistics of staff number as of December 31, 2021 is 1,245 persons and December 31, 2022 is 1,999 persons by divided as follows;

Employment Ratio

Description	Y2021		Y2022	
	Amount (person)	Percent	Amount (person)	Percent
Gender				
Male	842	68%	1,336	67%
Female	403	32%	663	33%
Types of employment				
Permanent Employee	795	64%	746	37%
Contract employee	270	22%	677	34%
Daily-employee	180	14%	576	29%
Level				
Top management	35	3%	32	2%
Middle management	232	19%	285	14%
Operational	978	78%	1,682	84%
Age				
30 years old	339	27%	683	34%
31-50 years old	774	62%	1,078	54%
Above 51 years old	132	11%	238	12%
Workplace				
Head office	766	62%	880	44%
Domestic sites	365	29%	995	50%
International sites	114	9%	124	6%

New attendance and termination / termination *

Description	Y2021		Y2022	
	Amount (person)	Percent	Amount (person)	Percent
New employees classified by gender				
Male	209	17%	806	67%
Female	94	8%	405	33%
New employee Classified by age				
Under 30 years old	162	13%	621	51%
31 - 50 years old	119	10%	483	40%
Above 51 years old	22	2%	107	9%
Termination classified by Gender				
Male	951	76%	338	69%
Female	431	35%	154	31%
Termination classified by Age				
30 years old	480	39%	214	43%
31 - 50 years old	766	61%	226	46%
Above 51 years old	136	11%	52	11%

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

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

Description	Y2021	Y2022
On maternity leave	9	3
Resume work.	8	3

The company has annually reviewed and planned personnel rates to prepare personnel to be consistent and adequate with the amount of work and the number of institutions that are expected to occur each year; in order to acquire personnel with appropriated qualifications and potential in the amount and the suitable time.

Employment and compensation description

Employment description

Company focuses on employment with fair requirements, policies and criteria as fair, equality and appropriateness based on the principles of humanity. Company has set the employment standards and compensation as fair, equality and appropriateness which is divided to experience and work line by accepting the difference without discriminate such as sex, religion, race, class and treat workers equally according to the principle of respect for human rights, women, disable, underprivileged person depending on the safety of welfare, health, occupational health of employees. Including against the child labor or illegal workers. Company has treated employees as fair without discriminate under human rights policy, rules, regulations or relevant laws and company hasn't policy to block the rights of freedom of work as guideline for worker's

operation. However, all employees will receive benefits and welfare under Labor laws by the terms of quality of life, safety and hygiene in the workplace as required by Employment laws and divided to experience, line of work. Employment can be divided into 3 types as follows:

1. Permanent Employee

An employee who is employed without predetermined date by get paid monthly and able to work until retirement as long as rules and regulations is compiled and not violated, including no intention to do harm with the company

2. Contract Employee

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

3. Daily Staff

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

Compensation

The company pays attention to the remuneration of employees to be the important factor that gives employees well-being and stability in their career which results in employees work with pride and ready to create work for the company. The company has a guideline for determining employee compensation in a level not lower than the minimum wage of the country as required by law. Determined by the company to have a standard of remuneration for employees and personnel appropriately. According to duties and responsibilities equal wage determination. There is equal wage determination, no separation of religion, ethnicity and covering women groups and disabilities or disadvantaged groups by job announcement, wages and compensation including various welfare preliminary before the start working day to be consistent with the company policy for treat worker and respect for human rights. Every year

company has evaluated to compensate adjustment for employees based on their performance. The assessment criteria will be divided in 2 types as follows;

1. Employee level
2. Assistant level, supervisor or higher supervisor

Summarize the evaluation results to present to the Executive Committee that considers the wage determination Compensation or special remuneration (bonus). The remuneration will be set in accordance with the company's performance by considering both short and long term including in accordance with the compensation of the same industry as well as providing various benefits to enhance the quality of life of employees.

In addition, the company pays attention to the payment of wages, salaries and welfare to employees in a complete and timely manner. The company has carefully and effectively planned the compensation and welfare management of employees.

Proportion of Salary rate and remuneration by Gender

Wage payment	2021 (THB)	2022 (THB)
Salary rate and remuneration by Gender		
Male	50,390,227	129,459,242
Female	17,352,679	49,279,421

Policy for special incentive (Bonus)

The Special incentives (bonus) will be paid based on the performance of the organization indicates that reflects the achievement of employee efforts dedicated to the organization and pay bonuses to this format. Encourages employees to attempt to make the company has good performance. Which will affect his bonus

and also attracted to people who are interested in joining the organization include helping maintain employee relations within the organization.

Provident Fund

The Provident Fund is voluntarily established by the employer to the employees that being a provident fund membership besides to provide employees having money upon retirement and having financial guarantee to families including the employee also get other benefits such as tax incentive.

Empowerment and Human Resources Development

The company aims to develop employee's potential, knowledge and skills in an appropriate way continuously in line with business growth and employee needs in each job description focusing on enhancing skills for new employees and increase employee proficiency. Training program has focused on developing the skills and capabilities and communication skills comply with company business plan.

Performance capacity and employee development in 2022

Apart from training, company also has outings activities to enhance professional skills and expertise in jobs. Encourage employee to be creative and have a better understanding the work procedure. In year 2022, there are 4 types of training as follows:

1. Company General Training

1.1 New employees course (Orientation for new employee)

It is a preliminary course that new employees will receive training as follows;

- Company regulations
- Policy and practice on anti-corruption
- Knowledge and understanding of IT policies on maintaining confidentiality of the company in the year 2022, there were 525 trainees.



Picture of New employee course

1.2 Basic Safety training

(GRI 403-5: Worker training on occupational health and safety)

For employees to reduce health hazards and promote work safety, such as the “Basic Safety and Company Management System Awareness” program in 2022, with a total of 271 trainees



Picture of Basic Safety Course

1.3 Training and Seminar for Executives Level

- One Report By KPMG - Sustainability Report 2022
- Risk Management Program for Corporate Leaders RCL 26/2022 by IOD
- 2022 Cyber Risks & Resilience Plan by SET
- TLCA CFO Professional Development Program (CFO CPD) No.1/2022
- Get Ready for PDPA 2022 by SET
- Global context on sustainability and implications for Thailand
- TLCA CFO CPD No.2/2022: Economic Update for CFO
- Integrating ESG into Business Strategy
- Director's Briefing: Leadership that Shapes the Future
- Circular Economy
- How to enhance the credibility of sustainability reporting
- Board Nomination and Compensation Program
- SET Sustainability Reporting Guide as ESG Metrics and Industry Group
- New Criteria CGR Project for the year 2023
- Reinventing HR TO Thrive in the 'Never Normal'
- Professional Development Program for Company Secretary
- ESG Webinar Series No.3/2022 “Human Rights through Value Chain”
- Road to Certify
- ESG Priorities 2022
- Corporate sustainability strategy
- Techniques of Preparation a Meeting Report
- Data Driven Organization ESG and Introduction system ESG Data Platform
- Hot Issue for Directors: What Directors Need to Know about Digital Assets? #3/2022
- CGR 2023 Coaching
- Open Data with SET Link system
- International Conference on Green Economy Growth : Synergizing Green Productivity and the Circular Economy
- TLCA CFO Professional Development Program No. 6/2022 - Role of CFO to Sustainable Organization

- How should Director be proactive in this chaotic world?
- The Road to Green Financing
- TLCA CFO Professional Development Program No. 7/2022 “Introduction to sustainable Finance”
- Company Secretary Challenges in Building Trust in the Board

2. On the Job Training

In 2022, there were 265 employees who have received on the job training.

3. Special Training

The company has organized a special training for employees within the organization to develop potential in personnel. Learn a specific technique for work function to increase operation efficiency and solve the problem.



ture of Special Training

4. Engineering and Project Execution Training

Training is held to provide the knowledge, understanding of work for employee in each department. The training is divided in 2 types: new employees training and experienced employees which training on specific engineering tasks.



Picture of Engineering and Project Execution Training

Budget for employee potential development in 2022

Type	Cost (Baht)	Average per person (Baht)
Training courses for In-house Training (1,235 persons)	-	-
Training courses for Public Training (84 persons)	769,126.39	9,156.27

Training results

Type	Particulars	Cost (Baht)	ผลการดำเนินงาน
In-House Training	Company General Training	-	485 courses
	On the Job Training	-	
	Special Training	-	
	Engineering and Project Execution Training	-	
Public Training	Sending staff to train by external academy.	769,126.39	60 courses

Annual Training Hour in 2022

Statistics from 1,319 people categorize as follows:

Description	Amount (Hour)	Average Per person (Hour)
Classified by Job function		
Management (23 persons)	125	5.43
Project (829 persons)	6,327.8	7.63
Engineering (420 persons)	2,859.7	6.81
Support (47 persons)	366	7.79
Classified by gender		
Female (139 persons)	3,470.8	7.76
Male (282 persons)	6,207.7	7.12
Classified by type		
Internal Training (1,235 persons)	9,085.2	7.36
External Training (84 persons)	593.3	7.06
Total of training hour	9,678.5	7.34

After training and developing personnel, we are evaluated staffs contentment for training course improvement and being path of knowledge enhancement. The ability of personnel to lead the organization to the goal and fully demonstrates the potential of work. Supervisor has to evaluate their performance after training continually.

Employee Welfare

A part from the minimum welfare according to the labor law. Company also provide the additional welfare to employee by establish the welfare committees which come from the election in every 2 years. Moreover, employees at all level have the right to apply to be a welfare committee performs as representative in negotiating with the company about welfare, procedure or agreement that affect to employees. In order to receive a comment and suggestion from employee directly and committees to cooperate between company and employee for benefits. In addition company also arrange activities to create harmony among staffs such as New Year party and Company Sport Day.

The Company has registered the employees with the Social Security Office and contribution to Social Security Fund for both employer and employee, in year 2022, company has registered and contributed with Social Security Fund as details below:

Employer part	9,493,307	Baht
Employee part	9,269,307	Baht

Summary welfares;

Description	Y2021 (Person)	Y2022 (Person)
Annual Health Checkup	817	441
Health Insurance	791	791
Vaccination fort influenza	304	476
Welfare for employee retirement	-	2
Provident Fund	627	561
Others		
- Visit patient Basket	10	16
- Wreath	13	28
- Staff Funeral	1	3
- Direct relative's staff Funeral	31	41
- Marriage	11	17
- Medical care for foreign staff	3	4
- Medical care for daily employee	6	5
- Antigen Test Kit - ATK	4,713	22,610
- Standard Medical kit for Infected COVID-19 and High Risk	21	19
- Andrographis Paniculata for Infected COVID-19 and High Risk	12	311

Sustainability for Suppliers Management

Suppliers Management

The Company has operated under the Company quality purchasing control procedure to ensure that materials and services provided by the suppliers meet the quality requirements, contractual requirements, standards and business objectives. The suppliers are selected and evaluated on the basis of quality management, technical compliance, economic criteria, standards of environmental protection, occupational health & safety, labor laws and social responsibility.

Risk Assessment and Segmentation

The Company has developed a systematic assessment of supplier risk by conducted critical supplier analysis where the evaluation criteria include the trade value, frequency of order, non-substitutable products/services and critical parts/components.

The Company organized supplier groups in supply chain management by classified suppliers into two groups, namely;

1) General Supplier group covering manufacturer, products distributor and directly services of company.

2) Critical Supplier group covering suppliers that are significant to TTCL's business operations.

TTCL's Supplier Code of Conduct

The Company has developed and published TTCL's Supplier Code of Conduct, covering business code of conduct, human rights and labor, occupational health, safety and Environment as well as compliance and requirements. Suppliers are expected to comply with the Supplier Code of Conduct, to create awareness suppliers to improve their operations with TTCL.

Risk Assessment of Suppliers

The Company has guidelines and methods to clearly identify the economic risks causing by suppliers of company. The risk assessment committee continually reviews and assesses the risk causing by suppliers and the assessment results every year.

Communicate Anti-Corruption Policy to Vendor

In the year 2022, TTCL has arranged Anti-Corruption Policy for intended to be clear guideline in business operations. This policy has been communicated to stakeholder including all vendors, in order to recognize and acknowledge the company's Anti-Corruption guidelines.

Develop and enhance supplier's operation towards sustainability

The Company mainly develops suppliers operation through an environmental management projects to create awareness of environmental management of suppliers operating the construction site in accordance with good principles. The criteria consists of compliance

with laws and regulations, resources management, quality control and waste management, supporting by mutual making plan, communication of work plan to related departments, monitoring and evaluation including audit performance.

Innovation and Technology Development of TTCL

The company emphasizes the importance of innovation and technology development for improve work efficiency by quality control, reduce mistake and cost reduction in engineering design procurement of machinery & equipment, and construction (Integrated EPC), including enhancement of energy business in both of green energy and alternative energy by considering to the responsibility of safety, social, environment and all stakeholders' groups.

The company cooperate with external organization i.e. business partners, government organization, education institute and subsidiary/affiliated companies in both of Thailand and overseas for Technology Development as follows;

1. Design and Construction Technologies

- Apply of modern technologies in engineering design as following;
 - Apply of most advance 3D design in plant design for verification of constructability and correctness of construction drawing prior to purchase of equipment and material and construction.
 - Apply 3D Visualization printer for presentation of project to clients and stakeholders.
 - In-house development of process engineering software for internal use.

- Apply of modern inspection techniques for operation of project as following;

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

2. Energy Efficient Technologies

- Software development project for supporting optimum efficiency of co-generation plant by Machine Learning and Deep Learning Technology with AI software Development Company in Japan.

- LNG Tri-Generation is for promotion of LNG usage to substitute of LPG, Bunker Oil and Coal in industrial plants who not in the natural gas pipeline premises for co-generation of electricity, steam and chilled water. As a result of efficient use of fossil fuel efficiently which carbon gas emission reduction as an ultimate goal and energy cost reduction.

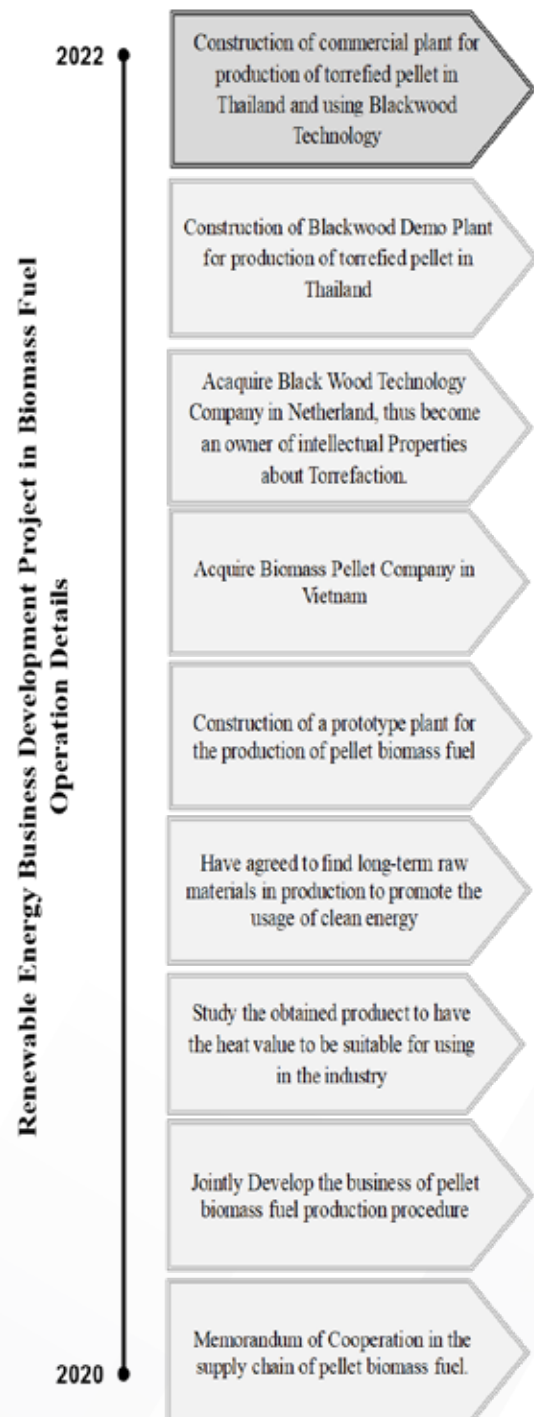
- Energy Transition Project for encouragement of using biofuel from agricultural waste material and biomass pellets instead of using fossil fuels with steam generation, resulting in changed of long term alternative fuels to reduce greenhouse gas emissions Including reducing the overall cost of energy consumption.

3. Manufacturing and Service Technologies related to Alternative Energy

- Torrefied Biomass Manufacturing Project for co-firing in Coal-Fired Power Plant using wood chips, bark and corn cobs.

To achieve an innovation and technology for torrefied biomass pellet, TTCL acquired a Netherland company, Blackwood Technology Company (Blackwood) which has been developing the technology and owning Intellectual Properties about Torrefaction. Subsequently, the company installed a research production unit in Thailand for research,

development, analysis, testing and experimental production from different biomass both in country and overseas to serves the customer and research and developing the company's project. The company has been continued development, until 2021 the company has built a demonstration plant for the production of torrefied biomass fuels in the country and using Blackwood technology.



To achieve the goal of producing torrefied biomass pellets, the company is ready to provide variety services, license, Pre-EPC services (i.e. Feasibility Study, Front End Engineering and Design (FEED), and Basic Design) and EPC, Investment, Operation and Maintenance (O&M) to diversify risks and enable the company sustainable growing.

Results from Quantitative Operations of Biomass Fuel Plant in Thailand

Description	2021-2022
Quantity of lower carbon dioxide (t-CO ₂ /year)	1,200
Quantity of used bark and corn cobs (tons/year)	1,400

- Floating Solar Energy Research & Development Project for enhancement of renewable energy innovation of Thailand including and is a learning center on alternative energy, to drive Thailand towards sustainable use of clean energy, and mitigate emergency climate. In 2021, the company has been selected from Suranaree University of Technology to be an installation operator Floating Solar Power Generation System and started to install the system in Floating Solar Energy Research & Development Project Phase 1, There are 4 research groups as following:

- Group 1: Floating gray pontoon Mono-Crystalline Panel
- Group 2: Floating gray pontoon Double glass Mono-Crystalline Panel
- Group 3: Floating black pontoon Mono-Crystalline Panel
- Group 4: Floating black pontoon Double glass Mono-Crystalline Panel

The knowledge from the result of this research and development project is able to create new renewable energy innovations to Thailand and is ready to promote Thailand to become a leader of integrated floating solar farms.

TTCL's Materiality issues to sustainable operation

In 2022, TTCL has reviewed sustainable materiality and considering both internal and external factors of company operation as well as the expectations of all groups of stakeholders. The assessment of materiality issues in order to set goals and strategies and managing materiality issues for sustainable business operations.

Materiality Assessment Process

The materiality assessment process from requirements and expectations of each stakeholders' groups, internal information and significant issues which impacts to company's business according to the materiality assessment process as follows;

1. Issue Identification

The company considered to identify sustainability issues from internal and external information sources that may impact the governance, economic, environment and social performance of the company.

- Internal information sources include target and company's business direction, business plans and issues from sustainability working group's brainstorming workshop under CG Committee's sustainability management to assess materiality for set up strategy and risk management with short and long-term potential impact
- External information sources include global sustainability trends, global risks, Sustainable Development Goals (SDGs) peer benchmarking with petrochemical, chemical, renewable energy and stakeholders' needs and expectations.

2. Issues Prioritization

The company ranks and prioritizes identified materiality issues by considering the materiality matrix using the criteria below;

2.1 Horizontal axis: these sustainability issues are considered to have potential significant positive and negative risks and impacts to company's business operation both in short and long-term.

2.2 Vertical axis: these sustainability issues are considered to have potential significant positive and negative influences and impacts to stakeholders.

Sustainability Working Group has proposed issues prioritization to CG Committee for consideration and comment to ensure that materiality issues covering to all aspects.

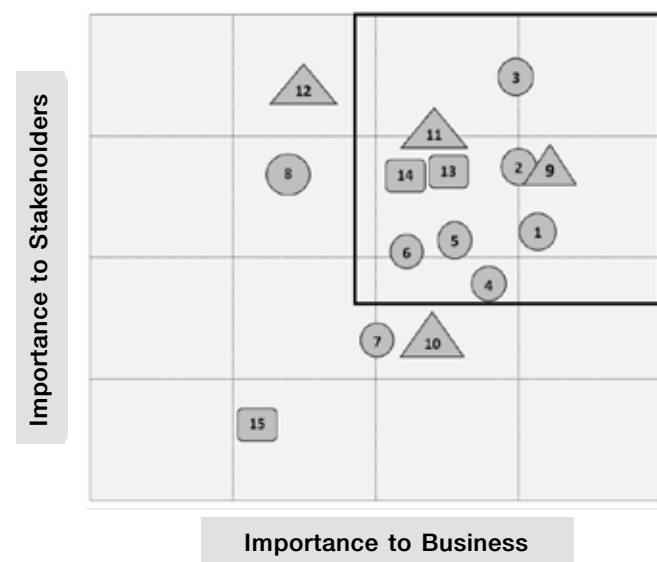
3. Materiality Verification and Reviews for Continuous Improvement

Sustainability Working Group presented materiality issues to CG Committee which is authorized by Board of Directors to validate the prioritization, with consideration to the lever of influence to stakeholders' assessment and decisions, coupled with the level of significance in economic, social, and environmental impacts. Furthermore, the company also verifies accuracy of the assessment and the prioritization, particularly concerning all stakeholder groups' expectations, perspectives and suggestions relating to the company's sustainability performance. CG Committee which consists of management as a CG member is responsible to review and verified the result of 2022 materiality issues assessment as illustrated in the materiality matrix.

Prioritization Criteria

TTCL's Stakeholders	TTCL
<ol style="list-style-type: none"> 1. Impacts level to stakeholders 2. Significant to stakeholders in the future 3. Impacts to diverse stakeholders 4. Expectations level on issues management from the Company 	<ol style="list-style-type: none"> 1. Opportunities to create impacts 2. Severity impact level 3. Business risk level 4. Long-term impacts level 5. Significant or opportunities for future issues 6. Relevant to TTCL's policies and targets

Materiality Matrix



Sustainability Issues

○ Economic

- 1 Quality Products & Services
- 2 Risk Management
- 3 Good Corporate Governance
- 4 Sub Contractor Quality & Performance
- 5 Customer Satisfaction
- 6 Innovation & Technology
- 7 Customer Insight
- 8 Data & Cyber Security

△ Social

- 9 Occupational Health & Safety
- 10 Human Capital Development
- 11 Human Rights
- 12 Data Privacy

□ Environment

- 13 Environmental Management
- 14 Waste & Pollution Management
- 15 Circular Economy

Key Success Factors



ECONOMIC






SOCIAL



ENVIRONMENT

Materiality Issues (Strategic Priorities)	Current Situation	Future Expectation	Key Success Factors
<ul style="list-style-type: none"> Quality of Products & Services Subcontractor 's quality and performance Customer Satisfaction Risk Management Good Corporate Governance Innovation & Technology Development 	<ul style="list-style-type: none"> Maintain Quality Control and Services according to Customer Requirement Assessment and control of risks for prevention of business operation impacts. Implementation of ESG framework in some activities of business value chain. Study new innovation and technology for improving engineering process. 	<ul style="list-style-type: none"> Promote using of innovative engineering to reduce construction costs and increasing value of products and services. Apply ESG Risk Management, monitoring and assessment in all activities of business value chain. Improve ESG operation plan to cover all activities in business value chain. Develop Innovation & Technology of Engineering for cost reduction and increasing value of products and services. 	<ul style="list-style-type: none"> ESG Integration Good Corporate Governance Customer Satisfaction Innovation & Technology Development
<ul style="list-style-type: none"> Occupational Health and Safety Management Human Right 	<ul style="list-style-type: none"> Lack of safety awareness in workplace Set up Human Rights Policy for company operation 	<ul style="list-style-type: none"> Educate the safety awareness for people well-being. Communicate to business partners for corroboration. 	<ul style="list-style-type: none"> Occupational Health and Safety Management Promote safety culture in the company Operate business under human rights
<ul style="list-style-type: none"> Environmental Management Waste & Pollution Management 	<ul style="list-style-type: none"> Set up ESG Policy to cover in Environmental Management Maintain Waste & Pollution Management rely on environmental law, rules and regulation. 	<ul style="list-style-type: none"> Encourage people to utilize energy and resources efficiency Create and develop innovation for enhance waste & pollution management to safe people and reduction pollution. 	<ul style="list-style-type: none"> Eco Efficiency Innovative waste and pollution management

SUSTAINABILITY STRATEGY

KEY SUCCESS FACTORS		SUSTAINABILITY STRATEGY
ECONOMIC <ul style="list-style-type: none"> Integrating ESG Good Corporate Governance Customer Satisfaction Innovation & Technology 		Strive for utilization innovation and technology in ESG integration to enhance corporate sustainability management.
SOCIAL <ul style="list-style-type: none"> Occupational Health and Safety Management Safety Management Human Rights 		Strive for people well-being in our area.
ENVIRONMENT <ul style="list-style-type: none"> Eco Efficiency Innovative Waste & Pollution Management 		Strive for maximize resources efficiency and minimize negative impact.

Integration of Sustainable Development Goals (SDGs Integration)

Company is integrating sustainable development goals with sustainability strategy taking into account its relevance to the business operations and responsiveness of the company including global and national sustainability trends y operating in response to the SDGs through the company's sustainability management structure.



Sustainability Management in Economic Aspects

Plan	Performance	2027 Targets
Integration of ESG Management	The Board of Directors has authorized CG Committee to supervise and appointed a sustainability working group to define ESG implementation plans for each process of the company's operations.	To develop operational systems for all activities in the business value chain under the concept of ESG management, including communicating ESG policies to create for cooperation in business operations with business partners and all groups of stakeholders.
Good Corporate Governance	In order to cover operations under good corporate governance principles, the company has reviewed the policies and determined relevant new policies under the principles of good corporate governance, such as the Anti-Corruption The Prevention of Conflict of Interest Policy, Human Rights Policy, etc.,	Participating in CGR survey and maintain standards of good corporate governance practices to be consistently at an "Excellent" level.
Customers' Satisfaction	To maintain the quality control from the beginning of bidding, engineering design, procurement of machinery and equipment and construction until a timely delivery of quality work. Including warranty after plant acceptance.	To maintain the quality of every steps of the operation to meet the standards of customers' specification and keep customer satisfaction at a "very satisfied" level (≥80%).
Innovation and Technology Development	To study and develop innovation and technology of engineering and construction for cost reduction and shorten working time and increase working efficiency.	Apply new innovation and technology for business operation in engineering design and construction, as well as presenting work to customers to build customers' trust and satisfaction.



Sustainability Management in Social Aspects

Plan	Performance	2027 Targets
Occupational Health and Safety Management	Safety care of employees, subcontractor and workers to ensure that they are safety in workplace and well-being along with building good relationships with the surrounding communities of the project through communication of safety information communication. Furthermore, the company is supporting local employment and community's activities.	To maintain safety quality control and well-being of employees, subcontractors and workers in workplace also surrounding communities of the projects through safety law and regulation.
Safety Culture	Educate and communicate about safety in workplace to employees, subcontractor and workers.	Encourage and create safety culture in both of head office and site office to employees and workers to prevent lost time injury in workplace.
Human rights	Determine a human rights policy in order to cover all activities in business value chain i.e., recruitment, selection of business partners and taking care of employees equally without discrimination of gender, race, religion. Furthermore, the company gives working opportunities to disabled persons by considering the ability and suitability of work and the company does not employ child labor and or force labor according to labor law.	The company review human rights policy in order to comply with labor law, rules and regulations of human rights, and communicate the human rights policy to all employees including business partners.

Sustainability Management in Environment Aspects



Plan	Performance	2027 Targets
Eco Efficiency	Control the standard of environmental performance and utilize the resources efficiency to reduce the cost of construction materials.	The reused of waste materials from the construction works in the new project in order to utilize the resources efficiency to reduce waste from construction.
Innovative Waste & Pollution Management	Study new innovation and technology to apply with waste and pollution management such as management of carbon footprint for reducing greenhouse gas emissions from the Company's business operations.	Participate in projects of greenhouse gas emission reductions with the regulators and collect overall statistical data on greenhouse gas emission reductions concretely.

5. THE BOARD OF DIRECTOR'S REPORT ON THEIR RESPONSIBILITIES FOR FINANCIAL REPORTS FOR THE YEAR 2022

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.

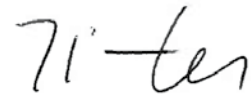
In this regard, the Board of Directors has appointed the Audit Committee comprising independent members of the Board to oversee the quality of the financial statements and internal control system. The Committee's comments have already been shown in this annual report.

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 2022.



(Mr. Hironobu Iriya)

Director



(Mr. Tiwa Jaruke)

Chairman of Board of Directors

6. MANAGEMENT DISCUSSION AND ANALYSIS (MD&A)

6.1 OVERVIEW

6.1.1 Performance Overview and Significant Event

Performance overview

In 2022, the Company's total revenue was THB 11,273 million, increased 78%, representing gross profit margin was THB 917 million, increased 5% from 2021, and net profit from operation was THB 677 million, increased 131% from the last year. The details of the change will be described in the next section.

At the end of 2022, the Company's backlog was THB 21,400 million increased by THB 6,700 million from 2021. During the year, the Company and its subsidiaries signed the significant construction contract are as follows:

- The construction of Power Plant at Rayong province, with the approximately contract value of THB 2,500 million.
- The construction of Oil and Gas Plant at Khon Kaen province, with the approximately contract value of THB 1,600 million.
- The construction of Petrochemical Plant at Rayong province, with the approximately contract value of THB 2,330 million.
- The construction of Petrochemical Plant at Rayong province, with the approximately contract value of THB 1,000 million.
- The construction of Stream Generation (additional scope) at Doha in Qatar, with the approximately contract value of THB 650 million.
- The design & construction for Pharmaceutical Plant at Hau Giang Province in Vietnam, with the approximately contract value of THB 700 million.

- The construction of Chemical Plant Rayong Province, with the approximately contract value of THB 4,500 million.

- The design & procurement service of Petrochemical Plant at Dhaka in Bangladesh, with the approximately contract value of THB 145 million.

- The construction of Carbon Product Plant at Rayong province, with the approximately contract value of THB 6,500 million.

- The construction of Biopolymer Manufacturing Complex at Nakhon Sawan province, with the approximately contract value of THB 3,400 million.

- The contraction of Petrochemical Plant at Rayong province, with the approximately contract value of THB 330 million.

The Factors that having significant changes are as follows;

- In January, Global New Energy Co., Ltd. ("GNE") and TTCL Solar Power Pte. Ltd. ("TTSP"), a subsidiary of the Company have paid for the increase of registered capital in Siam GNE Solar Energy Co., Ltd., which is a Joint Venture Company with SCG Cleanergy Co., Ltd. ("SGNE") representing 2% and 48%, totaling 1,400 shares and 33,600 shares respectively, at the price of 100 baht per share in order to support the Rooftop Solar Power Generation Projects.
- In April, the Company has issued and offered debenture in the total amount of THB 1,500 million, interest rate at 7.15% which will maturity in September 2024. The objectives of debenture are for the repayment of debenture in May and the working capital of the Company.

- In October, TTCL Power Holdings Pte. Ltd. ("TTPHD"), a subsidiary of the Company has undertaken a capital reduction to cancel all of 4.7 million preference shares, at price of 1 USD per share, totaling USD 4.7 million. Resulting, the shareholding proportion of the Company in TTPHD increases from 93.67% to 100.00%.
- In December, the Company and TTPHD have paid for the increase of registered capital in TTCL Bio Company Pte. Ltd. ("TTBC"), a subsidiary of the Company, in proportion 75% and 25%, totaling 374,925 shares and 124,975 shares respectively, at price of 1 USD per share in order to invest in Biomass energy.
- In December, the Company and TTBC has established a subsidiary company under the name of NT Biomass Products Company Limited ("NTBC") with the registered capital in the amount of THB 30 million, representing 51% and 49% respectively to conduct business sourcing and trading relating to Biomass energy, and investment in Biomass energy.

Furthermore, the additional information relates to the business overview is given in the section of Nature of Business and Services, and the shareholding structure of the Company Group is given in the section of Subsidiary Companies and Affiliates.

6.1.2 Strategic Policy

This section can be found in the section of Market and Competition.

6.1.3 Business Segments

The Company's business segment can be categorized into 2 segments consisting of 1) Revenue from construction and service 2) Revenue from operating from power plant as the following table:

Unit: Million Baht

Industry	Operated by	2020		2021		2022	
		Amount	%	Amount	%	Amount	%
Petrochemical	TTCL Plc.	5,790.96	84.30	3,158.78	49.77	2,961.91	26.28
	TTCL Vietnam Corporation Limited	716.56	10.43	731.16	11.52	2,862.16	25.39
	TMSF Sdn. Bhd.	167.10	2.43	463.10	7.30	994.57	8.82
	TTCL Myanmar Engineering & Construction Co., Ltd.	83.49	1.22	3.53	0.06	1.73	0.02
Total Revenue from Petrochemical Construction		6,758.12	98.38	4,356.58	68.64	6,820.37	60.50
Power	TTCL Plc.	52.78	0.77	1,865.02	29.38	3,540.44	31.41
	Total Revenue from Power Construction	52.78	0.77	1,865.02	29.38	3,540.44	31.41
Chemical		0.00	0.00	0.00	0.00	697.26	6.19
Total Revenue from Chemical Construction		0.00	0.00	0.00	0.00	697.26	6.19
Other	TTCL Plc.	0.00	0.00	71.53	1.13	157.52	1.40
	Total Revenue from Other Construction	0.00	0.00	71.53	1.13	157.52	1.40
Electricity Generation	TTCL Plc.	47.86	0.70	50.32	0.79	56.92	0.50
	Bio Natural Energy Company Limited	1.39	0.02	0.84	0.01	0.00	0.00
	Total Revenue from Electricity Generation	49.25	0.72	51.16	0.81	56.92	0.50
Revenue from sale	Ha Tien Energy Corporation	9.26	0.13	2.76	0.04	0.00	0.00
	Total Revenue from sale	9.26	0.13	2.76	0.04	0.00	0.00
Grand Total		6,869.41	100.00	6,347.04	100.00	11,272.50	100.00

In 2022, the Company's total revenues consists of 1) Revenue from construction and service (EPC) was THB 11,216 million, representing 99% of the total revenues, divided into the domestic revenues of THB 6,348 million and the overseas revenues of THB 4,868 million. 2) Revenue from operating from power plant in overseas was THB 57 million, representing 1% of the total revenues. In 2022, Revenue from sales was none regards to the Company had divested the common shares in Ha Tien Energy Corporation (HATIECO) which operate business in biomass energy production. Therefore, HATIECO is no longer a subsidiary of the company. As a result, the Company's total revenues for the year ended 2022 was THB 11,273 million, increased 78% when compare to the same period last year. This was anticipated due to the situation of covid-19 has declined and its situation is getting better which lead to the investors decided to invest more as clearly seen from the Company has received many new EPC contracts which was the main reason that the revenue in year 2022 was increased significantly.

6.1.4 Auditor's Observation

Auditor draw attention in the Financial Report 1 item as follows:

Estimation of allowance for impairment losses for account receivable and contract assets overdue more than 12 months of Rock Salt construction project in Laos People's Democratic Republic due to the project was temporarily suspended as well as business operations that relating to the project in 2017. At the end of 2018 the Group's management decided to stop the operations and began the legal arbitration proceeding to claim the debts and damages incurred from the project.

For more information is given in Consolidated and Separate Financial Statement of year 2022 in section the notes to Financial Statement no. 11 and 12.

6.1.5 Criteria for Selecting or Changing Material Accounting Policies

- None -

6.1.6 Non-Recurring Transactions

The Group Company has non-recurring transactions as following items;

1) The Company has recorded the allowance for impairment losses in each quarter of THB 69 million per adoption of TFRS no.9 since in 2020 and will be finished for recording the allowance for impairment losses in 2022.

2) The Company Group has considered to reverse the allowance for doubtful debt accounts for account receivable and contract assets of Rock Salt construction project of THB 571 million.

3) The Company has issued and offered debenture in the total amount of THB 1,500 million, interest rate at 7.15% which will maturity in 2024. The objectives of debenture are for the repayment of debenture in May and the working capital of the Company.

4) The Company repaid the debenture of THB 1,100 million, was due in May 2022.

5) The Company has considered allowance for impairment losses in financial assets of Idemitsu Green Energy Vietnam Co., Ltd. of THB 39 million

6.2 OPERATIONAL RESULTES AND PROFITABILITY

For period ending 31st December 2022, the Company reported Gross Profit at THB 917 million, increasing 5% year over year, mainly driven by increases in Revenue from Construction and Service (EPC).

The foreign exchange difference on translation financial statement was THB 34 million. Therefore, the total comprehensive income for the period was THB 710 million.

The net profit for the period was THB 677 million, which attributed to the Company at THB 667 million with earnings profit of THB 1.01 per share.

6.2.1 Analysis Report according to consolidated financial statements

Unit: Million Baht

	31-Dec-22		31-Dec-21		Change
Revenues from construction and service (EPC)	11,215.59	99%	6,293.12	99%	78%
Revenues from operating the power plant	56.92	1%	51.16	1%	11%
Revenue from sale	-	0%	2.76	0%	-100%
Total revenues	11,272.50	100%	6,347.04	100%	78%
<u>Less</u> Cost of construction and services (EPC)	(10,344.04)	92%	(5,455.82)	86%	90%
<u>Less</u> Cost of operating the power plant	(11.17)	0%	(12.70)	0%	-12%
<u>Less</u> Costs of goods sold	-	0%	(7.34)	0%	-100%
Total Costs	(10,355.20)	92%	(5,475.86)	86%	89%
Gross profit	917.30	8%	871.18	14%	5%
<u>Add</u> Other income	177.86	2%	99.55	2%	79%
<u>Add</u> Gain on disposal in investment in subsidiaries	570.95	5%	-	0%	100%
<u>Less</u> Administrative Expenses	(1,002.43)	9%	(1,135.94)	18%	-12%
<u>Add/Gain</u> (Loss) on exchange rate, net	(8.36)	0%	65.14	1%	-113%
<u>Add</u> Gain on disposal in investment in subsidiaries	-	0%	165.62	3%	-100%
<u>Less</u> Loss on extinguishment	-	0%	(65.85)	1%	-100%
<u>Less</u> Loss from change in fair value	(38.98)	0%	-	0%	100%
<u>Add</u> Gain on deem disposal classification investment	-	0%	308.65	5%	-100%
<u>Add</u> Share of Profit / (Loss) of Joint venture	203.64	2%	222.63	4%	-9%
กำไรก่อนต้นทุนทางการเงินและภาษีเงินได้	819.98	7%	531.00	8%	54%
<u>หัก</u> ต้นทุนทางการเงิน	(164.43)	1%	(115.63)	2%	42%
กำไรก่อนภาษีเงินได้	655.55	6%	415.37	7%	58%
<u>บวก/(หัก)</u> ผลประโยชน์ (ค่าใช้จ่าย) ภาษีเงินได้	21.33	0%	(122.93)	2%	117%

	31-Dec-22		31-Dec-21		Change
Net Profit for this period	676.88	6%	292.44	5%	131%
Other comprehensive income (loss)	(1.28)	0%	21.02	0%	-106%
Re-measurements of employee benefits obligation - net of tax					
Add/(Less) Translation adjustments on foreign currency financial statements	33.90	0%	146.47	2%	-77%
Total comprehensive income for the period	709.50	6%	459.93	7%	54%
Profit attributable to:					
Owners of the parent	667.45		289.13		
Non-controlling interests	9.43		3.31		
	676.88		292.44		
Basic earnings per share (THB)	1.01		0.40		

6.2.2 Analysis of Revenues, Costs and Expenses

Total Revenues recorded at THB 11,273 million, increased 78% when compare to the same period last year.

Revenues	31-Dec-22	31-Dec-21	Change
Construction and service revenues	11,215.59	6,293.12	78%
Revenue from operation power plant	56.92	51.16	11%
Revenue from sales	-	2.76	-100%
Total Revenues	11,272.50	6,347.04	78%

- EPC Businesses

Revenue from construction and service (EPC) increased by 78% to THB 11,216 million, this was anticipated due to the company had been awarded many new EPC contracts during the year.

- Power Plant Businesses

Revenue from the operation of power plants increased by 11% to THB 57 million.

- Bio Pellets Businesses

Revenue from the sale of product during the period was none due to the company having divested 90% share in HATIECO during Q4, 2021. Therefore, HATIECO is no longer a subsidiary of the company.

6.2.3 Cost and Gross Profit

Gross Profit Comparison

31-Dec-22	Revenue	Cost	Gross profit
EPC construction	11,215.59	(10,344.04)	871.55
Operation of Power Plant	56.92	(11.17)	45.75
Total	11,272.50	(10,355.20)	917.30

Gross Profit consists of THB 872 million from construction and service (EPC), THB 46 million from operation and maintenance of power plant.

The overall Gross Profit margin for the period is 8%, decreasing from 14% during the same period last year, mainly due to higher cost of construction materials and equipment as a result of the ongoing conflict between Russia and Ukraine. Moreover, most of the Front End Engineering Design Work (FEED Work) have progressed into construction projects. Hence, the FEED work usually provide higher profit margin as it only consists of a scope of engineering design.

6.2.4 Other Income / Reversal of Doubtful Debts / Loss on Exchange Rate

- Other Income increased by 79% to THB 178 million mainly due to the company and its subsidiary received an insurance claim from the construction projects of THB 54 million as well as the interest incomes of THB 50 million.
- Reversal of Doubtful Debts of THB 571 million was due to reverse in Provision for Doubtful Debts of a construction project in Laos as to reflect the current status of arbitration and the likelihood of claims.
- Loss on Exchange Rate was THB -8 million mainly due to an unrealized loss on account payable as a result of weaker Thai Baht.

6.2.5 Administrative Expenses

Administration Expenses decreased by 12% to THB 1,002 million. For the Twelve-month period of 2022, the Company recorded the Provision Expense of THB 276 million (per adoption of TFRS No. 9), which was the last year to record the Provision Expenses.

6.2.6 Share of Profit of Joint Venture

Share of Profit of Joint Venture from the investment in TTGP decreased by 9% to THB 204 million as the power plant in Myanmar was partially shut down for a schedule maintenance during Q3, 2022.

6.2.7 Finance Cost and Income Tax

The Finance cost for the period increased by 42% to THB 164 million due to the debenture issuance of THB 1,500 million during Q2, 2022. Income tax benefit for the period was recorded at THB 21 million.

6.2.8 Major Financial Measures

Profitability Ratios	31-Dec-22	31-Dec-21	Favorable/Unfavorable
1. Gross profit margin	8.14%	13.73%	Unfavorable
2. Net profit margin	6.00%	4.61%	Favorable
3. Times Interest Earned ratio	4.99	4.59	Favorable
4. Earnings per share	1.01	0.40	Favorable

Leverage Ratios	31-Dec-22	31-Dec-21	Favorable/Unfavorable
1. Current ratio	1.01	0.91	Favorable
2. Debt/ Equity ratio	5.05	3.65	Unfavorable
3. Interest-Bearing Debt/ Equity ratio	0.88	1.02	Favorable

Shareholders Value Ratios	31-Dec-22	31-Dec-21	Favorable/Unfavorable
1. Net Book Value	4.81	4.77	Neutral
2. Return on total assets	3.78%	2.14%	Favorable
3. Return on equity	22.86%	9.96%	Favorable

6.3 ASSET MANAGEMENT CAPACITY

6.3.1 Analysis of Assets

Figures in THB Million	31-Dec-22	31-Dec-21	Increase/(Decrease)	% Change
Current assets	13,252.09	9,471.49	3,780.60	39.92%
Non-current assets	4,650.42	4,173.70	476.72	11.42%
Total assets	17,902.51	13,645.19	4,257.32	31.20%

As of 31 December 2022, Total Assets were THB 17,903 million, increased by 31% compared with the end of last year.

Total Current Assets increased by THB 3,781 million or 40%; major movement as the following items:

- Cash and cash equivalents increased by THB 2,065 million mainly from the advance received from customers of the new awarded project in 2022, as well as, cash collection from the invoices issued to customers.
- Trade accounts receivable – general customer decreased by THB 660 million due to the Company is able to controls the amount of trade account receivable to be in appropriate level. If considering the proportion of the aging in trade account receivable, it consist of 2 main periods 1) the outstanding balance not yet due

of 40%, mainly from the existing construction projects, and 2) the outstanding balance of more than 12 months (before taking the effect of the allowance for impairment losses) of 76% mainly from Rock Salt project, which is still under litigation process by the arbitral tribunal. The Group's management has considered that the outstanding balance over 6 months is still collectable. Therefore, the additional allowance for impairment losses is not required. The company believes that the allowance for impairment losses is appropriated for the current situation. The analysis on the aging of trade account receivable is shown in the notes to Financial Statement no. 11.

- Contract assets - general customers increased by THB 1,734 million driven by progress in large construction projects.

- Withholding income tax increased by THB 275 million.

Total Non-current Assets increased by THB 477 million or 11%; major movement as the following items:

- Deposit at bank used as collateral of THB 84 million and other financial assets measured at amortized cost increased by THB 75 million came from the deposit at bank of TVC to support the bank guarantee issuance for EPC projects.

- Investment in joint ventures increased by 94 million mainly from the share of profit from Ahlone Power Plant.

- Property, plant and equipment increased by THB 161 million mainly from the investment of Black Pellet Demonstration Plant in Lampung.

6.3.2 Analysis of Liabilities and Shareholders' Equity

Figures in THB Million	31-Dec-22	31-Dec-21	Increase/(Decrease)	% Change
Current Liabilities	13,073.19	10,354.47	2,718.72	26.26%
Non-Current Liabilities	1,868.42	354.95	1,513.47	426.39%
Total Liabilities	14,941.61	10,709.42	4,232.19	39.52%
Shareholders' equity	2,960.90	2,935.78	25.12	0.86%
Total Liabilities and shareholders' equity	17,902.51	13,645.19	4,257.32	31.20%

As of 31 December 2022, Total Liabilities were THB 14,942 million, increased by 40% compared with the end of last year.

Total Current Liabilities increased by THB 2,719 million or 26%; major movement as the following items:

- Short-term loans from financial institutions decreased THB 745 million due to repayment of the short-term loan and trust receipt to the Financial Institutions.

- Trade accounts payable – general suppliers increased by THB 1,167 million due to the invoices are not yet due.

Advance received from customers under construction contracts increased by THB 385 million due to the Company has received the advance payment from the new projects.

- Contract liabilities increased by THB 2,806 million due to the Company has received deferred construction revenue from domestic projects.

- Current portion of debentures decreased by THB 1,100 million due to repayment of debenture.

Total Non-current Liabilities increased by THB 1,513 million or 426% mainly from the issuance of debenture of THB 1,500 million for the period of 2.5 years to repay the debenture was due in May 2022 of THB 1,100 million and support working capital.

Shareholder's equity was THB 2,961 million or increased by 1%. The Shareholders' Equity Opening balance as of the beginning of the year was THB 2,935 million, effect from change in equity of the period consists of 1) Redemption of subordinated perpetual debentures and Interest paid for the period of THB -542 million, 2) Decrease from reduction preferred shares in subsidiary of THB -142, 3) Other comprehensive income for the period of THB 710 million. Therefore, the Closing Balance of Shareholders' Equity as of 31 December 2022 were THB 2,961 million.

6.4 LIQUIDITY AND ADEQUACY OF INVESTMENTS

6.4.1 Sources and uses of funds

Figures in THB Million	31-Dec-22	31-Dec-21	Increase/(Decrease)
Net cash provided from (used in) operating activities	3,253.33	(209.21)	3,462.53
Net cash provided from (used in) investing activities	(147.11)	(136.29)	10.82
Net cash provided from (used in) financing activities	(1,015.77)	(527.91)	487.86
Net increase (decrease) in cash and cash equivalents	2,090.45	(873.41)	2,963.86
Beginning balance	872.83	1,777.18	(904.35)
Exchange rate gain/(loss) on cash and cash equivalents	(25.00)	(30.94)	(5.94)
Ending Balance	2,938.28	872.83	2,065.45

As of 31 December 2022, the ending balance of cash and cash equivalents was THB 2,938 million reflecting an increase of THB 2,065 million compare to the same period last year. Such change was caused by a combination of the Net cash used in operating activities THB 3,253 million, the Net cash used in investing activities THB 147 million and the Net cash used in financing activities THB 1,016 million. All of which are detailed in the following.

Net cash used in operating activities, THB 3,253 million. The significant changes were:

- + Trade accounts receivable THB 804 million
- + Trade accounts payable THB 1,206 million
- + Contract assets THB 2,806 million

Net cash used in investing activities, THB 147 million. The significant changes were:

- Proceeds from other financial assets measured at amortized cost THB 203 million
- + Proceeds from dividend income of subsidiaries and joint ventures THB 137 million
- Purchases of equipment THB 172 million

Net cash used in financing activities THB 1,016 million. The significant changes were:

- Cash payment for short-term loan from financial institutions THB 740 million
- + Cash receipts from issuance of debentures THB 1,470 million
- Cash payment for debentures THB 1,100 million
- Cash payment for redemption of subordinated perpetual debentures THB 500 million
- Cash payment for interest from subordinated perpetual debentures THB 42 million

Exchange rate loss on cash and cash equivalents THB 25 million.

6.4.2 Suitability of Capital Structure

On 31 December 2022, the Company's current ratio was 1.01 times and a quick ratio at 0.35 times, which slightly increased from the previous year which was 0.91 times and 0.30 times respectively, mainly from the cash and cash equivalents was increased.

The Company's debt to equity at 5.05 times, which increased significantly from the previous year which was 3.65 times, mainly due to the Company has received deferred construction revenue from new projects in year 2022 and times interest earned at 4.99 times which was improved from the previous year which was 4.59 times mainly due to an improvement in earnings before finance costs and income tax.

6.4.3 Investment Expenditure and Sources of Funds

Investment Expenditure

In 2022, the Group of the Company has invested in assets under construction and installation of THB 134 million to build a Biomass Pellet laboratory by using Blackwood technology as the Company has acquired the business from last year. This investment is in line with the company's business development plan.

Source of Funding

The company's funding sources are as follows;

1. Advance money from construction contract
2. Short term loan, consists of loan from both domestic and overseas Financial Institution. The company plans to utilize the loan for working capital for the construction project of the company.
3. The aggregate amount of issuance and offering of debentures which was approved by the shareholders, it's not exceeding THB 6,000 million. As of 31 December 2022, the company has outstanding debenture totaling THB 1,500 million, therefore, the available amount of debenture is THB 4,500 million.

6.4.4 Sufficiency of Liquidly

The Company believes that the Company has enough liquidity to support both operations and loan repayments. The additional information can be found in the Auditor's opinion and note to the financial statement in the Company's Financial Statement for the year 2022 no. 22 and 23.

6.4.5 The ability to repay debts and maintain key financial covenants

During the debenture period, the Company must maintain the Net Debt to Equity within the ratio of 3:1 at the end of fiscal year. On 31 December 2022 and 2021, the Company's Net Debt to Equity was (0.18) times and 0.71 times respectively.

6.5 LIABILITIES COMMITMENTS AND OFF-BALANCE SHEET OBLIGATIONS

The additional information can be found in note to the financial statement no. 36

6.6 FACTOR AFFECTING THE COMPANY'S OPERATIONS

In 2023, the Company expected that the operating result will be improved due to Covid-19 pandemic has declined and its situation is getting better. As a result, the many countries have reopened again and the investors both domestic and overseas have more expanded theirs invested after the delay investment during Covid-19 pandemic. As a result, the Company has received many EPC contract in 2022, however, the factors might impact to the Company operating in the future consists of Russia-Ukraine war, policy interest rate increment, inflation crisis, those factors having consequence for the Company operating due to raising goods price or energy crisis.

7. GENERAL INFORMATION AND OTHER IMPORTANT INFORMATION

7.1 OTHER IMPORTANT INFORMATION

7.1.1 General Information of issuer company

Company Name	TTCL Public Company Limited Former name is Toyo-Thai Corporation Public Company Limited
Abbreviation	TTCL
Company Registered Number	0107551000185
Head Office	159/41-44 Sermit Tower 27th-30th Floor, Sukhumvit 21 (Asoke) Road, North Klongtoey, Wattana, Bangkok 10110 Thailand
Website	http://www.ttcl.com
Telephone number	0 2260 8505
Fax	0 2260 8525-6
The Nature of Business	Integrated Engineering, Procurement and Construction, Integrated EPC providing service for clients in petrochemical, chemical, energy and other industries
Registered Capital	896,000,000 Baht divided into 896,000,000 common shares with the par value of 1.00 Baht per share.
Paid-up Capital	616,000,043 Baht divided into 616,000,043 common shares with the par value of 1.00 Baht per share.
Accounting Period	1 January - 31 December

7.1.2 Personal Information Reference

Securities Registrar	Thailand Securities Depository Co., Ltd. (TSD) 93, 14 th Floor, Ratchadaphisek Road, Dindaeng, Dindaeng, Bangkok 10400, Thailand Tel. 0-2009-9000 Fax. 0-2009-9991												
Audit Firm	Grant Thornton Limited 87/1 Capital Tower, All Seasons Place, 11 th floor, Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand												
Independent Auditor	Auditor Name list as at 31 December 2022 <table><tr><td>Mr. Somkid Tiatragul</td><td>C.P.A. (Thailand) No. 2785</td></tr><tr><td>Ms. Kanyanat Sriratchatchaval</td><td>C.P.A. (Thailand) No. 6549</td></tr><tr><td>Ms. Amornjid Baolorpet</td><td>C.P.A. (Thailand) No. 10853</td></tr><tr><td>Ms. Saranya Akharamahaphanit</td><td>C.P.A. (Thailand) No. 9919</td></tr><tr><td>Ms. Luxamee Deetrakulwattanapol</td><td>C.P.A. (Thailand) No. 9056</td></tr><tr><td>Ms. Kesanee Srathongphool</td><td>C.P.A. (Thailand) No. 9262</td></tr></table>	Mr. Somkid Tiatragul	C.P.A. (Thailand) No. 2785	Ms. Kanyanat Sriratchatchaval	C.P.A. (Thailand) No. 6549	Ms. Amornjid Baolorpet	C.P.A. (Thailand) No. 10853	Ms. Saranya Akharamahaphanit	C.P.A. (Thailand) No. 9919	Ms. Luxamee Deetrakulwattanapol	C.P.A. (Thailand) No. 9056	Ms. Kesanee Srathongphool	C.P.A. (Thailand) No. 9262
Mr. Somkid Tiatragul	C.P.A. (Thailand) No. 2785												
Ms. Kanyanat Sriratchatchaval	C.P.A. (Thailand) No. 6549												
Ms. Amornjid Baolorpet	C.P.A. (Thailand) No. 10853												
Ms. Saranya Akharamahaphanit	C.P.A. (Thailand) No. 9919												
Ms. Luxamee Deetrakulwattanapol	C.P.A. (Thailand) No. 9056												
Ms. Kesanee Srathongphool	C.P.A. (Thailand) No. 9262												
Legal Advisor	IPCT Associates Law Office 11 th Floor, Ital-Thai Tower, 2034 New Phetchburi Road, Bangkok 10310, Thailand												

7.2 LITIGATIONS

As at 31 December 2022, the Group had litigations as follows:

Dispute no. 1

On 11 September 2019, the plaintiff as subcontractor in Malaysia has filed a statement of claim to a subsidiary of the Group that the subsidiary of the Group has breached on the agreement and termination of the agreement has caused damage to the plaintiff. The plaintiff claimed in amount of MYR 142.43 million (or equivalent to Baht 1,058.14 million) are as follows: a) payment for outstanding milestone in the part that subcontractor determines to receive apart from the agreement b) general damages to be assessed arising out of allegedly by the subsidiary of the Group beaches under the agreement and the termination of the agreement c) interest on the amount awarded and d) other costs.

On 10 October 2019, the subsidiary of the Group has submitted a statement of defense and counterclaim to the arbitral in response to the statement of claims as follows: a) payment instead of subcontractor in amount

of MYR 68.19 million or equivalent to Baht 506.74 million b) damages for the repair works on the cooling basin leakage under the agreement to be assessed c) interest on a) and b) and d) other costs. The estimate general damages by subcontractor deduct the payment for outstanding milestone from the subsidiary of the Group including the damages under the counterclaim the subsidiary of the Group cause subcontractor will pay for general damages to the subsidiary of the Group in amount of MYR 26.72 million. The subsidiary of the Group received payment under the Bank guarantee in amount of MYR 14.90 million. The subcontractor still has outstanding in amount of MYR 11.80 million (or equivalent to Baht 87.69 million).

On 12 December 2019, the Arbitration Tribunal has called for a preliminary meeting and issued the Order for Directions in respect of procedures and directions to the parties. On 27 January 2020, the plaintiff has filed and served their statement of claim. And the subsidiary of the Group will be filing their statement of defense and counterclaim on 16 March 2020 as directed by the Tribunal. The subcontractor has filed the petition rejecting the Group's statement of defense and counterclaim on 3 June 2020. The subsidiary of the Group submitted the statement of defense against the subcontractor again on 24 June 2020.

On 9 August 2021, both parties have submitted their witness statement as directed by the tribunal. Both parties are obliged to submit a statement of defense against each party's witness statement on 7 March 2022. However, both parties agreed to extend the submission of statement of defense against each party's witness statement to 1 June 2022.

On 1 June 2022, both parties have submitted statement of defense against each party's witness statement and on 13 September 2022, both parties have submitted additional statement of defense. Each party independent expert's opinion was submitted on

31 October 2022. However, the joint opinion from both parties' independent expert will be submitted on 1 February 2023. The next appointment of examination is scheduled between 20 February to 15 March 2023.

On 3 October 2020, the Company received the court summon from subcontractor. The subcontractor has filed the civil case against the Company, claiming that the Company is a guarantor of its subsidiary, in accordance with the Parent Company Guarantee. The plaintiff has filed a statement of claim in amount of MYR 172.30 million (or equivalent to Baht 1,314.44 million) including the interest at the rate of 7.50% per annum from the filing date until the entire amount has been settled effective since 23 November 2020. The Company has filed the petition to the court to consider and make decision on the Court Jurisdiction in according to the Arbitration Act and the Establishing Central Intellectual Property and International Trade Court Act including trial the Central Intellectual Property and International Trade cases. The Company petite to strike out the case since the case is related to the Court Jurisdiction. Due to the pandemic of Covid-19 in Thailand, The Court make new appointment for examination of the petition on 6 June 2022.

On 6 June 2022, the Court has begun to examine the petition from the subcontractor and scheduled a hearing on 9 August 2022. However, the hearing has been postponed to 27 October 2022, in which on that day the Court had started the investigation process and scheduled the hearing on 16 January 2023.

Both parties have submitted each party's witness statement on 25 October 2022. Both parties are due to submit the statement of defense against the other party's witness statement on 17 November 2022. However, the joint opinion from both parties' independent expert had been scheduled for submission on 24 February 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the date scheduled for the arbitral tribunal to grant the final award is not due yet and uncertainly in final examination from the court.

Dispute no. 2

On 25 December 2018, the Group (as claimant) submitted the statement of claim to the Thai Arbitration Institute, Office of Judiciary ("TAI"), relating to the breach of the turnkey contract for the onshore construction, onshore supply and offshore supply work for the Lat Krabang Power Plant Project against the project owner (as the respondent) for liable as follows: (a) outstanding milestone payments and the cost of variation, plus the default interest of 12% calculated up to the submission of this statement of claim in amount of Baht 340.09 million, SEK 21.94 million and USD 0.03 million (b) the default interest at the rate of 12% per annum for the outstanding payment in (a) from the date of submission of this statement of claim (c) return the advance payment bonds and the performance payment bonds, including pay the bonds fee paid by the Group to the issuing bank in amount of Baht 1.99 million, USD 0.05 million and SEK 0.55 million d) damages on the loss of opportunity cost of Baht 500 million (e) issue the Provisional Acceptance Certificate ("PAC") specifying the date on which all conditions of the PAC were satisfied and issue the final PAC to the Group and state that the conditions of final acceptance have been fully satisfied and (f) pay in full the fees and expenses of the arbitrators, the Centre's administrative expenses and all costs incurred by the Group in connection with these arbitral proceedings, particularly without limitation to legal fees and expenses.

On 19 August 2019, the respondent has submitted the statement of defense and counterclaim

to the TAI, denying the allegations set forth in the statement of claim, and demanded that the Group indemnify the respondent for debt arising from the breach of contract, for example: costs borne by the respondent for rectification or replacements of non-compliance assets, damages for delay, and damages due to the Group's failure to achieve the performance guarantee, additional expenses for the construction of the transmission lines, business interruption, as well as other damages and expenses in amount of Baht 1,611.56 million.

On 10 October 2019, the arbitration appointed by each Party appointed the Chairman of the arbitral tribunal. The Tribunal then granted the respondent's request to amend its statement of defense and counterclaim and ordered that the Group file an additional answer to counterclaim by 25 December 2019.

On 6 February 2020, the Tribunal directed that the issues in dispute for the proceedings are whether the Claimants, as members of the Consortium, are authorized to file the Statement of Claim to demand the Respondents bear liability in accordance with Turnkey Contract and whether the Claimants or the Respondents, is in breach of the Turnkey Contract; and to what extent the breaching party shall be liable for damages for the non-breaching party. Both Parties shall submit the list of witnesses, witness statements, and evidence by 24 August 2020. The next appointment for witness examination is scheduled for 30 October 2020. Both Parties are to submit the closing statement to TAI by 7 March 2021.

On 19 February 2021, both parties had already examined their witnesses. In the meantime, the Arbitral Tribunal rescheduled to issue the award once the witness hearing in the breach of the Turnkey Contract for the onshore construction, onshore supply and offshore supply work for the Bangpoo Power Plant Project against project owner shall be finished

and the closing statement to TAI by 10 February 2022. The Arbitral Tribunal scheduled to render the Award on 12 March 2022. Later, the Arbitral Tribunal request to TAI to extend the time for issuance of the Award.

On 9 August 2022, the Claimants filed an objection in the Chairman and the Arbitral Tribunal's order to the Southern Bangkok Civil Court. The Chairman of the Arbitral Tribunal has already submitted the Statement of Defense to the court. The Southern Bangkok Civil Court has scheduled for the first appointment on 17 October 2022.

On 10 August 2022, the Arbitral Tribunal issued an Award in this dispute as to Red Case No. 48/2565 and 49/2565 with an Award that the Turnkey Contract has been terminated since 8 June 2017 and the Claimants shall receive the cost of variation works in amount of 37,045,965.00 baht and the outstanding payment for milestone no. 7 (Scope of 2nd claimant work) in amount of 16,629,635.04 SEK from the Respondent, while the Respondent receives payment from the Claimants in the total amount of 83,437,432.42 baht. Subsequently, on 13 September 2022, the Respondent submitted the Request to amend or explicate an award to TAI. The Arbitral Tribunal set an Appointment to consider the Request to amend or explicate an Award on 10 October 2022.

On 10 October 2022, the Arbitral Tribunal issued the Arbitral' s order about the Request to amend or explicate an Award that the sums that both Claimants have a duty to be liable to the Respondent increased by the amount: 48,696,324.23 baht because the award on the topic of "L/D performance is not be matching " was added to the arbitral award on the summary. And, regarding the amendment of the date of specifying the award to cause the period for calculating the interest rate of 12 percent increases. On the contrary, the amount of money that the Respondent has a duty to be liable to both Claimants reduced to the amount: 37,742,717.59 baht due to

an error in bringing the numbers from other items to specify in the award therefore need to be corrected.

In this regard, the Claimants have considered an award dated 10 August 2022 and 10 October 2022 and found that the majority of the Arbitral Award was unlawful and will continue to request the revocation of the Arbitral Award in accordance with the Arbitration Act B.E. 2545 Section 40.

On 17 October 2022, which is the first court's appointment in the case of the objection in the Chairman and the Arbitral Tribunal's order at the Southern Bangkok Civil Court, the court scheduled the witness examination of both claimants and Respondents since the Respondent filed the Statement of Defense to the court during 7 - 8 March 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

Dispute no. 3

On 25 December 2018, the Group (as claimant) submitted the statement of claim to the TAI, relating to the breach of the Turnkey Contract for the onshore construction, onshore supply and offshore supply work for the Bangpoo Power Plant Project against project owner (as respondent) for liable as follows: (a) outstanding milestone payments, the cost of standby manpower and the cost of variation, plus the default interest of 12% calculated up to the submission of this statement of claim in amount of Baht 555.89 million, SEK 41.64 million and USD 0.05 million (b) the default interest at the rate of 12% per annum for the outstanding payment in (a) from the date of submission of this statement of claim (c) return the advance payment bonds and the performance payment bonds, including paying the bonds fee paid by the Group to the issuing bank in amount of Baht

3.69 million, USD 0.09 million and SEK 1.09 million (d) damages on loss of opportunity cost in the total amount of Baht 1,000 million (e) issue the Provisional Acceptance Certificate ("PAC") specifying the date on which all conditions of the PAC were satisfied and issue the final PAC to the Group and state that the conditions of final acceptance have been fully satisfied and (f) pay in full the fees and expenses of the arbitrators, the Centre's administrative expenses and all costs incurred by the Group in connection with these arbitral proceedings, particularly without limitation to legal fees and expenses.

On 13 August 2019, the respondent has submitted the statement of defense and counter claim to the TAI, denying the allegations set forth in the statement of claim, and demanded that the Group indemnify the respondent for debt arising from the breach of contract, for example: costs borne by the respondent for rectification or replacements of non-compliance assets, damages for delay, and damages due to the Group's failure to achieve the performance guarantee, additional expenses for the construction of the transmission lines, business interruption, as well as other damages and expenses in amount of Baht 4,247.64 million.

On 10 October 2019, the arbitration appointed by each party appointed the Chairman of the arbitral tribunal. The Tribunal then granted the respondent's request to amend its statement of defense and counterclaim and ordered that the Group file an additional answer to counterclaim by 25 December 2019.

On 6 February 2020, the Tribunal directed that the issues in dispute for the proceedings are whether the Claimants, as members of the Consortium, are authorized to file the Statement of claim to demand that the Respondents bear liability in accordance with Turnkey Contract and whether the Claimants or the

Respondents, is in breach of the Turnkey Contract; and to what extent the breaching party shall be liable for damages for the non-breaching party. Both Parties shall submit the list of witnesses, witness statement, and evidence by 4 August 2021. On 30 July 2021, the Arbitral Tribunal, the Claimants, and the Respondent discuss a motion for an extension of the witness statement submission date due to difficulties caused by the current Covid-19 pandemic in Thailand. The Arbitral Tribunal approved for an extension for witness statement submission within 3 September 2021. The Arbitral Tribunal postpone the first appointment for witness examination shall be on 5 October 2021.

On 29 October 2021, the Claimants' witness hearing examination was completed. The respondents' witness hearing examination was completed on 19 November 2021. Both Parties will be submitted the closing statement to TAI by 10 February 2022. The Arbitral Tribunal scheduled to render the Award on 12 March 2022. Later, the Arbitral Tribunal request to TAI to extend the time for issuance of the Award.

On 9 August 2022, the Claimants filed an objection in the Chairman and the Arbitral Tribunal's order to the Southern Bangkok Civil Court. The Chairman of the Arbitral Tribunal has already submitted the Statement of Defense to the court. The Southern Bangkok Civil Court has scheduled for the first appointment on 17 October 2022.

On 10 August 2022, the Arbitral Tribunal issued an Award in this dispute as to Red Case No. 50/2565 and 51/2565 with an Award that the Turnkey Contract has been terminated since 2 May 2017 and the Claimants shall receive the cost of variation works in amount of 84,723,426.58 baht and the outstanding payment for milestone no. 1-7 and 2-7 (Scope of 2nd claimant work) in amount of 33,764,502.70 SEK from the Respondent, while the Respondent receives payment from the Claimants in the total amount of

393,120,573.21 baht. Subsequently, on 16 September 2022, the Respondent submitted the Request to amend or explicate an award to TAI. The Arbitral Tribunal set an Appointment to consider the Request to amend or explicate an Award on 10 October 2022.

On 10 October 2022 the Arbitral Tribunal issued the Arbitral' s order about the Request to amend or explicate an Award that the sums that the Claimants have a duty to be liable to the Respondent increased by the amount: 5,038,961.34 baht due to the amendment of the date in specifying the award, cause the period for calculating the interest rate of 12 percent increases.

In this regard, the Claimants have considered an award dated 10 August 2022 and 10 October 2022 and found that the majority of the Arbitral Award was unlawful and will continue to request the revocation of the Arbitral Award in accordance with the Arbitration Act B.E. 2545 Section 40.

On 17 October 2022 which is the first court's appointment in the case of the objection in the Chairman and the Arbitral Tribunal's order at the Southern Bangkok Civil Court, the court scheduled the witness examination of both claimants and Respondents since the Respondent filed the Statement of Defense to the court on 2-3 May 2023

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

Dispute no. 4

On 26 March 2021, the Claimants filed a Request for Arbitration with the INTERNATIONAL CHAMBER OF COMMERCE in Singapore. The disputes between the Claimants and the Respondents concern work performed under various contracts and agreements entered into between the parties for the EPCC Work

located in Malaysia. The value of the claims made by the Claimants amounts to USD 65.51 million consists of (1) the cost to complete works USD 26.67 million; (2) financial cost USD 0.96 million; and (3) delay damages USD 37.88 million.

On 5 May 2021, TTCL filed its Answer to Request for Arbitration & Counterclaim in the Arbitration. Since both parties have entered into many contracts, therefore, the Company has filed a Jurisdictional Challenge to determine the Claimants' entitlement. The Tribunal agrees to consider about the Jurisdiction, however, requested both parties to commence with the arbitration process in order to gather more information.

On 8 July 2021, the three-member tribunal was constituted and it has issued its draft of the Terms of Reference ("TOR") for the arbitration. The Claimant has filed the Statement of Claims on 8 October 2021. The Company is to file its Statement of Defense and Counterclaim on 12 November 2021.

The Claimant has to file a petition for rejecting the Company's Statement of Defense and Counterclaim on 10 December 2021. The Company must submit the statement of defense against the Claimant's petition on 14 January 2022. The tribunal will examine the Jurisdictional of the arbitration on 3 March 2022.

On 9 May 2022, the tribunal has decided that the claim can be proceed in accordance with the procedure of the ICC international Court of Arbitration. However, the scope related to the Jurisdictional challenge will be determined on a case-by-case basis. The tribunal ordered both parties to conclude witness document by 25 August 2022.

Both parties have submitted each party's witness statement on 25 October 2022. Both parties are due to submit the statement of defense against the other party's witness statement on 17 November 2022.

Dispute no. 5

On 30 November 2022, the Financial Institution (as the Plaintiff) has filed the petition to Bangkok South Civil Court for payment under the Performance Bonds issued to the project owner for domestic projects in the total amount of Baht 693.00 million as the Plaintiff had made the payment of such amount on 6 October 2022.

However, the Plaintiff had to refund the excess of the Bond fees which are deducted from the Company's account (as the Defendant) in advance in the amount of Baht 1.90 million. Therefore, the balance of the net principle amount of Baht that the Plaintiff claimed is 691.10 million, plus interest at the rate of 14% per annum of the principal amount.

On 30 January 2023, the Court scheduled an appointment for settlement of issues and setting the guidelines for proceeding or plaintiff's witness examination and the Defendant due to file the statement of defense within 8 March 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

7.3 SECONDARY MARKET

-None-

7.4 REGULARLY CONTACTED FINANCIAL INSTITUTIONS

CIMB THAI BankHead Office

44 Langsuan Road Lumpini, Pathum Wan Bangkok 10330

8. 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 in the year 2017 (Corporate Governance Code: CG Code) 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 2022, the Company also received assessments by the various organizations and agencies, as follows:

- Scored 99 points for the 2022 annual general meeting of shareholders (AGM Checklist) by Thai Investors Association (TIA).
- Rated "Excellent" for 5 consecutive years according to Corporate Governance Report of Thai Listed Companies (CGR 2022) by the Thai Institute of Directors (IOD).
- Pass the SET Assessment criteria of the Thailand Sustainability Investment (THSI) for 2022.

- Received the Sustainability Disclosure Recognition award of the Year 2022 by Thaipat Institut
- Obtained the third time of certification from Thai Private Sector Collective Action Against Corruption (CAC) on 30th December 2022. The Certified date is effective from 31st March 2023 - 31st March 2026 for another 3 years.

TTCL's 2022 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.

By virtue of the resolution of the Board of Directors of TTCL Public Company Limited (the "Company"), no. 1/2565, held on 28th February 2022, the Annual General Meeting of Shareholders No. 1/2565 will be held on Tuesday 12nd April 2022 through Electronic Devices (E-AGM) under the Royal Decree on Teleconference through Electronic Mean E.E. 2563 (2020) and relevant law and regulations, which would broadcast live at 14.00 hrs. at the meeting Room 27th Floor, Sermmit Tower, No. 159/41-44, Sukhumvit 21 (Asoke) Road, Khweang Klongtoey Nuer, Khet Wattana, Bangkok. Also, onsite registration service will not available on the meeting day

Shareholders Meeting:

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.

According to the continuous epidemic situation of COVID-19 in Thailand, the Company restricts the attendee of the meeting in order to strictly comply with order of the Centre for the Administration of the Situation due to the Outbreak of the Communicable Disease Coronavirus 2019 (COVID-19).

The Company informed in the invitation and notification to the Stock Exchange of Thailand published on 11th March 2022 about guidelines of registration, proxy assignment, and rules & regulations of DAP E-Shareholder meeting including uploading Guideline and Procedure attending meeting and Program Function Guidelines videos as another approach to inform the shareholders.

Moreover, the entire Annual General Meeting of Shareholders no. 1/2565 via Electronic devices will be recorded for the convenience of Shareholders who appoint proxy. The video of the meeting will be published through the Company's website.

Below is our guidelines for registration, the method of Granting Proxy, Procedures for attending the E-AGM

Registration to Attend the Meeting

Shareholders who wish to attend the meeting in person can register to attend the meeting through DAP e-shareholder Meeting from 28 March 2022 to 10 April 2022 at <https://portal.eservice.set.or.th/Account/Login?refer=6HLr6l9orBWreD2CPMwhRn%2bQ2pIE%2bxuff4He%2fvUxlfmmKbRbhAUMmQ%3d%3d> or scan QR code here.



Please register through DAP e-shareholder Meeting at least 2 days before 12th April 2022 for the convenience in attending the meeting on the meeting date.

1. In case the shareholders attending the E-AGM by themselves

1.1 The identification documents to confirm the attendance of E-AGM as follows:

● Individual shareholder

- (1) Notification of Meeting, which is sent together with the notice of the invitation of the meeting; and
- (2) The identify card of Shareholder, which has not yet expired / other official documents issued by government authority, which has not yet expired; in the event of a change of first name or family name, a supporting document must also be submitted.

** For a non-Thai-National Individual Shareholder, a valid passport can be presented as an identity card; in the event of a change of first name or family name, a supporting document must also be submitted.*

● Shareholders who is a juristic person

- (1) Notification of Meeting, which is sent together with the invitation of the meeting;
- (2) Registration form for authorized of juristic person (2.3 Supporting Document for Attendance) which has been filled in completely and correctly and signed by the authorized signatory of juristic person.
- (3) A copy of the shareholder's certificate registration, which is certified as true copy by the juristic person's representative and contains a statement indicating that the representative to be present at the Meeting is authorized to act on behalf of the juristic person who is the shareholder; and

- (4) A copy of the identity card of the juristic person's representative, which has not yet expired, or a copy of a valid passport in case of non-Thai-National individual, which has been certified as true copy to the original by the juristic person's representative's signature.

** For a juristic person's registered in foreign Country, please present a copy of company certificate, which has been certified true copy by the authorized director (s) as well as endorsed by Notary Public.*

*** In case of the authority to bind the company comprise authorized signatory of 2 or above directors, please grant the proxy to individual to attend the meeting as specified in 2.1.*

After that, please send all documents to the Company. The documents must be arrived to the Company within April 10, 2022 at

- Email: adm.cs@ttcl.com or
 - Fax: 02-260-8526 or
 - Dispatch a reply envelope
- and send it back to the Company;

Company Secretary

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

1.2 After the shareholders verify their identity via the DAP e-Shareholder Meeting system or submit the above documents and the Company has verified the validity, the shareholders will obtain the email with Username and Password for logging into the electronic meeting system (DAP e-Shareholder Meeting) on the date of the Meeting from 11.00 hrs. onwards.

2. In case the shareholders attending the E-AGM by proxy

2.1 The identification documents for proxy to confirm the attendance of E-AGM as follows:

● Individual shareholder

- (1) Notification of Meeting, Which is sent together with the invitation of the meeting.
- (2) The proxy form A, form B or form C (2.1 Supporting Document for Attendance), enclosed with the notice of the invitation of the meeting, which has been filled in completely and correctly with a 20-bath duty stamp attached, and signed by the proxy grantor and the proxy holder;
- (3) A copy of the identity card of Shareholders / a copy of other official documents issued by government authority, which has not yet expired and certified as true copy to the original (in the event of a change of first name or family name, a supporting document must also be submitted) or copy of a valid passport in case of non-Thai-National shareholder, which has been certified as true copy to the original by the shareholder's signature.
- (4) A copy of the identity card of the proxy holder, which has not yet expired / a copy of other official documents issued by government authority, which has not yet expired and certified as true copy to the original or copy of a valid passport in case of non-Thai-National proxy holder, which has been certified as true copy to the original by the proxy holder's signature.

● Shareholders who is a juristic person

- (1) Notification of Meeting, which is sent together with the notice of the notice of the invitation of the meeting.
- (2) The proxy form A, form B or form C (2.1 Supporting Document for Attendance), enclosed with the notice of the invitation of the meeting,

which has been filled in completely and correctly with a 20-bath duty stamp attached, and signed by the juristic person's representative (proxy grantor) and by the proxy holder;

- (3) A copy of the shareholder's certificate registration, which is certified as true copy by the juristic person's representative and contains a statement indicating that the representative signing on the proxy form is authorized to act on behalf of the juristic person who is the shareholder;
- (4) A copy of the identity card of the juristic person's representative (proxy grantor), which has not yet expired, or a copy of a valid passport in case of non-Thai-National individual, which is certified as true copy by the grantor's signature; and
- (5) A copy of the identity card of the proxy holder, which has not yet expired, or copy of a valid passport in case of non-Thai-National individual, which is certified as true copy by the proxy holder's signature.

** For a juristic person registered overseas, please present a copy of company certificate, which has been certified true copy by the authorized director (s) as well as endorsed by Notary Public.*

Shareholders may appoint a proxy to any person or one of the Independent Directors, such independent director will vote for each agenda as specified by the shareholders in the proxy form. The name lists of Independent Director are as follow;

1. Mr. Sivaraks Pinicharomna, Age 71 yrs.

Chairman of Audit Committee

(Independent Director and disinterested in the proposed agenda for this meeting except for being nominated to be re-elected for another term in Agenda 5)

Address: 7 Soi Ram Inthra 42, Sub-Soi 2,
Khweang Ram Inthra, Khet
Khannayao, Bangkok 10230

2. Mr. Suvit Manomaiyanon, Age 68 yrs.

Audit Committee

(Independent Director and disinterested in the proposed agenda for this meeting)

Address: 299/127 Moo 10, Khweang Hat
Kham, Khet Mueang Nong Khai,
Nong Khai 43000

3. Dr. Ryuzo Nagaoka, Age 86 yrs.

Audit Committee

(Independent Director and disinterested in the proposed agenda for this meeting except for being nominated to be re-elected for another term in Agenda 5)

Address: 4-25-13 Mitsuwadai, Wakabaku,
Chiba, Japan.

Remark: The Annual General Meeting of Shareholders will be conducted in Thai. Therefore, there may be inconvenience in accepting proxy.

4. Mr. Nuttachat Charuchinda, Age 67 yrs.

Independent Director

(Independent Director and disinterested in the proposed agenda for this meeting)

Address: 52/48 Moo 2, Khweang Bang
Khen, Khet Mueang Nonthaburi,
Nonthaburi 11000

After that, please send all documents to the Company. The documents must be arrived to the Company within April 10, 2022 at

- Email: adm.cs@ttcl.com or
- Fax: 0 2260 8526 or
- Dispatch a reply envelope and send it back to the Company;

Company Secretary
TTCL Public Company Limited
159/41-44 Sermitmit Tower 27th - 30th Floor,
Sukhumvit 21
(Asoke Road), North Klongtoey, Wattana,
Bangkok, 10110

The registration documents will be reviewed to ensure the identification of the shareholders. After that, the proxy will obtain the email with Username and Password for logging into the electronic meeting system (DAP e-Shareholder Meeting) on the date of the Meeting from 11.00 hrs. onwards.

On 12 April 2022, the Company organized the Annual General Meeting of Shareholders No. 1/2565 through Electronic Devices of TTCL Public Company Limited under the Royal Decree on Teleconference through Electronic Mean E.E. 2563 (2020) and relevant law and regulations was held, there were 94 shareholders present in person and shareholders presented by proxy. Having 9 shareholders present in person through electronic means which represented 12,413 shares and 85 shareholders presented by proxy which represented 267,355,794 shares respectively. Altogether, there were shareholders holding 267,368,207 shares. The shareholders attending the meeting are not less 25 persons and the shares are not less than one thirds of the total number of share issued. Therefore, the quorum was declared under the Company's regulation

The Annual General Meeting of Shareholders (AGM) 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:

Attending the Annual General Meeting of shareholders through Electronic Devices (E-AGM)

The Annual General Meeting of shareholders no.1/2565 through Electronic Devices (E-AGM) will be held on Tuesday 12nd April 2022 at 14.00 hrs. with the following steps

1. Log-in e-Service Platform

- All Attendees log in to DAP e-Shareholder Meeting system 11.00 hrs. with the provided Username & Password and OTP code at <https://portal.eservice.set.or.th> or scan QR code here.



- When logging in to DAP e-Shareholder Meeting system, the attendee can enter the URL link to join the meeting through the Webex System.

Shareholders can use desktop or notebook computers, tablet, or smartphone with camera installed and enter through web browser including Google Chrome, Safari or Internet Explorer. It can be used on both IOS and Android operating systems.

Attendees of E-AGM can study the process of the electronic meeting including e-Registration, broadcasting, voting and raising questions in "[User Manual e-Shareholder Meeting System \(DAP e-Shareholder Meeting\)](#)" at <https://www.set.or.th/th/eservice/shareholder.html> or scan QR code here.



***** Please keep your Username and Password confidential. Your login account should never be disclosed to others. *****

2. Voting on Each Agenda

- For voting, the Chairman will purpose that the meeting passes a resolution on each agenda item and the DAP e-Shareholder Meeting system will open for voting "approve", "disapprove", or

“abstain” on each agenda. Attendees need to return DAP e-Shareholder Meeting system window, and vote within the period specified. Attendees, who have not chosen “approve”, “disapprove”, or “abstain” within the voting period, will be deemed to resolve to approve the matter as proposed to the meeting for consideration. However, if the voting period still exists, Attendees may return to amend their votes within such period.

- In the event a shareholder has granted proxy to another to be present at the meeting on his/her behalf, the proxy holder can consider matters and pass resolutions on behalf of the grantor in every respect as he/she think fit. The same voting method as that for Shareholders present will be used.
- If the Shareholder has voted on each agenda item in the proxy form, the voting in the form will be adhered to.

3. Vote Counting

Shareholders shall cast votes on show of hands. One share shall be entitled to one vote. A shareholder may express his/her intention only to approve, disapprove or abstain the vote on each agenda and may not split the number of shares for splitting votes. Resolutions of the Shareholders' Meeting shall consist of the votes as follows:

- For regular matters, majority votes of shareholders attending the Meeting and entitled to vote shall be deemed final. In case of equality of votes, the Chairman of the Meeting shall be entitled to a casting vote.
- For matters required otherwise by laws and/or Articles of Association of the Company, such requirements shall be complied. Chairman of the Meeting shall inform the shareholders present in the Meeting before any such agenda shall be voted.

- After the vote counting for each agenda item, the Company will announce the voting results as approval, disapproval, or abstention as a percentage of total votes. For the agenda item concerning the election of directors, the Company will announce the voting results by individual directors.

4. Questions Submission during the Meeting

- Shareholders can submit the question in advance by using the Advance Question Form in (2.7) Supporting Documents for Attendance and send to e-mail ir@ttcl.com within April 10, 2022.
- In the event that Attendees would like to ask questions during the meeting, Attendees need to return to the e-Service Platform window, and choose the agenda to ask the question, click the “Raise hand” button for queuing and type questions.

5. Convenience provided to Shareholders appointing the Independent Director

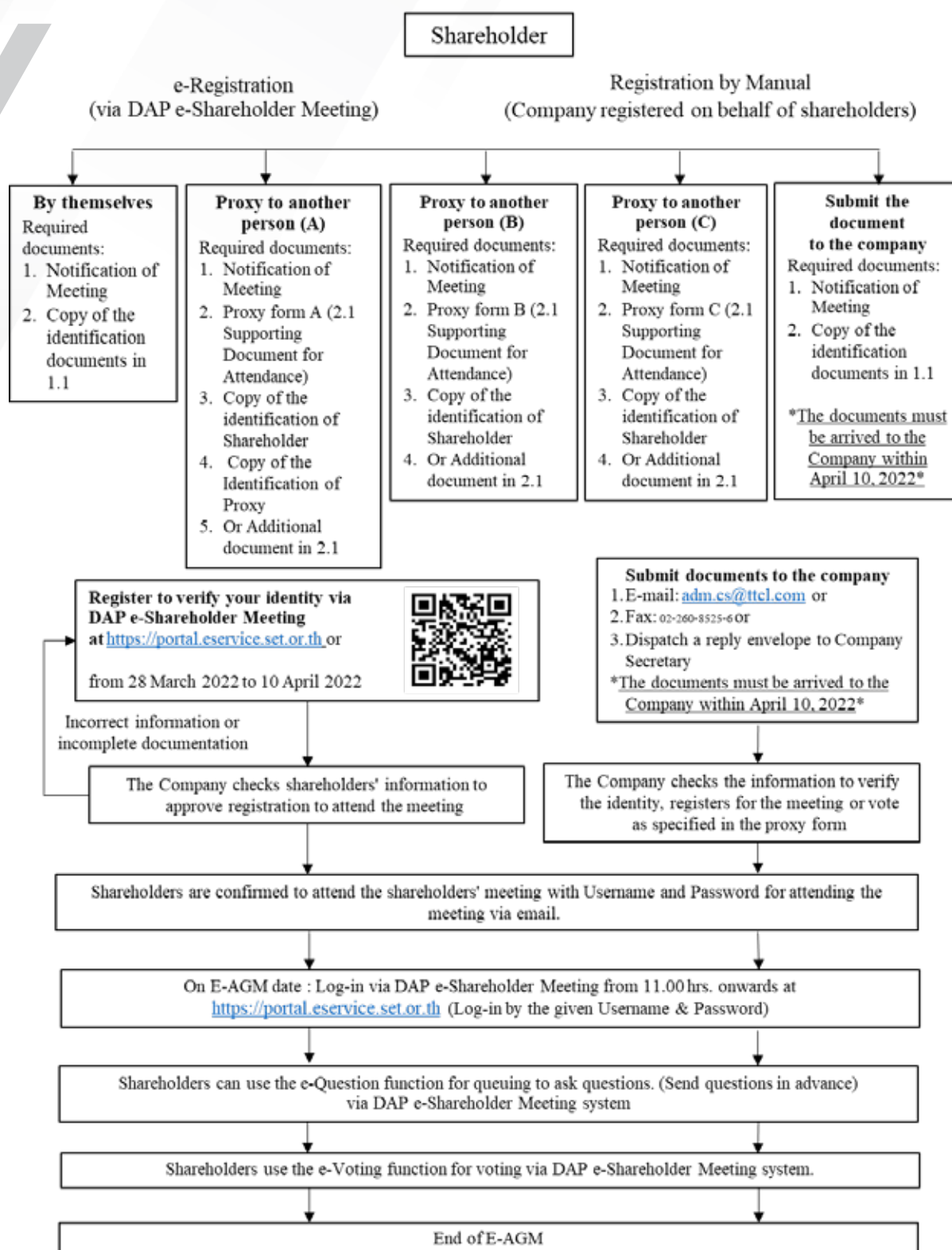
- The entire Annual General Meeting of Shareholders no.1/2565 via Electronic devices will be recorded for the convenience of Shareholders who appoint the Independent Director. The video of the meeting will be published through the Company's website, https://investor-th.ttcl.com/shareholder_meeting.html

Any Question or problems regarding the Annual General Meeting of Shareholders via electronic devices, please contact:

Company Secretary
TTCL Public Company Limited
159/41-44 Sermitmit Tower 27th - 30th Floor,
Sukhumvit 21
(Asoke Road), North Klongtoey, Wattana,
Bangkok, 10110
Tel: 0 2260 8505 Ext. 1501/1503

Procedure for Attending the Annual General Meeting of Shareholders

no. 1/2565 through Electronic Devices



6. 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.
7. 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.
8. 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.
9. 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.
10. The Meeting was convened according to the order of the agenda, no other agenda were proposed than those already specified in the invitation. The Company shall support the shareholders to exercise their rights in protecting their own interests by asking questions, expressing opinions, and making recommendations at the AGM. The shareholders also have rights to

participate in the decision of important issues, which may affect the Company, for instance, the appointment or removal of directors, the selection of nominees to become independent directors, the approval of auditors, the dividend payment, the reduction or addition of capital funds, set or revises rules and regulations, and the approval of memorandum items, etc.

After the AGM:

1) The Company discloses the resolutions of the AGM along with the voting results on the following working day after the meeting to the Stock Exchange of Thailand (SET) and on the Company's website (www.ttcl.com).

2) The Company must prepare the minutes of the shareholder's meeting in Thai and English and shall notify the Stock Exchange of Thailand (SET) within 14 days after the meeting, in accordance to the SET regulations, and disseminate full details of the meeting. This includes complete and appropriate records of the meeting, the resolutions reached together with the number of approval, disapproval and abstain votes, questioning process of the shareholders in each session, along with the allocation of video recordings of the AGM for their acknowledgment in the Company's website (www.ttcl.com).

3) The Company considers the recommendations and opinions received from the shareholders in the quality assessment of the AGM to make improvement plan for the future AGM.

Section 2 Equitable Treatment of Shareholders

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

2.1 The Company provides an opportunity for shareholders to propose agenda and to nominate director candidates to be elected in Annual General Meeting at least 3 months prior to the year ended. The Company also posted the criteria and procedures in relation thereto in the form of a newsletter to the Stock Exchange of Thailand and on the Company's website (www.ttcl.com).

2.2 The Company provides flexibilities to shareholders who cannot attend the meeting in person to assign proxies to the meeting and vote for them. The Company prepared proxy forms as prescribed by the Ministry of Commerce (Form A, B and C), whereby the shareholders may give their proxies voting instruction. The proxy forms were delivered (Form A and B) to the shareholders together with the invitation notice to the meeting. Additionally, the shareholders could download the proxy forms (Form A, B and C) from the Company's website.

2.3 The AGM shall be conducted according to the agenda notified in the notice and it is our policy not to add items to the agenda without advance notice to shareholders and to provide equal opportunities for shareholders to express their opinions, ask questions and exercise the rights to elect individual directors.

2.4 The Company issued only one class of shares, for which one share was equal to one vote. Shareholders vote on every item using the polling card distributed at the meeting. The Company would use a computer system to count the voting by deducting the abstaining votes or disapproving votes from the total shares represented in the Meeting.

2.5 Current information shall be published at the Company's website to inform shareholders of major Company's data and information which have changed, including information sheets disclosed in accordance with various regulations. After disclosure to SET, the information shall be published at the Company's website both in Thai and English.

2.6 The Company clearly discloses shareholding structure of the Company and its subsidiaries to ensure shareholders that organization structure is transparent, verifiable, and does not constitute any forms of cross or pyramidal-shareholding structure.

2.7 The Company established ethical codes on maintaining confidential information and the use of inside information in the corporate governance manual. The corporate set policy on conflict of interest of Committee, Management and Employee, as part of code of business ethics and of code of conduct. Generally the corporate policy is set to avoid conflict of interest when corporate members focus on their private interest against corporate objectives and execution.

2.8 The Directors, Management and Management who related to finance and accounting, including Employee who possess the internal confidential information must avoid trading TTCL's shares with advantage of such information and refrain from the security trading within 30 days before disclosure of financial statement.

However, in special circumstances, the person designated by the company may sell shares of the group of companies during the prohibited trading period if the company is in the situation such as having severe financial difficulties or falling under court orders.

For these situations, the person have to prepare a record, specify the reason of selling share and propose for the approval of:

(1) Chairman of the Board (In case the seller is a director or company secretary)

(2) Chairman of the Audit Committee (In case the seller is the Chairman)

(3) Chief Executive Officer (In the case that the seller is a person designated by the company which is not a director and company secretary)

Investor Relations will inform the prohibited period of securities trading to the person designated by the company in advance.

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 2022, 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 2022, The Company has never been any case that the Company's directors and management abuse insider information to seek personal interests or others' interests. Including, the Company did not execute any transactions on acquisition or disposition of assets in violation of or not in compliance with the rules of the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC).

Section 3 Right of Stakeholders

The corporate realizes the legitimate right of all groups of stakeholders, whether inside or outside the Company, such as shareholder, customer, business partners, business competitors, creditors, the public sector, employees, society, communities and the environment and compiled policies and principles with in the Corporate Governance manual and Code of Conduct handbook, in order to create confidence and stability for the Company and its stakeholders and increase the ability of the Company to compete in the long term as detailed below:

3.1 Shareholder

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

3.2 Customer

The Company has a qualitative assurance policy and qualitative management system of ISO 9001:2015 that aims to build customer satisfactions shall be achieved by deliver quality products which meet their agreement, including to disclose complete,

correct, sufficient and undistorted information on the products and services, provide a communication channel for customers to submit any complaint. Also, contracts and conditions mutually agreed upon shall be complied with the Code of Conduct, Good Corporate Governance and law in a strict manner, safekeeping client information and confidentiality by not using the information for their own benefit.

3.3 Business Partners

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

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

3.4 Business Competitors

The Company has a policy to operate in an upright and transparent manner in dealings with its business competitors. The framework of this policy has been shaped by related laws and

regulations, as well as concepts related to Business Code of Conduct. It does not seek to find information about Competitors through dishonest or inappropriate means. The Company does not engage in slander or discrediting its competitors.

3.5 Creditors

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

3.6 The Government Sector

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

3.7 Employees

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

- Recruitment, selection and hiring are to be based on fairness and equal opportunities to all applicants, with priority given to knowledgeable,

competent, experienced and righteous persons for a given position and attitude compatible with the Company's corporate values.

- The Company establishes offering appropriate compensation and welfare to its employees as fitting their knowledge, responsibilities. The Company measures the performances of its personnel and regularly reviews its compensation and welfare in line with its short-term and long-term performances.
 - Short-term compensation, the Company has defines comparable rates to those in the same industry. Its also provides bonuses in line with the company's performance.
 - Long-term compensation, the Company emphasizes sustainable welfare for the staff such as provident fund to enhance the security of lives after the end of employment or retirement. Employee contributes 2% - 6% and the Company contributes 2% - 9% from the employee monthly salary subject to company's regulations.
- The Company provides fundamental welfare and benefits as required by law, as well as social security, compensation fund and constantly communicates all benefits to its employees.
- Due to the novel coronavirus pandemic (COVID-19), the Company set measures and practices under the pandemic situation for health and safety of employees of in including external contact person both the head office and construction sites. The measures and practices are as follows;

1. To support Social Distancing in the workplace, the Company has a measure of working alternately in each department.
 2. Cancel the using of Fingerprint Scanners for clocking in and out of work (Temporary)
 3. Provide alcohol gel to wash hands at the Reception Counter, Nursing Room and Childcare Room including activities of the relaxing massage project on the 32nd floor.
 4. Use disinfectant cleaner to clean the office equipment such as table and chair in the meeting room, door handle and finger scanner.
 5. Clean the company car and car rental with disinfectant.
 6. Publicize the methods of conduct to prevent the spread Coronavirus for the employee's awareness.
 7. Ask employee for cooperation in wearing mask when coughing, sneezing or running nose. The mask is provided at Nursing Room.
 8. The high-risk person ceases working at office for 7 days home quarantine days, after completed home quarantine, the employee can entry to work at office as usual, but must follow up self-monitoring through checkup at nursing room for 3 days at 9:00 a.m. and 2:00 p.m. (Twice a day).
- Remark: During home quarantine, 1st ATK testing is tested on the 5th - 7th day and for 2nd ATK testing is tested on the 10th day that operates by company's nurse.
9. In case of employee that has found infected COVID-19, the company will temporarily close the area of working employee's floor to reduce the any risk of spreading and shall clean and

sanitization procedures by office disinfectant at all TTCL's area floor as soon as possible, and will be reopened normally in the next day.

10. For the employees provincially working in project site office, please comply with your official provincial announcement.

In case of found the infected employee with the coronavirus (COVID-19)

The company has taken an emergency plan in case of finding a COVID-19 infection according to the guidelines of the Department of Disease Control, Ministry of Public Health, to prevent the spread of COVID-19 as follow:

1. An infected employee ceases from working immediately and gets the treatment according to the guidelines of the Department of Disease Control, Ministry of Public Health.
2. The Company investigates timelines in order to find the high-risk person by contact with the high-risk person directly.
3. The high-risk person ceases from working at office for 7 days to observe symptoms at home and to get COVID-19 tests from the hospital. In case that the results are positive, the person must inform HR&ADMIN. Immediately.
4. The Company sets the working team to monitor and follow-up situations from the patient and the high-risk person during the treatment and quarantine period.

However, the company will provide office disinfection services in all TTCL areas

Due to the tendency of Covid-19 pandemic situation in Thailand becomes mitigated, as well the Ministry of Public Health has announced

that the Covid-19 reclassified from a dangerous communicable disease to a communicable disease under surveillance from 1 October, 2022 onwards. TTCL Public Company Limited would like to inform as following;

1. Cancellation of TTCL's measurement to prevent the spread of COVID-19.
2. Cancellation of daily report of the COVID-19 situation in the company.
3. In case of employee is being infected by COVID-19, employees have right to take a Sick leave according to the company's regulation and follow as medical certificate.
4. For the employees provincially working in project site office, please comply with your official provincial announcement.
5. This will be effective from October 1st, 2022 onwards.

However, the company would require all cooperation to wear a mask all the time and keep social distancing while working in the office, prevent and protect yourself from COVID-19.

In addition to those as prescribed by law, the Company also provides other welfare to its employees, such as health insurance, which covers outpatient and inpatient treatment and dental care, life insurance, personal accident insurance, annual health check-up, and in-house medical and nursing treatment with doctors and nurses standing by at the Company's office during working hours, as well as providing healthcare measure. Furthermore, the Company encourages its employees to exercise for good health by providing facilities, sport equipment and other sport activities, such as yoga and aerobics, etc. The Company also promotes good family relationship by providing kids' room, breastfeeding room and activities to encourage the children's employees in

learning. to support employees who have the necessity to bring their children to the work place. In addition, the Company also provides financial aid to its employees in various cases, such as wedding, childbirth, ordination, death of close relatives and natural disasters, etc. (The Company also promotes good family relationship by providing kids' room, breastfeeding room and activities to encourage the children's employees in learning. to support employees who have the necessity to bring their children to the work place however, this welfare is temporarily suspended for the year 2022 in order to strictly comply with order of the Centre for the Administration of the Situation due to the Outbreak of the Communicable Disease Coronavirus 2019 (COVID-19).

- 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 2022, the Company has 1,319 employees and attended courses and trainings for an average of 7.34 hours/person/year.
- The company emphasizes an occupational safety of employees and subcontractors by organize and maintain environment, hygiene and safe working conditions, control subcontractors' operation, provide training and knowledge before commencing work including specialty training for specific work to enable workers to identify, prevent and control hazards appropriately resulted in work safely.

In 2022, the Company had total working man-hours as 3,882,600 hours with the Total Recordable Incidents Rate (TRIR) at 0 per 200,000 working hours and Lost Time Injury Frequency Rate (LTIFR) at 0 per

200,000 working hours. Subcontractors had total working man-hours as 7,281,782 hours with the Total Recordable Incidents Rate (TRIR) at 0.027 per 200,000 working hours and Lost Time Injury Frequency Rate (LTIFR) at 0 per 200,000 working hours.

(Reference Incidence rates of nonfatal occupational injuries and illnesses by selected industry and case types, private industry, 2020 (Construction), U.S. Bureau of Labor Statistics, U.S. Department of Labor : BLS, TRIR = 2.5 / LTIFR = 1.1)

3.8 Respect for Human Rights

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

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

3.9 Respect intellectual properties, patented

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

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

3.10 Community and Society

The Company realizes the importance of Corporate Social Responsibility (CSR), by creating the sustainable development and having the explicit regulation. The Company has adjusted and arranged Corporate Social Responsibility and Sustainable Development Policy for the comprehensiveness in sustainability issues of the Company operation and subsidiaries as following:

1. Compliance with Code of Conduct and Code of Business Ethics
2. Human Rights and Labor Practices
3. Responsibility for Stakeholders and Other Concerned Person
4. Social Responsibility Activity
5. Responsibility for Environment and Safety Standards
6. Company Innovation Concerning with Corporate Social Responsibility

3.11 Responsibility towards Environment and Resources

The Company conduct business activities by adopting the Occupational Health, Safety and

Environment system requirements (ISO 45001:2018 and ISO 14001:2015) with HSE policy to promote employees awareness in their duties and responsibility toward social, community and environment by provide knowledge and training, encourage and support environmental protection and energy conservation activities. We issue campaign to promote economical and efficient usage of resources such as environmental saving box project (reduce paper usage), campaigns for electric energy conservation and disposal of garbage and waste from both head office and project site.

3.12 Anti-Corruption

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

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

the Company provides definitions of the Anti-Corruption policy, roles and responsibilities, Anti-Corruption guidelines and measures /operational.

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

In the year 2022, the Company has followed the guidelines for giving or receiving gifts, hospitality and other benefits. Furthermore, the Company communicates to the executive and all employees in order to be a good standard.

Corruption Risk Assessment:

The Risk Management Committee and Corporate Governance Committee supported the establishment of Corruption Risk Assessment Working Group which consists of representatives from related divisions whose transactions may involve corruption risks such as Project, Procurement, HR. & Administration, Sales, Finance & Accounting, etc. to identify at risk activities, their likelihood and impact including determination of guideline, rules, regulations and criteria in risk control measures. Accordingly, the Company determines to reassess corruption risk at least twice a year.

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

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

Details of the internal control and risk management in 2022 are referred to "The Internal Control and Risk Management".

Dissemination and Promotion of the Anti-Corruption policy: In 2022, the Company has implemented the Anti-Corruption policy related as below.

- Promote the Anti-Corruption policy and practice them both inside and outside the Company. The Company announces the policy to the Director, Management and employees. For external communication, the Company publishes the policy via its website (www.ttcl.com).

- Provide knowledge of anti-corruption policies and practices for new employee orientation as well as management and employees for understanding and implementing of the policy.]

- New directors and management are informed of policies, rules, regulations and practices of the company and the scope of authority of the executives and directors. The new directors and management also participate the training courses for directors i.e Director Accreditation Program (DAP), arranged by Thai Institute of Directors as the course provide the directors fundamental knowledge of director duties and legal liabilities to increase their confidence in directorships.

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

- The Company signed on declaration to join the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) Project and has been accepted on December 26th, 2014.

- The Company developed a self-assessment form for Anti-Corruption measures, which accompanies supporting evidence related to business policy, measures and procedures and its internal

control system. In addition, the Audit Committee has also reviewed the Company's completeness and adequacy of Anti-Corruption practice to meet requirements of Collective Action Coalition's certification process. All documents were submitted to the CAC panel as part of the Company's application for CAC membership at the end of Quarter 3/2016. The Company was certified by Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) Project in October 14th, 2016.

- Obtained the second time of certification from the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) on February 7, 2020 for another 3 years.

- In year 2022, the Company has issued a letter to the vendors and business partners for the purpose of prevention of exploitation and conflict of interests, which is consistent with good corporate governance.

- On 22 December 2021, TTCL has been awarded for the second time of certification from Thai Private Sector Collective Action Against Corruption (CAC).

- Obtained the third time of certification from Thai Private Sector Collective Action Against Corruption (CAC) on 30th December 2022. The Certified date is effective from 31st March 2023 - 31st March 2026 for another 3 years.

- 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: internal_audit@ttcl.com

- channel 2 by Letter:

To: Internal Audit or Company Secretary
address: TTCL Public Company Limited,
159/41-44, Sermmitt Tower 27th - 30th Floor,
Soi Sukhumvit 21 (Asoke), North Klongtoey,
Wattana, Bangkok 10110, Thailand.

3.14 Whistle-Blowing Measures and Protection

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

Measurement of protecting the violation's reporters and appellants: The Company shall provide appropriate protection to the persons who report misconduct and other related persons: all stakeholders (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 2022, 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).

1) 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.

2) 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.

3) Investor Relations (IR) comprises of financial information, stock information, shareholder information, annual general meeting of shareholders, minutes of the latest annual general meeting of share-

holders and publish notice annual report within 120 days after each financial year-end etc.

4) 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.

5) 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 56-1 One Report 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 2022, the auditors from Grant Thornton 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:

- 1) SET's Community Portal system and SEC.
- 2) Annual Registration 56-1 One Report.
- 3) Company's website at www.ttcl.com in both Thai and English.
- 4) Company's visit and analysts meetings.
- 5) Road shows for both domestic and overseas investors.
- 6) Invitation to the AGM via post.

4.5 Customer Satisfaction Evaluation

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

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

The customer satisfaction level is divided into 4 levels:

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

In year 2022, the Company has been evaluated from customers, which the customer satisfaction result is at 'satisfied' level with average score of 3.53 of 5. The results of customer satisfaction evaluation are applied to improve the Company's performance being more efficient and sustainable.

Furthermore, the Company has been trusted by the existing customers who are satisfied and confident in the Company's work performance. In 2022, the Company received the opportunity from its existing customers to participate in 17 bidding projects.

The company has brought the information that customers comment and suggest by bringing improvements satisfaction for existing customers and new customers that will arise in the future.

4.6 Investor Relations (IR)

TTCL Public Company Limited attaches great importance to investor relations. The Company has set up the Investor Relations Department as a focal point in conducting proactive investor relations activities, according to the 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 Website 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 meeting management in order to generate understandings in the business of the Company.

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

1) Disclosing material information accurately, sufficiently and in timely fashion.

2) Not using inside information for their own or their related parties' benefit.

3) Disclosing material information fairly and equitably. All stakeholders must be able to access to the information and conveniently contact Investor Relations Officers for clarification.

4) Performing their duties with professionalism, integrity and equitability. Preferential treatment that may undermine the benefits of the Company and all stakeholders is not acceptable.

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

Investor Relations (IR) : Mr. Boonyakrit Saowan

General Manager, Investor Relations & Finance,

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 2022, Investor Relations Activities 2022 were as below:

Investor Relations Activities 2022					
Activites	Q1	Q2	Q3	Q4	TOTAL
News or Articles	52	38	35	32	157
Company Visitation	4	3	4	3	14

In 2022, there was no action taken against the Company by the relevant regulators on the basis of any non-disclosure of any material information within the requisite timeframe.

Section 5 Board Responsibilities

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

5.1 The Board of Directors

1) The Board of Directors represent variety from a range of perspectives including gender, age, well knowledge, ability and experienced in fields such as engineer, petroleum, petrochemicals, energy, accounting and finance, management, law and support strategic plans that are beneficial to the Company's business. The Board of Directors understands its responsibilities in upholding the law and adhering to all regulations and rules, as well as principles of Good Corporate Governance. It must avoid any actions which would be against the best interests of the Company and avoid conflicts of interest with the Company that would decrease efficiencies.

2) The Company shall have a Board of Directors consisting of executive directors, non-executive directors and independent directors at least five (5) directors but not exceeding twenty (20) persons (At least one-third must be independent

directors of the total number of Board members and must be equivalent or more than 3 members). Half of the directors shall have place of residences in the Kingdom of Thailand.

As of December 31st, 2022. Board of Directors are consists of 12 Directors;

- 3 members of Executive Directors (25%)
- 9 members of Non-Executive Directors (75%)

(there were totally 4 independent directors to be at one-third of the total number of Board members or the proportion accounts for 33.33%).

3) The Board of Directors has the duty determining the Company's vision, mission, the business direction and the overall strategy for the Company, with an annual revision and approval. Including, oversee and monitor the implementation of the Company's strategies by quarterly reporting the Company's performance to the Board of Directors. In 2022, the Board of Directors meeting no. 1/2022 considers and reviews business strategies plan to keep pace with the current economic and social conditions also shapes the company's management to ensure that the executives and employees are working towards to same goal.

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

5.2 Subcommittee

The Board of Directors nominates the following subcommittees;

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

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

3) Risk Management Committee: The Board of Directors has appointed the Risk Management Committee since November 12th, 2010 which consists of five (5) committee members are one (1) Chairman must be an Independent Director, one (1) Board of Director (Executive) and two (2) Board of Managements and one (1) management. The committee has the duty in establishing and implementing a risk management framework that is suitable and practical for efficient business management, as well as meeting international standards throughout the organization (including the Company and its subsidiaries).

4) Corporate Governance Committee: The Board of Directors has appointed the Corporate Governance Committee since November 14th, 2014.

Consists of seven (7) committee members, being one (1) Chairman must be an Independent Director, one (1) Board of Management and five (5) 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

Currently the Chairman is not be in the position of President & CEO at the same time for comply with the Principles of Good Corporate Governance and the Stock Exchange of Thailand regulation. The Chairman should act as an Independent Director, although this is not the case presently. However, the Chairman and the President & CEO are a highly knowledgeable and experienced individual who is recognized both domestically and internationally for his ability to perform their duties independently, and this will help the Company to be more secure and progress in an efficient way.

Details of Roles and Responsibilities of is referred to Chairman "Roles and Responsibilities" and the President & CEO are referred to "Roles and Responsibilities".

5.4 Nomination of Board Members

1) Regarding the selection of qualified candidates for nomination as directors in replacement of those who are retired by rotation, the Company gives the opportunity to our shareholders to nominate candidates with qualifications required by Securities and Exchange laws and by the Company's regulations

to be elected as directors. Announcement has been posted on the Company's website to invite nomination from shareholders.

2) The Nomination and Remuneration Committee will then select qualified candidates for variety and good mix of gender, age, knowledge, expertise, experience and skills necessary to support strategic plans and good corporate governance principle and propose to the Board of Directors for consideration.

3) After the Board's agreement, the list of such candidates will be proposed to the Annual General Meeting of Shareholders to approve the election by majority votes.

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

5.5 The directorship term

1) Terms of Board of Directors has been definitely prescribed in articles of association of the Company that one-third of the directors who has longest term should be retired. If it is not a multiple of three, then the number nearest to one-third (1/3) must retire from office. In choosing those directors who retire, the length of service on the board should be considered the Directors who occupy the position for longest period shall retire. Nevertheless, a retiring director is eligible for re-election.

2) As for independent directors, The Company's independent director shall be appointed for a term of 3 years and being re-election no more than 2 times continuously (9 years). At end of the term, the Board of Directors may nominate their names to be re-elected at the Annual General Meeting of Shareholders as deemed fit.

3) The Board of Directors has set stipulated the numbers of companies that a director shall possess the position of director in other listed companies of no more than 5 companies. In case the President &

CEO is appointed as director of other listed company, the matter will be proposed to the Board of Directors for approval.

5.6 Control of Subsidiaries and Associated Companies' Business Operations

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

1. The Board of Directors has delegated to the President and CEO the authority to appoint eligible persons for the director and/or executive position of the Board of Directors of the subsidiaries and associates. Selection criteria of the director and/or executive position is based on qualification, skill and working experiences.

2. The Board of Directors designs the organization structure including management of subsidiaries or associated companies to maximize their business operation efficiency and suit current business circumstances.

3. The Board of Directors monitor and control the business operation of subsidiaries or associated companies to meet the approved business policy, goals, operation plan, strategy and budget.

4. The Board of Directors shall consider approving the budget and spending for investment, operations, transactions of acquisition or disposition of assets, borrowing from financial institutions, lending, capital increase and decrease or Company dissolution that may significantly affect subsidiaries or associated companies' operations.

5. The nominated director and/or executive shall operate and oversee the activities of the subsidiaries and associates in accordance with the Company's policies and report performance to the Board of Management or Board of Directors of the Company as deem appropriate.

5.7 Board of Directors' meeting

1) Board meetings are scheduled in advance so that directors can schedule themselves to attend. The Company is responsible for setting agenda clearly and delivering relevant documents to all directors well in advance at least 14 days prior to meeting date to give them enough time to study, deliberate, make sound decisions on all agenda items. In emergency or necessary case for protecting the Company's right or benefit, a meeting may be called by other method and the meeting date may be arranged sooner.

2) According to the Company's article of association, the Board of Directors shall hold a meeting at least once in every three (3) months and a quorum of a meeting of the Board of Directors requires at least half (1/2) of total number of directors. As the Company is committed to comply with the principles of good corporate governance, the Board of Directors has determined the charter of the Board of Directors covering a quorum of a meeting which requires at least two-thirds (2/3) of all directors. Including, all resolutions of the meeting require at least two-thirds (2/3) of all directors. In the absence of the chairman, directors attending the meeting shall elect one of them to act as chairman of that meeting.

3) In 2020 revised the Articles of Association of the Company in the topic of "Electronic Meeting" with respect to the Shareholders' Meeting, Board of Directors' Meeting, Sub-Committees' Meeting and/or other meeting of the company required to be held by law or other meeting imposed by the company, addition to the meeting holding in accordance with

the procedures provided by the respective law or company procedure rules, the Chairman of the Board of Directors or the Chairman mentioned in article 41 in his discretion may determine that the meeting be organized through electronic means in accordance with the laws. Such electronic meeting shall have the same effect as a meeting held in accordance with the procedures provided by the law or such rules.

4) 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.

5) 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.

6) 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.

7) In 2022, the Company held a total of Nine (9) Board of Directors Meetings and one (1) Non-executive Directors Meeting.

8) In 2022, Audit Committee held one (1) meeting with Auditor without management attending.

5.8 Board Approval Authority

The Board of Directors: The Board of Directors has authority to approve in the general operation such as asset purchasing, investment, and loans in excess of the Board of Management

authority, including determining and reviewing vision, mission, and strategy in operations, risk management policy, budget plan and annual business plan. Furthermore, determining objective, monitor and evaluate the performance according to the plan.

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

n) 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.

ข) In case that the financial transaction is in the condition other than a) BOM has an executable limit of Baht 20 million.

President & CEO: For administration of the company, he may engage into business contract within the limit that a board of management could approve, pre-approved by BOD and has the authority to approve within the limit up to 5 (five) million Baht for the transaction that the BOD or BOM did not specifically approve.

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

5.9 Remuneration for Directors and Management

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

Remuneration for Management:

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

Details of remuneration payments to Directors and management in 2021 are referred to "Remuneration of the Board of Director & Management".

5.10 Board of Directors and Subcommittees

Self-assessment

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

1. The Company uses the self-assessment form by the Stock Exchange of Thailand as a guideline. The self-assessment is annually reviewed by the Nomination and Remuneration Committee to cover all aspects of the Board's performance and to fit the Company's nature of business and environment. The self-assessment forms compose of (1) the self-assessment form of the Board of Directors (2) the self-assessment form of Subcommittee (3) the self-assessment form of individual.

2. The company secretary will gather all the self-assessment forms, score and present to the Nomination and Remuneration Committee.

3. The Nomination and Remuneration Committee will present the evaluation result to the board of directors for acknowledge and use as guidelines in improving the board management and potential for individual directors.

The criteria for the evaluation represent the percentage in each category are as follows:

- Over 85% = Excellent
- Over 75% = Very Good
- Over 65% = Good
- Over 50% = Satisfactory
- Under 50% = Need Improvement

Self-assessment of the Board of Directors:

The self-assessment form of the Board of Directors consists of 4 main items i.e. 1) Board structure and qualifications 2) The board meeting 3) Roles, duties and responsibilities of the board of director 4) Others. The assessment result for the year 2021 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 2022 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 2022 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 2022 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 2022, the following directors participated in training and seminars;

Name of Directors	Position	Course/ Seminar 2022
Mr. Sivaraks Pincharomna	Independent Director Chairman of Audit Committee	Webinar on "Hot Issue for Directors: What Directors Need to Know about Digital Assets?" by IOD Lunch Talk on "How should Director be proactive in this chaotic world?" by Zygen Co., Ltd. Seminar on "The Road to Green Financing" by IOD
Mr. Suwit Manomaiyanon	Independent Director Audit Committee Nomination and Remuneration Committee Chairman of Risk Management Committee Chairman of Corporate Governance Committee	Training online "RCL Program Risk Management Program for Corporate Leader" by IOD Webinar on "Global context on sustainability and implications for Thailand" by TLCA & McKinsey Webinar on "Board Nomination & Compensation Program" by IOD online activity Webinar on "Circular Economy: business path to reduce greenhouse gas emissions" by SET Webinar on " " by IOD online Activity
Ms. Pennapa Sakchachrearnkul	Chief Financial Officer Vice President, Finance & Accounting Division	Webinar on "TLCA CFO Professional Development Program #1/2565: Improving the quality of financial reports of Thai listed companies" by TLCA Webinar on "TLCA CFO Professional Development Program #2/2565 # 2/2565: Economic Update for CFO" by TLCA Training online "Disclosure via SETLink System" by SET Webinar on "TLCA CFO Professional Development Program #6/2565 :The Role of CFOs in Corporate Sustainability Development" by TLCA Webinar on "TLCA CFO Professional Development Program #7/2565 # 2/2565 :Introduction to Sustainable Finance" by TLCA
Ms. Jaruean Sookthaiyart	Corporate Governance Committee	Webinar on "The final blend preparation of 56-1 One Report - Sustainability Report" by KMPG Webinar on "Are you ready for PDPA 2022" by TLCA Webinar on "Global context on sustainability and implications for Thailand" by TLCA & McKinsey Webinar on "Integrating ESG into Business Strategy" by TLCA Webinar on Circular Economy: business path to reduce greenhouse gas emissions" by SET Webinar on "Director's Briefing: Leadership that Shapes the Future" by IOD Webinar on "ESG is a priority for organizations and businesses in 2022." by KPMG Webinar on "New CGR Criteria" by IOD & SET Webinar on "Reinventing HR to Thrive in the Never Normal" by TLCA Webinar on "SET Sustainability Reporting Guide by ESG Metrics & Industry" by SET Training online "Corporate Sustainability Strategy Program" by SET Webinar on "Techniques for preparing meeting minutes" by TLCA Webinar on "CGR 2023 COACHING" by IOD & SET Webinar on "Driving Business with ESG Data and Introducing ESG Data Platform" by SET Seminar on "International Conference on Green Economy Growth: Synergizing Green Productivity and the Circular Economy" by Thailand Productivity Institute Webinar "Company Secretary Challenges in Building Trust in the Board" by IOD
Mr. Nuttapol Sinkajohn	Corporate Governance Committee	Webinar "2022 Cyber Risks & Resilience Plan" by SET Webinar on Circular Economy: business path to reduce greenhouse gas emissions" by SET Webinar on "ESG is a priority for organizations and businesses in 2022." by KPMG Webinar on "Road to Certify #3/2022" by CAC Webinar on "SET Sustainability Reporting Guide by ESG Metrics & Industry" by SET
Mr. Somboon Tachasevarajul	Senior Manager (Engineering)	Training online "Working Paper for Better Corruption Prevention Program" by Federation of Accounting Professions of Thailand / IOD / CAC
Ms. Nattaporn Udommahalarp	General Manager, Finance	Seminar "The Road to Green Financing" by IOD Webinar "Disclosure of Management discussion and Analysis" by TLCA
Mrs. Kritsinee Meksikarin	General Manager, (HR)	Webinar on "2022 Cyber Risks & Resilience Plan" by SET " by TLCA Webinar on "Reinventing HR to Thrive in the Never Normal" by TLCA
Ms. Melika Charoenap	Manager	Webinar on "Circular Economy: business path to reduce greenhouse gas emissions" by SET Webinar on "ESG is a priority for organizations and businesses in 2022." by KPMG&W " by SET Training online on "Professional Development Program for Company Secretary" by TLCA Webinar on "New CGR Criteria" by IOD & SET Webinar on "Road to Certify #3/2022" by CAC Webinar on "Reinventing HR to Thrive in the Never Normal" by TLCA Webinar on "SET Sustainability Reporting Guide by ESG Metrics & Industry" by SET Webinar "SDC 2022#3 - How to enhance the credibility of Sustainability reporting" by Thaiptat Training online "Professional Development Program for Company Secretary Program" by SET Training online "Corporate Sustainability Strategy Program" by SET Webinar on "CGR 2023 COACHING" by IOD & SET Seminar on "International Conference on Green Economy Growth: Synergizing Green Productivity and the Circular Economy" by Thailand Productivity Institute

FAP=Federation of Accounting Professions / IOD=Thai Institute of Directors Association / SET=The Stock Exchange of Thailand / SEC=The Securities and Exchange Commission
IAA=The Institute of Internal Auditors of Thailand / TSD=Thailand Securities Depository / PWC=PricewaterhouseCoopers Consulting (Thailand) Ltd. / CMA=Capital Market Academy /
ACT=Anti-Corruption Organization of Thailand / CAC=Collective Action Coalition Against Corruption / FAP= Federation of Accounting Professions / TIA=Thai Investors Association /
DBD = Department of Business Development

The Company arranges important information for new director, whereby Managing Director and Corporate Secretary shall present the information regarding shareholding structure, organization chart, nature of business, performance of the Company, subsidiaries, and other relevant information. In addition, the Company provided a manual of Company Operation Document, mission and duties of the Board 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 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 may significantly affecting to the reliability of the financial reports.
- 3) To comply with laws and regulations both in domestic and abroad including other standards and rules such as rules of SET, accounting standards, and Company regulations.
- 4) To control and maintain the appropriate acquisition, usage, and disposal of the Company's properties.

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

5.15 Risk Management

The Board is responsible for oversight the company risk management, for risks that could affect the ability to achieve business goals by assigned the Risk Management Committee to determine policy and risk management framework, supervise and support risk management to be effective, identify and assess risks, especially the significant risk, initiate risk management plan, monitor, evaluate and continual improving in order to control risk at acceptable levels. Accordingly, report the results to the Board timely and periodically.

The details refer to "Risk Management".

5.16 Compliance

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

Complete Compliance with the Good Corporate Governance Principles in Other Matters of the year 2022:

1) Audit Committee Charter

Audit Committee Meeting No.1/2565 on 27th February 2022 had considered and reviewed Audit Committee charter. The resolution approved the review of the charter to be consistent with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code) and presented to the Board of Directors for acknowledgment at the Board of Directors Meeting No. 1/2565 on 28th February 2022

2) Nomination and Remuneration Committee Charter

Nomination and Remuneration Committee meeting No. 3/2565 on 3rd November 2022 had reviewed the Nomination and Remuneration Committee Charter. The resolution approved the review of the charter to be consistent with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code) and purposed to the Board of Directors for acknowledgement in Board of Director Meetings No. 5/2565 on 14th November 2022.

3) Corporate Governance Charter

Corporate Governance Committee Meeting No.3/2565 on 3rd August 2022 had considered and reviewed Corporate Governance Charter. The resolution approved the review of the charter to be consistent with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code) and proposed to the

Board of Directors for acknowledgement in Board of Directors Meeting No. 3/2565 on 15th August 2022.

4) Environmental, Social and Governance (ESG) Policy

Corporate Governance Committee Meeting No.3/2565 on 3rd August 2022 had setup Environmental, Social and Governance (ESG) Policy in order to comply with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code). The Environmental, Social and Governance (ESG) Policy was presented to the Board of Directors for acknowledgement in Board of Directors Meeting No. 3/2565 on 15th August 2022.

5) Prevention of Conflict of Interest Policy

Corporate Governance Committee Meeting No.5/2565 on 2nd November 2022 had set up Prevention of Conflict of Interest Policy in order to comply with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code), Code of Conduct including the Notification of the Capital Market Supervisory Board No. Thor Thor. 35/2556 Chapter 4: Prevention of Conflicts of Interest and was presented to the Board of Directors for acknowledgement in Board of Directors Meeting No.5/2565 on 14th November 2022

6) Presently, the Company has the Board of Directors consists of 9 members of Non-Executive Director (75%) and 3 members of Executive Directors (25%)

7) In order to comply with good corporate governance practices and principles for listed companies in the year 2017 (Corporate Governance Code: CG Code), The Company has 2 female directors.

8) The nomination and appointment of the new Director, he or she has completed the form of Preliminary qualification examination of the nominated person for being a director according to the

Notification of the Securities and Exchange Commission No. Kor Jor. 3/2560 Re: Determination of Untrustworthy Characteristics of Company Directors and Executives. The Nomination and Remuneration Committee considered the qualification of the new director and proposed to the Board of Directors for approval.

9) The Company has been made the Sustainability Report of year 2022 and stated in Driving Business for Sustainability of 56-1 One Report of year 2022 in order to disclose sustainability information in covering all dimensions to all group of stakeholders.

10) Obtained the third time of certification from Thai Private Sector Collective Action Against Corruption (CAC) on 30th December 2022. The Certified date is effective from 31st March 2023 - 31st March 2026 for another 3 years.

Good Corporate Governance in Other Matters which is in the Process of operation in 2022

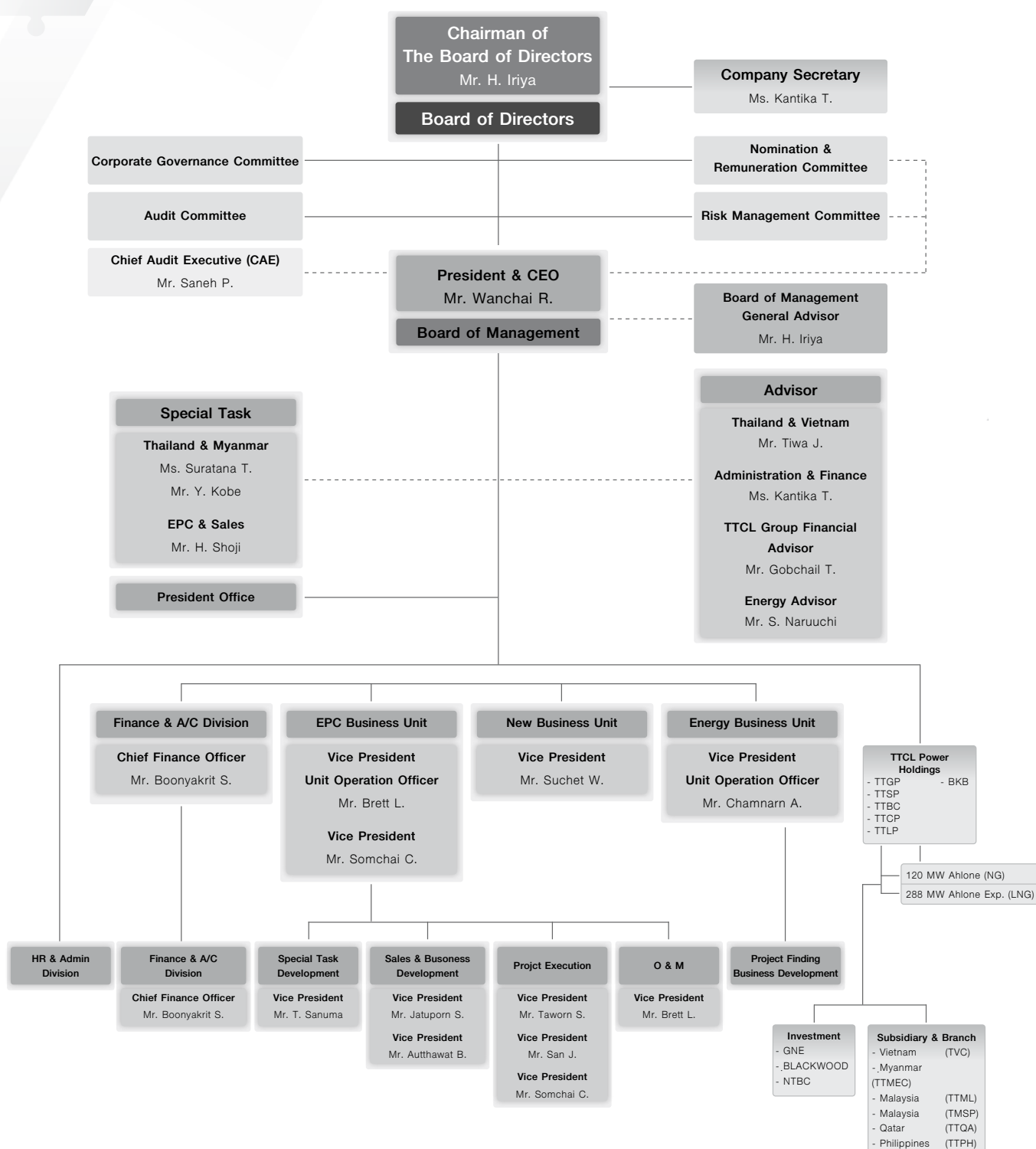
1. Since the year 2022, the Company has been making progress on reviewing various policies in order to be consistent with Corporate Governance Code for listed Companies 2017 (CG Code 2017) and applying CG Code 2017 to the Company's operation properly.

2. Board of Directors Charter

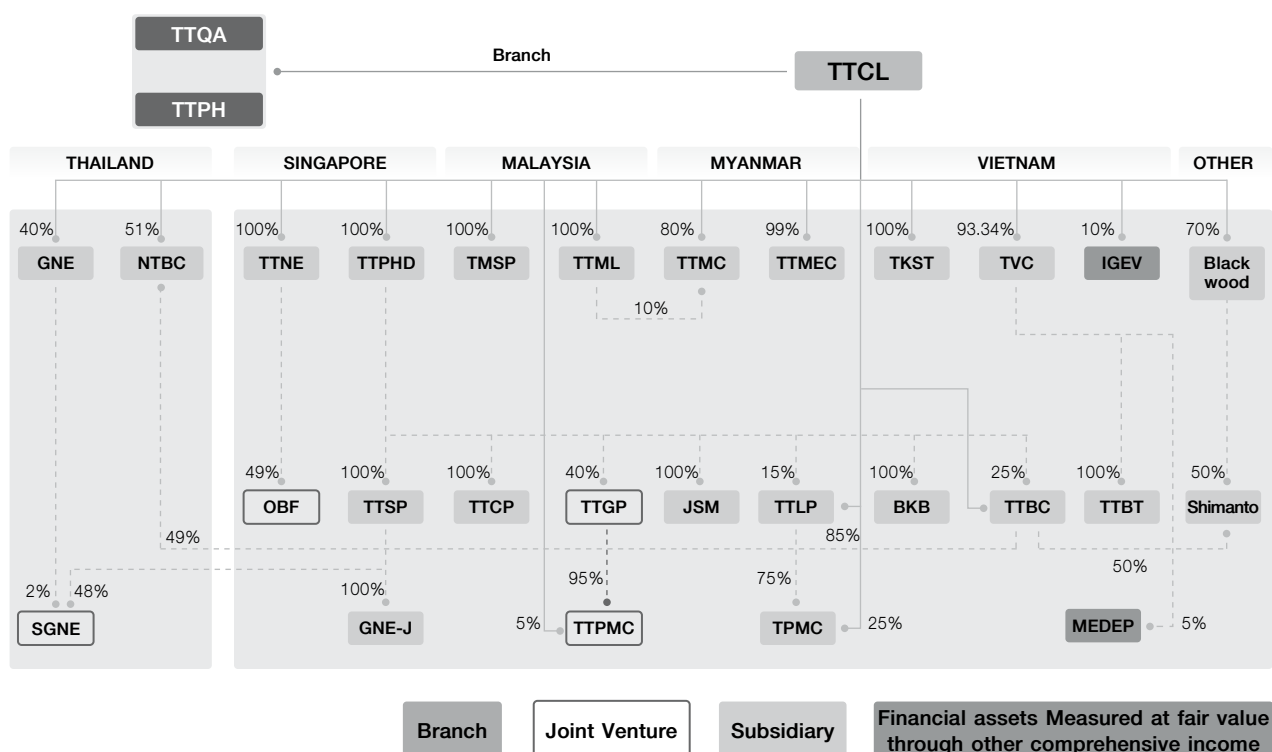
Corporate Governance Committee Meeting No.5/2565 on 2nd November 2022 had considered and reviewed Board and Directors Charter with additional information to achieve the objectives and goals effectively under the framework of relevant laws and regulations by taking into consideration of Sustainable Development in harmony with the economic, social, and environmental" and will be revised according to the amendment of the Public Limited Companies Act (No.4) B.E. 2565 (2022) which will be proposed to the Board of Directors for consideration in Board of Directors Meeting of the year 2023.

9. ROLES & RESPONSIBILITIES OF BOARD OF DIRECTORS AND BOARD OF MANAGEMENT

9.1 ORGANIZATION



9.2 SUBSIDIARY COMPANIES AND AFFILIATES



Subsidiary Companies and Affiliates as of 31 December 2022

Company Name	Abbreviation	Type of Business	Head office	Paid-up Capital		Proportion of holding share (%) Direct+ Indirect
				Amount	%	
1. TTCL Plc. - Qatar Branch	TTQA	Construction and Engineering Services	Qatar	616,000,043.00 Baht	68.75	100.00
2. TTCL Plc. - Philippines Branch	TTPH	Construction and Engineering Services	Philippines	616,000,043.00 Baht	68.75	100.00
3. Global New Energy Co., Ltd.	GNE	Renewable Energy Development	Thai	60,000,000.00 Baht	100.00	40.00
4. Siam GNE Solar Energy Co., Ltd.	SGNE	Electricity Generation	Thai	32,000,000.00 Baht	100.00	48.80
5. TTCL Power Holdings Pte. Ltd.	TTPHD	Investing in Energy Business	Singapore	74,200,000.00 USD	100.00	100.00
6. TTCL Vietnam Corporation Limited	TVC	Construction and Engineering Services	Vietnam	1,500,000.00 USD	100.00	93.34
7. Idemitsu Green Energy Vietnam Limited Company	IGEV	Manufacturing of wood pellets	Vietnam	834,761,616,161.00 VND	100.00	10.00
8. TTCL Malaysia Sdn. Bhd.	TTML	Construction and Engineering Services	Malaysia	750,000.00 MYR	75.00	100.00
9. TMSP Sdn. Bhd.	TMSP	Construction and Engineering Services	Malaysia	750,000.00 MYR	100.00	100.00
10. ToyoThai - Myanmar Corporation Co., Ltd.	TTMC	Construction and Engineering Services	Myanmar	300,000.00 USD	100.00	90.00
11. TTCL Myanmar Engineering & Construction Co., Ltd.	TTMEC	Construction and Engineering Services	Myanmar	50,000.00 USD	100.00	99.00
12. TTCL New Energy Pte. Ltd.	TTNE	Investing in Renewable Energy Business	Singapore	4,200,000.00 USD	100.00	100.00
13. TTCL Gas Power Pte. Ltd.	TTGP	Investing in Energy Business	Singapore	49,500,000.00 USD	100.00	40.00
14. TTCL Solar Power Pte. Ltd.	TTSP	Investing in Energy Business	Singapore	4,000,000.00 USD	100.00	100.00
15. TTCL Coal Power Pte. Ltd.	TTCP	Investing in Energy Business	Singapore	5,000,000.00 USD	100.00	100.00
16. TTCL LNG Power Pte. Ltd.	TTLP	Investing in Energy Business	Singapore	100.00 USD	100.00	100.00
17. JSM Power Pte. Ltd.	JSM	Investing in Energy Business	Singapore	1.00 USD	100.00	100.00
18. BKB Power Pte. Ltd.	BKB	Investing in Energy Business	Singapore	100.00 USD	100.00	100.00
19. TTCL Bio Company Pte. Ltd.	TTBC	Investing in Energy Business	Singapore	500,000.00 USD	100.00	100.00
20. Toyo Thai Power Myanmar Co., Ltd.	TTPMC	Electricity Generation	Myanmar	51,587,300.00 USD	100.00	43.00
21. TTCL Power Myanmar Co., Ltd.	TPMC	Electricity Generation	Myanmar	100,000.00 USD	100.00	100.00
22. Global New Energy Japan Co., Ltd.	GNE-Japan	Operating and maintenance Solar Power Plant	Japan	200,500,000.00 USD	100.00	100.00
23. Orient Bio-Fuels Co., Ltd.	OBF	Renewable Energy Business	Vietnam	10,473,969.39 USD	100.00	49.00
24. Blackwood Technology B.V	Blackwood	Torrefaction Technology License Provider	Netherlands	8,336.00 USD	100.00	70.00
25. TTCL Bio Technology Corporation	TTBT	Investing in Energy Business	Vietnam	92,940,000,000.00 VND	100.00	93.34
26. TKC Solar Technology Corporation	TKST	Electric Power Generation	Vietnam	5,000.00 USD	100.00	100.00
27. Medical Devices and Biomaterial Plant Joint Stock Company	MEDEP	Producing Crystalline Lens, surgical Sutures for Medical Field	Vietnam	150,000,000,000 VND	100.00	4.67
28. Shimanto B.V	Shimanto	Investing in Energy Business	Netherlands	2,000.00 USD	100.00	85.00
29. NT Biomass Products CO., Ltd.	NTBC	Research and experimental development on biotechnology	Lampang	30,000,000 Baht	100.00	100.00

9.3 BOARD OF DIRECTORS

9.3.1 Board of Directors

List of Directors

As of December 31, 2022, the Board of Directors consists of:

Name	Position
1. Mr. Tiwa Jaruke	Chairman of the Board of Directors
2. Mr. Hironobu Iriya	Director
3. Mrs. Nijaporn Charanachitta	Director
4. Dr. Seiichi Itakura	Director
5. Mr. Eiji Hagiwara	Director
6. Mr. Wanchai Ratinthorn	Director
7. Ms. Kantika Tanthuvanit	Director and Company Secretary
8. Mr. Brett Lollback	Director
9. Pol. Lt. Sivaraks Phinicharomna	Independent Director
10. Dr. Ryuzo Nagaoka	Independent Director
11. Mr. Suvit Manomaiyanon	Independent Director
12. Mr. Nattachat Charuchinda	Independent Director

Directors Authorized to Sign and Bind for the Company

Two of directors excluded Independent Directors jointly and affix the company seal.

Roles and Responsibilities of the Board of Directors

1. To supervise and manage the Company under applicable laws, Company objectives, Article of Association, and shareholders' meeting resolutions with honesty and integrity while remaining vigilant of the Company's best interests.
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 by reviewing the policies to be consistent with changing circumstances such as to maximize the benefits to the company and its shareholders.

3. To approve in the general operation such as asset purchasing, investment, and loans in excess of the Board of Management authority.

4. To constantly monitor the Company's operation to ensure that the Board of Management manage the Company in accordance with laws and approved policies including formulating policy in order to improve and develop the competitiveness in international arena.

5. 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.

6. To appoint Board of Management, Audit committee, Corporate Governance Committees, and Company Secretary as appropriate for the best interest of the Company and to monitor the management system in accordance with the approved policies.

7. To appoint a director or a group of directors to act on behalf of the board of directors.

8. To approve the roles and responsibilities of all sub committees as well as to materially amend the composition of the sub committees.

9. To arrange to have an appropriate balance of authorities of management and/or major shareholders, by considering the proportion or number of independent directors in the Company's board of directors.

10. To arrange for appropriate information system that shall assure the board of directors of receiving sufficient information from the management in order to operate according to their authorities and responsibilities perfectly.

11. To attend the board meetings at least half of the total number of meetings arranged in each year.

12. To determine and amend names of authorized directors.

13. To consider the remuneration of the directors within the guidelines approved by shareholders.

14. To determine the business direction and overall for Anti-Corruption of the Company and consideration to approve Anti-Corruption Policy proposed by Corporate Governance Committee. Also to govern and forming an effective system supporting Anti-Corruption act in order to affirm that the Management Team intensively concerns, emphasizes, and cultivates Anti-Corruption mindset as the Company's culture.

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

(a) Issues that the Law require shareholder's approval.

(b) Connected transactions or acquisition/disposition of assets in accordance to the SET or any other regulatory bodies' stipulation.

15. To oversee and support the creation of innovations that create value added for the Company as well as all stakeholders.

16. To determine the comprehensive risk management guideline and oversee the Company's management for the effective performance and efficient risk management system.

17. To determine appropriate channels for communication with shareholders, stakeholders and oversee information disclosure to ensure its accuracy, clearness, transparency and reliability with the highest standards,

18. To oversee the Information Technology management and Information Technology security measure.

Roles and Responsibilities of Chairman of the board

1. Chairman of the Board of Directors or an assignee is assigned to convoke a meeting by sending the invitation letter at least 14 days before the meeting date for the basis of sufficient notice and information.

2. To determine the agenda of the Board of Directors meeting and annual general meeting.

3. To manage effective meeting and allocate adequate time for presentation, as well as giving the opportunity for directors to question and comment freely also control issues in the debate and conclusion of the resolution of the meeting.

4. To encourage the directors to comply with corporate governance such as proposed abstention of votes, and leaving the meeting when considering the agenda that have conflict of interest.

5. To communicate the significant information to the Board of Directors for acknowledgement.

6. To encourage the Board of Directors to attend in the shareholders meeting and officiate as the chairman of the meeting to meet the highest effectiveness and answer the shareholders inquiries.

7. To encourage the Board of Directors to execute their roles according to roles and responsibilities of the Board of Directors, applicable laws and corporate governance.

8. In case of equality vote, the chairman has a casting vote in addition to his/her voting rights as a director.

Committee and Qualification

1. Committee

1.1 The Company shall have a board of directors consisting of at least five (5) directors but not exceeding twenty (20) persons.

1.2 The Board of Directors shall consist of independent directors not less than one-third of

the total number of directors and not less than 3 directors.

1.3 At least half of the total number of directors shall have place of residence in the Kingdom of Thailand.

1.4 The Board of Directors shall elect a director as a Chairman of the Board and should not be in the position of President & CEO at the same time.

Qualifications

The Company will consider the director nominee who must possess the following qualifications:

1. Being fully qualified and not be prohibited according to:

- The Public Company Act
- The Securities and Exchange Act
- The Securities and Exchange Commission
- The Capital Market Supervisory Board
- The Stock Exchange of Thailand
- The Company's Articles of Association
- The Good Corporate Governance Policy of Company

2. Having the knowledge, skills and experiences in the fields that are advantageous to their role as Director, beneficial to the composition of the Board, and complementary to our business strategies. These possible nominees are considered against a skill matrix such as in engineering, petrochemical, energy, accounting and finance, audit, management, economic, corporate governance. This skill matrix helps find the right Director whose skills, when combined with the others', will prove beneficial to our operation.

3. Dedicating time and effort to the discharge of duties as per his/her responsibility.

Term of the Appointment

A member of the Board of Directors shall be appointed for a term of three (3) years ended at 31st December. A member who vacates his/her office at the end of the term may be re-elected.

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. In each subsequent year, the Directors who occupy the position for longest period shall retire.

Other than a retirement by rotation, a Director shall vacate or retire from the office of director upon:

1. Death;
2. Resignation;
3. Disqualification or being subject to any restriction imposed by applicable law;
4. Removal by a resolution of the shareholders; or
5. Dismissal by the court's order.

Any Director wishing to resign shall submit a resignation letter to the Company which will become effective on the date the resignation letter in written reaches the Company. The resigned Director may notify his/her resignation to the Public Company Registrar.

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 Directors shall be passed by three-quarter (3/4) or more of the votes cast by the remaining Director.

Meeting

1. The Board of Directors shall hold a meeting at least once in every three (3) months.

2. In calling the meeting, the chairman or an assignee shall send a notice of the Board of Directors' meeting to all Directors not less than fourteen (14) days before the meeting date except 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 fixed sooner.

3. In case of necessity, any two or more Directors may request the Chairman to call a meeting that the chairman shall have to fix the meeting date within fourteen (14) days as from the date of receipt of such request.

4. The Board of Directors shall be able to hold the meeting in the province where the Company's head office is located or other place as deemed appropriate by the Board of Directors.

5. The Chairman or the presiding Chairman may determine that the Board of Directors' meeting be organized and held through electronic means. In such event, the Board of Directors' meeting shall be proceeded in accordance with the criteria, methods, and the information security standards, specified by law.

Quorum

1. According to the article of association, the quorum of a meeting of the Board of Directors requires at least half (1/2) of total number of directors. Due to the company commitment to comply with the principles of good corporate governance, the Board of Directors have established the charter covering a quorum of a meeting which requires at least two-thirds (2/3) of all directors.

2. All resolutions of the meeting require at least two-thirds (2/3) of all directors.

3. All resolutions of the meeting require a majority vote except as specified in other regulations.

4. 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 equality vote, the Chairman has a casting vote in addition to his/her voting rights as a Director.

5. The secretary or assigned person is responsible for recording the meeting minutes report

Performance Assessment

1. The Board of Directors shall evaluate its performance annually consisting of self-assessment on an individual basis and as a whole. The Nomination and Remuneration Committee is responsible for setting up the criteria for performance evaluation of the Board of Directors. The criteria bases on the Stock Exchange of Thailand.

2. The Company Secretary shall summarize and report the evaluation result to the Nomination and Remuneration Committee for acknowledgement and recommendation in order to improve the performance of the Board in appropriate with the Company's policies and objectives. The results are also disclosed in the Annual Report (Form 56-2).

Approval Authorization

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

Remuneration

The Nomination and Remuneration Committee shall consider remuneration for the Directors as deemed appropriate, and propose to the Board of Directors and shareholders for consideration and approval respectively.

Management Responsibilities

The Company Secretary shall be responsible for document preparing, data gathering, monitoring, and report to the Board of Directors for acknowledgement or consideration or further proceeding.

9.3.2 The Audit Committee

List of Member of Audit Committee

As of December 31, 2022, Audit Committee consists of:

Name	Position
1. Pol. Lt. Sivaraks Phinicharomna	Chairman of Audit Committee
2. Dr. Ryuzo Nagaoka	Audit Committee Member
3. Mr. Suvit Manomaiyanon	Audit Committee Member

Mr. Boonyakrit Saowan served as secretary of Audit Committee.

Roles and Responsibilities of the Audit Committee

1. To review accuracy and sufficiency of the financial reports.

2. To review 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 review 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 the SEC and review the transactions are appropriate and provide the best interest to the Company.

6. To review preventive and detective processes of fraud and corruption.

7. To review the risk management has appropriate and effective process.

8. 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:

8.1 Opinion regarding completeness and reliability of the Financial Report.

8.2 Opinion regarding the sufficiency of the internal control systems.

8.3 Opinion regarding compliance with laws of SEC, rules and regulations of SET and other related laws to the Company's business.

8.4 Opinion regarding appropriation of auditor.

8.5 Opinion regarding conflict of interest transaction.

8.6 Number of Audit Committee meeting and participation.

8.7 Overall opinion or observation regarding practices of the Audit Committee.

8.8 Other issues that should be disclosed to the shareholders which fall within scope, authority, and responsibility as assigned by the Board of Directors.

9. To report activities of the Audit Committee to the Board of Directors at least 4 times a year.

10. To have authority for hiring independent consultant or professional when needed.

11. To conduct 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.

12. To review scope, authority and responsibility and conduct self-evaluation on the annual basis.

13. To perform any assignment by the Board of Directors that agreed upon by the Audit Committee.

14. 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 times.

14.1 Conflict of interest transaction.

14.2 Fraud or unusual transaction or significant deficiency in the internal control systems.

14.3 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.

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

Committee and Qualification

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

2. The Board of Directors shall select and appoint the Chairman of Audit Committee.

Term of the Appointment

A member of the Audit Committee shall be appointed for a term of three (3) years. A member who vacates his office at the end of the term may

be re-elected no more than 2 times unless the Board of Directors shall have other opinions.

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

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

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

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

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

Meeting

1. The Audit Committee shall hold meetings at least 5 times a year.

2. In calling the meetings, the Chairman of Audit Committee or Secretary of the Audit Committee who is instructed by the Chairperson 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.

3. With reference to the Article of Association of the Company; Chapter 9 Electronic Meeting, the meeting of Audit Committee, in addition to the meeting holding in accordance with the procedures

provided by the respective law and this charter procedure rules, the Chairman of Audit Committee may determine that the meeting be organized through electronic means in accordance with the laws. Such electronic meeting shall have the same effect as a meeting held in accordance with the procedure provided by the law and this charter rules.

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 Chairperson 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 Chairperson 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

Board of Director shall consider remuneration of the Audit Committee 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 or follow up each case as listing in the attached appendix.

9.3.3 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 of December 31, 2022 the Nomination & Remuneration Committee consists of 3 persons as follows;

Name	Position
1. Dr. Ryuzo Nagaoka	Chairman of Nomination and Remuneration Committee
2. Mr. Suvit Manomaiyanon	Nomination and Remuneration Committee Member
3. Mr. Wanchai Ratinthorn	Nomination and Remuneration Committee Member

Ms. Jaruwan Sookthauyart served as secretary of Nomination & Remuneration Committee.

Roles and Responsibilities of Nomination & Remuneration Committee

Authority and Responsibility of Nomination Committee

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

2. To recommend the list of qualified persons to the Board of Directors for consideration and propose to the shareholders for approval in case of vacancies by rotation and other causes.

3. To recommend a suitable director and executive to nominate as the Sub-Committee to propose to the President & CEO or Board of Directors for appointment.

4. 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.

5. To recommend the development program for the Board of Directors, Sub-Committee and Executives with a substantial understanding on fiduciary duties and good governance practices.

6. Determine the criteria to evaluate the performance and annually conduct Self-Assessment of the Board of Directors, Sub-Committee on an individual basis and as a whole and the President & CEO and report the result to the Board of Directors.

7. Other assignments relating to nominating for directors and executives as deemed appropriate by the President & CEO or the Board of Directors.

Authority and Responsibility of Remuneration

Committee

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

2. To consider the Remuneration of the Directors and Executives that should take into the fact of suitable type, size, and performance of the Company in consistency with the general market norm and the same industry, both in and out SET for further submission to the Board of Directors' meeting and/or the Shareholders' meeting for approval.

3. Disclose the remuneration policy, remuneration amount and the various types of remunerations in the Annual Report of the Company.

4. Report on the Committee activities to the Board of Directors as deemed appropriate and disclose in the Company's annual Report.

5. Review and propose for further submission to the Board of Directors any changes in the regulations concerning the Nomination and Remuneration Committee that would make its work more appropriate and up to date.

6. Other assignments relating to remunerating for directors and executives as deemed appropriate by the President & CEO or the Board of Directors.

Committee and Qualification

1. Being a Company Director.

2. The Nomination and Remuneration Committee shall be appointed by President & CEO and consist of at least 3 members.

3. The Nomination and Remuneration Committee shall have independent directors as a majority members of the committee.

4. The Nomination and Remuneration Committee shall elect one independent director to be the Chairman.

5. For the Independent Director who chairs the Nomination and Remuneration Committee possessing all qualifications of Independent Director as per the Notification of Capital Market Supervisory Board.

Term of the Appointment

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

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

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

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

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

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

Meeting

1. The Nomination and Remuneration Committee shall hold meetings at least 2 times a year.

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

3. With reference to the Article of Association of the Company; Chapter 9 Electronic Meeting, the meeting of Nomination and Remuneration Committee, in addition to the meeting holding in accordance with the procedures provided by the respective law and this charter procedure rules, the Chairman of Nomination and Remuneration Committee may determine that the meeting be organized through electronic means in accordance with the laws. Such electronic meeting shall have the same effect as a meeting held in accordance with the procedure provided by the law and this charter rules.

Quorum

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

2. Consent in the meeting shall be made by majority vote.

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

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

Remuneration

The President & CEO shall consider remuneration of the Nomination and Remuneration Committee as deems appropriate.

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.

Assessment of the Nomination and

Remuneration Committee's performance

The Nomination and Remuneration Committee is responsible for conducting the performance self- assessment in both individual and as a whole committee basis. The result of assessment should be reported to the board of Directors once a year.

9.3.4 Risk Management Committee

The President & CEO is responsible to appoint Risk Management Committee and reports the Board of Directors for acknowledgement. The Board of Directors has resolved the appointment of the Risk Management Committee since November 12, 2010. As of December 31, 2022 the Risk Management Committee consists of 5 persons as follows;

Name	Position
1. Mr. Suvit Manomaiyanon	Chairman of Risk Management Committee
2. Ms. Suratana Trinratana	Risk Management Committee Member
3. Mr. Wanchai Ratinthorn	Risk Management Committee Member
4. Ms. Pennapa Sakchaichrearnkul	Risk Management Committee Member
5. Mr. Somchai Chansiripongse	Risk Management Committee Member

Mr. Nuttapol Sinkajohn served as secretary of Risk Management Committee

Remark : Ms. Pennapa Sakchaichrearnkul has resigned from the committee member effective 30 December 2022.

Roles and Responsibilities of Risk Management Committee

1. Determine risk management policy and framework that align with international standard, consistent with business objectives, goals, strategy and risk appetite. The policy and framework shall be reviewed annually.

2. Oversee risk management activities which perform to identify risk by account for internal and external factors that could affect to an achievement of Company's objectives. The appropriate risk

management measure shall be determined by considering for risk prioritization based on impact and likelihood evaluation.

3. Appoint working group to perform assigned risk management activities and report to Risk Management Committee.

4. Support risk management system to be implemented throughout the organization with continual improvement.

5. Continually monitoring and evaluate risk management result.

6. Report its performance to the Board of Directors and provide a report to shareholders in Annual Report.

Committee and Qualification

1. Being a Company Director or Management Expert.
2. The Risk Management Committee shall consist of one member who must be Independent Director.
3. For the Independent Director who chairs the Risk Management Committee must be experienced and fully qualified as per the notifications of the Capital Market Supervisory Board.
4. The Risk Management Committee consist of Director and Management at least five (5) persons which shall be appointed by the President& CEO, and approved by Board of Directors.

Term of the Appointment

A member of the Risk Management Committee shall be appointed for a term of three (3) years ended on 31st December.

A member who vacates his/her 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 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 30 days 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 shall hold the meetings at least four (4) times a year as necessary and appropriate manner.

2. In calling the meetings, the Chairman of Risk Management Committee or 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.

3. With reference to the Article of Association of the Company; Chapter 9 Electronic Meeting, the meeting of Risk Management Committee, in addition to the meeting holding in accordance with the procedures provided by the respective law and this charter procedure rules, the Chairman of Risk Management Committee may determine that the meeting be organized through electronic means in accordance with the laws. Such electronic meeting shall have the same effect as a meeting held in accordance with the procedure provided by the law and this charter rules.

Quorum

1. At least one - half of the members must present in the meeting to form a quorum. In case of the Chairman of Risk Management Committee is absent or cannot perform his or her duties, the attending members shall elect one member to be seated as Chairman of the meeting.

2. Consent in the meeting shall be made by majority vote.

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

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

Remuneration

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

Responsibility Unit

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

9.3.5 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 of December 31, 2022, the Corporate Governance Committee consists of 7 persons as follows;

Name	Position
1. Mr. Suvit Manomaiyanon	Chairman of Corporate Governance Committee
2. Mr. Chamnarn Atsanatam	Corporate Governance Committee Member
3. Ms. Jaruan Sookthauyart	Corporate Governance Committee Member
4. Mr. Paibun Sribanphai	Corporate Governance Committee Member
5. Mr. Jatuporn Sangwarn	Corporate Governance Committee Member
6. Mr. Nuttapol Sinkajohn	Corporate Governance Committee Member
7. Ms. Mallika Chareonsap	Corporate Governance Committee Member

Ms. Supattra Vathayanont served as secretary of Corporate Governance Committee

Roles and Responsibilities of Corporate Governance Committee

Authority and Responsibility of Governance

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.

8. Other assignments relating to Corporate Governance as deemed appropriate by the Board of Directors.

Authority and Responsibility of Sustainability Management

1. Determine policies, strategies, and management sustainability in business operations covering environmental, social and governance under good practice according to national and international standards.

2. Advice and encouragement about the determination of principles, policies and strategies for operating in the Company's value chain in line with sustainable development to achieve the goals set forthcoming.

3. Encourage and support the Board of Directors, management and employees to comply with the Company's sustainable development guidelines effectively.

4. Supervise, monitor, evaluate and information disclosure on sustainability management operations covering environmental, social and governance in a balancing, effectively, and having the most benefit to the Company and all stakeholders.

5. Review and improve Environmental, Social and Governance policy at least once a year.

6. Other assignments relating to Sustainability Management as deemed appropriate by the Board of Directors.

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. The chairman of the Corporate Governance Committee must be the Independent Director who is experienced and fully qualified as the capital Market Supervisory Board has specified.

Term of the Appointment

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

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

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

1. death

2. resignation

3. disqualify under this charter or rules and regulations promulgated SEC or SET.

4. terminate by the President & CEO or Board of Directors.

In case the member resigned before completing his or her term, he or she should notify and provide reason to the Company 30 days 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 4 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.

3. With reference to the Article of Association of the Company; Chapter 9 Electronic Meeting, the meeting of Corporate Governance Committee, in addition to the meeting holding in accordance with the procedures provided by the respective law and this charter procedure rules, the Chairman of Corporate Governance Committee may determine that the meeting be organized through electronic means in accordance with the laws. Such electronic meeting shall have the same effect as a meeting held in accordance with the procedure provided by the law and this charter rules.

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.

9.3.6 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 (SEC). To contribute Company's

operation efficiently, the Company has determined criterion for appointment and dismissal of Directors as follows;

1. The Company shall have a Board of Directors consisting of at least five (5) directors but not exceeding twenty (20) persons. All of the directors shall have qualification as prescribed by applicable law and not less than a half of them shall have place of residences in the Kingdom of Thailand.

2. The Directors shall be elected at the general meeting of the shareholders in accordance with the following rules and procedures:

2.1 Each shareholder shall have number of vote equal to the number of shares held.

2.2 Each shareholder may cast all of his/her votes in accordance with (1) above to elect one or more persons to be Director or Directors but the vote shall be indivisible.

2.3 The persons who obtain the highest number of votes shall be elected as the Directors in respective order of votes higher to lower according to the required number of directors, but if two or more persons obtain equal votes, the Chairman shall exercise a casting vote.

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

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

4. In case where there is any vacancy among Directors other than the retirement by rotation, the Board of Directors shall at its next meeting elect a person who is qualified and is not subject to any restriction imposed by applicable law to fill

the vacancy, except where the remaining term of the vacant Director is less than two (2) months. The term of the new Director replacing the vacant Director shall be equal to the remaining term of the vacant Director.

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

5. A meeting of shareholders may resolve any Director before the expiration of his/her term by passing a resolution with the vote of three-quarter (3/4) or more of the total number of shareholders attending and eligible to vote at the meeting and holding in aggregate fifty (50) percent or more of total number of shares held by the shareholders attending and eligible to vote at the meeting.

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 SET 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:

4.1 Provision of professional services, i.e. auditor, other professional service provider receiving fee more than Baht 2 Million per year, such as, legal advisor, financial advisor, property appraiser, etc.

4.2 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.

9.3.7 Board of Management

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

List of Members of Board of Management

As of December 30, 2022 Board of Management consists of:

Name	Position
1. Mr. Hironobu Iriya	Chairman of the Board of Management
2. Mr. Wanchai Ratinthorn	Board of Management
3. Ms. Pennapa Sakchaicharnkul	Board of Management
4. Mr. Brett Lollback	Board of Management
5. Mr. Somchai Chansiripongse	Board of Management
6. Mr. Suchet Watchalayan	Board of Management
7. Mr. Chamnarn Atsanatam	Board of Management
8. Mr. Shinichi Naruuchi	Board of Management
9. Mr. Toshihiro Sasanuma	Board of Management

Roles and Responsibilities of the Board of Management

1. To determine and roll-out policies, directions, strategies, organizational structure, and management structure such that they resonate with the current economic condition and competitive landscape for approval by the Board of Directors.

2. To determine the strategy and annual budget and to manage the operations in all divisions of the Company for the Board of Directors' approval including the ability to approve, amend, change, add to the annual expense budget (if required as matter of urgency) before the Board of Director's approval.

3. To determine Anti-Corruption system, promoting and encouraging Anti-Corruption manner conveyed to all staff and related parties.

4. To monitor the Company's operation in accordance with the Company's policy and to ensure maximum efficiency under any given circumstances.

5. To ensure that results from operation are in line with the approved expectations.

6. To consider sizeable capital investments for approval by the Board of Directors.

7. To have the authority to appoint/layoff all employees ranked below that of the CEO.

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

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

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

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

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

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

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

As of December 30, 2022, Member of Management, total 11 persons, consists of:

Name	Position
1. Mr. Hironobu Iriya	President & CEO
2. Mr. Wanchai Ratinthorn	Chief Operation Officer (COO)
3. Ms. Pennapa Sakchaichrearnkul	Chief Financial Officer
4. Mr. Brett Lollback	Vice President, Unit Operation Officer EPC Business Unit
5. Mr. Somchai Chansiripongse	Vice President, Project Execution EPC Business Unit
6. Mr. Chamnarn Atsanatam	Vice President Energy Business Unit Power Unit
7. Mr. Suchet Watchalayan	Vice President New Business Unit
8. Mr. Shinichi Naruuchi	Vice President Unit Operation Officer, Energy Business Unit Sales & Business Development Division
9. Mr. Toshihiro Sasanuma	Vice President Energy Business Unit BIO Unit General Manager Project Finding Business Development Div. Sales & Contract Div.
10. Mr. Paibun Sribanphai	General Manager (Accounting) Finance and Accounting Division

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.

9.3.8 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.

9.4 BOARD MEETING ATTENDANCE

For the year 2022, the directors attended the meetings are as follows :

Name	Position	Meeting in the year 2022							
		Board of Directors	Board of Management	Audit Committee	Risk Management Committee	Nomination & Remuneration Committee	Corporate Governance Committee	Non-Executive Directors	Shareholders Meeting
		Total 7 times	Total 23 times	Total 7 times	Total 6 times	Total 4 times	Total 5 times	Total 1 times	Total 1 times
1. Mr. Tiwa Jaruke	Chairman of Board of Directors	7/7	-	-	-	-	-	-	1/1
2. Mr. Hironobu Iriya	Director President & CEO	7/7	23/23	-	-	-	-	-	1/1
3. Mrs. Nijaporn Charanachitta	Director Non-Executive Director	7/7	-	-	-	-	-	1/1	1/1
4. Dr. Seichi Itakura	Director Non-Executive Director	7/7	-	-	-	-	-	1/1	1/1
5. Mr. Eiji Hagiwara	Director Non-Executive Director	7/7	-	-	-	-	-	1/1	1/1
6. Mr. Wanchai Ratinthorn	Director Board of Management Risk Management Committee Nomination & Remuneration Committee	7/7	23/23	-	6/6	4/4	-	-	1/1
7. Mr. Makoto Nakadoi The period of being Director for the year 2022 (1 Jan - 15 Aug 22)	Director	1/3	-	-	-	-	-	-	0/1
8. Ms. Kantika Tanthuvanit The period of being Director for the year 2022 (16 Aug - 31 Dec 22)	Director Company Secretary	4/4	-	-	-	-	-	-	-
9. Mr. Worapong Rawirath The period of being Director for the year 2022 (1 Jan - 16 Dec 22)	Director Non-Executive Director	7/7	-	-	-	-	-	1/1	1/1
10. Mr. Brett Lollback The period of being Director for the year 2022 (17 Dec - 31 Dec 22)	Director Board of Management	-	23/23	-	-	-	-	-	-
11. Pol. Lt. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee Non-Executive Director	7/7	-	7/7	-	-	-	1/1	1/1
12. Mr. Suvit Manomaiyanon	Independent Director Audit Committee Chairman of Risk Management Committee Nomination & Remuneration Committee Chairman of Corporate Governance Committee Non-Executive Director	7/7	-	7/7	6/6	4/4	5/5	1/1	1/1
13. Dr. Ryuzo Nagaoka	Independent Director Audit Committee Chairman of Nomination & Remuneration Committee Non-Executive Director	7/7	-	7/7	-	4/4	-	1/1	1/1
14. Mr. Nuttachat Charuchinda	Independent Director Non-Executive Director	7/7	-	-	-	-	-	0/1	1/1

9.5 REMUNERATION OF BOARD OF DIRECTORS / SUB-COMMITTEE / MANAGERMENTS

9.5.1 Remuneration in Cash for the year ended 31 December 2022

The remuneration of the Board of Directors in forms of annual remuneration amounted to THB 3,583,871

Directors' Name List	Position	Directors' Remuneration in Board of Management and Sub-Committee						Total Remuneration (THB)
		Board of Directors	Board of Management	Audit Committee	Risk Management Committee	Nomination & Remuneration Committee	CG Committee	
1. Mr. Tiwa Jaruke	Chairman of Board of Directors	-	-	-	-	-	-	-
2. Mr. Hironobu Iriya	Director President & CEO	-	-	-	-	-	-	-
3. Mrs. Nijaporn Charanachitta	Director	400,000.00	-	-	-	-	-	400,000.00
4. Dr. Seiichi Itakura	Director	400,000.00	-	-	-	-	-	400,000.00
5. Mr. Eiji Hagiwara	Director	400,000.00	-	-	-	-	-	400,000.00
6. Mr. Wanchai Ratinthorn	Director Board of Management Risk Management Committee Nomination & Remuneration Committee	-	-	-	-	-	-	-
7. Mr. Makoto Nakadoi The period of being Director for the year 2022 (1 Jan 22 - 15 Aug 22)	Director	-	-	-	-	-	-	-
8. Ms. Kantika Tanthuvanit The period of being Director for the year 2022 (16 Aug 22 - 31 Dec 22)	Director Company Secretary	-	-	-	-	-	-	-
9. Mr. Worapong Rawirath The period of being Director for the year 2022 (1 Jan 22 - 16 Dec 22)	Director	383,871.00	-	-	-	-	-	383,871.00
10. Mr. Brett Lollback The period of being Director for the year 2022 (17 Dec 22 - 31 Dec 22)	Director Board of Management	-	-	-	-	-	-	-
11. Pol. Lt. Sivaraks Pinicharomna	Independent Director Chairman of Audit Committee	400,000.00	-	200,000.00	-	-	-	600,000.00
12. Mr. Suvit Manomaiyanon	Independent Director Audit Committee Chairman of Risk Management Committee Nomination & Remuneration Committee Chairman of Corporate Governance Committee	400,000.00	-	100,000.00	-	-	-	500,000.00
13. Dr. Ryuzo Nagaoka	Independent Director Audit Committee Chairman of Nomination & Remuneration Committee	400,000.00	-	100,000.00	-	-	-	500,000.00
14. Mr. Nuttachat Charuchinda	Independent Director	400,000.00	-	-	-	-	-	400,000.00
Total Remuneration of year 2022		3,183,871.00		400,000.00				3,583,871.00

Remarks:

- In the year 2022 the Company paid only fixed remuneration to directors per annual and it conforms to the policies.
- The remuneration has been considered by Nomination & Remuneration Committee taken into account of the facts of suitable type, size and performance of the Board of Directors in the same industry with their duties and responsibilities referring to Thai Directors Compensation Survey 2020 from Thai Institute of Director (IOD). It has been approved by Board of Directors and passed the resolution of Shareholders Meeting respectively.
- Furthermore, the Company has paid for the training course of IOD including others related organization.

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

Remuneration	Year 2022		Year 2021	
	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)
Salary	10	48,115,700.00	11	51,262,400.00
Bonus	10	2,449,000.00	11	-
Benefit after retirement	10	2,464,185.00	11	1,946,069.00
Total	10	53,028,885.00	11	53,208,469.00

Other Remunerations for the year ended 31 December 2022

Remuneration	Year 2022		Year 2021	
	Number of Executives	Amount (Baht)	Number of Executives	Amount (Baht)
Contribution to Provident Fund	10	3,419,507.00	11	2,369,406.00
Total	10	3,419,507.00	11	2,369,406.00

Remarks : "Executives" means the first four top-ranking executives after the President and CEO level as well as other 4th ranking equivalent, and accounting or finance executives of department head level and up.

- Year 2021 There were eleven (11) executives, namely,
 - 1) Mr. Hironobu Iriya 2) Mr. Wanchai Ratinthorn
 - 3) Ms. Pennapa Sakchaichrearnkul 4) Mr. Makoto Nakadoi
 - 5) Mr. Brett Lollback 6) Mr. Somchai Chansiripongse
 - 7) Mr. Suchet Watchalayan 8) Mr. Chamnarn Atsanatam
 - 9) Mr. Shinichi Naruuchi 10) Mr. Toshihiro Sasanuma
 - and 11) Paibun Sribanphai
- Year 2022 There were ten (10) executives, namely
 - 1) Mr. Hironobu Iriya 2) Mr. Wanchai Ratinthorn
 - 3) Ms. Pennapa Sakchaichrearnkul 4) Mr. Brett Lollback
 - 5) Mr. Somchai Chansiripongse 6) Mr. Suchet Watchalayan
 - 7) Mr. Chamnarn Atsanatam 8) Mr. Shinichi Naruuchi
 - 9) Mr. Toshihiro Sasanuma and 10) Paibun Sribanphai

9.6 AUDITOR REMUNERATION

Audit Fee

The Company and its subsidiaries paid annual audit fee for the year amounting to THB 12,861,423.55 comprising of

- The Company's audit fee amounting to THB 5,775,000 Branches.
- The Subsidiary Companies' audit fee amounting to THB 7,086,423.55

Non Audit Fee

The Company and its subsidiaries paid tax advisory fee and professional fee for preferred shares redemption THB 560,797.70.

9.7 HUMAN RESOURCE

Number of Personnel

As of December 31 of year 2020, 2021 and 2022, the company has number of employees' divided into various fields as follows;

Main fields	31 December 2022	31 December 2021	31 December 2020
Engineering	649	488	711
Proposal, Project, Procurement	560	365	493
- Worker (Daily / Hourly)	528	165	929
Sales and Investment , Human Resource & Administration, Finance & Accounting	168	167	140
Total	1,905	1,185	2,273

Employees' Remuneration (Excluding first four top-ranking executives and finance executives of department head level and up.

Remuneration	Year 2022	Year 2021	Year 2020
Salary and total wages	809,279,372.00	767,443,078.00	1,012,666,686.00
Total Bonus	75,261,980.00	-	-
Others such as: Overtime, Travelling Expense and Allowance.	143,317,278.00	87,209,091.00	173,221,062.00
Total	1,027,858,630.00	854,652,169.00	1,185,887,748.00

10. REPORT OF THE AUDIT COMMITTEE

10.1 REPORT OF THE 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 chairperson. Mr. Suvit Manomaiyanon and Mr. Ryuzo Nagaoka were appointed as committee members. Mr. Boonyakrit Saowan, General Manager Investor Relations - Finance & Accounting Division was the secretary to the Committee.

In 2022, the Audit Committee conducted 7 meetings to consider and provide opinions on the following issues:

1. Reviewed quarterly and yearly financial statements to ensure 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 2022.

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 sufficiently 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 sufficiently 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 connected transactions and those that may cause the conflict of interest including the acquisition or disposal on assets. The responsible management had reported with adequate disclosure.

6. Reviewed the independence of auditor, screened, and recommended appointment as well as audit fee to the Board of Directors.

7. Conducted meetings with the Chief Audit Executive on a regular basis to seek advice including evaluated his annual performance.

8. The Audit Committee had conducted self-evaluation on performance as required by Audit Committee Charter for the year 2022. They were satisfied with the result and reported it to the Board of Directors.

9. The Charter of Audit Committee was reviewed and reported to the Board of Director for acknowledgement, to assure its conformity with the Corporate Governance Code of the Security Exchange Commission of Thailand.

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 and anti-corruption policies. The Audit Committee therefore had opinions that the financial statements for the year ended 31 December 2022 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 in place 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 2022, Audit Committee had satisfied with the result of independent evaluation and qualification of Grant Thornton. Therefore, the Committee recommended Board of Directors to consider Mr. Somckid Tiattragul C.P.A. No. 2785, Ms. Kanyanat Sriratchatchaval C.P.A. No. 6549, Ms. Saranya Akharamahaphanit C.P.A. No. 9919, Ms. Luxsamee Deetrakulwattanapol C.P.A. No. 9056 and Ms. Kesanee Srathongphool C.P.A. No. 9262 from Grant Thornton Limited, to be the Company's auditor for another year. The audit fee will be THB 6,070,500 or 5.12% percent increase from prior year. The appointment has been preceded to the general shareholders' meeting for approval.

On behalf of Audit Committee



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

10.2 2022 REPORT OF THE CORPORATE GOVERNANCE COMMITTEE

TO: SHAREHOLDERS

To align with corporate governance guidelines for listed companies, the President & CEO has nominated and appointed the Corporate Governance Committee through the Nomination & Remuneration Committee for Board of Directors' approval since November 14, 2014.

As at December 31, 2022, Corporate Governance Committee consists of 7 persons as follows:

- | | |
|-----------------------------|------------------|
| 1) Mr. Suvit Manomaiyanon | Chairman |
| 2) Mr. Chamnarn Atsanatam | Committee Member |
| 3) Ms. Jaruwan Sookthauyart | Committee Member |
| 4) Mr. Paibun Sribanphai | Committee Member |
| 5) Mr. Jatuporn Sangwarn | Committee Member |
| 6) Mr. Nuttapol Sinkajohn | Committee Member |
| 7) Ms. Mallika Charoensap | Committee Member |



Mr. Suvit Manomaiyanon
Chairman of the Risk Management Committee

In 2022, the Committee held 5 meetings with attendance by most members. The results of the Committee's meetings are reported regularly to the Board of Directors. The summary of these meetings are as follows:

1. Reviewed and amended the Company Document i.e.
 - Charter of Corporate Governance Committee
 - Anti-Corruption Policy
2. Set up the Company Policies to comply with Good Corporate Governance i.e.
 - Environmental, Social and Governance (ESG) Policy
 - Prevention of Conflict of Interest Policy
3. Participated in the assessment with the following institutions.
 - The Stock Exchange of Thailand (SET) announced listed companies on the Thailand Sustainability Investment (THSI) for the year 2022. TTCL was selected to pass the SET Assessment criteria as one (1) of One Hundred Seventy (170) listed companies for 6 consecutive years.
 - Thaipat Institute announced the Sustainability Disclosure 2022 Awards to encourage organization members of Sustainability Disclosure Community to be aware and value the importance of company's information disclosure of ESG issues. TTCL has been selected to receive the Sustainability Disclosure Recognition for 2022 for 2 consecutive years.
 - Participated in the Corporate Governance Assessment in CGR 2022 survey, organized by Thai Institute of Directors Association (IOD). TTCL has been rated as "Excellent" for 7 consecutive years.
 - Participated in the evaluation quality of Annual General Meeting 2022 organized by Thai Investors Association (TIA). The Company was scored 99 % in the evaluation.
4. Obtained the third time of certification from Thai Private Sector Collective Action Against Corruption (CAC) on 30th December 2022. The Certified date is effective from 31st March 2023 - 31st March 2026 for another 3 years.
5. Satisfying of self-assessment of the Corporate Governance Committee on an individual basis and as a whole.

On behalf of Corporate Governance Committee.



Mr. Suvit Manomaiyanon

Chairman of the Corporate Governance Committee

10.3 2022 REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE

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

As at December 31, 2022, Nomination & Remuneration Committee consists of 3 persons as follows:

- | | |
|---------------------------|------------------|
| 1) Dr. Ryuzo Nagaoka | Chairman |
| 2) Mr. Suvit Manomaiyanon | Committee Member |
| 3) Mr. Wanchai Ratinthorn | Committee Member |

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.



Dr. Ryuzo Nagaoka

Chairman of the Nomination
and Remuneration Committee

In 2022, the NRC held four meetings to consider important matters and reported the meeting results including comments and recommendations regularly to the Board of Directors for acknowledgement and consideration which are summarized as follows;

1. To consider 2022 fixed remuneration of Board of Director, Audit Committee and Board of Management as follows;

- Board of Directors

Non-Executive Director : Reduce 20 percent from the normal remuneration payment

Executive Director : No remuneration payment

- Audit Committee : Same as normal remuneration payment

- Board of Management : No remuneration payment

2. No special bonus for 2021 Company operation to Board of Directors, Audit Committee and Board of Management.

3. No 2022 fixed remuneration for every Sub-committee except Audit Committee.

4. Nomination and re-appointment of 4 directors, Mr. Eiji Hagiwara, Dr. Seiichi Itakura, Pol. Lt. Sivaraks Phinicharomna and Dr. Ryuzo Nagaoka who retired by rotation of year 2022 to hold their directorship for another term to the Board's consideration before nominating their names to the shareholders' meeting for approval.

5. Recruitment and nomination of qualified persons to the Board for appointment in place of members who resigned before completion of their terms.

6. 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 2023 director at least three months ahead of the Shareholders' meeting through Company Website.

7. To conduct the CEO performance appraisal according to the criteria for evaluation in the year 2022 and report to the Board of Directors.

8. To conduct the Group and Self-Assessment of Board of Directors, Sub-committee and report to the Board of Directors.

9. Annually review the Charter of Nomination and Remuneration Committee to be appropriated and up to date as an assurance of the effective operation.

10. To recommend the development program for the Board of Directors, Sub-Committee Members and Executives to facilitate substantial understanding on fiduciary duties and good governance practices.

On behalf of Nomination and Remuneration Committee



Dr. Ryuzo Nagaoka

Chairman of the Nomination and Remuneration Committee

10.4 THE REPORT OF RISK MANAGEMENT COMMITTEE

Dear Shareholders

Risk Management Committee (RMC) has been established by the resolution of the Board of Director since November 12, 2010. The president and CEO nominate qualified persons to be the Risk Management Committee for appointment with approval by the Board of Directors. As of December 30, 2022, Risk Management Committee consists of 5 persons as follows:

1) Mr. Suvit	Manomaiyanon	Chairman
2) Ms. Suratana	Trinratana	Committee Member
3) Mr. Wanchai	Ratinthorn	Committee Member
4) Ms. Pennapa	Sakchaichrearnkul	Committee Member
5) Mr. Somchai	Charnsiripongse	Committee Member



Mr. Suvit Manomaiyanon

Chairman of the Risk Management Committee

In the year 2022, the Risk Management Committee conducted six meetings to monitor and superintend company risk management. The risk management process has been systematically implemented, the Risk Management Working Group which consists of concerned managements has been established to identified, assessed and monitored company risks by consider both internal and external factors which may occur and affect company operations, covering significant risk categories which are Strategic Risks, Operational Risks, Financial Risks, Compliance Risks and Emerging Risks which may occur from changing of social, economy and technology circumstances and may affect the company operations in the future, determined appropriate measures to prevent and control the risks at acceptable level. Responsible person and monitoring method are also determined in order to ensure that risk management processes are efficient and effective in accordance with the company's policies and objectives. Risk Management Committee reported significant risks to Board of Director through Audit Committee meeting on quarterly basis.

Moreover, the Risk Management Committee encourages the adoption of risk management in core organizational activities, which are EPC Project Risk Management and Investment Risk management to assess and monitor risks which may affect to project cost, handover schedule, return on investment, compliance, occupational health, safety and environmental of concerned parties, and communities including company's reputation. In addition, Anti-Corruption Working Group has been assessed corruption risks and review adequacy of anti-corruption measures every six months. For this matter the company has already applied and passed the third time certification from Thai Private Sector Collective Action Against Corruption.

On behalf of Risk Management Committee



Mr. Suvit Manomaiyanon

Chairman of the Risk Management Committee

11. INTERNAL CONTROL

11.1 INTERNAL CONTROL

In 2022, the Board of Directors ensures the importance of a good internal control system that performs the management and operations of the company and its subsidiaries effectiveness including compliance with applicable laws and regulations, deterring conflict of interest or any fraud and reviews reasonable and beneficial of connected transaction. To entrust the Audit Committee for review and assessing the internal control in the company with the clear rules to ensure that the existing internal control system is sufficient, appropriate and practical in accordance with the internal control guidelines of COSO international standards.

Control Environment

The Company support and promote effective internal control activities to be establishes by determines an proper organizational structure, duties and responsibilities, power of command and authority as well as enabling clear reporting lines for oversight and control in order to achieve objective and targets. In addition, necessary instruction, procedures and guidelines were also established for Company's execution under the good corporate governance.

The Company determined Code of Conduct and Ethics for Directors, Executives and Employees as the guidelines for integrity, transparency and fairness to all stakeholders. The Company has certified into the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) since 14th October, 2016. Also, in 2022, the Company has

re-certified for CAC membership for third time that is certified until 31st March, 2026.

In 2022, the Company continues to utilize self assessment form which issued by SEC in accordance with COSO 2013 to use as guidance for evaluate the adequacy of internal control system, raise understanding to all levels of management and clearly identified the areas for improvement.

Risk Management

The Company has realized the importance of risk management as an essential factor to encourage the Company to achieve its objectives and goals, adding value to the Company, shareholders and stakeholders. The Board of Directors has stipulated the risk management process as a tool to manage risks continually and effectively by entrusted the Risk Management Committee for oversight risk management activities. Risk Management was systematically and practically performed by considered to appoint Risk Management working groups which members are representative from all related department, responsible to evaluate both internal and external risk factors which may occur and affect Company's operation. In addition, risk control measures have been determined to control the risks at acceptable level.

In 2022, the Risk Management Committee reviewed company risk profile including reported significant risks to the Audit Committee and the Board of Directors on quarterly basis.

Control Activities

The Company establishes efficient and effective control activities to prevent and reduce impact from risks which might occur during company operation and increase confidence in achievement of desired objectives. The policies and procedures including determination of authority, segregation of duties, safeguarding of assets and auditing has been determined. In case of control deficiency existed, appropriate corrective and protective measures shall be employed to prevent the recurrence of detected deficiency in the future.

Information & Communication

The Company encourages continuous development of information technology and communication system as well as the importance of data security, storage, processing, usage and monitoring in order to support decision making of managements and employees with completeness, accuracy and timely manner. The Company communicates necessary information such as policies, regulations, commands and procedures through intranet and other channels.

Moreover, as the result of COVID-19 pandemic situation, the Company continues to improve the procedure to access the technology information system, which allows employees to work from home via VPN and conduct Electronic Meeting to reduce exposure risk arising from a similar situation. The authorization to access by online shall be approved from management before proceed to make sure that confidential information are secure from outsider.

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

Monitoring Activities

The Company establishes monitoring activities for Company's operation in management level and operation level to ensure that the internal control system is appropriately implemented. Internal auditors considered risk evaluation result from each department and performed risk-based audit as annual planned. In case of control deficiencies, internal auditor will reported to the responsible person in order to identify root cause including appropriate corrective action and for significant control deficiencies, internal auditor will reported to the Audit Committee and the Board of Directors in order to take appropriate corrective action in timely manner.

Internal Control System

The Audit Committee is an independent agency, able to express their opinions without limitation and without conflicts between audited bodies. It is serves to ensure that the standard work of the company still maintains to achieve the objectives of the organization. Internal audits are planned annually in accordance with the strategic direction of the business. The results of the assessment shall be reported to the Audit Committee and the Board of Directors to consider every quarter with regular follow-up.

The Audit Committee has appointed Mr. Saneh Poorisat to be the Chief Audit Executive (CAE) since January 1, 2018. He has a good knowledge and understanding of TTCL's business and has received training courses related to internal audit operations. Therefore, it is appropriate to perform such duties.

11.2 CONNECTED TRANSACTIONS

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

For 2021 - 2022, the Company has connected transactions with the related parties as follows:

Unit: Thousand Baht

NAME/BUSINESS	RELATIONSHIP	TYPE	VALUE OF TRANSACTIONS		Outstanding as of		Audit Committee Comments for Transaction Rationality
			2021	2022	31 Dec 2021	31 Dec 2022	
1. Global New Energy Company Limited	TTCL is shareholder at 40% and The Company owned by TTCL 's Management is shareholder at 60%	- Rental Service and Service Fee	160	170			In 2021 and 2022 TTCL's revenue generated from Global New Energy Co., Ltd. were amounting THB 0.16 million and 0.17 million respectively
		Account Receivable			17	12	Account Receivable in 2021 and 2022 as amounting THB 0.02 and 0.01 million
		- Accrued Income			16	12	Accrued Income in 2021 and 2022 as amounting THB 0.02 and 0.01 million
							The Company had provided Rental services and Service fee to Global New Energy Co., Ltd.
		- Interest Expenses	7,011	7,102			In 2021 and 2022 TTCL's Interest expenses generated from working Capital Loan from Global New Energy Company Limited were amounting THB 7.01 million and 7.10 million respectively
		- Accrued Interest Expenses			13,263	20,365	Accrued Interest expenses in 2021 and 2022 as amounting THB 13.26 and 20.37 million
							The Audit Committee considered the transaction was done in a normal course of business practice.

NAME/BUSINESS	RELATIONSHIP	TYPE	VALUE OF TRANSACTIONS		Outstanding as of		Audit Committee Comments for Transaction Rationality
			2021	2022	31 Dec 2021	31 Dec 2022	
2. Toyo Thai Power Myanmar Co., Ltd.	TTCL is shareholder hold direct at 5% and TTCL Gas Power Pte. Ltd. (TTGP), an indirect subsidiary hold 38% of total shares in Toyo Thai Power Myanmar Co., Ltd	- Operated and Management Power Plant	50,318	56,916	-	-	In 2022 TTCL's revenue generated from Toyo Thai Power Myanmar Co., Ltd were amounting THB 57.34 million
		- Rental Service and Service Fee	1,572	422	-	-	
		- Account Receivable	-	-	26,854	9,417	Account Receivable in 2022 as amounting THB 9.42 million
		- Accrued Income	-	-	47	28	Accrued Income in 2022 as amounting THB 0.03 million
							The Audit Committee considered the transaction was done in a normal course of business practice.

Connected Transactions with Related Parties

Measure and procedure of approval for making connected transaction

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

1) In case of general trading terms and conditions as well as normal course of business, the board of directors or the person assigned by the board of directors shall proceed with the transactions and shall report those transactions to the Audit Committee quarterly

2) In any case other than 1) above, the transaction shall be reviewed and provided with opinions by the audit committee prior to the submission for approval by the board of directors and/or shareholders

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

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

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

Normal Course of Business shall refer to:

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

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

Fair Price shall refer to:

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

11.3 POLICY OR TENDENCY OF FURTHER CONNECTED TRANSACTIONS

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

11.4 MEASURE FOR CONFLICT OF INTEREST WITH THIRD PARTY WHO HAS OTHER TYPES OF CONFLICT OF INTEREST

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

Work together with other company as consortium

In case of jointly bid or work together as consortium, the company and its consortium member will jointly consider scope of work and responsibility in each section of such project base on its specialized and competitiveness. The consortium will have chance to win if there is suitable scope of work and responsibility of each members. Each consortium member will prepare proposal on its scope and

combined each party proposal to be consortium proposal.

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

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

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

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

For IDEMITSU KOSAN Co., Ltd is one of the largest Petroleum and Petrochemical company in Japan. It conduct its business globally in such areas as lubricants, asphalt, oil and gas, renewable energy, coal, electronic materials, and agri-bio products. It is listed on Tokyo Stock Exchange. Currently, the company is collaborating with TTCL for pioneering the black pellet business.

Besides, considering the balance of the Company's shareholders structure and board of directors, the shareholders can be categorized into 5 groups, (1) IDEMITSU 5.00% (2) ITD, 1.47%, (3) direct holding by the Company's management, 16.11%, and indirectly holding by the Company's management through Global Business Management Co., Ltd., 6.27%, (4) the Company's employees 1.72%, and (6) other investor, 69.44%.

In addition, the management structure is designed independently apart from any group of shareholders' influence. The Board of Directors consists of 12 seats, Independent Directors (4), IDEMITSU KOSAN Co., Ltd. Representative (1), ITD (1), and Executive Directors (6). None of these shareholders represents in the Board of Management, therefore, decision being made will be carried out under business norm and free of any shareholders' interference.

The Audit Committee's Comments on Related Party Transactions

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

PART

3

FINANCIAL

Independent Auditor's Report and Consolidated
Financial Statements of

TTCL Public Company Limited and its subsidiaries

For the Year Ended 31 December 2022



INDEPENDENT AUDITOR'S REPORT

Grant Thornton Limited
11th Floor, Capital Tower
All Seasons Place
87/1 Wireless Road
Lumpini, Pathumwan
Bangkok 10330, Thailand

T +66 2 205 8222
F +66 2 654 3339

To the Shareholders of TTCL Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of TTCL Public Company Limited and its subsidiaries (the "Group"), which comprise the consolidated and separate statements of financial position as at 31 December 2022, the related consolidated and separate statements of profit or loss and other comprehensive income, changes in shareholders' 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.

In my opinion, the accompanying consolidated and separate financial statements present fairly in all material respects, the consolidated and separate financial position of TTCL Public Company Limited and its subsidiaries as at 31 December 2022, 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.

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I am independent of the Company in accordance with the Code of Ethics for Professional Accountants including Independence Standards issued by the Federation of Accounting Professions (Code of Ethics for Professional Accountants) that are relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code of Ethics for Professional Accountants. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

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Emphasis of Matters

I draw attention to notes 11 and 12 of the financial statements, which describe the estimation of allowance for impairment losses for an account receivable and contract assets overdue more than 12 months of the construction Rock Salt project in Laos People's Democratic Republic engaged by the State Enterprise in an overseas. The Group's management used the assumptions and significant judgment to estimate the allowance for impairment losses for these account receivable and contract assets to ensure that the estimation is adequate and appropriate with the current situation. My conclusion is not modified in respect of these matters.

My opinion is not qualified in respect of the above emphasis of matters.

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 the matter was addressed in the audit
<p>Revenue recognition on construction contracts and construction costs</p> <p>Refer to Note 4.1 Revenue from construction services and Note 4.2 Costs of construction</p> <p>The Group has revenue from construction services and construction costs for the year ended 31 December 2022 of Baht 11,216 million and Baht 10,344 million, respectively.</p>	<p>My audit procedures are summarized as below:</p> <ul style="list-style-type: none"> - Assessing and test the design and operating effectiveness of the key controls related to the budgeting process and the process to record contract revenue and construction costs. - Inquiring Group's management on the significant difference between the percentage of completion based on the proportion of the contract work completed, as assessed by the project engineers, and the percentage of completion determined by the actual costs including the change in the scope of work incurred at the reporting period as well as the estimated total construction costs.

Key audit matter	How the matter was addressed in the audit
<p><i>Revenue recognition on construction contracts</i></p> <p>The Group recognises the revenues from construction contracts by using the overtime method, and they used the output method to measure progress referencing the physical proportion of contract work completed as per the conditions agreed with customers. The Group satisfies a performance obligation by transferring such services and control of those services to customers over time.</p> <p>Construction service revenue for changes in the scope of work, e.g. additional work and contract modification for price changes, is recognised as if it were a part of the existing contract. The effect that the contract modification has on the transaction price, and on the measurement of progress towards satisfactory completion of the performance obligations, is recognised as an increase in or a reduction of revenue at the date of the contract modification.</p>	<ul style="list-style-type: none"> - Assessing the construction costs including the change in the scope of work based on the budget by examining the supporting documents. These included the detailed breakdown of budget costs compared to actual costs incurred. I also inquired Group's management whether the budget was updated to reflect the current situation. - Testing the calculation of the percentage of completion in the monthly progress report. This report was previously reviewed by the Group's project managers and the owner's project managers.
<p><i>Construction costs</i></p> <p>Construction costs are actual costs incurred and estimations based on Group's management's experiences in appropriately considering work progress and the updated budget project cost estimations incurred.</p> <p>I focused on these areas because of their material impact on the financial statements in recognising revenue using the percentage of completion method. These areas also involved Group's management's judgement in determining the percentage of completion and estimated budget projects costs.</p>	<ul style="list-style-type: none"> - Testing the actual cost including the change the scope of work incurred to underlying documents and document relating to the change in the scope of work. - Evaluated the possible losses on construction projects from sampling reviewed of actual costs incurred and assessed the reasonableness of the estimated cost to complete for construction.

Key audit matter	How the matter was addressed in the audit
<p>Impairment assessment of goodwill</p> <p>As at 31 December 2022, the Group had goodwill of Baht 107.56 million which arose from a business combination, represents 0.60% of the total consolidated assets. Goodwill arose from the acquisition of Torrefaction Technology License Provider. In accordance with Thai Financial Reporting Standards, goodwill required to be tested annually for impairment.</p> <p>An impairment assessment requires significant judgement by management, specifically in determining the assumptions to develop the cash flows projections of the subsidiary and the selection of the of discount rate which may be affected by changes in the economic condition, market situation and specific risks.</p> <p>Refer to Notes 4.11 and 20 which provide details of the impairment testing performed by management.</p>	<p>My audit procedures are summarized as below:</p> <ul style="list-style-type: none"> - Obtaining an understanding of how management identified impairment indicators and the testing process. - Reviewing the supporting documents prepared by management to assess whether the goodwill is impaired at the end of year and assess the appropriateness of the valuation model and key assumptions used by management. - Assessing the reasonableness of the discount rate applied to the estimated future cash flows. - Testing the calculation of the recoverable amount. - Review the sensitivity analysis provided by management and considered the impact to recoverable amount. - Considering the adequacy and appropriateness of the disclosure of the assumptions, methodology of goodwill.

Other Information

Management is 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 those charged with governance and revised a material misstatement.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines 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, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the 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 Thai Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated and separate financial statements.



As part of an audit in accordance with Thai Standards on Auditing, 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's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the 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 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 those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current year 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.



Luxsamee Deetrakulwattanapol

Certified Public Accountant

Registration No. 9056

Grant Thornton Limited

Bangkok

28 February 2023

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF FINANCIAL POSITION

(Unit : Baht)

		Consolidated F/S		Separate F/S	
	Notes	31 December 2022	31 December 2021	31 December 2022	31 December 2021
ASSETS					
CURRENT ASSETS					
Cash and cash equivalents	9	2,938,275,756	872,829,861	2,099,080,779	339,397,830
Other financial assets measured at amortized cost		58,959,520	6,090,000	369,520	-
Trade accounts receivable - general customers - net	11	1,509,793,244	2,169,412,956	884,247,782	1,433,963,287
- related parties - net	10, 11	32,812,464	36,343,734	85,265,271	37,711,810
Contract assets - general customers - net	12	5,400,988,990	3,666,594,394	4,341,087,926	3,415,920,777
- related parties - net	10, 12	74,478,694	47,209	470,336,866	455,220,390
Other accounts receivable - general customers		26,075,059	40,867,886	7,997,764	297,105
- related parties	10	8,168,941	7,936,244	37,187,843	43,067,928
Inventories		191,529	5,402,463	-	-
Construction in progress - general customers		1,481,611,906	1,408,728,852	670,814,106	603,377,827
- related parties	10	-	-	2,370,658	2,370,658
Advance payments to sub-contractors - general customers		226,577,693	135,376,942	122,507,463	97,615,403
- related parties	10	69,939,091	70,189,648	108,972,250	105,164,392
Current portion of					
- loan to third party	13	74,879,608	52,425,157	74,879,608	52,425,157
- loans to related parties	10	20,185,691	23,630,957	-	-
Interest receivable from loan to related parties	10	943,590	211,346	-	-
Withholding income tax		1,061,526,147	786,412,550	1,061,537,843	776,388,222
Input tax refundable		242,217,808	151,090,663	196,651,367	133,861,946
Other current assets		24,460,756	37,898,069	12,565,268	11,404,795
Total current assets		13,252,086,487	9,471,488,931	10,175,872,314	7,508,187,527
NON-CURRENT ASSETS					
Trade accounts receivable - general customers - net	11	427,340,207	433,068,235	427,340,207	433,068,235
Deposit at bank used as collateral		86,780,583	2,890,788	-	2,890,788
Retention		42,136,216	7,825,455	42,136,216	7,825,455
Other financial assets measured at amortized cost		75,000,000	394,925	-	394,925
Loan to third party - net	13	666,550,065	716,757,964	666,550,065	716,757,964
Loans to related parties - net	10	16,787,496	12,867,890	-	-
Investment in subsidiaries - net	14	-	-	4,045,252,482	4,016,804,425
Investment in joint ventures - net	16	1,780,674,362	1,687,086,271	83,793,909	83,793,909
Financial assets measured at fair value through profit or loss - net	17	518,016,382	557,000,359	506,766,382	545,750,359
Property, plant and equipment - net	18	376,571,923	215,570,590	222,359,349	78,267,441
Right-of-use assets - net	19.1	245,635,476	186,743,215	193,220,568	154,158,051
Goodwill	20	107,561,597	107,561,597	-	-
Intangible assets - net	21	17,365,910	19,122,954	10,959,487	12,079,852
Deferred tax assets - net	25.1	261,561,630	202,347,821	156,598,786	137,792,129
Other non-current assets		28,441,088	24,465,933	9,194,538	9,868,813
Total non-current assets		4,650,422,935	4,173,703,997	6,364,171,989	6,199,452,346
TOTAL ASSETS		17,902,509,422	13,645,192,928	16,540,044,303	13,707,639,873

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF FINANCIAL POSITION

(Unit : Baht)

		Consolidated F/S		Separate F/S	
	Notes	31 December 2022	31 December 2021	31 December 2022	31 December 2021
LIABILITIES AND SHAREHOLDERS' EQUITY					
CURRENT LIABILITIES					
Short-term loans from financial institutions	22	1,135,153,381	1,880,083,168	1,135,153,381	1,880,083,168
Trade accounts payable - general suppliers		2,660,677,577	1,493,382,728	2,048,464,210	1,057,182,086
- related parties	10	7,522,765	20,739,148	941,272,315	937,756,298
Other payable - general suppliers		105,638,485	71,826,035	28,537,896	22,099,227
- related parties	10	39,705	197,513	41,935	38,401
Accrued construction costs		3,693,235,291	3,491,913,508	1,693,002,316	2,204,685,327
Advance for share subscription	14	392,224,015	392,224,015	392,224,015	392,224,015
Advances received from customers					
under construction contracts					
- general suppliers		1,642,238,084	1,256,927,562	954,819,314	643,609,159
- related parties	10	-	-	-	50,389,350
Contract liabilities	12	2,840,442,793	34,621,505	2,667,048,514	6,944,472
Current portion of					
- lease liabilities	19.2	51,933,571	56,634,895	35,486,446	37,645,014
- debentures	23	-	1,099,742,859	-	1,099,742,859
- dividend payable of preferred share	29	-	10,943,089	-	-
- employee benefits obligation	24	37,925,591	45,600,765	37,925,591	45,600,765
Short-term loans from related parties	10	-	-	251,833,750	1,575,901,800
Interest payable from related parties	10	-	-	41,209,928	71,473,789
Retention payable to sub-contractors - general suppliers		190,779,400	186,852,547	130,138,932	124,888,863
- related parties	10	-	-	-	385,179
Provision for warranty		87,893,006	104,401,983	77,743,876	94,588,344
Corporate income tax payable		33,313,924	2,753,616	426,245	525,142
Accrued expenses		89,986,259	109,824,881	92,497,180	96,365,342
Other current liabilities		104,183,153	95,794,705	79,156,027	79,916,281
Total current liabilities		13,073,187,000	10,354,464,522	10,606,981,871	10,422,044,881
NON-CURRENT LIABILITIES					
Long-term loans from related parties	10	-	-	1,292,086,200	-
Lease liabilities - net	19.2	206,509,341	153,189,655	168,592,458	136,179,117
Debentures - net	23	1,478,194,576	-	1,478,194,576	-
Deferred tax liabilities - net	25.1	4,569,344	35,095,203	-	-
Dividend payable of preferred share - net	29	-	10,943,090	-	-
Employee benefits obligation - net	24	179,150,321	155,723,260	177,150,097	153,961,859
Total non-current liabilities		1,868,423,582	354,951,208	3,116,023,331	290,140,976
Total Liabilities		14,941,610,582	10,709,415,730	13,723,005,202	10,712,185,857

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF FINANCIAL POSITION

(Unit : Baht)

		Consolidated F/S		Separate F/S	
	Notes	31 December 2022	31 December 2021	31 December 2022	31 December 2021
LIABILITIES AND SHAREHOLDERS' EQUITY (Continued)					
SHAREHOLDERS' EQUITY					
Share capital - ordinary share, Baht 1 par value					
Authorized - 896,000,000 shares		896,000,000	896,000,000	896,000,000	896,000,000
Issued and fully paid-up - 616,000,043 shares	27	616,000,043	616,000,043	616,000,043	616,000,043
Premium on share capital	27	3,285,759,928	3,285,759,928	3,285,759,928	3,285,759,928
Retained earnings (deficits)					
- Appropriated for legal reserve	34	56,000,000	56,000,000	56,000,000	56,000,000
- Unappropriated		573,365,785	(50,016,271)	(955,809,809)	(1,279,107,283)
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	15	(1,254,525,758)	(1,254,525,758)	-	-
Other component of shareholders' equity		(387,561,806)	(421,356,182)	(208,099,515)	(205,910,267)
Total		2,912,226,646	2,255,050,214	2,817,039,101	2,495,930,875
Subordinated perpetual debentures	30	-	499,523,141	-	499,523,141
Total Equity of the Company's Shareholders		2,912,226,646	2,754,573,355	2,817,039,101	2,995,454,016
Non-controlling interests in subsidiaries	15	48,672,194	181,203,843	-	-
Total Shareholders' Equity		2,960,898,840	2,935,777,198	2,817,039,101	2,995,454,016
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		17,902,509,422	13,645,192,928	16,540,044,303	13,707,639,873

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER

(Unit : Baht)

	Notes	Consolidated F/S		Separate F/S	
		2022	2021	2022	2021
Revenues					
Revenue from construction and service	37	11,215,586,663	6,293,124,079	7,636,625,695	5,141,254,134
Revenue from operating the power plant	37	56,916,011	51,159,975	56,916,011	50,318,462
Revenue from sale	37	-	2,758,366	-	-
Total revenues		11,272,502,674	6,347,042,420	7,693,541,706	5,191,572,596
Costs					
Costs of construction and services	37	(10,344,036,544)	(5,455,816,201)	(6,971,613,850)	(4,392,097,857)
Costs of operating the power plant	37	(11,165,036)	(12,702,649)	(11,165,036)	(10,530,610)
Costs of goods sold	37	-	(7,340,927)	-	-
Total costs		(10,355,201,580)	(5,475,859,777)	(6,982,778,886)	(4,402,628,467)
Gross profit		917,301,094	871,182,643	710,762,820	788,944,129
Other revenues	31	177,860,186	99,553,178	72,835,181	42,066,052
Dividend income	14, 16	-	-	140,494,780	73,222,625
Reversal allowance for doubtful accounts		570,952,236	-	551,143,943	-
Gain on disposal in investment in subsidiaries	14	-	165,620,504	-	350,000
Gain on deem disposal classification investment		-	308,650,698	-	277,667,274
Gain (loss) on exchange rate		(8,356,505)	65,143,296	(29,143,141)	71,361,301
Profit before expenses		1,657,757,011	1,510,150,319	1,446,093,583	1,253,611,381
Loss on extinguishment	14	-	(65,849,737)	-	(65,849,737)
Loss from change in fair value	17	(38,983,977)	-	(38,983,977)	-
Administrative expenses	10, 33	(1,002,431,637)	(1,135,936,906)	(826,621,424)	(1,001,545,391)
Total expenses		(1,041,415,614)	(1,201,786,643)	(865,605,401)	(1,067,395,128)
Profit form operations		616,341,397	308,363,676	580,488,182	186,216,253
Share of profit from investment in joint venture	16	203,640,390	222,633,271	-	-
Profit before finance cost and income tax		819,981,787	530,996,947	580,488,182	186,216,253
Finance cost		(164,428,604)	(115,628,317)	(230,459,394)	(160,420,385)
Profit before income tax		655,553,183	415,368,630	350,028,788	25,795,868
Income tax benefit (expenses)	25.3	21,325,002	(122,929,810)	17,332,616	(80,647,497)
Profit (loss) for the year		676,878,185	292,438,820	367,361,404	(54,851,629)
Other comprehensive income (loss)					
Item not to be reclassified subsequently to profit or loss					
Remeasurements of employee benefits obligation - net of tax	25.3	(1,275,427)	21,022,083	(1,275,427)	21,022,083
Item to be reclassified subsequently to profit or loss					
Translation adjustments on foreign currency financial statements		33,895,897	146,468,426	(2,189,248)	1,114,572
Other comprehensive income (loss) for the year		32,620,470	167,490,509	(3,464,675)	22,136,655
Total comprehensive income (loss) for the year		709,498,655	459,929,329	363,896,729	(32,714,974)

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (CONTINUED)

FOR THE YEAR ENDED 31 DECEMBER

(Unit : Baht)					
		Consolidated F/S		Separate F/S	
	Note	2022	2021	2022	2021
PROFIT (LOSS) ATTRIBUTABLE TO					
The Company's shareholders		667,445,986	289,130,829	367,361,404	(54,851,629)
Non-controlling interests		9,432,199	3,307,991	-	-
		<u>676,878,185</u>	<u>292,438,820</u>	<u>367,361,404</u>	<u>(54,851,629)</u>
TOTAL COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO					
The Company's shareholders		699,964,936	447,209,341	363,896,729	(32,714,974)
Non-controlling interests		9,533,719	12,719,988	-	-
		<u>709,498,655</u>	<u>459,929,329</u>	<u>363,896,729</u>	<u>(32,714,974)</u>
BASIC EARNINGS (LOSS) PER SHARE					
Profit (loss) (Baht per share)	33	1.01	0.40	0.53	(0.16)
Weighted average number of ordinary shares (share)		616,000,043	616,000,043	616,000,043	616,000,043

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED 31 DECEMBER

Equity attributable to the Company's shareholders												(Unit : Baht)		
Notes	Retained earnings (deficit)			Other components of shareholders' equity							Total equity attributable to the Company's shareholders		Non-controlling Interests	Total
	Issued and paid-up share capital	Premium on share capital	Appropriated for Legal reserve	Unappropriated	Premium on share capital from share-based payment	Discount from dilution of investment in subsidiary	Premium on dilution of investment	Remeasurements of post-employment benefit obligation	Translation adjustment on foreign currency financial statements	Total				
Consolidated FS														
Balance as at 1 January 2021														
Interest paid for the period of subordinated perpetual debentures														
30	-	-	-	(43,750,000)	-	-	-	-	-	-	-	(43,750,000)		
27	43	731	-	-	-	-	-	-	-	-	-	774		
14	-	-	-	-	-	(38,886,904)	-	-	-	-	-	(38,886,904)		
15	-	-	-	-	-	-	-	-	-	-	-	(2,963,942)		
17	-	-	-	-	-	-	-	-	-	-	-	59,758,511		
Increase in non-controlling interests from disposal of subsidiary														
Changing investment in subsidiary to financial assets														
17	-	-	-	-	-	(1,369,609)	-	-	-	-	-	(1,369,609)		
Other comprehensive income for the year														
Transfer from actuarial loss														
43	-	731	-	289,130,829	-	-	-	21,022,083	137,056,429	158,078,512	-	447,209,341		
Total comprehensive income for the year														
43	-	-	-	266,402,912	-	(40,266,513)	-	(21,022,083)	137,056,429	(21,022,083)	-	363,203,602		
Balance as at 31 December 2021														
616,000,043	3,285,759,928	-	56,000,000	(50,016,271)	23,188,454	(1,254,525,758)	9,410,796	-	(430,766,978)	(421,356,182)	499,523,141	2,754,573,355		
Balance as at 1 January 2022														
616,000,043	3,285,759,928	-	56,000,000	(50,016,271)	23,188,454	(1,254,525,758)	9,410,796	-	(430,766,978)	(421,356,182)	499,523,141	2,754,573,355		
Interest paid for the period of subordinated perpetual debentures														
30	-	-	-	(42,311,644)	-	-	-	-	-	-	-	(42,311,644)		
30	-	-	-	(476,859)	-	-	-	-	-	-	(499,523,141)	(500,000,000)		
29	-	-	-	-	-	-	-	-	-	-	-	(142,065,368)		
Decrease from reduction preferred shares in subsidiary														
Other comprehensive income for the year														
Transfer from actuarial loss														
43	-	-	-	667,445,986	-	-	-	(1,275,427)	33,794,376	32,518,949	-	699,964,935		
Total comprehensive income for the year														
43	-	-	-	(1,275,427)	-	-	-	1,275,427	-	-	-	-		
Balance as at 31 December 2022														
616,000,043	3,285,759,928	-	56,000,000	573,385,785	23,188,454	(1,254,525,758)	9,410,796	-	(396,972,602)	(387,561,806)	48,672,194	2,960,898,840		

The accompanying notes form an integral part of these financial statements.

	Retained earnings (deficit)		Other components of shareholders' equity							
	Issued and paid-up share capital	Premium on share capital	Appropriated for Legal reserve	Unappropriated	Premium on share capital from share-based payment	Remeasurements of post-employment benefit obligation	Translation adjustment on foreign currency financial statements	Total	Subordinated perpetual debentures	Total
Separate F/S										
Balance as at 1 January 2021	616,000,000	3,285,759,197	56,000,000	(1,201,527,737)	23,188,454	-	(207,024,839)	(207,024,839)	499,523,141	3,071,918,216
Interest paid for the period of subordinated perpetual debentures	-	-	-	(43,750,000)	-	-	-	-	-	(43,750,000)
Increase in share capital in during the year	43	731	-	-	-	-	-	-	-	774
Other comprehensive income (loss) for the year	-	-	-	(54,851,629)	-	21,022,083	1,114,572	22,136,655	-	(32,714,974)
Transfer from actuarial loss	-	-	-	21,022,083	-	(21,022,083)	-	(21,022,083)	-	-
Total comprehensive income (loss) for the year	43	731	-	(77,579,546)	-	-	1,114,572	1,114,572	-	(76,464,200)
Balance as at 31 December 2021	616,000,043	3,285,759,928	56,000,000	(1,279,107,283)	23,188,454	-	(205,910,267)	(205,910,267)	499,523,141	2,995,454,016
Balance as at 1 January 2022	616,000,043	3,285,759,928	56,000,000	(1,279,107,283)	23,188,454	-	(205,910,267)	(205,910,267)	499,523,141	2,995,454,016
Interest paid for the period of subordinated perpetual debentures	-	-	-	(42,311,644)	-	-	-	-	-	(42,311,644)
Redemption of subordinated perpetual debentures	-	-	-	(476,859)	-	-	-	-	(499,523,141)	(500,000,000)
Other comprehensive income (loss) for the year	-	-	-	367,361,404	-	(1,275,427)	(2,189,248)	(3,464,675)	-	363,886,729
Transfer from actuarial loss	-	-	-	(1,275,427)	-	1,275,427	-	1,275,427	-	-
Total comprehensive income (loss) for the year	-	-	-	323,297,474	-	-	(2,189,248)	(2,189,248)	(499,523,141)	(178,414,915)
Balance as at 31 December 2022	616,000,043	3,285,759,928	56,000,000	(955,809,809)	23,188,454	-	(208,099,515)	(208,099,515)	-	2,817,039,101

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER

(Unit : Baht)

Notes	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Cash Flows from Operating Activities				
Profit before income tax	655,553,183	415,368,630	350,028,788	25,795,868
Adjustments to reconcile profit before income tax to net cash provided from (used in) operating activities:				
Depreciation and amortization	18, 19, 21	71,176,151	94,981,590	49,160,104
Allowance for impairment losses	11, 12	318,805,544	332,318,184	276,409,793
Loss (gain) from disposal and write-off of equipment and intangible assets	18	(234,466)	1,653,721	(188,980)
Loss (gain) from write-off right of use	19	(3,399,066)	123,441,138	(1,453,418)
Unrealized loss (gain) on exchange rate		159,938,507	245,028,195	32,361,433
Loss on extinguishment	14	-	65,849,738	-
Loss on changing in fair value of financial assets	17	38,983,977	-	38,983,977
Amortization of lease liabilities		-	(136,426,935)	-
Gain on disposals of investment in subsidiaries	14	-	(165,620,504)	-
Gain on deem disposal classification investment		-	(308,650,698)	-
Amortization of deferred financing fee	23	7,997,397	727,403	7,997,397
Share of profit from investment in joint venture	16	(203,640,390)	(222,633,271)	-
Employee benefits obligation expenses	24	20,172,270	19,549,810	19,933,447
Dividend income from subsidiaries and joint ventures	14, 16	(136,529,474)	(70,562,207)	(140,494,780)
Interest income		(49,114,026)	(35,987,139)	(30,044,615)
Finance costs		155,174,666	115,628,332	222,461,997
Finance costs of preferred shares in subsidiary		1,256,541	-	-
Reversal allowance for doubtful accounts		(570,952,236)	-	(551,143,943)
Cash provided from operations before changes in operating assets and liabilities		465,188,578	474,665,987	274,011,200
Decrease (increase) in operating assets:				
Trade accounts receivable		765,118,671	(573,626,430)	629,234,688
Accounts receivable from operating power plant		-	270,258	-
Other accounts receivable		(11,016,806)	(22,746,706)	(992,606)
Contract assets		(1,714,558,854)	263,396,094	(851,012,459)
Inventories		5,210,934	(30,030,520)	-
Construction in progress		(72,883,054)	44,115,894	(67,436,279)
Advance payments to sub-contractors		(90,950,194)	(114,342,064)	(27,517,683)
Withholding income tax		(275,113,597)	(157,649,844)	(285,149,621)
Input tax refundable		(91,127,145)	(86,898,846)	(62,789,421)
Retention receivable		(32,115,706)	(3,780,001)	(32,352,401)
Other current assets		13,437,313	14,710,436	(1,160,473)
Other non-current assets		(3,975,153)	5,682,991	674,275

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF CASH FLOWS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER

					(Unit : Baht)
		Consolidated F/S		Separate F/S	
	Notes	2022	2021	2022	2021
Increase (decrease) in operating liabilities:					
Trade accounts payable		1,175,723,654	(100,796,483)	980,586,649	(444,805,947)
Other accounts payable		33,654,642	2,796,381	6,443,749	(16,378,034)
Accrued construction costs		201,321,782	(749,675,477)	(511,683,011)	(875,857,465)
Advances received from shareholders		-	392,224,015	-	392,224,015
Advances received from customers under construction contracts	14	386,087,252	779,138,882	311,545,016	560,342,462
Contract liabilities		2,754,832,747	-	2,660,104,042	-
Deferred construction revenue		-	(103,795,893)	-	(35,829,109)
Retention payable to sub-contractors		6,632,674	(17,743,542)	2,159,069	(19,589,172)
Provision for warranty		(16,508,977)	44,909,654	(16,844,468)	48,594,347
Accrued expenses		(10,038,544)	(32,318,404)	(13,668,240)	(43,957,310)
Other current liabilities		1,336,469	(85,054,186)	(7,812,233)	44,023,514
Employee benefits paid	24	(6,014,667)	(645,006)	(6,014,667)	-
Deferred income		-	(151,962)	-	-
Cash provided from (used in) operations		3,484,242,019	(57,344,772)	2,980,325,126	(456,043,709)
Interest paid		(130,973,292)	(112,231,507)	(227,084,960)	(108,144,016)
Income tax paid		(19,791,572)	(39,631,643)	(1,254,081)	(996,668)
Net cash provided from (used in) operating activities		3,333,477,155	(209,207,922)	2,751,986,085	(565,184,393)
Cash Flows from Investing Activities:					
Proceeds from loan to loan to third party		52,123,911	-	-	-
Proceeds from loan to related parties	10	13,742,207	116,320,194	52,123,910	-
Proceeds from disposals of equipment	18	-	10,209,477	-	672,897
Proceeds from interest income		49,114,008	36,654,730	30,044,615	31,273,617
Proceeds from disposed of other non-current financial assets		-	330,147	-	330,147
Payment for purchased of other non-current financial assets		-	(394,925)	-	(394,925)
Proceeds from other financial assets measured at amortized cost		40,158,343	-	383,343	-
Payment for other financial assets measured at amortized cost		(142,084,145)	-	(386,081)	-
Payment for capital increase in financial assets					
measured at fair value through profit or loss	17	-	(125,014,310)	-	(113,764,310)
Proceeds from dividend income of subsidiaries and joint ventures	14, 16	136,529,474	70,562,207	140,494,780	73,222,625
Payment for deposit at bank used as collateral		(83,889,795)	(6,945,649)	-	(2,024,728)
Payment for temporary investments		-	(812,000)	-	-
Payment from loan to related parties	10	(14,430,000)	(129,400,779)	-	-
Proceeds from disposals of investment in subsidiaries		-	326,171	-	350,000
Cash paid for investment in subsidiaries	14	-	-	(28,448,057)	-
Payment for investment in subsidiary fom non-controlling interest	14, 15	-	(42,843,553)	-	(189,600,834)
Payment for Investment in joint ventures	16	(3,500,000)	(4,500,000)	-	-
Proceeds from disposals of assets		-	-	-	-
Purchases of equipment	18	(175,673,394)	(58,025,420)	(150,904,170)	(51,808,418)
Purchases of intangible assets	21	(5,113,716)	(2,754,742)	(2,919,492)	(495,200)
Proceeds from disposals of intangible assets	21	570,602	-	570,602	-
Net cash provided from (used in) investing activities		(132,452,505)	(136,288,452)	43,850,238	(252,239,129)

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENT OF CASH FLOWS (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER

(Unit : Baht)					
		Consolidated F/S		Separate F/S	
	Notes	2022	2021	2022	2021
Cash Flows from Financing Activities					
Cash payment for long-term loan from financial institution		-	(12,966,800)	-	-
Cash receipts from short-term loan from financial institutions	22	5,533,225,727	6,208,780,911	5,533,225,727	6,208,780,911
Cash payment for short-term loan from financial institutions	22	(6,272,754,218)	(5,550,730,880)	(6,272,754,218)	(5,550,730,880)
Cash receipts from short-term loan from related party		-	-	-	490,531,210
Cash payment for short-term loan from related party		-	-	(72,341,900)	-
Cash payment for financial cost of preferred share	29	(12,183,246)	-	-	-
Cash payment for reduction preferred shares in subsidiary	29	(118,436,446)	-	-	-
Cash receipts from issuance of debentures	23	1,470,454,320	-	1,470,454,320	-
Cash payment for debentures	23	(1,100,000,000)	(1,075,000,000)	(1,100,000,000)	(1,075,000,000)
Cash payment for lease liabilities		(68,570,054)	(54,244,984)	(47,754,028)	(36,811,587)
Cash payment for redemption of subordinated perpetual debentures	30	(500,000,000)	-	(500,000,000)	-
Cash payment for interest from subordinated perpetual debentures	30	(42,311,644)	(43,750,000)	(42,311,644)	(43,750,000)
Cash receipts from increase ordinary share	27	-	774	-	774
Net cash used in financing activities		(1,110,575,561)	(527,910,979)	(1,031,481,743)	(6,979,572)
Exchange rate gain (losses) on cash and cash equivalents		(25,003,194)	(30,940,767)	(4,671,631)	45,934,699
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		2,065,445,895	(904,348,120)	1,759,682,949	(778,468,395)
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		872,829,861	1,777,177,981	339,397,830	1,117,866,225
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		2,938,275,756	872,829,861	2,099,080,779	339,397,830
Supplemental disclosures for cash flows information					
Non-cash transaction					
Accounts payable for investment in subsidiary		-	21,886,178	-	-
Accounts payable for purchase of equipment		3,408,850	-	3,408,850	-
Recognition of right-of-use assets and Lease liabilities - net		152,043,012	95,109,708	92,735,356	13,365,292

The accompanying notes form an integral part of these financial statements.

TTCL PUBLIC COMPANY LIMITED AND SUBSIDIARIES
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2022

1. NATURE OF OPERATIONS

TTCL Public Company Limited (“the Company”) is a public company limited which is incorporated and domiciled in Thailand. It is listed on the Stock Exchange of Thailand. The address of head office of the Company’s registered office is at 159 Sermit Tower Floor 27 - 30, Soi Sukhumvit 21, Asoke Road, Klong-Toeynua, Wattana, Bangkok 10110.

Philippines Branch: Suite B, 5th Floor Builder’s Center, 170 Salcedo Street, Legaspi Village, Makati City.

Qatar Branch: Area No.90, Street No.720, Sheikh Abdulrahman Bin Jassim Street, Building No.24, Plot No.26, Flat No.90, P.O.Box 80364 A1 Wakra-Qatar.

The principal business operations of the Group are engineering services including design, procurement and construction for integrated industrial factories, energy business, manufacturing and distribution of white pallets, and Torrefaction Technology License Provider.

2. BASIS OF FINANCIAL STATEMENTS PREPARATION

2.1 Statement of compliance

The accompanying financial statements have been prepared in accordance with Thai Financial Reporting Standards (“TFRS”) issued by the Federation of Accounting Profession (“TFAC”) and the financial reporting requirements promulgated by the Securities and Exchange Commission under the Securities and Exchange Act. These financial statements are officially prepared in the Thai language. The translation of these financial statements to other languages must be in compliance with the official report in Thai.

The consolidated and separate financial statements have been prepared on a historical cost basis, except as otherwise disclosed specifically.

The preparation of financial statements in conformity with Thai Financial Reporting Standards requires management to use certain critical accounting estimates and to exercise judgement in the process of adoption and application of 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.

2.2 Principles of consolidation

The consolidated financial statements include the financial statements of TTCL Public Company Limited and subsidiaries (“the Group”) which the Company can exercise control or holding the voting shares more than 50 percentage of total voting shares as follows:

Name	Country of incorporation	Percentage of share held by the Company		Nature of business
		2022	2021	
Direct subsidiaries				
TTCL Vietnam Corporation Limited	Vietnam	93.34	93.34	Construction and Engineering Services
TTCL Malaysia Sdn. Bhd.	Malaysia	100.00	100.00	Construction and Engineering Services
TMSP Sdn. Bhd.	Malaysia	100.00	100.00	Construction and Engineering Services
Toyo-Thai Myanmar Corporation Co., Ltd.	Myanmar	80.00	80.00	Construction and Engineering Services
Global New Energy Co., Ltd.	Thailand	40.00	40.00	Renewable Energy Development
TTCL New Energy Pte. Ltd.	Singapore	100.00	100.00	Investing in Renewable Energy
TTCL Myanmar Engineering & Construction Co., Ltd.	Myanmar	99.00	99.00	Construction and Engineering Services
TTCL Power Holding Pte. Ltd. (“TTPHD”)	Singapore	100.00	100.00	Investing in Energy Business
Blackwood Technology B.V.	Netherlands	70.00	70.00	Torrefaction Technology License Provider
TTCL LNG Power Pte. Ltd.	Singapore	85.00	85.00	Investing in Energy Business
TTCL BIO Company Pte. Ltd.	Singapore	75.00	75.00	Investing in Energy Business
NT Biomass Products Co., Ltd.	Thailand	51.00	-	Manufacturing of wood pallets
Indirect subsidiaries				
TTCL Coal Power Pte. Ltd.	Singapore	100.00	100.00	Investing in Energy Business
TTCL Solar Power Pte. Ltd.	Singapore	100.00	100.00	Investing in Energy Business
Global New Energy Japan Co., Ltd.	Japan	100.00	100.00	Operating and maintenance Solar Power Plant
TTCL Power Myanmar Co., Ltd.	Myanmar	100.00	100.00	Electricity Generation
BKB Power Pte. Ltd.	Singapore	100.00	100.00	Investing in Energy Business
JSM Power Pte. Ltd.	Singapore	100.00	100.00	Investing in Energy Business
TTBT Company Limited	Vietnam	93.34	93.34	Investing in Energy Business
Shimanto B.V.	Netherlands	85.00	85.00	Investing in Energy Business
Direct joint venture				
ToyoThai- Power Myanmar Corporation Co., Ltd.	Myanmar	43.00	43.00	Electricity Generations

Name	Country of incorporation	Percentage of share held by the Company		Nature of business
		2022	2021	
Indirect joint ventures held by TTPHD				
Siam GNE Solar Energy Co., Ltd.	Thailand	48.80	48.80	Electricity Generations
TTCL Gas Power Pte. Ltd.	Singapore	40.00	40.00	Investing in Energy Business
Indirect joint venture				
Orient Bio-Fuels Co., Ltd.	Vietnam	49.00	49.00	Investing in Renewable Energy
Related party				
Global Buniess Management Co., Ltd.	Thailand	6.27	6.27	
Mr. Hironobu Iriya	Thailand	6.58	6.58	
Daiwa Capital Markets Singapore Ltd.	Singapore	5.00	5.00	
Sakchaicharaenkul Family	Thailand	4.11	5.59	
Thai NVDR Company Limited	Thailand	3.26	-	

Significant inter-company transactions with subsidiaries and indirect subsidiaries included in the consolidated financial statements have been eliminated.

The consolidated financial statements have been prepared using the same accounting policies for similar transactions or accounts of similar nature that are used in the preparation of the Company's financial statements.

3. CHANGES IN THE FINANCIAL REPORTING STANDARDS

3.1 Thai Financial Reporting Standards and guidance which are amended and effective for the accounting period beginning on or after 1 January 2022

Amendments to the Thai Financial Reporting Standards due to Interbank Offered Rate (IBOR) reform – phase 2 are as follows:

- Thai Financial Reporting Standard 9, "Financial instruments"
- Thai Financial Reporting Standard 7, "Disclosure of Financial instruments"
- Thai Financial Reporting Standard 16, "Lease"
- Thai Financial Reporting Standard 4, "Insurance Contracts"
- Accounting guidance, financial instruments and disclosures for insurance business

Interbank Offered Rate (IBOR) reform – phase 2 provide relief measures addressing issues that might affect financial reporting during the reform, including the effects of changes to contractual cash flow or hedging relationship arising from the change of interest rate benchmark to alternative benchmark rates. The Group has adopted the temporary relief; however, the amendments do not have any significant impact to the Group's financial statements.

3.2 Thai Financial Reporting Standards which are amended and effective for the accounting period beginning on or after 1 January 2023 are as follows:

- Thai Accounting Standard 16, “Property, Plant and Equipment”

The amendments prescribe the recognition of the proceeds from selling any items, produced while the entity is preparing that assets for its intended use, as revenue instead of deducting from the cost of an item of those property plant and equipment.

- Thai Accounting Standard 37, “Provisions, Contingent Liabilities and Contingent Assets”

The amendments are to clarify the incremental cost of fulfilling the contract and an allocation of other costs that relate directly to fulfilling contracts which need to be considered whether a contract is onerous.

- Thai Accounting Standard 41, “Agriculture”

This standard was amended to remove the requirement to exclude cash flows for taxation when measuring fair value of biological assets.

- Thai Financial Reporting Standard 1, “First-time Adoption of Thai Financial Reporting Standards”

The amendment provides the application for a subsidiary that is a first-time adopter to measure cumulative translation differences for all foreign operations at amounts included in the consolidated financial statements of the parent at the parent’s date of transition to TFRS.

- Thai Financial Reporting Standard 3, “Business Combinations”

This standard was amended to clarify the references to the present Conceptual Framework for Financial Reporting and added a consideration to recognize liabilities and contingent liabilities acquired from business combinations together with the contingent assets that cannot be recognized at the acquisition date.

- Thai Financial Reporting Standard 9, “Financial Instruments”

The amendment is to clarify the fees in assessing derecognition of financial liabilities when performing the 10 percent test by included those fees paid net from fees received (only fees paid or received between the borrow and the lender, including fee paid or received by either the borrower or lender on the other's behalf).

However, the Group has not early adopted the certain amended TFRSs and the management believes that there is no significant impact to the Group’s financial statements, when adoption.

4. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all fiscal periods presented in these financial statements.

4.1 Revenue recognition

Revenue from construction services

Revenue from construction includes contracts to provide construction services. The Group defined output is promised, is recognized using the “overtime” method, and they used the output method to measure progress by referencing the physical proportion of the contract work completed as per the conditions agreed with customers. Where the stage of completion is not reliably measured, revenue is only recognized up to the amount of the contract costs expensed, provide it is recoverable. When it is probable that total contract costs will exceed total contract revenues, the expected loss is recognized immediately as an expense in the statement of profit or loss.

Construction service revenue for changes in the scope of work e.g. additional work and contract modification price changes, is recognized as if it were a part of the existing contract. The effect that the contract modification and measurement of progress toward satisfactory completion of the performance obligation, is recognized as an increase in or a reduction of revenue at the date of the contract modification.

Claims, variations and liquidated damages are accounted for as variable consideration and are included in contract revenue provided that it is highly probable that a significant reversal will not occur in the future.

Revenue from operating the power plant

Service income under finance lease agreements related to power purchase agreements and recognized as income when service have been rendered in according to the agreement. Service income comprises of other service income received from financial assets with respect to the leased assets.

Revenue from sale

Revenue from sales of goods is recognized when a customer obtains control of the goods, generally on delivery of the goods to the customers. For contracts that permit the customers to return the goods, revenue is recognized to extent that it is highly possible that a reversal in the revenue recognized will not occur.

Interest income

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

Dividends

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

Other revenue

Other revenue is recognized based on an accrual basis.

4.2 Costs of construction

Costs of construction contracts comprise the costs of labor, subcontractors' charges, other services and overheads which are recognized on the percentage-of-completion method.

Accrued construction costs comprise the calculated costs of construction by percentage-of-completion method exceeding the incurred costs of construction and is shown as 'Accrued construction costs' under current liabilities in the statement of financial position.

4.3 Cash and cash equivalents

Cash and cash equivalents include cash on hand and all cash at banks (which do not have restriction of usage) and highly liquid investments maturing within 3 months that are readily convertible to cash on maturity date with insignificant risk of change in value.

4.4 Trade accounts receivable and contract assets

A receivable is recognized when the Group has an unconditional right to receive consideration. If revenue has been recognized before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset.

The Group applies the TFRS 9 simplified approach to measuring expected credit loss, which requires expected lifetime loss to be recognized from initial recognition of the receivables and contract assets which is determined based on collection experiences and analysis of debtor aging, and the likelihood of settlement of debt at the reporting period. The impairment losses are recognized in profit or loss within administrative expenses.

4.5 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, recognizes receivable arising from a service concession arrangement to the extent that it has an unconditional right to receive cash or another financial assets from or at the direction of the grantor, for the construction of concession assets. Receivable recognized as a result of the service concession arrangement are measured at fair value upon initial recognition. Revenue from construction services is recognized 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 recognized 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.

4.6 Spare parts

Spare parts that do not meet definitions of property, plant and equipment are carried at cost less allowance for obsolescence. Cost of spare parts 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 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 on a specific case.

4.7 Inventories

Inventories are presented at lower of cost or net realizable value. Cost is calculated by FIFO method.

The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of inventories such as import duties and transportation charges, less all attributable discounts.

Net realizable value is the estimated selling price in the ordinary course of business less the costs of completion (forward in process) and selling expenses.

4.8 Investments in subsidiaries and joint ventures

Investment in subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

In the separate financial statements, investment 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.

Joint arrangement

A joint arrangement is an arrangement of which two or more parties have joint control in an entity. 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 of each investor. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement.

- Joint ventures

Joint ventures accounted for by the equity method of accounting in consolidated financial statement, interest in joint ventures is initially recorded at cost and adjusted thereafter to recognize the Company's share of the post-acquisition profits or losses and movements in other comprehensive income. When the Company's share of losses in a joint venture equals or exceeds its interests in the joint ventures, the Company will recognize such losses as obligation of the Company's interest in the joint ventures.

- Joint operations

The Company recognizes its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the financial statements under the appropriate headings.

Business Combination

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interest in the acquiree, either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

If the business combination is achieving 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 recognized in profit or loss.

Any contingent consideration to be transferred by the Group is recognized 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 recognized either in profit or loss or other comprehensive income. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If the total of consideration transferred, non-controlling interest recognize and previously held interest measured less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognized directly in profit or loss.

Business combination under common control

The Group accounts for business combination under common control by measuring acquired assets and liabilities of the acquiree at their carrying values presented in the highest level of the consolidation. The Group retrospectively adjusted the business combination under common control transactions as if the combination had occurred on the later of the beginning of the preceding comparative period and the date the acquiree has become under common control.

Consideration of business combination under common control are the aggregated amount of fair value of assets transferred, liabilities incurred and equity instruments issued by the acquirer at the date of which the exchange in control occurs.

The difference between consideration under business combination under common control and the acquirer's interests in the carrying value of the acquiree is presented as "surplus (discount) arising from business combination under common control" in equity and is derecognized when the investment is disposed by transferred to retained earnings.

Equity method

The Group initially recognized at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognizes shares of its associates and joint ventures' profits or losses and other comprehensive income in the profit or loss and other comprehensive income, respectively. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates and joint ventures equals or exceeds its interest in the associates and joint ventures, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associates and joint ventures.

Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A difference between the amount of the adjustment to non-controlling interests to reflect their relative interest in the subsidiary and any consideration paid or received is recognized within equity.

If the ownership interest in associates and joint ventures is reduced but significant influence and joint control is retained, only a proportionate share of the amounts previously recognized in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in associates and joint ventures is recognize in profit or loss.

When the Group losses control, joint control or significant influence over investments, any retained interest in the investment is remeasured to its fair value, with the change in carrying amount recognized in profit or loss. The fair value becomes the initial carrying amount of the retained interest which is reclassified to investment in an associate, or a joint venture or a financial assets accordingly.

Intercompany transactions, balances, unrealized gains or losses on transactions between Group companies are eliminated. Accounting policies of subsidiaries are adjusted where necessary to ensure consistency with the policies adopted by the Group.

4.9 Financial instruments

Financial asset

At initial recognition, classification, and initial measurement of financial assets

The financial assets (in the case of a financial asset not at FVTPL) are initially recognized at its fair value plus or minus transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVTPL as expenses in profit or loss.

The Group classified financial asset into the catagorized (1) amortized cost, (2) fair value through other comprehensive income (FVTOCI), or (3) fair value through profit or loss (FVTPL) based on 2 criterias as follow:

- A. The entity's business model for managing the financial asset, and
- B. The contractual cash flow characteristic of the financial asset

All revenue and expenses relating to financial assets that are recognized in profit or loss are presented within finance cost, finance income or other financial items, except for impairment of trade receivables, and contract assets which is presented within other expenses.

Recognition and derecognition

Financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provision of the financial instrument.

Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred.

Subsequent measurement of financial assets

Financial assets at amortize cost

Financial assets are measured at amortize cost if the assets meet the following conditions:

- A. The Group are held within a business model whose objective is to hold the financial assets and collect its contractual cash flows, and
- B. the contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding on the specific day.

Financial assets are subsequently measured at amortized cost using the effective interest method and are subjected to impairment which recognized in the profit or loss as separate item.

Financial assets at fair value through profit or loss (FVTPL)

Financial assets that are held within a different business model other than “hold to collect” or “hold to collect and sell” are categorized at FVTPL. Further, irrespective of business model financial assets whose contractual cash flows are not solely payments of principal and interest are accounted for at financial assets at fair value through profit or loss. All derivative financial instruments fall into this category.

Financial assets at fair value through other comprehensive income (FVTOCI)

The Group accounts for financial assets at FVTOCI if the assets meet the following conditions:

- A. The Group are held under a business model whose objective it is “hold to collect” the associated cash flows and sell, and
- B. the contractual terms of the financial assets give rise to cash flows that are solely payment of principal and interest on the principal amount outstanding on the specified day.

Any gains or losses recognized in other comprehensive income (OCI) will be recycled upon derecognition of the asset.

Impairment of financial assets

The Group considers impairment loss on financial assets measured at amortized cost and measured at FVTPL.

The Group applies the simplified approach to recognize impairment of asset without significant financing component and contract asset. The Group estimated lifetime expected credit losses of assets since the recognition date.

To consider the expected credit losses, trade account receivables have been grouped based on shared credit risk characteristics. The expected loss rates are based on the historical payment profiles, the corresponding historical credit losses experienced, external factors and forward-looking information that may affect the ability of the customers to settle the receivables.

The Group applies the general approach for others financial assets with significant financing component for measurement of the expected credit losses which consider 12-month expected credit losses or lifetime expected credit losses depend on the Group has a significant increase in credit risk or not and impairment loss has recognized since initial recognition financial assets.

The Group estimated a significant increase in credit risk of financial asset at each reporting date.

The Group assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses. The cash shortfall discounted at the original effective interest rate.

Impairment (reversal of impairment) losses are recognized in profit or loss by separately presentation.

Equity instruments

Derivatives

The Group uses derivative contracts to manage exposure to foreign exchange. The Group recognized the initially cost of derivative contracts using fair value at the contract date. The related transaction cost will be recognized in profit or loss when incurred. Subsequent to initial recognition, derivative contracts will be remeasured at fair value at the end of the period. Gain or loss on remeasurement to fair value is recognized in profit or loss because the Group's derivative contracts do not qualify for hedge accounting.

Financial liabilities

Classification and initial measurement of financial liabilities

The Group classifies financial instruments issued by the Group as financial liabilities or equity instruments consider based on contractual obligations to deliver the financial assets to other persons or entities.

The Group's financial liabilities include borrowing, trade and other payables and derivative financial instruments.

Financial liabilities are initial measured at fair value, and, where applicable, adjusted for transaction costs that are directly attributable or issue financial liabilities.

Derecognition and modification

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated/modified, the Group assesses whether the renegotiation/modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as other gains (losses) in profit or loss.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the renegotiated / modified contractual cash flows discounted at its original effective interest rate. The difference is recognized in other gains (losses) in profit or loss.

Subsequent measurement of financial liabilities

Financial liabilities are subsequently measured at amortized cost. The interest expense is to be calculated by using effective interest rate and charged to statement of profit or loss except for derivatives liabilities are measured at FVTOCI.

4.10 Property, plant and equipment

Recognition and measurement

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses (If any).

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials, direct labor, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalized borrowing costs.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains or losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognized net within other income in profit or loss.

Subsequent costs

The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of property, plant and equipment are recognized in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

	Years
Land and land improvement	20
Building	5 – 25
Machine and equipment	6 – 10
Furniture, fixtures, and office equipment	5 – 10
Motor vehicles	5 – 10
Power Plant	20

No depreciation is provided on freehold land or assets under construction and installation.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

Borrowing costs that are directly attributable to the acquisition or construction of qualifying assets are capitalized as part of the cost of the assets, during the period of time needed to complete and prepare the assets for their intended use. All other borrowing costs are recognized as expenses in profit or loss.

4.11 Goodwill

Goodwill in a business combination represents the excess of the cost of acquisition over the fair value of the share of the identifiable net assets which the Company acquired. Goodwill is measured at cost less allowance for impairment. Goodwill is tested for impairment annually and when circumstances indicate that the carrying value may be impaired. Impairment loss on goodwill is not reversed.

4.12 Intangible assets

Computer software

Acquired computer software licenses are capitalized based on the costs incurred to acquire and for intended bring into use of the specific software acquired. These costs are amortized using straight-line method over their estimated useful lives of 10 years.

Golf membership

Expenditure associated with golf membership acquisition is capitalized at cost and amortized using the straight-line method over the useful life of 10 years.

4.13 Impairment of non-financial assets

Assets that have indefinite useful lives are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized 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.

4.14 Foreign currency translation

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 consolidated financial statements are presented in Thai Baht, which is the Company's functional and presentation currency.

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 recognized in the profit or loss.

When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognized in profit and loss, any exchange component of that gain or loss is recognized in profit and loss.

Group companies

The results and financial position of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position.
- Income and expenses for each statement of profit or loss and other comprehensive income are translated at average exchange rates and
- All resulting exchange differences are recognized in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

4.15 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 members of the family 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.

4.16 Right-of-use assets and lease liabilities

Leases - where the Group is the lessee

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognizes a right-of-use (ROU) asset and a lease liability at the lease commencement date. The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, initial direct costs and estimated costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any incentive received.

The lease liability measured at the present value of the lease payments that are unpaid at the commencement date, discounted using the interest rate implicit in the lease, if the rate can be readily determined. If that rate cannot be readily determined, the Group uses the Group's incremental borrowing rate.

Lease payments included in the measurement of the lease liability are as follow:

- fixed payments including in substance fixed payments.
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date.
- amounts expected to be payable under a residual value guarantee.
- the exercise price, under a purchase option that the Group is reasonably certain to exercise, lease payment in an optional renewal period and
- payments of penalties for early termination of a lease if the Group is reasonably certain to terminate early.

To apply a cost model, the Group measures the ROU asset at cost, less accumulated depreciation and accumulated impairment loss and adjusted for any remeasurement of the lease liability. The ROU asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful lives of the ROU asset or the end of the lease term. However, if the lease transfers ownership of the underlying asset to the Group by the end of the lease term or if the cost of the ROU asset reflects that the Group will exercise a purchase option, the Group depreciates the ROU asset from the commencement date to the end of the useful lives of the underlying asset. The useful lives of the ROU asset is determined on the same basis as those of property, plant and equipment.

The lease liability is re-measured when there is a change in future lease payments arising from following items:

- a change in an index or a rate used to determine those payments
- a change in the Group's estimate of the amount expected to be payable under a residual value guarantee
- the Group changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is re-measured to reflect changes to the lease payments, the Group recognizes the amount of the remeasurement of the lease liability as an adjustment to the ROU asset. However, if the carrying amount of the ROU asset is reduced to zero and there is a further reduction in the measurement of the lease liability, the Group recognizes any remaining amount of the remeasurement in profit or loss.

Short-term leases and leases of low-value assets

The Group has elected not to recognize ROU assets and liabilities for short-term leases that have a lease term of 12 months or less or low-value assets. The Group recognized the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

4.17 Advances received from customers under construction contracts

Advances received from customers is payment for expenses to fulfil the performance obligation which is contract liabilities in respect of performance obligation that have not been fulfilled and presenting as “Advances received from customers under construction contracts”. Advances from customers under construction contracts will be deducted from the bill of work over the period as indicated in the construction agreement. Advances from customers under construction contracts spanning more than 1 year are classified as non-current liabilities.

4.18 Income tax

Income tax expense for the year comprises current and deferred taxes. Current and deferred taxes are recognized in profit or loss, except to the extent that it relates to items recognized directly in equity or other comprehensive income.

Current income tax

Current income tax is the expected tax payable or income tax benefit on the taxable profit for the period, using income tax rate enacted at the end of the reporting period, and any adjustment to income tax payable in respect of previous years, which is different from profit or loss in the financial statements. The income tax in the consolidated and separate financial statements includes income tax of an overseas entity which are calculated based on the cash collection, the revenues or the net profit based on tax rate, whichever is higher.

Deferred tax

Deferred taxes are calculated on temporary differences between the accounting amounts of assets and liabilities and the amounts used for tax computation purpose. Deferred taxes are calculated at the income tax rates that are expected to be applied to the temporary differences when they reverse, using income tax rates enacted or substantively enacted at the end of the reporting period.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and if they are intended to be settled on a net basis or when tax assets and liabilities will be realized simultaneously.

Deferred tax assets are recognized to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized. Deferred tax assets are reviewed at the end of each reporting period and reduced to the extent that the related tax benefit will be realized.

4.19 Employee benefits

Short-term employment benefits

Salaries, wages, bonuses and contribution to the social security are recognized as expenses when incurred on the accrual basis.

Post-employment benefits (Defined contribution plan)

The Group, and their employees have jointly established a provident fund plan whereby monthly contribution are made by employees and by the Group. The fund's assets are held in a separate trust fund from the Group's assets. The Group's contributions to the fund is recognized as expenses when incurred.

Post-employment benefits (Defined benefit plan)

The Group have obligations in respect of the severance payments for employees upon retirement under the Labor Law.

The obligations under the defined benefit plan are determined by a professionally qualified independent actuary based on actuarial techniques, using the projected unit credit method.

Actuarial gains or losses for the computation of post-employee benefits are recognized in other comprehensive income.

4.20 Share capital

Ordinary shares and non-redeemable preference shares with discretionary dividends are classified as other equity.

Redeemable preference shares on a specific date or the option of the shareholders is classified as a liability. Dividend payments are not discretionary. Dividends thereon are recognized as interest expense in profit or loss using effective interest method.

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.

4.21 Share premium

The Company recorded cash received in excess of the par value of the shares issued as share premium in the statement of financial position, share premium are deducted from any transaction costs associated with the issuing of shares and related income tax benefits.

4.22 Share-based payment

The Group operates a number of equity-settled, share-based compensation plans, under which the entity receives services from employees as consideration for equity instruments (options) of the Group. The fair value of the employee services received in exchange for the grant of the options is recognized as an expense. The total amount to be expensed is determined by reference to the fair value of the options granted excluding the impact of any non-vesting conditions.

Non-market vesting conditions are included in assumptions about the number of options that are expected to vest. The total expense is recognized over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied. At the end of each reporting period, the entity revises its estimates of the number of options that are expected to vest based on the non-marketing vesting conditions. It recognizes the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

When the options are exercised, the Group issues new shares. The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium when the options are exercised.

The grant by the Group of options over its equity instruments to the employees of subsidiary undertakings in the Group is treated as a capital contribution. The fair value of employee services received, measured by reference to the grant date fair value, is recognized over the vesting period as an increase to investment in subsidiary undertakings, with a corresponding credit to equity.

4.23 Subordinated perpetual debentures

Subordinated perpetual debentures which are payable upon dissolution are recognized as equity as the Group has the sole right and discretion to early redemption as stipulated in terms and conditions of subordinated perpetual debentures, and the interest and cumulative interest payment are unconditionally deferred without time and number limitation and payable at the Company's discretion. Accordingly, any interest payment are recognized similar as dividends and directly in equity when payment obligation arises. Interest payments are presented in the same way as dividends paid to ordinary shareholders.

Incremental costs directly attributable to issue of new subordinated perpetual debentures are shown in equity as a deduction, net of tax, from the proceeds.

4.24 Dividend payment

Dividends are recorded in the consolidated and separate 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.

4.25 Basic earnings per share

Basic earnings per share are determined by dividing the profit for the year by the weighted average number of common shares outstanding during the year.

4.26 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.

4.27 Financial guarantee contracts

Financial guarantee contracts are recognized as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under TFRS 9; and
- the amount initially recognized less the cumulative amount of income recognized in accordance with the principles of TFRS 15.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between a) the contractual payments required under the debt instrument; and b) the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates are provided for no compensation, the fair values are accounted for as contributions and recognized as part of the cost of the investment.

4.28 Provisions for liabilities and expenses and contingent assets

Provisions are recognized in the financial statements when the Group has a present legal or constructive obligation as a result of past events with probable outflow of resources to settle the obligation and where a reliable estimate of the amount can be made. The contingent assets will be recognized as separate assets only when the realization is virtually certain.

4.29 Fair value measurement of financial instruments

Financial assets and financial liabilities measured at fair value in the statement of financial position are grouped into 3 levels of a fair value hierarchy. The 3 levels are defined based on the observability of significant inputs to the measurement, as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: inputs other than quoted prices included within Level 1 that are observable comparable for the asset or liability, either directly or indirectly
- Level 3: no observable inputs for the asset or liability.

5. **FINANCIAL RISK MANAGEMENT**

5.1 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 program focuses on the unpredictability of financial markets and seeks to minimize 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.

5.1.1 Foreign exchange risk

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.

As at 31 December 2022, the outstanding balances of financial assets and financial liabilities denominated in foreign currencies as follows:

	Consolidated F/S										(Unit: Baht)
	United State Dollar	Japanese Yen	Euro	Dollar Singapore	Swedish Krona	Malaysian Ringgit	Kyat	Qatari Riyal	Vietnamese Dong	Lao Kip	Peso Philippine
Financial assets											
Cash and cash equivalents	10,797,840	82,304,009	2,965,871	177,484	96	23,378,388	514,516,965	1,330,204	343,264,303,639	230,174,204	190,134
Other financial assets measured at amortized cost	-	-	-	-	-	-	-	-	146,041,970,284	-	-
Trade accounts receivable - general customers - net	30,506,149	17,388,891	15,048,499	-	62,582,930	22,640,924	-	-	48,351,123,095	-	-
- related parties - net	32,313,128	-	56,691	-	-	-	-	-	340,446,549	-	-
Contract assets - general customers - net	36,606,276	-	29,640,569	-	-	-	-	-	512,343,749,061	46,639,591,033	-
- related parties - net	7,946,868	282,714,200	-	-	-	-	-	-	-	-	-
Other accounts receivable - general customers	309,794	-	-	-	-	-	-	-	66,725,395,847	-	-
- related parties	1,296,898	-	-	-	-	-	-	-	10,322,639,699	-	-
Advance payments to sub-contractors - general customers	641,468	435,400	-	-	-	558,448	13,597,000	-	4,451,313,906	-	-
- related parties	2,081,553	103,000,000	-	-	-	-	-	-	-	-	-
Other non-current financial assets	3,015,776	330,000	8,398	25,209	-	1,077,430	267,711,981	-	7,500,000,000	-	854,640
Loan to third party	23,135,484	-	-	-	-	-	-	-	-	-	-
Loans to related parties - net	55,489,160	-	-	-	-	-	-	-	-	-	-
Interest receivable from loan to related parties	1,393,444	-	-	-	-	-	-	-	-	-	-
Total financial assets	205,553,838	486,172,500	47,720,028	202,693	62,583,026	47,655,190	795,825,946	1,330,204	1,139,340,942,080	46,869,765,237	1,044,774

Financial liabilities

Trade accounts payable - general suppliers	13,339,959	119,232,439	1,597,124	151,021	-	24,463,692	-	528,820	307,782,488,854	49,999,999	-
- related parties	31,953,276	-	84,645	7,116	-	-	123,889,992	-	70,000,000	-	-
Other payable - general suppliers	2,159,199	11,272	5,095	242,514	-	-	-	46,862	153,105,955	-	-
- related parties	3,279,118	103,000,000	-	-	-	52,386	-	-	-	-	-
Accrued construction costs	20,332,122	-	-	-	88,227,696	-	-	-	774,966,438,413	-	-
Advances received from customers under construction contracts - general suppliers	11,234,723	-	-	-	-	14,921,046	90,200	-	124,962,599,864	-	-
- related parties	3,880,176	-	-	-	-	-	-	-	-	-	-
Short-term loans from related parties	46,700,000	-	-	-	-	-	-	-	-	-	-
Retention payable to sub-contractors	226,473	-	-	-	-	7,742,703	-	15,817	109,819,501,580	-	-
Other current financial liabilities	1,107,360	4,096,745	-	-	-	-	-	-	-	-	5,387
Other non-current financial liabilities	3,756	-	-	-	-	-	-	-	-	-	-
Total financial liabilities	134,216,162	226,340,456	1,686,864	400,651	88,227,696	47,179,827	123,980,192	591,499	1,317,754,134,666	49,999,999	5,387

Exchange rate

Buying rate	34.3913	0.257342	36.4494	25.4244	3.2620	7.7213	0.0164	9.4114	0.001456	0.001983	0.6046
Selling rate	34.7335	0.264486	37.2053	26.0167	3.3404	7.9395	0.0165	9.5051	0.001471	0.002003	0.6333

(Unit : Baht)

Separate F/S

	United State Dollar	Japanese Yen	Euro	Dollar Singapore	Qatari Riyal	Vietnamese Dong	Lao Kip	Peso Philippine
Financial assets								
Cash and cash equivalents	8,417,985	32,353,230	1,505,656	-	1,330,204	23,225,992,253	227,027,436	190,134
Trade accounts receivable - general customers - net	26,842,409	17,388,891	13,975,764	-	-	17,257,304,879	-	-
- related parties - net	682,992	-	-	-	-	-	-	-
Contract assets - general customers - net	33,697,968	-	29,619,552	-	-	512,066,526,532	46,639,591,033	-
- related parties - net	7,946,868	282,714,200	-	-	-	-	-	-
Other accounts receivable - related parties	1,081,315	-	-	-	-	-	-	-
Advance payment to sub-contractor - third parties	641,468	-	-	-	-	-	-	-
Other non-current financial assets	-	-	-	-	-	-	-	854,640
Loan to third party	23,135,484	-	-	-	-	-	-	-
Total financial assets	102,446,489	332,456,321	45,100,972	-	1,330,204	552,549,823,664	46,866,618,469	1,044,774

Financial liabilities

Trade accounts payable - general suppliers	11,637,709	119,232,439	1,597,204	151,021	528,820	120,743,926,444	-	-
- related parties	27,048,019	-	49,446	-	-	-	-	-
Other payable - general suppliers	44,124	-	-	219,237	46,862	42,600,000	-	-
- related parties	75	-	-	-	-	-	-	-
Accrued construction cost	-	-	-	-	-	-	-	-
Advances received from customers under construction contract - third parties	3,772,273	-	-	-	-	-	-	-
Short-term loans from related parties	39,700,000	-	-	-	-	-	-	-
Retention payable to sub-contractors	90,934	-	-	-	15,817	50,469,708,988	-	-
Total financial liabilities	82,293,134	119,232,439	1,646,650	370,258	591,499	171,256,235,432	-	-

Exchange rate

Buying rate	34.3913	0.257342	36.4494	25.4244	9.4114	0.001456	0.001983	0.6046
Selling rate	34.7335	0.264486	37.2053	26.0167	9.5051	0.001471	0.002003	0.6333

Sensitivity

As shown in the table above, the Group is primarily exposed to changes in Baht and US Dollar, Baht and Japanese Yen, Baht and Euro, Baht and Swedish Krona, Baht and Malaysian Ringgit, Baht and Vietnamese Dong and Baht and Lao Kip exchange rate. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in US Dollar, Japanese Yen, Euro, Swedish Krona Malaysian Ringgit, Vietnamese Dong, Lao Kip. The impacts of movement in exchange rate on Group's net profit are as follows:

	(Unit : Million Baht)	
	Consolidated F/S	Separate F/S
United State Dollar to Baht exchange rate		
- Increase 5 %*	237.66	52.13
- Decrease 5 %*	(237.66)	(52.13)
Japanese Yen to Baht exchange rate		
- Increase 5 %*	1.87	2.55
- Decrease 5 %*	(1.87)	(2.55)
Euro to Baht exchange rate		
- Increase 5 %*	86.43	81.89
- Decrease 5 %*	(86.43)	(81.89)
Swedish Krona to Baht exchange rate		
- Increase 5 %*	10.23	-
- Decrease 5 %*	(10.23)	-
Malaysian Ringgit to Baht exchange rate		
- Increase 5 %*	5.79	-
- Decrease 5 %*	(5.79)	-
Vietnamese Dong to Baht exchange rate		
- Increase 5 %*	7.84	33.18
- Decrease 5 %*	(7.84)	(33.18)
Lao Kip to Baht exchange rate		
- Increase 5 %*	4.67	4.67
- Decrease 5 %*	(4.67)	(4.67)

* Holding all other variables constant

Forward exchange contracts which remaining outstanding as at 31 December 2022 are summarized as follows:

Currency	Balance (Million)	Forward contract exchange rate
United State Dollar	14.36	3.43

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, 3.15% to 7.15% 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 recognized as a component of interest revenue or expense over the period of the agreement. Gains and losses on early termination of interest rate swaps or on repayment of the borrowing are taken to profit or loss.

The interest rate exposures on the long-term loans from financial institutions and debentures of the Group before taking account of interest rate swap contracts is as follows:

	Consolidated F/S		(Unit : Million Baht) Separate F/S	
	2022	2021	2022	2021
Debentures at fixed rates - net	1,478	1,100	1,478	1,100
Total debentures - net	1,478	1,100	1,478	1,100

An analysis by maturities is provided in Note 23

Sensitivity

Profit or loss is sensitive to higher or lower interest expenses from borrowings as a result of changes in interest rates. The sensitivity of profit or loss to changes in the exchange rates are as follows:

	(Unit : Million Baht)	
	Consolidated F/S	Separate F/S
Interest rate - increase 2.5%*	65.26	65.26
Interest rate - decrease 2.5%*	(65.26)	(65.26)

* Holding all other variables constant

5.1.2 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.

Risk management

The Group has no material credit risks for cash and deposits with financial institutions. This is because the Group uses quality financial institutions for cash and deposits. To reduce potential risks for deposits with financial institutions, the Group has laid down a policy to limit the transactions to be made with a particular financial institution and to invest surplus only in low-risk investments. In its experience, the Group has never suffered any losses from cash and deposits. For trade accounts receivable, the Group sets up policies to ensure that services revenue are made to customer with appropriate credit profile.

Impairment of financial assets

The Group and the Company have financial assets that are subject to the expected credit loss model:

- Trade and other accounts receivable (Note 11)
- Contract assets (Note 12)
- Loan to third parties and related parties (Note 10 and 13)

5.1.3 Liquidity risk

Risk management

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.

The Group's objective is to maintain cash to meet its liquidity. The Group considers expected cash flow from financial assets in assessing and managing liquidity risk.

As at 31 December 2022 and 2021, the Group has available credit facilities as follows:

	Consolidated F/S		(Unit : Million Baht) Separate F/S	
	2022	2021	2022	2021
Maturity within 1 year				
- Available credit facilities from bank overdraft	10	10	10	10
- Available credit facilities from short-term loans from financial institutions	1,510	1,050	1,510	1,050
Maturity over 1 year				
- Available credit facilities from Letter of guarantee	6,830	11,035	5,620	10,432
- Available credit facilities from Letter of credit	2,176	2,005	2,176	2,005
	<u>10,526</u>	<u>14,100</u>	<u>9,316</u>	<u>13,497</u>

As at 31 December 2022, the Company has available debenture facilities which have not yet issued of Baht 4,500 million (2021: Baht 4,400 million).

Maturity of financial liabilities

The table below analysed the maturity of financial liabilities grouping based on their contractual maturity. The amounts disclosed were the contractual undiscounted cash flow.

(Unit: Baht)

Consolidated F/S					
	Within 1 year	1-2 years	2-5 years	Later than 5 years	Total
Short-term loans form financial institutions	1,135,153,381	-	-	-	1,135,153,381
Trade account payable - general suppliers	2,660,677,577	-	-	-	2,660,677,577
- related parties	7,522,765	-	-	-	7,522,765
Other payable - general suppliers	105,638,485	-	-	-	105,638,485
- related parties	39,705	-	-	-	39,705
Accrued construction costs	3,693,235,291	-	-	-	3,693,235,291
Debentures - net	-	1,478,194,576	-	-	1,478,194,576
Retention payable to sub-contractors					
- general suppliers	190,779,400	-	-	-	190,779,400
Total	7,793,046,604	1,478,194,576	-	-	9,271,241,180

(Unit: Baht)

Separate F/S					
	Within 1 year	1-2 years	2-5 years	Later than 5 years	Total
Short-term loans form financial institutions	1,135,153,381	-	-	-	1,135,153,381
Trade account payable - general suppliers	2,048,464,210	-	-	-	2,048,464,210
- related parties	941,272,315	-	-	-	941,272,315
Other payable - general suppliers	28,537,896	-	-	-	28,537,896
- related parties	41,935	-	-	-	41,935
Accrued construction costs	1,693,002,316	-	-	-	1,693,002,316
Debentures - net	-	1,478,194,576	-	-	1,478,194,576
Retention payable to sub-contractors					
- general suppliers	130,138,932	-	-	-	130,138,932
Total	5,976,610,985	1,478,194,576	-	-	7,454,805,561

6. 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 will continue to pay the dividends in accordance to the policy which provided to shareholders, along with the issuance of new shares to shareholders, as well as finding a new business and strategic alliance to strengthen company's capital.

As at 31 December 2022 and 2021, net debt to equity ratios of the Group are as follows:

	(Unit : Million Baht)	
	Consolidated F/S	
	2022	2021
Net debt	2,610	2,980
Equity (including non-controlling interests)	2,918	2,746
Net debt to equity ratio	0.89	1.09

7. FINANCIAL ASSETS AND FINANCIAL LIABILITIES

Categories of financial assets and financial liabilities

The carrying amount of financial assets and financial liabilities as at 31 December 2022 are as follows:

Transactions	(Unit : Baht)			
	Consolidated F/S			
	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	Total
Financial assets				
Cash and cash equivalents	2,938,275,756	-	-	2,938,275,756
Other financial assets measured at amortized cost	133,959,520	-	-	133,959,520
Trade accounts receivable - general customers	1,937,133,451	-	-	1,937,133,451
- related parties	32,812,464	-	-	32,812,464
Contract assets - general customers	5,400,988,990	-	-	5,400,988,990
- related parties	74,478,694	-	-	74,478,694
Other accounts receivable - general customers	26,075,059	-	-	26,075,059
- related parties	8,168,941	-	-	8,168,941
Loan to third party	741,429,673	-	-	741,429,673
Loan to related parties	36,973,187	-	-	36,973,187
Interest receivable from loans to related parties	943,590	-	-	943,590
Deposit at bank used as collateral	86,780,583	-	-	86,780,583
Retention	42,136,216	-	-	42,136,216
Financial assets measured at fair value				
through profit or loss	-	518,016,382	-	518,016,382
Total financial assets	11,460,156,124	518,016,382	-	11,978,172,506

(Unit : Baht)

Transactions	Consolidated F/S			Total
	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	
Financial liabilities				
Short-term loans from financial institutions	1,135,153,381	-	-	1,135,153,381
Trade accounts payable - general suppliers	2,660,677,577	-	-	2,660,677,577
- related parties	7,522,765	-	-	7,522,765
Other payable - general suppliers	105,638,485	-	-	105,638,485
- related parties	39,705	-	-	39,705
Accrued construction costs	3,693,235,291	-	-	3,693,235,291
Lease liabilities	258,442,912	-	-	258,442,912
Debentures	1,478,194,576	-	-	1,478,194,576
Retention payable to sub-contractors	190,779,400	-	-	190,779,400
Total Financial liabilities	9,529,684,092	-	-	9,529,684,092

(Unit : Baht)

Transactions	Separate F/S			Total
	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	
Financial assets				
Cash and cash equivalents	2,099,080,779	-	-	2,099,080,779
Other financial assets measured at amortized cost	369,520	-	-	369,520
Trade accounts receivable - general customers	1,311,587,989	-	-	1,311,587,989
- related parties	85,265,271	-	-	85,265,271
Contract assets - general customers	4,341,087,926	-	-	4,341,087,926
- related parties	470,336,866	-	-	470,336,866
Other accounts receivable - general customers	7,997,764	-	-	7,997,764
- related parties	37,187,843	-	-	37,187,843
Retention	42,136,216	-	-	42,136,216
Loan to third party	741,429,673	-	-	741,429,673
Financial assets measured at fair value through profit or loss	-	506,766,382	-	506,766,382
Total financial assets	9,136,479,847	506,766,382	-	9,643,246,229

(Unit : Baht)

Transactions	Separate F/S			Total
	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income	
Financial liabilities				
Short-term loans from financial institutions	1,135,153,381	-	-	1,135,153,381
Trade accounts payable - general suppliers	2,048,464,210	-	-	2,048,464,210
- related parties	941,272,315	-	-	941,272,315
Other payable - general suppliers	28,537,896	-	-	28,537,896
- related parties	41,935	-	-	41,935
Accrued construction costs	1,693,002,316	-	-	1,693,002,316
Contract liabilities	2,667,048,514	-	-	2,667,048,514
Lease liabilities	204,078,904	-	-	204,078,904
Debentures	1,478,194,576	-	-	1,478,194,576
Loans from related parties	1,543,919,950	-	-	1,543,919,950
Interest payable from related parties	41,209,928	-	-	41,209,928
Retention payable to sub-contractors	130,138,932	-	-	130,138,932
Accrued expenses	92,497,180	-	-	92,497,180
Total Financial liabilities	12,003,560,037	-	-	12,003,560,037

8. CRITICAL ACCOUNTING ESTIMATES, ASSUMPTION AND JUDGMENTS

The preparation of the financial statements requires management to undertake judgments, estimates and assumptions about recognition and measurement of assets, liabilities, income and expenses. The actual results may differ from the judgments, estimates and assumptions made by management.

Critical accounting estimates, assumption and judgments are as follow:

8.1 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.

8.2 Construction revenue

The consideration of performance obligation on the contracts with customers required management's judgment to identify the performance obligation on each contract. In addition, the revenues from contract modification which have not yet been determined for the corresponding change in price also requires the management's judgment to estimate the change to transaction prices and amount which the Group will be entitled to receive based on the reasonable consideration of all available information. In addition, the level of progress of performance under the obligation to complete the construction over time for each construction contract requires management assessment based on information available at the reporting date. In this process, management carries out significant judgments about milestones, actual work performed and the estimated costs to complete the work. Significant assumptions are required to estimate the total contract costs and the recoverable variation works that will affect the stage of completion. Actual outcomes in terms of actual costs or revenues may be higher or lower than estimates at reporting date, which would affect the revenue and profit recognized in future years as an adjustment to the amounts recorded to date.

8.3 Leases

Determination of lease terms

The Group determined the lease term when the lease is reasonably certain that the term will be extended or terminated, the Group considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option.

The lease term is reassessed if an option is actually exercised (or not exercised) or the Group becomes obligated to exercise (or not exercised) it. The assessment of reasonable certainty is only revised if a significant event or a significant change in circumstance affecting this assessment occurs, and that it is within the control of the Group.

Determination of discount rate applied to financial leases

The Group determines the incremental borrowing rate as follows:

- Where possible, use recent third-party financing received by the individual lessee as a starting point, adjusting to reflect changes in its financing conditions.
- Make adjustment specific to the lease, e.g. term, country, currency and security.

8.4 Fair value measurement of equity instrument

Fair value of equity instrument which is not trade in the active market is measured by valuation technique. The Group uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period.

8.5 Fair value estimation of business combination

The Group estimates fair value of net assets acquired from a business combination by engaging the professional valuer, applying appropriate valuation method based on financial assumptions to derive fair value of net assets acquired. These calculations require the use of management judgment. Details of fair value of net assets acquired from a business combination.

8.6 Post-employment benefits under defined benefit plans

Obligation under defined benefit plans is determined based on actuarial techniques. Inherent within these calculations are assumptions as to discount rates, future salary increases, mortality rates and other demographic factors. Actual post-retirement costs may ultimately differ from these estimates.

8.7 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 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. However, actual results could differ from the estimates.

8.8 Estimated impairment of goodwill

The Group tests impairment of goodwill annually in accordance with the accounting policy. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations use cash flow projections based on financial budget covering useful lives of assets used in manufacturing, distributing and license provider business.

8.9 Impairment loss on trade, other receivable and contract assets

The Group determines an impairment loss of trade receivables, other receivable and contract assets with an amount equal to lifetime expected credit losses (ECLs). The management uses of various assumptions and judgements to estimate ECLs including exercise the judgement to estimate an expected loss rate, the determination of factor that are specific to the debtors together with an assessment of both current and future forecast of general economic conditions. The management reviews these estimates and assumptions on a regular basis.

8.10 Property, plant and equipment and intangible assets

Management determines the estimated useful lives and residual values for plant and equipment and intangible assets and will revise the depreciation and amortization charge where useful lives and residual values previously estimated have changed or subject to be written off for their technical obsolescence or if they are no longer in use.

8.11 Deferred tax assets

The extent to which deferred tax assets can be recognized is based on an assessment of the probability of the Group's future taxable income against which the deductible temporary differences can be utilized. In addition, management judgment is required in assessing the impact of any legal or economic limits or uncertainties in tax jurisdictions.

8.12 Allowance for losses on construction project

The Group review their construction work-in-progress and installation service in estimating the loss on each construction to determine whether there is any indication of foreseeable losses based on estimates of anticipated costs that take into account the progress of the project and actual costs incurred to date, together with fluctuations in costs of construction materials, labor and the current situation. Identified foreseeable losses are recognized immediately in the statement of profit or loss when it is probable that total contract revenue as determined by the management.

9. CASH AND CASH EQUIVALENTS

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Cash on hand	1,257,540	917,446	1,170,148	691,619
Cash at bank:				
- Saving accounts	2,029,442,681	349,684,418	2,002,777,140	313,552,376
- Current accounts	806,791,903	522,227,997	95,133,491	25,153,835
- Fixed accounts not over 3 months	100,783,632	-	-	-
Total	2,938,275,756	872,829,861	2,099,080,779	339,397,830

As at 31 December 2022 Interest rate on deposits in saving accounts are 0.01% to 1.80% per annum (2021: 0.01% to 3.70% per annum) and interest rate on deposits in short-term are 0.01% to 6.00% per annum with a maturity of 21 days to 91 days.

10. RELATED PARTY TRANSACTIONS

The Group has significant business transactions with related parties which are related through common shareholders and/or management. Such transactions have been complied with the terms and bases determined by the Company and related parties.

The relationship between the Company and related parties as at 31 December 2022 are summarized below:

Names	Relationship
TTCL Vietnam Corporation Limited ("TVC")	Subsidiary
TTCL Malaysia Sdn. Bhd.	Subsidiary
TMSP Sdn. Bhd.	Subsidiary
Toyo-Thai Myanmar Corporation Co., Ltd.	Subsidiary
Global New Energy Co., Ltd.	Subsidiary
TTCL New Energy Pte. Ltd.	Subsidiary
TTCL Myanmar Engineering&Construction Co., Ltd.	Subsidiary
TTCL Power Holding Pte. Ltd. ("TTPHD")	Subsidiary
Blackwood Technology B.V.	Subsidiary
TTCL LNG Power Pte. Ltd.	Subsidiary
TTCL Bio Company Pte. Ltd. ("TTBC")	Subsidiary
NT Biomass Products Co., Ltd.	Subsidiary

Names	Relationship
TTCL Coal Power Pte. Ltd.	Subsidiary of TTPHD
TTCL Solar Power Pte. Ltd.	Subsidiary of TTPHD
Global New Energy Japan Co., Ltd.	Subsidiary of TTPHD
TTCL Power Myanmar Co., Ltd.	Subsidiary of TTPHD
BKB Power Pte.Ltd.	Subsidiary of TTPHD
JSM Power Pte.Ltd.	Subsidiary of TTPHD
TTBT Company Limited	Subsidiary of TVC
Shimanto B.V.	Subsidiary of Blackwood and TTBC
ToyoThai- Power Myanmar Corporation Co., Ltd.	Joint Venture
Siam GNE Solar Energy Co., Ltd.	Joint Venture
Orient Bio-Fuels Co., Ltd.	Joint Venture
TTCL Gas Power Pte. Ltd.	Joint Venture
Global Business Management Company Limited	Related parties by having common director
Daiwa Capital Markets Singapore Ltd.	The major shareholder
Sakchaicharoenkul family	The major shareholder
Thai NVDR Company Limited	The major shareholder
Mr. Hironobu Iriya	Chief executive officer

Pricing policies for each transaction are described as follows:

Transaction	Pricing policy
Revenues from construction and service	The prices as agreed in the agreement
Revenues from operating the power plant	The prices as agreed in the agreement
Dividend income	From approval of shareholders of subsidiary and joint venture
Interest income	The prices as agreed in the agreement
Costs of construction and services	The prices as agreed in the agreement
Administrative expense	The prices as agreed in the agreement
Dividend payment	From approval of shareholder and Board of Director
Interest expense	The prices as agreed in the agreement
Director and management remuneration	
- Salary, bonus, meeting allowance and etc.	From approval of shareholders and directors of the Company

Significant transactions with related parties for the years ended 31 December 2022 and 2021 are as follows:

	Consolidated F/S		(Unit : Baht) Separate F/S	
	For the years ended 31 December			
	2022	2021	2022	2021
Revenues from construction and service				
Subsidiaries	-	-	279,499,902	44,351,736
Joint ventures	2,157,964	3,528,907	432,762	1,572,148
Total	2,157,964	3,528,907	279,932,664	45,923,884
Revenues from operating the power plant				
Joint venture	56,916,011	50,318,462	56,916,011	50,318,462
Dividend income				
Subsidiary	-	-	124,596,580	65,152,800
Joint venture	-	-	15,898,200	8,069,825
Total	-	-	140,494,780	73,222,625
Interest income				
Subsidiary	-	-	-	1,083,374
Joint venture	871,203	264,361	-	-
Related parties	945,380	796,910	-	-
Total	1,816,583	1,061,271	-	1,083,374
Costs of construction and services				
Subsidiaries	-	-	17,886,725	37,838,284
Administrative expenses				
Subsidiaries	-	-	23,168,708	24,357,682
Related party	-	-	-	18,015,293
Total	-	-	23,168,708	42,372,975
Interest expenses				
Subsidiaries	-	-	70,806,800	48,857,687
Key management personnel compensation				
Short-term benefits	55,807,550	58,541,491	49,961,121	53,928,200
Post-employment benefits	6,253,241	7,882,366	2,792,547	2,221,856
Total	62,060,791	66,423,857	52,753,668	56,150,056

Significant balances with related parties as at 31 December 2022 and 2021 are as follows:

(Unit : Baht)

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Trade accounts receivable				
Subsidiaries	-	-	75,843,513	8,668,813
Joint ventures	32,812,464	36,343,734	9,421,758	29,042,997
Total	32,812,464	36,343,734	85,265,271	37,711,810
Contract assets				
Subsidiaries	-	-	470,308,706	455,173,181
Joint ventures	310,780	329,829	310,780	329,829
Related party	74,450,534	-	-	-
Total	74,761,314	329,829	470,619,486	455,503,010
<u>Less</u> Allowance for impairment losses	(282,620)	(282,620)	(282,620)	(282,620)
Net	74,478,694	47,209	470,336,866	455,220,390
Other accounts receivable				
Subsidiaries	-	-	37,069,652	41,457,799
Joint ventures	7,658,271	7,312,400	118,191	1,610,129
Related party	510,670	623,844	-	-
Total	8,168,941	7,936,244	37,187,843	43,067,928
Construction in progress				
Subsidiary	-	-	2,370,658	2,370,658
Advance payments to sub-contractors				
Subsidiaries	-	-	39,041,603	34,974,744
Joint venture	168,647	427,648	168,647	427,648
Related parties	69,770,444	69,762,000	69,762,000	69,762,000
Total	69,939,091	70,189,648	108,972,250	105,164,392

(Unit : Baht)

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Loans to related parties				
Joint venture	20,973,187	15,136,081	-	-
Related parties	16,000,000	21,362,766	-	-
Total	36,973,187	36,498,847	-	-
<u>Less</u> Current portion	(20,185,691)	(23,630,957)	-	-
Net	16,787,496	12,867,890	-	-
Interest receivable from loan				
Joint venture	224,751	152,033	-	-
Related parties	718,839	59,313	-	-
Total	943,590	211,346	-	-

Consolidated financial statements

As at 31 December 2022, long-term and short-term loans to related party are as follows:

Long-term loans

- Long-term loan to Global New Energy Co., Ltd. as subsidiary, granted to Siam GNE Solar Energy Co., Ltd., a joint venture of the Group, of Baht 1.53 million (2021: Baht 3.05 million). This loan bears interest rate at 4.00 per annum (2021: interest rate at 3.85% per annum), with the interest payment due every 6 months and the principal instalment repayments specified in the loan agreement, commencing to make payment in 2015 of Baht 1.53 million due within one year.
- Long-term loan to TTCL Solar Power Pte. Ltd. (TTSP) as subsidiary, granted to Siam GNE Solar Energy Co., Ltd. a Joint venture, of Baht 19.45 million (2021: Baht 12.08 million). This loan bears interest rate 4.31% per annum (2021: interest rate at 4.31% per annum), with the interest payment due every 6 months and the principal instalment repayments specified in the loan agreement which is Baht 2.66 million due within one year and Baht 16.79 million due within 2029.

Short-term loans

- Short-term loan to Global New Energy Co., Ltd. as subsidiary, granted to Global Business Management Co., Ltd., a major shareholder, of Baht 16.00 million (2021: Baht 10.00 million). This loan bears interest rate at 4.41% per annum (2021: interest rate at 4.20% per annum), with the interest payment due every 6 months and the principal instalment repayments specified in the loan agreement.

Movements of loans to related parties for the year ended 31 December 2022 are as follow:

			(Unit : Baht)	
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Balance as at 1 January	36,498,847	23,578,946	-	13,266,039
<u>Add</u> Additional lending	14,430,000	12,083,451	-	-
<u>Add</u> Changing investment in subsidiary to financial assets	-	117,317,328	-	-
<u>Less</u> Repayments	(13,742,207)	(116,320,194)	-	-
<u>Less</u> Decrease from extinguishment	-	-	-	(13,266,039)
Unrealized (gain) loss on exchange rate	(213,453)	(160,684)	-	-
Balance as at 31 December	36,973,187	36,498,847	-	-

(Unit : Baht)

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Trade accounts payable				
Subsidiaries	-	-	941,272,315	928,033,379
Joint venture	7,417,765	4,232,174	-	-
Related Party	105,000	16,506,974	-	9,722,919
Total	7,522,765	20,739,148	941,272,315	937,756,298
Other accounts payable				
Subsidiary	-	-	2,230	-
Joint venture	39,705	197,513	39,705	38,401
Total	39,705	197,513	41,935	38,401
Advances received from customers under construction contracts				
Subsidiary	-	-	-	50,389,350
Short-term loan				
Subsidiaries	-	-	251,833,750	1,575,901,800
Long-term loan				
Subsidiary	-	-	1,292,086,200	-
Interest payable				
Subsidiaries	-	-	41,209,928	71,473,879
Retention payable to sub-contractors				
Subsidiary	-	-	-	385,179

Movements of loan from related parties for the year ended 31 December 2022 are as follow:

	(Unit : Baht)	
	Separate F/S	
	2022	2021
Balance as at 1 January	1,575,901,800	980,583,600
<u>Add</u> Addition loan	-	490,531,210
<u>Less</u> Repayments	(72,341,900)	-
Unrealized loss on exchange rate	40,360,050	104,786,990
Balance as at 31 December	1,543,919,950	1,575,901,800
<u>Less</u> Transfer to long-term loan	(1,292,086,200)	-
Net	251,833,750	1,575,901,800

As at 31 December 2022, the outstanding short-term loan from related parties are as follow:

- Short-term loan from Global New Energy Co., Ltd. as subsidiary of Baht 165.00 million was issue from promissory note are due within 3 years from the effective date of loan agreement and bears interest rate at 4.41% per annum (2021: Baht 165.00 million, due within 3 years, bears interest rate at 4.20% per annum).
- Short-term loan from TMSP SDN. BHD. (TMSP) as subsidiary of USD 2.50 million or equivalent to Baht 86.83 million. Such loan is not collateralized, and repayments are due within 1 year from the effective date of loan agreement with interest rate at 4.41% per annum (2021: USD 2.50 million or equivalent to Baht 83.98 million with interest rate at 4.20% per annum).

As at 31 December 2022, the outstanding long-term loan from related parties are as follow:

- Long-term loan from TTCL Power Holding Pte.Ltd. (TTPHD) as subsidiary of USD 37.20 million or equivalent to Baht 1,292.09 million. Such loan is not collateralized, and repayments are due within 3 years from the effective date of loan agreement with interest rate at 4.41% per annum (2021: USD 39.50 million or equivalent to Baht 1,326.92 million with interest rate at 4.20% per annum).

11. TRADE ACCOUNTS RECEIVABLE - NET

As at 31 December 2022 and 2021, the aged of trade accounts receivable are as follows:

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
<u>General customers</u>				
Not yet due	598,417,402	955,989,582	413,855,580	843,101,589
Past due:				
Less months	90,544,815	269,081,774	62,116,084	207,561,911
3 - 6 months	779,816	5,019,748	779,816	-
6 - 12 months	2,776,337	27,405,148	2,412,555	1,259,814
Over 12 months	1,147,416,101	1,403,824,488	660,348,122	818,282,454
Total	1,839,934,471	2,661,320,740	1,139,512,157	1,870,205,768
<u>Less</u> Allowance for impairment losses	(330,141,227)	(491,907,784)	(255,264,375)	(436,242,481)
Net	1,509,793,244	2,169,412,956	884,247,782	1,433,963,287
<u>Related parties</u>				
Not yet due	26,310,492	13,967,131	71,197,174	10,987,892
Past due:				
Less months	4,697,538	13,552,310	8,796,525	14,665,616
3 - 6 months	391,523	8,817,909	825,088	8,925,865
6 - 12 months	683,506	2,128	1,148,283	1,285,758
Over 12 months	729,405	4,256	3,298,201	1,846,679
Total	32,812,464	36,343,734	85,265,271	37,711,810

Trade accounts receivable - general customers

The Group's management considered setting up an allowance for impairment losses for one outstanding debtor of more than 12 months in the consolidated and separate financial statements of Baht 209.65 million and Baht 162.36 million, respectively, and contract assets in the consolidated and separate financial statements of Baht 527.35 million and Baht 502.01 million, respectively (Note 12) (31 December 2021, the consolidated and separate financial statements : trade accounts receivable of Baht 338.51 million and Baht 291.21 million, respectively, and contract assets of Baht 952.55 million and Baht 922.22 million, respectively). This debtor is an overseas State Enterprise which engaged the Company to construct the Rock Salt project in Laos People's Democratic Republic. The Group started the construction in 2015 but during 2017, that construction project had to temporarily be suspended and business transactions relating to this project were stopped. The Group's management negotiated with a person authorized by the customer to resume the project in the future and complete it within the contract period, including a collection plan for account receivables and contract assets.

At the end of 2018, the Group's management decided to stop operations for this project and begin legal arbitration to get back the debt and claims incurred from the project.

During the year 2019, the Group's management asked the court to freeze the debtor's properties and the court made an injunction to freeze withdrawals from the debtor's bank account and sales of the debtor's shares in subsidiaries. The result from the arbitration tribunal proceeding is pending. The value of the debtor's properties covers the net value of trade accounts receivable and contract assets. Furthermore, during the year 2021, the Company has received advance payment per judgement of Vietnam court in the amount of Baht 531.24 million.

During the year 2022, the Group's management considered to reverse allowance for doubtful accounts for such debtor for trade accounts receivable in the consolidated and separate financial statements of Baht 141.24 million and Baht 128.85 million, respectively, and contract assets in the consolidated and separate financial statements of Baht 427.64 million and Baht 420.21 million, respectively (Note 12).

As at 31 December 2022, the Group's management used the assumptions and its significant judgement (e.g. the risks or the possibility of the estimated losses that will be or not be incurred), and the time value of money to estimate the allowance for impairment losses for accounts receivable and contract assets to ensure that the estimation is adequate and appropriate with the current situation. However, the result from the arbitration process might be unlike from the estimation.

For other debtor's, the Group's management assessed and considered the outstanding balance over 6 months in the consolidated and separate financial statements of Baht 820.05 million and Baht 407.50 million, respectively, (2021: Baht 939.32 million and Baht 383.30 million, respectively). The Group's management has considered the potential for cash collection. Therefore, the Group's management has not considered setting up an allowance for impairment losses for those debtors.

Trade accounts receivable - related parties

The management assessed and considered the outstanding trade account receivable - related parties which over 6 months in the separate financial statements of Baht 1.41 million and Baht 4.45 million, respectively, (2021: Baht 3.13 million on separate financial statements). The management has considered the potential for cash collection. Therefore, the management has not considered setting up an allowance for impairment losses.

Movements of allowance for impairment losses for the year ended 31 December 2022 and 2021 are as follow:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Balance as at 1 January	491,907,784	366,428,975	436,242,481	322,682,642
<u>Add</u> Allowance for impairment loss	39,960,000	55,908,391	-	47,536,421
Incremental from the classification of accounts receivable - related party as third party	-	62,479,428	-	62,479,428
<u>Less</u> Reversal allowance for impairment losses	(194,551,527)	-	(182,175,046)	-
Write-off to bad debt	(8,371,970)	-	-	-
Exchange differences from financial statements translation	1,196,940	7,090,990	1,196,940	3,543,990
Balance as at 31 December	330,141,227	491,907,784	255,264,375	436,242,481

12. CONTRACT ASSETS AND CONTRACT LIABILITIES

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Contract assets				
<u>General customers</u>				
Contract assets	7,495,927,133	5,884,304,353	6,410,689,670	5,603,298,276
<u>Less</u> Allowance for impairment losses	(2,094,938,143)	(2,217,709,959)	(2,069,601,744)	(2,187,377,499)
Net	5,400,988,990	3,666,594,394	4,341,087,926	3,415,920,777
<u>Related parties</u>				
Contract assets	74,761,314	329,829	470,619,486	455,503,010
<u>Less</u> Allowance for impairment losses	(282,620)	(282,620)	(282,620)	(282,620)
Net	74,478,694	47,209	470,336,866	455,220,390
Contract liabilities				
Deferred construction revenue	(2,840,442,793)	(34,621,505)	(2,667,048,514)	(6,944,472)

Movements of allowance for impairment losses for the year ended 31 December 2022 and 2021 are as follow:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
General customers				
Balance as at 1 January	2,217,709,959	2,645,162,285	2,187,377,499	2,617,104,760
<u>Add</u> Allowance for impairment losses	278,845,544	276,409,793	276,409,793	276,409,793
<u>Less</u> Reversal allowance impairment losses	(427,639,851)	(783,186,402)	(420,208,039)	(783,186,402)
Exchange differences from financial statements translation	26,022,491	79,324,283	26,022,491	77,049,348
Balance as at 31 December	<u>2,094,938,143</u>	<u>2,217,709,959</u>	<u>2,069,601,744</u>	<u>2,187,377,499</u>

Significant changes in contract assets

Contract assets under construction contracts which were presented in consolidated and separate financial statements decreased from unbilled contract revenue of construction projects both in Thailand and overseas.

Significant changes in contract liabilities

Contract liabilities in relation to construction contracts decreased from new construction projects in Myanmar that were in the starting phase.

13. LOAN TO THIRD PARTY

A long-term loan was granted to Toyo Thai-USA Corporation (TTUS), of USD 21.56 million (or equivalent to Baht 741.43 million) bears interest at 4% per annum with the interest repayment and principal instalment repayments specified in the loan agreement, with payment starting in 2016. During the year 2021, TTUS required to revise the loan agreement by extended due date from year 2023 to year 2030 and there was change in condition which is deferment period for 12 periods from April 2021 to March 2022.

Movements of loan to third party for the year ended 31 December 2022 and 2021 are as follow:

	(Unit : Baht)	
	Consolidated and Separate F/S	
	2022	2021
Balance as at 1 January	769,183,121	690,996,754
Decrease from loan repayment	(52,123,911)	-
Unrealized gain on exchange rate	24,370,463	78,186,367
Balance as at 31 December	741,429,673	769,183,121
<u>Less</u> Current portion	(74,879,608)	(52,425,157)
Net	666,550,065	716,757,964

14. INVESTMENT IN SUBSIDIARIES

Company	Type of business	Country	Separate F/S								(Unit : Baht)
			Proportion of ordinary share held by parent (%)		Proportion of ordinary share held by subsidiaries (%)		Cost method		Dividend income		
			2022	2021	2022	2021	2022	2021	2022	2021	
TTCL Vietnam Corporation Ltd.	Constructions and engineering services	Vietnam	93.34	93.34	-	-	43,985,494	43,985,494	-	-	
TTCL Malaysia SDN. BHD.	Constructions and engineering services	Malaysia	100.00	100.00	-	-	7,593,351	7,593,351	-	-	
TMSP SDN. BHD.	Constructions and engineering services	Malaysia	100.00	100.00	-	-	5,711,871	5,711,871	-	-	
Toyo-Thai Myanmar Corporation Co., Ltd.	Constructions and engineering services	Myanmar	80.00	80.00	10.00	10.00	7,526,661	7,526,661	-	-	
Global New Energy Company Limited	Renewable energy development	Thailand	40.00	40.00	-	-	24,000,000	24,000,000	-	-	
TTCL New Energy Pte. Ltd.	Investing in renewable energy business	Singapore	100.00	100.00	-	-	150,849,300	150,849,300	-	-	
TTCL Myanmar Engineering & Construction Company Limited	Constructions and engineering services	Myanmar	99.00	99.00	-	-	1,751,666	1,751,666	-	-	
TTCL Power Holdings Pte. Ltd. (TTPHD)	Investing in energy business	Singapore	100.00	100.00	-	-	3,768,975,682	3,768,975,682	124,596,580	65,152,800	
Blackwood Technology B.V.	Torrefaction Technology License Provider	Netherland	70.00	70.00	-	-	156,479,102	156,479,102	-	-	
TTCL LNG Power Pte. Ltd.	Investing in energy business	Singapore	85.00	85.00	15.00	15.00	2,557	2,557	-	-	
TTCL BIO Company Pte. Ltd.	Investing in energy business	Singapore	75.00	75.00	25.00	25.00	13,150,288	2,231	-	-	
NT Biomass Products Co., Ltd.	Manufacturing of wood pallets	Thailand	51.00	-	49.00	-	15,300,000	-	-	-	

(Unit : Baht)

Separate F/S										
Company	Type of business	Country	Proportion of ordinary share held by parent (%)		Proportion of ordinary share held by subsidiaries (%)		Cost method		Dividend income	
			2022	2021	2022	2021	2022	2021	2022	2021
Subsidiaries of TTPHD:										
TTTCL Gas Power Pte. Ltd.	Investing in energy business	Singapore	-	-	40.00	40.00	-	-	-	-
TTTCL Coal Power Pte. Ltd.	Investing in energy business	Singapore	-	-	100.00	100.00	-	-	-	-
TTTCL Solar Power Pte. Ltd.	Investing in energy business	Singapore	-	-	100.00	100.00	-	-	-	-
Global New Energy Japan Co., Ltd.	Operating and maintenance solar power plant	Japan	-	-	100.00	100.00	-	-	-	-
TTTCL Power Myanmar Co., Ltd.	Electricity Generation	Myanmar	25.00	25.00	75.00	75.00	775,810	775,810	-	-
USM Power Pte. Ltd.	Investing in energy business	Singapore	-	-	100.00	100.00	-	-	-	-
BKB Power Pte. Ltd.	Investing in energy business	Singapore	-	-	100.00	100.00	-	-	-	-
Subsidiaries of TTBC and Blackwood:										
Shimanto B.V.	Investing in energy business	Netherlands	-	-	100.00	100.00	-	-	-	-
Subsidiaries of TVC:										
TTBT Company Limited	Investing in energy business	Vietnam	-	-	100.00	100.00	-	-	-	-
Total							4,196,101,782	4,167,653,725	124,596,580	65,152,800
Less Allowance for impairment investment in subsidiaries							(150,849,300)	(150,849,300)	-	-
Investment in subsidiaries - net							4,045,252,482	4,016,804,425	124,596,580	65,152,800

Note: The Company has control over Global New Energy Company Limited, a subsidiary, with the ownership interest 40% because the management and directors of the Company and such subsidiary, who have authorization in making decision, are the same persons.

Movements of investment in subsidiaries for the year ended 31 December 2022 are as follow:

	(Unit : Baht)
	Separate F/S
Balance as at 1 January 2022	4,016,804,425
Increase in investments	28,448,057
Balance as at 31 December 2022	4,045,252,482

Establishment of subsidiaries in 2022

As at 31 December 2022, the Company has not paid shares in subsidiary in Vietnam named TTCL Solar Technology Corporation (TTST) which registered share capital total VND 114.60 million, established of new a subsidiary on 21 August 2021 as the Board of Directors' meeting of the Company no. 1/2021 on 1 March 2021 to support the project to produce electricity from solar cells installed on rooftop which the Company will held 100% of shares.

NT Biomass Products Co., Ltd. (NTBC)

On 16 December 2022, at the Board of Directors TTCL Bio Company Pte. Ltd. (TTBC), pass a resolution to approve for establishment NT Biomass Products Co., Ltd. (NTBC) which register in Thailand with a registered capital of Baht 30 million. The registered capital comprises 0.3 million ordinary shares at a par value of Baht 100 each. The Company holds 51% and TTBC holds 49% in NTBC. Its registered shares were fully paid. The Company classifies the investment in NT Biomass Products as an investment in a subsidiary.

TTCL Bio Company Pte. Ltd. (TTBC)

On 29 December 2022, at the Board of Directors of TTCL Bio Company Pte. Ltd. (TTBC), pass a resolution to approve for increased its authorised share capital amounting to USD 0.50 million by issuing 499,000 new ordinary shares at a par value of Baht 1 each. The Company paid the share subscription to the Company's shareholding portion with an amount US Dollar 0.38million or equivalent to Baht 13.15 million.

Dividend income from direct subsidiary

TTCL Power Holding Pte. Ltd. (TTPHD)

On 10 March 2022, the Board of Directors' meeting of the TTCL Power Holding Pte. Ltd. (TTPHD), a subsidiary of the Company passed a resolution to pay interim dividends of USD 0.023 per share for 69,500,000 shares totaling USD 1.60 million or equivalent to Baht 52.88 million to the Company.

On 7 October 2022, the Board of Directors' meeting of the TTCL Power Holding Pte. Ltd. (TTPHD), a subsidiary of the Company passed a resolution to pay interim dividends of USD 0.027 per share for 69,500,000 shares totaling USD 1.90 million or equivalent to Baht 71.72 million to the Company.

Changing investment in subsidiary to financial assets in 2021

Idemitsu Green Energy Vietnam Co., Ltd. (Formerly known as Ha Tien Energy Corporation)

During the year 2021, the Company has changed its investment in subsidiary to financial assets in note 18 amount of VND 110.5 hundred thousand million or equivalent to Baht 154.32 million. On 10 June 2021, the Board of Directors' meeting No 6/2021 approved the disposal investment. On 17 September 2021, The Company has entered to sign capital contribution transfer agreement of Idemitsu Green Energy Vietnam Co., Ltd. (IGEV), a subsidiary of the company in the proportion of 90% of the total share, to Idemitsu Kosan Co.,Ltd., totaling USD 11.66 million or equivalent to Baht 388.79 million. The Company transfers share certificate to IGEV on 6 October 2021 and received advance payment for shares subscription of Baht 388.79 million and recorded in current liabilities. Thus decreasing the Company's holding in IGEV from 100% to 10%. The Company's management determined that it has no significant influence in IGEV. Therefore, IGEV is presented as a financial assets measured at fair value through profit or loss. As a result, IGEV will end its status as a company's subsidiary. The Company must comply and complete all conditions specified in the agreement, otherwise sale transaction is incomplete.

15. NON-CONTROLLING INTERESTS

Subsidiaries with material non-controlling interests are as follows:

(Unit: Baht)

Name	Proportion of ownership interests held by the NCI (Percentage)		Comprehensive income (loss) allocated to NCI		Accumulated NCI	
	2022	2021	2022	2021	2022	2021
TTCL Vietnam Corporation Limited	6.66	6.66	9,891,136	2,181,384	26,134,706	16,243,570
Bio Natural Energy Limited	-	-	-	59,758,511	-	-
Global New Energy Company Limited	60.00	60.00	1,290,918	3,113,894	44,370,334	43,079,416
Toyo Thai-Myanmar Corporation Co., Ltd.	10.00	10.00	(33,786)	(140,847)	161,272	210,573
TTCL Myanmar Engineering & Construction Co., Ltd.	1.00	1.00	(9,614)	(128)	163,724	173,338
Blackwood Technology B.V.	30.00	30.00	(1,584,324)	5,985,307	1,507,645	3,091,970
Shimanto B.V.	15.00	15.00	(20,610)	(15,955)	(38,566)	(15,955)
Idemitsu Green Energy Vietnam Co., Ltd. (IGEV)	-	-	-	(1,369,609)	-	-

(Unit : Baht)

(Unit: Baht)

(Unit: Baht)

(Unit: Baht)

(Unit : Baht)

For the year ended 31 December 2022						
	TTCL Vietnam Company Limited	Bio Natural Energy Limited	Global New Energy Company Limited	Toyo Thai-Myanmar Corporation Co., Ltd.	TTCL Myanmar Engineering & Construction Co., Ltd.	Toyo Thai-Myanmar Corporation Co., Ltd.
						Shimanto B.V.
	576,277,028	-	10,252,858	(190,359)	(1,125,715)	542,391
	(209,988,036)	-	1,418,673	-	-	(389,540)
	(13,168,934)	-	-	-	-	-
	353,120,058	-	11,671,531	(190,359)	(1,125,715)	152,851
						(2,988)

Statement of cash flows

Net cash provided from (used in) operating activities
Net cash provided from (used in) investing activities
Net cash used in financing activities
Net cash increase (decrease)

16. INVESTMENT IN JOINT VENTURES - NET

As at 31 December 2022, the Group has 4 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 320,000 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 authorized share capital amounting to Baht 15.68 million and Baht 0.64 million, respectively and fully paid-up capital.

b) Orient Bio-Fuels Company Limited

TTCL New Energy Pte. Ltd (TTNE), a subsidiary, holds 49% of its total shares in Orient Bio-Fuels Company Limited (OBF), a joint venture of the Group, which has totaling USD 5.13 million or equivalent to Baht 154.76 million and TTNE fully paid-up capital in OBF and fully set provision for investment.

c) TTCL Gas Power Pte. Ltd.

TTCL Power Holding Pte. Ltd. (TTPHD), a direct subsidiary, hold 40% of total shares in TTCL Gas Power Pte. Ltd. (TTGP) engaged in energy business which has 49,500,000 registered ordinary shares at a par value of USD 1 per share. The Group considers that it still has joint control over TTGP and classified as investment in joint venture.

d) Toyo Thai Power Myanmar Co., Ltd.

TTCL Gas Power Pte. Ltd. (TTGP), an indirect subsidiary and the Company, hold 38% and 5% of total shares in Toyo Thai Power Myanmar Co., Ltd. (TTPMC) engaged in electricity generating and distribution with a total of 515,873 registered ordinary shares at a par value of USD 100 per share. The Group considers that it still has control over TTPMC and classified as investment in joint venture.

Movements of the investment in joint ventures for the year ended 31 December 2022 are as follow:

		(Unit : Baht)
	Consolidated F/S	Separate F/S
Balance as at 1 January 2022	1,687,086,271	83,793,909
Share of profit from joint ventures	203,640,390	-
Increase capital in joint venture	3,500,000	-
Dividend income from joint ventures	(136,529,474)	-
Exchange differences from financial statements translation	22,977,175	-
Balance as at 31 December 2022	1,780,674,362	83,793,909

Share of profit from joint ventures

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 2022 but was not audited by its auditor and the share of the joint venture's loss is calculated on the Company's 49% interest based on OBF's statement of income unaudited by its auditor for the year ended 31 December 2022. Presently, OBF is in process of liquidation. However, the Company fully set provision for investment in OBF.

The share of the joint venture's profit in TTCL Gas Power Pte. Ltd. is calculated on the Company's 40% interest, based on TTCL Gas Power Pte. Ltd.'s statement of profit or loss reviewed by its auditor for the year ended 31 December 2022. The share of the joint venture's profit in Toyo Thai Power Myanmar Co., Ltd. is calculated on the Company's 43% interest, based on Toyo Thai Power Myanmar Co., Ltd.'s statement of profit or loss reviewed by its auditor for the year ended 31 December 2022.

Incremental in subsidiary's share capital

On 19 January 2022, Siam GNE Solar Energy Co., Ltd, a joint venture registered share capital with the Department of Business Development from amount of Baht 25,000,000 to amount of Baht 32,000,000 (registered share capital from 250,000 shares to 320,000 shares at the par value of Baht 100) according with Extraordinary Meeting of Shareholders no.5/2021 on 15 December 2021. The Group paid additional share capital for proportion of investing in TTCL Solar Power Pte. Ltd. at 48% and Global New Energy Company Limited at 2% amounting to Baht 3.36 million and Baht 0.14 million, respectively, to support the project to produce electricity from solar cells installed on rooftop.

Dividend income from joint ventures

Toyo Thai Power Myanmar Co., Ltd. (TTPMC)

On 25 August 2022, the Board of Directors' meeting of the Toyo Thai Power Myanmar Co., Ltd. (TTPMC), a joint venture of the Group passed a resolution to pay interim dividends from retained earnings as at 30 June 2022 of USD 9.692 per share for 25,794 shares totaling USD 0.25 million or equivalent to Baht 9.41 million to the Company.

On 25 February 2022, the Board of Directors' meeting of the Toyo Thai Power Myanmar Co., Ltd. (TTPMC), a joint venture of the Group passed a resolution to pay interim dividends from retained earnings as at 31 December 2022 of USD 7.754 per share for 25,794 shares totaling USD 0.20 million or equivalent to Baht 6.49 million to the Company.

TTCL Gas Power. Ltd. (TTGP)

On 30 September 2022, the Board of Directors' meeting of the TTCL Gas Power. Ltd. (TTGP), a joint venture of the Group passed a resolution to pay interim dividends from retained earnings as at 30 September 2022 of USD 0.096 per share for 19,800,000 shares totaling USD 1.90 million or equivalent to Baht 70.36 million to TTCL Power Holding Pte. Ltd. (TTPHD).

On 10 March 2022, the Board of Directors' meeting of the TTCL Gas Power. Ltd. (TTGP), a joint venture of the Group passed a resolution to pay interim dividends from retained earnings as at 10 March 2022 of USD 0.076 per share for 19,800,000 shares totalling USD 1.51 million or equivalent to Baht 50.27 million to TTCL Power Holding Pte. Ltd. (TTPHD).

The joint ventures listed below has share capital consisting solely of ordinary shares, which is held directly by the Group.

(Unit : Baht)

	Nature of the relationship	Country	Proportion of Investment (%)		Consolidated F/S Equity method		Cost method	
			2022	2021	2022	2021	2022	2021
<u>Investment in Joint Ventures held by subsidiaries</u>								
Siam GNE Solar Energy Co., Ltd	Note 1	Thailand	50	50	21,164,532	18,127,629	-	-
Orient Bio-Fuels Company Limited	Note 2	Vietnam	49	49	-	-	-	-
TTCL Gas Power Pte. Ltd	Note 3	Singapore	40	40	1,563,383,902	1,479,618,230	-	-
Toyo Thai Power Myanmar Co., Ltd	Note 4	Myanmar	43	43	196,125,928	189,340,412	83,793,909	83,793,909
Total					1,780,674,362	1,687,086,271	83,793,909	83,793,909

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: TTCL Gas Power Pte. Ltd.'s major business is to invest in energy business.

Note 4: Toyo Thai Power Myanmar Co., Ltd.'s major business is to generate and transmit electricity from combined cycle gas turbine power plant. Toyo Thai Power Myanmar Co., Ltd. is a strategic partnership for the group to invest in electricity generation business.

Significant financial information of joint venture in the aggregate amount are summarized as follows:

Unit): Baht(

	For the year ended 31 December							
	Siam GNE Solar Energy Co., Ltd.		Orient Bio-Fuels Company Limited		TTCL Gas Power Pte. Ltd.		Toyo Thai Power Myanmar Co., Ltd.	
	2022	2021	2022	2021	2022	2021	2022	2021
Cash and cash equivalent	4,030,471	10,837,201	1,108,244	1,254,300	18,782,274	17,801,554	301,474,115	486,396,032
Other current assets	4,664,562	3,411,399	14,927,041	15,136,016	-	-	762,785,946	556,550,276
Total current assets	8,695,033	14,248,600	16,035,285	16,390,316	18,782,274	17,801,554	1,064,260,061	1,042,946,308
Non-current assets	87,103,311	67,292,979	1,234,622,827	1,359,815,451	1,693,830,643	1,637,839,117	4,711,916,547	4,763,805,127
Total assets	95,798,344	81,541,579	1,250,658,112	1,376,205,767	1,712,612,917	1,655,640,671	5,776,176,608	5,806,751,435
Financial current liabilities (excluding trade accounts payables)	8,621,378	4,758,882	857,910,000	648,015,000	-	-	387,098,880	374,302,880
Other current liabilities	1,664,124	3,948,433	1,163,059,215	976,473,249	316,181	290,478	503,268,516	501,839,462
Total current liabilities	10,285,502	8,707,315	2,020,969,215	1,624,488,249	316,181	290,478	890,367,396	876,142,342
Financial non-current liabilities (excluding trade accounts payables)	33,325,000	25,086,378	942,564,200	1,116,459,200	-	-	456,223,680	815,445,560
Non-current liabilities	13,959,513	14,404,977	233,519,879	287,648,221	-	-	157,255,823	120,032,296
Total non-current liabilities	47,284,513	39,491,355	1,176,084,079	1,404,107,421	-	-	613,479,503	935,477,856
Total liabilities	57,570,015	48,198,670	3,197,053,294	3,028,595,670	316,181	290,478	1,503,846,899	1,811,620,198
Net assets	38,228,329	33,342,909	(1,946,395,182)	(1,652,389,903)	1,712,296,736	1,655,350,193	4,272,329,709	3,995,131,237
Revenues	4,253,726	4,889,586	5,484,325	4,070,597	-	-	945,447,529	899,649,130
Dividend income	-	-	-	-	302,243,260	156,891,550	-	-
Insurance income	-	-	-	-	-	-	-	164,220,305
Depreciation and amortization	(2,766,564)	(2,751,573)	(124,919,971)	(125,646,819)	-	-	(15,412,260)	(13,691,598)
Interest income	-	-	21,416	16,501,034	31,908	27,168	109,430,773	103,530,839
Interest paid	(1,791,074)	(982,623)	(160,014,953)	(105,461,299)	-	-	(51,217,892)	(55,208,337)
Profit (loss) before income tax	(2,197,159)	(399,529)	(294,005,279)	(222,745,054)	301,904,999	156,549,069	583,187,612	660,538,251
Income tax benefit (expense)	82,580	90,862	-	-	-	-	(129,247,310)	(133,691,287)
Profit (loss) for the year	(2,114,579)	(308,667)	(294,005,279)	(222,745,054)	301,904,999	156,549,069	453,940,302	526,846,964
Total comprehensive income (loss) for the year	(2,114,579)	(308,667)	(294,005,279)	(222,745,054)	301,904,999	156,549,069	453,940,302	526,846,964

17. FINANCIAL ASSETS MEASURED AT FAIR VALUE THROUGH PROFIT OR LOSS

(Unit : Baht)

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
As at 31 December				
Financial assets - investments in equity instruments	518,016,382	557,000,359	506,766,382	545,750,359
Total financial assets measured at fair value through profit or loss	518,016,382	557,000,359	506,766,382	545,750,359

Movements of financial assets for the year ended 31 December 2022 are as follow:

		(Unit : Baht)
	Consolidated F/S	Separate F/S
Opening book value	557,000,359	545,750,359
Loss on changing in fair value of financial assets	(38,983,977)	(38,983,977)
Fair value of financial assets	518,016,382	506,766,382

As at 31 December 2022, TTCL Vietnam Corporation Limited (a subsidiary) has invested in MEDEP JSC Company (Medical Devices And Biomaterial Plant Joint Stock Company), registered in Vietnam. The subsidiary had fully paid-up share capital of 750,000 shares at par value of VND 10,000 per share with total amount of VND 7,500 million or equivalent to Baht 11.25 million, accounting for 5% of the total share capital.

As at 31 December 2022, the Company has investment in common shares of ToyoThai-USA Corporation (TTUS) which has its authorized share capital of 1,000,000 shares at par value of USD 1 per share. The Company hold 4% of its authorized share capital or 40,000 shares of USD 40,000 or equivalent to Baht 1.23 million. The Company fully paid-up capital. During 2017, the Company considered to set up allowance for impairment on financial assets in TTUS in full amount.

As at 31 December 2022, the management of the company considered to set up allowance for impairment on financial assets in Idemitsu Green Energy Vietnam Co.,Ltd. (IGEV) amount of Baht 38.98 million.

For the year ended 31 December 2021, the Company has changing its investment in subsidiary - Idemitsu Green Energy Vietnam Co., Ltd. (Former name Ha Tien Energy Corporation) to financial assets measured at fair value through profit or loss in note 14 amount of VND 110,500 million or equivalent to Baht 154.32 million. On 14 October 2021, the Board of Directors, meeting of Idemitsu Green Energy Vietnam Co., Ltd. (IGEV) approved incremental registered share capital from amount of VND 0.85 hundred thousand million which company has held 10% of the total registered capital of IGEV. The total amount of share increasing has been paid on 2 December 2021 amount VND 0.75 hundred thousand million or equivalent to Baht 113.76 million, to support Black Pellet Manufacturing Project.

18. PROPERTY, PLANT AND EQUIPMENT - NET

	Consolidated F/S							(Unit : Baht)
	Land and land improvement	Building	Machine and Equipment	Furniture, fixtures and office equipment	Motor vehicles	Power plant	Assets under construction and installation	Total
Cost								
1 January 2021	18,491,256	39,676,201	143,855,486	139,782,323	10,928,760	185,247,112	313,423,415	851,404,553
Additions	-	-	515,164	1,886,055	2,792,824	-	52,831,377	58,025,420
Transfer in	-	1,361,867	14,695,065	-	1,792,818	-	246,522,046	264,371,796
Disposals	(11,430,256)	-	-	-	(3,949,000)	-	-	(15,379,256)
Write-off	-	-	-	(413,009)	-	-	(432,936)	(845,945)
Transfer out	-	-	(1,852,287)	-	-	-	(266,994,932)	(268,847,219)
Decrease from disposal subsidiary	-	-	-	(496,851)	-	(185,247,112)	(93,939,238)	(279,683,201)
Changing investment in subsidiary to financial assets	-	(47,351,617)	(181,193,460)	-	(3,259,111)	-	(636,052)	(232,400,240)
Exchange differences from financial statements translation	(311,000)	6,313,549	24,122,282	901,189	957,881	-	(66,240,818)	(34,256,917)
31 December 2021	6,750,000	-	142,250	141,659,707	9,264,172	-	184,532,862	342,348,991
Additions	20,973,130	-	-	15,304,091	2,416,614	-	133,570,709	172,264,544
Disposals	-	-	-	(74,080)	-	-	-	(74,080)
Write-off	-	-	-	(1,667,650)	-	-	-	(1,667,650)
Exchange differences from financial statements translation	-	-	(14,531)	80,225	(11,260)	-	-	54,434
31 December 2022	27,723,130	-	127,719	155,302,293	11,669,526	-	318,103,571	512,926,239
Accumulated depreciation								
1 January 2021	-	3,920,292	19,038,724	108,542,706	10,705,139	53,150,955	-	195,357,816
Depreciation for the year	-	2,775,242	13,336,003	10,730,822	714,658	1,408,818	-	28,965,543
Depreciation for disposal	-	-	-	-	(3,948,999)	-	-	(3,948,999)
Depreciation for write off	-	-	-	(413,004)	-	-	-	(413,004)
Decrease from disposal subsidiary	-	-	-	(304,215)	-	(54,559,773)	-	(54,863,988)
Changing investment in subsidiary to financial assets	-	(7,575,962)	(36,515,478)	-	(632,667)	-	-	(44,724,107)
Exchange differences from financial statements translation	-	880,428	4,195,957	759,750	569,005	-	-	6,405,140
31 December 2021	-	-	55,206	119,316,059	7,407,136	-	-	126,778,401

Depreciation for the year	-	-	22,935	10,634,336	595,574	-	-	11,252,845
Depreciation for disposal	-	-	-	(42,879)	-	-	-	(42,879)
Depreciation for write off	-	-	-	(1,667,558)	-	-	-	(1,667,558)
Exchange differences from financial statements translation	-	-	(6,220)	81,020	(41,293)	-	-	33,507
31 December 2022	-	-	71,921	128,320,978	7,961,417	-	-	136,354,316
Allowance for impairment								
1 January 2021	-	-	-	-	-	101,797,923	-	101,797,923
Decrease from disposal subsidiary	-	-	-	-	-	(101,797,923)	-	(101,797,923)
31 December 2022 and 2021	-	-	-	-	-	-	-	-
Net book value								
31 December 2021	6,750,000	-	87,044	22,343,648	1,857,036	-	184,532,862	215,570,590
31 December 2022	27,723,130	-	55,798	26,981,315	3,708,109	-	318,103,571	376,571,923
Depreciation for the year 2021								
Costs of construction and services								1,491,364
Administrative expenses								27,474,179
Total								28,965,543
Depreciation for the year 2022								
Costs of construction and services								1,210,977
Administrative expenses								10,041,868
Total								11,252,845
(Unit : Baht)								
Separate F/S								
	Land and land improvement	Furniture, fixtures and equipment	Motor vehicles	Assets under construction and installation	Total			
Cost								
1 January 2021	6,750,000	131,294,712	7,362,131	-	145,406,843			

(Unit : Baht)

	Separate F/S				Total
	Land and land improvement	Furniture, fixtures and equipment	Motor vehicles	Assets under construction and installation	
Additions	-	1,520,402	749,200	49,538,816	51,808,418
Disposals	-	-	(3,949,000)	-	(3,949,000)
Write-off	-	(413,009)	-	-	(413,009)
Exchange differences from financial statements translation	-	-	12,500	-	12,500
31 December 2021	6,750,000	132,402,105	4,174,831	49,538,816	192,865,752
Additions	-	13,711,729	2,416,614	138,184,769	154,313,112
Write-off	-	(1,667,650)	-	-	(1,667,650)
Exchange differences from financial statements translation	-	-	26,164	-	26,164
31 December 2022	6,750,000	144,446,184	6,617,609	187,723,585	345,537,378
Accumulated depreciation					
1 January 2021	-	101,835,094	7,346,124	-	109,181,218
Depreciation for the year	-	9,729,074	49,782	-	9,778,856
Depreciation for disposals	-	-	(3,948,999)	-	(3,948,999)
Depreciation for write-off	-	(413,004)	-	-	(413,004)
Exchange differences from financial statements translation	-	-	240	-	240
31 December 2021	-	111,151,164	3,447,147	-	114,598,311
Depreciation for the year	-	9,878,625	377,319	-	10,255,944
Depreciation for write-off	-	(1,667,558)	-	-	(1,667,558)
Exchange differences from financial statements translation	-	-	(8,668)	-	(8,668)
31 December 2022	-	119,362,231	3,815,798	-	123,178,029

Net book value

(Unit : Baht)

Separate F/S

	Land and land improvement	Furniture, fixtures and equipment	Motor vehicles	Assets under construction and installation	Total
31 December 2021	6,750,000	21,250,941	727,684	49,538,816	78,267,441
31 December 2022	6,750,000	25,083,953	2,801,811	187,723,585	222,359,349
Depreciation for the year 2021					
Costs of construction and services					44,072
Administrative expenses					9,734,784
Total					9,788,856
Depreciation for the year 2022					
Costs of construction and services					1,197,116
Administrative expenses					9,058,828
Total					10,255,944

During the year 2022, the borrowing cost capitalized to Black pellet demo plant of Baht 6.98 million represented the borrowing to finance the general objectives. The Group use a capitalization rate 5.10% per annum to compute the capitalized borrowing costs.

19. RIGHT-OF-USE ASSETS – NET AND LEASE LIABILITIES – NET

19.1 Right-of-use

(Unit : Baht)

	Consolidated F/S			
	Land and land improvement	Building	Motor vehicles	Total
Cost				
1 January 2021	13,784,434	374,040,721	3,365,674	391,190,829
Additions	342,720	45,634,350	1,577,784	47,554,854
Write-off	(4,545,052)	(137,277,312)	(642,961)	(142,465,325)
Changing investment in subsidiary to financial assets	(9,582,102)	-	-	(9,582,102)
Exchange differences from financial statements	-	25,565,244	-	25,565,244
31 December 2021	-	307,963,003	4,300,497	312,263,500
Additions	-	151,413,429	629,583	152,043,012
Decrease from remeasurement of right-of-use assets under lease contracts	-	(10,653,705)	-	(10,653,705)
Write-off	-	(35,052,464)	-	(35,052,464)
Exchange differences from financial statements translation	-	(14,600,286)	-	(14,600,286)
31 December 2022	-	399,069,977	4,930,080	404,000,057
Accumulated depreciation				
1 January 2021	6,130,423	65,133,589	2,010,147	73,274,159
Depreciation for the year	202,551	58,216,165	1,519,819	59,938,535
Depreciation for write off	-	(19,019,599)	(4,588)	(19,024,187)
Depreciation from changing investment in subsidiary to financial assets	(617,821)	-	-	(617,821)
Exchange differences from financial statements translation	(5,715,153)	17,664,752	-	11,949,599
31 December 2021	-	121,994,907	3,525,378	125,520,285
Depreciation for the year	-	52,765,861	720,930	53,486,791
Depreciation for write off	-	(4,907,058)	-	(4,907,058)
Exchange differences from financial statements translation	-	(15,735,437)	-	(15,735,437)
31 December 2022	-	154,118,273	4,246,308	158,364,581
Net book value				
31 December 2021	-	185,968,096	775,119	186,743,215
31 December 2022	-	244,951,704	683,772	245,635,476
Depreciation for the year 2021				
Administrative expenses				59,938,535
Depreciation for the year 2022				
Administrative expenses				53,486,791

(Unit : Baht)

	Separate F/S		
	Building	Motor vehicles	Total
Cost			
1 January 2021	271,545,130	3,365,674	274,910,804
Additions	11,787,508	1,577,784	13,365,292
Write-off	(43,390,643)	(642,961)	(44,033,604)
31 December 2021	239,941,995	4,300,497	244,242,492
Additions	92,105,773	629,583	92,735,356
Decrease from remeasurement of right-of-use assets under lease contracts	(10,653,705)	-	(10,653,705)
Write-off	(9,303,314)	-	(9,303,314)
31 December 2022	312,090,749	4,930,080	317,020,829
Accumulated depreciation			
1 January 2021	51,147,097	2,010,147	53,157,244
Depreciation for the year	41,577,729	1,519,819	43,097,548
Depreciation for write off	(6,165,763)	(4,588)	(6,170,351)
31 December 2021	86,559,063	3,525,378	90,084,441
Depreciation for the year	34,448,308	720,930	35,169,238
Depreciation for write off	(1,453,418)	-	(1,453,418)
31 December 2022	119,553,953	4,246,308	123,800,261
Net book value			
31 December 2021	153,382,932	775,119	154,158,051
31 December 2022	192,536,796	683,772	193,220,568
Depreciation for the year 2021			
Administrative expenses			43,097,548
Depreciation for the year 2022			
Administrative expenses			35,169,237

19.2 Lease liabilities

The present value of lease liabilities are as follows:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Lease liabilities	258,442,912	209,824,550	204,078,904	173,824,131
<u>Less</u> current portion	(51,933,571)	(56,634,895)	(35,486,446)	(37,645,014)
Net	206,509,341	153,189,655	168,592,458	136,179,117

The analysis for maturity of lease liabilities are as follows:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Not later than one year	68,149,109	68,898,053	47,993,078	47,984,974
Later than 1 year but not later than 5 years	230,695,437	167,233,658	194,802,171	150,248,169
Later than 5 years	6,165,861	3,205,929	-	-
Total	305,010,407	239,337,640	242,795,249	198,233,143
<u>Less</u> : Future finance charges on finance leases	(46,567,495)	(29,513,090)	(38,716,345)	(24,409,012)
Net	258,442,912	209,824,550	204,078,904	173,824,131

The Group and company recognized financial cost which related to leases of Baht 15.62 million and Baht 12.20 million, respectively.

Lease payments not recognized as a liability

The Group has elected not to recognize a lease liability for short-term leases (leases with an expected term of 12 months) and/or leases of low value assets. The expense relating to payments not included in the measurement of the lease liability for the year ended 31 December 2022 are as follows:

	(Unit : Baht)	
	Consolidated F/S	Separate F/S
Short-term leases	31,000,533	9,580,199
Leases of low value assets	5,104,926	5,013,868
Variable lease payments	10,658,740	10,658,740
Total	46,764,199	25,252,807

20. GOODWILL

	(Unit : Baht)	
	Consolidated F/S	
	2022	2021
As at 1 January	107,561,597	177,968,717
Changing investment in subsidiary to financial assets measured at fair value through profit or loss (Note 17)	-	(70,407,120)
As at 31 December	107,561,597	107,561,597
<u>Less</u> Provision for impairment	-	-
Net book value	107,561,597	107,561,597

Goodwill allocation for each material cash generation unit (CGU) is presented as:

	(Unit : Baht)	
	Consolidated F/S	
	2022	2021
	Licensor	Licensor
Goodwill allocation	107,561,597	107,561,597

Impairment tests for goodwill

The Group tests impairment of goodwill annually by comparing the net book value of goodwill with the recoverable amount of a CGU, which is determined based on value-in-use calculations. These calculations use cash flow projections from financial budgets that are approved by the management. Cash flows beyond the projected period are extrapolated using the estimated growth rates stated below. The growth rate does not exceed the average long-term growth rate for the business in which the CGU operates.

As at 31 December 2022, the key assumptions used for value-in-use calculations are as follows:

	Consolidated F/S
	2022
Growth rate (%)	3.00
Discount rate (%)	8.60

If the discount rate used in the calculation increases by 0.5% per annum, there is no impairment of goodwill recorded in the consolidated financial statements for the year ended 31 December 2022.

21. INTANGIBLE ASSETS - NET

	(Unit : Baht)		
	Consolidated F/S		
	Computer software	Golf membership	Total
Cost			
1 January 2021	72,295,505	2,037,865	74,333,370
Additions	2,754,742	-	2,754,742
Exchange differences from financial statements translation	1,513,981	-	1,513,981
31 December 2021	76,564,228	2,037,865	78,602,093
Additions	5,113,716	-	5,113,716
Disposals	-	(2,037,865)	(2,037,865)
Exchange differences from financial statements translation	(308,339)	-	(308,339)
31 December 2022	81,369,605	-	81,369,605
Accumulated amortization			
1 January 2021	50,755,018	1,425,946	52,180,964
Amortization for the year	5,873,726	203,786	6,077,512
Exchange differences from financial statements translation	1,220,663	-	1,220,663
31 December 2021	57,849,407	1,629,732	59,479,139
Amortization for the year	6,333,225	103,289	6,436,514
Amortization for disposals	-	(1,733,021)	(1,733,021)
Exchange differences from financial statements translation	(178,937)	-	(178,937)
31 December 2022	64,003,695	-	64,003,695
Net book value			
31 December 2021	18,714,821	408,133	19,122,954
31 December 2022	17,365,910	-	17,365,910

(Unit : Baht)

	Consolidated F/S	
	Computer software	Golf membership
		Total
Amortization for the year 2021		
Administrative expenses		6,077,512
Amortization for the year 2022		
Costs of construction and services		70,400
Administrative expenses		6,366,114
Total		6,436,514

(Unit : Baht)

	Separate F/S	
	Computer software	Golf membership
		Total
Cost		
1 January 2021	55,190,317	2,037,865
Additions	495,200	-
31 December 2021	55,685,517	2,037,865
Additions	2,919,400	-
Disposals	-	(2,037,865)
31 December 2022	58,604,917	-
Accumulated Amortization		
1 January 2021	40,104,717	1,425,947
Amortization for the year	3,909,080	203,786
31 December 2021	44,013,797	1,629,733
Amortization for the year	3,631,633	103,289
Amortization for disposals	-	(1,733,022)
31 December 2022	47,645,430	-
Net book value		
31 December 2021	11,671,720	408,132
31 December 2022	10,959,487	-

Amortization for the year 2021

Administrative expenses	4,112,866
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Amortization for the year 2022

Costs of construction and services	70,400
Administrative expenses	3,664,522
Total	3,734,922

22. SHORT-TERM LOANS FROM FINANCIAL INSTITUTIONS

	(Unit : Baht)	
	Consolidated and Separate F/S	
	2022	2021
Promissory notes	1,090,000,000	1,550,000,000
Liabilities under trust receipts	45,153,381	330,083,168
Total	1,135,153,381	1,880,083,168

As at 31 December 2022 and 2021, the Company had short-term loans from local financial institutions in the form of promissory notes not over 6 months for working capital and purchasing machinery and equipment. These interests bear 3.50% to 4.50% per annum and 3.00% to 3.80% per annum, respectively.

As at 31 December 2022, the Company has short-term loans from local financial institutions in the form of liabilities under trust receipts not over 6 months for purchasing machinery and equipment for local construction project with interest bear 3.15% to 3.60% per annum.

The movements of the short-term loan from financial institution for the year ended 31 December 2022 and 2021 can be analyzed as follows:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Balance as at 1 January	1,880,083,168	1,220,000,000	1,880,083,168	1,220,000,000
<u>Add</u> Cash received from short-term loans	5,533,225,727	6,208,780,911	5,533,225,727	6,208,780,911
<u>Less</u> Repayment short-term loans	(6,272,754,218)	(5,550,730,880)	(6,272,754,218)	(5,550,730,880)
Unrealized loss from exchange rate	(5,410,296)	2,033,137	(5,410,296)	2,033,137
Balance as at 31 December	1,135,153,381	1,880,083,168	1,135,153,381	1,880,083,168

23. DEBENTURES - NET

	(Unit : Baht)	
	Consolidated and Separated F/S	
	2022	2021
Unsubordinated and unsecured debentures	1,500,000,000	1,100,000,000
<u>Less</u> Deferred financing fee	(21,805,424)	(257,141)
Unsubordinated and unsecured debentures - net	1,478,194,576	1,099,742,859
<u>Less</u> Current portion	-	(1,099,742,859)
Net	1,478,194,576	-

The movements in debentures can be analyzed as follows:

	(Unit : Baht)	
	Consolidated and Separated F/S	
	2022	2021
Balance as at 1 January	1,099,742,859	2,174,015,456
Issuing of debentures	1,500,000,000	-
Repayment of debentures	(1,100,000,000)	(1,075,000,000)
Financing fee for issuing debenture	(29,545,680)	-
Amortisation of deferred financing fee	7,997,397	727,403
Balance as at 31 December	1,478,194,576	1,099,742,859

As at 31 December 2022, the Company had debentures which were unsubordinated and unsecured debentures, totalling Baht 1,500 million (2021: Baht 1,100 million). The term of the debenture is 2 years 5 months maturity, and the fixed interest rate is 7.15% per annum with three-months interest payment and maintain a debt to equity ratio of not more than 3:1 in the interim consolidated financial information reviewed by an auditor throughout the debenture period which specified in the rights of debenture holders.

At 31 December 2022, the Company had a credit line for the issue of all types of debenture (secured and/or unsecured) for up to Baht 4,500 million (2021: Baht 4,400 million) according to the approval in the resolution of the Annual General Meeting.

On 27 April 2022, the Company issued such unsubordinated and unsecured debentures for 1,500,000 shares at par value of Baht 1,000 per share at selling price Baht 1,000 per share which the Company issued debentures of Baht 1,500 million for 2 years 5 months, maturity in 2024 and callable debentures with a Debenture holders' Representative, at fixed interest rate 7.15% per annum with three-month interest payment.

The objective of issuing debentures is to repay the debenture which has maturity during the period and financial management. The issue was approved in the resolution of the Board of Director Meeting no.1/2022 on 28 February 2022, which granted the Company the right to issue unsubordinated and unsecured debenture for up to Baht 1,500 million.

24. EMPLOYEE BENEFITS OBLIGATION

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Statement of financial position				
Obligations for post-employment benefits	217,075,912	201,324,025	215,075,688	199,562,624
<u>Less</u> current portion	(37,925,591)	(45,600,765)	(37,925,591)	(45,600,765)
Net	179,150,321	155,723,260	177,150,097	153,961,859
Statement of profit or loss and other comprehensive income				
<i>Recognized in profit or loss:</i>				
Post-employment benefits	14,157,603	18,904,804	13,918,780	19,503,162
<i>Recognized in other comprehensive income:</i>				
Actuarial loss (gain)	1,275,427	(21,022,083)	1,275,427	(21,022,083)
Exchange differences from financial statements translation	-	234,854	-	-
Total expense recognized in other comprehensive income	1,275,427	(20,787,229)	1,275,427	(21,022,083)

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.

Movements in the present value of the defined benefit obligations for the years ended 31 December 2022 and 2021 are as follows:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Beginning balance as at 1 January	201,324,025	208,461,971	199,562,624	206,337,066
<i>Recognized in profit or loss</i>				
- Current service costs	14,173,010	15,578,359	13,934,187	15,531,711
- Interest on obligation	5,999,260	3,971,451	5,999,260	3,971,451
- Benefits paid during the year	(6,014,667)	(645,006)	(6,014,667)	-
<i>Recognized in other comprehensive income</i>				
- Actuarial loss (gain)	1,594,284	(26,277,604)	1,594,284	(26,277,604)
- Exchange differences from financial statements translation	-	234,854	-	-
Balance as at 31 December	217,075,912	201,324,025	215,075,688	199,562,624

Actuarial loss (gain) before tax recognized in other comprehensive income arose from:

(Unit : Baht)

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Demographic assumptions	15,048,434	-	15,048,434	-
Financial assumptions	(8,635,049)	(6,318,628)	(8,635,049)	(6,318,628)
Experience adjustment	(4,819,101)	(19,958,976)	(4,819,101)	(19,958,976)
Total	1,594,284	(26,277,604)	1,594,284	(26,277,604)

Actuarial assumptions

The following are principal actuarial assumptions at the reporting date (expressed as weighted averages).

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Discount rate	3.44 percent per annum	2.81 percent per annum	3.44 percent per annum	2.81 percent per annum
Future salary average increment rate	5.21 percent per annum	4.99 percent per annum	5.21 percent per annum	4.99 percent per annum
Normal retirement age	60 years	60 years	60 years	60 years
Mortality rate	Thai Mortality Table 2017	Thai Mortality Table 2017	Thai Mortality Table 2017	Thai Mortality Table 2017

As at 31 December 2022 and 2021, the weighted average duration of the defined benefit obligation of the group is between 4 years to 16 years, and the duration of company is 16 years.

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below:

	(Unit : Baht)	
	Consolidated F/S	Separate F/S
	Increase (decrease) benefit obligations	Increase (decrease) benefit obligations
Discount rate (0.5% increment)	(10,065,721)	(10,065,721)
Discount rate (0.5% decrement)	10,914,190	10,914,190
Future salary growth (0.5% increment)	9,363,195	9,363,195
Future salary growth (0.5% decrement)	(8,700,091)	(8,700,091)
Employee turnover (0.5% increment)	(10,680,369)	(10,680,369)
Employee turnover (0.5% decrement)	11,552,538	11,552,538

As at 31 December 2022, expected maturity of employee benefits obligation before discount are as follows:

	(Unit : Baht)
	Consolidated and separate F/S
Within 1 year	37,925,591
Between 2 - 5 years	63,093,785
More than 5 years	174,378,762
Total	275,398,138

25. INCOME TAX AND DEFERRED TAX

Applicable tax rates for the Group are as follows:

	2022	2021
Thailand	20%	20%
Singapore	17%	17%
Philippines	25%	30%
Qatar	10%	10%
Japan	31%	31%
Vietnam	20%	20%
Malaysia	24%	24%
Myanmar	25%	25%
Netherlands	25%	25%

25.1 Deferred income tax

Deferred tax assets and liabilities can be summarized as follow:

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Deferred tax assets				
Deferred tax assets to be recovered within 12 months	17,144,638	8,259,821	-	-
Deferred tax assets to be recovered after 12 months	244,416,992	194,088,000	156,598,786	137,792,129
Deferred tax assets	<u>261,561,630</u>	<u>202,347,821</u>	<u>156,598,786</u>	<u>137,792,129</u>
Deferred tax liabilities				
Deferred tax liabilities to be recovered within 12 months	(3,720,790)	(21,422,138)	-	-
Deferred tax liabilities to be recovered after 12 months	(848,554)	(13,673,065)	-	-
Total deferred tax liabilities	<u>(4,569,344)</u>	<u>(35,095,203)</u>	<u>-</u>	<u>-</u>

25.2 Deferred tax

Deferred tax assets and liabilities are as follows:

(Unit : Baht)

	Consolidated F/S				
	Recognize			Exchange differences from financial statement translation	31 December 2022
	1 January 2022	Profit or loss	Other comprehensive income		
Deferred income tax assets:					
Employee benefits obligation	40,945,207	2,783,757	318,857	-	44,047,821
Fixed asset	67,126,832	22,634,065	-	100,862	89,861,759
Loss carry forward	85,116,110	8,265,534	-	-	93,381,644
Provision for warranty	9,939,267	1,923,619	-	(17,806)	11,845,080
Work in progress	38,772	-	-	-	38,772
Contract assets	(23,039,973)	-	-	-	(23,039,973)
Subordinated perpetual debenture	861,079	-	-	-	861,079
Unrealized gain (loss) on exchange rate	97,068	(1,146,330)	-	380,127	(669,135)
Accrued construction costs	12,607,644	11,053,129	-	-	23,660,773
Trade accounts payable	-	-	-	-	-
Allowance for impairment loss	8,655,815	8,526,915	-	-	17,182,730
Reserve for expenses from lawsuits	-	(3,405,715)	-	-	(3,405,715)
Loss from change in fair value	-	7,796,795	-	-	7,796,795
Total deferred income tax assets	202,347,821	58,431,769	318,857	463,183	261,561,630
Deferred income tax liabilities:					
Fixed asset	(1,590,691)	-	-	5	(1,590,686)
Construction in progress	(848,554)	-	-	-	(848,554)
Accrued construction costs	(12,824,511)	32,060,259	-	-	19,235,748
Loss carry forward	248,469	-	-	4	248,273
Interest receivable	-	(2,852,573)	-	-	(2,852,573)
Unrealized gain (loss) on exchange rate	(20,079,916)	(1,519,256)	-	2,837,419	(18,761,752)
Total deferred income tax liabilities	(35,095,203)	27,688,429	-	2,837,419	4,569,344

Consolidated F/S

	Recognize				31 December 2021
	1 January 2021	Profit or loss	Other comprehensive income	Exchange differences from financial statement translation	
Deferred income tax assets:					
Employee benefits obligation	42,300,096	3,900,632	(5,255,521)	-	40,945,207
Fixed asset	54,167,359	12,949,230	-	10,243	67,126,832
Loss carry forward	168,554,938	(83,438,828)	-	-	85,116,110
Provision for warranty	9,270,158	667,482	-	1,627	9,939,267
Work in progress	38,772	-	-	-	38,772
Contract assets	(23,039,973)	-	-	-	(23,039,973)
Subordinated perpetual debenture	119,215	-	-	741,864	861,079
Unrealized gain (loss) on exchange rate	(1,118,628)	(842,839)	-	2,058,535	97,068
Accrued construction costs	17,304,350	(4,799,831)	-	103,125	12,607,644
Trade accounts payable	670,314	(670,314)	-	-	-
Allowance for impairment loss	7,545,717	1,091,686	-	-	8,655,815
Reserve for expenses from lawsuits	1,537,491	(1,537,491)	-	-	-
Total deferred income tax assets	277,349,809	(72,680,273)	(5,255,521)	2,933,806	202,347,821
Deferred income tax liabilities:					
Fixed asset	(1,590,696)	-	-	5	(1,590,691)
Construction in progress	(848,554)	-	-	-	(848,554)
Accrued construction costs	-	(12,824,511)	-	-	(12,824,511)
Loss carry forward	248,464	-	-	5	248,469
Unrealized gain (loss) on exchange rate	(763,529)	(19,665,878)	-	342,491	(20,079,916)
Total deferred income tax liabilities	(2,954,315)	(32,483,389)	-	342,501	(35,095,203)

(Unit : Baht)

	Separate F/S				31 December 2022
	1 January 2022	Charged to profit and loss	Credit to other comprehensive income or expense	Currency translation differences	
Deferred income tax assets:					
Employee benefits obligation	39,912,526	2,783,757	318,857	-	43,015,140
Fixed assets	22,822	-	(105,354)	4,158	(78,374)
Loss carry forward	85,114,109	8,265,534	-	-	93,379,643
Lease liabilities	2,640,312	(2,089,774)	-	-	550,538
Provision for warranty	9,921,461	1,923,619	-	-	11,845,080
Subordinated perpetual debentures	119,215	-	-	-	119,215
Unrealized gain (loss) on exchange rate	61,684	31,706	-	(122,641)	(29,251)
Reserve for expenses from lawsuits	-	-	-	-	-
Loss from change in fair value	-	7,796,795	-	-	7,796,795
Total deferred income tax assets	137,792,129	18,711,637	213,503	(118,483)	156,598,786

(Unit : Baht)

	Separate F/S				31 December 2021
	1 January 2021	Charged to profit and loss	Credit to other comprehensive income or expense	Currency translation differences	
Deferred income tax assets:					
Employee benefits obligation	41,267,414	3,900,632	(5,255,520)	-	39,912,526
Fixed assets	90,952	(68,130)	-	-	22,822
Loss carry forward	168,552,937	(83,438,828)	-	-	85,114,109
Lease liabilities	1,832,800	807,512	-	-	2,640,312
Provision for warranty	9,243,405	678,056	-	-	9,921,461
Subordinated perpetual debentures	119,215	-	-	-	119,215
Unrealized gain (loss) on exchange rate	170,695	-	-	(109,011)	61,684
Reserve for expenses from lawsuits	1,537,490	(1,537,490)	-	-	-
Total deferred income tax assets	222,814,908	(79,658,248)	(5,255,520)	(109,011)	137,792,129

25.3 Income tax

Income tax recognized in profit or loss

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	For the years ended 31 December			
	2022	2021	2022	2021
Current income tax				
Domestic income tax	1,148,612	858,104	1,148,612	858,104
Overseas income tax	63,646,583	16,908,044	230,409	131,145
Deferred tax from temporary differences	(86,120,197)	105,163,662	(18,711,637)	79,658,248
Total income tax	21,325,002	122,929,810	(17,332,616)	80,647,497

The weighted average applicable tax rate for the Group and the Company was 9.88% and 0.39%, respectively (2021: 20.00% and 16.66%, respectively).

Income tax recognized in other comprehensive income

	(Unit : Baht)					
	Consolidated F/S					
	2022			2021		
	Before tax	Tax (expense) benefit	Net of tax	Before tax	Tax (expense) benefit	Net of tax
Remeasurement on retirement benefits obligations	1,594,284	(318,857)	1,275,427	26,277,604	(5,255,520)	21,022,084

	(Unit : Baht)					
	Separate F/S					
	2022			2021		
	Before tax	Tax (expense) benefit	Net of tax	Before tax	Tax (expense) benefit	Net of tax
Remeasurement on retirement benefits obligations	1,594,284	(318,857)	1,275,427	26,277,604	(5,255,520)	21,022,084

Reconciliation of effective tax rate

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Accounting profit before income tax	655,553,183	415,368,630	350,028,788	25,795,868
Tax rate for parent company (%)	20	20	20	20
Income tax at corporation tax rate	131,110,637	83,073,726	70,005,758	5,159,174
Adjustment for :				
Income not subject to tax	(14,436,191)	(694,219)	(29,820,642)	(14,629,582)
Profit from disposal of subsidiary	-	(33,059,523)	-	-
Expenses not deductible for tax purpose	(61,330,300)	124,974,401	(43,741,052)	99,758,361
Tax losses for which no deferred income tax asset was recognized	7,042,790	4,172,627	-	-
Share of profit of joint venture	(40,728,078)	(44,526,654)	-	-
Employee benefit obligation	(2,783,756)	(3,900,632)	(2,783,756)	(3,900,632)
Interest payment for subordinated perpetual bond	(8,462,329)	(8,750,000)	(8,462,329)	(8,750,000)
Unrealised loss (gain) on exchange rate	(27,944,694)	2,349,038	68,123	169,318
Tax effect from different tax rates of foreign entities	(3,793,081)	(708,954)	(2,598,718)	2,840,858
Net	(21,325,002)	122,929,810	(17,332,616)	80,647,497

On 17 June 2019, the Revenue Department approved the company's international business centre (IBC) application. Its IBC operations are management and administrative support services and technical support services. The tax privileges period is 15 accounting periods to the year ending 31 December 2033, starting from the first accounting period, which runs from 1 June 2019 to 31 December 2019. If the Company doesn't meet the privilege requirements in any accounting period, the tax privileges is suspended for only that accounting period.

26. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The changes in the Group's liabilities arising from financing activities can be classified as follows;

(Unit : Baht)

	Consolidated F/S				
	Lease Liabilities	Short - term loans	Long - term loans	Debentures	Total
1 January 2022	209,824,550	1,880,083,168	-	1,099,742,859	3,189,650,577
Cash-flows:			-		
- Repayment	(68,570,054)	(6,272,754,218)	-	(1,100,000,000)	(7,441,324,272)
- Proceeds	-	5,533,225,727	-	1,470,454,320	7,003,680,047
Non-cash:			-		
- Acquisition	148,983,278	-	-	-	148,983,278
- Amortization of deferred financing fee	-	-	-	7,997,397	7,997,397
- Amortization of lease liabilities	(32,528,253)	-	-	-	(32,528,253)
- Exchange differences from financial statements translation	733,391	(5,401,296)	-	-	(4,667,905)
31 December 2022	258,442,912	1,135,153,381	-	1,478,194,576	2,871,790,869
1 January 2021	335,779,941	1,220,000,000	84,295,175	2,174,015,456	3,814,090,572
Cash-flows:					
- Repayment	(54,244,984)	(5,550,730,880)	(12,966,800)	(1,075,000,000)	(6,692,942,664)
- Proceeds	-	6,208,780,911	-	-	6,208,780,911
Non-cash:					
- Acquisition	95,109,708	-	-	-	95,109,708
- Amortization of deferred financing fee	-	-	-	727,403	727,403
- Amortization of lease liabilities	(152,878,923)	-	-	-	(152,878,923)
- Changing investment in subsidiary to financial assets	-	-	(83,358,037)	-	(83,358,037)
- Exchange differences from financial statements translation	(13,941,192)	2,033,137	12,029,662	-	121,607
31 December 2021	209,824,550	1,880,083,168	-	1,099,742,859	3,189,650,577

(Unit : Baht)

	Separate F/S				
	Lease liabilities	Short - term loans	Loans from related parties	Debentures	Total
1 January 2022	173,824,131	1,880,083,168	1,575,901,800	1,099,742,859	4,729,551,958
Cash-flows:					
- Repayment	(42,311,644)	(6,272,754,218)	(72,341,900)	(1,100,000,000)	(7,487,407,762)
- Proceeds	-	5,533,225,727	-	1,470,545,320	7,003,771,047
Non-cash:					
- Acquisition	92,735,356	-	-	-	92,735,356
- Amortization of deferred financing fee	-	-	-	7,997,397	7,997,397
- Amortization of lease liabilities	(20,168,939)	-	-	-	(20,168,939)
- Exchange differences from financial statements translation	-	(5,401,296)	40,360,050	-	34,958,754
31 December 2022	204,078,904	1,135,153,381	1,543,919,950	1,478,285,576	4,361,437,811
1 January 2021	241,304,029	1,220,000,000	980,583,600	2,174,015,456	4,615,903,085
Cash-flows:					
- Repayment	(36,811,587)	(5,550,730,880)	-	(1,075,000,000)	(6,662,542,467)
- Proceeds	-	6,208,780,911	490,531,210	-	6,699,312,121
Non-cash:					
- Acquisition	13,365,292	-	-	-	13,365,292
- Amortization of deferred financing fee	-	-	-	727,403	727,403
- Amortization of lease liabilities	(44,033,603)	-	-	-	(44,033,603)
- Exchange differences from financial statements translation	-	2,033,137	104,786,990	-	106,820,127
31 December 2021	173,824,131	1,880,083,168	1,575,901,800	1,099,742,859	4,729,551,958

27. SHARE CAPITAL

	Authorized ordinary (share)	Issued and paid-up (share)	Issued and paid-up (Baht)	Premium on share capital (Baht)	Total (Baht)
As at 1 January 2021	896,000,000	616,000,000	616,000,000	3,285,759,197	3,901,759,197
Issued of shares from exercise warrants	43	43	43	731	774
As at 31 December 2022 and 2021	896,000,043	616,000,043	616,000,043	3,285,759,928	3,901,759,971

As at 31 December 2022, the total authorised ordinary shares are 896 million shares at Baht 1 par value (31 December 2021: 896 million shares at Baht 1 par value).

28. PREMIUM ON SHARE CAPITAL FROM 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 recognized 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. PREFERRED SHARE

On 5 October 2022, TTCL Power Holding Pte. Ltd. ("TTPHD") as subsidiary, would like to notify that the Company undertook the selective capital reduction exercise to cancel all of the preference shares in the amount of 4,700,000 shares, at the value of USD 1 per share, and completed the process with regard to the registration of paid-up capital of TTPHD for the reduction in the amount of USD 4,700,000 or equivalent to Baht 118.44 million and cumulative dividend amount of USD 623,344 or equivalent to Baht 23.63 million.

On 16 August 2021, the Board of Directors' meeting of the Company, passed a resolution to pay interim dividends from non-redeemable preference shares with discretionary dividends of TTCL Power Holding Pte. Ltd. (TTPHD) for 470,000 shares with rate at 7.50% per annum totaling USD 352,200 or equivalent to Baht 11.76 million as exchange rate at 33.39 Baht per USD to pay dividends as at 30 September 2021.

On 30 September 2020, the Company registered increase in preferred shares by issuing 4,700,000 shares, at the value of USD 1. In this regard, the issuance of preference shares will not affect the controlling and managing power of the Company in TTPHD since holders of preference shares do not have voting rights but only have the right to receive dividends from operating results of TTPHD in predetermined fixed amounts. That is, the holders of preference shares will be entitled to receive dividend at the rate of 7.5 % per annum of its paid-up subscription price. Such dividend is accumulated and will be payable only out of the TTPHD's profits and TTPHD declare dividend payment. Moreover, TTPHD will have the right to purchase preference shares back at the price and condition already agreed in advance. The holders of preference shares are also entitled to convert their preference shares into ordinary shares of TTPHD upon the lapse of 3years from the subscription date at conversion rate of 1preference share per 0.26 ordinary share(s) of TTPHD.

On 30 July 2020, the Company resolved to approve the capital increase of TTCL Power Holdings Pte. Ltd. ("TTPHD"), which is a limited company incorporated under Singaporean law and a subsidiary of the Company (at present, the Company holds ordinary shares in TTPHD in the total amount of 69,500, 000 shares, representing 100 percent of the total issued shares of TTPHD), by issuing preference shares in an amount not exceeding 10,000, 000 shares, at the value of USD 1 per share, for subscription by the subscribers who are investors, including the subscription of a certain amount of newly-issued preference shares by the directors and executives of the Company, or the agents of such persons.

30. SUBORDINATED PERPETUAL DEBENTURES

At the Board of Directors Meeting No. 5/2565, convened on 14 November 2022, resolved to approve to exercise the company's early redemption rights to all of the Debenture. The Redemption Date will be on 16 December 2022. ("Date of Debenture redemption"). Details of early redemption are as follows;

1. The registered book of Subordinated Perpetual Debenture will be closed and suspend transferring on 1 December 2022.
2. TTCL will redeem all of the Debentures with a par value of THB 1,000 each together with the final interest on 16 December 2022, the interest rate at 8.75% p.a. The calculation of the interest payment will be counted from 28 September 2022 to 15 December 2022, totaling 79 days.

For the year ended 31 December 2022, the Company paid interest to the subordinated perpetual debentures holders amounting to Baht 42.31 million (2021: Baht 43.75 million). Cumulative interest which the debentures holders have received amounting to Baht 173.68 million (2021: Baht 131.37 million) and paid that amount on 16 December 2022.

31. OTHER INCOMES

	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Interest income	49,846,270	35,987,139	36,043,875	31,813,097
Gain from disposal equipment and intangible assets	265,667	672,896	265,667	672,896
Compensation from insurance claim	30,707,183	-	14,048,958	-
Other income	97,041,066	62,893,143	22,476,681	9,580,059
Total	177,860,186	99,553,178	72,835,181	42,066,052

32. EXPENSES BY NATURE

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	2022	2021	2022	2021
Construction supplies and subcontractor charges	9,110,042,646	2,072,487,410	5,720,152,150	1,200,076,727
Salaries, wages and other employee Benefits	1,368,735,900	1,216,923,576	1,297,944,234	1,075,047,232
Consultant expenses	12,835,582	53,250,426	43,691,538	57,930,822
Rental expenses	220,106,287	146,571,398	217,533,611	121,025,867
Depreciation and amortization expenses	58,187,039	64,883,786	48,396,307	43,110,319
Allowance for impairment loss	276,409,793	413,325,227	276,409,793	413,325,227
Loss on extinguishment	-	65,849,737	-	65,849,737

33. EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share

Basic earnings (loss) per share attributable to equity holders of the parent is calculated by dividing the net profit (loss) attributable to owners of the parent less cumulative interest for the period on subordinated perpetual debentures by the weighted average number of ordinary shares issued during the period.

	(Unit : Baht)			
	Consolidated F/S		Separate F/S	
	For the year ended 31 December			
	2022	2021	2022	2021
<u>Basic earnings (loss) per share</u>				
Profit (loss) attributable to shareholder of the parent company	667,445,986	289,130,829	367,361,404	(54,851,629)
<u>Less</u> Cumulative interest expenses for the year on subordinated perpetual debentures	(43,311,644)	(43,750,000)	(42,311,644)	(43,750,000)
Profit (loss) used in calculation of basic earnings per share	625,134,342	245,380,829	325,049,760	(98,601,629)
Weighted average number of ordinary shares (share)	616,000,043	616,000,043	616,000,043	616,000,043
Basic earnings (loss) (Baht per share)	1.01	0.40	0.53	(0.16)

34. LEGAL RESERVE

Pursuant to Section 116 of the Public Limited Company Act B.E. 2535, the Company is required to set aside as a statutory reserve at least 5% of its net income for the year after deducting accumulated deficit brought forward (if any) until the reserve reaches 10% of the registered capital. The legal reserve is not available for dividend distribution.

35. PROVIDENT FUND

The Company and its employees have jointly established a provident fund in accordance with the Provident Fund Act B.E. 2530. The Company contributed to the fund monthly at the rate of 2 - 9 percentage and employees contributed to the fund monthly at the rate of 2 - 6 percentage of basic salary. The fund, which is managed by UOB Asset Management (Thailand) Company Limited, will be paid to employees upon termination in accordance with the fund rules. During the years 2022 and 2021, the Company and its subsidiaries contributed Baht 29.24 million and Baht 25.18 million, respectively.

36. COMMITMENTS AND CONTINGENT LIABILITIES

As at 31 December 2022, the Group had significant obligations and contingent liabilities as follow:

Guarantees

As at 31 December 2022, the Company has guaranteed bank credit facilities for its subsidiaries and joint venture of up to USD 22 million or equivalent to Baht 764.14 million and MYR 148 million or equivalent to Baht 1,175.04 million.

As at 31 December 2022, the Group had outstanding bank guarantees in respect of certain performance bond and contractual performance as follows:

- Letter of guarantee for contractual performance as required in the normal course of the business of the Group amounting to Baht 3,247.05 million, USD 70.38 million or equivalent to Baht 2,432.50 million, SEK 40.48 million or equivalent to Baht 134.34 million, and EUR 1.14 million or equivalent to Baht 42.02 million and VND 339.51 million or equivalent to Baht 496.88 million.
- Letter of guarantee for electricity use and others amounting to Baht 8.68 million.

37. SEGMENT REPORTING

For the year ended 31 December 2022, the Group has two segments report which are comprised of energy business and construction business. Energy business is to provide service for generating and sell electricity to the government both in Thailand and overseas. Construction business is to provide construction service in Thailand and overseas. The financial information are as follows:

	Consolidated F/S								(Unit: Baht)
	For the year ended 31 December 2022								
	Energy business			Construction business					
	Myanmar	Japan	Other	Thailand	Myanmar	Vietnam	Malaysia	Other	Total
Revenues from construction and service	-	-	-	5,872,806,193	2,147,675	3,637,603,777	1,029,000,429	674,028,589	11,215,586,663
Revenue from operating the power plant	56,916,011	-	-	-	-	-	-	-	56,916,011
Total revenue	56,916,011	-	-	5,872,806,193	2,147,675	3,637,603,777	1,029,000,429	674,028,589	11,272,502,674
Costs of construction and service	-	-	-	(5,528,988,834)	(1,161,359)	(3,286,465,500)	(915,250,339)	(612,170,512)	(10,344,036,544)
Cost of operating the power plant	(11,165,036)	-	-	-	-	-	-	-	(11,165,036)
Total costs	(11,165,036)	-	-	(5,528,988,834)	(1,161,359)	(3,286,465,500)	(915,250,339)	(612,170,512)	(10,355,201,580)
Gross profit (loss)	45,750,975	-	-	343,817,359	986,316	351,138,277	113,750,090	61,858,077	917,301,094
Gross margin (%)	80%	-	-	6%	46%	10%	11%	9%	8%
Other revenues									177,860,186
Reversal allowance for doubtful accounts									570,952,236
Loss on exchange rate									(8,356,505)
Loss from change in fair value									(38,983,977)
Administrative expenses									(1,002,431,637)
Share of profit of joint venture									203,640,390
Financial cost									(164,428,604)
Income tax expense									(21,325,002)
Profit for the year									676,878,185
Revenue recognition									
Overtime	56,916,011	-	-	5,872,806,193	2,147,675	3,637,603,777	1,029,000,429	674,028,589	11,272,502,674
Segment fixed assets	-	127,767	135,187,443	214,947,092	-	2,331,403	55,486	23,922,732	376,571,923
Total assets	3,156,351	13,644,347	2,575,090,969	12,301,430,608	23,110,144	2,306,874,283	556,575,515	122,627,205	17,902,509,422

For the year ended 31 December 2021, the Group has four segments report which are comprised of energy business, construction business, manufacturing and distribution of white pallets and Torrefaction Technology License Provider. Energy business is to provide service for generating and sell electricity to the government both in Thailand and overseas. Construction business is to provide construction service in Thailand and overseas. Manufacturing business and sale white pallets in domestic and lisensor. The financial information are as follows:

(Unit : Baht)

	Consolidated F/S									
	For the year ended 31 December 2021									
	Energy business			Construction business			Manufacturing business		Licensor	
	Thailand	Myanmar	Japan	Thailand	Myanmar	Vietnam	Malaysia	Other	Vietnam	Other
Revenues from construction and service	-	-	-	2,870,809,372	3,528,907	2,321,045,539	832,922,988	264,817,273	-	-
Revenue from operating the power plant	841,513	50,318,462	-	-	-	-	-	-	-	-
Revenue from sale	-	-	-	-	-	-	-	-	1,797,930	960,436
Total revenue	841,513	50,318,462	-	2,870,809,372	3,528,907	2,321,045,539	832,922,988	264,817,273	1,797,930	960,436
Costs of construction and service	-	-	-	(2,556,557,965)	(3,385,008)	(1,965,899,014)	(678,963,555)	(251,010,659)	-	-
Cost of operating the power plant	(2,169,466)	(10,533,183)	-	-	-	-	-	-	-	-
Cost of goods sold	-	-	-	-	-	-	-	-	(5,541,250)	(1,799,677)
Total costs	(2,169,466)	(10,533,183)	-	(2,556,557,965)	(3,385,008)	(1,965,899,014)	(678,963,555)	(251,010,659)	(5,541,250)	(1,799,677)
Gross profit (loss)	(1,327,953)	39,785,279	-	314,251,407	143,899	355,146,525	153,959,433	13,806,614	(3,743,320)	(839,241)
Gross margin (%)	-	79.07%	-	10.95%	4.08%	15.30%	18.48%	5.21%	-	-
Other revenues	-	-	-	-	-	-	-	-	-	-
Gain on disposal in investment in subsidiaries	-	-	-	-	-	-	-	-	-	-
Gain on deem disposal classification investment	-	-	-	-	-	-	-	-	-	-
Gain on exchange rate	-	-	-	-	-	-	-	-	-	-
Loss on extinguishment	-	-	-	-	-	-	-	-	-	-
Administrative expenses	-	-	-	-	-	-	-	-	-	-
Share of profit of joint venture	-	-	-	-	-	-	-	-	-	-
Financial cost	-	-	-	-	-	-	-	-	-	-
Income tax expense	-	-	-	-	-	-	-	-	-	-
Profit for the year	-	3,052,148	10,816,058	9,688,130,871	29,282,215	1,047,039,346	539,024,840	29,981,153	134,994,046	216,659
Revenue recognition	-	-	-	-	-	-	-	-	-	-
Overtime	841,513	50,318,462	-	2,870,809,372	3,528,907	2,321,045,539	832,922,988	264,817,273	-	-
Point in time	-	-	-	-	-	-	-	-	1,797,930	960,436
Total revenue	841,513	50,318,462	-	2,870,809,372	3,528,907	2,321,045,539	832,922,988	264,817,273	1,797,930	960,436
Segment fixed assets	-	-	270,197	78,267,448	-	1,494,131	55,709	-	134,994,046	216,659
Total assets	-	3,052,148	10,816,058	9,688,130,871	29,282,215	1,047,039,346	539,024,840	29,981,153	135,004,796	9,456,469

Major customers

For the year ended 31 December 2022, the Group had revenues from 3 major customers who contributed 38.57% of the Group's total revenue, which was approximately Baht 4,347.33 million (2021: the Group had revenue from 2 major customers which contributed 48.77% of the Group's total revenues, totaling approximately Baht 3,005.84 million).

38. FAIR VALUE

The following table presented financial assets and liabilities that are measured at fair value in each level including fair value of financial assets and liabilities.

(Unit : Baht)				
Transactions	Consolidated F/S			
	Level 1	Level 2	Level 3	Total
Financial assets				
through profit or loss	-	518,016,382	-	518,016,382
Total financial assets	-	518,016,382	-	518,016,382

(Unit : Baht)				
Transactions	Separate F/S			
	Level 1	Level 2	Level 3	Total
Financial assets				
Financial assets measured at fair value				
through profit or loss	-	506,766,382	-	506,766,382
Total financial assets	-	506,766,382	-	9,141,026,414

39. LITIGATIONS

As at 31 December 2022, the Group had litigations as follows:

- 39.1 On 11 September 2019, the plaintiff as subcontractor in Malaysia has filed a statement of claim to a subsidiary of the Group that the subsidiary of the Group has breached on the agreement and termination of the agreement has caused damage to the plaintiff. The plaintiff claimed in amount of MYR 142.43 million (or equivalent to Baht 1,058.14 million) are as follows: a) payment for outstanding milestone in the part that subcontractor determines to receive apart from the agreement b) general damages to be assessed arising out of allegedly by the subsidiary of the Group beaches under the agreement and the termination of the agreement c) interest on the amount awarded and d) other costs.

On 10 October 2019, the subsidiary of the Group has submitted a statement of defense and counterclaim to the arbitral in response to the statement of claims as follows: a) payment instead of subcontractor in amount of MYR 68.19 million or equivalent to Baht 506.74 million b) damages for the repair works on the cooling basin leakage under the agreement to be assessed c) interest on a) and b) and d) other costs. The estimate general damages by subcontractor deduct the payment for outstanding milestone from the subsidiary of the Group including the damages under the counterclaim the subsidiary of the Group cause subcontractor will pay for general damages to the subsidiary of the Group in amount of MYR 26.72 million. The subsidiary of the Group received payment under the Bank guarantee in amount of MYR 14.90 million. The subcontractor still has outstanding in amount of MYR 11.80 million (or equivalent to Baht 87.69 million).

On 12 December 2019, the Arbitration Tribunal has called for a preliminary meeting and issued the Order for Directions in respect of procedures and directions to the parties. On 27 January 2020, the plaintiff has filed and served their statement of claim. And the subsidiary of the Group will be filing their statement of defense and counterclaim on 16 March 2020 as directed by the Tribunal. The subcontractor has filed the petition rejecting the Group's statement of defense and counterclaim on 3 June 2020. The subsidiary of the Group submitted the statement of defense against the subcontractor again on 24 June 2020.

On 9 August 2021, both parties have submitted their witness statement as directed by the tribunal. Both parties are obliged to submit a statement of defense against each party's witness statement on 7 March 2022. However, both parties agreed to extend the submission of statement of defense against each party's witness statement to 1 June 2022.

On 1 June 2022, both parties have submitted statement of defense against each party's witness statement and on 13 September 2022, both parties have submitted additional statement of defense. Each party independent expert's opinion was submitted on 31 October 2022. However, the joint opinion from both parties' independent expert will be submitted on 1 February 2023. The next appointment of examination is scheduled between 20 February to 15 March 2023.

On 3 October 2020, the Company received the court summon from subcontractor. The subcontractor has filed the civil case against the Company, claiming that the Company is a guarantor of its subsidiary, in accordance with the Parent Company Guarantee. The plaintiff has filed a statement of claim in amount of MYR 172.30 million (or equivalent to Baht 1,314.44 million) including the interest at the rate of 7.50% per annum from the filing date until the entire amount has been settled effective since 23 November 2020. The Company has filed the petition to the court to consider and make decision on the Court Jurisdiction in according to the Arbitration Act and the Establishing Central Intellectual Property and International Trade Court Act including trial the Central Intellectual Property and International Trade cases. The Company petite to strike out the case since the case is related to the Court Jurisdiction. Due to the pandemic of Covid-19 in Thailand, The Court make new appointment for examination of the petition on 6 June 2022.

On 6 June 2022, the Court has begun to examine the petition from the subcontractor and scheduled a hearing on 9 August 2022. However, the hearing has been postponed to 27 October 2022, in which on that day the Court had started the investigation process and scheduled the hearing on 16 January 2023.

Both parties have submitted each party's witness statement on 25 October 2022. Both parties are due to submit the statement of defense against the other party's witness statement on 17 November 2022. However, the joint opinion from both parties' independent expert had been scheduled for submission on 24 February 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the date scheduled for the arbitral tribunal to grant the final award is not due yet and uncertainly in final examination from the court.

- 39.2 On 25 December 2018, the Group (as claimant) submitted the statement of claim to the Thai Arbitration Institute, Office of Judiciary ("TAI"), relating to the breach of the turnkey contract for the onshore construction, onshore supply and offshore supply work for the Lat Krabang Power Plant Project against the project owner (as the respondent) for liable as follows: (a) outstanding milestone payments and the cost of variation, plus the default interest of 12% calculated up to the submission of this statement of claim in amount of Baht 340.09 million, SEK 21.94 million and USD 0.03 million (b) the default interest at the rate of 12% per annum for the outstanding payment in (a) from the date of submission of this statement of claim (c) return the advance payment bonds and the performance payment bonds, including pay the bonds fee paid by the Group to the issuing bank in amount of Baht 1.99 million, USD 0.05 million and SEK 0.55 million d) damages on the loss of opportunity cost of Baht 500 million (e) issue the Provisional Acceptance Certificate ("PAC") specifying the date on which all conditions of the PAC were satisfied and issue the final PAC to the Group and state that the conditions of final acceptance have been fully satisfied and (f) pay in full the fees and expenses of the arbitrators, the Centre's administrative expenses and all costs incurred by the Group in connection with these arbitral proceedings, particularly without limitation to legal fees and expenses.

On 19 August 2019, the respondent has submitted the statement of defense and counterclaim to the TAI, denying the allegations set forth in the statement of claim, and demanded that the Group indemnify the respondent for debt arising from the breach of contract, for example: costs borne by the respondent for rectification or replacements of non-compliance assets, damages for delay, and damages due to the Group's failure to achieve the performance guarantee, additional expenses for the construction of the transmission lines, business interruption, as well as other damages and expenses in amount of Baht 1,611.56 million.

On 10 October 2019, the arbitration appointed by each Party appointed the Chairman of the arbitral tribunal. The Tribunal then granted the respondent's request to amend its statement of defense and counterclaim and ordered that the Group file an additional answer to counterclaim by 25 December 2019.

On 6 February 2020, the Tribunal directed that the issues in dispute for the proceedings are whether the Claimants, as members of the Consortium, are authorized to file the Statement of Claim to demand the Respondents bear liability in accordance with Turnkey Contract and whether the Claimants or the Respondents, is in breach of the Turnkey Contract; and to what extent the breaching party shall be liable for damages for the non-breaching party. Both Parties shall submit the list of witnesses, witness statements, and evidence by 24 August 2020. The next appointment for witness examination is scheduled for 30 October 2020. Both Parties are to submit the closing statement to TAI by 7 March 2021.

On 19 February 2021, both parties had already examined their witnesses. In the meantime, the Arbitral Tribunal rescheduled to issue the award once the witness hearing in the breach of the Turnkey Contract for the onshore construction, onshore supply and offshore supply work for the Bangpoo Power Plant Project against project owner shall be finished and the closing statement to TAI by 10 February 2022. The Arbitral Tribunal scheduled to render the Award on 12 March 2022. Later, the Arbitral Tribunal request to TAI to extend the time for issuance of the Award.

On 9 August 2022, the Claimants filed an objection in the Chairman and the Arbitral Tribunal's order to the Southern Bangkok Civil Court. The Chairman of the Arbitral Tribunal has already submitted the Statement of Defense to the court. The Southern Bangkok Civil Court has scheduled for the first appointment on 17 October 2022.

On 10 August 2022, the Arbitral Tribunal issued an Award in this dispute as to Red Case No. 48/2565 and 49/2565 with an Award that the Turnkey Contract has been terminated since 8 June 2017 and the Claimants shall receive the cost of variation works in amount of 37,045,965.00 baht and the outstanding payment for milestone no. 7 (Scope of 2nd claimant work) in amount of 16,629,635.04 SEK from the Respondent, while the Respondent receives payment from the Claimants in the total amount of 83,437,432.42 baht. Subsequently, on 13 September 2022, the Respondent submitted the Request to amend or explicate an award to TAI. The Arbitral Tribunal set an Appointment to consider the Request to amend or explicate an Award on 10 October 2022.

On 10 October 2022, the Arbitral Tribunal issued the Arbitral' s order about the Request to amend or explicate an Award that the sums that both Claimants have a duty to be liable to the Respondent increased by the amount: 48,696,324.23 baht because the award on the topic of "L/D performance is not be matching " was added to the arbitral award on the summary. And, regarding the amendment of the date of specifying the award to cause the period for calculating the interest rate of 12 percent increases. On the contrary, the amount of money that the Respondent has a duty to be liable to both Claimants reduced to the amount: 37,742,717.59 baht due to an error in bringing the numbers from other items to specify in the award therefore need to be corrected.

In this regard, the Claimants have considered an award dated 10 August 2022 and 10 October 2022 and found that the majority of the Arbitral Award was unlawful and will continue to request the revocation of the Arbitral Award in accordance with the Arbitration Act B.E. 2545 Section 40.

On 17 October 2022, which is the first court's appointment in the case of the objection in the Chairman and the Arbitral Tribunal's order at the Southern Bangkok Civil Court, the court scheduled the witness examination of both claimants and Respondents since the Respondent filed the Statement of Defense to the court during 7 - 8 March 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

- 39.3 On 25 December 2018, the Group (as claimant) submitted the statement of claim to the TAI, relating to the breach of the Turnkey Contract for the onshore construction, onshore supply and offshore supply work for the Bangpoo Power Plant Project against project owner (as respondent) for liable as follows: (a) outstanding milestone payments, the cost of standby manpower and the cost of variation, plus the default interest of 12% calculated up to the submission of this statement of claim in amount of Baht 555.89 million, SEK 41.64 million and USD 0.05 million (b) the default interest at the rate of 12% per annum for the outstanding payment in (a) from the date of submission of this statement of claim (c) return the advance payment bonds and the performance payment bonds, including paying the bonds fee paid by the Group to the issuing bank in amount of Baht 3.69 million, USD 0.09 million and SEK 1.09 million (d) damages on loss of opportunity cost in the total amount of Baht 1,000 million (e) issue the Provisional Acceptance Certificate ("PAC") specifying the date on which all conditions of the PAC were satisfied and issue the final PAC to the Group and state that the conditions of final acceptance have been fully satisfied and (f) pay in full the fees and expenses of the arbitrators, the Centre's administrative expenses and all costs incurred by the Group in connection with these arbitral proceedings, particularly without limitation to legal fees and expenses.

On 13 August 2019, the respondent has submitted the statement of defense and counter claim to the TAI, denying the allegations set forth in the statement of claim, and demanded that the Group indemnify the respondent for debt arising from the breach of contract, for example: costs borne by the respondent for rectification or replacements of non-compliance assets, damages for delay, and damages due to the Group's failure to achieve the performance guarantee, additional expenses for the construction of the transmission lines, business interruption, as well as other damages and expenses in amount of Baht 4,247.64 million.

On 10 October 2019, the arbitration appointed by each party appointed the Chairman of the arbitral tribunal. The Tribunal then granted the respondent's request to amend its statement of defense and counterclaim and ordered that the Group file an additional answer to counterclaim by 25 December 2019.

On 6 February 2020, the Tribunal directed that the issues in dispute for the proceedings are whether the Claimants, as members of the Consortium, are authorized to file the Statement of claim to demand that the Respondents bear liability in accordance with Turnkey Contract and whether the Claimants or the Respondents, is in breach of the Turnkey Contract; and to what extent the breaching party shall be liable for damages for the non-breaching party. Both Parties shall submit the list of witnesses, witness statement, and evidence by 4 August 2021. On 30 July 2021, the Arbitral Tribunal, the Claimants, and the Respondent discuss a motion for an extension of the witness statement submission date due to difficulties caused by the current Covid-19 pandemic in Thailand. The Arbitral Tribunal approved for an extension for witness statement submission within 3 September 2021. The Arbitral Tribunal postpone the first appointment for witness examination shall be on 5 October 2021.

On 29 October 2021, the Claimants' witness hearing examination was completed. The respondents' witness hearing examination was completed on 19 November 2021. Both Parties will be submitted the closing statement to TAI by 10 February 2022. The Arbitral Tribunal scheduled to render the Award on 12 March 2022. Later, the Arbitral Tribunal request to TAI to extend the time for issuance of the Award.

On 9 August 2022, the Claimants filed an objection in the Chairman and the Arbitral Tribunal's order to the Southern Bangkok Civil Court. The Chairman of the Arbitral Tribunal has already submitted the Statement of Defense to the court. The Southern Bangkok Civil Court has scheduled for the first appointment on 17 October 2022.

On 10 August 2022, the Arbitral Tribunal issued an Award in this dispute as to Red Case No. 50/2565 and 51/2565 with an Award that the Turnkey Contract has been terminated since 2 May 2017 and the Claimants shall receive the cost of variation works in amount of 84,723,426.58 baht and the outstanding payment for milestone no. 1-7 and 2-7 (Scope of 2nd claimant work) in amount of 33,764,502.70 SEK from the Respondent, while the Respondent receives payment from the Claimants in the total amount of 393,120,573.21 baht. Subsequently, on 16 September 2022, the Respondent submitted the Request to amend or explicate an award to TAI. The Arbitral Tribunal set an Appointment to consider the Request to amend or explicate an Award on 10 October 2022.

On 10 October 2022 the Arbitral Tribunal issued the Arbitral' s order about the Request to amend or explicate an Award that the sums that the Claimants have a duty to be liable to the Respondent increased by the amount: 5,038,961.34 baht due to the amendment of the date in specifying the award, cause the period for calculating the interest rate of 12 percent increases.

In this regard, the Claimants have considered an award dated 10 August 2022 and 10 October 2022 and found that the majority of the Arbitral Award was unlawful and will continue to request the revocation of the Arbitral Award in accordance with the Arbitration Act B.E. 2545 Section 40.

On 17 October 2022 which is the first court's appointment in the case of the objection in the Chairman and the Arbitral Tribunal's order at the Southern Bangkok Civil Court, the court scheduled the witness examination of both claimants and Respondents since the Respondent filed the Statement of Defense to the court on 2-3 May 2023

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

- 39.4 On 26 March 2021, the Claimants filed a Request for Arbitration with the INTERNATIONAL CHAMBER OF COMMERCE in Singapore. The disputes between the Claimants and the Respondents concern work performed under various contracts and agreements entered into between the parties for the EPCC Work located in Malaysia. The value of the claims made by the Claimants amounts to USD 65.51 million consists of (1) the cost to complete works USD 26.67 million; (2) financial cost USD 0.96 million; and (3) delay damages USD 37.88 million.

On 5 May 2021, TTCL filed its Answer to Request for Arbitration & Counterclaim in the Arbitration. Since both parties have entered into many contracts, therefore, the Company has filed a Jurisdictional Challenge to determine the Claimants' entitlement. The Tribunal agrees to consider about the Jurisdiction, however, requested both parties to commence with the arbitration process in order to gather more information.

On 8 July 2021, the three-member tribunal was constituted and it has issued its draft of the Terms of Reference ("TOR") for the arbitration. The Claimant has filed the Statement of Claims on 8 October 2021. The Company is to file its Statement of Defense and Counterclaim on 12 November 2021.

The Claimant has to file a petition for rejecting the Company's Statement of Defense and Counterclaim on 10 December 2021. The Company must submit the statement of defense against the Claimant's petition on 14 January 2022. The tribunal will examine the Jurisdictional of the arbitration on 3 March 2022.

On 9 May 2022, the tribunal has decided that the claim can be proceed in accordance with the procedure of the ICC international Court of Arbitration. However, the scope related to the Jurisdictional challenge will be determined on a case-by-case basis. The tribunal ordered both parties to conclude witness document by 25 August 2022.

Both parties have submitted each party's witness statement on 25 October 2022. Both parties are due to submit the statement of defense against the other party's witness statement on 17 November 2022.

- 39.5 On 22 March 2022, the Owner (as claimant) initiated an arbitration lawsuit to Vietnam International Arbitration Center (VIAC) against the Company (as respondent) relating to the construction of fertilizer plant. The Owner requests the Company to pay the total amount of USD 3.89 million and VND 4,436.19 million or equivalent to USD 4.08 million.

On 18 May 2022, the Company received the notice on arbitration proceedings and the Owner's request for arbitration from VIAC.

On 8 June 2022, the Company has submitted its Statement of Defense and submits the Statement of Counterclaim requesting the Owner for the payment of USD 4.81 million. The Company also submitted an objection for the selection of arbitrator nominated by the Owner to VIAC.

On 18 November 2022, VIAC had conducted the first hearing and conducted the second hearing on 26 November 2022. The final hearing was held on 20 December 2022, in which the Company is still waiting for the official award to be issued.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

- 39.6 On 30 November 2022, the Financial Institution (as the Plaintiff) has filed the petition to Bangkok South Civil Court for payment under the Performance Bonds issued to the project owner for domestic projects in the total amount of Baht 693.00 million as the Plaintiff had made the payment of such amount on 6 October 2022.

However, the Plaintiff had to refund the excess of the Bond fees which are deducted from the Company's account (as the Defendant) in advance in the amount of Baht 1.90 million. Therefore, the balance of the net principle amount of Baht that the Plaintiff claimed is 691.10 million, plus interest at the rate of 14% per annum of the principal amount.

On 30 January 2023, the Court scheduled an appointment for settlement of issues and setting the guidelines for proceeding or plaintiff's witness examination and the Defendant due to file the statement of defense within 8 March 2023.

As at 31 December 2022, the Company's management considered not to set up provision for contingent liabilities as a result of the final award is not due yet and uncertainly in final examination from the court.

40. SIGNIFICANT CONTRACTS

Interest rate swap contract

On 28 May 2020, Toyo Thai Power Myanmar Co., Ltd., a joint venture, entered into an Interest Rate Swap (IRS) contract to manage the exposure of its floating rate loan to interest rate risk from long-term loan amount of USD 40 million. With the IRS contract, the Company receives interest at a floating rate based on 3-months LIBOR and pays interest at a fixed rate of 0.37 % per annum from 17 July 2020 to 17 October 2024.

On 26 May 2022 the Company entered into an Interest Rate Swap (IRS) contract to manage the exposure of its interest rate from the debenture issuance amount of THB 750 million. With the IRS contract, the Company pays interest at a floating rate based on 3-month THOR and receives interest at a fixed rate 1.57% per annum from 27 July 2022 to 27 September 2024.

Service concession arrangements

Toyo Thai Power Myanmar Co., Ltd., a joint venture, 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 Co., Ltd., a joint venture, entered into land rental contract with Ministry of Electric of Myanmar. The term of this agreement began on the agreement date and will continue for 30 years from 15 May 2013 onwards.

41. EVENT AFTER REPORTING PERIOD

41.1 Incremental in subsidiary's share capital

On 11 January 2023, the Board of Directors' meeting of NT Biomass Products Company Limited (NTBC), a subsidiary holding 51% of shares and TTCL Bio Company Pte. Ltd. (TTBC) holding 49% of shares, resolved to increase registered capital by 3.83 million shares at a price of 100 Baht per share, totaling amount of Baht 383 million to invest in manufacturing and distribute biomass energy.

- On 26 January 2023, the Company has first partial payment, totaling amount of Baht 78.13 million and on 30 January 2023, TTCL Bio Company Pte. Ltd. (TTBC) has partial payment totaling amount of Baht 75.07 million.
- On 1 February 2023, the Company has second partial payment, totaling amount of Baht 39.07 million and TTCL Bio Company Pte. Ltd. (TTBC) has partial payment totaling amount of Baht 37.53 million.

On 16 January 2023 and 16 February 2023, TTCL Power Holding Pte. Ltd. (TTPHD) as subsidiary, registered increase in preferred shares by issuing 5,000,000 shares and 2,500,000 shares, respectively, at the value of USD 1.

On 2 February 2023, the Company paid tranche 3 according to the conditions in the share purchase agreement on 23 January 2023 to purchase share capital of Blackwood Technology B.V.'s share capital amount of EUR 1.5 million or equivalent to Baht 54.06 million, 20,840 shares which is 25% of total share capital. Therefore, the incremental in investment of the Company affected to change of shareholding in Blackwood Technology B.V. from 70% to 95%.

On 16 February 2023, the Board of Directors' meeting of TTCL Bio Company Pte. Ltd. (TTBC), a subsidiary holding 75% of shares and TTCL Power Holding Pte. Ltd. (TTPHD) holding 25% of shares, resolved to increase registered capital by 3.53 million shares at a price of 1 USD per share, totaling amount of USD 3.53 million to invest in manufacturing and distribute biomass energy.

- On 25 January 2023, the Company has first partial payment, totaling amount of USD 1.76 million or equivalent to Baht 58.02 million and on 26 January 2023, TTPHD has partial payment totaling amount of USD 0.59 million.
- On 14 February 2023, the Company has second partial payment, totaling amount of USD 0.89 million or equivalent to Baht 30.07 million and TTPHD has partial payment totaling amount of USD 0.30 million.

41.2 Establishment of subsidiaries

On 28 February 2023, the Board of Directors meeting of the Company resolved to establish a subsidiary registered in Thailand. The company holds 100% of the total registered capital to invest in business of the providing raw materials in biomass energy production, registered capital of 846,210 shares at a price of 100 Baht per share or equivalent to 84.62 million Baht.

42. AUTHORISATION OF FINANCIAL STATEMENTS

These financial statements were authorized by the Company's director on 28 February 2023.

ATTACHMENT 1

INFORMATION OF THE BOARD OF DIRECTORS, EXECUTIVES, CONTROLLING PERSONS AND COMPANY SECRETARY

Board of Directors (as of December 31, 2022)



Mr. Tiwa Jaruke

Chairman of the Board
of Directors



Mr. Hironobu Iriya

Director



Mrs. Nijaporn Charanachitta

Director



Dr. Seiichi Itakura

Director



Mr. Eiji Hagiwara

Director



Mr. Wanchai Ratinthorn

Director



Ms. Kantika Tanthuvanit

Director



Mr. Brett Lollback

Director



Pol. Lt. Sivaraks Phinicharomna

Independent Director



Dr. Ryuzo Nagaoka

Independent Director



Mr. Suvit Manomaiyanon

Independent Director



Mr. Nattachat Charuchinda

Independent Director

Sub-committee

Audit Committee

- **Pol. Lt. Sivaraks Phinicharomna**
Chairman
- **Dr. Ryuzo Nagaoka**
Committee Member
- **Mr. Suvit Manomaiyanon**
Committee Member

Corporate Governance Committee

- **Mr. Suvit Manomaiyanon**
Chairman
- **Mr. Chamnarn Atsanatam**
Committee Member
- **Mr. Jatuporn Sangwarn**
Committee Member
- **Ms. Jaruwan Sookthauyart**
Committee Member
- **Mr. Paibun Sribanphai**
Committee Member
- **Mr. Nuttapol Sinkajohn**
Committee Member
- **Ms. Mallika Charoensap**
Committee Member

Nomination & Remuneration Committee

- **Dr. Ryuzo Nagaoka**
Chairman
- **Mr. Suvit Manomaiyanon**
Committee Member
- **Mr. Wanchai Ratinthorn**
Committee Member

Risk Management Committee

- Mr. Suvit Manomaiyanon**
Chairman
- Ms. Suratana Trinratana**
Committee Member
- Mr. Wanchai Ratinthorn**
Committee Member
- Ms. Pennapa Sakchaichrearnkul**
Committee Member
- Mr. Somchai Chansiripongse**
Committee Member

Board of Management (as of December 30, 2022)

01 **Mr. Hironobu Iriya** President & CEO

02 **Mr. Wanchai Ratinthorn** Chief Operation Officer (COO)

03 **Ms. Pennapa Sakchaichrearnkul** Chief Financial Officer
Vice President Finance & Accounting Division

04 **Mr. Brett Lollback** Director, Vice President
Unit Operation Officer
EPC Business Unit

05 **Mr. Somchai Chansiripongse** Vice President
Project Execution
EPC Business Unit

06 **Mr. Chamnarn Atsanatam** Vice President Uni
Energy Business Unit
Power Unit

07 **Mr. Suchet Watchalayan** Vice President
New Business Unit

08 **Mr. Shinichi Naruuchi** Vice President
Unit Operation Officer
Energy Business Unit

09 **Mr. Toshihiro Sasanuma** Vice President
Bio Unit
Energy Business Unit

Name - Surname : **Mr. Tiwa Jaruke**

Current Position : Director
(Authorized to Bind the Company)
: Advisor
Thailand and Vietnam



Years of Age : 69 years

Nationality : Thai

Education : Bachelor's Degree Faculty of Engineering (Civil Engineering)
Chiang Mai University

Director Training :

23 November 2021 : Chairman Forum
: Chairing a Virtual Board Meeting
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)

Knowledge and Skills Development :

1 March 2019 : Management Accounting for Planning and Decision Making
by Federation of Accounting Profession

Years of being Board of Directors : 15 years (2008 - Present)

Working Experience :

1 January 2023 - Present : Director
TTCL Public Company Limited
1 March 2021 - 31 December 2022 : Chairman of the Board of Directors
TTCL Public Company Limited
1 March 2021 - Present : Advisor Thailand and Vietnam
TTCL Public Company Limited

June 2020 - 28 February 2021	:	Senior Vice President, Special Task Thailand & Vietnam TTCL Public Company Limited
October 2018 - 28 February 2021	:	Vice Chairman of the Board of Directors TTCL Public Company Limited
2014 - 30 December 2020	:	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 - May 2020	:	Senior Vice President Project Proposal & Engineering Division TTCL Public Company Limited
2010 - 4 May 2021	:	Nomination and Remuneration Committee TTCL Public Company Limited
2009 - Present	:	Director Global New Energy Company Limited
2009 - 30 June 2021	:	Director and Managing Director Bio Natural Energy Company Limited
2009 - 2010	:	Senior Vice President Proposal Engineering and General Admin. TTCL Public Company Limited
2008 - September 2018	:	Director TTCL Public Company Limited
2006 - 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 : 7,194,300 shares equivalent to 1.17% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 7 meetings from total of 7 meetings (100%)

The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Hironobu Iriya**

Current Position : Chairman of the Board of Directors
(Authorized to Bind the Company)
: BOM General Advisor



Years of Age : 68 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 : 15 years (2008 - Present)

Working Experience :

1 January 2023 - Present	: Chairman of the Board of Directors : BOM General Advisor TTCL Public Company Limited
13 December 2022 - Present	: Director, NT Biomass Products Company Limited
1 March 2021 - 31 December 2022	: Director TTCL Public Company Limited
28 August 2020 - Present	: Director TTCL Bio Company Pte. Limited
25 May 2020 - Present	: Director Myanmar BKB Power Company Limited
2020 - Present	: Director Idemitsu Green Energy Vietnam Limited Company (Former named Ha Tien Energy Corporation)
19 December 2019 - Present	: Director TMSP Sdn.Bhd.
27 September 2018 - Present	: Chairman & Director TTCL Power Myanmar Company Limited
18 May 2018 - Present	: Director TTCL LNG Power Pte. Ltd.

2015 - Present	: Chairman of the Board of Directors TTCL Myanmar Engineering & Construction Company Limited
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. : Chairman of the Board of Directors TTCL Power Holdings Pte. Ltd.
2012 - Present	: Chairman of the Board of Directors ToyoThai-Myanmar Corporation Company Limited : Chairman of the Board of Directors TTCL Gas Power Pte. Ltd.
2012 - 01 October 2022	: Chairman of the Board of Directors Toyo Thai Power Myanmar Company Limited
2011 - Present	: Chairman of the Board of Directors and Managing Director TTCL Malaysia Sdn. Bhd.
2009 - Present	: Chairman of the Board of Directors and President Global New Energy Company Limited
2008 - 31 December 2022	: President & CEO TTCL Public Company Limited
2008 - 28 February 2021	: Chairman of the Board of Directors TTCL Public Company Limited
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
2006 - 30 June 2021	: Chairman of the Board of Directors Bio Natural Energy Company Limited
1997 - 2005	: Director TTCL Vietnam Corporation Limited

Positions in other listed companies : None

Positions in non-listed companies : 18

Positions in competing : None

/Involving Business Person

No. of Shareholding in TTCL : 40,516,134 shares equivalent to 6.58% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mrs. Nijaporn Charanachitta**

Current Position : Director
(Authorized to Bind the Company)

Years of Age : 72 years

Nationality : Thai

Education : Master's Degree Faculty of Business Administration (Finance)
University of Wisconsin, U.S.A.
: Bachelor's Degree Faculty of Arts
Chulalongkorn University

Director Training :
2-22 March 2005 : Director Certification Program (DCP)
by Thai Institute of Directors Association (IOD)

Years of being Board of Directors : 15 years (2008 - Present)

Working Experience :

21 July 2007 - Present : Director
TTCL Public Company Limited

2007 - Present : Chairman of the Board of Directors
OHTL Public Company Limited
: Chairman of the Board of Directors
Amari Company Limited
: Chairman of the Board of Directors
Amari Hotel and Resort Company Limited
: Director and Nomination and Remuneration Committee
Charoong Thai Wire & Cable Public Company Limited

1994 - Present : Director and 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 : 3

- Chairman of the Board of Directors
OHTL Public Company Limited
- Director and Nomination and Remuneration Committee
Charoong Thai Wire & Cable Public Company Limited
- Director and Senior Executive Vice President
Italian-Thai Development Public Company Limited

Positions in non-listed companies : 2

Positions in competing : 1

/Involving Business Person

- Director and Senior Executive Vice President
Italian-Thai Development Public Company Limited

No. of Shareholding in TTCL : 5,297,207 shares equivalent to 0.86% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Dr. Seiichi Itakura**

Current Position : Director
(Authorized to Bind the Company)

Years of Age : 73 years

Nationality : Japanese

Education : Ph.D. of Environment and Energy Engineering
Waseda University
: Master of Electrical Engineering
Waseda University
: Bachelor of Electrical Engineering
Waseda University



Director Training :
11 March 2019 : Director Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)

Knowledge and Skills Development :
1 March 2019 : Management Accounting for Planning and Decision Making
by Federation of Accounting Profession

Years of being Board of Directors : 5 years (2018 - Present)

Working Experience :
28 March 2018 - Present : Director
TTCL Public Company Limited.
2015 - Present : Consultant the technical study & investigation of Large Solar
Power System & International Transmission Line (Super Grid)
Softbank Group
2014 - Present : Chief Technical Advisor Environment and Energy Technology
Research Institute, Inc.
2014 - 2017 : Consultant the Quality Management of Refinery and Petrochemical
Integrated Development (RAPID) Steam Cracker Complex
Malaysian Project Toyo Engineering Corp.
2014 - 2016 : Consultant the technical study & investigation of Large Solar
Power Station Japan Toyo Engineering Corp.

2011 - Present	: Invited Researcher Waseda University Graduate School of Environment and Energy Engineering Environmental Research Institute
2009 - 2014	: Executive Officer (General Manager of Safety, Quality and Environment Management Unit, and General Manager of Audit Unit) Toyo Engineering Corp.

Positions in other listed companies : None

Positions in non-listed companies : 3

**Positions in competing
/Involving Business Person :** None

No. of Shareholding in TTCL : 110,000 Shares (NVDR) equivalent to 0.02% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting	: 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Eiji Hagiwara**



Current Position : Director
(Authorized to Bind the Company)

Years of Age : 64 years

Nationality : Japanese

Education : Bachelor Degree of Accounting, Nihon University in Tokyo

Director Training :

24 May 2021 : Director Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)

Years of being Board of Directors : 3 years (2020 - Present)

Working Experience :

16 November 2020 - Present : Director
TTCL Public Company Limited

July 2020 -Present : Senior Executive Adviser of
Idemitsu Engineering Co., Ltd.

July 2020 - December 2020 : Senior Executive Adviser-Overseas Affiliates
Internal Control Department of
Idemitsu Kosan Co., Ltd.

July 2017 - June 2020 : Senior Executive Officer
Resource Business (Oil and Gas, Geothermal, Coal & Uranium) of
Idemitsu Kosan Co., Ltd.

July 2017 - June 2018 : General Manager
Exploration & Production
Department of Idemitsu Kosan Co., Ltd.

July 2015 - June 2017 : Executive Officer & General Manager of Coal Business Department of
Idemitsu Kosan Co., Ltd.

July 2013 - June 2015 : Executive Officer & General Manager of New Business Department of
Idemitsu Kosan Co., Ltd.

April 2012 - June 2013 : General Manager of Renewable New Energy Office of
Idemitsu Kosan Co., Ltd.

April 2011 - March 2012 : General Manager, New Business Development Office of
Idemitsu Kosan Co., Ltd.

October 2010 - March 2011	: Deputy General Manager New Business Development Office of Idemitsu Kosan Co., Ltd.
July 2007 - September 2010	: Deputy General Manager Retail Marketing Department of Idemitsu Kosan Co., Ltd.
April 1981 - June 2007	: Staff of Idemitsu Kosan Co., Ltd.

Positions in other listed companies : None

Positions in non-listed companies : 1

Positions in competing : None
/ Involving Business Person

No. of Shareholding in TTCL : None
(as of 30th December 2022)

Legal dispute in criminal cases : None
**(other than criminal case with
petty offences)**

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

Meeting Attendance in 2022 :

The Board of Director's Meeting	: 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Wanchai Ratinthorn**

Current Position : Director (Authorized to Bind the Company)
: President & CEO

Years of Age : 56 years

Nationality : Thai

Education : Bachelor's Degree Faculty of Engineering (Mechanical Engineering)
King's Mongkut University of Technology Thonburi

Director Training :

12 July 2021 : Director Accreditation Program (DAP)
20 June 2016 : Ethical Leadership Program (ELP)
by Thai Institute of Directors Association (IOD)

Knowledge and Skills Development :

1 March 2019 : Management Accounting for Planning and Decision Making
by Federation of Accounting Profession

Years of being Board of Directors : 2 year (2021 - Present)

Working Experience :

1 January 2023 - Present : President & CEO
TTCL Public Company Limited
13 December 2022 - Present : Director
NT Biomass Products Company Limited
5 May 2021 - 3 January 2023 : Nomination and Remuneration Committee
TTCL Public Company Limited
21 April 2021 - Present : Director
TTCL Public Company Limited
1 March 2021 - 3 December 2022 : Chief Operation Officer (COO)
TTCL Public Company Limited
1 January 2021 - Present : Director, TTCL Coal Power Pte. Ltd.
1 January 2021 - Present : Director, TTCL LNG Power Pte. Ltd.
1 January 2021 - Present : Director
Global New Energy Company Ltd.



19 December 2019 - Present	: Director TMSP Sdn. Bhd.
August 2018 - Present	: Director TTCL Solar Power Pte. Ltd.
1 July 2018 - 28 February 2021	: Corporate Control Officer (CCO) TTCL Public Company Limited
2017	: Chief Project Officer (CPO) TTCL Public Company Limited
2014 - 30 June 2018	: 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
2012 - 31 May 2019	: Director TTCL Gas Power Pte. Ltd.
2011 - Present	: Director and General Manager Project and Proposal Division TTCL Malaysia Sdn. Bhd.
2011	: Vice President Project and Proposal Division TTCL Public Company Limited
2010 - 3 January 2023	: Risk Management Committee TTCL Public Company Limited

Positions in other listed companies : None

Positions in non-listed companies : 7

**Positions in competing
/Involving Business Person :** None

No. of Shareholding in TTCL : 4,500,000 shares equivalent to 0.73% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
**(other than criminal case with
petty offences)**

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting	: 7 meetings from total of 7 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Risk Management Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Ms. Kantika Tanthuvanit**



Current Position :

- Director
(Authorized to Bind the Company)
- Nomination and Remuneration Committee
- Advisor
Administration & Finance
- Company Secretary

Years of Age : 68 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)

Knowledge and Skills Development :

19 November 2021	: Webinar on "ESG direction: from theory to practice"
	by PriceWaterhouseCoopers
1 March 2019	: Management Accounting for Planning and Decision Making
	by Federation of Accounting Profession

Year of being Board of Director : 5 years (2016 - 2020 and 2022 - Present)

Years of being Company Secretary : 15 years (2008 - Present)

Working Experience :

3 January 2023 - Present	: Nomination and Remuneration Committee
16 August 2022 - Present	: Director TTCL Public Company Limited
1 March 2021 - Present	: Advisor, Administration & Finance TTCL Public Company Limited
January 2021 - Present	: Director TTCL Solar Power Pte. Ltd.
January 2019 - 31 January 2021	: Risk Management Committee TTCL Public Company Limited
1 July 2018 - 28 February 2021	: Senior Vice President General Administration & Finance TTCL Public Company Limited
2016 - 17 November 2020	: Director TTCL Public Company Limited
2014 - Present	: Director TTCL New Energy Pte. Limited
2014 - 31 January 2021	: Corporate Governance Committee TTCL Public Company Limited
2014 - June 2018	: Senior Vice President General Administration TTCL Public Company Limited
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
1997 - Present	: Director TTCL Vietnam Corporation Limited

Positions in other listed companies : None

Positions in non-listed companies : 6

Positions in competing : None
/Involving Business Person

No. of Shareholding in TTCL : 7,474,141 shares equivalent to 1.21% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Brett Lollback**



Current Position : Director
: Vice President
Unit Operation Officer
EPC Business Unit
: Vice President
Operation & Maintenance Division

Years of Age : 56 years

Nationality : Australia

Education : Master of Business Administration (MBA) Technology Management
Deakin University, Australia
: Bachelor of Engineering (Chemical Engineering - Honours 1)
University of New South Wales, Australia
: Post Graduate Diploma in Applied Finance and Investment.
Securities Institute, Sydney.

Director Training : None

Year of being Board of Directors : 0.5 month (17 December 2022 - Present)

Working Experience :

17 December 2022 - Present : Director
TTCL Public Company Limited
1 June 2020 - Present : Vice President
Operation & Maintenance Division
TTCL Public Company Limited
19 December 2019 - Present : Director
TMSP Sdn. Bhd.
July 2018 - Present : Vice President
Unit Operation Officer
EPC Business Unit
TTCL Public Company Limited

August 2017 - June 2018	: Deputy Vice President : Senior General Manager Project Control Department Commissioning & Operation Department TTCL Public Company Limited
March 2016 - July 2017	: Senior General Manager Project Execution Division : General Manager Project Control Department : General Manager Commissioning & Operation Department TTCL Public Company Limited
2015 - 2017	: Technical Director of PTTGC LLDPE (Univation-Unipol PE) and Hexene-1 expansion project TTCL Public Company Limited
2015	: Commissioning Adviser of RAS ABU FONTAS A2 DESALINATION Project, Qatar. TTCL Public Company Limited
2014 - 2016	: Commissioning Adviser of Polybutylene Succinate (PBS) Project for PTT MCC Biochemical Company Limited TTCL Public Company Limited
2014 - 2015	: Project Director of PTTGC Increased Metallocene Production Project (Univation-Unipol PE) TTCL Public Company Limited
2013 - Present	: TTCL O&M Manager for 121MW TTPMC Power Plant in Yangon, Myanmar. TTCL Public Company Limited
2013 - 2014	: Technical Director of LLDPE Expansion (Univation-Unipol PE) Project for JGS Petrochemical Corporation, Philippines. TTCL Public Company Limited
2013	: Commissioning Manager of TTPMC Phase 1 121MW Power Plant, Yangon Myanmar. TTCL Public Company Limited
2012 - 2013	: Commissioning Adviser of LampsUp-MY Project for Lynas Malaysia. TTCL Public Company Limited
June 2012 - February 2016	: General Manager, Pre-commissioning/ Commissioning Project & Proposal Division TTCL Public Company Limited

2008 - 2009	: Project Commissioning and Startup Manager of PTTPE LLDPE (Univation-Unipol PE) Project for PTTPE Company Limited TTCL Public Company Limited
2010 - 2011	: Company Director (Unrelated Industry) Sydney, Australia.
2005 - 2008	: Qenos Technical Consultant Sydney, Australia.
2000 - 2005	: JGSPC Process Engineering Manager Batangas, Philippines.
1998 - 1999	: Polimeri Europa Technical Consultant (UCC and Enichem JV) Brindisi, Italy.
1996 - 1998	: JGSPC Commissioning and Operations Manager Batangas, Philippines.
1994 - 1996	: LLDPE Plant Operations Manager ICI Australia, Sydney, Australia.
1992 - 1994	: LLDPE Plant Operations Coordinator ICI Australia, Sydney, Australia.
1991 - 1992	: VCM and PVC Operations Engineer ICI Australia, Sydney, Australia.
1990 - 1991	: VCM and PVC Process Engineer, ICI Australia, Sydney, Australia.
1989 - 1990	: Chlorine Plant Process Engineer ICI Australia, Sydney, Australia.
1986 - 1988	: Graduate Process Engineer Dow Chemicals, Melbourne, Australia.

ASSOCIATIONS

: Senior Associate
Financial Services Institute of Australia (FINSIA).

Positions in other listed companies : None

Positions in non-listed companies : 1

Positions in competing : None

/ Involving Business Person

No. of Shareholding in TTCL : None

(as of 30th December 2022)

Legal dispute in criminal case with : None
(petty offences)

Restrict Qualification by the Public : None

Act. B.E. 2535

Meeting Attendance in 2022 :

The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Pol. Lt. Sivaraks Phinicharomna**

Current Position : Independent Director
: Chairman of Audit Committee

Years of Age : 72 years

Nationality : Thai

Education : Master's Degree in Public Administration
Minnesota State University, U.S.A.
: Certificate of Accountancy, University of
California Los Angeles, U.S.A.
: California Certified Public Accountant (CPA)
California Board of Accountancy, U.S.A.
: Enrolled Agent (EA), Internal Revenue Service, U.S.A.
: Certified Internal Auditor (CIA)
Institution of Internal Auditors
: Certified Fraud Examiner (CFE)
Association of Certified Fraud Examiners
: IOD Chartered Director
Thai Institute of Directors Association



Director Training :

28 November 2022 : Director's Briefing: " The Road to Green Financing"
03 October 2022 : Hot Issue for Directors:
What Directors Need to Know about Digital Assets"
11 November 2021 : Independent Director Forum:
"It's Time for Board Meeting Reformation"
10-11 June 2015 : Chartered Director Class (CDC)
24-25 April 2014 : How to Measure the Success of Corporate Strategy (HMS)
3-4 March 2014 : Successful Formulation and Execution of Strategy (SFE)
14-15 October 2009 : Role of the Chairman Program (RCP)
14-15 February 2007 : Audit Committee Program (ACP)
21 May-18 June 2004 : Director Certificate Program (DCP)
17 May 2004 : Directors Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)
23 November 2022 : Lunch Talk on "How should Director be proactive this Chaotic world" ?
by Zygen Co., Ltd.

Years of being Board of Directors : 15 years (2008 - Present)

Working Experience

2023 - Present	: Independent Director, Audit Committee, Serial Factoring (Thailand), Co., Ltd
2021 - Present	: Audit Committee Siam University
2010 - Present	: Independent Director Audit Committee Ini3 Digital Plc.
21 July 2008 - Present	: Independent Director and Chairman of Audit Committee TTCL Public Company Limited Previous Working Experience
2009 - 2021	: Independent Director Chairman of Audit Committee UA Withya (Sky Tower) Public Company Limited
2019 - 2020	: Audit Committee EfinX Co., Ltd.
2013 - 2018	: Independent Director Chairman of Audit Committee SRK Multimedia, Plc.
2003 - 2005	: Independent Director Audit Committee PRINSIRI Plc.
2002 - 2014	: Vice President - Internal Auditing THAICOM Plc.
1999 - 2001	: Deputy Chief Financial Officers DIGITAL PHONE Co., Ltd.
1996 - 1999	: Assistant Vice President-Finance & Accounting SHINAWATRA INTERNATIONAL, Plc.
1994 - 1996	: Vice President of Internal Auditing and System Development STA, Plc.
1985 - 1994	: Assistant Financial Controller Los Angeles Region BORG WERNER Inc., New Jersey, U.S.A.
1975 - 1980	: Deputy Inspector Central Investigation Department Royal Thai Police Ministry of Interior

Specialization

- : Accounting & Finance, Auditing
- : Risk Management, Internal Auditing, Fraud Examination
- : Consultant of Accounting System Committee and regular speaker of Federation of Accounting, Profession of Thailand
- : Regular speaker of the Institute of Internal Auditors Thailand
- : Visiting Professors at THAMMASAT University, University of the Thai Chamber of Commerce and in various universities

Positions in other listed companies : None

Positions in non-listed companies : 3

Positions in competing : None
/Involving Business Person

No. of Shareholding in TTCL : 104,670 shares equivalent to 0.02% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with petty offences)

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

Meeting Attendance in 2022

- | | |
|--|--|
| The Board of Directors' Meeting | : 7 meetings from total of 7 meetings (100%) |
| The Audit Committee Meeting | : 7 meetings from total of 7 meetings (100%) |
| The Annual General Shareholders' Meeting | : 1 meeting from total of 1 meeting (100%) |

Name - Surname : **Dr. Ryuzo Nagaoka**



Current Position : Independent Director
: Audit Committee
: Chairman of Nomination and Remuneration Committee

Years of Age : 87 years

Nationality : Japanese

Education : Doctorate's Degree Faculty of Engineering (Civil Engineering)
University of Tokyo, Japan
: Master's Degree Faculty of Engineering (Mechanical Engineering)
University of Wisconsin, U.S.A.
: Bachelor's Degree Faculty of Engineering (Mechanical Engineering)
Keio University, Japan

Director Training :

11-12 September 2017 : Infrastructure Project Financing & Public Private Partnership (IPF)
by OMEGAWORLDCLASS
5-6 July 2016 : Boards that Make a Difference (BMD)
1-7 November 2015 : Director Certification Program (DCP)
20 August 2008 : Director Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)

Knowledge and Skills Development :

1 March 2019 : Management Accounting for Planning and Decision Making
by Federation of Accounting Profession

Years of being Board of Directors : 15 Years (2008 - Present)

Working Experience :

2010 - Present : Chairman of Nomination and Remuneration Committee
TTCL Public Company Limited
21 July 2008 - Present : Independent Director and Audit Committee
TTCL Public Company Limited
2004 - Present : Managing Director, Nagaoka & Associates Inc.

Previous Working Experience :

2003 - 2006	: Senior Associate and Asian Representative Baker & O'Brien Inc., USA
2003	: Visiting Professor, Civil Engineering Program Universiti Teknologi Petronas, Malaysia
1998 - 2002	: Visiting Scholar, Civil Engineering Department Rice University, USA
1997	: Visiting Scholar, Construction Management Course Civil Engineering Department, Massachusetts Institute of Technology, USA
1990 - 1996	: Associate Director/ Senior Associate Director Overseas Project Division, Toyo Engineering Corporation, Japan
1987 - 1996	: Project Director, Overseas Project Division Toyo Engineering Corporation, Japan
1985 - 1987	: President and CEO, Toyo-Thai Company Ltd., Thailand
1975 - 1985	: Project Manager, Overseas Project Division Toyo Engineering Corporation, Japan

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
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

Restrict Qualification by the Public : None

Act. B.E. 2535

Meeting Attendance in 2022

The Board of Directors' Meeting	: 7 meetings from total of 7 meetings (100%)
The Audit Committee Meeting	: 7 meetings from total of 7 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Suvit Manomaiyanon**



Current Position :

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

Age : 69 years

Nationality : Thai

Education : Bachelor of Business Administration
Sukhothai Thammathirat University

Years of being Board of Directors : 5 years (2008 - 2011 and 2021 - present)

Director Training :

1-2 February 2022	: Risk Management Program for Corporate Leaders (RCL26/2022)
30 June - 1 July 2022	: Board Nomination & Compensation Program (BNCP14/2022)
11 November 2021	: Independent Director Forum: "It's Time for Board Meeting Reformation"
23 November 2021	: Chairman Forum : Chairing a Virtual Board Meeting
2008	: Directors Accreditation Program (DAP)
2007	: Finance for Non-Finance Director (FN)
2007	: Understanding the Fundamental of Financial Statements (UFS) by Thai Institute of Directors Association (IOD)
21 April 2022	: Webinar on "Global context on sustainability and implications for Thailand" by Thai Listed Companies Association and McKinsey
9 May 2022	: Webinar on "Circular Economy: business path to reduce greenhouse gas Emissions" by The Stock Exchange of Thailand

Working Experience :

1 March 2021 - Present	: Independent Director
	: Audit Committee
	: Nomination and Remuneration Committee
	: Chairman of Risk Management Committee
	: Chairman of Corporate Governance Committee

2014 - 30 April 2021 : Independent Director
 : Audit Committee
 : Nomination & Remuneration and Good Governance Committee
 BT Wealth Industries Public Company Limited

1998 - 2011 : Director
 : Senior Vice President
 : General Manager of Sales & Investor Relation Division
 TTCL Public Company Limited
 (Former named Toyo-Thai Corporation 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 : 100 shares equivalent to 0.00002% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting	: 7 meetings from total of 7 meetings (100%)
The Audit Committee Meeting	: 7 meetings from total of 7 meetings (100%)
The Nomination and Remuneration Committee Meeting	: 4 meetings from total of 4 meetings (100%)
The Risk Management Committee Meeting	: 6 meetings from total of 6 meetings (100%)
The Corporate Governance Committee Meeting	: 5 meetings from total of 5 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Nuttachat Charuchinda**

Current Position : Independent Director

Age : 68 Years

Nationality : Thai



Education :

- Master of Business Administration, Thammasat University
- Bachelor of Engineering, Chiangmai University
- Program for Global Leadership (PGL)
Harvard Business School, USA
- Oxford Energy Seminar, UK
- Break Through Program for Senior Executives (BPSE)
IMD Institute, Switzerland
- Diploma, National Defence College
The Joint State - Private Sector Course, Class 20
Thailand National Defence College
- Executive Program, Class 15, Capital Market Academy (CMA)
- Executive Program, Energy Education, Class 3
Thailand Energy Academy

Director Training :

2022 : Director Leadership Certification Program (DLCP 8/2022)

2020 : The Role of the Board in IT Governance

2010 : Director Certification Program (DCP), Class 129/2010
by Thai Institute of Directors Association (IOD)

Years of being Board of Directors : 2 year (2021 - present)

Working Experience :

21 April 2021 - Present : Independent Director
TTCL Public Company Limited

February 2020 - 31 March 2021 : Independent Director
IRPC Public Company Limited

January 2019 - January 2020 : Director
PTT Public Company Limited

August 2017 - Present : Director
National Power Supply Public Company Limited

December 2017 - Present	: Chairman, Ritta Holding Company Limited
July 2017 - January 2019	: President, Bangkok Mass Transit Authority
August 2016 - 31 March 2021	: Director / Chairman of the Risk Management Committee IRPC Public Company Limited
May 2014 - April 2016	: Chairman, PTT Energy Resources Company Limited
2013 - April 2016	: Director, Thai Oil Public Company Limited
2013 - November 2015	: Director, PTT Exploration and Production Public Company Limited
2013 - 2015	: Chief Operating Officer, Upstream Petroleum and Gas Business Group, PTT Public Company Limited
2011 - 2013	: Chief Operating Officer, Downstream Petroleum Business Group PTT Public Company Limited

Positions in other listed companies : 1

- Director
National Power Supply Public Company Limited

Positions in non-listed companies : 1

- Chairman
Ritta Holding Company Limited

Positions in competing : None

/Involving Business Person

No. of Shareholding in TTCL : None

(as of 30th December 2022)

Legal dispute in criminal cases : None

**(other than criminal case with
petty offences)**

Restrict Qualification by the Public : None

Act. B.E. 2535

Meeting Attendance in 2022 :

The Board of Directors' Meeting	: 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders' Meeting	: 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Makoto Nakadoi**

Position : Director
(Ended on 15 August 2022) Sales & Business Development Division
EPC Business Unit

: Vice President
Sales & Business Development Division
EPC Business Unit

Year of Age : 62 years

Nationality : Japanese

Education : Bachelor of Engineering
Waseda University, 1983

Director Training :
24 May 2021 : Director Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)

Years of being Board of Directors : 1 year (21 May 2021 - 15 August 2022)

Working Experience :

21 April - 15 August 2022 : Director, TTCL Public Company Limited

1 January 2021 - 16 December 2021 : Director, Siam GNE Solar Energy Co., Ltd.

May 2019 - 28 February 2022 : Vice President, Sales & Business Development Division
EPC Business Unit
TTCL Public Company Limited

March 2016 - April 2019 : President & CEO
Sojitz Korea Corporation, Seoul

August 2015 - February 2016 : General Manager for Business Development Plant
Plant Project Dept., Sojitz, Tokyo

June 2014 - July 2015 : Head of Machinery Dept., (EMEA and Russia & NIS)
Sojitz Europe plc. London

April 2013 - May 2014 : Regional General Manager, (EMEA and Russia & NIS)
for Machinery Group, Sojitz Europe plc., Dusseldorf

September 2010 - March 2013 : General Manager, Plant & Infrastructure Dept.
Plant Project Dept., Sojitz, Tokyo

April 2004 - August 2010	: General Manager, Machinery Dept. Sojitz UK plc., London
April 2003 - March 2004	: Manager, Sect.2 &3, Energy & Power Business Dept. Nissho Iwai Corporation
April 2002 - April 2003	: Manager, Plant Project Dept. Nissho Iwai Corporation, Tokyo
April 1997 - March 2002	: Vice President, Machinery Dept. Nissho Iwai Corporation Houston Office, U.S.A
April 1994 - March 1997	: Deputy Manager, Sect.2 Energy & Chemical Plant Dept. 2 Nissho Iwai Corporation
April 1991 - March 1994	: Engineer, Africa Project Sect. Energy & Chemical Plant Dept. 2 Nissho Iwai Corporation, Africa
May 1990 - March 1991	: Engineer, Europe & Africa Project Sect. Energy & Chemical Plant Dept. 2 Nissho Iwai Corporation, Tokyo
March 1986 - April 1990	: Director, Nissho Iwai Corporation Lagos Liaison Office, Nigeria
April 1984 - February 1986	: Engineer, Heavy Machinery Plant Sect. Heavy Machinery Export Dept. Nissho Iwai Corporation, Tokyo
April 1983 - March 1984	: Engineer, Planning Sect. Heavy Machinery & Infrastructure Dept. Nissho Iwai Corporation, Tokyo
April 1983	: Joined in Nissho Iwai Corporation

Positions in other listed companies : None

Positions in non-listed companies : 1

Positions in competing : None

/ Involving Business Person

No. of Shareholding in TTCL : None

(as of 15th August 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 1 meeting from total of 3 meetings (33.33%)
The Annual General Shareholders' Meeting : 0 meeting from total of 1 meeting (0%)

Name - Surname : **Mr. Worapong Rawirath**

Position : Director
(ended on 16 December 2022) (Authorized to Bind the Company)

Age : 70 years

Nationality : Thai

Education : Master of Political Science
Chulalongkorn University
: Bachelor of Political Science
Chulalongkorn University

Director Training :
7 June 2021 : Director Accreditation Program (DAP)
by Thai Institute of Directors Association (IOD)

Years of being Board of Directors : 1 year (2021 - 16 December 2022)

Working Experience :

21 April 2021 - 16 December 2022 : Director
TTCL Public Company Limited

Present : Managing Director
S.P.C Business Partners Company Limited

2007 - 2017 : Assistant Managing Director
Osotsapa Public Company Limited

1992 - 2007 : Human Resources Director
Osotsapa Public Company Limited

1990 - 1991 : Director of Human Resource Management and Development
Eternal Group

1989 - 1990 : Human Resources Manager
Thailand Office Charoen Pokphand Company Limited

1975 - 1986 : Human Resources Manager
Thai Nam Thip Company Limited

Social Works :

Present : Chairman of Institute of HR Professional Development
Personnel Management Association of Thailand

2010 - 2012	: Vice Chairman of Academic Affairs Working Group National Economic and Social Advisory Council
2009 - 2014	: Member of Social Security Committee
2007 - 2012	: Member of National Economic and Social Advisory Council
2007 - 2012	: Expert, Knowledge Development Project Faculty of Human Resources Management Durakit Bundit University
2007 - 2009	: Second Vice Chairman of Labour Working Group National Economic and Social Advisory Council
2005	: Special Ad-Hoc Subcommittee on Executive Development System in the Civil Service, Civil Service Commission Office of the Civil Service Commission
2002 -2004	: Working Group on the Implementation of Data Network Project for the Implementation of Government Policy
2002 - 2003	: Honorary Advisor to the Senate Committee on Privatization of State Enterprises
2002	: Committee on Curriculum Development for Master of Business Administration Degree Suan Dusit University
2001	: Vice Chairman of the Subcommittee on Curriculum Employers Training Section, Department of Welfare and Labour Protection, Ministry of Labour
2000	: Tripartite Subcommittee on Drafting Labour Training Curriculum Labour Development Council, Ministry of Labour
2000 - 2002	: Labour Committee, Thai Chamber of Commerce
1999 - 2001	: Occupational Safety, Health and Environment Committee Ministry of Labour
1996 - 2012	: Vice Chairman of Employer's Confederation of Thai Trade and Industry (ECONTHAI)
1996 - 2002	: Labour dispute arbiter, Division of Legal Affairs and Labour Dispute, Office of the Permanent Secretary Ministry of Labour and Social Welfare
1996 - 1997	: Labour Relations Promotion Committee Ministry of Labour
1996	: Advisor to the Subcommittee on Education Labour Skills Development for Growth in Globalization Era Senate Committee on Labour and Social Welfare
1995 - 1999	: Subcommittee on Wages and Income Policy Office of the Wage Committee, Ministry of Labour

- 1998 : Preparation Working Group
for the 1st APEC Meeting of Human Resources Development
Working Group, Ministry of Labour
- 1988, 1989, 1992-1993 : Four times Chairman of Personnel Management Association
of Thailand
- : Secretary-General of Personnel Management Club
Faculty of Political Sciences, Chulalongkorn University
- : Academic Committee for Lead Shepherd
APEC CHRO NETWORK
- : Advisor to the Parliamentary Committee
on Draft Career Promotion Act

Field Trips

- : Management of Social Security Fund in Europe
America, Asia, Africa including U.K., Sweden
Denmark, USA and Japan
- : Social Security for the elderly in Europe, America and Asia
- : Human Resources Management in Japan, South Korea
Taiwan and the Philippines
- : Food & Beverages and Medicine Manufacturing in Denmark
Sweden and U.K.
- October 1987 : Family Planning Commercial Sector
Jakarta, Indonesia
- October 1986 : Family Planning Commercial Sector
Nairobi, Kenya

Awards and Honors :

- 2012 : Outstanding Alumni Award
issued by Faculty of Political Sciences
Chulalongkorn University
- 2009 : Worthy Executive Award
issued by Personnel Management Association of Thailand
- 2007 : Outstanding Human Resources Manager Award
Issued by Institute of Human Resources
Thammasart University
- 2006 : Outstanding Alumni Award issued by Debsirin School

Royal Decoration

- : Knight Grand Cross (First Class)
of the Most Noble Order of the Crown of Thailand

Positions in other listed companies : None

Positions in non-listed companies : 1

Positions in competing : None
/Involving Business Person

No. of Shareholding in TTCL : 7,617,300 shares equivalent to 1.24% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 7 meetings from total of 7 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname	: Ms. Pennapa Sakchaichrearnkul
Position	: Chief Financial Officer
(Ended on 30 December 2022)	: Vice President Finance & Accounting Division
	: Risk Management Committee
Age	: 50 years
Nationality	: Thai
Education	: Master of Management in Corporate Finance (4.0 GPA Highest Honor), University of Dallas, U.S.A.
	: Master of Business Administration in International Management (3.85 GPA), University of Dallas, U.S.A.
	: Bachelor of Business Administration in International Business (3.5 GPA Second Honor), Chulalongkorn University
	: Who's Who among American Students 1995
Chief Financial Officer Training :	
5 February 2021	: Director's Briefing: "AGM-Paid dividends and issuing debentures. What does the committee have to consider? "
11 March 2021	: Director's Briefing: "Women on Boards: Why now and How to?"
9 April 2021	: Director's Briefing: What Your Board Needs to Know about C-Suite Succession in Time of Uncertainty" by Thai Institute of Directors Association (IOD)
29 March 2022	: CFO Professional Development Program 2022#1 "Improving the quality of financial reports of Thai listed Companies"
25 May 2022	: CFO Professional Development Program 2022#2 "Economic Update for CFO"
31 October 2022	: CFO Professional Development Program 2022#6 "The Role of CFOs in Corporate Sustainability Development"
30 November 2022	: CFO Professional Development Program 2022#7 "Introduction to Sustainable Finance"
28 May 2021	: CFO Professional Development Program 2021#2 "How to Write an Effective MD&A"
25 June 2021	: CFO Professional Development Program 2021#3 "How to Manage the Company's Finance & Accounting and Communicate with Stakeholders during COVID-19 Crisis"

15 July 2021	: CFO Professional Development Program 2021#4 “How finance leaders are adapting within the new normal”
3 - 5 November 2020	: Fundamentals for Corporate Secretaries Program by Thai Listed Companies Association
19 October 2022	: Webinar “Disclosure via SETLink System”
1 - 2 February 2020	: CFO’s Orientation Course for New IPOs #4 by The Stock Exchange of Thailand

Working Experience :

1 February 2020 - 30 December 2022	: Chief Financial Officer Vice President Finance & Accounting Division TTCL Public Company Limited
20 February 2020 - 30 December 2022	: Risk Management Committee TTCL Public Company Limited
January 2018 - January 2020	: Head of Innovation Support, Thai Union PCL
January 2015 - December 2017	: Global Innovation Process Leader, Thai Union PCL
October 2010 - December 2014	: Nutrition and Marketing Excellence Manager Ingredion (Formerly National Starch & Chemical Thailand)
October 2006 - September 2010	: Strategic Development and Product Pricing Manager National Starch & Chemical (Thailand) Ltd.
October 2004 - September 2006	: Regional Financial Planning Manager National Starch & Chemical (Thailand) Ltd.
November 2002 - September 2004	: Management Accounting Manager National Starch & Chemical (Thailand) Ltd.
April 1999 - September 2002	: Financial Planning Manager, Blockbuster, Inc., Dallas, Texas
June 1995 - March 1999	: Senior Financial Analyst, Town North National Bank Dallas, Texas
May 1994 - May 1995	: Accounting Specialist, Bethphage Mission South Dallas, Texas

Positions in other listed companies : None

Positions in non-listed companies : None

Positions in competing : None

/Involving Business Person

No. of Shareholding in TTCL : 850,000 shares equivalent to 0.14% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 :

The Risk Management Committee Meeting	:	6 meetings from total of 6 meetings (100%)
The Annual General Shareholders' Meeting	:	1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Chamnarn Atsanatam**

Current Position : Vice President
Unit Operation Officer
Energy Business Unit
: Corporate Governance Committee
: Risk Management Committee



Age : 50 years

Nationality : Thai

Education : Bachelor's Degree Faculty of Engineering
B.Ind.Tech (Electrical Engineering
Major in Control & Instrument)
Mahanakorn University of Technology

Director Training : None

Year of being Board of Directors : None

Working Experience :

3 January 2023 - Present	: Risk Management Committee
1 January 2023 - Present	: Vice President Unit Operation Officer Energy Business Unit TTCL Public Company Limited
13 December 2022 - Present	: Director NT Biomass Products Co., Ltd.
1 March 2021 - 31 December 2022	: Vice President Power Unit Energy Business Unit TTCL Public Company Limited
1 June 2020 - 1 February 2021	: Vice President Energy Business Unit TTCL Public Company Limited
11 May 2019 - 30 June 2021	: Director, Bio Natural Energy Company Limited

July 2018 - May 2020	: Deputy Vice President, Engineering Division : Department Manager, Power Department TTCL Public Company Limited
14 November 2014 - Present	: Corporate Governance Committee TTCL Public Company Limited
March 2013 - June 2018	: Senior General Manager, Engineering Division : Department Manager, Power Department TTCL Public Company Limited
June 2012 - February 2013	: Senior General Manager, Engineering Division : General Manager, Engineering Division 2 : Department Manager, Machinery Department and Process Department TTCL Public Company Limited
September 2009 - May 2012	: General Manager, Engineering Division : Department Manager, Machinery Department and Process Department : Deputy General Manager, Engineering Division : Department Manager, Machinery Department TTCL Public Company Limited
July 2006 - August 2009	: Department Manager Instrument Department TTCL Public Company Limited
June 2005 - June 2006	: Deputy Department Manager Instrument Department TTCL Public Company Limited
January 2004 - May 2005	: Section Chief, Instrument Engineer Instrument Department TTCL Public Company Limited
March 1997 - December 2003	: Instrument Engineer Instrument Department TTCL Public Company Limited
1992 - 1994	: Instrument Technician Thai Plastic and Chemicals 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 : 386,000 shares equivalent to 0.06%
(as of 30th December 2022)

Legal dispute in criminal cases : None
**other than criminal case with
petty offences)**

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

Meeting Attendance in 2022 :

The Corporate Governance Committee Meeting : 5 meetings from total of 5 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Shinichi Naruuchi**

Current Position : Advisor
Energy Business Unit

Year of Age : 66 years

Nationality : Japanese

Education : Bachelor of Economics
Faculty of Economics, Nagasaki University
: Certified Financial Planner (CFP)
: Registered Management Consultant (RMC)

Director Training : None

Years of being Board of Directors : None

Working Experience :

1 January 2023 - Present : Advisor, Energy Business Unit
TTCL Public Company Limited

1 March 2021 - 31 December 2022 : Vice President
Unit Operation Officer
Energy Business Unit
: Vice President
Sales & Business Development
EPC Business Unit
TTCL Public Company Limited

2020 - 14 October 2021 : Chairman
Idemitsu Green Energy Vietnam Limited Company
(Former named Ha Tien Energy Corporation)

1 June 2020 - 28 February 2021 : Vice President
Energy Business Unit
TTCL Public Company Limited

19 April 2019 - 30 May 2020 : Vice President (New Business Unit)
Sales & Investment Business Unit
TTCL Public Company Limited



July 2017 - March 2019	: Senior Executive Officer and General Manager Coal Business Department (Coal & Uranium, Production & Marketing) Idemitsu Kosan Company Limited
July 2014 - June 2017	: Managing Director Idemitsu Australia Resources
April 2013 - March 2014	: Chief Executive Officer Idemitsu Lube Singapore : Managing Director Idemitsu Lube Thailand
April 2011 - March 2013	: Deputy General Manager Lubricants Department (South East Asian Business) Idemitsu Kosan Company Limited : Managing Director Idemitsu Lube Thailand
July 2008 - March 2011	: Deputy General Manager Tokai Hokuriku Branch Idemitsu Kosan Company Limited
July 2006 - June 2008	: General Manager Yokohama Branch Idemitsu Kosan Company Limited
April 2003 - June 2006	: Director and General Manager Apollo Service Company Limited
April 1998 - March 2003	: Manager Marketing Department Idemitsu Kosan Company Limited
July 1992 - March 1995	: Director and General Manager of Marketing IDETEX, Portugal

Positions in other listed companies : None

Positions in non-listed companies : None

Positions in competing : None

/ Involving Business Person

No. of Shareholding in TTCL : 424,300 (NVDR) shares equivalent to 0.07%

(as of 30th December 2022)

Legal dispute in criminal case with : None
petty offences)

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

Meeting Attendance in 2022 :

The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Toshihiro Sasanuma**

Current Position : Vice President
Special Task Development
: General Manager
Sales & Contract Department



Year of Age : 55 Years

Nationality : Japanese

Education : Master Degree of Engineering
(Mechanical Engineering)
Waseda University
: Bachelor of Engineering
(Industrial Engineering and Management)
Waseda University

Director Training : None

Year of being Board of Directors : None

Working Experience :

1 January 2023 - Present : Vice President
Special Task Development
TTCL Public Company Limited
1 March 2021 - 31 December 2022 : Vice President
Bio Unit
Energy Business Unit
: General Manager
Project Finding Business Development
Energy Business Unit
TTCL Public Company Limited
August 2020 - 28 February 2021 : General Manager
Energy Development Dept
Sales & Contract Department
TTCL Public Company Limited

March 2020 - Present	: General Manager Sales & Contract Division TTCL Public Company Limited
July 2015 - February 2020	: General Manager Project & Proposal Division TTCL Public Company Limited
2006 - 2015	: Proposal / Project Manager American Project Division Toyo Engineering Corporation, Japan
2004 - 2006	: Proposal / Project Manager Project Department Toyo Engineering & Construction Sdn. Bhd, Malaysia
1992 - 2004	: Senior Engineer / Chief Assigned Engineer Control & Instrument System Design Department Toyo Engineering Corporation, Japan

Positions in other listed companies : None

Positions in non-listed companies : None

Positions in competing : None

/ Involving Business Person

No. of Shareholding in TTCL : None

(as of 30th December 2022)

Legal dispute in criminal cases : None

(other than criminal case with

Petty offences)

Restrict Qualification : None

by the Public Act. B.E. 2535

Meeting Attendance in 2022 :

The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Somchai Charnsiripongse**

Current Position : Vice President
Project Execution
EPC Business Unit



Year of Age : 57 years

Nationality : Thai

Education : Bachelor of Engineering (Mechanical Engineer)
Prince of Songkla University

Director Training : None

Years of being Board of Directors : None

Working Experience :

19 December 2019 - Present	: Director, TMSP Sdn.Bhd.
July 2018 - Present	: Vice President, Project Execution EPC Business Unit TTCL Public Company Limited
2017 - 2018	: Senior General Manager, Project & Proposal Division TTCL Public Company Limited
August 2011 - July 2017	: General Manager, Project & Proposal Division TTCL Public Company Limited
May 2010 - June 2011	: Deputy General Manager, Project Division TTCL Public Company Limited
September 2009 - April 2010	: Deputy General Manager Project & Procurement Division TTCL Public Company Limited
August 2008 - August 2009	: Senior Management Staff Project & Procurement 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 : 493,000 shares equivalent to 0.08%
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with Petty offences)

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

Meeting Attendance in 2022 :

The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Suchet Watchalayan**



Current Position : Vice President
New Business Unit

Year of Age : 56 years

Nationality : Thai

Education : Master Degree of Science
National University of Ireland, Dublin, UCD
: Bachelor of Engineering (Production Engineering)
King Mongkut's Institute of Technology Thonburi

Director Training : None

Year of being Board of Directors : None

Working Experience :

1 March 2021 - Present : Vice President
New Business Unit
TTCL Public Company Limited

August 2020 - 31 December 2022 : Manager
Q/A, QC Department
EPC Business Unit
TTCL Public Company Limited

June 2012 - 28 February 2021 : General Manager, Project & Proposal Division
TTCL Public Company Limited

August 2011 - May 2012 : Deputy General Manager, Project & Proposal Division
TTCL Public Company Limited

March 2007 - Jul 2011 : Senior Management Staff, Project & Procurement Division
TTCL Public Company Limited

March 2004 - Oct 2006 : Piping & Mechanical Engineer
ADDAX Petroleum Development (Nigeria) Limited

August 2001 - September 2003 : Inspector & Commissioning Coordinator
PTT Exploration and Production Public Company Limited

February 2000 - August 2001 : QA/QC Engineer
SP International Engineering Company Limited

April 1990 - February 2000 : Section Chief of Quality Control
Toyo-Thai Corporation 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 : 170,000 shares equivalent to 0.03%
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with
petty offences)

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

Meeting Attendance in 2022 : 1 meeting from total of 1 meeting (100%)
- The Annual General Shareholders' Meeting

Name - Surname : **Ms. Kantika Tanthuvanit**



Current Position : Director
(Authorized to Bind the Company)
: Nomination and Remuneration Committee
: Advisor
Administration & Finance
: Company Secretary

Years of Age : 68 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)

Knowledge and Skills Development :

19 November 2021	: Webinar on "ESG direction: from theory to practice"
	by PriceWaterhouseCoopers
1 March 2019	: Management Accounting for Planning and Decision Making
	by Federation of Accounting Profession

Year of being Board of Director : 5 years (2016 - 2020 and 2022 - Present)

Years of being Company Secretary : 15 years (2008 - Present)

Working Experience :

3 January 2023 - Present	: Nomination and Remuneration Committee
16 August 2022 - Present	: Director TTCL Public Company Limited
1 March 2021 - Present	: Advisor, Administration & Finance TTCL Public Company Limited
January 2021 - Present	: Director TTCL Solar Power Pte. Ltd.
January 2019 - 31 January 2021	: Risk Management Committee TTCL Public Company Limited
1 July 2018 - 28 February 2021	: Senior Vice President General Administration & Finance TTCL Public Company Limited
2016 - 17 November 2020	: Director TTCL Public Company Limited
2014 - Present	: Director TTCL New Energy Pte. Limited
2014 - 31 January 2021	: Corporate Governance Committee TTCL Public Company Limited
2014 - June 2018	: Senior Vice President General Administration TTCL Public Company Limited
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
1997 - Present	: Director TTCL Vietnam Corporation Limited

Positions in other listed companies : None

Positions in non-listed companies : 6

Positions in competing : None
/Involving Business Person

No. of Shareholding in TTCL : 7,474,141 shares equivalent to 1.21% of total shares
(as of 30th December 2022)

Legal dispute in criminal cases : None
(other than criminal case with petty offences)

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

Meeting Attendance in 2022 :

The Board of Directors' Meeting : 4 meetings from total of 4 meetings (100%)
The Annual General Shareholders' Meeting : 1 meeting from total of 1 meeting (100%)

Name - Surname : **Mr. Paibun Sribanphai**

Current Position : Advisor Accounting
Finance and Accounting Division

Age : 58

Nationality : Thai

Education : Master of Business Administration (Financial)
Ramkhamhaeng University
: Bachelor of Business Administration (Accounting)
Ramkhamhaeng University

Working Experience :

1 January 2023 - Present : Advisor Accounting
Finance and Accounting Division
TTCL Public Company Limited

21 April 2021 - 31 December 2022 : General Manager
Accounting Department
TTCL Public Company Limited

January 2020 - 20 April 2021 : Deputy General Manager
Accounting Department
TTCL Public Company Limited

September 2018 - December 2019 : Department Manager (Specialist-A),
Accounting Department
TTCL Public Company Limited

September 2009 - August 2018 : Department Manager
Accounting Department
TTCL Public Company Limited

January 2009 - August 2009 : Deputy Department Manager
Accounting Department
TTCL Public Company Limited

September 2008 - December 2008 : Accounting Management Staff
Accounting Department
TTCL Public Company Limited



March 2006 - August 2008 : Accounting Manager
PAC Siam Company Limited
October 1996 - February 2006 : Accounting Manager
Vongvanij Property Company Limited

No. of Shareholding in TTCL : 100,000 shares equivalent to 0.02% of total shares
(as of 30th December 2022)

ATTACHMENT 2

NAME LISTS OF DIRECTOR, MANAGEMENT, AND AUTHORIZED CONTROLLER OF THE COMPANY, SUBSIDIARIES, AND RELATED COMPANIES AS OF DECEMBER 30, 2022

Name lists of Director and Management	TTCL	Subsidiaries																	
		TTQA	TPPH	GNE	TVC	TTML	TMSP	TPPHD	TTCP	TTNE	TTSP	TTLP	TTMC	TTMEG	TPMC	MBP	TTBC	GNE-Japan	NTBC
1. Mr. Tiwa Jaruke	X	X	X	/	/	/, //	/												
2. Mr. Hironobu Iriya	/, //	/	/	X, //	X	X, //	X, //	X	X	X	X	X	X	X	X	X	X		X
3. Mrs. Nijaporn Charanachitta	/	/	/																
4. Mr. Eiji Hagiwara	/	/	/																
5. Dr. Seiichi Itakura	/	/	/														/		
6. Mr. Wanchai Rathinthorn	/, //	/	/	/		/, //	/, //		/		/	/						/	
7. Ms. Kantika Tanthuvanit	/	/	/		/	/, //	//	/		/	/								
8. Mr. Brett Lollback	/, //	/	/				/, //												
9. Pol.Lt Sivaraks Phinicharomna	/	/	/																
10. Mr. Suvit Manomaiyanon	/	/	/																
11. Dr. Ryuzo Nagaoka	/	/	/																
12. Mr. Nuttachat Charuchinda	/	/	/																
13. Ms. Pennapa Sakchaichreankul	//																		
14. Mr. Somchai Charnsiripongse	//						/												
15. Mr. Suchet Watchalayan	//																		
16. Mr. Chamnarn Atsanatam	//																	/	
17. Mr. Shinichi Naruuchi	//																		
18. Mr. Toshihiro Sasanuma	//																		

X = Chairman / = Director // = Management

Subsidiaries

TTQA	: TTCL PUBLIC COMPANY LIMITED – QATAR BRANCH
TTPH	: TTCL PUBLIC COMPANY LIMITED – PHILIPPINES BRANCH
GNE	: GLOBAL NEW ENERGY CO., LTD
TVC	: TTCL VIETNAM CORPORATION LIMITED
TTML	: TTCL MALAYSIA SDN. BHD.
TMSP	: TMSP SDN. BHD.
TTPHD	: TTCL POWER HOLDINGS PTE. LTD.
TTCP	: TTCL COAL POWER PTE. LTD.
TTNE	: TTCL NEW ENERGY PTE. LTD.
TTSP	: TTCL SOLAR POWER PTE. LTD.
TTLP	: TTCL LNG POWER PTE. LTD.
TTMC	: TOYOTHA-MYANMAR CORPORATION CO., LTD.
TTMEC	: TTCL MYANMAR ENGINEERING & CONSTRUCTION CO., LTD.
TPMC	: TTCL POWER MYANAMR CO., LTD
MBP	: MYANMAR BKB POWER COMPANY LIMITED
TTBC	: TTCL BIO COMPANY PTE. LTD.
GNE-J	: GLOBAL NEW ENERGY JAPAN CO., LTD
NTBC	: NT BIOMASS PRODUCTS COMPANY LIMITED

Name lists of Director, Management, and Authorized controller of the Company, Subsidiaries, and Related Companies as of December 30, 2022

Name lists of Director and Management	TTCL	Related Companies			
		ITD	GBM	TTGP	IGEV
1. Mr. Tiwa Jaruke	/, //				
2. Mr. Hironobu Iriya	X, //		X, //	X	/
3. Mrs. Nijaporn Charanachitta	/	/, //			
4. Mr. Eiji Hagiwara	/				
5. Dr. Seiichi Itakura	/				
6. Mr. Wanchai Rathinthorn	//				
7. Ms. Kantika Tanthuvanit	/		/		
8. Mr. Brett Lollback	/, //				
9. Pol.Lt Sivaraks Phinicharomna	/				
10. Mr. Suvit Manomaiyanon	/				
11. Dr. Ryuzo Nagaoka	/				
12. Mr. Nuttachat Charuchinda	/				
13. Ms. Pennapa Sakchaichrearnkul	//				
14. Mr. Somchai Charnsiripongse	//				
15. Mr. Suchet Watchalayan	//				
16. Mr. Chamnarn Atsanatam	//				
17. Mr. Shinichi Naruuchi	//				/
18. Mr. Toshihiro Sasanuma	//				/

X = Chairman / = Director // = Management

Related Companies

ITD	: ITALIAN-THAI DEVELOPMENT PUBLIC COMPANY LIMITED
GBM	: GLOBAL BUSINESS MANAGEMENT CO., LTD.
TTGP	: TTCL GAS POWER PTE. LTD.
IGEV	: IDEMITSU GREEN ENERGY VIETNAM LIMITED COMPANY

ATTACHMENT 3

DETAILS OF HEAD OF THE OFFICE OF CORPORATE AUDIT

Chief Audit Executive

Name - Surname : Mr. Saneh Poorisat

Current Position : Chief Audit Executive (CAE)

Years of Age : 69 years

Nationality : Thai

Education : Bachelor's Degree Faculty of Engineering (Electrical Engineering)
King Mongkut's University of Technology North Bangkok



Working Experience :

1 January 2018 - Present : Chief Audit Executive (CAE)
TTCL Public Company Limited

2014 - 31 December 2017 : 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 - 30 November 2021 : Risk Management Committee
TTCL Public Company Limited

No. of Shareholding in TTCL : 150,750 shares equivalent to 0.024% of total shares
(as of 30th December 2022)

ATTACHMENT 4

GLOBAL REPORTING INITIATIVE (GRI)

GRI Standard	Description	Disclosure Page/ Website Page
GRI 102 : General Disclosure 2016 (Organizational Profile)		
GRI 102-1	Name of the organization	97
GRI 102-2	Activities, brands, products, and services	10-13
GRI 102-3	Location of headquarters	97
GRI 102-4	Location of operations	14-17
GRI 102-5	Ownership and legal form	6-8
GRI 102-6	Markets served	12-23
GRI 102-7	Scale of the organization	24, 136-137
GRI 102-8	Information on employees and other workers	161
GRI 102-9	Supply chain	58-63
GRI 102-10	Significant changes to the organization and its supply chain	80-84
GRI 102-13	Membership of associations	297-299
GRI 102 : General Disclosure 2016 (Strategy)		
GRI 102-14	Statement from senior decision-maker	4-5
GRI 102-15	Key impacts, risks, and opportunity	39-40, 80-81
GRI 102 : General Disclosure 2016 (Ethics and Integrity)		
GRI 102-16	Values, principles, standards, and norms of behavior	https://www.ttcl.com/sustainability/corporate_governance/code_of_conduct_and_business_ethics
GRI 102-17	Mechanisms for advice and concerns about ethics	
GRI 102 : General Disclosure 2016 (Governance)		
GRI 102-22	Composition of the highest governance body and its committees	150-152
GRI 102-23	Chair of the highest governance body	
GRI 102-24	Nominating and selecting the highest governance body	
GRI 102-27	Collective knowledge of highest governance body	

GRI Standard	Description	Disclosure Page/ Website Page
GRI 102 : General Disclosure 2016 (Stakeholder Engagement)		
GRI 102-40	List of stakeholders groups	59-63
GRI 102-41	Collective bargaining agreements	
GRI 102-42	Identifying and selecting stakeholders	
GRI 102-43	Approach to stakeholder engagement	
GRI 102 : General Disclosure 2016 (Reporting Practice)		
GRI 102-45	Entities included in the consolidated financial statements	85-96
GRI 102-50	Reporting period	
GRI 102-51	Date of most recent report	
GRI 102-52	Reporting cycle	
GRI 201 : Economic Performance 2016		
GRI 201-1	Direct economic value generated and distributed	3, 24
GRI 203 : Indirect Economic Impacts 2016		
GRI 203-1	Infrastructure investment and services supported	10-13
GRI 205 : Anti-Corruption 2016		
GRI 205-1	Operations assessed for risks related to corruption	70-71, 120-121
GRI 205-2	Communication and training about anti-corruption policies and procedures	
GRI 206 : Anti-competitive Behavior 2016		
GRI 206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	120-121
GRI 302 : Energy 2016		
GRI 302-4	Reduction of energy consumption	53
GRI 306 : Effluents and Waste 2016		
GRI 306-1	Water discharge by quality and destination	52
GRI 306-2	Waste by type and disposal method	
GRI 401 : Employment 2016		
GRI 401-1	New employee hires and employee turnover	67-68
GRI 401-2	Benefit provided to full-time employees that are not provided to temporary or part-time employees	

GRI Standard	Description	Disclosure Page/ Website Page
GRI 403 : Occupational Health and Safety 2018		
GRI 403-1	Occupational health and safety management system	41-55
GRI 403-2	Hazard identification, risk assessment, and incident investigation	
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	
GRI 403-5	Worker training on occupational health and safety	
GRI 403-6	Promotion of worker health	
GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
GRI 403-9	Work-related injuries	
GRI 404 : Training and Education 2016		
GRI 404-1	Average hours of training per year per employee	70-74
GRI 404-2	Programs for upgrading employee skills and transition assistance programs	
GRI 405 : Diversity and Equal Opportunity 2016		
GRI 405-2	Ratio of basic salary and remuneration of woman to men	69
GRI 413 : Local Communities 2016		
GRI 413-1	Operations with local community engagement, impact assessments, and development programs	63, 83
GRI 414 : Supplier Social Assessment 2016		
GRI 414-2	Negative social impacts in the supply chain and actions taken	63, 83

COMPANY PROFILE

Name of Company	:	TTCL Public Company Limited	
Head Office Located at	:	159/41-44 Sermmit Tower 27 th -30 th Floor, Sukhumvit 21 (Asoke) Road, North Klongtoey, Wattana, Bangkok 10110 Thailand	
Tel.	:	0 2260 8505	
Fax	:	0 2260 8525-6	
Home page	:	www.ttcl.com	
Type of Business	:	Engineering Service and Construction (Integrated EPC)	
Registered No.	:	0107551000185	
Registered Capital	:	896,000,000.00 Baht	
Paid-up Capital	:	616,000,043.00 Baht	
Par Value	:	1.00 Baht	
Securities Registrar	:	Thailand Securities Depository Co., Ltd. (TSD) 62 The Stock Exchange of Thailand Building Rachadapisek Road, Klongtoey, Bangkok 10110, Thailand Tel. 0 2229 2800 Fax. 0 2359 1259	
Audit Firm	:	Grant Thornton Limited 87/1 Capital Tower, All Seasons Place, 11 th floor, Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. 0 2205 8222 Fax. 0 2654 3339	
Independent Auditor	:	1. Mr. Somckid Tiatragul	C.P.A. (Thailand) No. 2785
		2. Ms. Kanyanat Sriratchatchaval	C.P.A. (Thailand) No. 6549
		3. Ms. Amornjid Baolorpet	C.P.A. (Thailand) No. 10853
		4. Ms. Saranya Akharamahaphanit	C.P.A. (Thailand) No. 9919
		5. Ms. Luxsamee Deetrakulwattanapol	C.P.A. (Thailand) No. 9056
		6. Ms. Kesanee Srathongphool	C.P.A. (Thailand) No. 9262



TTCL PUBLIC COMPANY LIMITED

159/41-44, Sermmmit Tower, 27th - 30th Floor,
Sukhumvit 21 Road (Asoke), North Klongtoey, Wattana, Bangkok 10110, Thailand
Tel. : (66) 2260 8505, Fax. : (66) 2260 8525 - 6

