

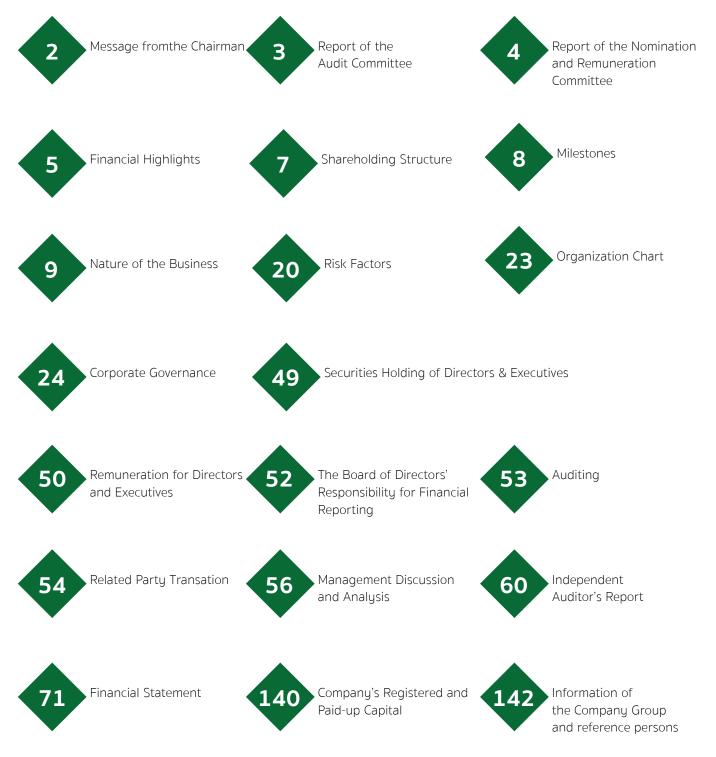
# Mission

To establish a solid footprint in Thailand in the solar power industry and expand into other renewable energies as well as developing an international solar power business focusing in Asia & Oceania regions

# Vision

To become a world-class regional leader in providing renewable energy through reliable technologies to serve both commercial and social societies





# Message from the Chairman

The Thai Solar Energy Group still stands firm to our determination to achieve the goal of becoming the leader in alternative energy business both in the country and in the region. Throughout the past years, the Group has participated in many rounds of business negotiations, both in the country and overseas continuingly in order to explore related rules and regulations as well as policies of various agencies that would be carefully used as background information for each of our investment project. They were also parts of the Group's efforts to increase added value to the group's business through its sustainable growth.

The Group continues to invest in the construction of power plants in Japan, 4 of which have been in operation and generated revenue at a total selling capacity of 5.24 MW. The other 3 projects with a total selling capacity of 16.74 MW, still under construction are expected to be able to distribute electricity on COD basis in the near future.

Meanwhile, a total of 26 projects in the country with a total selling capacity of 99.5 MW have distributed electricity on COD basis. During the year, the Group also invested in 3 additional biomass power plant projects with a total selling capacity of 22.2 MW.

On behalf of the Group's Board of Directors, executives, staff and subsidiaries, I would like to thank the shareholders, customers, partners, business allies and all stakeholders who have been the major parts in providing supports to the Group. May I ensure again that the Group is still determined to expand the business, to be responsible and to uphold the moral principle in corporate governance in order to further build sustainable strength and growth to the Group.

(Ms. Cathleen Maleenont) Chairman



# **Report of the Audit Committee**

The Audit Committee has been assigned to perform duties by the Group's Board of Directors according to the requirements of the Office of the Securities and Exchange Commission and the Notification of the Securities Exchange of Thailand, as specified in the charter, prescribed by the Board.

The Audit Committee comprises members who are qualified persons and independent members, i.e., Mrs. Siriphen Sitasuwan, Mr. Prasan Chuapanich and Mr. Boonchoo Direksathaporn. The Committee submitted performance report as information and to be reviewed by the Board of Directors at least once in each quarter. The report whose preparation is completed in consultation and with approval of the management, internal audit committee and auditor contains the following essential elements.

1. The review of quarterly and yearly financial reports of the Group in 2016 which was performed to ensure that the financial statement of the Group has been prepared according to the financial report standard with disclosure of adequate, complete and reliable information, including the following 2 key audit matters (KAMs).

- Projection of asset depreciation of thermal power plant and recovery amount, based on the remaining period in power purchase contract. In 2015, the Group set an amount of 250 million Baht as allowance for depreciation of assets in the thermal power plant.
- 2) Weighting the possibility of making tax profit in order to use an amount of 75.47 million Baht deferred corporate income tax to be due in 2019.

The Audit Committee has met with the auditor without participation of the management in order to consult each other on the independence in performing duties and providing opinion by the auditor.

2. The review of appropriateness of rules and regulations and practices related to related transaction and the disclosure of information on such transactions in order to ensure that they are in consistent with notifications, requirements and practical guidance of the Office of the Securities and Exchange Commission and laws related to the business operation of the Group.

3. The review of the report of the internal audit division and the auditor on the Group's internal control system, risk management, corporate governance, anti-money laundering measure to ensure that they are adequately implemented. The Committee also provided recommendations, deemed necessary for development, following up and improving the performance of the management.

4. Assessment of the auditor's performance in 2016 which was in good level with adequate independence. After reviewing the performance, scope and quantity of works in comparison with the remuneration of the auditor in 2016, the Audit Committee, therefore, resolved to recommend to the Board of Directors to seek an approval of the meeting of shareholders to appoint the PwC as the Group's auditor in 2017 for another term.

In general, the Audit Committee views that the Board of Directors and the management of the Group have ethics and determination to carry out the duties in order to achieve the group's business goals and realize the importance of operating the business under corporate good governance, transparency and trustfulness.

Almor Non Manas.

(Mrs.Siripen Sitasuwan) Chairman of the Audit Committee

# **Report of the Nomination and Remuneration Committee**

The Nomination and Remuneration Committee comprises 3 members and is chaired by Mr. Prasan Chuaphanich, an independent director. In 2016, the Nomination and Remuneration Committee convened 2 meetings and reported the Board on the results of the meetings regularly. Followings are some of th important businesses conducted by the Nomination and Remuneration Committee.

1. The nomination of qualified persons to be appointed as directors by the Board and the annual shareholders' meeting, based on diverse qualifications, knowledge, ability, skills, experience, expertise, availability of time to serve in the position, leadership, vision and positive attitude on the organization. The Nomination and Remuneration Committee submitted a proposal to the shareholders' ordinary meeting on 27 April 2016 to re-appoint the outgoing directors whose terms of office ended in 2016. The meeting resolved to re-appoint all of the directors as proposed.

2. Considered and set remuneration in 2016 for members of the Board of Directors and committees, i.e., Audit Committee, Nomination and Remuneration Committee to be approved by the Board of Directors and the annual shareholders' meeting, based on suitability, duties and responsibilities and by comparing with the remuneration of other companies in the same or similar business. The shareholders' meeting approved the remuneration as proposed.

3. Considered the remuneration for top management in 2016, based on suitability, assigned duties and responsibilities and performance. The Committee also reviewed and approved the operational performance of the Group to be used to support the annual bonus reviewing and approving process according to the key performance indicators and annual salary adjustment level.

In realizing the importance of corporate good governance principle, the Nomination and Remuneration Committee has reviewed and monitored the operational progress of the management on regular basis and found that the team has performed the duties with full ability, carefulness, transparency and independence, based on adequate and appropriate level of corporate good governance that should provide utmost benefit to all stakeholders.

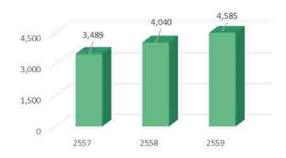
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(Mr. Prasan Chuaphanich) Chairman of the Nomination and Remuneration Committee

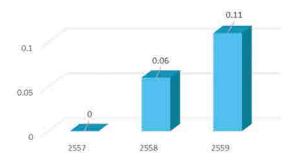
# Financial Highlights as 31 December



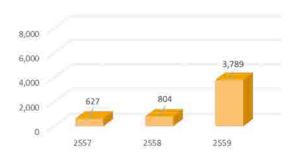
Total Shareholders' Equity(Million Bath)

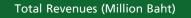


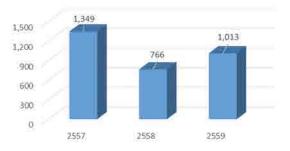
Dividend per share (Million Baht)



Total Liabilites (Million Bath)



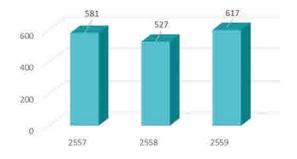


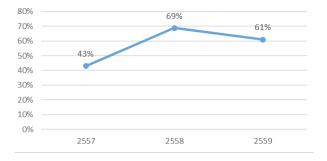


Net Profit (Loss) (Million Baht)



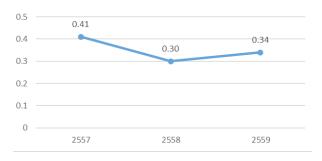
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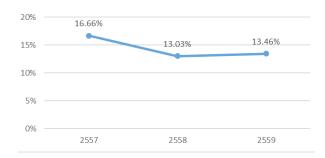


Dept to Equity Ratio (Times)

# • Net Profit (Loss) per share (Baht)



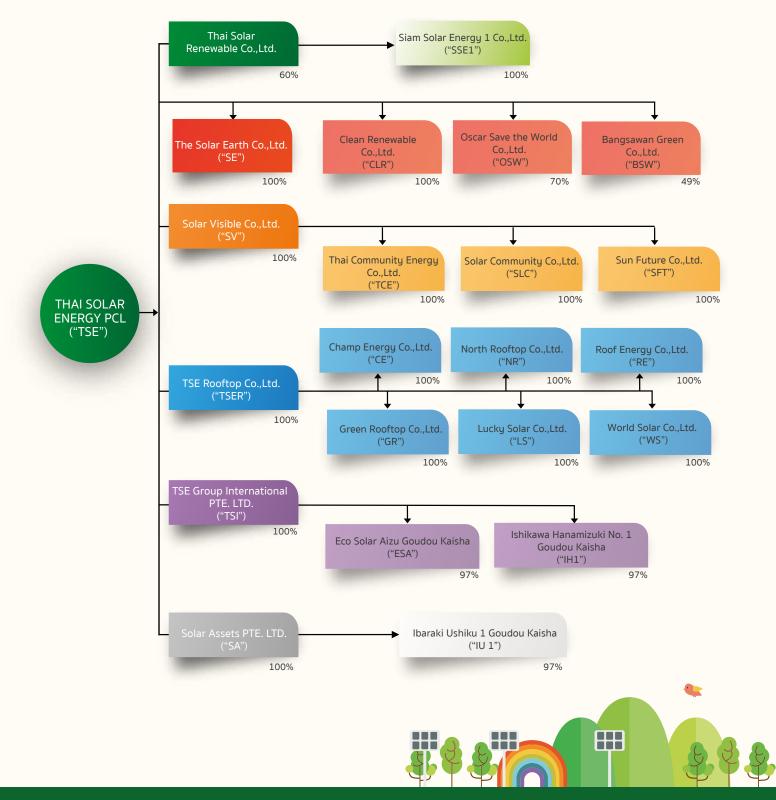
• Return on Equity (%)





Business Operation

# **Business Operation**



# Milestones

# Year 2014 Transformation and preparing to be a publicly listed Company • To register as Public Company Limited and changed the Company's name to Thai Solar Energy Public Co., Ltd. • Changed par value from 10 baht to par value 1 baht each and increased the capital from BHT 1,365 MM to BHT 1,815 MM. • Approved the allocation of common shares for capital increase at the total amount of not exceeding 450 million shares with par value of BHT 1 per share. The shares are to be offered to the public with the following details: (1) Not exceeding 428 million shares at the Initial Public Offering (IPO) and (2) Not exceeding 22 million shares selling to be sold to major shareholders, i.e., the Wave Entertain ment Public Co., Ltd. ("WAVE") • On 30 October 2014, common shares of the Company have listed for trading in the Market for Alternative Investment. On 31 December 2014, the Company Group had 1 Solar Thermal at total selling capacity of 4.5 MW, 10 Solar PV at total selling capacity of 80 MW and 5 Solar Rooftop at total selling capacity of 5 MW that distributed electricity as Commercial Operation Date (COD) for the Provincial Electricity Authority at a total selling capacity of 89.5 MW. 2015 Expansion of Business to Asian Region • Established a subsidiary, the TSE Group International PTE., LTD. (TSI) and Solar Assets PTE., LTD. in Singapore to support the Group's plan to expand business operation to other countries in Asian region. The Company holds 100% of shares in these companies. • The Company began to negotiate with business partners in Asian region such as those in Japan, the Philippines and Laos, etc. So far, the Company has reached agreement with 2 business partners in Japan, i.e., the Eco Solar Japan and Prospec Holding Inc. The total installed capacity of 42.5 MW (Sell capacity of 36.5 MW) and both of them are self-development projects and jointly development project. • During the year, the Company Group had 9 Solar Rooftop that additional distributed electricity as Commercial Operation Date at a total selling capacity of 9 MW On 31 December 2015, the Company Group had 1 Solar Thermal at total selling capacity of 4.5 MW, 10 Solar PV at total selling capacity of 80 MW and 14 Solar Rooftop at total selling capacity of 14 MW that distributed electricity as Commercial Operation Date (COD) for the Provincial Electricity Authority at a total

#### 2016 Recognition of additional income

selling capacity of 98.5 MW

- The Group began to recognize additional incomes from a project in Japan whose power distribution on Commercial Operation Date (COD) of 4 project have begun in succession. The total production was 5.24 MW.
- In 2015, power distribution on Commercial Operation Date (COD) of 1 additional project began for government agencies and the Suan Maprao agricultural cooperatives project in Bang Saphan District of Prachuap Khiri Khan province, totaling 1 MW.
- The Group has invested in 3 biomass power plant business projects with total selling capacity of 22.2 MW in Nakhon Si Thammarat and Surat Thani Provinces.
   On 31 December 2016, the Group has a total of 36 projects under its operation in and outside of the country that comprise 1 solar thermal project, 18 solar PV projects (11 in the country and 7 in foreign countries), 14 solar rooftop and 3 biomass power plants with a total selling capacity of 143,68 MW. Of these, 30 projects have distributed electricity commercially, including the selling capacity in and outside of the country at the total capacity of 104.74 MW.

# Nature of the Business

### Overview of the Group's Business Operation

The Group operates 3 types of solar energy generation and distribution business: Solar Thermal power plant, Solar PV power plants and Biomass power plants.

# 1) Solar Thermal Power Plant Project

The Company is the first in Southeast Asia to produce electricity using solar thermal technology. Its thermal power plants have generated electricity output and commercially distributed it to the Provincial Electricity Authority (PEA) at a total selling capacity of 4.5 MW.

#### 2) Solar PV Power Plants Projects

The Group's PV power plants generate and sell electricity using photovoltaic systems which can be categorized as follows:

2.1) Solar PV Farm Projects

#### Domestic :

The Group has 11 solar farm PV power plant projects with a total selling capacity of 81 Megawatts, all of which have been commercially sold to the PEA. The latest projects which have started commercial distribution were those for government agencies and Suan Maprao agricultural cooperatives in Bang Saphan District, Prachuab Khiri Khan Province with total capacity of 1 MW.

#### Overseas :

The Group incorporated a subsidiary, TSE Group International PTE.LTD. and Solar Assets PTE.LTD., in Singapore as part of the plan to expand investment in solar energy power plant to other countries in Asia.

The Group has 7 solar power plants in Japan with total selling production capacity of 21.98 MW. So far, 4 of the projects have already distributed electricity as Commercial Operation Date (COD) with the capacity of 5.24 MW. Other projects are under construction and implemented. Other projects is under construction and implemented.

2.2) Solar Rooftop Project

The Group has 14 Solar Commercial Rooftop projects, the highest number in Thailand with a total selling capacity of 14 MW, all of which has been commercially distributed as Commercial Operation Date (COD) to the PEA and MEA.

2.3) Solar Rooftop Own Use Project

The Group has expertise and experience in the installment of equipment for rooftop solar PV power plant through a network of business partners. It has, therefore, conducted a study on rooftop solar power plants for factory and industrial use and introduced such project to many well-known companies and factories

#### 3) Biomass Power Plants Project

The Group has invested in 3 biomass power plants through subsidiaries, i.e., Bang Sawan Green (BSW) and Oscar Save the World (OSW) with total selling capacity of 22.2 MW in Nakhon Si Thammarat and Surat Thani Provinces. All three plants have been licensed to engage in biomass power plant business and have already entered into a contract to sell power supply to the Provincial Electricity Authority (PEA). The group is confident that the investment in this projects are beneficial to the company and shareholders because of its growth potential in the future and the government's policy to promote the production of alternative energy.

#### Operations in Each Business Group

The Group operates a business of producing and selling electricity from solar energy for the government sector according to policy to promote the production and use of electricity from alternative energy of the Energy Planning and Policy Office, Ministry of Energy. Though the Group, subsidiaries and the jointly controlled operations, totaling 36 projects. The details of COD projects are as follows.

Domestic : 26 COD projects with total selling capacity of 99.5 MW.



Solar Thermal Power Plants - 4.5 MW (1 Project)

## TSE01

Location Huai Krachao District, Kanchanaburi Selling Capacity 4.5 MW COD 26 Dec 2011

Solar PV Farm Power Plants - Total of 81 MW (11 Project)

PV 01 Location Bo Phloi District, Kanchanaburi Selling Capacity 8 MW COD 4 Sept 2013





PV 02 Location Don Chedi District, Suphan Buri Selling Capacity 8 MW COD 17 Jul 2013







#### PV 04

Location Doem Bang Nang Buat-District,Suphanburi Selling Capacity 8 MW COD 21 Nov 2013

#### PV 05

Location Doem Bang Nang Buat-District, Suphanburi Selling Capacity 8 MW COD 21 Nov 2013





PV 07 Location Tha Muang District, Kanchanaburi Selling Capacity 8 MW COD 6 Jun 2014

Location Tha Muang District, Kanchanaburi

# PV 06

Location Dan Makham Tia District, Kanchanaburi Selling Capacity 8 MW COD 6 Jun 2014





#### PV 08

Location Tha Muang District, Kanchanaburi Selling Capacity 8 MW COD 6 JUN 2014





Bangsaphan Location Sam Chuk District, Suphanburi Selling Capacity 1 MW COD 29 Dec 2016

#### PV 10

PV 09

Selling Capacity 8 MW COD 4 Apr 2014

> Location Sam Chuk District, Suphanburi Selling Capacity 8 MW COD 30 May 2014



# Solar Rooftop PV Power Plants -Total of 14 MW (14 Project)

#### RT 01

Location HMPRO, Muang District, Lopburi Selling Capacity 1 MW COD 4 Sept 2014



#### RT 02

Location HMPRO Muang District, Phrae Selling Capacity 1 MW COD 3 Feb 2015









# RT 04

Location HMPRO Muang District, Chumphon Selling Capacity 1 MW COD 4 Sept 2014



RT 05 Location HMPRO Muang District, Surat thani Selling Capacity 1 MW COD 8 Dec 2014



RT 06 Location HMPRO Muang District, Surat thani Selling Capacity 1 MW COD 7 Jul 2015



# **RT 07** Location HMPRO Hatyai, Songkhla Selling Capacity 1 MW COD 9 Oct 2015

RT 08 Location HMPRO Khao Yai, Nakhon Ratchasima Selling Capacity 1 MW COD 13 Nov 2014

Location HMPRO Ekamai-Raminthra, Bangkok



# RT 09

RT 10

Selling Capacity 1 MW COD 11 Feb 2015







**RT 11** Location HMPRO Ratchaphruek, Bangkok Selling Capacity 1 MW COD 26 Nov 2014



RT 12 Location The Mall Thapra, Bangkok Selling Capacity 1 MW COD 16 Jul 2015

## Thai Solar Energy Pulic Company Limited 13



**RT 13** Location The Mall Bangkapi, Bangkok Selling Capacity 1 MW COD 28 Jul 2015



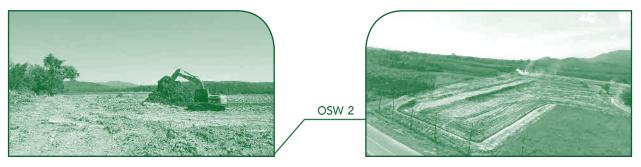
RT 14 Location The Mall Ngamwongwan, Bangkok Selling Capacity 1 MW COD 24 Aug 2015

The number of projects under construction is 3 with total selling capacity of 22.2 MW.





BSW



# Overseas : 4 COD projects with total selling capacity of 5.24 MW.



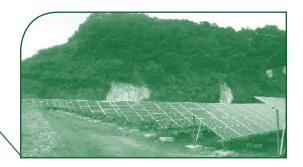


Kuno Project : Ibaraki, Japan 0.5 MW COD : 18 August, 2015





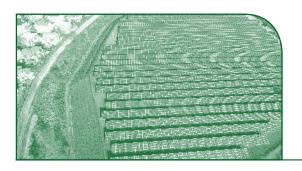
Shima Project : Toyama, Japan 1.25 MW COD : 1 March, 2016





Hikeme Project : Fukui, Japan 1.50 MW COD : 1 April, 2016





Ryugasaki Project : Ibaraki, Japan 1.99 MW COD : 1 September, 2016

The number of projects under construction is 3 with total selling capacity of 16.74 MW.





# **Competitive Strategy**

The Group has developed its operating strategies as follows:

- 1) Efficient management by a team that has expertise in engineering and a long experience in energy and electricity generating, including knowledge and skills in all areas of cost management such as construction cost, administrative cost, and financial costs etc.
- 2) Strict process of EPC Contractors selection. The selected EPC Contractors must be trustworthy and have internationally-accepted professional record to ensure that each power plant is able to produce enough electricity according to the supply contracts that the Group has entered with the MEA and the PEA.
- 3) The EPC Contractors, hired by the Group shall have a world-class team of experts with experience and expertise in the field of civil engineering and installation of solar power plants, including the technical consultant to help in the process of checking and evaluating the projects during the construction process. This is to ensure that the efficiency and consistency of the Group's electricity generation capability is in high level.

For the operation of all 11 PV solar farm projects, the group has hired contractor to provide management and maintenance services for an additional duration of 10 years to ensure that the power plants are managed by experts who are also willing to transfer knowledge and technology knowhow to the staff of the group.

For the 3 biomass power plant project, the group has a co-investor who has operated the rubber wood saw mill for more than 40 years. It can, therefore, be ensured that the management of fuel consumption will be handled efficiently. Moreover, the company was also able to find more new partners to increase the efficiency of fuel delivery to ensure that the quantity is adequate for consumption requirement each daily. The company also set up fuel reserve facility to ensure availability of supply in an event of shortage. In addition, the company is considering the possibility of using other types of fuels such as empty palm fruit bunches as supplementary fuel.

- 4) Focusing on quality control of electricity generation process in order to ensure maximum efficiency in generating and delivering electricity supply as agreed upon in the contracts.
- 5) The Group chooses to use equipment and technology, provided by leading manufacturers to ensure a stable and consistent distribution of electricity supply. The major equipment such as parabolic troughs, steam turbo, cooling system, solar cell panel, inverter and transformer all carry product warranty of 2-12 years. Moreover, the solar cell panels also carry the power output guarantee at not lower than 80.0% of electricity generating capacity throughout 25 years of their operating life time.
- 6) The Group has set up system to closely control and monitor the operation at each power plant by the staff, responsible for controlling the operation of the power plant as well as a controlling system at the head-office that can control the operation of all power plants. This is to ensure the stability, uninteruptability and maximum safety of electricity generation process.
- 7) Earning stable and consistent revenue from electricity generation as all of the 10 solar PV farm projects under SSE1 with total generating capacity of 80 MW has the comprehensive output performance guarantees from the contractor for a period of 10 years, starting from the date that the electricity is supplied into a commercial system. As a result, the Group shall earn minimum revenue as agreed upon with the contractor.
- 8) Establishing business relationship with allies that have good reputation, stable financial status and expertise in energy and related businesses.
- 9) Acquiring support in the form of loans for the projects from financial institutions.

# **Target Customers and Distribution Channels**

**Domestic:** The Group's solar power plant projects are categorized as very small power producer or VSPP that provides electricity supply to Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA) according to the contracts, totaling 26 projects. Therefore, the Group's distribution channels are the electricity connection points from each project to the supply stations and electricity system of the MEA and PEA. The amount of power supply, distributed to MEA and PEA is calculated from the electricity units, passing through the meter at the power distribution point of each project. The MEA and PEA then distribute the electricity to the general public.

**Overseas:** The Group now has solar power plant projects in Japan that generate electricity supply for regional utility Group who oversees public utilities in each region in Japan according to the power supply contract. Therefore, the Group's distribution channels are the electricity connection points from each project to the supply stations and electricity system of each region. From there, the electricity supply is distributed to the general public.

# **Products and Services**

### **Projects Location**

As solar energy generating project relies mainly on solar radiation, thus, selecting the right location for the power plants is very critical. And in realizing that the differences in geography and climate will result in the intensity of sunrays, the Group has studied the intensity of sunrays from 4 main sources which are MetroNorm, NASA, (New Energy and Industrial Technology Development Organization, Japan (NEDO) and Japan Meteorological Agency (JMA) before choosing locations for the power plants.

#### Contractors

#### Solar Thermal Power Plant

The Group is the first one in Southeast Asia to use the Direct Steam CSP technology. This technology uses the steam from a parabolic trough as a thermal conductor instead of oil. Apart from being a cost saving renewable energy, water is safe and does not create pollution. However, it has an inferior quality relating to heat storage. For the beginning phase, the Group has hired a German Group to be the Engineering, Procurement and Construction (ECP) contractor.

#### Solar PV Farm

When hiring EPC Contractors, the Group has a strict process in selecting the contractors in order to ensure that the Group's power plants can efficiently, safely and cost-effectively produce electricity.

In addition, for large-scale projects, the Group has hired the OWL technical consultant to provide consultancy from the beginning process of hiring contractors to the completion of the construction. The consultant's duty is to check the scope of work, investing fund and other conditions in the contracts to ensure that they conform to each project's objective and are reasonable. The consultant also needs to ensure that the contractors delivered each project and performed their works according to the contracts.

For overseas projects, the Group has hired MottMacDonald to provide the technical consults. The Group also has legal and business consultants to provide consults since the process of applying for license and hiring the contractor and an ally, Prospec Holding Inc., who has expertise and experience in construction of solar power plant.

#### Solar Rooftop

The Group procured essential supplies such as solar cells and power converters, etc., directly from suppliers by itself. The Group also hires sub-contractors with experience, skills and potential, appropriate for each location of the projects.

Moreover, the Group hired a technical consultant, the Excellence Engineer International to provide the Group with consultancy on contractor's engineering construction design and quality control for the construction from the beginning until completion. This is to ensure that contractors deliver quality work according to the contracts.

#### **Biomass Power Plants**

The Group has a strict process of EPC Contractors selection to ensure that its power plants will be able to produce electricity efficiently, safely and cost-effectively.

For the 3 biomass power plant projects to be implemented at the same time in the country, the Group has hired the Engineering Evolution, JERA Power (Thailand), and Tractebel as technical consultants to provide consulting services that ranges from the process of hiring sub-contractors to the construction of the projects until the completion. This is to ensure that the scope of work, investment fund and conditions in the contract are in consistent with the objectives of each project and the project will be completed according to the time frame, specified in the contract. The Group also hired the EPC Contractor who has expertise in designing and construction.

# **Procurement of Raw Materials**

The main raw material for power generation is the solar energy whose supply is unlimited, depending on geography and climate. For procurement of main equipment, the Group joins hands with its EPC contractors to select all main equipment used in the Group's power plant projects.

As for Commercial Rooftop PV power plant projects, the Group procures the main equipment by itself by purchasing directly from manufacturers using experience gained from the construction of Solar Farm PV power plants.

The main raw material for biomass power plant project is rubber wood slaps which are abundant in the South. In the case of a shortage in the supply of rubber wood slaps or an increase of their costs, the alternative raw material is the empty palm bunches which are also abundant in the southern regions. The price of rubber wood slaps is relative to the price of raw rubber latex. In the past few years, the price of raw rubber latex was low and thus, causing the price of rubber wood slaps to be low as well. Rubber planters would cut down the rubber trees when they provide lesser rubber latex which is when the trees are 20-25 years old. The price of rubber wood also varies according to the seasons. The price is summer would be relatively lower because it is easier for the planters to cut the tree and make delivery to the buyers than in in rainy season. The important equipment, required for the power plant project was jointly selected by the group and the EPS Contractor.

The Group does not take into consideration only the specifications of equipment such as technology, quality and useful life but also on the qualifications of the sellers or distributors of such equipment such as financial status, business security, after sales services and warranty in order to ensure that the distributors and manufacturers are able to deliver the best services to the Group.

# Hiring of O&M Contractors

In order to ensure the smooth and integrated operations, the Group hired O&M contractors and EPC contractors for the power plants at the same time. For big projects, the EPC contractors are also acting as O&M contractors for that particular project which allows easier management for the projects because they will have the expertise with their own technology. The scope of work operations and the contractors' qualifications are defined in the TOR which is part of the EPC contract.

As for Commercial Rooftop PV Power Plants, the Group shall take responsibility in the operations and maintenance management by itself, using experienced employees who undergone training for the said management from the EPC contractors.

For biomass power plant project, the group has laid out the future plan to hire contractor with experience in biomass power plant operation and will assign the company's personnel to learn and to receive the transfer of knowledge from the experienced contractor so as to enable the team to operate the biomass power plant in the future.

# **Environmental Impacts**

The Group complies with the standards related to the studies on preventive and correctional measures for environmental impacts called "Environmental Safety Assessment" or "ESA" which is a measure that plays an important role in environmental impact control. The study has to be strictly implemented before starting construction of the solar power plant projects. In addition, it has to be undertaken according to measures related to environmental impact mitigation and tracking together with examining environmental quality. The said performance needs to be reported to relevant departments regularly.

The Group also operates its business based on ISO 9001:2008 and ISO 14001:2004 which are both international standards. As for the Solar thermal and Solar PV power plants, the Group has established regulations and best practices in relation to environmental concerns according to laws, appropriateness and accountability. These are to ensure that the Group's solar energy productions are operated without creating pollution whether it is noise, heat or air; and there will be no negative impact to local community and the country as a whole.

# **Risk Factors**

Risk factors related to the Group's operation that may have a significant impact on the Group, and its risks prevention guidelines are as follows:

### 1. Risk related to business operation

#### 1.1 Risk from the lower-than-expected electricity output

Usually the electricity output of solar power plants may be affected by both external and internal factors. Significant internal factors include, for example, the efficiency and useful life span of equipment that ranges from solar collectors trough, solar modules, wind turbines, to transformers. Moreover, there are also the loss of output and the technical problems that could occur during the electricity generating process. The significant external factors include solar intensity, changes in climate, and natural disasters such as floods, storms and fire etc. These risk factors can cause the Group to be unable to generate electricity output that is less than expected and may pose a direct effect on the revenue and business performance of the Group and other operators in the industry.

From 2012 to present, the Group's electricity output from solar thermal power plant was lower than the output, estimated by the former management team due to lower sun radiation and shorter daily operation time as well the too humid climate condition. Furthermore, a thermal power plant usually requires equipment with moving parts more than a PV power plant and Thailand's climate may cause quicker wear down of the equipment than normal. These could incur more than expected repair and maintenance expenses for the Group or the Group might need to set impairment of assets for some asset items.

However, the Group realizes and is aware of the problems and sets high priority to solving such issues. At present, the Group has completed an analysis and a study and the procurement of new technology to improve the efficiency of solar thermal power plant.

That experience has led the new management team to realize the importance of those risks. Before commencing the construction of the solar PV power plant, the Group hired Owl Energy Limited ("OWL"), a technical consulting firm with extensive experience in solar power to conduct the feasibility study and to be a consultant for the process of selecting the EPC Contractor including the controlling and overseeing of the construction of the power plant to be in accordance with the construction drawings, time frame and agreement. In addition, the EPC Contractor provides an output performance guarantee to the Group for the period of 10 operating years and also provides warranty to major equipment to minimize this risk.

#### 1.2 Risk from reliance on major customers

The Group's 2 major customers are MEA and PEA who buy all of the electricity supply, generated by the Group according to the PPA that determines fixed output and purchase price for each period, based on the policy to support alternative energy of the Energy Policy and Planning Office, Ministry of Energy. Therefore, if these 2 customers terminate the PPA, it may have a critical impact on the Group's business operation.

However, the Group has 2 types of PPA, distinguished by the contract period. The first type is a 5-year contract, automatically renewable for 5-years each until the contract expires or is terminated and the second type, the 25-year contract. The Group strictly complies with the terms and conditions in the PPA, and the government promotes the renewable energy business which should make the Group be able to renew the contract.

#### 1.3 Risk from reliance of on EPC Contractor

The Group hires an EPC Contractor to design, procure equipment, and construct each of the power plants. These assigned tasks require EPC contractor who has experience, expertise, technology knowledge and strong financial status because the EPC contractor tend to be the owner of technology, required by those power plant to generate electricity and act as the guarantor of efficiency and effectiveness of power production. Moreover, such contractor may be the manufacturer and distributor of some of the equipment to the power plant. Therefore, the Group faces a risk from reliance on EPC Contractor in a case where the EPC Contractor has difficulties in operation or other factors that may affect its financial status causing the risk of not being in compliance with terms and conditions, stipulated in the EPC contract. This situation might affect the revenue, expenses and performance of the Group. 19 Thai Solar Energy Public Company Limited At present, the Group has an internal team that can handle basic repair and maintenance of the equipment.

As for backup/replacement equipment, the Group is able to procure enough of them to maintain normal and uninterrupted operation.

However, in realizing the potential presence of the risk so, the Group has put in place a stringent selection process for EPC Contractor and engages technical consultants with solar power plant experience to act as advisors in the selection and hiring of EPC contractor, including the monitoring and supervising of the construction of power plants to ensure that it is in accordance with the drawing plan and the agreement.

In selecting the contractor, the Group initially focuses on each contractor's technical information such as qualifications (experience, expertise, technology know how, and financial status), efficiency and effectiveness of the equipment, warranty (electricity output and equipment), and services. After all of those factors have been considered, the Group, then, concentrates on pricing to ensure that it has hired a contractor of high quality at reasonable price.

#### 1.4 Interest Risk

It is a general characteristic in solar power generating industry that the power plant companies tend totake out loan from commercial banks in the form of project financing with D/E ratio in the range of 2:1 to 3:1 and with floating interest rates whereby the loan period and interest rate are subject to credit worthiness of the borrower. Thus, the Group faces a risk from interest rate volatility as does any other operator in the business.

#### 1.5 Insolvency Risk

The source of operating fund of most of solar power plants is a loan. The power plant operator, therefore, has an obligation to pay interest and repay the principal to the commercial bank when they are due, and comply with financial conditions, specified in the loan agreement. If the business operation is not good or the Group cannot comply with such financial conditions, it may face the risk of not being able to pay interest or repay the principal when they are due or may be subject to a demand to repay the whole debt amount immediately as any other operator in the industry may face.

According to the loan agreement, the Group has to maintain debt service coverage ratio (DSCR) of not less than 1.1. The lending bank shall conduct an audit half-yearly.

As of 31 December 2015, DSCR is equal to 6.38 which it conform with loan agreement's condition, the Group can pay interest and principal according to the repayment schedule.

Moreover, the management has adjusted the financial restructure and analyzed, studied, and sought new technology in order to improve the efficiency of its thermal power plant operation. The Group also tries to develop its PV projects in order to create revenue to the Group as soon as possible. Since, the yearly minimum electricity output from these solar farm PV projects have been guaranteed by EPC contractor, the Group is positive in its ability to repay loans and loans interests within the due period.

#### 1.6 Risk from changes in policy of the government or relevant agencies

The Group faces a risk from changes in policy of the government or relevant agencies like any other solar power plants operators such as changes in power development plan in relation to the renewable energy, supporting measure for renewable energy, conditions for the electricity purchase, conditions of permit for factory operation (Ror Ngo 4) or environmental permit etc.

However, the Group realizes this risk and tries to reduce the risk by carefully studying the information on changes of governmental policy or other government agencies and conducting a feasibility study of the projects as well as taking into account relevant rules and regulations thoroughly and continuously.

#### 1.7 Exchange Rate Risk

In accordance with our expanding in capacity overseas, there are revenue, loan, investment costs and expenses in a foreign rate as a result having the Group an exchange rate risk. In 2015, the Group invested totally 2,148.83 Million Japanese Yen or equal 743.94 Million Thai Baht (using average selling exchange rate of the Bank of Thailand on 31rd December 2015 at 0.302756 Thai Baht per Japanese Yen). In the future, the Group will increasingly invest in overseas which will cause more of assets and liabilities in foreign rate. In conclusion, the foreign rate from overseas investments could affect the Group performance. The Group has a main policy to managed the exchange rate risk by financing loan the same foreign rate as its income to minimize the effect of the risk (Natural Hedge).

#### 1.8 Risk from investment in new projects

The Group has a plan to invest in new solar power projects including solar farms, solar commercial rooftops, solar residential rooftops, and other renewable power projects through both its own investment or joint- investment in Thailand and other countries. The performance from such projects should create secured long-term revenue and provide risk diversification for the Group. The plan is also in line with the government's policy to promote the use of renewable and alternative energy.

However, since these are new projects that have to undergo several operational stages such as a feasibility study, land procurement, execution of electricity purchasing contract, seeking source of funds etc., the Group faces many risks from these new projects such as risks related to the increasing price of land, price competition, selection of locations for operations such as rooftop solar module, storage etc. In addition, there are also risks from entering into electricity selling and buying contract, risk from seeking source of funds, risk from fluctuation of exchange rates for overseas investment projects, risks from a delay in projects' operations, and risk from investment returns that are lower than expected, etc.

Being aware of the above-mentioned risks, the Group, therefore, opts to develop a strict investment policy and regularly monitors the progress of the projects. Moreover, the responsible management will report the progress to the executive committee every month.

#### 2. Business management risks

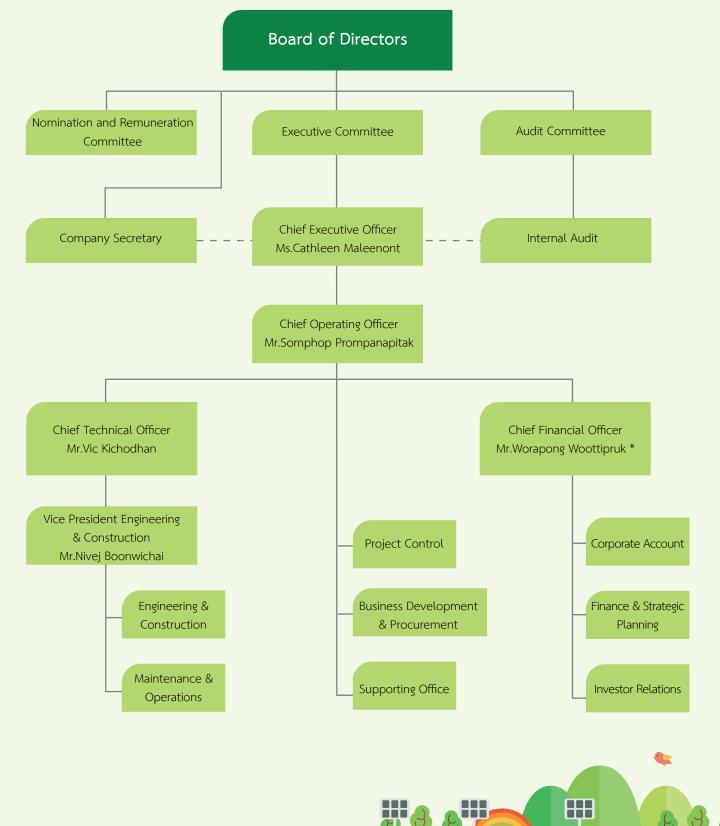
#### 2.1 Risk relating to major shareholders holding more than 50% of total paid-up shares

The Group's major shareholder is Dr. Cathleen's group who collectively holds 1,145,571,830 shares or 63.1% of the total paid-up shares. Thus, this group of shareholders can control the majority of voting rights. As a result, other shareholders of the Group have the risk related to their inability to gather sufficient voting rights to maintain checks and balances with respect to agendas proposed by the major shareholder.

However, the Group has set up management structure that comprises personnel with knowledge and apability, a clear scope of roles and responsibilities, and assigned authorities to the board members and the management, based on clarity and transparency. Moreover, the Group has prescribed measures on transactions related to directors, major shareholders, parties with controlling power as well as parties with conflict of interest. These parties are not allowed to vote when it involves their interests. This is to ensure that the business operation of the Group is carried out transparently. In addition, the Group appoints 6 independent directors from a total of 10 directors to ensure checks and balances as well as effectiveness of the Group's management.

# **Corporate Governance**

# **Organization Chart**



The Group operates the business under ethical principles and legal compliance and standard and code of good practices that the Group has laid out as policies for the Board members, executives and employees to comply with according to the corporate good governance and code of good practice guidance. The Group also posts these policies on its web site: www.thaisolarenergy.com under the topic: Investment Relation–Corporate Governance.

SET Guideline	The Company's Explanation
The Chairman of the Board should be an Independent director	<ul> <li>Chairman of the Board is not an independent director</li> <li>The Chairman of the Board is a visionary, experienced, Knowledgeable in business and can provide independent Opinions.</li> </ul>
The Chairman of the Board and the Chief Executive Officer should not be the same person	<ul> <li>The Company has the same person who serves as the Chairman of the Board and the Chief Executive Officer</li> <li>Under the Board structure, more than half of the Board members are independent directors and the company has set a clear scope of authority, duties and responsibilities of the Board members and the Chief Executive Officer. Moreover, the approval process and operation of business are in accordance with the rules and regulations on approval process, reviewed and approved by the Board of Directors</li> </ul>
The Board should set a term of not more than 9 years for the independent director	<ul><li>The Company doesn't set a consecutive term for the independent director</li><li>The Company is in the process of setting a guideline on this</li></ul>
The Board should set a rule that the board members are able to serve in positions of not more than 5 other listed companies	The Company doesn't set the for how many other companies that the board members can serve The Nomination and Remuneration shall review and set the qualifications, knowledge, capability and availability of time to perform duties in order to use as guidelines for appointment of board members
The members of Nomination and Remuneration Committee should all be independent directors	<ul> <li>The members of Nomination and Remuneration Committee are independent directors and members of Executive Director</li> <li>The Chairman of the Nomination and Remuneration is anindependent director who is able to provide independent opinion</li> </ul>
Company should lay out a policy that the board meeting quorum requires the presence of at least 2/3 of the total number of the board members.	<ul> <li>Company does not lay out a policy on quorum of meeting.</li> <li>In the board meeting, the company adheres to a practice prescribed under the public company act. However, at every board meeting, the number of attending board members is at least 2/3.</li> </ul>

# Rights of Shareholders

Putting the rights of shareholders as the first priority, the Group conducts the business to assure the shareholders that they can fully exercise the following basic rights. Every shareholder is entitled to the rights and equitable treatment detailed below

- Right to purchase, sell, or transfer stocks and to be sufficiently information
- The right to an equitable dividend
- Right to receive sufficient information via the Company website or SET website or other channels indicated by the Company
- The right to propose meeting agenda in advance so that it can be included in the meeting agenda and the right to nominate a person to be member of the board at the annual general meeting of the shareholders.
- Right to attend the shareholders' meetings and exercise their right to vote for the agendas
- Right to ask the Board of Directors about their reports and other topics proposed in the shareholders' meetings for further consideration and approval.

(More detail can be found in the company's annual report (Form 56-1) posted on: www.sec.or.th or www. thaisolarenergy.com)

# Equitable Treatment of Shareholders

The Company shall equally and fairly treat all shareholders, including managerial, non-managerial, foreign and individual shareholders under the following principles:

- The Company shall arrange to timely provide the information on date, time, venue and agenda of share holders' meetings, opinions of the board and detail to support the review of each agenda, including all of the information related to the businesses that the shareholders must review and make a decision in the shareholders' meeting in the Company's website in advance with adequate preparation time.
- The Company shall conduct the meetings in the sequence, indicated in the invitation letter.
- Small shareholder is entitled to nominate a person to be member of the board.
- Shareholder who is unable to attend the meeting but wants to cast a vote by a proxy may do so because the Group assigns at least 1 independent board member to be assigned as a proxy to attend the meeting and cast a vote on behalf of the shareholder.
- The Company shall provide the ballots for all agendas and shall inform the meeting of the ballot collec tion method, including the ballots of important voting, such as the appointment of individual director, connected transactions and obtaining or selling the significant assets.
- The Company's policy to encourage the shareholders' to use their right to elect each individual director.

(More detail can be found in the company's annual report (Form 56-1) posted on: www.sec.or.th or www. thaisolarenergy.com)

# The Shareholders Meeting

The company's board convenes the ordinary shareholders' annual general meeting once within 4 months after the end of the accounting period and may call an extraordinary shareholders' meeting if it is necessary to propose urgent agenda on a special case basis. Such agenda must be one that affects the shareholders' interest or related to legal enforcement.

The Chairman of the Board, executives and auditor shall be present at the meeting to provide information and responses to inquiries related to the agenda. Before the meeting, the company shall inform the shareholders of their rights according to the company's Articles of Association, meeting procedures, voting method and the rights to express opinions or to raise questions in the meeting according to the agenda and proposed businesses.

After the meeting, the Group shall complete the minutes of the shareholders meeting within 14 days. The minutes shall include adequate information, including the questions and answers during the meeting. The shareholders who did not attend the meeting may read the minutes from the company's web site. Roles of Stakeholders

### **Roles of Stakeholders**

The Group realizes the important roles of all groups of stakeholders such as shareholders and employees, customers, business partners, creditors, competitors, public and society.

#### Shareholders or Investors

The Group shall equally treat all shareholders and shall provide related information that significantly benefits the shareholders. Moreover, the Group also realizes the importance of the shareholders' benefits and be responsible for them by operating the business with integrity, transparency and fairness.

#### **Employees**

In realizing that the employees are the key factor that drives target achievement, the Company formulates the policies to fairly treat the employees in many aspects, including opportunity, remuneration, appointment, transfer, and capacity development. The Company offers the compensation, based on a fair and measurable assessment of performance under the regulations, prescribed by the Company. The remuneration and benefits of employees are examined and reviewed to ensure that they are in line with the industry's standard. The Company also promotes and develops its employees to be knowledgeable and capable on a regular basis by sending them to attend training in related work units.

The Group announces policies on remuneration and welfare in the working rules and regulations, including the provision of additional welfare during the year.

#### <u>Customers</u>

The Group adheres to the principles of good faith, credibility and mutual trust, focuses on the problems and needs of the customers, be responsible and cares for their maximum satisfaction and emphasizes a long-term relationship and cooperation with the customers.

#### **Creditors**

The Group shall make an utmost effort to honor all the conditions that it has agreed with the creditors, based on good faith and strict compliance to contractual obligations. It also follows up on the related financial ratio in order to protect mutual benefits and success. In a case that the Group is unable to comply with any of the obligations, it shall inform the creditor in advance in order to jointly find a solution.

#### **Business Partners**

The Group treats business partner in good faith and equal manner in order to ensure appropriate and fair business transaction, sustainable development and long-term partnership. The selection of our partner is based on conditions such as pricing, quality, environmental protection and prevention, technical and legal expertise, trust-worthiness, adherence on correctness and not detrimental to our company's reputation.

#### **Business Competitors**

The Company treats the competitors under fair rules and refrains from violating secret or dishonestly or improperly seeking competitors' confidential information or slandering them.

#### Communities and Society

The Company and employees adhere to the principle of conducting the business responsibly and for the benefits the society and communities. The Company also has the duty to cordially treat and support the local

communities to improve their quality of life as well as to be responsible for a fair and equitable operation of its business. Moreover, the Company also uses green technology to promote sustainable development.

#### Related Government Agencies

It is the Company's duty to comply with the related and enacted law and regulations and to support activities of the government agencies on appropriate occasions. The Company also adheres to conducting the business that is fair and in compliant with the related laws, rules, regulations and notifications in countries where the Company operates the business.

# Disclosure and transparency

The Company has a policy to fully, accurately, promptly and transparently disclose the related and important information, either financial or non-financial information, and other information that may affect the stock prices or the investor's or stakeholders' decision in compliance with the standard of The Stock Exchange of Thailand or the Security and Exchange Commission. Therefore, all parties will equally receive the information through various channels, such as the report to The Stock Exchange of Thailand or the Security and Exchange Commission and the Company's website. The Company also has the investor relations officers to communicate with the investors or shareholders, including institutional and individual investors.

The Company has the policy to prevent and eliminate any potential conflicts of interest that may occur in the future and to review the connected transactions between the Company and/or subsidiaries and any potential conflicting individuals to ensure compliance with related laws, regulations and declarations.

In a case that board members, executives and/or major shareholders of the Group in a manner that may cause a conflict of interest with the Group and/or its subsidiaries, it must be reported to the Board.

The Group has a policy to restrain board members, executives and/or major shareholders from engaging in similar or competing business that may affect the competitiveness of the Group.

In a case that the board member, executive and/or major shareholder holds shares in other company whose business is similar to that of the Group or its subsidiaries, it must be reported to the audit committee to provide opinions and propose the case for a review by the Board.

### Communication with Shareholders or Investors.

The Group has set up a channel to accept complaint cases and/or opinions and provided a direct access to senior executive through email address: info@thaisolarenergy.com . The Group also set up the informant protection program that prevents disclosure of personal information of the informant and keeps them confidential. The internal control department of the Group is responsible for collection the complaint cases and submit them to the Audit Committee for further investigation. If the case affects the company, it shall be further submitted for review by the board.

## Responsibilities of the Board

The Board of Directors is responsible for the shareholders by conducting and supervising the operation

of the business to ensure that it is in compliance with the objectives, and guideline to maximize the benefits for the shareholders, by taking into account the benefits of all stakeholders, including compliance with the laws, objectives, articles of association of the Company and resolution of the shareholders meeting in good faith. The Board shall also protect the short-term and long-term interest of the stakeholders. The Company has 4 committees : Board of Directors, Audit Committee, Nomination and Remuneration Committee and Executive Committee.

#### Board Structure

- The directors are appointed by the shareholders' meetings and the retired directors may be re-elected by the shareholders' meetings.
- The directors shall be qualified persons who do not possess characteristics forbidden by law.
- The Board shall comprise independent directors at least one third of total number of directors and not less than three. The independent directors shall have qualifications and shall not have prohibited characteristics, prescribed by the Board. The qualification requirements should be less strict than those, prescribed by the Security and Exchange Commission. More than half of total number of directorsmust have residences in Thailand.
- The Company set a clear scope of authority of the Board and Chief Executive Officer.
- The Company requires the directors and top management to report any information about their capacity as director, the management or the person with management authority in other limited company, public company limited, partners of ordinary partnership, or limited partnership according to the rules and regulations and methods, prescribed by the Board.
- Each director shall freely perform the duty and exercise the discretion to make decisions as well as to ask, make comment, or express disagreement on issues that affect the interest of shareholders or stakeholders without being subject an influence of any party.
- The Company has the policy to appoint a company secretary to perform various duties required by law and other duties, assigned by the Board.

Name	Surname	Position	Date First Appointed
Ms.Cathleen	Maleenont	Chairman of the Board Member of Nomination and Remuneration Committee	18 February 2014
Mr.Prommin	Lertsuridej	Vice Chairman of the Board Independent Director	18 February 2014
Mr.Pala	Sookawesh	Independent Director	18 February 2014
Mrs.Siripen	Sitasuwan	Independent Director Chairman of the Audit Committee	18 February 2014
Mr.Prasan	Chuaphanich	Independent Director 18 February 2014 Member of the Audit Committee Chairman of Nomination and Remuneration Committee	
Mr.Boonchoo	Direksathapon	Independent Director Member of the Audit Committee	18 February 2014
Mr.Somsak	Woravijak	Independent Director	30 April 2014
Mr.Matthew	Kichodhan	Director	18 February 2014
Mr.Vic	Kichodhan	Director	18 February 2014
Mr.Somphop	Prompanapitak	Director Member of Nomination and Remuneration Committee	18 Febuary 2014
		Company Secretary	11 August 2016

#### **Board of Directors**

As of December 31, 2016, Board of Directors consisted of the following 10 directors:

Authorized Signatories

Ms.Cathleen Maleenont, Mr.Vic Kichodhan, Mr.Matthew Kichodhan, Mr.Somphop Prompanapitak have been designated as the Company's authorized signatories. Validation of all documents requires the signatures of any two of these four directors along with the Company's seal.

# The roles and responsibilities of the Board

- 1. Perform duties and control the operations of the Group with accountability, carefulness and integrity and in accordance with laws, objectives and regulations of the Group as well as the resolution of Board of Directors meeting and shareholders meeting for the benefit of the Group and shareholders
- 2. Review and set the vision, policies, strategies, business directions, business plan, budgets and investment fund of the Group including supervising and controlling the management team to undertake their duties efficiently and effectively and in accordance with the aforementioned policies. Inspect, monitor, and review the operation of Group regularly and continuously to ensure it is in line with the business plan and budget and earns optimum benefit to the Company and shareholders
- 3. Supervise, monitor and evaluate operating performance of the Group operations and performance of the management regularly to ensure that they are in line with the prescribed objectives and plan
- 4. Arrange corporate good governance policy and regularly monitor and evaluate the results of implementation of such policy. The corporate good governance policy is reviewed at least once a year
- 5. Arrange appropriate accounting, financial reporting, risk managing and internal auditing systems that are efficient, credible and suitable to the operation of the Group operations. Set up adequate and suitable internal control system in the Group operations and a mechanism to audit, monitor and assess the performance of such system.
- 6. Review and approve transactions relating to the acquisition or disposal of assets, new business investment, and any operations required by laws, notification, and related rules and regulation
- 7. Review and/or provide opinion on the carrying out of related transaction and/or all transactions of the Group operations in case where the value of such transaction does not fall under a condition to be reviewed or approved by shareholders meeting in order to be in compliance with the laws, notification, rules and regulations.
- 8. Manage operations to ensure compliance with regulations of the Securities and Exchange Stock of Thailand and any related laws and to ensure that the disclosure of information that may cause conflict of interest between the stakeholders is done correctly and completely.
- 9. Promptly report to the Company, if the Board was found that there have been or may be a conflict of interest from making an agreement or acquiring or selling of the shares of the Group operations by upholding the interest of the shareholders and stakeholders as the utmost priority. In a case where a board member has a conflict of interest in any forms when involving in any transaction with the Group operations, that Board member shall have be entitled to vote to approve such transaction.
- 10. Disseminate and disclose appropriate data to stakeholders, parties that may have conflict of interest and other related parties accurately, completely, appropriately and punctually.
- 11. Generate accurate and complete financial report within a prescribed timeline as well as to approve a quarterly and annual budget.
- 12. Arrange to include a report of Audit Committee in annual report of the Company. The report must cover the important auditing areas, required under the code of best practice for directors of listed companies in the Stock Exchange of Thailand.
- 13. Authorize one or more directors or other individuals to jointly or separately undertake one or multiple tasks on behalf of Board of Directors. However, such authorization must be under scope of legal authority of the Board of Directors and the scope of authority and duties of the attorney must be clearly defined. However, such authorization must not enable any member of Board of Directors or attorney to consider and approve any transaction or take any action that he/she or the party with conflict of interest (as defined in the

Notification of The Securities and Exchange Commission) in any form with the Company or subsidiaries except in the case of granting the approval normal business transactions with general trading conditions and the Board of Directors have already approved such transaction in principle in accordance with the Securities and Exchange Commission Act.

- 14. Appoint a person to serve as a Director of the Company when the position is vacant due to certain circumstance other than the end of the term. The appointee must have required qualifications for a director and must not have prohibited characters stated in the Public Limited Company Act, B.E. 2535 (including its amendments), Securities and Exchange Commission Act, B.E. 2535 (including its amendment) as well as notification, related regulations and/or rules.
- 15. Approve remuneration for the director as proposed by the Nomination and Remuneration Committee and propose that remuneration for approval at the shareholders meeting.
- 16. Appoint sub-committee to assist in the management, supervision and internal control of the Company when required and deemed suitable.
- 17. Arrange to have a charter of sub-committee and review and approve changes of rules in the charter as deemed appropriate and to make it up-to-date.
- 18. Appoint a executive with qualification according to the definition by Securities and Exchange Commission and/ or Capital Market Supervisory Board and approve the remuneration.
- 19. Determine organizational structure as well as scope of authority, duties and responsibilities of the management and the succession plan for CEO.
- 20. Review salary structure, criteria and methodology for annual salary adjustment.
- 21. Appoint the Company Secretary to ensure that Board of Directors and the Company comply with relevant laws and regulations and approve remuneration for the Company Secretary
- 22. Set up a channel to receive professional opinions from independent consultant as deemed appropriate so the Board of Directors can use the input for decision making process and the Company shall be responsible for all the incurred expenses
- 23. Review and approve the selection and nomination of independent individual to be serve as an auditor of the Company as proposed by Audit Committee.
- 24. Review, determine and make changes to the name of director who is the Company's authorized signatories.
- 25. Review and approve interim dividend payment to shareholders when the Company is considered to have sufficient profit to do so and report the dividend payment to shareholders in the next shareholders meeting.
- 26. Encourage committee members and directors to attend courses/ seminars of Thai Institute of Directors that are related to the duties and responsibilities of committee members or directors.

### **Board Tenure**

In accordance with the Company's Articles of Association, one-third of the board members, namely the directors who have served the longest, shall retire at each annual general meeting of shareholders. If the total number of board members is not a multiple of three, the number of persons nearest to one-third shall retire. All directors who retire from office are eligible for re-appointment.

If a vacancy arises on the Board for reasons other than the expiration of a director's term of office, the Board will, at the next scheduled meeting, select a temporary replacement, choosing a person with the appropriate qualifications in accordance with the Public Limited Companies and related laws. The temporary replacement must be approved by a vote of not less than three-quarters of the remaining directors, and will hold the position only until the normal expiration of the departed director's term of office. If this is less than two (2) months, no temporary replacement will be appointed.

The selection of new director must be screened and approved by the Nomination and Remuneration Committee.

#### The Reappointment of Retiring Board Member

The Nomination and Remuneration Committee shall consider many factors such as experience, expertise, time to devote to the duty, meeting attendance, etc. In the General Shareholders Meeting in 2016, Mr. Prommin Lertsuridej, Mr. Boonchoo Direksathapon, Mr. Matthew Kichodhan, Mr. Somphop Prompanapitak were reappointed to the serve one more term according to the opinions and reviewing process of the Nomination and Remuneration Committee.

#### The Board Meetings

The Company sets the rules and regulations for the Board meetings as follows:

- The Board has scheduled the meetings in advance at least once every quarter and extraordinary meetings as deemed necessary and appropriate. More than half of all directors must attend the meeting to constitute the quorum.
- The meeting agendas are set in advance and the secretary will make sure that every director receives the materials in advance and has enough time to review the documents in order to prepare to express opinions or cast the vote.
- Summary of important businesses to be reviewed at the meeting shall be included in the agenda and meeting documents to be attached with meeting invitation.
- Each must be notified at least seven days in advance.
- The Chairman has the duty to allocate enough time for the management to prepare documents for discussion and for the Board to discuss important topics as well as to provide opportunity and to encourage each director to express the opinions before summarizing the comments, expressed at the meetings.
- In considering the meeting agendas, the directors with conflicts of interest in those agendas are not entitled to vote and cannot be present in the meeting during the review of that agenda.
- Every meeting must be recorded in a written form of minutes that must be verified by the Board must kept in a file, ready to be inspected by the Board or related parties.

# Meeting attendance

Name	Sername	AGM	Date First Appointed
Ms.Cathleen	Maleenont	attend	9/9
Mr.Prommin	Lertsuridej	attend	8/9
Mr.Pala	Sookawesh	attend	8/9
Mrs.Siripen	Sitasuwan	attend	7/9
Mr.Prasan	Chuaphanich	attend	8/9
Mr.Boonchoo	Direksathapon	attend	8/9
Mr.Somsak	Woravijak	attend	9/9
Mr.Matthew	Kichodhan	attend	8/9
Mr.Vic	Kichodhan	attend	9/9
Mr.Somphop	Prompanapitak	attend	8/9

# The reserved key matters for the Board

- Annual Business Plan and Investment
- Review the Company's investment project
- The spending of management spending budget
- Entering into important contract that contain general trading conditions.
- Borrowing and guarantee agreement with the bank
- Organizational structure and appointment of Chief Executive Officer and senior management
- Dividend and interim dividend payment

### Enhancing the Directors' knowledge and business outlook

The Board focuses its endeavor on enhancing the directors' knowledge. Each director shall have a chance to attend training courses, hosted by various agencies to increase the knowledge and expand point of view.

### Board's self-evaluation

The Company shall arrange self- evaluation for the Board members every year in order to allow them to evaluate their performance in the past year and to find a way to improve their efficiency for the following years.

# **Business Ethics**

The Board of Directors operates the business under ethical principle and complies with standard laws and code of good practice as follows.

- 1. Operate the business by adhering to the principle of good faith, transparency and equity under the law, rules and regulations related to the business operation.
- 2. Perform duties with knowledge, skills, determination and cautiousness and strive to improve knowledge and fully apply the knowledge and skills to the management.
- 3. Disclose data and information completely, correctly and transparently according to the law, rules and regulations of corporate governance.
- 4. Treat the stakeholders such as shareholders, customers, competitors, partners, creditors, employees and the general public fairly and equally and correctly and completely disclose information to related parties.
- 5. Respect and adhere to the practices under the basic principle of human right and dignity without depriving or discriminating against the right of any individual.

- 6. Arrange to set up adequate and proper internal control system and develop a clear and effective system and mechanism for auditing, controlling and balancing the use of authority.
- 7. Adhere to business practices that are in compliance with the laws related to safety and health in the work place.
- 8. Promote and support activities that are beneficial to society, culture and tradition.
- 9. Set the rules to ensure that all employees have the duties and responsibilities to comply with the working rules and regulations of the Company and related laws.

\* The company discloses detail on Business Ethics in the website: www.thaisolarenergy.com under the topic of "Investors Relations-Corporate Good Governance".

### **Company Secretary**

The Board of Directors, at its meeting on August 11, 2016, resolved to appoint Mr. Somphop Prompanapitak to serve as the Group's Secretary, replacing the one who resigned in accordance with the requirement of the Securities and Exchange Act, B.E. 2535 (and its amendment). Mr. Somphop Prompanapitak graduated with an MBA in Management from Kasetsat University, Master Business Administration (Finance) from California State University and a Bachelor Degree in Economics (English program) from Thammasat University.

And has completed the 31/2009 Company Secretary Program, organized by the Institute of Directors (IOD).

# Duties and responsibilities of the Company Secretary

- 1. Prepare and keep the directors' registration, notices of board meeting, minutes of board meeting, annual report of the Company, notices of meeting appointment of shareholders, minutes of shareholders meeting
- 2. Keep the report relating to stakes holding, submitted by the directors or the management
- 3. Perform other businesses as prescribed by Capital Market Supervisory Board
- 4. Submit copy of stakes holding report as prescribed in Section 89/14 of the Securities and Exchange Commission Act B.E. 2535 (amended), prepared by directors, to Chairman of Audit Committee within 7 business days from the day the Company has received the report
- 5. Perform any other duties and responsibilities specified in the Securities and Exchange Commission Act B.E. 2535 (amended)

### The Audit Committee

Review the Group's financial reporting, the Group's internal control system, risk management system, compliance, select a person to be the Group's auditor, the connected transactions or the transactions that are required in the laws and regulations of the stock exchange or capital market in order to ensure that the disclosure of information by the Group and the report, prepared by the Audit Committee is correct and transparent.

Name	Surname	Position	Meetings Attended
Mrs.Siripen	Sitasuwan	Chairman of the Audit Committee Independent Director	4/4
Mr.Prasan	Chuaphanich	Member of the Audit Committee Independent Director	4/4
Mr.Boonchoo	Direksathapon	Member of the Audit Committee Independent Director	3/4

As of December 31, 2016, the Audit Committee consisted of 3 directors as follows:

Ms. Patsachol Oupkaew as Secretary of Audit Committee

All three members of Audit Committee possess sufficient accounting and financial knowledge and experience to review the accuracy of the Company's financial statement.

- 1. Mrs. Siripen Sitasuwan is currently a Chairman of Audit Committee and Independent Director for Thanachart PCL and other leading companies in Thailand and overseas. She received the Best CFO Award in 2002 from the Asia Best CFO survey conducted by Finance Asia magazine.
- 2. Mr. Prasan Chuapanich is currently the President of the Federation of Accounting Professions. He also serves as a member of Audit Committee and Independent Director for leading listed companies. He holds many key positions in various organizations in insurance business, education sector and associations. In addition, he used to serve as an Executive Chairman of Price Waterhouse Coopers, Thailand and Co-Executive Chairman of Price Waterhouse Coopers, Southeast Asia Peninsula Region.
- 3. Mr. Boonchoo Direksatapon has experience in auditing financial report. He is a CPA (Certified Public Accountant) in England and used to hold key position in accounting and finance departments of power generating business, e.g., Deputy Director of Accounting Department, Deputy Governor of Accounting and Finance Department of Electricity Generating Authority of Thailand. In addition, he used to serve as director, member of audit committee and independent director for many leading listed companies in Thailand.

### Scope of authority, duties and responsibilities of the Audit Committee

- 1. Review the financial reporting and ensure that it is accurate and adequate.
- 2. Review the internal control system, internal audit system and enterprise risk to ensure that they are suitable and effective. Ensure the independence of internal audit unit as well as to approve the appointment, transfer and dismissal of the chief of an internal audit unit or any other units in charge of an internal audit
- 3. Review the Company's compliance with the securities and exchange law, the regulations of the Stock Exchange of Thailand, and laws relating to the Company's business
- 4. Consider, select, and nominate an independent person to be the auditor, and to propose remuneration for the auditor.
- 5. Review the connected transactions or the transactions that may cause conflicts of interest to ensure that they are in compliance with the laws and regulations of the Stock Exchange of Thailand and that the transactions are reasonable and for the utmost benefit.
- 6. Perform other action, assigned by the Board of Directors with the consent of the Audit Committee.
- 7. In performing the duty, if it is found or suspected that the following transaction or action have been made and may pose significant impact on the financial and operational standing of the Group, the Audit Committee shall report to the Board of Directors to improve or make correction within a time frame, deemed appropriate by the Audit Committee.
  - (1) Transactions that may cause conflict of interest
  - (2) Corruption or irregularity or key weaknesses in the internal control
  - (3) Breach of the regulations of the securities and exchange law and regulations of the Stock Exchange of Thailand or other regulations related to its business operation

If the Board of Directors or management does not improve or rectify the situations within the above-specified period, one of the Audit Committee's members may report the matters to the Securities and Exchange Commission or the Stock Exchange of Thailand.

In performing duties, the Audit Committee may seek advice from independent advisor or specialist of other professions as deemed appropriate under the expense of the Group and will be used as an input for the Audit Committee to make decision.

# Nomination and Remuneration Committee

Consider and select a qualified person to be nominated as a new member of the Board or chief of staff, based on the selection criteria or methods that are appropriate and transparent to the board meeting or the shareholders meeting for approval. The committee also has a duty to review the direction and set the remuneration for members of the Board and chief executive officer, based on remuneration criteria and methods that are just, reasonable and approved by the board or shareholders meeting.

As of December 31, 2016, the Nomination and Remuneration Committee consisted of 3 members as follows:

Name	Sername	Position	Meetings Attended
Mr.Prasan	Chuaphanich	Chairman of Nomination and Remuneration Committee and Independent Director	2/2
Ms.Cathleen	Maleenont	Member of Nomination and Remuneration Committee	2/2
Mr.Somphop	Prompanapitak	Member of Nomination and Remuneration Committee	2/2

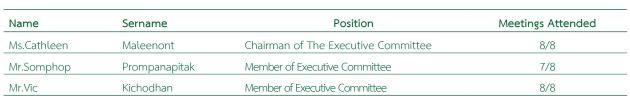
Ms. Malai Jiraruangrit as Secretary of Nomination and Remuneration Committee

# Scope of authority, duties and responsibilities of the Nomination and Remuneration Committee

- 1. Consider to ensure that the organization structure, qualification of directors, Chief Executive Officer and sub-committees are suitable for the Company's business
- 2. Select the candidates to be nominated as new director or Chairman of Executive Director by determining the criteria or credible and transparent selection methods before proposing for consideration and approval by the Board of Directors meeting and/or shareholders meeting
- 3. Set direction on how to determine remuneration and other benefits for director, member of Executive Committee and Chief Executive Officer both in terms of monetary and non-monetary benefits. There must be criteria for fair and reasonable remuneration in line with operating results of the Group and other companies in the same industry to be proposed for consideration and approval by the Board of Directors meeting and/ or shareholders meeting
- 4. Review and approve overall annual remuneration of the Group and subsidiaries
- 5. Review and approve the reward, salary adjustment, remuneration and special bonus other than annual bonus for senior management
- 6. Report the performance of Nomination and Remuneration Committee to Board of Directors and prepare Nomination and Remuneration report, signed by Chairman of Nomination and Remuneration Committee, to be disclosed in the annual report
- 7. Perform other assignments, delegated by the Board of Directors which are related to recruiting and determining remuneration of director, member of Executive Committee and Chief Executive Officer

## The Executive Committee

Oversee the management and day-to-day business operation for the benefit of the Group and to ensure that they are in line with the policies, vision, mission, objectives, business plan, business strategies and budget agreed and approved by Board of Directors. In addition, Executive Committee is in charge of screening all the businesses before proposing them to Board of Directors for approval or consent.



As of December 31, 2016, the Executive Committee consisted of 3 directors as follows:

Ms. Nottaporn Thiengprathes as Secretary of Executive Committee

# Scope of authority, duties and responsibilities of Executive Committee

- 1. Oversee the management and day-to-day business operation for the benefit of the Company and to ensure that they are in line with the policies, vision, mission, objectives, business plan, business strategies and budget agreed and approved by Board of Directors. In addition, Executive Committee is in charge of screening all the businesses before proposing them to Board of Directors for approval or consent
- 2. Oversee to ensure that there is internal control system and appropriate and careful risk control and management system which align with recommendations of Audit Committee.
- 3. Review business plan, budget, annual expenditure, investment plan, and corporate social responsibility (CSR) plan of the Group to be in line with the laid out policies and strategies and propose to Board of Directors for approval
- 4. Review the Company's operating performance summary report and present it to Board of Directors quarterly
- 5. Employ, appoint, transfer or dismiss top executive management
- 6. Determine overall annual remuneration policy of the Group in order to propose to Nomination and Remuneration Committee for approval
- 7. Determine reward, salary adjustment, remuneration and special bonus other than annual bonus for top executive management level in order to propose to Nomination and Remuneration Committee for approval
- 8. Negotiate and enter into the contract and/or any transactions, which are regarded as the normal business operation, within the bu dget limit per transaction and per year as authorized by the Board of Directors
- 9. Approve loan/ loan between Group and subsidiaries within credit limit per transaction and per year as authorized by Board of Directors
- 10. Approve the entering into loan contract between the Company and any commercial banks within credit limit per transaction and per year as authorized by Board of Directors
- 11. Order, issue rules, criteria, notification and internal memorandum concerning business operation to ensure that it is in line with the Company's policies and to the benefit as well as to maintain the well- regarded rules of the organization
- 12. The meeting of the Executive Committee to consider any operations under the scope of power, as prescribed in this order must consist of at least half of the Executive members to be considered as a quorum that can undertake any aforesaid businesses.
- 13. In casting the voting at Executive Committee meeting, each director has the right to give 1 vote. If the number of votes is equal, the Chairman of Executive Committee will exercise the right to give 1 vote and that will determine the final result.

- 14. Any resolution of Executive Committee requires a supporting vote of at least half of all the eligible voters in that particular meeting.
- 15. An Executive Committee Meeting should be called only when needed and deemed appropriate. Any of directors may call for special meeting other than regular one provided that he informs the agenda of the meeting well in advance to allow enough time for other directors to review the agenda
- 16. Executive Committee may appoint a working committee and/or any individuals to take charge of screening matters to be presented to Executive Committee or undertaking any tasks beneficial to the working of Executive Committee or to act on behalf as delegated by Executive Committee under its scope of authority and duties
- 17. Perform other tasks, assigned and authorized by Board of Directors
- 18. Issue sub-power of attorney and/or authorize other individual to undertake the tasks on behalf of Executive Committee. Such sub-power of attorney and/or authorization must be under the scope authority, stated in the Group's power of attorney and/ or regulations, rules or resolution of Board of Directors.

However, such authorization under the scope of authority of the Executive Committee must not be a granting of sub-power of attorney to any director or attorney who may have conflict of interest with the Group in any forms to approve the transactions. In such case, the Executive Committee shall not have the authority to approve the transactions. Instead, the committee needs to propose the transactions to Board of Directors meeting and /or shareholders meeting to evaluate and give consent except if that transaction is regarded as normal businesses of the Company and have the same criteria as when dealing with outside parties (arm's length transactions)

## Management Team

As of December 31, 2016, The Company has 4 executives according to the definition of the "management" of the Office of the Securities as follows:

Name	Sername	Position	
Ms.Cathleen	Maleenont	Chief Executive Officer	
Mr.Somphop	Prompanapitak	Chief Operating Officer	
Mr.Vic	Kichodhan	Chief Technical Officer	
Mr.Nivej	Boonwichai	Vice President – Engineering & Construction	
Mr.Ronachai	Rungfa	Assistant Vice President - Accounting	

# Scope of authority, duties and responsibilities of Chief Executive Officer

- 1. Manage overall business, finance, marketing, human resources and other operations in pursuance to the policies and business plan as agreed and authorized by Executive Committee and/or Board of Directors
- 2. Consider to set up a working committee to assist in business operation or problem solving in pursuance to the policies of the Company
- 3. Approve all the expenses incurred in the plans which have been approved by Board of Directors and/or Executive Committee
- 4. Arrange to ensure that the Group has a suitable internal control system in pursuance to the directions given of the Audit Committee

- 5. Arrange to ensure that there is suitable risk management and control system that comply with the direction given by Executive Committee and/or Audit Committee
- 6. Carry out overall Management of human resource, oversee the tasks undertaken by the employees to ensure that they are in compliance with the policies and rules including the principle of corporate good governance and encourage the employees to acquire more knowledge, competency and capability in order to increase capability of the organization
- 7. Appoint and dismiss employee or staff in the position below Chief Executive Officer and to dismiss employees or staff, approved by Board of Directors or Executive Committee
- 8. Negotiate and enter into a contract and/or any transaction, regarded as normal business operation, within the budget limit per transaction and per year as authorized by Board of Directors
- 9. Approve the opening of the branch and/or new representative office and establish new subsidiary under relevant laws/rules and regulations
- 10. Approve a borrowing/ loan between Group and subsidiaries within credit limit per transaction and per year as authorized by Board of Directors
- 11. Approve the entering into a loan contract between Group and any commercial bank within credit limit per transaction and per year as authorized by Board of Directors
- 12. Approve the opening of bank account with any commercial bank
- 13. Making order, issue rules, criteria, notification and memorandum concerning business operation in pursuance to the policies and for the benefit of the Company
- 14. Summarize and report important transactions, undertaken within the scope of authority of Chief Executive Officer to Executive Committee and/or Board of Directors respectively.
- 15. Approve the connected transactions that are under normal business conditions, e.g., trading goods at market price and with the same conditions as general customers, under policies approved by Board of Directors and in pursuance with the regulations of Stock Exchange of Thailand
- 16. Perform other tasks as delegated and authorized by Executive Committee and/or the Board of Directors.
- 17. Issue sub-power of attorney and/or authorize other individual to undertake the tasks on behalf of Executive Committee. Such sub-power of attorney and/or authorization must be under the scope authority, stated in the Company's power of attorney and/ or regulations, rules or resolution of Board of Directors. However, such authorization under the scope of authority of the Executive Committee must not be a granting of sub-power of attorney to any director or attorney who may have conflict of interest with the Group in any forms to approve the transactions. In such case, the Executive Committee shall not have the authority to approve the transactions. Instead, the committee needs to propose the transactions to Board of Directors meeting and/ or shareholders meeting to evaluate and give consent except if that transaction is regarded as normal businesses of the Group and have the same criteria as when dealing with outside parties (arm's length transactions)

# Recruiting and Appointing the Directors and Top Management

The Nomination and Remuneration Committee has a duty to review the expertise and qualifications of the director to be appointed by preferring person who has ability, experience, good career record, outstanding leadership, vision, good moral, ethics and positive attitude towards the organization and can contribute enough time to the operation of the business.

# Criteria for the Nomination

## 1. Director

The Nomination and Remuneration Committee considers candidates for the position of director from the business-related knowledge or considers from among the major shareholders, whose experience can benefit the Group or from the shareholder who holds voting shares at a total of not less than 5% of the total number of voting shares of the Group on the date that the agenda is submitted or nominates a person who is qualified to be appointed as a director in advance. The person must be fully qualified as specified in the Public Limited Group Act, B. E. 2535, the Securities and Exchange Act, the notifications of the Securities and Exchange Commission, the notice of Capital Market Supervisory Board, and the related notifications, rules and/or regulations. However, the appointment of new director must be approved by the Board and/ or the shareholders' meeting according to the Company's articles of associations.

# 2. Independent Director

The Nomination and Remuneration Committee shall select a person to serve as an independent director by considering his/her qualifications, stipulated in the Public Limited Companies Act B.E. 2535, the Securities and Exchange Act, the Notifications of the Securities and Exchange Commission, the notifications of the Capital Market Supervisory Board, and other related notifications, rules and/or regulations. The number of independent directors should be more than three or at least one third of total directors, depending on which one is higher.

### The qualifications of independent directors

Independent directors must not own, take part in managing, or have benefit in the Group that may affect their independent decision. The Independent directors should have the following qualifcations:

- 1. Holdings share not more than 1% of the total number of voting shares of the Company, its parent company, subsidiary, affiliate, major shareholder or controlling person including shares held by related persons of the independent director
- 2. Not be nor have been an executive director, officer, employee, controlling person or advisor who receives a salary, of the Company, subsidiary, affiliate, major shareholder or controlling person, unless the foregoing status ended not less than two years prior to the date of appointment. This restriction shall not apply to an independent director who has been a government officer or an advisor to a government authority that is a major shareholder or controlling person of the Company.
- 3. Not be a person related by blood or registration under law, such as a father, mother, spouse, sibling, or child, including spouses of children, executives, major shareholders, controlling persons, or persons to be nominated as executives or controlling persons of the Company or its subsidiaries
- 4. Not have nor have had a business relationship with the Company, subsidiary, affiliate, major shareholder or controlling person, in a manner which may interfere with his or her independent judgment, and neither being nor having been a substantial shareholder or controlling person of any entity having business relationship with the Company, subsidiary, affiliate, major shareholder or controlling person who may have a conflict of interest unless the foregoing status ended not less than two years prior to the date of appointment.

The term "business relationship" mentioned above includes any normal business transaction, rental or lease of immovable property, transaction relating to assets or services or grant or receipt of financial assistance through receiving or extending loans, guarantee, providing assets as collateral, including any other similar actions, which result in the Company or its counterparty being subject to indebtedness payable to the other party in the amount of three percent or more of the net tangible assets of the Company or twenty million baht or more, whichever is lower. The amount of such indebtedness shall be calculated according to the calculation method for the value of connected transactions under the Notification of the Capital Market Supervising Committee Re: Rules on Connected Transactions mutatis mutandis. The combination of such indebtedness shall include indebtedness occurring during the course of one year prior to the date on which the business relationship with the person commences.

- 5. Neither be nor have been an auditor of the Company, subsidiary, affiliate, major shareholder or controlling person nor be a substantial shareholder, controlling person or partner of an audit firm which employs auditors of the Company, subsidiary, affiliate, major shareholder or controlling person, unless the foregoing relationship ended not less than two years from the date of appointment.
- 6. Neither be nor have been any kind of professional advisor including a legal advisor or financial advisor who receives an annual service fee exceeding two million baht from the Company, subsidiary, affiliate, major shareholder or controlling person, and neither be nor have been a substantial shareholder, controlling person or partner of the professional advisor unless the foregoing relationship ended not less than two years from the date of appointment.
- 7. Not be appointed as a representative of the Company's directors, the major shareholder or any other shareholder who is a related person to the major shareholder.
- 8. Not conduct any business which of the same nature as the Company's or its subsidiaries' businesses and is in competition with them in any material respect, nor be a substantial partner, shareholder holding more than one percent of the voting shares, director, employee, officer or advisor of any company whose business is of the same nature as the Company's or its subsidiaries' businesses, and is in competition with them in any material respect.
- 9. Not have any characteristics which make him or her incapable of expressing independent opinions with regard to the Company's business affairs. The independent directors may be appointed by the Board to make a decision on the operation as the collective decision.

In case that the appointed independent directors have/had the business relations or provide/provided professional service whose fee is higher than that, specified in No 4 or No 6, the Board may provide leniency if it deems that the appointment does not affect the performance or independent judgment and the Company discloses the following information in the invitation letter to the shareholders' meetings under the agenda for appointing the independent directors.

- A. The nature of business relations or professional service that disqualifies the nominees
- B. The reason and necessity for appointing that nominee as an independent director
- C. The Board's opinion in nominating that particular person as an independent director
- 3. <u>Audit Committee</u>

The Audit Committee must be appointed by the Board of Directors and must be the Company's directors. The Committee consists of at least three independent committee members and the Board appoints one Audit Committee member as the Chairman of Audit Committee. At least one member must know and have experience in accounting or finance to review the credibility of the financial report.

The Audit Committee's qualifications must meet the criteria of the Securities and Exchange Commission, the Office of the Securities and Exchange Commission, the Stock Exchange of Thailand, and other related laws.

Capital Market Supervisory Board, and other related notifications, rules and/or regulations. The number of independent directors should be more than three or at least one third of total directors, depending on which one is higher.

The qualifications of the Audit Committee Members:

- 1. Appointed by the Board or shareholders' meetings as Audit Committee members
- 2. All of them must be the independent directors
- 3. Not being the director assigned by the Board to make a decision on the operation of the Company, subsidiary, affiliate, same-level subsidiary, major shareholder or person with management power.
- 4. Not being a director in the holding company, subsidiary, affiliate, same-level subsidiary (only listed company)
- 5. Having the same duties as prescribed in the notification of the stock exchange of Thailand, under the rule of Audit Committee's qualifications and scope of work
- 6. Having enough knowledge and experience to work as an Audit Committee members. However, at least one knowledgeable and experienced Audit Committee member must be able to review the credibility of financial report.
- 7. The Board appoints the Chairman of Audit Committee or allows all appointed Audit Committees members to elect the Chairman.

## 4. Executive Committee

The Board of Directors appoints the Executive Committee, based on knowledge, ability and experience related to the business.

5. Top Management

The Executive Committee shall consider and select persons to serve as top management, based on their knowledge, ability and experience related to the business.

# Corporate Governance Policy for subsidiary, affiliate and Joint-Ventured

The Company supervises the operation of subsidiary, affiliate and joint-ventured as follows:

- 1. Assigning the qualified or experienced director or the management, approved by the Board, to serve as a representing director in a subsidiary, affiliate and joint-ventured in order to set the key policy in management and control the operation of those companies.
- 2. Supervising the subsidiary, affiliate and joint-ventured to formulate the connected transaction policy with the potential stakeholders or the parties with potential conflicts of interest. The policy must be in line and in compliance with the related laws, rules, regulations, notices and memos.
- 3. Supervising the subsidiary, affiliate and joint-ventured to prepare financial report that reflects the financial status and actual business performance, based on the accurate, comprehensive and sufficient accounting information that meets the generally accepted accounting standard. Also, the report on connected transactions between those companies and the potential stakeholders or the parties with potential conflicts of interest as well as report on acquisition and disposition assets should be prepared and presented to the Board of Directors for their acknowledgement at least twice a year.
- 4. Arranging for the subsidiary, affiliate and joint-ventured to request the internal audit unit or outsourced auditors to formulate and monitor the annual internal audit plan, approved by the Audit Committee and the report on audit outcome and suggestions on internal audit system to see how effective the Group's internal control is and how well the employees, management and directors comply with the internal control system. These findings are, then, submitted to the Board of subsidiary and affiliate on a case-by-case basis and in proper timeline.

# Supervising on the Usage of Internal Information

To ensure the company's corporate good governance system, the Board considers and approves the good governance policy on the usage of inside information, as follows:

- 1. To educate the Board and the management, including the manager of accounting or finance department or equivalent and higher level, about the preparation and submission of the reports on securities holding and the change of securities holding to the Securities and Exchange Commission based on Section 59 and Penalty Section 257 of the Securities and Exchange Act B.E. 2535 (as amended). The company secretary must be informed every time in order to further inform the related parties.
- 2. To ensure that the directors, management, internal auditors and the management-level staff who are accounting or finance manager or higher prepare and submit the reports on their and their spouse's holding of the company's security, including the holding by their children under legal age, starting from the date they are appointed as the director and/or management. They must also report any changes in security holding to The Securities and Exchange Commission. Everything must be done within the indicated timeline or within 30 days after they are appointed as the director and/or management. The report on changing security holding must be made within three days, starting from the date of purchasing, selling, transferring, and receiving the stocks. The company's secretary must summarize and report the security holding and any changes to the Board Meeting within the proper time. The executive directors and the management-level staff who are accounting or finance manager or higher and related operators should be informed of the significant inside information that affects the change in stock price. They must suspend the company's stock trade before publicizing the financial report or status until the company discloses the information to the public. The company will inform the director and management in writing, including the management-level staff who are accounting or finance manager or higher, to stop trading the stocks at least 30 days before disclosing the information to the public and another 24 hours at least after the disclosure. Furthermore, they are not allowed to disclose the significant information to other parties.
- 3. To ensure that the Board, management, employees and workers shall maintain internal information confidential unless when using that information for managing the company's business or for complying with the related law.
- 4. The Board, management, employees and workers will neither directly or indirectly disclose the inside information nor use its title to bring inside information or significant information that they have learned during the operation but has not been publicly disclosed to illegally seek the benefits or disclose the information to outside parties for their own benefits and the related parties'. They must do it without any regards for the return or their own benefits.
- 5. To ensure that the Board, management, employees and workers will not sell, purchase, transfer or receive the company's stocks by using its confidential and/or inside information and/or will not do any transactions by using the confidential and/or inside information in the way that may either directly or indirectly damage the company. This includes the spouse and children under legal age of the Board, management, employees and workers. Anyone who violates this rule is considered serious misconduct.
- 6. To lay down the guideline on ethics in using the company's information technology and internal communication are set to control and maintain the information safety in the information technology system and/or prevent the outsiders from accessing the information. In additional, the access level is set for each level of employees and workers to suit their titles, roles and responsibilities.

7. Set the penalty measures according to the company's regulations when the management, employees, workers or related parties use the internal information to act in the way that may damage the company. The penalty is based on the intention and severity of that misconduct

# Connected transactions

The Company realizes the importance of conducting business transaction transparently and in a manner that is beneficial to the company. It, therefore, strives to prevent transaction that may cause a conflict of interest, connected transaction or inter-transaction by setting the following policies.

- 1. The management and employees shall comply with the Company's Ethical Guidelines which must be strictly adhered to so that the operation shall be credible and trustful by all stakeholders. The Company also publish the information to ensure that all employees comply with the guideline.
- 2. The directors and the management shall informed of the relations and connected transactions related to activities that may cause a conflict of interest.
- 3. The connected transactions shall be presented to be reviewed by the Audit Committee before further submitting to be approved by the Board of Directors in pursuance to the corporate good governance policy and the rules and regulations on supervision on corporate governance, prescribed by the Stock Exchange of Thailand and the Office of the Securities and Exchange Commission.

# Internal Control

The Audit Committee, at its meeting on November 10, 2016, reviewed the adequacy of the Group's internal control system in pursuance to the concept of COSO1 (The Committee of Sponsoring Organization of the Treadway Commission) and the internal control adequacy assessment form, prepared by the Office of the Securities and Exchange Commission which comprises 5 components and 17 sub-principles. This has enabled the Group to lay out practical guidelines that are appropriate with the operation of the Group. The Group's Board of Directors viewed that the Group's internal control system is adequate and efficient and found no significant weakness in the internal control system. The Board also arranged to set up adequate and efficient monitoring system to follow up and control the operation of the Group and its subsidiaries.

# Followings are the components of internal control system:

1. Control Environment.

The Board of Directors is independent from the management team and has set a clear and appropriate scope of approval authority of board members, chief executive officer and the Group's personnel. The Board also developed organizational structure that includes a clear line of command and responsibility.

2. Risk Assessment

The Group operates its business under acceptable risk appetite in order to achieve the objectives and to respond to the expectation of all stakeholders.

3. Control Activities

The Group includes control activities in policies and operational steps at all level of operation in the organization and under the control environment that includes approval authority, reviewing and allocation of responsibilities.

4. Information & Communication

The Group supports the use of quality information and adequate disclosure of information to the connected parties both inside and outside of the organization.

## 5. Monitoring Activities

Monitoring and assessment activities are implemented on a regular basis in the Group by manager of each department. The Group has internal audit work unit that provides support to the Internal Audit Committee in the area of internal control supervision to ensure that the Group's internal control is adequately efficient and effective.

# Internal Audit

The Board of Directors has set up Internal Audit unit as an independent work unit under the leadership of Ms. Phansachol Upakaew, the Manager of Internal Audit Division. Her duties includes reporting the internal control results directly to the Audit Committee and the preparation of yearly audit plan by taking into account significant risk factors that may affect the achievement of the Group's business objectives. This yearly audit plan is reviewed and approved by the Audit Committee who also follows up on the results of the audit and performance of the internal audit division on quarterly basis. The work of internal audit division is based on the international standard of professional internal audit association and is implemented within the scope of duties that is independent and fair. It must also receive adequate support in the area of necessary resources.

# **Compliance Unit**

The Company has established a Compliance Department headed by Ms.Nottaporn Thiengprathes. Her main responsibility is to ensure that the Company complies with the Securities & Exchange Act and all related regulations

# Corporate Social Responsibility

The Company Group have the policy to operate the business under the principle Corporate Social Responsibility (CSR) with an awareness and realization on the importance of promoting activities for the benefits of surrounding communities and for protection of environment on a continuing basis. It is our intention to collaborate with those concerned and to foster good relationship that is the result of mutual acceptance and trust, including the realization on the impacts on those stakeholders such as shareholders, employees, local community, customers, partners, government agencies, general public and the country. We also strive to promote attitude and organizational culture so that our employees have social responsibility with the ultimate goal of happy co-existence between the business, community and society and to make a sustainable progress towards the future together.

# Operation and Preparation of Report

In realizing the Company Group's emphasis on responsibility, the Board of Director has adopted policy guideline on social responsibility for the management to implement as follows.

- 1. Manage the business operation of the Group honestly with transparency and accountability aiming for business growth and the quality of life of employees, community, social and environment protection, including the protection of interest of all stakeholders.
- 2. Give priority to basic human rights to promote the respect of rights and freedom without discrimination, promote equality, no unfair treatment, based on gender and class. Not employing child labor and opposing all kinds of corruptions.
- 3. Promote and educate all employees on social and environment responsibility to be used as guideline to jointly develop social and environmental responsibility throughout the organization.
- 4. Promote a two-way communication and public relations on project or social and environment activities between community and stakeholders by giving them the opportunity to participate in such activities as deemed appropriate, e.g., the public hearings in surrounding community to find the initial environmental effect (IEE) and to inform and create awareness among the people in the community on the impacts of the construction of power plant and energy production process on people who live in the community and on environment.
- 5. Publicize the innovation in generating electricity from renewable energy of the Company group for those who are interested in developing it for the benefit of society and environment. Presently, people who are interested in learning about solar energy generation technology are attending the classes.





# CSR and Environment Promotion Activites

The Group implemented CSR and environmental promotion activities regularly such as provision of athletic uniforms to the soccer team of the Tarn Sian Village in Rang Salee Sub-district, Tha Muang District, Kanchanaburi Province. The Group donated refreshment and foods to support the religious ceremony in remembrance of H.M. King Rama 9 at Wang Luk Sub-district of Suphan Buri Province. The group also participated in an activities to promote green community forest and public land at "Wat Sukhontharam Temple" under the project to envelop network in Kanchanaburi province



# Anti-Corruption Policy

The Company manages the business by adhering on the principle of corporate food governance with transparency, fairness and accountability. The places a priority on social and environmental responsibilities and all of stakeholders regularly reviews compliance with its anti-corruption policy as well as improving the guidelines and regulations in doing its business in accordance with changes in business environment, rules, regulations and laws. The Group requires the directors, management team, and all employees of the Company / subsidiaries/ jointly controlled entities/ and affiliates to strictly follow the anti-corruption policy in order to create a clear practical guideline and to develop the Company as a sustainable organization.

## Roles and Responsibilities

- 1. The Board of Directors has duty and responsibility to lay out policies and to ensure that an effective system is set up to support anti-corruption policies, including the reviewing of the appropriateness of the systems and other measures in accordance with changes in business, rules, regulations and laws.
- 2. The audit committee has the responsibility to review the financial and accounting reporting system, internal control and internal auditing to ensure that the business operation is up to international standard of high precision, appropriateness, modern and efficient.
- 3. CEO and the management team have the duties and responsibilities to promote and support the anti-corruption policy in order to ensure that the management realizes and communicates with all staffs and relevant parties on the importance of anti-corruption policy.

## Practical Guidelines

- 1. The Board of Directors, management team, and employees at all levels must comply with the anti corruption policy and are prohibited to be involved with corruption either directly or indirectly.
- 2. Employees shall not ignore or neglect when witnessing any act which can be considered as a corruption. If such incidents occur, the employees must report those suspicious acts to their supervisors or responsible party, including giving full cooperation in the investigation of the case.
- 3. The Company will protect and provide a fair treatment to employees who refuse to participate in corruption and employees who inform the corruption cases.
- 4. The Company will keep confidential and protect informants from harassment both during the process of investigation and afterwards.
- 5. The person who committed a corruption act is also considered as violating the code of ethics which is subject to disciplinary action, prescribed in the rules and regulations. In addition, if such conduct is against the laws, the offender shall also be subject to legal penalty.
- 6. The Board of Directors, the management team, and employees at all level must beware and proceed with careful discretion of the following issues:
  - 6.1. The giving of gifts and entertaining the clients. Giving or receiving of gifts and entertaining the clients must be arranged in accordance with the Company's rules and regulations.
  - 6.2. Charity donations or supporting funds. Giving or receiving a charity donation or supporting fund must be made transparently and accordance with the laws

On May 2016, the Group has signed the Declaration of the Collective Action Coalition of Thai Private Sector Against Corruption with a view to provide cooperation to the social sector, the press and international organization in creating a standard for transparent business practice. At present, the Group is in the process of preparing and improving the anti-corruption policies to cover all the related criteria, based on discretion and appropriate consideration.

# **Dividend Policy**

### o The Company's dividend policy

The dividend policy is to pay dividends at a rate of not less than 40% of the net profit on the Company's financial statement after deduction of corporate income tax, and all reserves required by law and the Company's articles of association. However, the dividend payment is subject to change depending on cash flow, financial performance, future business plans, terms and conditions for business expansion, the needs for capital spending each year, and any other terms and conditions in relevant agreements or contracts for which the Company has contractual obligations, as well as other necessity and appropriateness, deemed by Board of Directors.

The dividend payment mentioned above must be approved by the shareholders meeting, except in the case of an interim dividend payment which the Board of Directors may consider paying from time to time if the Board deems that the Company has earned reasonable profit and can afford to do so.

### o The subsidiaries dividend policy

The dividend payment policy for subsidiaries and jointly controlled entities is based on cash flow, financial performance, future business plan, terms and conditions for business expansion, funding needs, and financial position of each subsidiary and jointly controlled entity, and any other dividend restriction stipulated in loan agreements, debentures or other relevant agreements each subsidiary or jointly controlled entity obliges, as well as, the necessity and appropriateness that may be deemed by the Board of Directors of each entity.

The dividend payment mentioned above must get approval from shareholders at the general meeting of shareholders based on each subsidiary's/ jointly controlled entity's Board of Directors' proposal.



# **Securities Holding of Directors & Executives**

Name	Sername	Position	Ordinary shares	Changes du 2016	ring	Ordinary shares
			31 Dec. 2015	Increase Dec	rease	31 Dec. 2016
Ms.Cathleen	Maleenont	Chairman of the Board Chairman of the Executive Committee Member of Nomination and Remuneration Committee Chief Executive Officer		3,000,000		3,000,000
Mr.Prommin	Lertsuridej	Independent Director Vice Chairman of the Board				
Mr.Pala	Sookawesh	Independent Director				
Mrs.Siripen	Sitasuwan	Independent Director Chairman of the Audit Committee				
Mr.Prasan	Chuaphanich	Independent Director Member of the Audit Committee Chairman of Nomination and Remuneration Committee				
Mr.Boonchoo	Direksathapon	Independent Director Member of the Audit Committee				
Mr.Somsak	Woravijak	Independent Director				
Mr.Matthew	Kichodhan	Director	5,575,020			5,575,020
Mr.Vic	Kichodhan	Director Member of the Executive Committee	3,428,170			3,428,170
Mr.Somphop	Prompanapitak	Director Member of the Executive Committee Member of Nomination and Remuneration Committee Chief Operating Officer				
Mr.Nivej	Boonwichai	Vice President Engineering & Construction				
Mr.Ronachai	Rungfa	Assistant Vice President Accounting				

**Note:** Information on shareholding of the first 4 directors and the management is in accordance with the definition of the Securities and Exchange Commission, including the shareholding of spouse and children who have not reached legal age.

# **Remuneration for Directors**

# and Executives

The Board of Directors assigns the Nomination and Remuneration Committee to determine and set the remuneration and other benefits both monetary and non-monetary remuneration for the directors, members of the Executive Committee and chief executive officer by determining the criteria and payment methods that are fair and reasonable and in consistent with the business operational performance of the Group and other companies in the industry. The recommendations of the Nomination and Remuneration Committee are submitted for a review and decision by the Board of Directors or the shareholders meeting.

# ค่าตอบแทนที่เป็นตัวเงิน

# Director's Remuneration

At the Annual General Meeting of Shareholders for 2016, held on 27 April 2016, the shareholders approved total remuneration for members of the Board and its board committees of not more than 6 million baht in the forms of monthly remuneration and meeting allowance according to the number of meeting actually attended. Followings are the detail of the remuneration.

	Monthly retainer	Meeting allowance
Board of Directors		
- Chairman	35,000	35,000
- Vice Chairman	30,000	25,000
- Directors	20,000	20,000
Audit Committee		
- Chairman	25,000	35,000
- Directors	20,000	20,000
Nomination and Remuneration Committee		
- Chairman		30,000
- Directors		15,000

Name	Sername	Position	Remuneration 2016
Ms.Cathleen	Maleenont	Chairman of the Board Member of Nomination and Remuneration Committee	765,000
Mr.Prommin	Lertsuridej	Vice Chairman of the Board Independent Director	560,000
Mr.Pala	Sookawesh	Independent Director	400,000
Mrs.Siripen	Sitasuwan	Independent Director Chairman of the Audit Committee	820,000
Mr.Prasan	Chuaphanich	Independent Director Member of the Audit Committee Chairman of Nomination and Remuneration Committee	780,000
Mr.Boonchoo	Direksathapon	Independent Director Member of the Audit Committee	700,000
Mr.Somsak	Woravijak	Independent Director	420,000
Mr.Matthew	Kichodhan	Director	400,000
Mr.Vic	Kichodhan	Director	420,000
Mr.Somphop	Prompanapitak	Director Member of Nomination and Remuneration Committee	430,000

# Executives' Remuneration

	Nature of Remuneration	Objective
Salary	Salary and other fringe benefits such as provident fund	To maintain knowledgeable and capable executives
Annual remuneration	Annual bonus	o enhance morale and encouragement in return for their diligence, industrious efforts and devotion to the success and performance of the Group

In 2016, the Company paid a monetary remuneration including salary, bonus and other remuneration to top management for a total of 25 million baht.

	2016 뒨 2559		
	Number (Person)	Remuneration (Million Baht)	
Salary and Bonus Other remuneration such as providence fund	6 6	24 1	
Total	6	25	

# The Board of Directors' Responsibility for Financial Reporting

The Board of Directors is responsible for the preparation of consolidated and separate financial statements of Thai Solar Energy Public Company Limited and its subsidiaries and jointly controlled entity, including the financial information presented in this annual report. The aforementioned financial statements are prepared in accordance with Thai Financial Reporting Standards, using careful judgment and the best estimations. Important information is adequately and transparently disclosed in the notes to financial statements for the Company's shareholders and investors. The Board is also responsible for internal control activities that the Board deemed necessary for the preparation of overall and specific financial statements that do not contain any information that is significantly contradictory to the fact, either by fraudulent intention or by mistake.

The Board of Directors has appointed the Audit Committee to be responsible for reviewing the accounting policy, financial reports, risk management, internal controls, internal audit and disclosure of connected transactions. All the Audit Committee's opinions on these issues have been presented in the 2016 Audit Committee Report, included in this annual report.

The consolidated and separate financial statements of the Company and its subsidiaries and jointly controlled entity have been examined by an external auditor, Mr. Kajornkiet Aroonpirodkul (CPA No. 3445) of PricewaterhouseCoopers ABAS Limited. To facilitate the auditing process, the Group's Board of Directors provided information and documents so the auditor is able to audit and express an opinion in accordance with generally accepted auditing standards. The external auditor's opinion is presented in the auditor's report included in this annual report.

The Board of Directors believes that the Company's overall internal control system has functioned at a satisfactory level and rendered credibility and reliability to the financial statements of the consolidated and separate financial statements of the Company and its subsidiaries and jointly controlled entity for the year ended 31 December 2016. The Board of Directors also believes that all these financial statements have been prepared in accordance with the related Thai Financial Reporting Standards and related regulations.

MANA MAN

(Ms.Cathleen Maleenont) Chairman of the Board and Chief Executive Officer

# Auditing

# • Appointment of Auditor

The Audit Committee has the responsibility to screen and select the auditor and auditing fee by inviting auditing firms to submit their past works to be selected and proposed to the Board of Directors who would further submit the recommended auditor and auditor's fee to be approved by the ordinary shareholders meeting each year. The appointed audit firm and auditor must be able to work independently without any relation or stake with the Group, major shareholder or any party, related to these persons.

The 2016 ordinary shareholders meeting resolved to appoint an auditor from PricewaterhouseCoopers ABAS Limited by Mr. Kajornkiet Aroonpirodkul (CPA No. 3445) of to be the Group's auditor and to express opinions on the accuracy of the Group's financial statement.

# • Audit Fee

In 2016, the Group paid audit fees as follows.

	2559
Thai Solar Energy Public Company Limited	850,000
18 subsidiaries	2,414,900
Total audit fee	3,264,900

# Non-Audit Fee

The Group has paid a fee to the auditor from the PricewaterhouseCoopers ABAS Ltd., to audit and prepare audit report related to the compliance audit of BOI certificate, issued by the Thailand Board of Investment at an amount of 720,000 Baht.

# **Related Party Transation**

# 12.1 Detail of Related Party Transactions in 2015 and 2016

Persons which may have conflict of interest/	Nature of Transactions	Transa Val		ความจำเป็นและ
nature of business/nature of relationship	Nature of Transactions	2015	2016	ความสมเหตุสมผลของ รายการ
<ul> <li>1. P.M. Energy Company Limited (" PME")</li> <li>Nature of the business</li> <li>Investment in renewable energy with the Head Office located at 3199 Maleenont Tower, 15<sup>th</sup> floor, Rama4 Road, Klongtan Klongtoey, Bangkok</li> <li>Relationship with the Company</li> <li>A major shareholder of the Company. As of 31 December 2015 PME held 42.8% share in TSE</li> <li>The director who is in the management team:</li> <li>Dr. Cathleen Maleenont</li> <li>(Director, Chaiman of Executive Com- mittee and Chief Executive Officer of TSE) is a director and major shareholder of PME. Dr. Cathleen held 100% of PME as of 31 December 2015</li> <li>Mr. Somphop Prompanapitak (Director, Executive Committee</li> </ul>	Guarantee without Charge PME guarantees a loan by pledging 55,385,000 TSE shares at par value of THB 10 each (The par value has been ad- justed later to 1 Baht each and the total number of shares became 553,850,000) as loan collateral from one of the commercial banks in order to use the fund for a thermal project development • Guarantee (Overdraft and long-term loan)	380*	-	The Group had a loan from one commercial bank to be used for development of thermal power plant. Part of the loan was guaranteed by the company's shares, held by PME which was in consistent with the requirement of the commercial bank that provided the loan and there was no cost incurred from such guarantee. <u>Opinions of the Audit</u> <u>Committee</u> Since that loan had been paid off in 2016, it was therefore deemed that no connected transaction has incurred as of December 31, 2016.
and Chief Operationg Officer of TSE) is a director of PME				

\*The company had requested to adjust the value of share pledging down to 100 million. The transaction value was based on the market value of shares as of December 31, 2015, i.e., 3.8 Baht/share

# Measures or procedures for approving related party transactions and policy for potential related party transactions in the future

The Company established measures and procedures for approving related party transactions of the Company and/ or its subsidiaries with stakeholders or persons which may have a conflict of interest or a potential conflict of interest in the future. These measures and procedures are to ensure transparency and fairness and to prevent the transfer of interest from the Company and/ or its subsidiaries. They consist of 4 following measures:

- 1. The Company' s/subsidiaries' related party transactions with stakeholders or persons who may have a conflict of interest with the Company and / or its subsidiaries are required to be processed according to laws, regulations, announcements or notifications, rules and requirements, and related circular letters as per the following:
  - 1) Securities and Exchange Act B.E.2535
  - 2) Notification of the Capital Market Supervisory Board, Tor Chor. 21/2551: Rules on Connected Transactions
  - 3) Notification of the SEC on Disclosure of Information and Operation of Listed Company for Related Parties Transactions B.E., 2546
  - 4) Regulations of SET on Guidelines, Conditions, and Practice Relating to Information and Operations Disclosure of Listed Companies
  - 5) Requirements related to disclosure of information of connected transactions in the note to financial statements which are prepared by a certified audit committee, and form of company's annual report (56-1 form), including related notifications from Capital Market

Supervisory Board and SEC, circular letter and other related laws and regulations

- 2. Any related party transaction which may be considered as a transaction needing an approval form the Company's Board of Directors or resolution from a general shareholders meeting must be screened and considered by Audit Committee before presenting them to the Company's Board of Directors or general shareholders meeting for approval, depending on the cases. This is to ensure that the said related party transactions do not have an aim to transfer the Company's and/or its subsidiaries' assets. The Audit Committee' s point of views must at least cover the following issue:
  - 1) Whether the transaction reflects proper rationale and mutual benefit to the Company and/or subsidiaries.
  - 2) Whether the pricing and mutual conditions of transaction reflect fairness by comparing the price and other returns with the market price or price offered from external parties of price valuation by an independent appraiser.
  - 3) Whether conditions related to the transaction are appropriate by comparing conditions on payment and other returns to normal business conditions.

In a case where the Audit Committee has no expertise in screening related party transactions, the committee may seek advice from an independent expert or the Company's auditor to use as supporting material for its consideration before presenting the transactions to the Company' Board of Directors or general meeting of shareholders, whichever case may be.

3. The Company and or/its subsidiaries must prevent directors and stakeholder who have interests in such transactions to participate in the meeting and/or vote on that agenda. The company shall disclose information on related party transactions in note to financial statements which are already reviewed or certified by the Company's auditor

4. For all of related party transactions, the management may have authority to approve such transactions if the transactions have business agreements and conditions as if a person of ordinary prudence may proceed with contractor counterpart within the same situation based on business bargaining power without using authority of director, management, or related person. The Company also needs to prepare a summary report on related party transactions which have a value of more than THB 10 million baht and report to the Company's Board of Directors within an appropriate timeframe.

The Company has established an approval procedure for related party transactions of the Company, jointly controlled entities and/or subsidiaries, directors, management, stakeholder or persons who may have a conflict of interest that have normal business conditions as follows:

- 1. In the case of minor connected or related transactions that have normal business conditions, the manage ment is obliged to consider and give approval.
- 2. In the case of medium and large connected or related transactions that have normal business conditions, the Company's Board of Directors will be the one to consider and give approval.
  - Minor transaction refers to transactions with a value equal to or less than THB 1 million, or equal to or less than 0.03% of net tangible assets whichever is higher.
  - Medium transaction refers to transactions with a value of more than THB 1 million but less than THB 20 million, or more than 0.03% but less than 3% of net tangible assets whichever is higher.
  - Large transaction refers to transactions with a value equal to or more than THB 20 million or more than 3% of net tangible assets whichever is higher.

# Management Discussion and Analysis

# Major Events in 2016 That Affect Financial Statement

# 1. The Expansion of Investment in Biomass Power Plant

In 2016, the Group has increased power production capacity by 22.2 MW more through new investment in the following biomass power plan projects.

- 1) Bang Sawan Green Co., Ltd. (Capacity: 4.6 MW.)
- 2) Oscar Save the World Co., Ltd., totaling 2 projects with capacity of 8.8 MW each, The total selling capacity is 17.6 MW.

# 2. Distribution into COD System to Cooperatives Project

In December 2016, the land-based power plant project of the Cooperatives has distributed into COD system on commercial basis at an amount of 1.0 MW.

# 3. The Expansion of Investment in Japan.

In 2015, the Group's Board of Directors approved the plan to build 8 land-based solar power projects in Japan with a total capacity of 42 MW. Currently, 4 projects have been completed and distributed into the COD system at a total of 5.24 MW.

# Report on Analysis of Operational Performances under Consolidated Financial Statement

# 1. Revenue from sales and service provision

Total revenue from sales and services in 2016 was THB 421.8 million, which increased by THB 292.9 million or 227.2 % compared with THB 128.9 million in the same period last year.(The revenue number here does not include revenue from 80 MW solar farm of which performance is recognized through share of profit from investments in jointly controlled entities)

The Rooftop Co., Ltd., our subsidiary, has distributed electricity, produced from all of our 14 solar power plants on COD basis. As a result, the revenue from selling electricity has increased by 28.1 million Baht.

As one more solar power plant project in Japan began the distribution into COD system in 2016, the total number of solar power plans in that country was 4 with total income of 42.7 million Baht

Income from managing the biomass power plant projects was 221.8 million Baht.

### 2. Cost of sales and services

Total cost of sales and services in 2016 was THB 119.5 million, which increased by THB 30.0 million or 25.1% compared with THB 149.5 million in the same period last year. The increase in 2016 was mainly from more staff and other costs due to business expansion and form depreciation and roof rental fee from additional rooftop projects in operation.

In 2016, the Group's preliminary profit was 64.5% or an increase of 7.3% over that of 57.2% in 2015, as a result of increased revenues from the commercial operation distribution of new rooftop solar power plants and biomass power plant management service.

### 3. Administrative expenses

Total administrative expenses for 2016 was THB 156.6 million, which increase by THB 68.6 million or 77.9% compared with THB 88.0 million in the same period last year. The increase in 2016 was caused by more staff and other related costs in business expansion including professional fees for domestic and foreign business opportunities.

### 4. Financial Cost

Finance cost for 2016 was 59.9 million Baht or an increase of 32.1 million Baht or 115.5%, compared with 32.1 million Baht in the same period last year. The increase was the result of the issuance of debentures by the Group in order to generate capital for investment in biomass power plant project and to wait for investment in power plant in Japan and from the accounting policies and practical guidelines in which expenses related to land-based power plants in Japan can be booked the cost of power plant under construction when the aforementioned loan has been paid for the construction. However, whereas the capital generated from the issuance of debentures is still awaiting to be paid for the construction cost, the entire incurred interest must be booked as the expense in the financial statement.

### 5. Profit Sharing from Jointly Controlled Operation

Pursuant to accounting policy on investment in subsidiary and joint venture, the Group recognized investment fund in jointly controlled operation by equity method. The operation is an investment in solar farm with the capacity of 80 MW as follows.

### Operational Performance of jointly controlled entities based on equity method

Unit: Mil. Bht.

	Dec 31		Increase (Decrease)	
Line Items	2016	2015	Amt.	%
Revenues	1,516.2	1,583.3	(67.1)	(4.2)
Costs and Expenses	(556.3)	(589.0)	(32.7)	(5.6)
Net profit	959.9	994.3	(34.4)	(3.5)
Profit sharing from jointly controlled entities (60%)	575.9	596.6	(20.7)	(3.5)

Normal operating profit of joint controlled entities for 2016 was 959.9 million Baht, a decrease of 34.4 million Baht or 3.5%, compared with 994.3 million Baht in the same period last year. The decrease was the result of a drop in Ft value from the electricity generating authority and this year's longer than normal rainy season that caused a decrease in direct normal irradiance (DNI). The operational result of the said jointly controlled entities was divided on the basis of equity method in which the profit from the jointly controlled entities (60%) in 2016 was 575.9 million Baht or a decrease of 20.7 million Baht, compared with 596.6 million Baht in last year.

### 6. Net profit for the Year

In 2016, the net profit of the Group was 630.8 million Baht or an increase of 79.7 million Baht against that of 551.1 million Baht in the previous year. The increase was mainly the result of currency translation differences in the aforementioned power plant management services. Profit of the Group in 2016 was 617.6 million Baht or an increase of 91 million Baht from that of 526.6 million Baht last year.

The profit of 617.2 million Baht equaled to the profit of 0.34 Baht/share, compared with that of 526.6 million Baht or 0.29 Baht/share profit of last year. The increased net profit of 90.6 million Baht was the result of more revenues from the distribution into COD system of all 14 rooftop solar power plants and the aforementioned management service fee.

# Analysis of Financial Position

# Analysis of assets

As of December 31, 2016, the total assets were 8,377.3 million Baht, an increase from 4,844.4 million Baht by 3,532.9 million Baht or 72.9% as at December 31, 2015. The details were as follows;

	30 December		Increase (Decrease)	
Line Items	2016	2015	Amount	%
Current Assets	3,236.2	1,023.6	2,212.6	216.2
Non-current Assets	5,138.7	3,820.8	1,317.9	34.5
Total Assets	8,374.9	4,844.4	3,530.5	72.9

Unit : THB milion

- 1) As of December 31, 2016, the current assets were 3,236.2 million Baht, an increase by 2,212.6 million Baht or 216.2 % from 1,023.6 million Baht as at December 31, 2015. The main reasons were a usage of cash, generated from the issuance of debentures to invest in purchase of securities in capital market and an increase in the number of immatured trade and other receivables.
- 2) As of December 31, 2016, non-current assets were 5,138.7 million Baht or an increase by 1,317.9 million Baht or 34.5 % from 3,820.8 million Baht as at December 31, 2015. The main reasons were the increase in investment in Japan and the recording of intangible assets, incurred from investment in biomass power plants.

# Analysis of liabilities and shareholders' equity

As of December 31, 2016 the total liabilites and shareholders' equity were 8,374.9 million Baht, an increase by 3,530.5 million Baht or 72.9 % from 4,844.4 million Baht as at December 31, 2015. The details were as follows;

Unit	:	THB	milion	
Orne	•		THUCH	

	30 Dec	ember	Increase (	Decrease)
Line Items	2016	2015	Amount	%
Liabilities	3,789.5	804.1	2,985.4	371.3
Shareholders equity	4,585.4	4,040.3	545.1	13.5
Total Liabilities	8,374.9	4,844.4	3,530.5	72.9

- 1) As of December 31, 2016, the total liabilities of the Group were 3,789.5 million Baht, an increase by 2,985.4 million Baht or 371.3 % from 804.1 million Baht as at December 31, 2015. The main reasons:
- An increase in an amount of 336.0 million Baht loan to be used for investment in power plant projects in Japan.
- The issuance of 2,050.0 million Baht debentures to be allocated for investment in power plant projects in Japan.
- An increase of 4126.3 million Baht in construction and other payables. The increases included payables in biomass power plant management service, totaling 226 million Baht and unpaid shares payable, totaling 180 million Baht which shall be paid according to the contract.
- The Group borrowed a long-term loan of 217.1 million Baht to pay for the construction of the rooftop power plant.
- 2) As of December 31, 2016, the Group's total equity was 4,585.4 million Baht or an increase by 545.1 million Baht or 13.5 % from 4,040.3 million Baht as at December 31, 2015. The main reasons were the increase in net profit of 630.7 million Baht in 2016 and the payment of 108.9 million Baht dividend.

### Appropriateness of Capital Structure

According to the consolidated financial statement as at December 31, 2016, the debt to equity ratio (D/E) was 0.8, or an increase of 0.6, compared with 0.2 in 2015.

### Analysis Report on Cash Flow in Consolidated Financial Statement

The balance of cash flow and cash equivalent in the consolidated financial statement as of December 31, 2016 was 977.0 million Baht or an increase of 639.6 million Baht from 337.4 million Baht as of December 31, 2015 due to the following reasons.

- 1) Net cash of 46.6 million Baht was used for operational activities.
- 2) Net cash of 1,826.9 million Baht was used in investment activities.
- 3) Net cash of 2,100.6 million Baht was used in capital generating activities
- 4) Impacts from currency translation exposure, amounting 10.9 million Baht.

# Independent Auditor's Report

To the Shareholders and the Board of Directors of Thai Solar Energy Public Company Limited

# My opinion

In my opinion, the consolidated financial statements of Thai Solar Energy Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial statements of the Company present fairly, in all material respects, the consolidated financial position of the Group and separate financial position of the Company as at

31 December 2016, and the consolidated and separate financial performance and the consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

# What I have audited

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

## Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Federation of Accounting Professions under the Royal Patronage of his Majesty the King's Code of Ethics for Professional Accountants together with the ethical requirements that are relevant to my audit of the financial statements, and

I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence

I have obtained is sufficient and appropriate to provide a basis for my opinion.

# Key audit matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. I determined one key audit matter: Goodwill impairment assessment. The matter was 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 the matter.

# Key audit matter

## Impairment of asset - Thermal plant

Refer to note 4.1 Accounting policies for critical accounting estimates and judgements and note 14 Property plant and equipment.

A thermal power plant of the Group cannot operate at full capacity due to technical issues. As required by Thai Accounting Standard 36, the recoverable amount of an asset should be measured when there is an indication that the asset may be impaired. At 31 December 2016, thermal plant had a net book value of Baht 508 million, after deduction of the provision for impairment of Baht 245 million, which represented 6.06% of the total assets. The Group's smallest group of cash-generating units (CGU) was a thermal power plant. Therefore, the management determined that a thermal power plant is a cash-generating unit (CGU), which was subject to impairment testing. Management applied the discounted cash flow approach to determine the recoverable amounts of the thermal power plants. Key assumptions used in the discounted cash flow forecast prepared by management include:

- a. the cash flow forecasts derived from internal forecasts and assumptions about future performance (i.e. long-term growth rate)
- b. electricity unit production
- c. the discount rate

Management believed that there will be significant improvement in productivity because the Group was partnering with a technology company to experiment with new technology to enhance productivity. Management concluded that the provisions for impairment already recorded for the thermal plant was adequate.

I focused on this area because the assessment of the recoverable amount based on the value in use of the thermal power plant involved judgments of management about the future results of the business, electricity unit production and discounted rate applied to the forecasted future cash flow. Small subjective changes can have a material impact on the value-in-use assessment and any resulting impairment charge.

# How my audit addressed the key audit matter

I understood and evaluated management's impairment models. My procedures included a detailed evaluation of the Group's budgeting procedures (on which forecasts are based) and an assessment of the principles of management's discounted cash flow models.

I compared the past performance against business plans used by the Group.

I also evaluated management's judgments on key assumptions as follows:

- a. the long-term growth rates in the forecast by comparing them to historical results and available industry data
- b. electricity unit production used in the model by comparing it with historical data and production capacity
- c. the discount rate used in the model by assessing the weighted average cost of capital (WACC) of the Group and comparing it to my external research.

I found that the management's key assumptions were justifiable and appropriate in light of the current environment and circumstances.

# Key audit matter

# Deferred tax asset may not be recovered

Refer to note 4.1 Accounting policies for critical accounting estimates and judgements and note 16 Deferred income tax.

As at 31 December 2016, the Group had deferred tax assets of Baht 75.47 million due to losses carried forward. The Group recognised a deferred tax asset for tax losses carried forward to the extent that it is probable that future taxable profits will allow it to be recovered.

Management believed that it is probable that the deferred tax assets will be recovered based on its five-year tax computation forecast.

Key assumptions used in the five-year tax computation forecast prepared by management included revenue and cost forecasts derived from internal forecasts and assumptions about future performance, such as source of revenue, revenue growth and related costs.

I focused on the probability that the deferred tax assets will be utilised against taxable profit during the next five years based on the forecasts and taking into account the expiration of tax losses carried forward. In addition, this area was significant to the audit because of the complexity of the evaluation process, which involved significant management judgement as it was based on assumptions that were affected by expected future market and economic conditions.

# How my audit addressed the key audit matter

I understood and evaluated the Company's five-year tax computation forecast, which was prepared by management, to assess the recoverability of deferred tax assets.

I also evaluated key assumptions that management used to calculate the future taxable profits, which are used as a criterion to determine the amount of deferred tax assets including:

- a. assumptions, such as the Company's revenue growth and new business development
- b. the assessment of potential of new business development reflected in the business plan by examining related documents, i.e. minutes of meetings and agreements, to determine the future taxable profit

For the five-year tax computation forecast, I tested the computation of temporary differences and tax losses available to offset against current and future taxable profits, and ensure that they complied with the tax laws.

From the above procedures, I found that the management's assumptions for the five-year tax computation forecast were reasonable. The management's forecast that tax losses can be offset against current and future taxable profits before they expire was supported by available evidence.

### Other information

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

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

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

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

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

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

• Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

• Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group and the Company's internal control.

• Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

• Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.

• Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

• Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters.

I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.

Kajornkiet Aroonpirodkul Certified Public Accountant (Thailand) No. 3445 Bangkok 28 February 2017

# Thai Solar Energy Public Company Limited STATEMENT OF FINANCIAL POSITION As at 31 December 2016

			ed financial ments		e financial ments
	Notes	2016	2015	2016	2015
		Baht	Baht	Baht	Baht
Assets					
Current assets					
Cash and cash equivalents	7	977,037,378	337,425,538	497,007,854	241,190,936
Restricted bank deposits	8	39,003,239	25,091,922	-	551,565
Short-term investments	9	1,764,966,451	566,807,209	1,764,966,451	566,807,209
Trade and other receivables	10	349,994,275	47,559,313	373,101,211	77,940,169
Short-term loans to others		20,000,000	-	-	-
Short-term loans to subsidiaries	29 с)	-	-	868,172,050	240,399,141
Value added tax refundable		76,184,425	41,490,867	983,242	1,806,954
Other current assets	11	9,024,401	5,227,588	3,756,569	3,188,051
Total current assets		3,236,210,169	1,023,602,437	3,507,987,377	1,131,884,025
Non-current assets					
Long-term restricted bank deposits	8	1,050,000	159,131,000	1,050,000	159,131,000
Investments in subsidiaries	12	-	-	1,390,223,881	596,013,731
Investments in jointly controlled entities	12	1,615,091,815	1,476,668,878	350,000,130	350,000,130
Investment properties	13	88,399,605	88,399,605	88,399,605	88,399,605
Property, plant and equipment	14	2,850,492,019	1,977,474,403	582,459,444	602,246,468
Intangible assets	15	485,541,555	3,621,380	4,155,484	3,604,897
Deferred tax assets	16	76,002,161	105,985,368	75,376,961	105,273,108
Other non-current assets		22,084,415	9,511,637	1,860,243	3,328,099
Total non-current assets		5,138,661,570	3,820,792,271	2,493,525,748	1,907,997,038
Total assets		8,374,871,739	4,844,394,708	6,001,513,125	3,039,881,063

Director

Director \_\_\_\_

# Thai Solar Energy Public Company Limited STATEMENT OF FINANCIAL POSITION (Cont'd) As at 31 December 2016

		Consolidate statem		Separate statem	
	Notes	2016	2015	2016	2015
		Baht	Baht	Baht	Baht
Liabilities and equity					
Current liabilities					
Short-term borrowings from	18.1	488,996,539	152,949,889	488,996,539	-
financial institutions					
Construction and other payables	17	450,850,927	34,506,196	199,183,704	4,056,427
Current portion of finance lease liabilities	18.2	3,828,454	4,491,620	3,828,454	4,491,620
Current portion of long-term borrowings	18.3	61,663,353	88,749,767	-	39,662,264
Income tax payable		928,932	67,921	-	-
Other current liabilities		3,784,246	3,662,942	2,197,334	2,441,805
Total current liabilities		1,010,052,451	284,428,335	694,206,031	50,652,116
Non-current liabilities					
Finance lease liabilities	18.2	-	3,828,454	-	3,828,454
Long-term borrowings	18.3	728,770,807	511,679,685	-	113,326,373
Long-term loans from subsidiaries	29 e)	-	-	22,500,000	-
Debenture	18.4	2,044,875,000	-	2,044,875,000	-
Employee benefit obligation	19	5,682,756	4,056,985	5,682,756	4,056,985
Other non-current liabilities		72,000	72,000	72,000	72,000
Total non-current liabilities		2,779,400,563	519,637,124	2,073,129,756	121,283,812
Total liabilities		3,789,453,014	804,065,459	2,767,335,787	171,935,928

# Thai Solar Energy Public Company Limited STATEMENT OF FINANCIAL POSITION (Cont'd) As at 31 December 2016

			ed financial ments		e financial ments
	Notes	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Liabilities and equity					
Equity					
Share capital Authorised share capital Ordinary shares 1,815,000,000 shares of par Baht 1 each	20	1,815,000,000	1,815,000,000	1,815,000,000	1,815,000,000
Issued and paid-up share capital Ordinary shares, 1,815,000,000 shares of					
called-up Baht 1 each	20	1,815,000,000	1,815,000,000	1,815,000,000	1,815,000,000
Premium on ordinary shares	20	727,554,273	727,554,273	727,554,273	727,554,273
Legal reserve	21	46,825,835	-	40,025,835	-
Retained earnings		1,935,202,673	1,473,294,160	651,597,230	325,390,862
Other components of equity		37,992,370	24,478,025		
Equity attributable to owners of the parent		4,562,575,151	4,040,326,458	3,234,177,338	2,867,945,135
Non-controlling interests		22,843,574	2,791		
Total equity		4,585,418,725	4,040,329,249	3,234,177,338	2,867,945,135
Total liabilities and equity		8,374,871,739	4,844,394,708	6,001,513,125	3,039,881,063

# Thai Solar Energy Public Company Limited STATEMENT OF COMPREHENSIVE INCOME For the year ended 31 December 2016

		Consolidate stater	ed financial nents	Separate statem	
	Notes	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Revenue from sales Subsidy for adders Management service income		160,392,754 925,440 260,409,056	87,650,343 4,403,520 36,808,625	764,413 925,440 274,435,912	2,820,808 4,403,520 42,276,388
Cost of sales and services		(149,513,136)	(119,549,722)	(73,775,306)	(86,917,359)
<b>Gross profit</b> Dividends income		272,214,114 41	9,312,766 47	202,350,459 441,950,080	(37,416,643) 416,850,083
Other income Administrative expenses	22	15,477,583 (156,549,199)	40,177,277 (87,957,880)	15,147,863 (126,321,054)	36,879,786 (77,423,236)
Finance costs Share of profit from investments in	24	(59,935,251)	(27,847,171)	(28,105,352)	(9,704,625)
jointly controlled entities	12.1	575,922,977	596,578,734	-	
Profit before income tax Income tax expense	25	647,130,265 (29,971,852)	530,263,773 (3,666,404)	505,021,996 (29,896,147)	329,185,365 (3,794,503)
Profit for the year		617,158,413	526,597,369	475,125,849	325,390,862
Other comprehensive income for the year: Items that will be reclassified subsequently to profit or loss					
Currency translation differences		13,608,683	24,478,025	475,125,849	325,390,862
Total comprehensive income for the year		630,767,096	551,075,394	475,125,849	325,390,862
<b>Profit attributable to:</b> Owners of the parent Non-controlling interests		617,628,000 (469,587)	526,594,578 2,791	475,125,849	- 325,390,862
		617,158,413	526,597,369	475,125,849	325,390,862
<b>Total comprehensive income attributable to:</b> Owners of the parent Non-controlling interests		631,142,345 (375,249)	551,075,394	475,125,849	- 325,390,862
		630,767,096	551,075,394		
<b>Earnings per share</b> Basic earnings per share	27	0.34	0.29	0.26	0.18

		Con	Consolidated financial statements	cial statement:	S				
			Attributak	Attributable to owners of the parent	of the parent				
				Retained earnings	earnings	Other components of equity			
	Notes	Called-up share capital Baht	Premium on / ordinary capital Baht	Appropriated - I legal reserve Baht	Unappropriated Baht	Translation of financial statements Baht	Total owners of the parent Baht	Non- controlling interests Baht	Total Baht
Opening balance at 1 January 2015		1,815,000,000	5,000,000 1,266,097,322		408,153,742		408,153,742		3,489,251,064
Change in equity for the year									
Compensation of the accumulated loss									
with share premium	20		(538,543,049)	I	538,543,049	I			
Total comprehensive income for the year		I	I	I	526,597,369	24,478,025	551,075,394	2,791	551,078,185
Closing balance at 31 December 2015		1,815,000,000	727,554,273	1	1,473,294,160	24,478,025	959,229,136	2,791	4,040,329,249
Opening balance at 1 January 2016		1,815,000,000	727,554,273	I	1,473,294,160	24,478,025	4,040,326,458	2,791	4,040,329,249
Change in equity for the year									
Appropriation of legal reserve	21	ı	I	46,825,835	(46,825,835)	I	ı	I	I
Dividends paid	28		I	I	(108,893,652)	I	(108,893,652)	1	(108,893,652)
Total comprehensive income for the year				1	617,628,000	13,514,345	631,142,345	(375,249)	630,767,096
Non-controlling interests in newly acquired subsidiaries	S	I	I	I	I	I	I	23,216,032	23,216,032
Closing balance at 31 December 2016		1 815 000 000	727 554 273	16 875 835	1 035 202 673	37 000 370	A 642 676 161	22 042 E74	A EOF 410 70F

Thai Solar Energy Public Company Limited

Thai Solar Energy Public Company Limited STATEMENT OF CHANGES IN EQUITY For the year ended 31 December 2016

		Sepa	Separate financial	statements		
				Retained earnings	earnings	
	Notes	Issued and	Premium	Appropriated-	Unappropriated	Total
		called-up	on ordinary	legal reserve	Baht	Baht
		share capital	capital	Baht		
		Baht	Baht			
Opening balance at 1 January 2015		1,815,000,000	1,266,097,322	1	(538,543,049)	2,542,554,273
Change in equity for the year						
Compensation of the accumulated loss with						
share premium	20	I	(538,543,049)	I	538,543,049	I
Total comprehensive income for the year		I	I	I	325,390,862	325,390,862
Closing balance at 31 December 2015		1,815,000,000	727,554,273		325,390,862	2,867,945,135
Onening halance at 1 January 2016		1 815 000 000	777 550 773		375 390 862	2 867 945 135
		· · · · · · · · · · · · · · · · · · ·	0-1(-0)(-1-		100,000	
Change in equity for the year						I
Appropriation of legal reserve	21	I	I	40,025,835	(40,025,835)	I
Dividends paid	28	I	I	I	(108,893,646)	(108,893,646)
Total comprehensive income for the year		I	I		475,125,849	475,125,849
Closing balance at 31 December 2016		1,815,000,000	727,554,273	40,025,835	651,597,230	3,234,177,338

# Thai Solar Energy Public Company Limited STATEMENT OF CASH FLOWS For the year ended 31 December 2016

		Consolidate stater	ed financial nents	Separate stater	financial nents
	Notes	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Cash flows from operating activities					
Profit before income tax expense		647,130,265	530,263,773	505,021,996	329,185,365
Adjustments for:					
Depreciation	14	68,381,062	41,898,950	21,002,046	20,770,011
Amortisation	15	400,586	327,424	394,577	321,433
Share of profit from investments in jointly					
controlled entities	12.1	(575,922,977)	(596,578,734)	-	-
Provision for employee benefits obligations	19	1,625,771	1,342,801	1,625,771	1,342,801
Unrealised loss (gain) on exchange		47,273	(20,314)	49,457,098	(5,904,816)
Fair value gain on trading securities	9	(566,482)	(399,969)	(566,482)	(399,969)
Write-off intangible assets	15	1,676,666	-	1,676,666	-
Loss from writing-off of equipment		-	2,491	-	2,491
Dividends income		(41)	(47)	(441,950,080)	(416,850,083)
Interest income	22	(11,152,936)	(22,038,405)	(11,157,648)	(21,770,406)
Finance cost	24	59,935,251	27,847,171	28,105,352	9,704,625
		191,554,438	(17,354,859)	153,609,296	(83,598,548)
Changes in operating assets and liabilities					
Trade and other receivables		(222,888,682)	(33,869,808)	(210,780,413)	(8,086,603)
Value added tax refundable		(18,304,761)	(9,524,248)	823,712	(1,806,954)
Other current assets		6,799,862	17,235,806	978,092	620,044
Other non-current assets		2,295,576	(2,397,105)	1,620,141	950,725
Other payables		1,910,792	793,001	(216,375)	(10,453,353)
Other current liabilities		822,012	(39,152,016)	(244,470)	(39,954,895)
Cash flows used in operating activities		(37,810,763)	(84,269,229)	(54,210,017)	(142,329,584)
Less Income tax paid		(1,741,008)	(1,898,302)	(1,546,610)	(1,800,171)
Net cash used in operating activities		(39,551,771)	(86,167,531)	(55,756,627)	(144,129,755)

The accompanying notes are an integral of these consolidated and separate financial statements.

# Thai Solar Energy Public Company Limited STATEMENT OF CASH FLOWS (Cont'd) For the year ended 31 December 2016

			ed financial ments	-	e financial ments
	Notes	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Cash flows from investing activities					
Acquisition of subsidiary, net of cash acquired		(115,807,467)	-	-	-
Decrease (increase) in restricted bank deposits		146,039,851	(125,208,980)	158,632,565	(118,760,383)
Purchase of short-term investments	9	(2,006,607,505)	(1,396,904,836)	(2,006,607,505)	(1,396,904,836)
Proceeds from disposals of short-term investments	9	809,014,745	2,062,495,690	809,014,745	2,062,495,690
Short-term loans made to related parties	29 с)	-	-	(710,757,523)	(298,414,637)
Short-term loan repayments received from					
related parties	29 с)	-	-	33,574,789	132,353,208
Acquisition of subsidiary	12.2	-	-	(614,575,150)	(419,818,768)
Long-term loans		(153,979)	-	(153,979)	-
Acquisition of property, plant and equipment		(925,067,604)	(936,042,165)	(856,440)	(13,108,036)
Acquisition of intangible asset	15	(11,765,856)	(1,344,350)	(2,621,830)	(1,344,350)
Interest received		10,356,670	24,595,387	9,977,032	24,336,573
Dividends received		358,750,066	464,100,087	358,750,066	464,100,087
Net cash (used in) from investing activities		(1,735,241,079)	91,690,833	(1,965,623,230)	434,934,548
Cash flows from financing activities					
Increase in short-term loans from bank	18.1	866,049,280	152,949,889	866,049,280	-
Repayment to short-term loans from bank	18.1	(536,131,039)	-	(383,181,150)	-
Increase in short-term loan from related party	29 d)	-	-	45,000,000	-
Repayment to short-term loan from related party	29 d)	-	-	(22,500,000)	-
Repayment to finance lease liabilities		(4,775,304)	(4,775,304)	(4,775,304)	(4,775,304)
Cash proceeds from long-term borrowings	18.3	559,881,275	290,620,010	-	-
Repayment to long-term borrowings	18.3	(371,007,982)	(107,935,535)	(154,000,000)	(40,000,000)
Non-controlling interests		3,134	2,791	-	-
Cash proceeds from bonds	18.4	2,044,875,000	-	2,044,875,000	-
Dividends payment		(108,836,968)	-	(108,836,969)	-
Interest expenses and financial service fee		(49,216,408)	(30,647,668)	(5,389,101)	(8,899,800)
Net cash from (used in) financing activities		2,400,840,988	300,214,183	2,277,241,756	53,675,104
Net increase in cash and cash equivalents		626,048,138	305,737,485	255,861,899	237,129,689
Cash and cash equivalents at beginning of the year		337,425,538	7,210,028	241,190,936	4,061,247
Exchange losses on cash and cash equivalents		(44,981)	-	(44,981)	
Effect of exchange rate changes on translation		. , ,		( • • • • • • • • • • • •	
of financial statements		13,608,683	24,478,025	-	-
Cash and cash equivalents at end of the year		977,037,378	337,425,538	497,007,854	241,190,936
Non-cash transaction		,,	, _,		,_, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,
Material non-cash transaction is as follow:					
Payable arising from purchase of investment					
in subsidiary		179,635,000	-	179,635,000	-
The accompanying notes are an integral of these consolid				.,	

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited NOTES TO THE CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTSFor the year ended 31 December 2016

# 1. General information

Thai Solar Energy Public Company Limited ("the Company") is a Public Company Limited which is incorporated and domiciled in Thailand. The Company is listed on the Stock Exchange of Thailand. Its parent company is P.M. Energy Company Limited (incorporated in Thailand) ("Parent Company"). The address of the Company's registered office is as follows:

3199 Maleenont Tower, 16<sup>th</sup> Floor, Rama IV Rd., Klongtan, Klongtoey, Bangkok.

For reporting purposes, the Company, its subsidiaries and Jointly Controlled Entity are referred to as "the Group".

The principal business operations of the Group are generation and distribution of electricity from solar power to government and private sector.

These consolidated and separate financial statements have been approved for issue by the Board of Directors on 28 February 2017.

#### 2. Accounting policies

The principal accounting policies applied in the preparation of these consolidated and separate financial statements are set out below:

# 2.1 Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai generally accepted accounting principles under the Accounting Act B.E. 2543, being those Thai Financial Reporting Standards issued under the Accounting Profession Act B.E. 2547, and the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention except trading investments as disclosed in accounting policy.

The preparation of financial statements in conformity with Thai generally accepted accounting principles requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in note 4.

An English version of the consolidated and separate financial statements have been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

#### 2.2 New/revised financial reporting standards, and related interpretations

- 2.2.1 New/revised financial reporting standards and interpretations are effective on 1 January 2016.
  - a) New/revised financial reporting standards and interpretation which have significant changes are relevant to the Group:

TAS 16 (revised 2015)	Property, plant and equipment
TAS 19 (revised 2015)	Employee benefits
TAS 24 (revised 2015)	Related party disclosures
TAS 27 (revised 2015)	Separate financial statements
TAS 36 (revised 2015)	Impairment of assets
TAS 38 (revised 2015)	Intangible assets
TAS 40 (revised 2015)	Investment property
TFRS 3 (revised 2015)	Business combinations
TFRS 8 (revised 2015)	Operating segments
TFRS 10 (revised 2015)	Consolidated financial statements
TFRS 13 (revised 2015)	Fair value measurement
TFRIC 21 (revised 2015)	Levies

TAS 16 (revised 2015), 'Property, plant and equipment' clarifies how the gross carrying amount and the accumulated depreciation are treated where an entity uses the revaluation model. This standard has no impact to the Group.

TAS 19 (revised 2015), 'Employee benefits' is amended to apply to contributions from employees or third parties to defined benefit plans and to clarify the accounting treatment of such contributions. The amendment distinguishes between contributions that are linked to service only in the period in which they arise and those linked to service in more than one period. This standard has no impact to the Group.

TAS 24 (revised 2015), 'Related party disclosures' includes as a related party an entity that provides key management personnel services to the reporting entity or to the parent of the reporting entity (the 'management entity'). Disclosure of the amounts charged to the reporting entity is required. This standard has no impact to the Group, except for disclosures.

TAS 27 (revised 2015) allows an investment entity that is exempted from consolidating its subsidiaries presenting Company as its only financial statements. It requires the investment entity to measure its investment in subsidiaries at fair value through profit or loss. This standard has no impact to the Group.

#### 2.2 New/revised financial reporting standards, and related interpretations (Cont'd)

- 2.2.1 New/revised financial reporting standards and interpretations are effective on 1 January 2016. (Cont'd)
  - a) New/revised financial reporting standards and interpretation which have significant changes are relevant to the Group: (Cont'd)

TAS 36 (revised 2015), 'Impairment of assets' is amended to provide additional disclosure requirement when the recoverable amount of the assets is measured at fair value less costs of disposal. The disclosures include 1) the level of fair value hierarchy and 2) when fair value measurement categorised within level 2 and level 3, disclosures is required for valuation technique and key assumption.

TAS 38 (revised 2015), 'Intangible assets' is amended to clarify how the gross carrying amount and the accumulated amortisation are treated where an entity uses the revaluation model. This standard has no impact to the Group.

TAS 40 (revised 2015), 'Investment property' clarifies that TFRS 3 should be applied when determining whether an acquisition of an investment property is a business combination. This standard has no impact to the Group.

TFRS 3 (revised 2015), 'Business combinations' clarifies i) an obligation to pay contingent consideration which meets the definition of a financial instrument as a financial liability or equity, on the basis of the definitions in TAS 32, 'Financial instruments: Presentation' (when announced) or other applicable standards. It also clarifies that all non-equity contingent consideration is measured at fair value at each reporting date, with changes in value recognised in profit and loss, and ii) TFRS 3 does not apply to the accounting for the formation of any joint venture under TFRS 11. This standard has no impact to the Group.

TFRS 8 (revised 2015), 'Operating segments' requires disclosure of the judgements made by management in aggregating operating segments. It is also amended to require a reconciliation of segment assets to the entity's assets when segment assets are reported to chief operating decision maker. This standard has no impact to the Group, except for disclosures.

TFRS10 (revised 2015) 'Consolidated' is amended to define an investment entity and introduce an exception from consolidation. These amendments mean that many funds and similar entities will be exempt from consolidating most of their subsidiaries. Instead, they will measure them at fair value through profit or loss. This standard has no impact to the Group.

#### 2.2 New/revised financial reporting standards, and related interpretations (Cont'd)

- 2.2.1 New/revised financial reporting standards and interpretations are effective on 1 January 2016. (Cont'd)
  - a) New/revised financial reporting standards and interpretation which have significant changes are relevant to the Group: (Cont'd)

TFRS 13 (revised 2015), 'Fair value measurement' is amended to clarify that the portfolio exception in TFRS 13 applies to all contracts (including non-financial contracts) within the scope of TAS 39 (when announced) or TFRS 9 (when announced). This standard has no impact to the Group.

TFRIC 21, 'Levies', the Interpretation addresses the accounting for a liability to pay a levy if that liability is within the scope of TAS 37. It also addresses the accounting for a liability to pay a levy whose timing and amount is certain. This standard has no impact to the Group.

b) Revised financial reporting standards and interpretations with minor changes and do not have impact to the Group:

There are 40 financial reporting standards with minors changes which do not have impact to the Group.

- 2.2.2 Revised financial reporting standards are effective for annual periods beginning on or after 1 January 2017. The Group has not yet early adopted these revised standards.
  - a) Financial reporting standards, which have significant changes and are relevant to the Group:

TAS 1 (revised 2016)	Presentation of financial statements
TAS 16 (revised 2016)	Property, plant and equipment
TAS 19 (revised 2016)	Employee benefits
TAS 27 (revised 2016)	Separate financial statements
TAS 28 (revised 2016)	Investments in associates and joint ventures
TAS 34 (revised 2016)	Interim financial reporting
TAS 38 (revised 2016)	Intangible assets
TFRS 10 (revised 2016)	Consolidated financial statements
TFRS 11 (revised 2016)	Joint arrangements

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

Materiality - an entity should not aggregate or disaggregate information in a manner that obscures useful information. Where items are material, sufficient information must be provided to explain the impact on the financial position or performance.

Disaggregation and subtotals - line items specified in TAS 1 may need to be disaggregated where this is relevant to an understanding of the entity's financial position or performance. There is also new guidance on the use of subtotals.

Notes - confirmation that the notes do not need to be presented in a particular order.

OCI arising from investments accounted for under the equity method - the share of OCI arising from equity-accounted investments is grouped based on whether the items will or will not subsequently be reclassified to profit or loss. Each group should then be presented as a single line item in the statement of other comprehensive income.

#### 2.2 New/revised financial reporting standards, and related interpretations (Cont'd)

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

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

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

TAS 27 (revised 2016), the amendments allow an entity a policy choice to account for investments in subsidiaries, joint ventures and associates in its separate financial statements using the equity method as described in TAS 28. While current TAS 27 allows entities to measure their investments in subsidiaries, joint ventures and associates either at cost or at fair value (when announced). The election can be made independently for each category of investment (subsidiaries, joint ventures and associates). Entities wishing to change to the equity method must do so retrospectively.

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

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

TAS 38 (revised 2016), the amendments include a rebuttable presumption that the amortisation of intangible assets based on revenue is inappropriate. This presumption can be overcome if either the intangible asset is expressed as a measure of revenue (i.e. where a measure of revenue is the limiting factor on the value that can be derived from the asset), or it can be shown that revenue and the consumption of economic benefits generated by the asset are highly correlated.

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

# 2.2 New/revised financial reporting standards, and related interpretations (Cont'd)

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

TFRS 11 (revised 2016), the amendments clarify that 1) the accounting for the acquisition of an interest in a joint operation where the activities of the operation constitute a business. They require an investor to apply the principles of business combination accounting and 2) existing interests in the joint operation are not remeasured on acquisition of an additional interest, provided joint control is maintained.

The management has assessed and considered that the above revised standards will not have a material impact on the Group.

b) Revised financial reporting standards and interpretations with minor changes and do not have impact to the Group:

There are 47 financial reporting standards with minor changes which do not have any impact to the Group.

# 2.3 Group accounting - investments in subsidiaries and associates and interests in joint ventures

(1) Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns though its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

If the business combination is achieves in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measured are recognised in profit or loss.

Any contingent consideration to be transferred by the Group is regcognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

# 2.3 Group accounting - investments in subsidiaries and associates and interests in joint ventures ZCon'd)

#### (1) Subsidiaries (Cont'd)

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If the total of consideration transferred, non-controlling interest recognise and previously held interest measured is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in profit or loss.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

(2) Transactions and non-controlling interests

The Group treats transactions with non-controlling interests as transactions with equity owners of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

(3) Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities.

(4) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identifies on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

# 2. Accounting policies (Cont'd)

# 2.3 Group accounting - investments in subsidiaries and associates and interests in joint ventures (Cont'd)

#### (4) Associates (Con't)

The Group's share of its associates' post-acquisition profits or losses is recognised in the profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The Group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to share of profit (loss) of associates in the income statement.

Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group. Dilution gains and losses arising in investments in associates are recognised in the profit or loss.

In the separate financial statements, investments in associates are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

(5) Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

Under the equity method of accounting, interests in joint ventures are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses and movements in other comprehensive income. When the Group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the Group's net investment in the joint ventures), the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

# 2.3 Group accounting - investments in subsidiaries and associates and interests in joint ventures (Cont'd)

(5) Joint arrangements (Con't)

Unrealised gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in the joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

List of joint ventures are disclosed in note 12.1.

#### 2.4 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in Thai Baht, which is the company's functional and the group's presentation currency.

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit and loss, any exchange component of that gain or loss is recognised in profit and loss.

(c) Group companies

The results and financial position of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses for each statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

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.

# 2.5 Cash and cash equivalents

In the consolidated and separate statement of cash flows, cash and cash equivalents includes cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less and bank overdrafts. In the consolidated and separate statement of financial position, bank overdrafts are shown within borrowings in current liabilities.

#### 2.6 Restricted bank deposits

Restricted bank deposits means all types of bank deposits that are under condition of withdrawal process for specific purpose according to financial agreement and loan facilities agreement with financial institution which provide credit to the Group.

#### 2.7 Investments

Investments other than investments in subsidiaries, and joint ventures are classified into the following three categories: (1) trading investments; (2) held-to-maturity investments; and (3) general investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

- 1. Investments that are acquired principally for the purpose of generating a profit from short-term fluctuations in price are classified as trading investments and included in current assets.
- 2. Investments with fixed maturity that the management has the intent and ability to hold to maturity are classified as held-to-maturity and are included in non-current assets, except for maturities within 12 months from the statement of financial position date which are classified as current assets.
- 3. Investments in non-marketable equity securities are classified as general investments.

All categories of investment are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction cost.

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

Held-to-maturity investments are carried at amortised cost using the effective yield method less impairment loss.

General investments are carried at cost less impairment loss.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is charged to the income statement.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the profit or loss. When disposing of part of the Company's holding of a particular investment in debt or equity securities, the carrying amount of the disposed part is determined by the weighted average carrying amount of the total holding of the investment.

#### 2.8 Trade accounts receivable

Trade accounts receivable are carried at the original invoice amount and subsequently measured at the remaining amount less any allowance for doubtful receivables based on a review of all outstanding amounts at the year-end. The amount of the allowance is the difference between the carrying amount of the receivable and the amount expected to be collectible. Bad debts are written-off during the year in which they are identified and recognised in profit or loss within selling and administrative costs.

# 2.9 Investment property

Property that is held for long-term rental yields or for capital appreciation or both, and that is not occupied by the companies in the consolidated Group, is classified as investment property. Investment property also includes property that is being constructed or developed for future use as investment property.

Investment property is measured initially at its cost, including related transaction costs and borrowing costs. Borrowing costs are incurred for the purpose of acquiring, constructing or producing a qualifying investment property are capitalised as part of its cost. Borrowing costs are capitalised while acquisition or construction is actively underway and cease once the asset is substantially complete, or suspended if the development of the asset is suspended.

After initial recognition, investment property is carried at cost less any accumulated depreciation and any accumulated impairment losses.

Land is not depreciated.

Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are expensed when incurred. When part of an investment property is replaced, the carrying amount of the replaced part is derecognised.

# 2.10 Property, plant and equipment

Property, plant and equipment is measured initially at its cost, including related transaction costs.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight line method to allocate their cost to their residual values over their estimated useful lives, as follows:

Land improvement	25	years
Power plants	5, 25	years
Office buildings	25	years
Tools and equipment	5	years
Fixture and office equipment	3, 5	years
Vehicles	5	years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

The asset's carrying amount is written-down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2.11).

Gains or losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within 'Other (losses)/gains - net' in profit or loss.

#### 2.11 Impairment of assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

#### 2.12 Leases - where a Group company is the lessee

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

The Group leases certain property, plant and equipment. Leases of property, plant or equipment where the Group has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased property and the present value of the minimum lease payments.

Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to profit or loss over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant or equipment acquired under finance leases is depreciated over the shorter period of the useful life of the asset and the lease term.

# 2.13 Borrowings

Borrowings are recognised initially at the fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of the borrowings using the effective yield method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates by using the effective yield method.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of reporting date.

# 2.14 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale or suspended if the development of the asset is suspended.

# 2.14 Borrowing costs (con't)

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

#### 2.15 Current and deferred income taxes

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case the tax is also recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of reporting period in the countries where the Group operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements.

However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax is provided on temporary differences arising from investments in subsidiaries, associates and joint arrangements, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

#### 2.16 Employee Benefits

#### (a) Provident fund

The Group operates a provident fund, being a defined contribution plan. The assets of which are held in a separate trustee - administered fund. The provident fund is funded by payments from employees and by the Company. Contributions to the provident fund are charged to the statement of comprehensive income in the period to which the contributions relate.

#### 2.16 Employee Benefits (con't)

(b) Retirement benefits

A defined benefit plan is a retirement plan that is not a defined contribution plan. Typically defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related retirement liability. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in profit or loss.

# 2.17 Provisions

Provisions, which provisions for employee benefits is not included, are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

# 2.18 Government Grants

Grants from the government are recognised according to price subsidy policy where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to the sales of electricity generated from solar power is recognized as profit or loss systematically throughout the period. Moreover, the Group recognised expenses related to cost which is compensated.

# 2.19 Share Capital

Ordinary shares are classified as equity.

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.

Where any companies within the Group purchases the Company's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs (net of income taxes) is deducted from equity attributable to the Company's equity holders until the shares are cancelled or reissued. Where such shares are subsequently reissued, any consideration received, net of any directly attributable incremental transact costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

#### 2.20 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and service in the ordinary course of the Company's activities. Revenue including electricity tariff adders, net of fuel adjustment (Ft) and the Provincial Electricity Authority's operating charges, are the invoiced value, excluding valued added tax of electricity supplied, and after eliminating sales within the Group. Revenue from sales of goods is recognised when significant risks and rewards of ownership of the goods are transferred to the buyer.

Management service income is recognised when service is completed.

Interest income is recognised using the effective interest method.

Dividend income is recognised when the right to receive payment is established.

# 2.21 Dividend distribution

Dividend distribution to the Company's shareholders is recognised as a liability in the Group's financial statements in the period in which the dividends are approved by the Company's shareholders and the interim dividend are approved by the Board of Directors.

#### 2.22 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors that make strategic decisions.

#### 3. Financial risk management

# 3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

Risk management is carried out under policies approved by the Board of Directors. The Group Treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative and non-derivative financial instruments, and investment excess liquidity.

3.1.1 Foreign exchange risk

As the Group generates and distributes electricity from solar power, the Group has entered into Power Plant construction agreement with supplier in foreign countries. The Group is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to US Dollar and Japanese Yen, in terms of foreign exchange risk arises from future commercial transactions, recognition of assets and liabilities and net investments in foreign operations. However, the Group does not hedge foreign exchange risk as exposure is insignificant.

The Company has a number of investments in foreign subsidiaries, whose net assets are exposed to currency translation risk, primarily in Japanese Yen. The exposure has not been hedged because investment and borrowings were made in the same currency with future cash inflow.

3.1.2 Interest rate risk

Interest rate risk of company occurs from credit facilities of commercial bank which is floating rate. Credit terms and interest rates depend on each borrower's creditability that cause the Company exposing to cash flow risk from interest rate.

3.1.3 Major customer reliance risk

The Group relies on Provincial Electricity Authority (PEA) and Metropolitan Electricity Authority (MEA) who purchase of all electricity generated in specific quantities at specific price based on each specific period according to Power Purchase Agreement, in accordance with Ministry of Energy's policy to encourage production and usage of renewable energy. As a result, agreement termination may significantly impact the Group's operations.

# 3. Financial risk management (Cont'd)

#### 3.1 Financial risk factors (Con'd)

3.1.4 Risk from generated electricity lower than estimation

The electricity volume generated from solar power plants might be affected by climate change and natural disaster, forming as a risk of production volume is lower than estimation. In consequence, it may impact to revenue and operating results of the Group as well as other electricity generators in this industry.

3.1.5 Debt settlement ability risk

According to credit facilities conditions with commercial bank, the Group has to comply with financial covenants stated in the agreement such as to maintain Debt-to-Equity ratio and maintain Debt service coverage ratio. If the Group cannot maintain those financial covenant, the Group might be called up for immediate debt settlement.

#### 3.2 Fair value estimation

The table below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2).
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

The following table presents the group's financial assets and liabilities that are measured at fair value at 31 December 2016.

	Level 1 Baht	Level 2 Baht	Level 3 Baht	Total Baht
Assets				
Financial assets at fair value through profit or loss				
Trading securities	520,966,451	-		520,966,451
Total assets	520,966,451			520,966,451

See disclosure of fair value of investment property and borrowings in notes 13 and 18, respectively.

#### 4. Critical accounting estimates and judgements

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

### (a) Property plant and equipment

Management has estimated useful lives and residual value of property plant and equipment. The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period and their carrying values are written-down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount or it will write off technically obsolete or assets that have been abandoned or sold.

#### (b) Estimated impairment of assets

The Group tests whether asset has suffered any impairment, in accordance with the accounting policy stated in Note 2.11. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of estimates. If the estimated cost of capital used in determining the pre-tax discount rate applied to the discounted cash flows had been 10% higher than management's estimates (for example, 10.67 instead of 9.70%), the Group would not have recognised a further impairment against assets.

# (c) Income taxes

The Group is subject to income taxes in numerous jurisdictions. Significant judgement is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain. The Group recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

#### (d) Deferred taxes

Deferred tax assets and liabilities are recognised for temporary difference arising between tax bases of assets and liabilities and their carrying amount for accounting purposes as at the end of reporting date. Significant management judgment is used in considering whether it is highly probable that the Group will generate sufficient taxable profits from its future operations to minimise these deferred tax assets. The Group's assumptions regarding the future taxable profits and the anticipated timing of minimise of deductible temporary differences and significant changes in these assumptions from period to period may have a material impact on financial position and results of operations.

# 4. Critical accounting estimates and judgements (con't)

(e) Pension benefits

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for pensions include the discount rate. Any changes in these assumptions will have an impact on the carrying amount of pension obligations.

Other key assumptions for pension obligations are based in part on current market conditions. Additional information is disclosed in Note 19.

# 5. Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares, or sell assets to reduce debt. In addition, under loan agreement, the Company has to maintain of certain covenants (Note 18).

#### 6. Operating segments

The Group is principally engaged in the production and distribution of electricity generated from solar energy. The operations are carried out in Thailand and commenced operations in Japan during 2015. Segment information is presented in respect of the Group's geography segments which are domestic and international. The two segments presented were classified and reviewed by authorised persons which are Chief Executive Officer and executive committee. The following information is used by authorised persons to evaluate operation of each segment.

6. Operating segments (Cont'd)

Financial information by geography segment

			For	the year e	For the year ended 31 December (Million Baht)	ecember (	Million Bah	lt)		
	Domestic	stic	International	tional	Total	al	Elimination	ation	Total	al
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Revenue from operations	403.31	163.14	48.67	3.61	451.98	166.75	(14.78)	(5.76)	437.20	160.99
Dividend income	441.95	416.85	I	I	441.95	416.85	(441.95)	(416.85)	I	I
Cost of operations	(125.21)	(123.57)	(31.86)	(1.73)	(157.07)	(125.30)	7.56	5.75	(149.51)	(119.55)
Operating profit	720.05	456.42	16.81	1.88	736.86	458.30	(449.17)	(416.86)	287.69	41.44
Administrative expenses	(91.52)	(81.13)	(18.80)	(2.83)	(110.32)	(83.96)	'	I	(110.32)	(83.96)
Profit(loss)before finance cost, taxes, depreciation and amortisation	628.53	375.29	(1.99)	(0.95)	626.54	374.34	(449.17)	(416.86)	177.37	(42.52)
Depreciation and amortisation	(3.63)	(4.00)	I	I	(3.63)	(4.00)	I	I	(3.63)	(4.00)
Finance cost	(49.32)	(26.82)	(10.75)	(1.03)	(60.07)	(27.85)	0.14	I	(59.93)	(27.85)
Gain(loss) from exchange rate	(42.60)	8.06	I	1	(42.60)	8.06		I	(42.60)	8.06
Share of profit from investments in jointly controlled entity	575.92	596.58	I	I I	575.92	596.58	T	1	575.92	596.58
Operating results before taxes	1,108.90	949.11	(12.74)	(1.98)	1,096.16	947.13	(449.03)	(416.86)	647.13	530.27
Income tax income (expense)	(30.12)	(3.67)	0.15	I	(29.97)	(3.67)	I	I	(29.97)	(3.67)
Net profit (loss)	1,078.78	945.44	(12.59)	(1.98)	1,066.19	943.46	(449.03)	(416.86)	617.16	526.60
Total assets									8,374.87	4,844.39
Total liabilities									3,789.45	804.07

# 7 Cash and cash equivalents

	Consolida	ted financial statements	Separ	ate financial statements
	2016 Bath	2016 Bath	2016 Bath	2016 Bath
Cash on hand	100,027	75,052	50,000	50,000
Cash at bank	976,937,351	337,350,486	496,957,854	241,140,936
	976,937,351	337,350,486	496,957,854	241,140,936

The average effective interest rate on short-term bank deposits was 0.4% per annum (2015: 0.4%).

# 8 Restricted bank deposits

The short-term restricted bank deposits consist of the pledged saving bank deposits of the subsidiaries and the transfer of claims in the deposit accounts to the lender according to the specified expenditure conditions to secure the credit facilities.

The long-term restricted bank deposits consist of the pledged saving bank deposits that the Company use as a guarantee of its electricity consumption.

# 9 Short-term investments

The movements of short-term investments are as follows:

	Consolidated and separate financial statements				
	Trading Baht	Held-to-maturity due within 1 year Baht	Total Baht		
At 1 January 2015	135,198,094	1,096,800,000	1,231,998,094		
Additions	849,005,000	547,899,836	1,396,904,836		
Disposals	(916,955,662)	(1,145,540,028)	(2,062,495,690)		
Re-measuring of investments	399,969		399,969		
	67,647,401	499,159,808	566,807,209		
At 31 December 2015	756,000,000	1,250,607,505	2,006,607,505		
Additions	(303,247,432)	(505,767,313)	(809,014,745)		
Disposals	566,482	-	566,482		
Re-measuring of investments	520,966,451	1,244,000,000	1,764,966,451		

At 31 December 2016

# 9 Short-term investments (Cont'd)

At 31 December 2016, the summary of fair value of short-term investment is as follows

	Consolidated a	nd separate financi	al statements
		Held-to-maturity	
	Trading	due within	Total
	Baht	1 year	Baht
		Baht	
Investment in securities at cost	520,000,000	1,244,000,000	1,764,000,000
Changes in value of investments	966,451		966,451
	520,966,451	1,244,000,000	1,764,966,451

The fair value of investments are based on bia price in market liquidity using as at financial statement date. The fair values are within level 1 of the fair value hierarchy.

# 10 Trade and other receivables

Trade and other receivables as at 31 December 2016 and 2015 comprise the following:

	Consolidated financia tatements		Separate financial tatements		
	2016 Bath	2016 Bath	2016 Bath	2016 Bath	
Trade accounts receivable	16,060,019	14,219,119	295	5,900	
Less Provision for impairment of trade receivables				-	
Total trade accounts receivable, net	16,060,019	14,219,119	295	5,900	
Amounts due from and advances to related parties (Note 29 b)	225,261,791	5,001,004	226,163,955	55,363,499	
Prepaid Expenses	7,490,441	8,620,200	2,530,416	3,502,046	
Dividends receivable (Note 29 b)	78,750,014	-	83,200,013	-	
Other receivables	3,667,963	3,214,927	43,141,332	2,791,192	
Advance payment	18,764,047	16,504,063	18,065,200	16,277,532	
Total other receivables	333,934,256	33,340,194	373,100,916	77,934,269	
Less Provision for impairment of other receivables		-		-	
Total other receivables, net	333,934,256	33,340,194	373,100,916	77,934,269	
Total trade and other receivable	349,994,275	47,559,313	373,101,211	77,940,169	

All outstanding trade accounts receivable are not due.

# 11 Other current assets

	Consolidate tatem		Separate tatem	
	2016 Bath	2016 Bath	2016 Bath	2016 Bath
Withholding tax deducted at sources	3,768,061	3,273,217	3,346,781	2,866,675
Input VAT undue	313,384	1,136,301	184,288	135,738
Others	4,942,956	818,070	225,500	185,638
	9,024,401	5,227,588	3,756,569	3,188,051

# 12 Investments in subsidiaries and investment in jointly controlled entities

# 12.1 Investment in jointly controlled entities

Movement in investments in jointly controlled entities

	Consolidated financia tatements Bath	Separate financial tatements Bath
For the year ended 31 December 2016		
Opening net book value	1,476,668,878	350,000,130
Share of profit	575,922,977	-
Dividends received	(437,500,040)	-
	1,615,091,815	350,000,130

Closing net book value

Details of jointly controlled entities in 2016 and 2015 are as follows:

	Business	Country of incorporation	% Ownership interest 2016	Nature of the relationship	Measurement method
Jointly controlled entity directly held by the Company Thai Solar Renewable Co., Ltd.	Investment holdings	Thailand	60	Note 1	Equity
Jointly controlled entity held by Thai Solar Renewable Co., Ltd. Siam Solar Energy 1 Co., Ltd.*	Generation and distribution of electricity	Thailand	60	Note 1	Equity

\* The Company directly holds one share and the remaining shareholding portions are held by Thai Solar Renewable Company Limited.

#### 12.1 Investment in jointly controlled entities (Cont'd)

Thai Solar Renewable Co., Ltd. is investment holding company and Siam Solar Energy 1 Co., Ltd. engages in the generation and distribution of electricity from solar energy. These companies are private companies and their shares are not traded. These companies were joint controlled entities held by the Company and Global Power Synergy Public Company Limited.

Summarised financial information for jointly controlled entities

Financial statements of Siam Solar Energy 1 Co., Ltd., subsidiary of Thai Solar Renewable Co., Ltd., was included in the consolidated financial statements of Thai Solar Renewable Co., Ltd.

Set out below are the summarised consolidated financial statements for Thai Solar Renewable Co., Ltd. and Siam Solar Energy 1 Co., Ltd.

#### Summarised statement of financial positions

	Consolidated financial statements		
	Thai Solar Renewable Co., Ltd. As at 31 December		
	2016 Bath	2016 Bath	
Current			
Cash and cash equivalents	1,314,018	1,674,932	
Other current assets(excluding cash)	554,429,658	435,559,302	
Total current assets	555,743,676	437,234,234	
Current financial liabilities (excluding trade payables)	(537,750,000)	(537,750,000)	
Other current liabilities(including trade payables)	(234,129,727)	(76,129,043)	
Total current liabilities	(771,879,727)	(613,879,043)	
Non-current			
Assets	5,706,471,224	5,974,146,685	
Financial liabilities	(2,934,790,574)	(3,472,540,575)	
Net assets	2,555,544,599	2,324,961,301	

# 12.1 Investment in jointly controlled entities (Cont'd)

Summarised statement of comprehensive income

	Consolidated financial statements Thai Solar Renewable Co., Ltd. As at 31 December		
	2016 Bath	2016 Bath	
Revenue from sales			
Subsidy for adders	479,801,801	539,317,679	
Cost of sales	998,436,491	1,030,383,802	
	(327,599,335)	(329,084,638)	
Gross profit	1,150,638,957	1,240,616,843	
Other income	37,997,587	13,628,005	
Administrative expenses	(45,322,457)	(44,066,466)	
Finance costs	(177,710,811)	(213,295,183)	
Profit before income tax expense	965,603,276	996,883,199	
Tax income	(5,731,647)	(2,585,310)	
Profit from continuing operations after income tax expense	959,871,629	994,297,889	

The information above reflects the amounts presented in the financial statements of the Jointly Controlled Entity adjusted for differences in accounting policies between the Group and the joint ventures (and not the Group's share of those amounts). Under equity method (Note 2.3), the Group recognised profit or losses of the Jointly Controlled Entities in Statement of Comprehensive Income within share of profit from investments in jointly controlled entities according to the Group's interest in the Jointly Controlled Entity.

- 12.1 Investment in jointly controlled entities (Cont'd)
  - Reconciliation of summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in joint ventures.

	Thai Solar Renewable Co., Ltd. For the year ended 31 December		
	2016 Bath	2016 Bath	
Summarised financial information			
Opening net assets 1 January	2,324,961,301	2,025,514,617	
Profit for the year	959,871,629	994,297,889	
Dividends received	(729,288,331)	(694,865,205)	
Non-controlling interests		14,000	
Closing net assets	2,555,544,599	2,324,961,301	
Reconciliation:			
The difference from restructuring			
business under common control	136,275,093	136,167,496	
Non-controlling interests		(14,000)	
Closing net assets after reconciliation	2,691,819,692	2,461,114,797	
Interest in joint controlled entity (60%)	1,615,091,815	1,476,668,878	
Carrying value	1,615,091,815	1,476,668,878	

Thai Solar Renewable Company Limited has pledged share certificates of Siam Solar Energy 1 Company Limited, amounting to Baht 1,080 million (2015: Baht 1,080 million) as collateral for its subsidiary's credit facilities granted by a commercial bank. In addition, Siam Solar Energy 1 Company Limited has mortgaged land with construction thereon and machinery with a total net book value of Baht 5,436 million (2015: Baht 5,673 million) and pledged bank deposits amounting to Baht 461 million (2015: Baht 336 million) as collateral for credit facilities granted by a commercial bank.

The Company has pledged all share certificates of the investment in the jointly controlled entities with the lender as the collateral for the credit facilities which the jointly controlled entity are granted from the commercial bank.

# 12.2 Principal subsidiaries

Details of investments as at 31 December 2016 are as follows:

			Proport ordinary directly by paren	shares held	Proporti shares h non-cont interest	eld by crolling
		Country of				
	Business	incorpora-				
		tion	2016	2015	2016	2015
Subsidiaries directly held by the Company						
TSE Rooftop Co., Ltd	Investment	Thailand	100	100	-	-
Solar Visible Co., Ltd.	Provision of maintenance	Thailand	100	100	-	-
("Formerly TSE Operations Co., Ltd.")	service for power plants					
TSE Group International. Pte. Ltd	Investment	Singapore	100	100	-	-
Solar Assets Pte. Ltd.	Investment	Singapore	100	100	-	-
The Solar Earth Co., Ltd.	Production and	Thailand	100	100	-	-
("Formerly Central Rooftop Co., Ltd.")	distribution of electricity					
Clean Renewable Co., Ltd.	Production and	Thailand	100	100	-	-
("Formerly Clean Solar	distribution of electricity					
Co., Ltd.")						
Bangsawan Green Co., Ltd.	Production and distribution of electricity	Thailand	49	-	51	-
Oscar Save The World Co., Ltd.	Production and distribution of electricity	Thailand	70	-	30	-
Subsidiaries held by TSE Rooftop Co., Ltd.						
Green Rooftop Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
North Rooftop Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Lucky Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Champ Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Roof Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
World Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	-	-	-

# 12.2 Principal subsidiaries (Con't)

			Proport ordinary directly by pare	shares held	Proport shares h non-cont interest	eld by trolling
		Country of				
	Business	incorpora- tion	2016	2015	2016	2015
Subsidiaries held by Solar Visible Co., Ltd.						
Thai Community Energy Co., Ltd. ("Formerly Win Win Investment Co., Ltd.")	Production and distribution of electricity	Thailand	100	100	-	-
Sun Future Co., Ltd. ("Formerly Home Rooftop Co., Ltd.")	Production and distribution of electricity	Thailand	100	100	-	-
Solar Community Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
World Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Subsidiaries held by TSE Group International. Pte. Ltd.						
Eco Solar Aizu GK	Production and distribution of electricity	Japan	97	97	3	-
Ishikawa Hanamizuki 1 GK	Production and distribution of electricity	Japan	97		3	-
Subsidiaries held by Solar Assets Pte. Ltd.						
Ibaraki Ushiku 1 GK	Land lease		Japan	100	100	-

#### 12.2 Principal subsidiaries (Cont'd)

Movements of investments in subsidiaries during the year are as follow:

	Separate financial statements Baht
Opening net book amount	596,013,731
Acquisitions during the period	794,210,150
Closing net book amount	1,390,223,881

#### Additional investments under Thai Solar Energy Plc.

#### Investments in TSE Group International Pte. Ltd.

The Company made additional payment for the remaining called-up capital of TSE Group International Pte. Ltd. amounting to Baht 266.87 million during the first quarter of 2016.

#### Investments in Solar Assets Pte. Ltd.

The Company made additional payment for the remaining called-up capital of Solar Assets Pte. Ltd. amounting to Baht 62.70 million during the first quarter of 2016.

#### Investments in Bangsawan Green Co., Ltd.

On 14 July 2016, the Company has established Bangsawan Green Co., Ltd. for the purposes of generating and distributing electricity from biomass power plants. The total investment is Baht

1 million. The Company has the voting right of 100 percent in this company and classified the investment in Bangsawan Green Co. Ltd. as subsidiary.

On 1 November 2016, Bangsawan Green Co., Ltd. increased its capital from Baht 1 million to Baht 165 million. The Company has made payments for capital increase for the total of Baht 165 million during the year.

# 12.2 Principal subsidiaries (Cont'd)

# Investments in Oscar Save The World Co., Ltd.

On 26 August 2016, the Company has acquired 70 percent of ordinary shares of Oscar Save the World Co., Ltd. from Thai Nakorn Parawood Co., Ltd. for a consideration of Baht 299.64 million. The payment has been made during the year for Baht 120 million, with the remaining acquisition payable of Baht 179.64 million (Note 17). However, those shares were transferred to the Company on 26 August 2016.

Details of acquisition are as follows:

Consideration at 26 August 2016	Bath
Cash	120,000,000
Share payable	179,635,000
Total consideration	299,635,000
Recognised amounts of identifiable assets acquired and liabilities assumed	Bath
Cash and cash equivalents	4,192,533
Short-term restricted bank deposits	1,870,168
Short-term loans to non-related parties	20,000,000
Value added tax refundable	885,340
Other current assets	9,038,336
Property, plant and equipment	27,028,211
Cost of Power Purchase Agreement	226,760,000
Other non-current assets	14,716,068
Construction and other payables	(226,906,698)
Short-term loans from related parties	(173,500)
Other current liabilities	(34,131)
Net fair value	77,376,327
Non-controlling interest	(23,212,898)
Intangible assets: Power Purchase Agreements	245,471,571
Total identifiable net assets	299,635,000

#### 12.2 Principal subsidiaries (Cont'd)

#### Additional investments under TSE Group International Pte. Ltd.

#### Investments in Ishikawa Hanamizuki 1 GK

During 2016, the Group invested in Ishikawa Hanamizuki 1 GK totaling Yen 1,510 million for the purpose of generating and distributing electricity from solar power in Japan. The form of investment follows the Godo Kaisha Agreement (GK agreement) which indicates that operating profits and losses will be distributed among the investors and the operator in the proportion of 97 percent and 3 percent, respectively.

# Additional investments under TSE Rooftop Co., Ltd.

#### Investments in World Solar Co., Ltd.

On 24 August 2016, TSE Rooftop Co., Ltd. acquired entire ordinary shares of World Solar Co., Ltd. from Solar Visible Co. Ltd. for a consideration of Baht 0.25 million.

The total non-controlling interest as at 31 December 2016 is Baht 22.84 million, of which Baht 22.79 million is for Oscar Save The World Co., Ltd. The non-controlling interest in respect of Eco Solar Aizu GK and Ishikawa Hanamizuki 1 GK are not material.

# 12.2 Principal subsidiaries (Cont'd)

# Summarised financial information on subsidiaries with material non-controlling interests

Set out below are the summarised financial information for a subsidiary that has non-controlling interests that are material to the Group being Oscar Save The World Co., Ltd.

	Oscar Save The World Co., Ltd.		
	31 December 2016 Baht	26 August 2016 Baht	
Current			
Assets	29,933,072	35,986,377	
Liabilities	(281,193,889)	(227,114,329)	
Total current net assets	(251,260,817)	(191,127,952)	
Non-current			
Assets	327,242,398	268,504,279	
Liabilities		-	
Total non-current net assets	327,242,398	268,504,279	
Net assets	75,981,581	77,376,327	

#### Summarised statement of comprehensive income

	Oscar Save The World Co., Ltd.
	For the period from 26 August to 31 December 2016 Baht
Revenue	644,278
Loss before income tax	(1,394,745)
Income tax expense	-
Post-tax loss from continuing operations	(1,394,745)
Other comprehensive income	-
Total comprehensive expense	(1,394,745)
Total comprehensive expense allocated to non-controlling interests	(418,423)
Dividends paid to non-controlling interests	-

# 12.2 Principal subsidiaries (Cont'd)

Summarised financial information on subsidiaries with material non-controlling interests

	Oscar Save The World Co., Ltd.
	For the period from 26 August to
	31 December 2016
	Baht
Cash flow from operating activities	
Cash generated from operations	13,091,011
Interest paid	(79,079)
Income tax paid	(78,138)
Net cash generated from operating activities	12,933,794
Net cash used in investing activities	(58,095,911)
Net cash used in financing activities	44,000,000
Net decrease in cash and cash equivalents	(1,162,117)
Cash, cash equivalents at beginning of year	4,192,533
Cash and cash equivalents at end of year	3,030,416

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

# 13 Investment property

	Consolidated ar financial sta	-
	2016	2015
	Baht	Baht
As at 1 January		
Cost	108,614,923	88,399,605
Less Provision for impairment	(20,215,318)	-
Net book amount	88,399,605	88,399,605
For the year ended 31 December		
Opening net book amount	88,399,605	88,399,605
Transferred in	-	20,215,318
Adjustment of provision for impairment	-	(20,215,318)
Closing net book amount	88,399,605	88,399,605

# As at 31 December

Cost	108,614,923	108,614,923
Less Provision for impairment	(20,215,318)	(20,215,318)
Net book amount	88,399,605	88,399,605
Fair value	112,493,525	112,493,525

The fair value of investment properties are based on property valuation using market comparison approach. The fair values are within level 2 of the fair value hierarchy.

Amounts recognised in profit and loss that are related to investment property are as follows:

	Consolidated and financial stater	•
	2016 Baht	2015 Baht
Rental income	418,500	291,230
Direct operating expense arising from		
investment property which generated	6,612	6,612
annual rental income		
Direct operating expense arising from	8,076	8,419

14 Property, plant and equipment

				Consolidate	Consolidated financial statements	Itements			
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Vehicles Baht	Asset under construction Baht	Total Baht
At 1 January 2015									
Cost	37,552,064	23,356,377	23,356,377 1,111,388,546	11,206,916	2,118,085	5,702,627	21,236,363	349,895,248	349,895,248 1,562,456,226
Less Accumulated depreciation	I	(303,236)	(86,499,285)	(1,069,090)	(952,903)	(2,965,171)	(2,931,272)	I	(94,720,957)
Less Provision for impairment	I	(20,215,318)	(250,000,000)	1	1	1	I	T	(270,215,318)
Net book amount	37,552,064	2,837,823	774,889,261	10,137,826	1,165,182	2,737,456	18,305,091	349,895,248	1,197,519,951
Year ended 31 December 2015									
Opening net book amount	37,552,064	2,837,823	774,889,261	10,137,826	1,165,182	2,737,456	18,305,091	349,895,248	349,895,248 1,197,519,951
Additions	114,652,627	I	932,107	I	743,431	2,032,200	I	701,527,566	819,887,931
Disposals	I	I	(1,075,780)	I	(1,866)	(626)	I	I	(1,078,272)
Transfer-in (out)	I	(20,215,318)	512,357,354	I	I	I	I	(512,357,354)	(20,215,318)

Opening net book amount	37,552,064	2,837,823	774,889,261	10,137,826	1,165,182	2,737,456	18,305,091	349,895,248	349,895,248 1,197,519,951
Additions	114,652,627	I	932,107	I	743,431	2,032,200	I	701,527,566	819,887,931
Disposals	1	1	(1,075,780)	I	(1,866)	(626)	I	I	(1,078,272)
Transfer-in (out)	1	(20,215,318)	512,357,354	I	I	I	I	(512,357,354)	(20,215,318)
Capitalised borrowing costs	ı	I	355,528	I	I	I	I	2,688,215	3,043,743
Depreciation charge	ı	(60,345)	(38,017,089)	(224,691)	(365,523)	(944,552)	(2,286,750)	I	(41,898,950)
Allowance for impairment - Transfer-in (out)	1	19,333,304	4,681,047	(3,159,461)	(294,212)	(140,356)	(205,004)	I	20,215,318
Closing net book amount	152,204,691	1,895,464	1,254,122,428	6,753,674	1,247,012	3,684,122	15,813,337	541,753,675	1,977,474,403

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				Consolidat	Consolidated financial statements	atements			
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Vehicles Baht	Asset under construction Baht	Total Baht
At 31 December 2015									
Cost	152,204,691	3,141,059	1,623,957,755	11,206,916	2,849,566	7,601,037	21,236,363	541,753,675	2,363,951,062
Less Accumulated depreciation		(363,581)	(124,516,374)	(1,293,781)	(1,308,342)	(3,776,559)	(5,218,022)		(136,476,659)
Less Provision for impairment	T	(882,014)	(245,318,953)	(3,159,461)	(294,212)	(140,356)	(205,004)	T	(250,000,000)
	152,204,691	1,895,464	1,254,122,428	6,753,674	1,247,012	3,684,122	15,813,337	541,753,675	1,977,474,403
Net book amount									
Year ended 31 December 2016									
Opening net book amount	152,204,691	1,895,464	1,254,122,428	6,753,674	1,247,012	3,684,122	15,813,337	541,753,675	1,977,474,403
Exchange differences	3,194,240	1	(25,610,322)		I	ı	1	3,828,546	(18,587,536)
Acquisition of subsidiaries	25,367,200	I	I	ı	I	1,661,011	I	I	27,028,211
Additions	69,445,809	I	183,200	I	9,809,013	725,008	I	856,856,600	937,019,630
Disposals	I	I	(787,000)	I	I	I	I	I	(787,000)
Transfer-in (out)	I	I	529,552,883	ı	I	I	I	(545,056,340)	(15,503,457)
Capitalised borrowing costs	I	I	3,856,723	ı	I	I	I	8,372,107	12,228,830
Depreciation charge	I	(60,511)	(64,081,719)	(225,307)	(549,253)	(1,171,387)	(2,292,885)	I	(68,381,062)
Closing net book amount	250,211,940	1,834,953	1,697,236,193	6,528,367	10,506,772	4,898,754	13,520,452	865,754,588	2,850,492,019
At 31 December 2016									
Cost	250,211,940	3,141,059	2,131,153,239	11,206,916	12,658,579	9,987,056	21,236,363	865,754,588	3,305,349,740
Less Accumulated depreciation	I	(424,092)	(188,598,093)	(1,519,088)	(1,857,595)	(4,947,946)	(7,510,907)	I	(204,857,721)
Less Provision for impairment	I	(882,014)	(245,318,953)	(3,159,461)	(294,212)	(140,356)	(205,004)	I	(250,000,000)
Net book amount	250,211,940	1,834,953	1,697,236,193	6,528,367	10,506,772	4,898,754	13,520,452	865,754,588	2,850,492,019

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equipment
plant and equi
Property,
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Consolidated financial statements

Baht Total (2, 492)(270,215,318) (20,215,318) (20,770,011) 20,215,318 602,246,468 965,780,409 (113,533,941) 602,246,468 (250,000,000) 602,246,468 972,869,083 (92,907,178) 609,746,587 (250,000,000) (113,533,941) 509,746,587 13,272,384 tion Baht 10,898,623 10,898,623 10,898,623 10,898,623 10,898,623 construc-Asset under Baht 15,813,337 (2,286,749) (205,004)Vehicles 21,236,363 (2, 931, 273)18,305,090 18,305,090 21,236,363 (205,004) 15,813,337 (205,004) 15,813,337 (5, 218, 022)(5, 218, 022)Baht 2,556,085 (626) 3,249,793 (2,957,741) 2,556,085 (852,792) (140, 356)7,067,518 3,249,793 (140, 356)3,249,793 Office equipment 5,513,826 1,687,482 (3,677,369) (140, 356)(3,677,369) Baht aquipment (949,998) (1,866)(294,211) Tools and 1,115,587 616,279 (340,342) 1,095,447 2,669,914 (1,280,255) (294,212) (1, 280, 255)(294,212) 1,095,447 2,065,585 1,115,587 1,095,447 Office 11,206,915 10,137,826 (224,691) (3, 159, 461)6,753,674 11,206,916 (1, 293, 781)buildings Baht (1,069,089) 10,137,826 (3,159,461) (1, 293, 781)(3, 159, 461)6,753,674 6,753,674 Baht (84,695,840) 537,242,112 70,000 (17,005,092) 524,988,067 Power plants 871,937,952 (250,000,000) 537,242,112 4,681,047 872,007,952 (101,700,932) (245,318,953) (101,700,932) (245,318,953) 524,988,067 524,988,067 (60,345) (363,582) Land improvement Baht 23,356,378 (303,237) (20,215,318) 2,837,823 1,895,463 3,141,059 (882,014) (363,582) (882,014) 1,895,463 2,837,823 (20,215,318) 19,333,303 1,895,463 Baht ï Land 37,552,064 37,552,064 37,552,064 37,552,064 37,552,064 37,552,064 37,552,064 Allowance for impairment-Transfer Less Accumulated depreciation Less Accumulated depreciation Year ended 31 December 2015 Less Provision for impairment Less Provision for impairment Opening net book amount Closing net book amount At 31 December 2015 At 1 January 2015 Depreciation charge Net book amount Net book amount Transfer-in (out) Additions Disposals in (out) Cost Cost

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				Consolidat	Consolidated financial statements	tements			
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Vehicles Baht	Asset under construction Baht	Total Baht
Year ended 31 December 2016									
Opening net book amount	37,552,064	1,895,463	524,988,067	6,753,674	1,095,447	3,249,793	15,813,337	10,898,623	602,246,468
Additions	I	I	I	I	97,994	411,138	I	705,890	1,215,022
Depreciation charge	ľ	(60,510)	(17,055,062)	(225,307)	(366,863)	(1,001,419)	(2,292,885)	1	(21,002,046)
	37,552,064	1,834,953	507,933,005	6,528,367	826, 578	2,659,512	13,520,452	11,604,513	582,459,444
Closing net book amount									
At 31 December 2016									
Cost	37,552,064	3,141,059	872,007,952	11,206,916	2,767,908	7,478,657	21,236,363	11,604,513	966,995,432
<u>Less</u> Accumulated depreciation	I	(424,092)	(118,755,994)	(1,519,088)	(1,647,118)	(4,678,789)	(7,510,907)	I	(134,535,988)
Less Provision for impairment	I	(882,014)	(245,318,953)	(3,159,461)	(294,212)	(140,356)	(205,004)	I	(250,000,000)
Net book amount	37,552,064	1,834,953	507,933,005	6,528,367	826,578	2,659,512	13,520,452	11,604,513	582,459,444

Borrowing costs incurring from the borrowings specifically for the construction of the power plants constructed during the year were capitalized and included as "Additions" for Baht 12.23 million (2015: Baht 3.0 million). The Group used the capitalisation rates of 2.91% to 6.00% per annum (2015: 4.525% to 4.75%) to calculate the borrowing costs for the capitalisation. The capitalization rate is the actual rate of the borrowings which were used for the construction.

Depreciation expense has been recognised in the statement of comprehensive income as follows;

	Consolidate staten		Separate staten	
	2016 Baht million	2015 Baht million	2015 Baht million	2016 Baht million
Cost of sales and services	64.75	37.90	17.48	41.40
Administrative expense	3.63	4.00	3.52	3.37
	68.38	41.90	21.00	44.77

At 31 December 2016, the Company recorded provisions for impairment of a thermal power plant amounting to Baht 250 million since the recoverable amount was lower than the carrying value.

Leased assets included above, where the Group is a lessee under finance leases, comprise vehicles:

	Consolidated	d financial	Separate	financial
	statem	ents	statem	nents
	2016	2015	2015	2016
	Baht	Baht	Baht	Baht
Cost of assets under the finance lease	20,526,000	20,526,000	20,526,000	20,526,000
Less Accumulated depreciation	(7,143,302)	(4,935,877)	(7,143,302)	(4,935,877)
Net book amount	13,382,698	15,590,123	13,382,698	15,590,123

### Capital commitments

Capital commitments exist as at the date of the statement of financial position but not included in the financial statements are as follows:

		Consolidate stater		Separate fina statemen	
	Currency	2016	2015	2016	2015
Power plants	Yen	367,177,258	-	-	-
Power plants	US Dollar	1,523,000	-	-	-
Power plants	Yen	5,125,808,653	7,329,840,672	-	-
Machinery	Euro	51,503	51,503	51,503	51,503

As at 31 December 2016, the Company has the balance of the vehicles under hire purchase agreements with net book value amounting to Baht 13 million (2015: Baht 16 million).

The subsidiaries have pledged assets with the net book value amounting to Baht 1,574 million (2015: Baht 1,077 million) as collaterals for credit facilities which they received from the commercial bank.

# 15 Intangible assets

		Consolidat	ed financial	statements	
	Software Baht	Power purchase agreement Baht	Right to use -land Baht	Construction in progress Baht	Total Baht
At 1 January 2015					
Cost	1,174,332	-	-	2,148,666	3,322,998
Less Accumulated amortisation	(718,544)	-			(718,544)
Net book amount	455,788	-		2,148,666	2,604,454
Year ended 31 December 2015					
Opening net book amount	455,788	-	-	2,148,666	2,604,454
Additions	1,344,350	-	-	-	1,344,350
Disposals	(327,424)	-			(327,424)
Closing net book amount	1,472,714	-	-	2,148,666	3,621,380
At 31 December 2015					
Cost	2,518,682	-	-	2,148,666	4,667,348
Accumulated amortisation	(1,045,968)	-			(1,045,968)
Net book amount	1,472,714	-		2,148,666	3,621,380

# 15 Intangible assets (Cont'd)

		Consolidate	ed financial s	statements	
	Software Baht	Power purchase agreement Baht	Right to use -land Baht	Construc- tion in pro- gress Baht	Total Baht
Year ended 31 December 2016					
Opening net book amount	1,472,714	-	-	2,148,666	3,621,380
Additions	241,830	-	9,144,026	2,380,000	11,765,856
Acquisition of subsidiary	-	472,231,571	-	-	472,231,571
Disposals	-	-	-	(1,676,666)	(1,676,666)
Amortisation charge	(400,586)				(400,586)
Closing net book amount	1,313,958	472,231,571	9,144,026	2,852,000	485,541,555
At 31 December 2016					
<u>Cost</u>	2,760,512	472,231,571	9,144,026	2,852,000	486,988,109
Less accumulated amortisation	(1,446,554)				(1,446,554)
Net book amount	1,313,958	472,231,571	9,144,026	2,852,000	485,541,555

Amortisation of Baht 400,586 (2015: Baht 327,424) was included in administrative expenses.

# 15 Intangible assets (Cont'd)

	Separate financial statements			
	Software Baht	Construction in progress Baht	Total Baht	
At 1 January 2015				
Cost	1,144,372	2,148,666	3,293,038	
Less Accumulated amortisation	(711,058)		(711,058)	
Net book amount	433,314	2,148,666	2,581,980	
Year ended 31 December 2015				
Opening net book amount	433,314	2,148,666	2,581,980	
Additions	1,344,350	-	1,344,350	
Disposals	(321,433)	-	(321,433)	
Closing net book amount	1,456,231	2,148,666	3,604,897	
At 31 December 2015				
Cost	2,488,722	2,148,666	4,637,388	
Accumulated amortisation	(1,032,491)	-	(1,032,491)	
Net book amount	1,456,231	2,148,666	3,604,897	
Year ended 31 December 2016				
Opening net book amount	1,456,231	2,148,666	3,604,897	
Additions	241,830	2,380,000	2,621,830	
Disposals	-	(1,676,666)	(1,676,666)	
Amortisation charge	(394,577)	-	(394,577)	
<u>Closing net book amount</u>	1,303,484	2,852,000	4,155,484	
At 31 December 2016				
Cost	2,730,552	2,852,000	5,582,552	
Less accumulated amortisation	(1,427,068)	-	(1,427,068)	
Net book amount	1,303,484	2,852,000	4,155,484	

# 16 Deferred income taxes

The analysis of deferred tax assets and liabilities is as follows:

	Consolidated financial		Separate	financial
	staten	nents	statements	
	2016 2016		2016	2016
	Baht	Baht	Baht	Baht
Deferred tax assets:				
Deferred tax asset to be recovered				
within 12 months	-	15,245,683	-	15,245,683
Deferred tax asset to be recovered	78,455,578	90,739,685	76,401,961	90,027,425
after more than 12 months	78,455,578	105,985,368	76,401,961	105,273,108
Deferred tax liabilities:				
Deferred tax liabilities to be recovered				
within 12 month	(386,516)	-	(386,516)	-
	(2,066,901)	-	(638,484)	-
Deferred tax asset to be recovered	(2,453,417)	-	(1,025,000)	
after more than 12 month	76,002,161	105,985,368	75,376,961	105,273,108

The gross movement and the deferred income tax a count is as follows:

	Consolidated financial statements			
	2016 2016		2016	2016
	Baht	Baht	Baht	Baht
At 1 January	105,985,368	109,635,743	105,273,108	109,067,611
Charged/(credited) to profit or loss	(29,974,006)	(3,650,375)	(29,896,147)	(3,794,503)
Exchange differences	(9,201)			-
At 31 December	76,002,161	105,985,368	75,376,961	105,273,108

# 16 Deferred income taxes (Cont'd)

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

		Consolidated financial statements				
	Tax losses Baht	Provision for impairment of investment property Baht	Retirement benefits Baht	Others Baht	Total Baht	
Deferred tax assets						
At 1 January 2016	104,461,710	-	811,397	712,261	105,985,368	
Charged/(credited) to profit or loss						
Exchange differences	(28,978,179)	-	325,154	1,137,183	(27,515,842)	
	(13,948)				(13,948)	
At 31 December 2016	75,469,583		1,136,551	1,849,444	78,455,578	
At 1 January 2015	104,461,710	4,043,064	542,836	588,133	109,635,743	
Charged/(credited) to profit or loss	_	(4,043,064)	268,561	124,128	(3,650,375)	
At 31 December 2016	104,461,710		811,397	712,261	105,985,368	

	Consolidated financial statements					
	Deferred debt issuance Baht	Depreciation expense of Power plant Baht	Other Baht	Total Baht		
Deferred tax liabilities						
At 1 January 2016	-	-	-	-		
Charged/(credited) to profit or loss	(1,025,000)	(1,358,934)	(74,230)	(2,458,164)		
Exchange differences			4,747	4,747		
At 31 December 2016	(1,025,000)	(1,358,934)	(69,483)	(2,453,417)		

# 16 Deferred income taxes (Cont'd)

	Consolidated financial statements					
	ขาดทุนสะสม บาท	การด้อยค่าของ อสังหาริมทรัพย์ เพื่อการลงทุน บาท	ผลประโยชน์ พนักงาน บาท	อื่นๆ บาท	รวม บาท	
Deferred tax assets						
At 1 January 2016	104,461,711	-	811,397	-	105,273,108	
Charged/(credited) to profit or loss	(29,196,301)		325,154		(28,871,147)	
At 31 December 2016	75,265,410		1,136,551		76,401,961	
At 1 January 2015	104,461,711	4,043,063	542,837	20,000	109,067,611	
Charged/(credited) to		(4,043,063)	268,560	(20,000)	(3,794,503)	
profit or loss	104,461,711		811,397		105,273,108	

	Separate financial statements		
	Deferred debt issuance cost Baht	Total Baht	
Deferred tax liabilities			
At 1 January 2016	-	-	
Charged/(credited) to profit or loss	(1,025,000)	(1,025,000)	
At 31 December 2016	(1,025,000)	(1,025,000)	

Presentation in the statements of financial position is as follows:

	Consolidated financial statements			
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
At 31 December Deferred income tax assets	76,002,161	105,958,368	75,376,961	105,273,108
Deferred income tax liabilities	-		-	
Deferred income tax, net	76,002,161	105,958,368	75,376,961	105,273,108

### 16 Deferred income taxes (Cont'd)

### A summary of the tax losses carried forward and the expiry dates are set out below:

Deferred income tax assets and liabilities are offset when the income taxes related to the same fiscal authority. Deferred tax assets and deferred tax liabilities in the consolidated financial position are presented at net amount of assets and liabilities incurred in each entity.

Deferred income tax assets are recognised for tax loss carry forwards only to the extent that realisation of the related tax benefit through the future taxable profits is probable. The Group did not recognise deferred income tax assets of Baht 45.24 million (2015: Baht 26.05 million) in respect of losses carry forward amounting to Baht 226 million (2015: Baht 130 million).

Expiry year	Consolidated financial statements Baht	Separate financial statements Baht
2017	9,795,373	-
2018	127,854,409	115,911,340
2019	88,568,909	76,722,994
	226,218,691	192,634,334

### 17 Construction and other payables

			Separate f statem	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Amounts due to related parties (Note 29 b)	229,260,000	-	-	408,737
Construction payables and	2,787,111	8,964,757	572,257	39,300
retention guarantee	5,758,345	2,325,267	2,223,238	547,470
Other payables	179,635,000	-	179,635,000	-
Subscription payables	33,410,471	23,216,172	16,753,209	3,060,920
Accrued expenses	450,850,927	34,506,196	199,183,704	4,056,427

### 18. Borrowings

### 18.1 Short-term borrowings

	Consolida	ated financial statements	Separate financial statements		
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Short-term borrowings from bank	488,996,539	152,949,889	488,996,539	-	

Movements in short-term borrowings from financial institutions for the years ended 31 December 2016 and 2015 are analysed as follows:

	Consolidated financial statements		Sepa	Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Opening amount as at 1 January	152,949,889	-	-	-	
Additional borrowings	873,181,150	152,949,889	873,181,150	-	
Repayment of borrowings	(536,131,039)	-	(383,181,150)	-	
Discount on note payables	(7,131,870)	-	(7,131,870)	-	
Amortisation for discount on note payab	les 6,128,409	_	6,128,409	-	
Closing amount as at 31 December	488,996,539	152,949,889	488,996,539	-	

# 18.2 Finance lease liabilities

The present value of finance lease liabilities is as follows:

	Consolidated financial statements		Sepa	parate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Not later than 1 year	3,828,454	4,491,620	3,828,454	4,491,620	
Later than 1 year but not later than 5 years	-	3,828,454	-	3,828,454	
	3,828,454	8,320,074	3,828,454	8,320,074	

# 18.3 Long-term borrowings

	Consolidated financial statements				Sepa	rate financial statements
	2016 Baht	2015 Baht	2016 Baht	2015 Baht		
Current portion of long-term borrowings	61,663,353	88,749,767	-	39,662,264		
Long-term borrowings payable between 1 to 5 years Long-term borrowings payable	347,344,551	377,374,224	-	113,326,373		
more than 5 years	381,426,256	134,305,461	-	-		
	790,434,160	600,429,452		152,988,637		

Movements in long-term borrowings from financial institutions for the years ended 31 December 2016 and 2015 are analysed as follows

	Consolidated financial statements		Sepa	Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Opening amount as at 1 January	600,429,452	417,968,768	152,988,637	192,651,824	
Additional borrowings	559,881,275	290,620,010	-	-	
Repayment of borrowings	(371,007,982)	(107,935,535)	(154,000,000)	(40,000,000)	
Financial service fee	(320,702)	(1,146,200)	-	-	
Amortisation for financial service fee	1,452,117	922,409	1,011,363	336,813	
Closing amount as at 31 December	790,434,160	600,429,452		152,988,637	

#### 18.3 Long-term borrowings (Con't)

Subsidiaries entered into long-term loan agreements with a local commercial bank with credit facility of Baht 561 million for solar rooftop panel installation projects. These long-term loans carried interest at MLR minus a stipulated margin per annum. The long-term loans of Baht 521 million are repayable in quarterly installments from December 2014 to September 2026, at the percentage specified in the loan agreements. The loan of Baht 32 million is repayable within October 2015 and the loan of Baht 4 million is repayable within September 2016. During the year the subsidiaries cancelled credit limit of the loan amounting to Baht 4 million.

The loans are secured by the pledge and the assignment of rights over the Group's bank deposits, the mortgage of the Group's land with construction thereon and the Group's machinery, the assignment of rights under all project agreements of the Group, the pledge of the Company's shares held by the parent company, certain shares held by the subsidiaries and the jointly controlled entities' shares held by the Company and guarantees provided by the Company, the subsidiaries' director and a shareholder of the parent company.

Subsidiaries entered into long-term loan agreements with an international commercial bank to obtain a loan facility of Yen 1,198 million in order to finance their obligations in respect of power plant construction projects. The long-term loans carry interest at three-month interest rate of Tokyo market plus a stipulated margin per annum. The long-term loan principal is repayable in quarterly installments from September 2016 to June 2033, at the percentage specified in the loan agreements.

The loan agreements contain covenants imposed on the Group as specified in the agreements, related to such matters as dividend payment, reduction of share capital, merger or consolidation with other entities and maintenance of certain debt to equity and debt service coverage ratios.

# 18.3 Long-term borrowings (Cont'd)

# Borrowing facilities

The Group and the Company have the following undrawn committed borrowing facilities:

	Consolida	ted financial statements	-	e financial tatements
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
- Floating rate Expiring beyond one year	_	3,705,476	_	-

### 18.4 Bonds

	Consolidated financial statements		Sepa	arate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Current portion of long-term borrowing Long-term borrowing payable	-	-	-	-	
between 1 to 5 years	2,044,875,000		2,044,875,000	-	
Total	2,044,875,000	-	2,044,875,000	-	

# Movements in bonds for the year ended 31 December 2016 and 2015 are analysed as follows

	Consolidated financial statements		Sepa	arate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Carrying amount as at 1 January	-	-	-	-	
Issued bond	2,050,000,000	-	2,050,000,000	-	
Deferred debt issuance cost	(5,125,000)		(5,125,000)		
Carrying amount as at 31 December	2,044,875,000		2,044,875,000	-	

# 18.4 Bonds (Cont'd)

On 28 October 2016, the Company issued name-registered certificate of unsubordinated and unsecured bonds totalling 2,050,000 units with the fixed interest of 4.20% per annum payable every 6 months. The issued bonds have the face value of Baht 1,000. The bond will be redeemed within three years after the issuance date at the amount Baht 2,050,000,000.

The carrying amounts and fair values of certain long-term borrowings are as follows:

		Consolidated financial statements				
	Carr	ying amounts		Fair value		
	2016	2015	2016	2015		
	Baht	Baht	Baht	Baht		
Long-term borrowings	790,434,160	511,679,685	680,919,693	487,111,177		
Bonds	2,044,875,000	-	2,045,057,450	-		
		S	eparate financia	al statements		
	Carr	ying amounts		Fair value		
	2016	2015	2016	2015		
	Baht	Baht	Baht	Baht		
Long-term borrowings	-	113,326,373	-	107,553,353		
Bonds	2,044,875,000	-	2,045,057,450	-		

The fair value of current borrowings equal their carrying amount, as the impact of discounting is not significant.

The fair values of non-current borrowings are based on discounted cash flows using a discount rate based upon the borrowing rate of 2.91% - 4.78% (2015: 4.75% - 4.97%) and are within level 2 of the fair value hierarchy.

The effective interest rates at the statement of financial position date were as follows:

# 18.4 Bonds (Cont'd)

	Consolid	Consolidated financial statements		arate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
Bank borrowings	2.91%-4.78%	2.17%-6.75%	-	4.75%-5.00%	
Financial lease liabilities	2.35%-2.45%	2.35%-2.45%	2.35%-2.45%	2.35%-2.45%	
Bonds	4.29%	-	4.29%	-	

# 19. Employee benefit obligations

	Consolidated and Separate financial statements	
	2016 Baht	2015 Baht
Statement of financial position Retirement benefits Profit or loss charge included in operating profit for:	5,682,756	4,056,985
Retirement benefits	1,625,771	1,342,801

The movement in the defined benefit obligation over the year is as follows:

	Consolidated and Separate financial statements	
	2016 Baht	2015 Baht
At 1 January	4,056,985	2,714,184
Current service cost	1,494,327	1,254,869
Interest expense	131,444	87,932
At 31 December	5,682,756	4,056,985

# 19. Employee benefit obligations (Cont'd)

The principal actuarial assumptions used were as follows:

		Consolidated and Separate financial statements	
	2016 %	2015 %	
Discount rate	3.24	3.24	
Salary growth rate	3.00 - 4.00	3.00 - 4.00	

The sensitivity analyses of significant actuarial assumptions in pension liability calculations.

				•		•
	Change in a	ssumption	Increase in	assumption	Decrease in	assumption
	2016	2015	2016	2015	2016	2015
Discount rate	0.50%	0.50%	Decrease by 5.47%	Decrease by 5.85%	Increase by 5.88%	Increase by 6.30%
Salary						
growth rate	0.50%	0.50%	Increase	Increase	Decrease	Decrease
			by 5.81%	by 6.23%	by 5.45%	by 5.84%

#### Impact on defined benefit obligation

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous year.

Through its defined benefit retirement plans, the Group is exposed to a number of risks, the most significant of which are detailed below:

Changes in bond yields	A decrease in Government bond yields will increase plan liabilities.
Inflation risk	Some of the Group pension obligations are linked to inflation, and
	higher inflation will lead to higher liabilities.

### 19. Employee benefit obligations (Cont'd)

The weighted average duration of the defined benefit obligation is 26.06 years.

Expected maturity analysis of undiscounted retirement:

	Consolidated and Separate financial statements				
	Less than a year Baht	Between 1 - 2 years Baht	Between 2 - 5 years Baht	Over 5 years Baht	Total Baht
At 31 December 2016					
Retirement benefits	-	351,157	118,244	97,675,176	98,144,577

### 20. Share capital

	Consolidated and Separate financial statements				
	Number of shares Share	lssued and paid Baht	Ordinary shares Baht	Shares premium Baht	Total Baht
At 1 January 2015	1,815,000,000	1,815,000,000	1,815,000,000	1,266,097,322	3,081,097,322
Compensate of deficits				(538,543,049)	(538,543,049)
At 31 December 2015	1,815,000,000	1,815,000,000	1,815,000,000	727,554,273	2,542,554,273
At 31 December 2016	1,815,000,000	1,815,000,000	1,815,000,000	727,554,273	2,542,554,273

At 31 December 2016, the total authorised number of ordinary shares is 1,815,000,000 shares (2015: 1,815,000,000 shares) with a par value of Baht 1 per share (2015: Baht 1 per share). All issued shares are fully paid.

At the Annual General Meeting of shareholders held on 29 April 2015, resolution was passed to approve the compensation of the accumulated loss of Baht 538.54 million from the share premium. Upon the compensation, the Company will have no accumulated loss with the remaining share premium of Baht 727.55 million.

### 21. Legal reserve

	Consolidated financial statements		Sepa	Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht	
At 1 January	-	-	-	-	
Appropriation during the year	46,825,835		40,025,835	-	
At 31 December	46,825,835	-	40,025,835	-	

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10 percent of the registered capital. The legal reserve is non-distributable.

# 22. Other income

	Consolidated financial statements		Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Rental income	1,210,156	1,641,331	1,210,156	1,359,308
Service income	739,770	424,051	739,770	424,052
Interest income	11,152,936	22,038,405	11,157,648	21,770,406
Gain on disposal of equipment	-	3,203	-	-
Realised gain on foreign exchange Realised gain on disposal of trading	-	8,055,842	-	6,565,990
securities	1,344,553	2,449,307	1,344,553	2,449,307
Other income	1,030,168	5,565,138	695,736	4,310,723
	15,477,583	40,177,277	15,147,863	36,879,786

# 23. Expense by nature

The following expenditure items, classified by nature, have been charged in arriving at the operating profit:

	Consolidated financial statements		Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Salary ,wages and employees benefits	80,469,585	79,449,019	80,469,585	79,449,019
Depreciation	68,381,062	41,898,950	21,002,046	20,770,011
Loss on exchange rate	42,602,886	-	42,528,875	-
Professional fees	36,818,350	24,292,613	18,446,698	21,282,098
Operation and maintenance of power plants	7,684,778	1,467,522	600,798	1,213,694

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10 percent of the registered capital. The legal reserve is non-distributable.

# 24. Finance costs

	Consolidated financial statements		Separate financial statements	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Bank borrowings	51,519,129	26,110,793	27,093,989	9,367,812
Financial service fees	8,224,286	1,594,062	1,011,363	336,813
Others	191,836	142,316	-	-
Total	59,935,251	27,847,171	28,105,352	9,704,625

# 25. Income tax

	Consolidated financial		Separate financial	
		statements		statements
	2016	2015	2016	2015
	Baht	Baht	Baht	Baht
Bank borrowings	51,519,129	26,110,793	27,093,989	9,367,812
Tax expense (revenue)				
Current tax on profits for the year	(2,154)	16,029	-	-
Deferred tax (note 16)	29,974,006	3,650,375	29,896,147	3,794,503
Total income tax expense	29,971,852	3,666,404	29,896,147	3,794,503

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate as follows:

	Consolidated financial		Separate financial	
		statements		statements
	2016	2015	2016	2015
	Baht	Baht	Baht	Baht
Profit before tax	647,130,265	530,263,773	505,021,996	329,185,365
Tax calculated at a tax rate of 20%				
(2015: 20%)	129,426,053	106,052,754	101,004,399	65,837,073
Tax effect of:				
Foreign tax rate difference	2,548,891	(16,521)	-	-
Joint ventures' results reported net of tax	(115,184,595)	(119,315,747)	-	-
Tax exemption for income under BOI	(5,410,802)	(4,968,918)	-	-
Income subject to tax	8,406,944	2,577,964	8,284,577	2,515,387
Income not subject to tax	(8)	-	(88,390,016)	(83,370,017)
Expenses not deductible for tax purpose	3,024,099	3,155,740	1,219,061	2,133,005
Expense deducted at greater amount	(5,548,065)	(4,354,577)	(2,900,243)	(3,120,584)
Tax losses for which no deferred				
income tax asset was recognised	11,291,904	16,492,646	10,678,639	15,756,576
Utilisation of previously unrecognized				
tax loses	(73,424)	-	-	-
Deferred tax expense relating to the				
origination and reversal of				
temporary differences	77,859	4,043,063	-	4,043,063
Unrealised gain from intercompany				
transaction	1,415,150	-	-	-
Adjustment in respect of prior periods	(2,154)	-	-	-
Tax charge	29,971,852	3,666,404	29,896,147	3,794,503

#### 26. Promotional privileges

The Company, its subsidiaries and its jointly controlled entity have received several certificates of promotional privileges from the Board of Investment for the generation of electricity generated from concentrated solar thermal energy, solar rooftop energy and solar energy, respectively.

Subject to certain imposed conditions, the privileges include an exemption of import duty on imported machinery, an exemption from corporate income tax for a period of 8 years from the date the promoted operations commenced generating revenues (the commercial operation date) and a 50-percent reduction of corporate income tax on income derived from the promoted operations for a period of 5 years after the tax-exemption period ends.

The Company's and its subsidiaries' operating revenue from sales and subsidy for adders as per the statements of comprehensive income for the years ended 31 December 2016 and 2015 wholly derive from promoted operations.

#### 27. Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to shareholders of the company by the weighted average number of ordinary shares in issue during the year (Note 20).

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
Net profit attributable to ordinary shareholders of the company (Baht)	617,628,000	526,594,578	526,594,578	325,390,862
Weighted average number of ordinary shares outstanding (Shares)	1,815,000,000	1,815,000,000	1,815,000,000	1,815,000,000
Basic earnings per share (Baht per share)	0.34	0.29	0.26	0.18

There are no potential dilutive ordinary shares issuing during 2016 and 2015.

#### 28. Dividends

On 27 April 2016, the Annual General Meeting of Shareholders approved a dividend payment in respect of operating results for the year 2015 to shareholders at Baht 0.06 per share, totaling Baht 108.9 million. The dividends were paid on 25 May 2016.

### 29. Related party transactions

The Company is controlled by P.M. Energy Company Limited (incorporated in Thailand) which owns 43% of the Company's shares. The remaining 57% of the shares are held by Wave Entertainment (Public) Company Limited, Sino-Thai Engineering& Construction Public Company Limited and individual shareholders. The significant investments in subsidiaries, and joint ventures are set out in note 12.

The following material transactions were carried out with related parties:

a. a) Sales of goods and services

	Consolidated financial statements		Separate financial statements	
For the year ended 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Subsidiaries				
Management service income	-	-	12,346,856	4,252,704
Operation and maintenance income	-	-	1,680,000	1,215,058
Service income		-	500,000	-
	-	-	14,526,856	5,467,762
Jointly Controlled Entity				
Management service income	38,649,056	36,808,625	38,649,056	36,808,625
Rental income	432,000	432,000	432,000	432,000
Other income	-	712,403	-	712,403
Dividends income	41	47	441,950,080	416,850,083
	39,081,097	37,953,075	481,031,136	454,803,111
Related parties				
Management service income	221,760,000	-	221,760,000	-
Rental income	277,889	208,417	277,889	208,417
Service income	185,259	138,944	185,259	138,944
Other income	28,180	30,765	28,180	30,765
	222,251,328	378,126	222,251,328	378,126

# 29. Related party transactions (Cont'd)

The following material transactions were carried out with related parties: (Cont'd)

a. b) Outstanding balances arising from sales/purchases of goods/services

	Consolidated financial statements		Separate financia statement	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Amounts due from and advances to related parties (Note 10)				
Subsidiaries	-	1,626,729	40,902,164	51,989,224
Jointly controlled entities	3,501,791	3,374,275	3,501,791	3,374,275
Related parties	221,760,000	-	221,760,000	-
	225,261,791	5,001,004	266,163,255	55,363,499
Dividends receivable (Note 10)				
Subsidiaries	-	-	4,449,999	-
Jointly controlled entities	78,750,014	-	78,750,014	-
	78,750,014		83,200,013	-
Amounts due to related parties (Note 17)				
Subsidiaries	-	-	-	408,737
Related parties	229,260,000	-	-	-
	229,260,000	-	-	408,737

a. c) Short-term loans to subsidiaries

	Sepa	rate financial statements
For the year ended 31 December	2016 Baht	2015 Baht
Short-term loans to subsidiaries	868,172,050	240,399,141

# 29. Related party transactions (Cont'd)

a. c) Short-term loans to subsidiaries (Cont'd)

Movements in loans to subsidiaries are analysed as follows:

	Separate financial statements	
	2016 Baht	2015 Baht
Opening net book amount	240,399,141	68,453,208
Addition	710,757,523	298,414,637
Repayment of borrowings	(33,574,789)	(132,353,208)
Foreign currency translation differences	(49,409,825)	5,884,504
Closing net book amount	868,172,050	240,399,141

Loans to subsidiaries are in form of promissory notes and loan agreement with maturity within December 2017 and carrying interest at 6% per annum.

a. d) Short-term loan from subsidiaries

		e financial statements
	2016	2015
For the year ended 31 December	Baht	Baht
Short-term loans from subsidiaries	-	-

Movements in loans from subsidiaries are analysed as follows:

	Separate financial statements	
	2016 Baht	2015 Baht
Opening net book amount	-	-
Addition	45,000,000	-
Repayment of borrowings	(22,500,000)	-
Transferred to long-term loan (Note 29 e)	(22,500,000)	-
Closing net book amount		-

Short-term loans from subsidiaries are in form of promissory notes. There is no interest thereon. During the year the Company transferred short-term loan to long-term loan amounting to Baht 22.5 million.

# 29. Related party transactions (Cont'd)

a. e) Long-term loan from subsidiaries

Movements in loans to subsidiaries are analysed as follows:

	Sep	Separate financial statements	
	2016 Baht		
Long-term loans from subsidiaries	22,500,000		

Movements in loans from subsidiaries are analysed as follows:

	Separate financia statement	
For the year ended 31 December	2016 Baht	2015 Baht
Opening net book amount	-	-
Transferred from short-term loan (Note 29 d)	22,500,000	-
Closing net book amount	22,500,000	-

Long-term loans from subsidiaries are in form of promissory notes with maturity within September 2018. There is no interest thereon.

a. f) Key management compensation

	Consolidated financial statements				Separ	rate financial statements
For the year ended 31 December	2016 Baht	2015 Baht	2016 Baht	2015 Baht		
Short-term employee benefits	22,968,200	24,168,000	22,968,200	24,168,000		
Post-employment benefits	1,119,651	1,111,639	1,119,651	1,111,639		
	24,087,851	25,279,639	24,087,851	25,279,639		

#### 30. Commitments and contingencies

#### 30.1 Power purchase agreements

#### Domestic

As at 31 December 2016, the Group has 29 power purchase agreements with the Provincial Electricity Authority ("PEA") and the Metropolitan Electricity Authority ("MEA") (2015: 25 agreements). Currently, the Group has commenced the production and distribution of electricity to the PEA and MEA under 25 power purchase agreements.

The power purchase agreements require the Company and its jointly controlled entity to sell electricity in a specified quantity and at a stipulated price as defined in the agreements. The agreements are for a period of 5 years and will be automatically renewed every 5 years until the contract termination. In the electricity selling to the PEA, the Company and its jointly controlled entity have also been granted an adder amounting to Baht 6.50 - 8 per kilowatt-hour (Company: Baht 8 per kilowatt-hour) for the period of 10 years commencing from the commercial operation date.

The power purchase agreements require subsidiaries to sell electricity generated from solar rooftops to the PEA and the MEA under the Feed-in Tariff system (FiT) granted for periods of 25 years starting from December 2013.

The power purchase agreements of another subsidiary require the subsidiary to sell electricity generated from the solar farms to the PEA under the Feed-in Tariff system (FiT) granted for periods of 25 years starting from commercial operation dates (COD).

The power purchase agreements of another subsidiary require the subsidiary to sell electricity generated from biomass to the PEA under the Feed-in Tariff system (FiT) until the contract is terminated. The biomass power plant mentioned in the contract is under construction.

#### Overseas

As at 31 December 2016, subsidiaries operating in Japan have 4 power purchase agreements with the power purchasing agencies, of which the power plants have already commenced generating and distributing the electricity. In addition, the subsidiaries have another 3 power purchase agreements for the projects which have not yet commenced generating and distributing the electricity.

The power purchase agreements are conditioned to sell the electricity generated from solar energy under the Feed-in Tariff (FiT) for the periods of 20 years starting from August 2015.

#### 30.2 Operating lease commitments - where the Group is the lessee

The Company and its subsidiaries have entered into several lease agreements in respect of the lease of office building space, motor vehicles, equipment and the lease of rooftop space and other building space in order to install solar cells. The terms of the agreements are generally between 3 and 26 years.

As at 31 December 2016 and 2015, future minimum lease payments required under these operating lease contracts were as follows:

#### 30. Commitments and contingencies (Cont'd)

	Consolidated financial statements		1	
	2016 Baht	2015 Baht	2016 Baht	2015 Baht
Not later than 1 year	22,317,493	15,346,783	7,653,260	4,869,200
Later than 1 year but not later than 5 years	56,800,726	50,525,145	4,771,200	7,460,300
Later than 5 years	220,909,243	198,841,131	-	-
	300,027,462	264,713,059	12,424,460	12,329,500

#### 30.2 Operating lease commitments - where the Group is the lessee (Cont'd)

In addition, under agreements of leasing rooftop spaces and other building spaces, subsidiaries have commitments to pay rent at the higher of a percentage of sales and the minimum amounts specified in the agreements.

#### 30.3 Contracts and other commitments

- a) A jointly controlled entity has commitments in respect of a management service agreement with the other venturer amounting to approximately Baht 6 million per annum for a period of 10 years from May 2013, with the service fee to increase on an annual basis at the rate specified in the agreement. The fee for the year ended 31 December 2016 amounting to Baht 3 million (2015: Baht 3 million) were recognised as expenses.
- b) A jointly controlled entity has commitments in respect of the operation and maintenance agreements of three power plants with a company, amounting to approximately Baht 81 million (2015: Baht 106 million) which a joint venture have committed to pay for the excess output if actual electricity output is greater than secured output guarantee throughout the period of 10 years from the commercial operation dates.
- c) A jointly controlled entity has commitments in respect of the operation and maintenance agreements of seven power plants with a company, amounting to approximately Baht 5 million per annum for the period of 10 years from the commercial operation date.
- d) A jointly controlled entity has commitments in respect of monitoring the operation and maintenance agreements of ten power plants with a company, amounting to approximately Baht 1 million per annum (2015: Baht 1 million per annum) (in proportionate of the Company's interest in jointly controlled entities) for the period of 7 years from the commercial operation dates.

### 30. Commitments and contingencies (Cont'd)

#### 30.3 Contracts and other commitments (Cont'd)

- e) According to the management agreement, one of the subsidiaries has an obligation to its capital investor totalling Baht 8 million per annum since September 2016. The management fee will be increased annually according to the percentage specified in the contract. For the year ended 31 December 2016, the subsidiary has the total management expenses based on the specified contract which were capitalised as construction in progress during the period for the amount of Baht 3 million (2015: nil).
- f) One of the subsidiaries has the commitment according to the operation and maintenance agreement of power plants with a company with the balance of 98,800 dollars (2015: nil). The agreement has the period of 2 years from the commercial operation dates.

#### 30.4 Guarantees

- a) The Company has provided guarantees for bank credit facilities of its subsidiaries amounting to Baht 561 million (2015: Baht 690 million).
- b) As at 31 December 2016, there were outstanding bank guarantees of approximaly Baht 9 million (2015: Baht 9 million) issued by banks on behalf of the Company and its subsidiaries in respect of certain performance bonds as required in the normal course of business.

#### 30.5 Litigation

The Company was sued by a shareholder seeking damages amounting to Baht 1,000 million resulting from the Company's sale of that shareholder's shares in arrears by auction. The Bangkok South Civil Court dismissed the case on 6 August 2013. On 18 June 2014 the Court of Appeals ordered the Civil Court to prejudge. At present, this case is currently under the Supreme Court's proceedings.

On 15 October 2014, the Bangkok South Criminal Court dismissed the criminal case in association with revocation of the share auction as mentioned above and ordered to dismiss civil case relating to this criminal case out of the case-list. On 15 October 2015, the Appeal Court has judged to consent with the judgement of the Civil Court to dismiss such criminal case. Therefore, the management believes that Company will not suffer any losses. At present, this case is currently under the Supreme Court's proceedings.

### 31. Events after the reporting period

On 20 February 2017, the Board of Directors approved a new investment in the solar farm power plant project located at Onikoube, Miyagi Prefecture in Japan with the electricity production capacity of 154.98 MW according to certification granted by Ministry of Economy, Trade and Industry of Japan. The investment form is a joint venture between the Company and Sino-Thai Engineering and Construction Public Company Limited (as a Joint investment partner) in the proportion of the total investment of 60% to 40%. The total investment of the project is approximately Yen 61,240 million or Baht 19,658 million.

Capital and Major shareholders

# • Company's Registered and Paid-up Capital

# ข้อมูลหลักทรัพย์

As of 31 December 2016, the Company registered capital is 1,815 Mil.Baht, divided into 1,815 Mil.shares with a par value of 1 Baht. The paid-up capital was 1,815 Mil.Baht.

# Shareholders

According to Thailand Securities Depository Co., Ltd., the Company's shareholding structure as of 26 December 2016, the last time the share registration book was closed.

	Number of shareholders	Number of shares	Percentage
Thai securities holders	8,874	1,712,889,510	94.37
Foreign securities holders	17	102,110,490	5.63
Total		8,891	1,815,000,000

# List of top ten major shareholders of the Company

Name	Number of shares	Percentage
1. Ms. Cathleen Group*		
P.M. Energy Co.,Ltd. ("PME") /1	776,746,810	42.80
Wave Entertainment Public Co., Ltd. ("WAVE") /2	181,750,000	10.01
Mr. Matthew Kichodhan	5,575,020	0.31
Ms. Cathleen Maleenont	3,000,000	0.17
Total	967,071,830	53.29
2. Sino-Thai Engineering & Construction Public Co., Ltd.	181,500,000	10.00
3. CREDIT SUISSE AG, SINGAPORE BRANCH	77,357,100	4.26
1. Mr.Thaveeruch Prungpattanasakul	28,000,000	1.54
5. The Bualuang Infrastructure Retirement Mutual Fund	21,084,100	1.16
6. Ms. Nattawan Piyamahachote	13,389,600	0.74
7. Thai NVDR Co.,Ltd.	11,230,800	0.62
3. Mr. Sanit Dusadenoad	10,495,400	0.58
9. Ms. Orayaporn Karnchanacharee	10,300,000	0.57
10. Ms. Narueporn Karnchanacharee	9,600,000	0.53

\* The grouping refers to the definition of related persons according to person in the Notification of the Security and Exchange Commission No.Kor.Jor.17/2551 dated 15 December 2008; not referring to related persons under section 258 of The Securities Exchange of Thailand Act B.E. 2535 (including the amendments)

/ 1PME operates its business by investing in renewable energy companies. Its major shareholder as of December 31, 2016 was Ms. Cathleen Maleenont who holds 100%

/ 2WAVE operates its business by copyright owner and distributor Thai dramas of Channel 3, Organizer of concerts and other events.

List of top ten major shareholders of WAVE as of 31 December 2016

	Name	No.of Shares	Percentage
1.	Ms.Cathleen Maleenont	105,106,294	24.95
2.	BEC World Public Co.,Ltd.	58,250,000	13.83
3.	Mr.Nattapon Jurangkool	22,946,900	5.45
4.	Mr.Pongsakorn Boonvoramatee	22,358,650	5.31
5.	Ms.Nantawan Piyamahachote	16,377,400	3.89
6.	Ms.Orayaporn Karnchanacharee	15,600,000	3.70
7.	Mr.Pinai Jeenapant	14,394,000	3.42
8.	Ms.Suwimol Leesuwan	12,794,600	3.04
9.	Mr.Pornprasert Karnchanacharee	7,658,300	1.82
10.	Ms.Narueporn Karnchanacharee	7,605,000	1.81



# • Information of the Company Group and reference persons

	Nature of Business	Registered Capital (Mil.Baht)	Paid-up Capital (Mil.Baht)	Percentage
Address of Company Group				
3199 Maleenont Tower, 16th floor, Rama IV Road,				
Klongtan, Klongtoey, Bangkok 10110				
<u>Solar Farm Business</u>				
Thai Solar Renewable Co., Ltd. – TSR	Holding Company	583.33	583.33	60
Joint controlled company – held through TSR	5 1 7			
Siam Solar Energy 1 Co., Ltd. – SSE1	Generation and	1,800	1,800	100
	distribution of			
	electricity			
	form Solar energy			
Solar Visible Co., Ltd. – SV		202	51.5	100
Subsidiaries				
Thai Community Energy Co., Ltd. – TCE		100	25	100
Solar Community Co., Ltd. – SLC		100	25	100
Sun Future Co., Ltd. – SFT		1	0.25	100
The Solar Earth Co., Ltd. – SE		1	0.25	100
Clean Renewable Co., Ltd. – CLR		1	0.25	100
Solar Rooftop Business				
TSE Rooftop Co., Ltd. – TSER	Holding Company	182	182	100
Subsidiaries				
Champ Energy Co., Ltd. – CE	Generation and	52	52	100
North Rooftop Co., Ltd. – NR	distribution of	39	39	100
Roof Energy Co., Ltd. – RE	electricity	38	39	100
Green Rooftop Co., Ltd. – GR	from Solar	26	26	100
Lucky Solar Co., Ltd. – LS	commercial	26	26	100
World Solar Co., Ltd. – WS	rooftop	1	0.25	100
Biomass Business				
Oscar save the world Co., Ltd. – OSW	Generation and	225	111.25	70
Bangsawan Green Co., Ltd. – BSW	distribution of	165	165	49
	electricity			
	from biomass			

	Nature of Business	Registered Capital (Mil.Baht)	Paid-up Capital (Mil.Baht)	Percentage
Subsidiaries – Oversea				
TSE Group International PTE. LTD. – TSI	Holding Company	24.6	24.6	100
Address		Mil.SGD	Mil.SGD	
112 Robinson Road,				
#12-01 Robinson 112, Singapore				
Subsidiaries				
Eco Solar Aizu Goudou Kaisha – ESA	Generation and	10,000	10,000	97
Ishikawa Hanamizuki No.1 Goudou Kaisha – IH1	distribution of	JPY	JPY	
Address	electricity			
3F Hayashi Building, 3-34-1 Aoto, Katsushika-ku,				
Tokyo, Japan				
Solar Assets PTE. LTD SA	Holding Company	10,000	10,000	97
Address		JPY	JPY	
10 Anson Road,		2.4	2.4	
#05-01/15 International Plaza, Singapore		Mil.SGD	Mil.SGD	100
Subsidiary				
Ibaraki Ushiku 1 – IU1	Land lease	10,000	10,000	100
Address		JPY	JPY	
5-26-39 Sakae, Naku-ku, Nagoya, Japan				

# Reference persons

### Security registrar

The Thailand Securities Depository Co., Ltd. 93 Ratchadaphisek Road, Dindaeng, Bangkok 10400 PricewaterhouseCoopers Tel : 0 2009 9000 Fax : 0 2009 9991 Call Center 0 2009 9999 Website : www.set.or.th/tsd E-Mail : SETContactCenter@set.or.th

### Auditor

Mr.Kajornkiet Aroonpirodkul Certificated Public Accountant (Thailand) No.3445 Consulting (Thailand) Ltd. 15<sup>th</sup> floor, Bangkok City Tower, 179/74-80 South Sathorn Road, Bangkok 10120 Tel : 0 2344 1000 , 0 2824 5000 Fax : 0 2286 5050 Website : www.pwc.com/th Website : www.pwc.com/th