



SPCG Public Company Limited

Best Value • Best Design • Best Output • Best Service



รายงานประจำปี 2562
ANNUAL
REPORT **2019**

(ENGLISH VERSION)





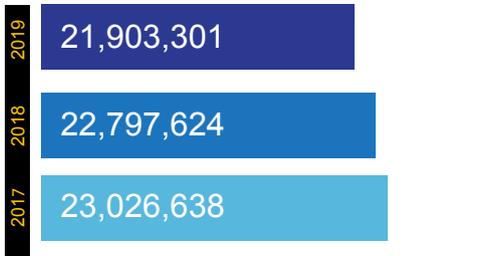
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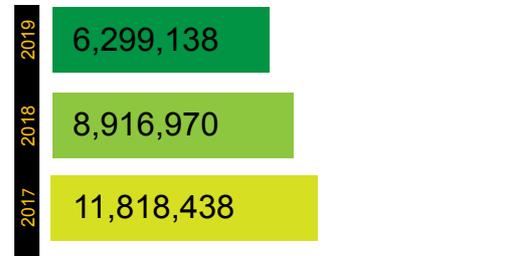
Financial Highlights

(Unit: thousand Baht)

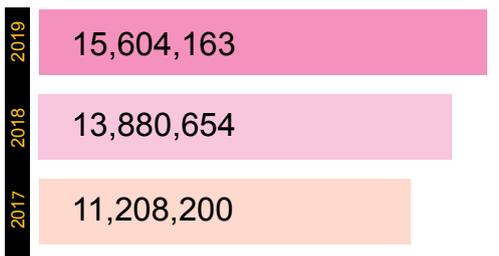
	2562/2019	2561/2018	2560/2017
Consolidated Statement of Financial Position			
Current assets	5,014,592	4,257,266	4,171,537
Property, plant and equipment	15,800,320	16,458,438	17,175,788
Total assets	21,903,301	22,797,624	23,026,638
Current liabilities	2,180,328	3,109,444	4,139,478
Total liabilities	6,299,138	8,916,970	11,818,438
Issued and paid share capital	973,990	973,990	923,990
Total shareholders' equity	15,604,163	13,880,654	11,208,200
Consolidated Statement of Comprehensive Income			
Revenue from electricity distribution	4,475,724	4,297,478	4,273,029
Revenue from sales of goods	147,762	138,561	173,797
Revenue from sales and installation services of roof & solar roof	623,052	1,492,131	1,561,527
Total revenue from sales and services	5,246,538	5,928,170	6,008,353
Total revenues	5,322,566	6,046,494	6,123,177
Total expenses	2,311,308	3,122,912	3,301,072
Net Profit (loss)	3,011,258	2,923,582	2,822,105
Comprehensive income	3,042,991	2,914,670	2,802,625
Profit attributable to owners of the parent	2,669,424	2,613,610	2,524,325
Comprehensive income attributable to owners of the parent	2,701,155	2,604,714	2,504,834
Basic earnings per share (Baht)	2.74	2.70	2.73
Key Financial Ratios			
Gross Profit margin	69.1%	62.5%	61.7%
Net Profit margin	50.2%	43.2%	41.2%
EBIT margin	64.0%	57.7%	57.2%



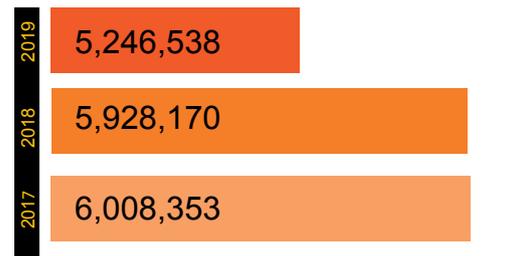
Total assets



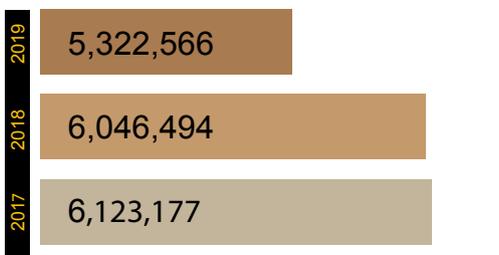
Total liabilities



Total shareholders' equity



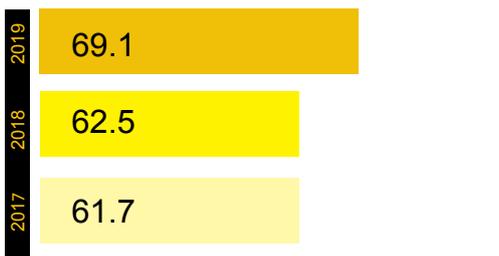
Total revenue from sales and services



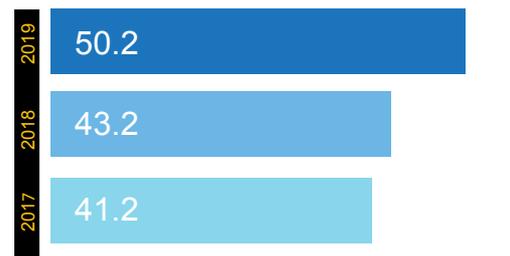
Total revenues



Comprehensive income



Gross profit margin



Net profit margin

Message from the Chairperson and CEO

During the year 2019, Thailand has continuously increased electricity demand, coupled with the government policies under the strategic plan “Thailand 4.0” which focuses on energy security and promotes clean energy usage. According to the power development plan of Thailand 2018 - 2037 (PDP2018), the target for solar power generation of over 10,000 megawatts. Therefore, SPCG Public Company Limited (“SPCG”) as the pioneer and leader of Solar Farm and Solar Roof developer in Thailand and ASEAN, foreseen the opportunity to develop and expand the business of generating electricity from solar energy to be in line with the government policy which supports the use of renewable energy.

At present, SPCG has a total of 36 Solar Farms in 10 provinces, namely Nakhon Ratchasima, Khon Kaen, Sakon Nakhon, Nong Khai, Udon Thani, Nakhon Phanom, Loei, Surin, Buri Ram and Lopburi, total land area about 5,000 rai with a total generating capacity of 260 megawatts. In 2010, Solar Farm (Korat 1) is the First commercial Solar Farm in Thailand, and SPCG has completed all 36 Solar Farm projects in 2014 with capable of generating 384.9 million units. With efficient management, in 2019 all 36 Solar Farm projects generated up to 397.4 million units which is the highest since 2010. With the quality of solar module together with important components of the system allowing the project to produce electricity efficiently even after more than 5 years operation. Additionally, SPCG has

jointly invested with Kyocera Corporation, Kyudenko Corporation and other investors to develop a solar farm project under the name “Ukujima Mega Solar Project”. Approximately 469 megawatts of generation capacity at Ukujima Island, Nagasaki, Japan. With an investment proportion of approximately THB 2.6 billion or 17.92%. The project development is scheduled to be completed in 2023.

SPCG expanded its investment into the business of distribution and installation of electricity generation from Solar Rooftop systems by establishing Solar Power Roof Company Limited (“SPR”) in 2013. Currently, SPR has expanded its customer base, divided into 3 groups, which are residential, commercial and industrial. Sales in the past 5 years are as follows: THB 222 million in 2014, THB 394 million in 2015, THB 938 million in 2016, THB 1,519 million in 2017, and in the year of 2018 was THB 1,456 million. The main objective of installation Solar Roof systems is to save electricity cost. In 2019, SPR expanded the business by developing Solar Roof investment in the form of leasing with financial institutions for a period of up to 15 years. SPCG has signed the MOU to collaborate and develop Solar Roof Systems with Mitsubishi UFJ Lease and Finance Company Limited (“MUL”), PEA ENCOM International Company Limited (“PEA ENCOM”) and Kyocera Corporation Japan (“Kyocera”) to provide opportunities for industrial plants in Thailand to invest and benefit from solar rooftop systems.

In addition, SPCG recognizes the importance of resource and energy management to maximize efficiency and benefits. Therefore, Enterprise Resource Planning (ERP) has been established in order to maximize the use of resources and connect various internal systems, such as accounting, financial, purchasing and warehousing systems. ERP enables effective planning and managing of various resources efficiently.

SPCG conducts business with good corporate governance principles, risk management, and have a good internal audit system. Essential mechanisms to drive the business towards sustainable development and growth, build confidence among shareholders and stakeholders. However, in addition to SPCG's responsibility to shareholders and stakeholders, which is the main objective of business operations, the company is mindful of the importance of social responsibility, to strengthen the community through ongoing participation and activities around solar farms.

On behalf of the Board of Directors, the management team and employees of SPCG, I would like to thank all shareholders and stakeholders for their ongoing trust and support for SPCG's operations. We pledge to develop the organization steadily and sustainably.



A handwritten signature in black ink, appearing to read 'Dr. Wandee Khunchornyakong Juljarern'. The signature is fluid and cursive.

Dr. Wandee Khunchornyakong Juljarern
Chairperson and Chief Executive Officer

Report of the Audit Committee



The Audit Committee of SPCG Public Company Limited comprised of 3 independent directors, namely

1. Mr. Wanchai Lawatanatakul
Chairperson of Audit Committee
2. Dr. Art-ong Jumsai Na Ayudhya
Member of Audit Committee
3. Mr. Apichat Limsethanuwat
Member of Audit Committee

The Audit Committee performed its duties in accordance with the scope of authority and responsibilities from the board of directors and in accordance to the Charter of the Audit Committee of the company independently, with the regulations and best practices of the Stock Exchange of Thailand (“SET”) and the Securities and Exchange Commission (“SEC”) as well as giving importance to sufficiency effectiveness of internal control systems, internal audit system for transparency, honesty, fairness and for the maximum benefit of shareholders and all stakeholders.

In the year 2019, the Audit Committee held a total of 4 meetings to consider issues, exchange opinions, listen to the clarification, as well as providing suggestions that are beneficial to the management of the company and significant matter can be summarized as follows;

Reviewed Financial Report The Audit Committee and the Auditors had reviewed quarterly financial statements and annual financial statements for the year 2019. It was found that the Company and its subsidiaries financial report are correct, appropriate and in accordance with the generally accepted accounting standard. Accounting data and financial statements are accurate and reliable, disclosed financial report sufficiently, completely and in time with the Securities and Exchange Commission and the Stock Exchange of Thailand’s rules and regulations.

Reviewed Related Transactions The Audit Committee had reviewed and disclosed Company and its subsidiaries’ related transactions which may cause conflict of interest between parties of interest and the Company. The results showed that related transactions

are in accordance with the general business agreement, has operated in accordance with The Stock Exchange of Thailand principles and procedures that the Audit Committee suggested. The Company practices in accordance with good corporate governance policies and importantly considered shareholders' benefit.

Reviewed Internal Control System The Audit Committee had reviewed the sufficiency of the Company and its subsidiaries internal control system for the year 2019 by considering from internal audits and auditors' reports. The Audit Committee had opinion that internal control system are sufficient and appropriate, operating of management team were conform to the policies and to approve all the works.

Reviewed to Ensure that the Company Practices in Accordance with the Law and Good Corporate Governance The Audit Committee had reviewed to ensure that the Company always practices in accordance with The Securities and Exchange Commission ("SEC") announcement and laws that are related to business operation. This is to gain highest efficiency and effectiveness, including treating parties of interest on the company's business fairly, transparency and can be examine in accordance to the good corporate governance principles as to build confidence to investors and parties of interest.

Reviewed and Selected Auditors and Determine Remuneration The Audit Committee had reviewed and selected auditors for the year 2020, by considering from knowledge in business, experienced, and represent international standard including suitable for remuneration. The audit committee had come to conclusion to propose to the Board of Directors for approval from the Annual General Meeting of Shareholder for the year 2020 to appoint KPMG Phoomchai Audit Ltd. ("KPMG") as the Company's auditor for the year 2020, name as follow;

1. Mr. Natthaphong Tantichattanon
Certified Public Accountant No. 8829
2. Mr. Vairoj Jindamaneepitak
Certified Public Accountant No. 3565
3. Ms. Dussanee Yimsuwan
Certified Public Accountant No. 10235



(Mr. Wanchai Lawattanatrakul)
Chairperson of Audit Committee

Report of the Nomination, Remuneration and Corporate Governance Committee

The Board of Directors' Meeting No. 1/2019 held on February 22, 2019 approved the increase in authority and responsibilities of the Nomination and Remuneration Committee in corporate governance in order to set policies and guidelines for good corporate governance in accordance with the principles, standards and regulations of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC) and the amendment of the name "The Nomination and Remuneration Committee" to be "The Nomination, Remuneration and Corporate Governance Committee" and the appointment of 2 additional directors of the Nomination, Remuneration and Corporate Governance Committee. Therefore, name list of the Nomination, Remuneration and Corporate Governance Committee are 5 directors which are 3 independent directors as follows:

1. Mr. Wanchai Lawattanatrakul	Chairperson
2. Dr. Wandee Khunchornyakong Juljarern	Member
3. Mr. Somsak Khunchornyakong	Member
4. Dr. Art-ong Jumsai Na Ayudhya	Member
5. Mr. Apichat Limsethanuwat	Member

In the year 2019, the Nomination, Remuneration and Corporate Governance Committee held a total of 2 meetings and significant matter can be summarized as follows;

Nomination

The Nomination, Remuneration and Corporate Governance Committee considered the criteria and process for the selection of suitable and qualified persons to be the directors of the company. By considering various qualifications as appropriate as the qualifications and experience including past performance as directors and the directors who have no conflict of interest have considered the suitability of the persons to be appointed as the directors who will be retire by rotation to be director for another term and propose to the Board of Directors' Meeting before propose to the Annual General Meeting of Shareholders for the year 2019. Determine, the Nomination, Remuneration and Corporate Governance Committee provides the opportunity for shareholders to propose nominate qualified candidates to be considered for election as a member of the Company's board of directors from October 11, 2018 to December 31, 2018, through the Stock Exchange of Thailand and publish criteria and procedures, including the director nomination form on the company's website for shareholders in advance. There was no shareholder nominate candidates to be considered for election as a member of the Company's board of directors in the Annual General Meeting of Shareholders for the year 2019.

In addition, the Nomination, Remuneration and Corporate Governance Committee has also prepared and reviewed the criteria for the Board's performance appraisal and sub-committees to be in accordance with the principles of good corporate governance and in accordance with the charter of each committee to reflect and link between the performance and the company's operating results to be developed in the next year.

Remuneration

The Nomination, Remuneration and Corporate Governance Committee considered the guidelines for determining the remuneration of the Board of Directors and executives with methods and criteria for determining remuneration that is fair and consistent with the performance.

For the year 2019, there are criteria for considering the appropriateness of the remuneration of the Board of Directors and executives by comparing references from the same industry, past performance, experience, scope of work, role and responsibility including considering the operating results of the company and propose to the Board of Directors' Meeting before proposing to the shareholders' meeting for approval.

Corporate Governance

The Nomination, Remuneration and Corporate Governance Committee has set policies and good corporate governance, practices, give advice, evaluate and review policies for compliance with good corporate governance principles and business ethics. In order to develop and upgrade the corporate governance system of the company, including important and related operations, such as sustainability management and social responsibility to comply with the principles, standards and regulations of the SET and the SEC, as well as agencies or organizations that are well-known at both the national and international levels.

The Nomination, Remuneration and Corporate Governance Committee acknowledged the results of corporate governance of Thai Listed Companies (CGR) for the year 2019, which was organized by the Thai Institute of Directors (IOD), is very good from the former that was assessed at a good level.



(Mr. Wanchai Lawatanatakul)
**Chairperson of Nomination, Remuneration
and Corporate Governance Committee**

General Information

Company name SPCG PUBLIC COMPANY LIMITED

English name SPCG PUBLIC COMPANY LIMITED

Type of business Run business in investment by holding shares in subsidiary companies and associates to operate 4 type of business, which are as follow;

- (1) Business of investment and development of Solar Farm, Engineering, Procurement and Construction (EPC) and Operation, Maintenance and Monitoring (OM&M)
- (2) Business of Steel Roof and Roof Structure with One-Stop Service (Steel Roof)
- (3) Business of distribute and installation of solar roof (Solar Roof)
- (4) Authorized sales and service partner of SMA Solar Technology AG (SMA), Germany

Head office 1 Capital Work Place Building, 10Fl. Soi Jamjan Sukhumvit Rd., Klongton-Nua, Wattana, Bangkok 10110

Factory location

- (1) Solar farm business of corporation group are located in 10 provinces with the total of 36 projects.
- (2) Steel business is located on 8 Moo. 15, Bangplee Yai, Bangplee, Samutprakarn 10540.
- (3) Solar roof business is located on 1 Capital Work Place Building, 9Fl. Soi Jamjan Sukhumvit Rd., Klongton-Nua, Wattana, Bangkok 10110.
- (4) Authorized sales and service partner of SMA Solar Technology AG (SMA) is located on 333/7,8,9 United Tower Building, 4Fl. Soi Sukhumvit 55 (Thonglor), Klongton-Nua, Wattana, Bangkok 10110.

Registration number 0107548000137

Website www.spcg.co.th

Telephone 0-2011-8111

Facsimile 0-2011-8112

Registered capital 1,016,389,000 Baht

Paid-up capital 973,990,000 Baht

Par value 1 Baht per share

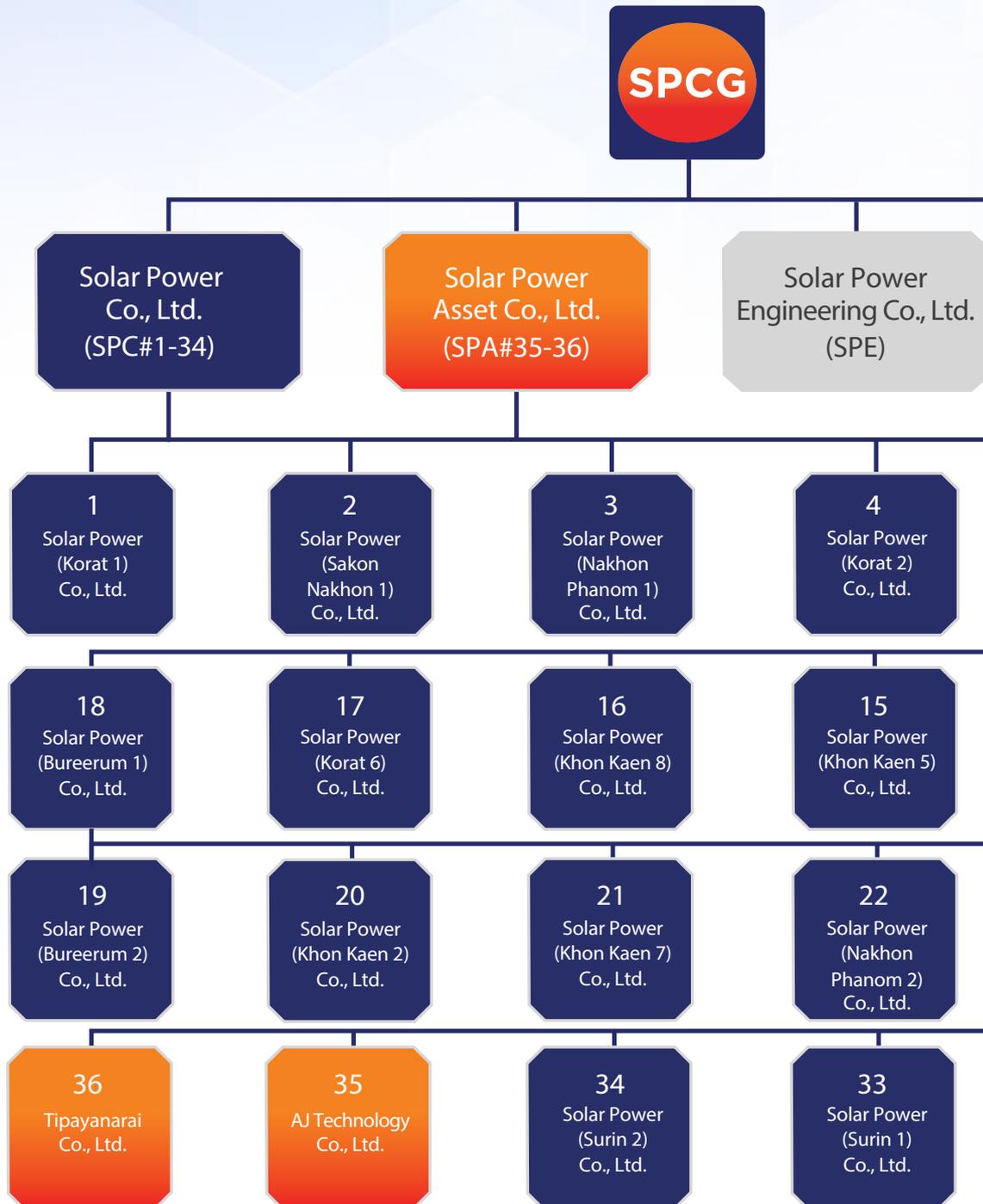
Registrar Thailand Securities Depository Co.,Ltd. ("TSD")
93 Rachadaphisek Rd., Dindaeng, Dindaeng, Bangkok 10400
Telephone 0-2009-9000 Facsimile 0-2009-9991

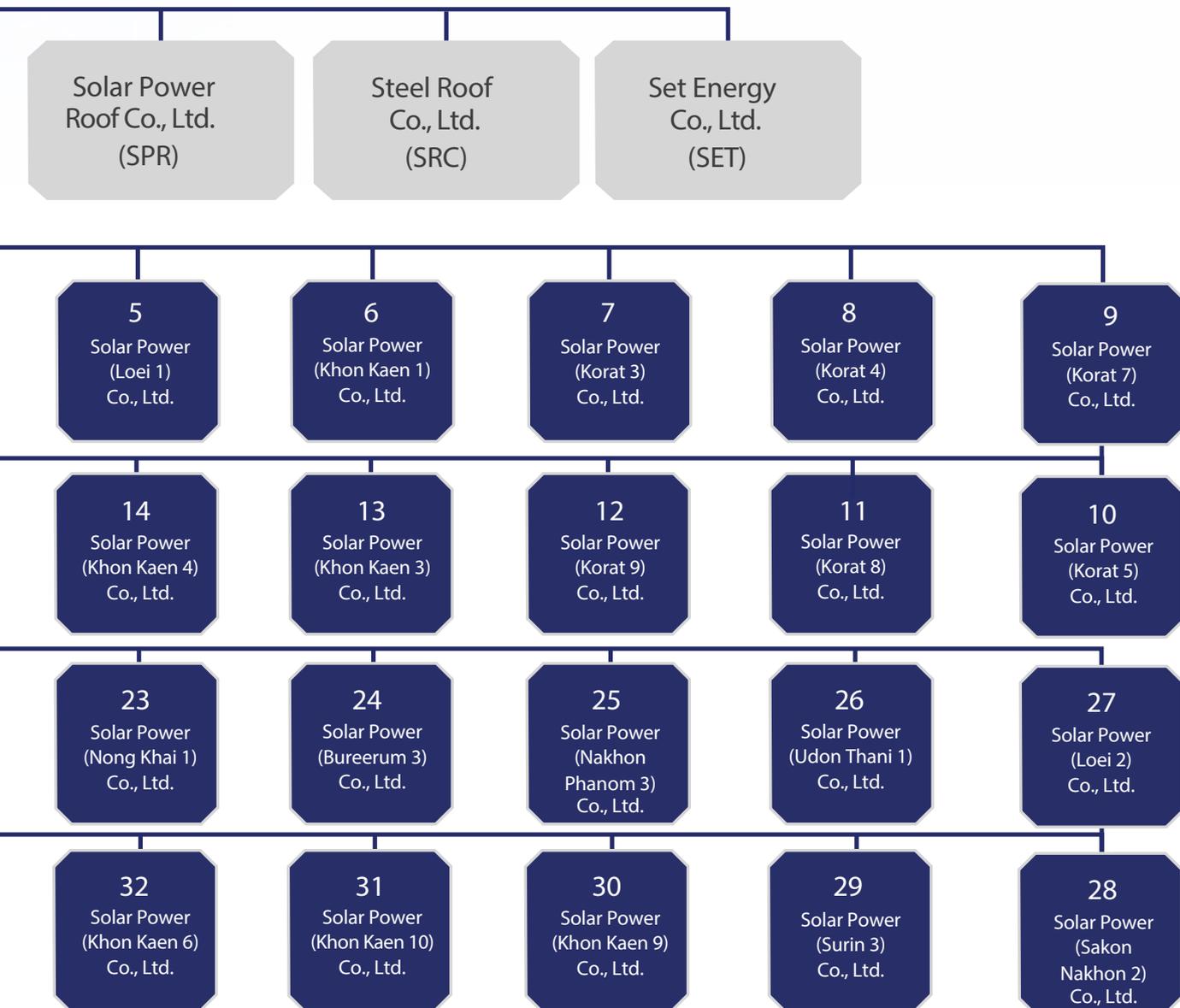
Company's auditors Mr. Natthaphong Tantichattanon Certified Public Accountant No. 8829 or
Mr. Vairoj Jindamaneepitak Certified Public Accountant No. 3565 or
Ms. Dussanee Yimsuwan Certified Public Accountant No. 10235
KPMG Phoomchai Audit Ltd.
Empire Tower, 50th - 51st Floors,
1 South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone 0-2677-2000 Facsimile 0-2677-2222

Contact

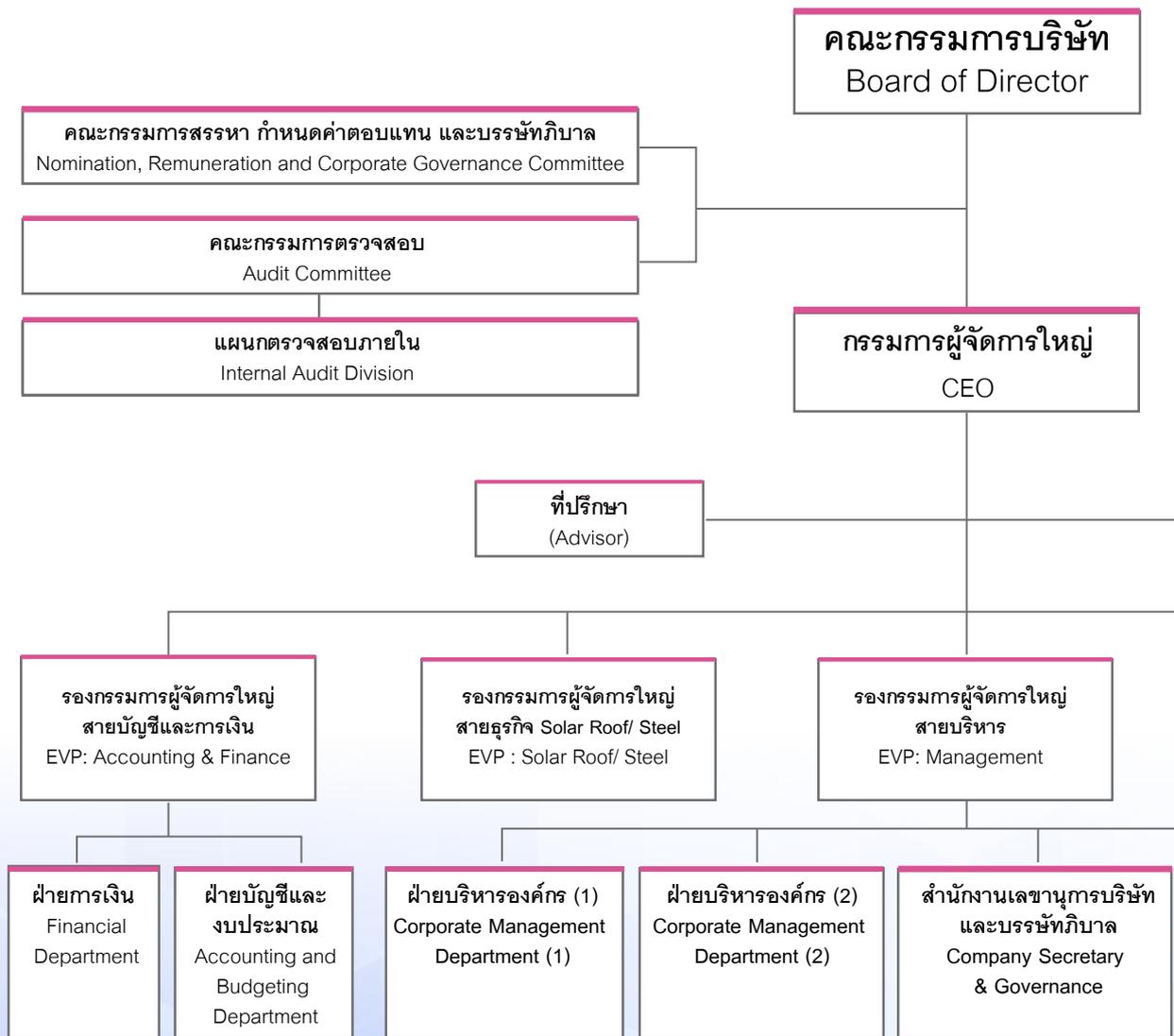
- Company Secretary & Governance
Telephone 0-2011-8111 Extension 1031 Facsimile 0-2011-8112
E-mail: info@spcg.co.th
- Investor Relation Division
Telephone 0-2011-8111 Extension 1043 Facsimile 0-2011-8112
E-mail: ir@spcg.co.th

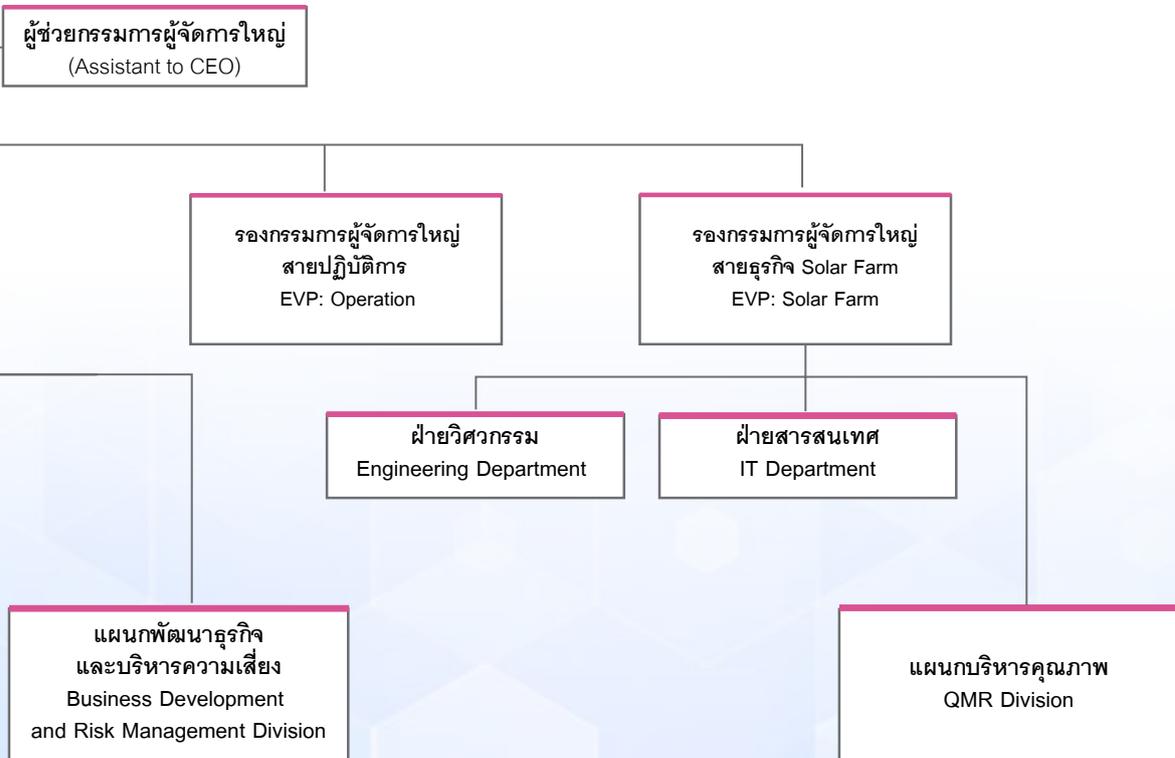
SPCG Business Structure





Organization Chart





Board of Directors and Company Secretary



**Dr. Wandee
Khunchornyakong Juljarern**
Chairperson & Chief Executive
Officer

Mr. Somsak Khunchornyakong
Director & Executive
Vice President : Operation

Mr. Jirakom Padumanon
Director & Executive
Vice President (Solar Roof & Steel)

Mr. Withoon Manomaikul
Director

POL.MAJ.GEN.Wanchai Wisuttinan
Director



Mr. Wanchai Lawattanatrakul
Chairperson of Audit Committee &
Independent Director

Mr. Apichat Limsethanuwat
Audit Committee and
Independent Director

Mr. Shoji Nishizawa
Director

Dr. Art-ong Jumsai Na Ayudhya
Audit Committee and
Independent Director

Miss Parichat Saipia
Company Secretary



Dr. Wandee Khunchornyakong Juljarern

- Chairperson
- Member of Nomination, Remuneration and Corporate Governance Committee
- Chief Executive Officer

Date Appointed: April 1, 2011

Age: 61 Years old

Education

- Doctor of Philosophy (Strategic Leadership Supremacy), Suan Dusit Rajabhat University.
- Honorable Doctor of Science (Energy and Environmental), Sripatum University.
- Honorable Doctor of Business Administration, Western University.
- Master of Science (Renewable Energy), Naresuan University.
- Master of Public Administration, Suan Sunandha Rajabhat University.
- Bachelor of Laws, Kasem Bundit University.

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP), Class 26/2004.
- Director Certification Program (DCP), Class 51/2004.
- Role of the Chairman Program (RCP), Class 27/2011.

Other Training Record

- Curriculum Politics and Public Administration of Democracy, 9th Class, King Prajadhipok's Institute.
- National Defence, Class 2549, National Defence Studies Institute, Royal Thai Armed Forces.
- Top Executives Course, Class 12, Capital Market Academy.
- Energy Literacy for a sustainable Future (TEA) Class 2, Thailand Energy Academy.

- Bhumi Palung Phandin for Executive Management, Class 4, Chulalongkorn University.
- Thailand Insurance Leadership Program, Class6, OIC Advance Insurance Institute, Office Insurance Commission.
- Executive Leader Training, Class 293, National Scout Organization of Thailand.
- Management Program Mini MBA, Class 13, Thammasat University.
- Knowledge Training on Thailand Futures Exchange Securities Institute.
- Marketing Management Course, Connecticut University, USA
- Renewable Energy Development and Utilization for Global, Environmental Protection by Department of Energy Development and Protection (DEDP), Thailand and New Energy Foundation (NEF), JAPAN
- Health 1st Generation Course, Chulabhorn Royal Academy

Award History

- The Leading ASEAN Women Entrepreneurs 2015
- The Winner of UNFCCC Momentum for Chang Lighthouse Activities Award 2014 for Leading a women-powered Solar Energy Transformation
- Woman Entrepreneur of the Year 2013, Certificate of Achievement, Enterprise Asia

- The Outstanding Women Leader for Green Growth Award 2014, The Federation of Business and Professional Women's Associations under the Royal Patronage of Her Majesty the Queen
- PVSEC Special Award: for The Outstanding Contribution to the Industrialization and Promotion of Photovoltaic Solar Energy Conversion
- Asian Hitech Award 1988

**Current Position in Other Organizations
(Listed Company-The Stock Exchange of Thailand)**

- None

**Other Organizations / Companies
(Not Listed in the Stock Exchange of Thailand)**

- Chairperson, Solar Power Company Limited
- Chairperson, 34 subsidiaries of Solar Power Company Limited
- Chairperson, Solar Power Asset Company Limited
- Chairperson, 2 subsidiaries of Solar Power Asset Company Limited
- Chairperson, Solar Power Engineering Company Limited
- Chairperson, Solar Power Roof Company Limited
- Chairperson, Steel Roof Company Limited
- Chairperson, Capital Resident Company Limited
- Chairperson, Capital Work Place Company Limited
- Chairperson, SET ENERGY Company Limited⁽¹⁾
(Its subsidiary of SPCG Public Company Limited)

Other positions

- President of The National Council of Women of THAILAND under The Royal Patronage of Her Majesty The Queen, the 25th - 26th (2015 - 2021).
- Vice President of Ministry of Interior's Ladies Association.
- Chairman, Housewives Club, Department of Local Administration.

Experiences

- 2011– Present Chairperson and Chief Executive Officer, SPCG Public Company Limited.
- 1990 – 2007 Managing Director, Solartron Public Company Limited.

Shareholding in SPCG (including spouse and minor)⁽²⁾

Self	:	298,950,000 Shares (30.69%)
Spouse	:	None
Minor	:	1,928,200 Shares (0.19%)
Total	:	300,878,200 Shares (30.88%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾SET ENERGY Company Limited registered as a juristic person under the Civil and Commercial Code on September 19, 2019

⁽²⁾Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.



Mr. Somsak Kunchornyakong

- Director
- Member of Nomination Remuneration and Corporate Governance Committee
- Executive Vice President (Operation)
- Managing Director of Solar Power Co., Ltd. (Its subsidiary of SPCG Public Company Limited)

Date Appointed: April 1, 2011

Age: 60 Years old

Education

- Master of Science (Renewable Energy Technology), Naresuan University.
- Bachelor of Education, Chandrakasem Rajabhat University.

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP), Class 55/2004.
- Director Certification Program (DCP), Class 66/2005.

Other Training Record

- Senior Executive Program Capital Market Academy (Class 27), 2018.
- Advanced Insurance Science Program (Class 7) 2017, Advanced Insurance Institute Office of Insurance Commission (OIC).
- Training of Safety Officers at the Administration Level, year 2017.
- Training on Information Security Management System (ISMS) in accordance with ISO / IEC 27001: 2013.
- Training quality management control system (ISO 9001: 2000).
- Training Safety Officer at Executive Level, Thai-Nichi Institute of Technology (TNI).

- Advance Security Management Program: ASMP, The Association National Defence College of Thailand under The Royal of Patronage of His Majesty The King.
- Advanced Budget Management Program (NESDB), 2nd edition, 2015, Office of the Budget.
- Solar Technology and Long Term Reliability of System Program 2011, Kyocera Corporation, Tokyo, Japan.
- Solar System and Quality Control Program 2010.
- Solar and Application Design Program 2009.
- Solar Modules Technology Program 2009 Siemens AG, Germany.
- Solar Modules and Process Control Program 2008.
- Solar Technology for Off Grid & On Grid Program 2008.
- Solar Technology System Program 2004 SMA Solar Academy and KMUTT, Bangkok, Thailand.
- Solar Technology Program 1998 Showa shell, Phuket, Thailand.
- Solar Technology and Design Program 1995, Arco Solar, Singapore.
- Technology and Design Solar Pumping System Program 1991, Photovoltaic System and Application Program 1995, Solarex, Australia.

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- Director, Solar Power Company Limited
- Director, 34 subsidiaries of Solar Power Company Limited
- Director, Solar Power Asset Company Limited.
- Director, 2 subsidiaries of Solar Power Asset Company Limited
- Director, Solar Power Engineering Company Limited
- Director, Solar Power Roof Company Limited
- Director, Steel Roof Company Limited
- Director, SET ENERGY Company Limited⁽¹⁾
(Its subsidiary of SPCG Public Company Limited)

Experiences

- 2011 - Present Director and Executive Vice President (Operation), SPCG Public Company Limited.
- 2012 - Present Member of Nomination, Remuneration and Corporate Governance Committee, SPCG Public Company Limited.

- 2011 - Present Managing Director, Solar Power Company Limited.
- 1990 – 2007 Chief Operating Officer, Solartron Public Company Limited.

Shareholding in SPCG (including spouse and minor)⁽²⁾

Self	:	13,500,000 Shares (1.38%)
Spouse	:	None
Minor	:	None
Total	:	13,500,000 Shares (1.38%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾ SET ENERGY Company Limited registered as a juristic person under the Civil and Commercial Code on September 19, 2019

⁽²⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Jirakom Padumanon

- Director
- Executive Vice President (Solar Roof & Steel Roof Business)

Date Appointed: June 16, 2011

Age: 66 Years old

**Education**

- Bachelor of Engineering (Electrical), Chulalongkorn University.

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP), Class 92/2011.

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- Director, Solar Power Company Limited
- Director, Solar Power Engineering Company Limited
- Director, Steel Roof Company Limited
- Director, Solar Power (Sakon Nakorn 1) Company Limited
- Director, Solar Power (Nakorn Phanom 1) Company Limited
- Director, Solar Power (Korat 3) Company Limited
- Director, Solar Power (Korat 4) Company Limited
- Director, Solar Power (Korat 7) Company Limited
- Director, Solar Power (Loei 2) Company Limited
- Director, Solar Power (Khon Kaen 10) Company Limited
- Director, Solar Power (Surin 1) Company Limited
- Director, Solar Power (Surin 2) Company Limited
- Project Director, JPEN Company Limited (power plant subcontract).

Experiences

- 2011 - Present Director, SPCG Public Company Limited.
- 2008 - 2009 Engineering Advisor, Sanguan Wongse Industries Company Limited.
- 2006 - 2008 Engineering Advisor, Power Line Engineering Company Limited.

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self	:	1,500,000 Shares (0.15%)
Spouse	:	None
Minor	:	None
Total	:	1,500,000 Shares (0.15%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Withoon Manomaikul

- Director

Date Appointed: April 11, 2012

Age: 63 Years old



Education

- Bachelor of Business Administration, Suan Sunandha Rajabhat University.

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 169/2020

Other Training Record

- Advanced Certificate Public Administration and Public Law (Class 9), 2010.
- Modern Marketing Management Course (Class 37), 2006, Chulalongkorn University.
- New Millennium Executive Program, 2003 Thammasat University.
- Executive Development Program (MINI MBA), 1994 Thammasat University.

Current Position in Other Organizations (Listed Company-The Stock Exchange of Thailand)

- Director, MPG Corporation Public Company Limited.

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand)

- Director and Managing Director, MNG group (2015) Company Limited.

Experiences

- 2015 – Present Director and Managing Director, MNG group (2015) Company Limited.
- 2012 – Present Director, SPCG Public Company Limited.
- 2008 – Present Director, MPG Corporation Public Company Limited.
- 1995 – 2014 Director, General Record International Industry Company Limited.

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self	:	19,290,000 Shares (1.98%)
Spouse	:	None
Minor	:	None
Total	:	19,290,000 Shares (1.98%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

POL.MAJ.GEN.Wanchai Wisuttinan

- Director

Date Appointed: April 25,2014

Age: 82 Years old

**Education**

- M.A. in Political Science, Ramkhamhaeng University.
- B.A. in Political Science, Royal Police Cadet Academy.

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP), Class 72/2006.
- Audit Committee Program (ACP), Class 11/2006.
- Improving the Quality of Financial Reporting (QFR), Class 4/2006.
- Director Accreditation Program (DAP), Class 43/2005.
- Finance for Non- Finance Directors (FND), Class 22/2005.

Other Training Record

- Long-Term Incentive: The Stock Appreciation Rights (SARs) Way 2006.
- The cost to the survival of the business.
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 9 (KPI 9) King Prajadhipok's Institute.
- Advanced Police Certificate Course for Executives, Royal Malaysia Police College.
- Academics Programme, Police Staff College, Bramshill, The UK.
- The police investigation of International Police Academy (U.S.A.).

Current Position in Other Organizations (Listed Company-The Stock Exchange of Thailand)

- Chairman of Recruitment, Yarnapund Public Company Limited.
- Director and Member of Audit Committee, Yarnapund Public Company Limited.

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand)

- Director, considering of committee of Film and Video, The Ministry of Culture.

Experiences

- 2014 - Present Director, SPCG Public Company Limited
- 2010 - 2013 Director of Ethics Committee, the Medical Department, The Ministry of Public Health.
- Former Deputy Minister's Advisory, The Ministry of Finance.
- Former Police Advisory Committee, The House of Representative.
- Former Military Advisory Committee, The House of Representative.
- Former Counsel of the Senate Committee on Justice and the Police Advisory Committee.

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self	: 50,000 Shares (0.005%)
Spouse	: None
Minor	: None
Total	: 50,000 Shares (0.005%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None**Remarks:**

- ⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Shoji Nishizawa

- Director
- Managing Director, Solar Power Roof Co., Ltd.
(Its subsidiary of SPCG Public Company Limited)

Date Appointed: April 21, 2018

Age: 62 Years old



Education

- B.A. in International Law, Kwansai Gakuin University, Hyogo, Japan.

Training Record with Thai Institute of Directors (IOD)

- None

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand)

- Managing Director, Solar Power Roof Company Limited
(Its subsidiary of SPCG Public Company Limited)

Experiences

- 2018 - Present Director, SPCG Public Company Limited
- 2018 - Present Managing Director, Solar Power Roof Company Limited
- 2017 Domestic Sales Division, International Sales Division, Kyocera Corporation, Japan, General Manager
- 2008 International Sales Division, Kyocera Corporation, Japan, General Manager
- 2007 Global Production Promotion Division, Kyocera Corporation, Japan, General Manager
- 2002 Transferred to Solar Energy Group, International Sales Division, Kyocera Corporation, Japan, Senior Sales Manager

- 1992 Returned to Kyocera Corporation, Japan, International Sales, Semiconductor Components Group, Sales Manager
- 1987 Transferred to Kyocera International Inc. (Subsidiary, AZ, USA), Sales Engineer
- 1986 Transferred to Kyocera International Inc. (Subsidiary, CA,USA), Design Center, Semiconductor Components
- 1983 Jointed Kyocera Corporation, Japan, Semiconductor Components, International Sales, Sales Engineer

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self	:	None
Spouse	:	None
Minor	:	None
Total	:	None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Wanchai Lawattanatrakul

- Independent Director
- Chairperson of Audit Committee⁽¹⁾
- Chairperson of Nomination, Remuneration Committee and Corporate Governance Committee

Date Appointed: May 17, 2012

Age: 63 Years old



Education

- Master of Engineering (Water Resources Engineering), Asian Institute of Technology (AIT).
- Bachelor of Engineer (Civil Engineering), Chulalongkorn University.

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP), Class 43/2004.
- Finance for Non- Finance Directors (FND), Class 1/2003.

Other Training Record

- National Defence, Class 2549, National Defence Studies Institute, Royal Thai Armed Forces.
- Curriculum Politics and Public Administration of Democracy, Class 6, King Prajadhipok's Institute.
- Energy Literacy for a Sustainable Future (TEA) Class13, Thailand Energy Academy.

Current Position in Other Organizations (Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand)

- Director, SET ENERGY Company Limited⁽²⁾
(Its subsidiary of SPCG Public Company Limited)

Other Positions

- Director of Metropolitan Waterworks Authority (Thailand).
- Director of Thai Waterwork Association.

Experiences

- 2018 - Present Chairperson of Audit Committee and Independent Director, SPCG Public Company Limited.
- 2013 - Present Chairperson of Nomination, Remuneration and Corporate Governance Committee, SPCG Public Company Limited.
- 2013 - 2015 Managing Director of Eastern Water Resources Development and Management Public Company Limited.
- 2013 - 2015 Director of Universal Utilities Public Company Limited.
- 2012 - 2018 Audit Committee and Independent Director SPCG Public Company Limited.
- 2008 - Present Director of Metropolitan Waterworks Authority (Thailand).

Shareholding in SPCG (including spouse and minor)⁽³⁾

Self	: None
Spouse	: None
Minor	: None
Total	: None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾The audit committee must be qualified as an independent director according to the definition announced by the company and under the requirements of the Capital Market Supervisory Board and the announcement of the Stock Exchange of Thailand.

⁽²⁾SET ENERGY Company Limited registered as a juristic person under the Civil and Commercial Code on September 19, 2019

⁽³⁾Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Dr. Art-ong Jumsai Na Ayudhya

- Independent Director
- Member of Audit Committee ⁽¹⁾
- Member of the Nomination, Remuneration and Corporate Governance Committee

Date Appointed: April 11,2012

Age: 79 Years old



Education

- B.A. (Hons), M.A. Mechanical Sciences, Cambridge, U.K.
- D.I.C., Ph.D. Communications, Imperial College of Science and Technology, London University
- Ph.D. Education - Curriculum and Instruction, Faculty of Education, Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Audit Committee Program (ACP) Class 38, 2012.
- Director Accreditation Program (DAP) Class 146/2011.

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- Chairman of the Board of Directors, Independent Director, and Chairman of Audit Committee, Lam Soon (Thailand) Public Company Limited.

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- Director, AJ Technology Company Limited (Its subsidiary of SPCG Public Company Limited).

Experiences

- 2019 - Present Member of Audit Committee, Independent Director, and Member of Nomination, Remuneration and Corporate Governance Committee, SPCG Public Company Limited.
- 2017 - 2018 Member of Audit Committee and Independent Director, SPCG Public Company Limited.
- 2012 - 2015 Member of Audit Committee and Independent Director, SPCG Public Company Limited.

- 2012 - 2013 Chairperson of Audit Committee and Independent Director, SPCG Public Company Limited.
- 2010 - 2011 Advisor to the Ministry of Education.
- 1996 - Present Chief Executive Officer of Sathya Sai School Lopburi Province.

Shareholding in SPCG (including spouse and minor)⁽²⁾

Self	:	None
Spouse	:	None
Minor	:	None
Total	:	None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None

Remarks:

⁽¹⁾ The audit committee must be qualified as an independent director according to the definition announced by the company and under the requirements of the Capital Market Supervisory Board and the announcement of the Stock Exchange of Thailand.

⁽²⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Apichat Limsethanuwat

- Independent Director
- Member of Audit Committee⁽¹⁾
- Member of Nomination, Remuneration and Corporate Governance Committee

Date Appointed: April 21, 2017**Age:** 55 Years old**Education**

- Engineering (Civil Engineering), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP), Class 159/2019

Current Position in Other Organizations**(Listed Company-The Stock Exchange of Thailand)**

- None

Other Organizations / Companies**(Not Listed in the Stock Exchange of Thailand)**

- None

Experiences

- 2019 - Present Member of Nomination, Remuneration and Corporate Governance Committee, SPCG Public Company Limited.
- 2017 - Present Independent Director and Member of Audit Committee, SPCG Public Company Limited.
- 2011 Civil Engineering Director Laem Chabang Municipality, Chonburi.
- 2008 Engineering Director Chao Phraya Surasak, Chonburi.
- 2006 Director, Engineering Sing Buri Municipality.
- 2005 Director of Engineering Mueang District, Nakhon Sawan Province.
- 2000 Chief Engineer Municipality of Sena Phranakhon Si Ayutthaya.
- 1988 Civil Engineer, Nakhon Sawan Municipality.

Shareholding in SPCG (including spouse and minor)⁽²⁾

Self	: None
Spouse	: None
Minor	: None
Total	: None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications: None**Remarks:**

⁽¹⁾ The audit committee must be qualified as an independent director according to the definition announced by the company and under the requirements of the Capital Market Supervisory Board and the announcement of the Stock Exchange of Thailand.

⁽²⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr.Chanchai Banditsaowapak

- Executive Vice President (Solar Farm Business)

Date Appointed: March 1, 2015

Age: 66 Years old



Education

- Master of Business Administration, Ramkhamhaeng University.
- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University.

Training Record with Thai Institute of Directors (IOD)

- None

Current Position in Other Organizations (Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations/ Companies (Not Listed in the Stock Exchange of Thailand)

- None

Experiences

- 2015 - Present Executive Vice President (Solar Farm Business), SPCG Public Limited Company.
- 2013 - 2014 Deputy Governor (Network Operation), Provincial Electricity Authority (PEA).
- 2011 - 2012 Assistant to Governor, Provincial Electricity Authority (PEA).

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self : None
 Spouse : None
 Minor : None
 Total : None

Family Relation with other Directors, Executives, Major Shareholders of SPCG Public Company Limited and its Subsidiaries

- None

Remarks:

⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mrs. Narinporn Malasri

- Executive Vice President (Management)

Date Appointed: September 2, 2019

Age: 47 Years old



Education

- Master Degree of Science (Energy Management Technology), King Mongkut's University of Technology Thonburi
- Bachelor Degree of Science (Hons.) (Industrial Chemistry), Srinakharinwirot University

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP) Class 169/2020

Other Training Record

- The six-months CapREG online training "Certified PV Professional" CapREG online training in April - September 2019
- The six-months CapREG online training "Certified Flexible Power System Specialist (CFPSS) CapREG scholarship for online training on May 14 - November 30, 2018
- Scholarship: Green Banking Scholarship for the Delegation Tour to Germany by the Renewables Academy (RENAC) AG on September 11 - 15, 2017 in Berlin and Frankfurt
- Training course "Public-Private Partnerships for Executives Program: PEP", Class 3 on June 27 - August 2, 2017 and study tour in Australia
- "Green Banking Online Training" Study path: Renewable energy finance on September 12 - November 30, 2016
- "CapREG On5 Online Training Planning of large-scale grid-connected PV" Online Training on July 7 - October 13, 2016
- "CapREG On8 Online Training Planning of large scale solar thermal projects" Online Training on May 20 - July 20, 2016
- "CapREG On7 Online Training Planning of medium-sized biogas plants" Online Training on March 15 - May 10, 2016
- "Bankability of Renewable Energy Projects" which has been conducted by the Renewables Academy (RENAC) AG on February 29 - March 2, 2016 in Bangkok, Thailand
- Scholarship : "Renewable Energy and Grid Integration / Energy transition" by (RENAC) AG on October 19 - 23, 2016 in Berlin, German
- "THAILAND: P3-THA-ManGrid, Management of PV Grid integration" by (RENAC) AG on March 4 - 6, 2015 in Bangkok, Thailand
- Training course "Business Analysis Program", Class 52 Faculty of Economics, Chulalongkorn University on February 3 - 21, 2015
- "Sustainable Energy Training: Electricity Generation and Supply-Challenges and Opportunities for Asia" by International Energy Agency: IEA and Ministry of Energy on November 25 - 29, 2013 in Bangkok, Thailand
- "Fundamentals of Renewable Energy" which has been conducted by the Renewables Academy (RENAC) AG on November 24 - 28, 2014 in Bangkok, Thailand
- Training Course "Building Up Capacity of the Staff (Capacity Building), Management Level Course" by Thammasat University Research and Consultancy Institute on July 5 - September 6, 2013
- Training Course "Public Law Training Program" by Faculty of Law, Thammasat University on October 8 - November 6, 2012
- Training Course "ASEAN Energy Management Scheme, AESME by Copper Development Centre - Southeast Asia on March 6 - 8, 2012

- Training Course “Personnel Readiness Project to Enhance Career Stability and Employment in accordance with International Management System Standards (ISO 9001:2008, ISO 14001:2004 & TIS 18001:1999 Internal Auditor)” by Management System Certification Institute on January 25 - 29, 2010
- Training Course “Development of Energy Management Auditor”, Class 4 by Department of Alternative Energy Development and Efficiency, Ministry of Energy on October 28 - 30, 2009
- Training Course “Greenhouse Gas Management for Business Entrepreneurs”, Personnel and Organization Potential Development Project to Promote Greenhouse Gas Management by Thailand Greenhouse Gas Management Organization (Public Organization) on July 30 - August 1, 2009
- Training Course “Project Planning and Project Management” by Center of Excellence in Electrical Power Technology, Faculty of Engineering, Chulalongkorn University on April 26 - 30, 2005

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- Director, SET ENERGY Company Limited⁽¹⁾
(Its subsidiary of SPCG Public Company Limited)

Experiences

- 2019 - Present Executive Vice President (Management), SPCG Public Company Limited

- 2016 - 2019 Senior Professional / Acting of Director, Energy Plan and Procurement Regulation Department, Office of the Energy Regulatory Commission
- 2012 - 2015 Senior Professional, Energy and Environmental Engineering Department, Office of the Energy Regulatory Commission
- 2009 - 2012 Operation Director / Operation Manager, Ensol Company Limited
- 2006 - 2007 Energy Management Specialist, Panya Consultants Company Limited
- 2001 - 2005 Project Director / Energy Department Manager / Project Manager, Panya Consultants Company Limited
- 1999 - 2001 Energy Department Manager / Project Manager, Jacobs Engineering (Thailand) Company Limited
- 1996 - 1999 Process Engineer / Energy Task Force Team Coordinator, Stork (Thailand) Company Limited
- 1995 - 1996 Process Engineer / Energy Task Force Team Coordinator, Thai Alpha Consulting Engineer Company Limited

Shareholding in SPCG (including spouse and minor)⁽²⁾

Self	:	None
Spouse	:	None
Minor	:	None
Total	:	None

Family Relation with other Directors, Executives, Major Shareholders of SPCG Public Company Limited and its Subsidiaries: None

Remarks:

⁽¹⁾ SET ENERGY Company Limited registered as a juristic person under the Civil and Commercial Code on September 19, 2019

⁽²⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Mr. Chaiwat Tangsuwanphanit

- Executive Vice President (Accounting & Finance)
- Managing Director, Steel Roof Co., Ltd.
(Its subsidiary of SPCG Public Company Limited)

Date Appointed: March 1, 2015

Age: 59 Years old

**Education**

- Master of Business Administration, Thammasat University.
- Bachelor of Accountancy, Chulalongkorn University.

Training Record with Thai Institute of Directors (IOD)

- Director Accreditation Program (DAP), Class 31/2005.

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- Managing Director, Steel Roof Company Limited
(Its subsidiary of SPCG Public Company Limited).

Experiences

- 2016 - Present Executive Vice President (Accounting & Finance), SPCG Public Company Limited, and Managing Director, Steel Roof Company Limited.
- 2013 - 2015 Assistant to Chief Executive Officer, SPCG Public Company Limited.

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self	:	None
Spouse	:	None
Minor	:	None
Total	:	None

Family Relation with other Directors, Executives, Major Shareholders of SPCG Public Company Limited and its Subsidiaries

- None

Remarks:

⁽¹⁾Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

Miss Parichat Saipia

- Company Secretary

Date Appointed: February 20, 2015

Age: 33 Years old



Education

- Bachelor of Business Administration (International Business), Ramkhamhaeng University.

Training Record with Thai Institute of Directors (IOD)

- Company Secretary Program (CSP) (Class 89), 2018.

Other Training Record

- Advance for Corporate Secretaries, Thai Listed Companies Association.
- Training on Information Security Management System (ISMS) in accordance with ISO / IEC 27001: 2013.

Current Position in Other Organizations

(Listed Company-The Stock Exchange of Thailand)

- None

Other Organizations / Companies

(Not Listed in the Stock Exchange of Thailand)

- None

Experiences

- 2015 - Present Company Secretary, SPCG Public Company Limited.
- 2014 - 2015 Executive Secretary, SPCG Public Company Limited.
- 2008 - 2013 Secretary, Council of Engineers.

Shareholding in SPCG (including spouse and minor)⁽¹⁾

Self : None

Spouse : None

Minor : None

Total : None

Family Relation with other Directors, Executives, Major Shareholders of SPCG Public Company Limited and its Subsidiaries

- None

Remarks:

⁽¹⁾Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019.

- Business Operation
- Nature of Business
- Risk Factors



1 Policy and Overall Business Operation

1.1 Vision, Mission, Business Goals of SPCG and its subsidiary ⁽¹⁾

1.1.1 Vision

SPCG strives to become the leader in renewable energy, to build a strong foundation for sustainable business with clean and environmentally friendly technology.

1.1.2 Mission:

(1) Expand renewable energy business opportunities in both domestic and foreign countries.

(2) Seek business partners to increase capability and competitiveness

(3) To conduct business responsibility, taking into account the social and environmental impacts.

(4) Generate additional value for shareholders in the long term with stable profit growth.

(5) Commitment to create confidence in the product value. To develop the most effective design and provide excellent service to the customers under our policy "Continuing To Give Best Value, Best Design, Best Output and Best Service To All of Customers"

1.1.3 Target and Operational Strategies:

(1) The company strives to increase production capacity by expanding investment in solar farm project development. We have a plan to expand investment in Japan and to study investment opportunities in the ASEAN region.

(2) The company strives to increase market share as a leader in the sale and installation of solar roof systems by increasing market share for all sectors (residential, commercial, industrial) with a highly efficient design and provide excellent and continuous service to our customers.

(3) The company strives to build confidence as the authorized sales and service partner the inverter from SMA Solar Technology AG (SMA), Germany. The plan is to build relationships with existing customers and expand new customer base. With a trained team who specialize in solar business in the Indochina region.

1.2 Major Changes and Developments

SPCG Public Company Limited ("SPCG") is listed company on the Stock Exchange of Thailand under the energy and utilities business category. Conducting a business in the form of holding company. SPCG is a major shareholder of total 42 affiliated companies, SPCG has a total registered capital 1,016,389,000 Baht, which has paid-up capital 973,990,000 Baht, and par value is 1.00 Baht.

SPCG is a pioneer and leading developer of the first solar farm project in Thailand and South-East Asia. In 2014, the company sold electricity to Provincial Electrical Authority (PEA). Electricity generated from the 36 solar farm project, total capacity of over 260 MW. Located in 10 provinces in northeast of Nakhon Ratchasima, Sakon Nakhon, Nakhon Phanom, Khon Kaen, Buriram, Surin, Nongkhai, Udon Thani, Loei and central region, Lopburi province with an geographic area of more than 5,000 Rai.

SPCG has successfully expanded its investment to sell and install solar power systems on the roof. Under Solar Power Roof Company Limited or "SPR" (Its subsidiary of SPCG) has been operational since 2013. SPR has expanded its customer base of residential homes, commercial buildings, office buildings, government buildings and industrial factories.

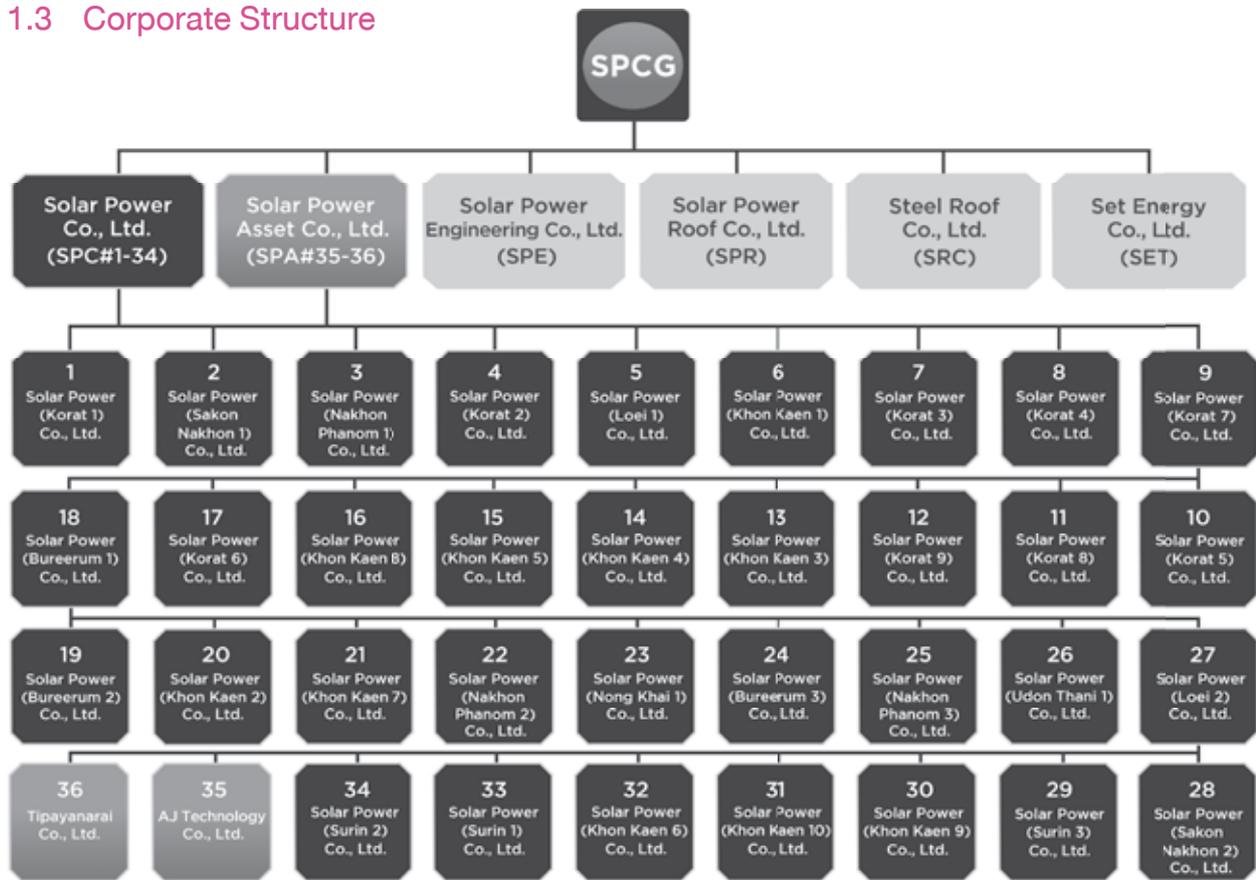
Remark:

⁽¹⁾ The Board of Directors Meeting No. 1/2019 on February 22, 2019 resolved to approve the review of the vision, mission, goals and strategies of the company's operations.

In the year 2019, the changes and developments of SPCG are as follows:

January	<ul style="list-style-type: none"> The Board of Directors' Meeting No.1/2019 held on February 22, 2019 approved the appointment of Mr. Tomohide Hirashima as Managing Director of Solar Power Engineering Company Limited ("SPE"), with effective from January 1, 2019 onwards.
February	<ul style="list-style-type: none"> The Board of Directors' Meeting No.1/2019 held on February 22, 2019 approved the opening of an investment unit and securities account on behalf of SPCG Public Company Limited with Asia Plus Securities Company Limited. For better return on investment than bank deposit.
March	<ul style="list-style-type: none"> SPCG informed The Stock Exchange of Thailand on March 12, 2019, in the case of establishment a subsidiary "Sakura Solar Limited Liability Company" in Japan to invest in the solar farm project with 2 parties which are Kyocera Corporation, Japan ("Kyocera") and Mitsubishi Research Institute, Inc. ("MRI"). The project has a total capacity of 66.9 MW. The investment budget approximately 235 million baht with an investment plan in 2019, and expect to be completed in 2020 - 2022.
April	<ul style="list-style-type: none"> The Annual General Meeting of Shareholders for the year 2019 held on April 12, 2019 approved the dividend payment from the company's operating results for the year 2018 at the rate of 1.20 Baht per share which the interim dividend payment from the company's operating results for the period of January 1 - June 30, 2018 at the rate of 0.55 Baht per share. Therefore, dividend payment from the company's operating results for the year 2018 at the rate of 0.65 Baht per share. Amounting 633,093,500 Baht (six hundred thirty – three million ninety – three thousand and five hundred Baht), and the dividend payment date was on May 10, 2019.
July	<ul style="list-style-type: none"> On July 22, 2019, SPCG signed the memorandum of understanding "Cooperation in the Development of Solar Roof Project" with 3 parties: Mitsubishi UFJ Lease & Finance Company Limited, PEA ENCOM International Company Limited and Kyocera Corporation, Japan.
August	<ul style="list-style-type: none"> The Board of Directors' Meeting No. 3/2019 held on August 9, 2019 approved the interim dividend payment from the company's operating results for the period of January 1 – June 30, 2019 at the rate of 0.50 Baht per share, total 973,990,000 shares. Amounting 486,995,000 Baht (Four hundred eighty – six million and nine hundred ninety – five thousand baht), and the dividend payment date was on September 6, 2019. The Board of Directors' Meeting No.3/2019 held on August 9, 2019 approved the investment in "Ukujima Mega Solar Project" at Sasebo, Nagasaki, Japan with the capacity of 469 Megawatts.
September	<ul style="list-style-type: none"> The Board of Directors' Meeting No. 3/2019 held on August 9, 2019 approved the appointment of Mrs. Narinporn Malasri as Executive vice President (Management) with effective from September 2, 2019 onwards. SPCG informed The Stock Exchange of Thailand on September 24, 2019, Gulf International Investment (Hong Kong) Limited purchased additional shares of SPCG Public Company Limited amount 1,577,700 shares, equivalent to 0.16 percent. As a result, Gulf International Investment (Hong Kong) Limited had a total of 98,140,352 shares, equivalent to 10.08 percent of the company's paid-up capital. Resulting in the change of major shareholder structure, but it's not effect to the change of director's authority, organization structure, and business operation's decision – making authority.
November	<ul style="list-style-type: none"> The Board of Directors' Meeting No.4/2019 held on November 8, 2019 approved the ratification for the establishment of SET ENERGY Company Limited for study and development of smart grid, smart energy and smart environment in the areas of Eastern Economic Corridor ("EEC") development project in 3 provinces, and in the extension areas in the next phase according to government policy. SET ENERGY Company Limited has 3 co-founders, SPCG Public Company Limited, Tana Power Company Limited and PEA ENCOM International Company Limited.

1.3 Corporate Structure



1.4 Details of Company and its Subsidiary

No.	Company name and its subsidiary	Initial	Registered capital (Baht)	Business Type	COD ⁽¹⁾
1	SPCG Public Company Limited	SPCG	1,016,389,000	Holding Company	-
2	Solar Power Company Limited	SPC	1,500,000,000	<ul style="list-style-type: none"> Solar Farm Developer Providing Procurement Engineering and Construction (EPC) and Operation, Maintenance and Monitoring (OM&M) services for Solar Farm under Solar Power Company Limited 	-
3	Solar Power Engineering Company Limited	SPE	10,000,000	Authorized Sales & Service Partner of SMA Solar Technology AG ("SMA"), Germany	-

No.	Company name and its subsidiary	Initial	Registered capital (Baht)	Business Type	COD ⁽¹⁾
4	Solar Power Asset Company Limited	SPA	240,000,000	A Joint Venture Business for Solar Farm Development	-
5	Solar Power Roof Company Limited	SPR	400,000,000	The Leader of Solar Power Roof Business	-
6	Steel Roof Company Limited	SSR	57,373,340	Manufacturing, distribution and installation services for steel roofing with structure and all fitting	-
7	SET ENERGY Company Limited	SET	100,000,000	A Joint Venture Business for study and development of smart grid, smart energy and smart environment in the areas of the Eastern Economic Corridor (EEC) development project in 3 provinces, and in the extension areas in the next phase according to government policy.	-
8	Solar Power (Korat 1) Company Limited	KR1	320,000,000	Solar Farm Business	April 21, 2010
9	Solar Power (Sakonnakhon 1) Company Limited	SN1	217,800,000	Solar Farm Business	February 9, 2011
10	Solar Power (Nakhonpanom 1) Company Limited	NP1	218,100,000	Solar Farm Business	April 22, 2011
11	Solar Power (Korat 2) Company Limited	KR2	219,900,000	Solar Farm Business	September 13, 2011
12	Solar Power (Loei 1) Company Limited	LO1	220,500,000	Solar Farm Business	September 15, 2011
13	Solar Power (Khonkaen 1) Company Limited	KK1	226,500,000	Solar Farm Business	February 15, 2012
14	Solar Power (Korat 3) Company Limited	KR3	188,750,000	Solar Farm Business	March 9, 2012
15	Solar Power (Korat 4) Company Limited	KR4	199,250,000	Solar Farm Business	May 14, 2012
16	Solar Power (Korat 7) Company Limited	KR7	188,750,000	Solar Farm Business	May 30, 2012
17	Solar Power (Korat 5) Company Limited	KR5	157,500,000	Solar Farm Business	January 15, 2013
18	Solar Power (Korat 8) Company Limited	KR8	157,500,000	Solar Farm Business	January 15, 2013
19	Solar Power (Korat 9) Company Limited	KR9	160,000,000	Solar Farm Business	January 16, 2013
20	Solar Power (Khonkaen 3) Company Limited	KK3	157,500,000	Solar Farm Business	January 17, 2013
21	Solar Power (Khonkaen 4) Company Limited	KK4	157,500,000	Solar Farm Business	January 17, 2013
22	Solar Power (Khonkaen 5) Company Limited	KK5	157,500,000	Solar Farm Business	January 18, 2013

No.	Company name and its subsidiary	Initial	Registered capital (Baht)	Business Type	COD ⁽¹⁾
23	Solar Power (Khonkaen 8) Company Limited	KK8	157,500,000	Solar Farm Business	January 18, 2013
24	Solar Power (Korat 6) Company Limited	KR6	160,000,000	Solar Farm Business	June 26, 2013
25	Solar Power (Buriram 1) Company Limited	BR1	160,000,000	Solar Farm Business	June 26, 2013
26	Solar Power (Buriram 2) Company Limited	BR2	160,000,000	Solar Farm Business	June 26, 2013
27	Solar Power (Khonkaen 2) Company Limited	KK2	165,000,000	Solar Farm Business	July 29, 2013
28	Solar Power (Khonkaen 7) Company Limited	KK7	162,500,000	Solar Farm Business	October 1, 2013
29	Solar Power (Nakhonpanom 2) Company Limited	NP2	157,500,000	Solar Farm Business	February 27, 2014
30	Solar Power (Nongkhai 1) Company Limited	NK1	157,500,000	Solar Farm Business	February 28, 2014
31	Solar Power (Buriram 3) Company Limited	BR3	157,500,000	Solar Farm Business	March 6, 2014
32	Solar Power (Nakhonpanom 3) Company Limited	NP3	157,500,000	Solar Farm Business	March 10, 2014
32	Solar Power (Udonthani 1) Company Limited	UD1	162,500,000	Solar Farm Business	April 1, 2014
34	Solar Power (Loei 2) Company Limited	LO2	165,000,000	Solar Farm Business	April 24, 2014
35	Solar Power (Sakonkakhon 2) Company Limited	SN2	157,500,000	Solar Farm Business	April 25, 2014
36	Solar Power (Surin 3) Company Limited	SR3	157,500,000	Solar Farm Business	April 29, 2014
37	Solar Power (Khonkaen 9) Company Limited	KK9	157,500,000	Solar Farm Business	May 20, 2014
38	Solar Power (Khonkaen 10) Company Limited	KK10	165,000,000	Solar Farm Business	May 20, 2014
39	Solar Power (Khonkaen 6) Company Limited	KK6	157,500,000	Solar Farm Business	May 30, 2014
40	Solar Power (Surin 1) Company Limited	SR1	165,000,000	Solar Farm Business	June 27, 2014
41	Solar Power (Surin 2) Company Limited	SR2	165,000,000	Solar Farm Business	June 27, 2014
42	AJ Technology Company Limited	AJ	75,000,000	Solar Farm Business	June 25, 2013
43	Tippayanarai Company Limited	TP	80,000,000	Solar Farm Business	June 25, 2013

Remark:

⁽¹⁾ COD (Commercial Operation Date)

⁽²⁾ SET ENERGY Co., Ltd. has registered a juristic person, under the Civil and Commercaill Code on 19 September 2019.

1.5 Business Structure and Overview of SPCG Securities Shareholding

No.	Company name and its subsidiary	Initial	Registered Date	Registered Capital	Quantity of Share	Value per Share	Shareholder	Total (%)
1	SPCG Public Company Limited	SPCG	March 16, 2005	1,016,389,000	973,990,000	1	1. Khonchornyakong Family Group 2. UBS AG SINGAPORE BRANCH 3. Gulf International Investment (Hong Kong) Limited 4. Kyocera Corporation 5. Others	36.77 9.77 8.38 ⁽¹⁾ 6.52 38.56
2	Solar Power Company Limited	SPC	August 20, 1996	1,500,000,000	150,000,000	10	SPCG Public Company Limited	100
3	Solar Power Engineering Company Limited	SPE	August 3, 2011	10,000,000	1,000,000	10	SPCG Public Company Limited	100
4	Solar Power Asset Company Limited	SPA	May 4, 2012	240,000,000	24,000,000	10	SPCG Public Company Limited	100
5	Solar Power Roof Company Limited	SPR	May 1, 2013	400,000,000	4,000,000	100	SPCG Public Company Limited	100
6	Steel Roof Company Limited	SRC	September 5, 2011	57,373,340	5,737,334	10	SPCG Public Company Limited	100
7	SET ENERGY Company Limited ⁽²⁾	SET	September 9, 2019	100,000,000	1,000,000	100	1. SPCG Public Company Limited 2. Tana Power Company Limited 3. PEA ENCOM International Company Limited	40 40 20
8	Solar Power (Korat 1) Company Limited	KR1	August 19, 2009	320,000,000	32,000,000	10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	85 15
9	Solar Power (Sakon Nakom 1) Company Limited	SN1	December 25, 2009	217,800,000	21,780,000	10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	70 30
10	Solar Power (Nakon Phanom 1) Company Limited	NP1	January 5, 2010	218,100,000	21,810,000	10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	70 30
11	Solar Power (Korat 2) Company Limited	KR2	February 25, 2010	219,900,000	21,990,000	10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	56 44
12	Solar Power (Loei 1) Company Limited	LO1	December 25, 2009	220,500,000	22,050,000	10 10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	56 44
13	Solar Power (Khon Khen 1) Company Limited	KK1	December 29, 2009	226,500,000	22,650,000	10 10	1. Solar Power Company Limited 2. Thaifah Power Company Limited	70 30
14	Solar Power (Korat 3) Company Limited	KR3	March 26, 2010	188,750,000	18,875,000	10	1. Solar Power Company Limited 2. Ratchaburi Energy Company Limited (It subsidiary of Ratch Group Public Company Limited)	60 40
15	Solar Power (Korat 4) Company Limited	KR4	March 26, 2010	199,250,000	19,925,000	10	1. Solar Power Company Limited 2. Ratchaburi Energy Company Limited (It subsidiary of Ratch Group Public Company Limited)	60 40

No.	Company name and its subsidiary	Initial	Registered Date	Registered Capital	Quantity of Share	Value per Share	Shareholder	Total (%)
16	Solar Power (Korat 7) Company Limited	KR7	March 26, 2010	188,750,000	18,875,000	10	1. Solar Power Company Limited 2. Ratchaburi Energy Company Limited (It subsidiary of Ratch Group Public Company Limited)	100
17	Solar Power (Korat 5) Company Limited	KR5	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
18	Solar Power (Korat 8) Company Limited	KR8	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
19	Solar Power (Korat 9) Company Limited	KR9	March 26, 2010	160,000,000	16,000,000	10	Solar Power Company Limited	100
20	Solar Power (Khon Khen 3) Company Limited	KK3	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
21	Solar Power (Khon Khen 4) Company Limited	KK4	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
22	Solar Power (Khon Khen 5) Company Limited	KK5	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
23	Solar Power (Khon Khen 8) Company Limited	KK8	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
24	Solar Power (Korat 6) Company Limited	KR6	March 26, 2010	160,000,000	16,000,000	10	Solar Power Company Limited	100
25	Solar Power (Buriram 1) Company Limited	BR1	March 29, 2009	160,000,000	16,000,000	10	Solar Power Company Limited	100
26	Solar Power (Buriram 2) Company Limited	BR2	March 25, 2010	160,000,000	16,000,000	10	Solar Power Company Limited	100
27	Solar Power (Khon Khen 2) Company Limited	KK2	March 26, 2010	165,000,000	16,500,000	10	Solar Power Company Limited	100
28	Solar Power (Khon Khen 7) Company Limited	KK7	March 26, 2010	162,500,000	16,250,000	10	Solar Power Company Limited	100
29	Solar Power (Nakon Phanom 2) Company Limited	NP2	March 25, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
30	Solar Power (NongKai 1) Company Limited	NK1	January 5, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
31	Solar Power (Buriram 3) Company Limited	BR3	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
32	Solar Power (Nakon Phanom 3) Company Limited	NP3	March 25, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
33	Solar Power (Udon Thani 1) Company Limited	UD1	January 6, 2010	162,500,000	16,250,000	10	Solar Power Company Limited	100
34	Solar Power (Loei 2) Company Limited	LO2	March 25, 2010	165,000,000	16,500,000	10	1. Solar Company Limited 2. PEA Encom International Company Limited	75 25
35	Solar Power (Sakon Nakorn2) Company Limited	SN2	March 25, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
36	Solar Power (Surin 3) Company Limited	SR3	March 25, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
37	Solar Power (Khon Khen 9) Company Limited	KK9	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
38	Solar Power (Khon Khen 10) Company Limited	KK10	March 26, 2010	165,000,000	16,500,000	10	1. Solar Power Company Limited 2. PEA Encom International Company Limited	75 25

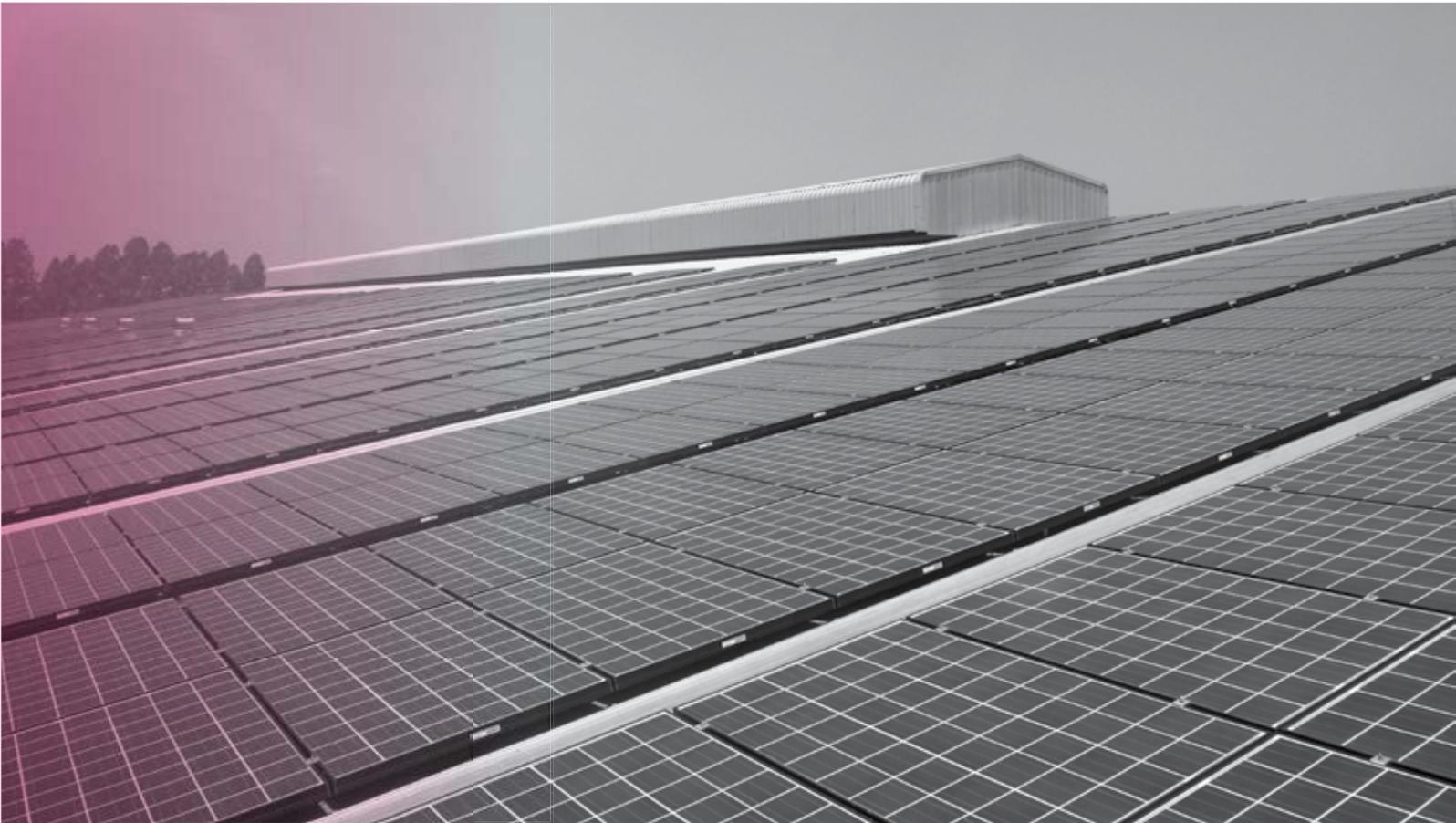
No.	Company name and its subsidiary	Initial	Registered Date	Registered Capital	Quantity of Share	Value per Share	Shareholder	Total (%)
39	Solar Power (Khon Khen 6) Company Limited	KK6	March 26, 2010	157,500,000	15,750,000	10	Solar Power Company Limited	100
40	Solar Power (Surin 1) Company Limited	SR1	December 24, 2009	165,000,000	16,500,000	10	1. Solar Power Company Limited 2. PEA Encom International Company Limited	75 25
41	Solar Power (Surin 2) Company Limited	SR2	March 25, 2010	165,000,000	16,500,000	10	1. Solar Power Company Limited 2. PEA Encom International Company Limited	75 25
42	AJ Technology Company Limited	AJ	February 18, 1987	75,000,000	750,000	100	1. Solar Power Asset Company Limited 2. Dr. Art-ong Jumsai Na Ayudhya	75 25
43	Thippayanarai Company Limited	TP	March 18, 2005	80,000,000	800,000	100	Solar Power Asset Company Limited	100

Remark:

⁽¹⁾ Information on the date of the list of shareholder's right to receive the interim dividend shall be determined in accordance with the record date on August 28, 2019

⁽²⁾ SET ENERGY Co., Ltd. has registered a juristic person, under the Civil and Commercial Code on September 19, 2019.

2 Nature of Business



2.1 Nature of Business

2.1.1 Business of Investment and Development of Solar Farm, Business of Engineering, Procurement and Construction: EPC, and Business of Operation, Maintenance and Monitoring: OM&M.

1. Business of Investment and Development of Solar Farm

It is the main business of the company group which operates under Solar Power Company Limited (“SPC”), total 34 projects and Solar Power Asset Company Limited (“SPA”), total 2 projects have Power Purchase Agreement (PPA) to the Provincial Electricity Authority (“PEA”). Total power output is approximately 260 MW, which has been sold commercially (commercial Operation Date: COD) to the PEA since mid 2014. All projects received an Adder rate of 8 baht per kw/hour for a period of 10 years.

The solar farm is a whole 36 projects of SPC and SPA as follows:

No.	Name of Solar Farm	Capacity under the PPA. (MW)	The Province	registered Capital	The proportion of investment SPC	Agreement dated	COD
1	Solar Power (Korat 1) Company Limited	5.88	Nakhon Ratchasima	320,000,000	85%	May 15, 2009	April 21, 2010
2	Solar Power (Sakon Nakorn 1) Company Limited	5.88	Sakon Nakhon	217,800,000	70%	June 19, 2009	February 9, 2011
3	Solar Power (Nakhon Phanom 1) Company Limited	5.88	Nakhon Phanom	218,100,000	70%	June 18, 2009	April 22, 2011
4	Solar Power (Korat 2) Company Limited	5.88	Nakhon Ratchasima	219,900,000	56%	July 27, 2009	August 13, 2011
5	Solar Power (Loei 1) Company Limited	5.88	Loei	220,500,000	56%	July 29, 2009	August 15, 2011
6	Solar Power (Khon Kean 1) Company Limited	5.88	Khon Kaen	226,500,000	70%	July 28, 2009	February 15, 2012
7	Solar Power (Korat 3) Company Limited	5.88	Nakhon Ratchasima	188,750,000	60%	January 8, 2010	March 9, 2012
8	Solar Power (Korat 4) Company Limited	5.88	Nakhon Ratchasima	199,250,000	60%	January 8, 2010	May 14, 2012
9	Solar Power (Korat 7) Company Limited.	5.88	Nakhon Ratchasima	188,750,000	60%	January 8, 2010	30 May 2012
10	Solar Power (Korat 5) Company Limited	5.88	Nakhon Ratchasima	157,500,000	100%	January 8, 2010	January 15, 2013
11	Solar Power (Korat 8) Company Limited	5.88	Nakhon Ratchasima	157,500,000	100%	January 8, 2010	January 15, 2013
12	Solar Power (Korat 9) Company Limited	5.88	Nakhon Ratchasima	160,000,000	100%	January 8, 2010	January 16, 2013
13	Solar Power (Khon Kean 3) Company Limited	5.88	Khon Kaen	157,500,000	100%	January 8, 2010	January 17, 2013
14	Solar Power (Khon Kean 4) Company Limited	5.88	Khon Kaen	157,500,000	100%	January 8, 2010	January 17, 2013
15	Solar Power (Khon Kean 5) Company Limited	5.88	Khon Kaen	157,500,000	100%	January 8, 2010	January 18, 2013
16	Solar Power (Khon Kean 8) Company Limited	5.88	Khon Kaen	157,500,000	100%	January 8, 2010	January 18, 2013
17	Solar Power (Korat 6) Company Limited	5.88	Nakhon Ratchasima	160,000,000	100%	January 8, 2010	June 26, 2013
18	Solar Power (Bureerum 1) Company Limited	5.88	Buriram	160,000,000	100%	January 8, 2010	June 26, 2013
19	Solar Power (Bureerum 2) Company Limited	5.88	Buriram	160,000,000	100%	January 8, 2010	June 26, 2013
20	Solar Power (Khon Kean 2) Company Limited	5.88	Khon Kaen	165,000,000	100%	January 8, 2010	July 29, 2013
21	Solar Power (Khon Kean 7) Company Limited	5.88	Khon Kaen	162,500,000	100%	January 8, 2010	October 1, 2013
22	Solar Power (Nakhon Phanom 2) Company Limited	5.88	Nakhon Phanom	157,500,000	100%	January 8, 2010	February 27, 2014

No.	Name of Solar Farm	Capacity under the PPA. (MW)	The Province	registered Capital	The proportion of investment SPC	Agreement dated	COD
23	Solar Power (Nong Khai 1) Company Limited	5.88	Nong Khai	157,500,000	100%	January 8, 2011	February 28, 2014
24	Solar Power (Bureerum 3) Company Limited	5.88	Buriram	157,500,000	100%	January 8, 2011	March 6, 2014
25	Solar Power (Nakorn Phanom 3) Company Limited	5.88	Nakhon Phanom	157,500,000	100%	January 8, 2011	March 10, 2014
26	Solar Power (Udon Thani 1) Company Limited	5.88	Udon Thani	162,500,000	100%	January 8, 2011	April 1, 2014
27	Solar Power (Loei 2) Company Limited	5.88	Loei	165,000,000	75%	January 8, 2011	April 24, 2014
28	Solar Power (Sakon Nakorn 2) Company Limited	5.88	Sakon Nakhon	157,500,000	100%	January 8, 2011	April 25, 2014
29	Solar Power (Surin 3) Company Limited	5.88	Surin	157,500,000	100%	March 11, 2011	April 29, 2014
30	Solar Power (Khon Kean 9) Company Limited	5.88	Khon Kaen	157,500,000	100%	March 11, 2011	May 20, 2014
31	Solar Power (Khon Kean 10) Company Limited	5.88	Khon Kaen	165,000,000	75%	January 8, 2011	May 20, 2014
32	Solar Power (Khon Kean 6) Company Limited	5.88	Khon Kaen	157,500,000	100%	January 8, 2011	May 30, 2014
33	Solar Power (Surin 1) Company Limited	5.88	Surin	165,000,000	75%	January 8, 2011	June 27, 2014
34	Solar Power (Surin 2) Company Limited	5.88	Surin	165,000,000	75%	January 8, 2011	June 27, 2014
35	AJ Technology Company Limited	3.00	Lopburi	75,000,000	75%	August 18, 2011	June 25, 2013
36	Tipayanarai Company Limited	3.00	Lopburi	80,000,000	100%	August 18, 2012	June 25, 2013

Competitive Strategy

(1) Since senior executives are specialists in solar power management for more than 30 years, they are able to effectively define business development models in the field of management, engineering and to control the efficiency of solar power production at the highest possible rate.

(2) Due to the solar farm project requires key components crucial for operations which are solar module, and inverter. In particular, the company has selected the highly efficient solar panels of Kyocera from Kyocera Corporation, Japan. The company is listed in the New York and Tokyo Stock Exchanges. It has been conducting the business for more than 60 years, with 1

in 3 production capacity of Japan, with strong financial stability. The production capacity of Kyocera solar panels is 25 years, and guarantee that within 12 years from the first day of electricity generation, the solar panel will be able to produce electricity not less than 90 percent of the efficiency of solar panels. And within 25 years, it must have a power capacity of not less than 80 percent. Purchasing of key components for solar farm must be considered when investing in long-term projects such as solar farms, the sustainability of the solar panel manufacturer is crucial to ensure solar power generation and to be responsible for the 25 years warranty period (<http://global.kyocera.com>)

Another important part that is the main equipment is the inverter. The company chooses the most powerful inverter in solar business which is SMA Solar Technology AG (“SMA”), Germany, a listed company in the Stock Exchange of Frankfurt. SMA gives product warranty for 5 years and the company extends the warranty period up to 20 years. Additionally, Solar Power Engineering Company Limited (“SPE”), its subsidiary of SPCG, were appointed as the authorized sales and service partner of SMA Solar Technology AG (“SMA”), Germany since August 30, 2018 onwards. Therefore, SPCG has a firm belief that SMA products are the best quality with comprehensive service due to SMA’s over 30 years of experience in the solar business. (<http://www.sma.de>)

(3) The company has an advanced engineering design specialist for the solar farm project, with the emphasis on design to maximize the efficiency of solar energy production. The entire structure design focuses on durability upwards of 30 years to ensure a one-time initial investment. This will reduce costs in the long-term. With a professional and highly experienced team, having developed 36 projects with a total capacity of 260 MW. The customer can trust the projects will be completed on time.

(4) To focus on educating the general public about solar energy and its positive environmental impact, SPCG has established a 1,000 sqm learning center to promote understanding of environmentally-friendly energy at solar farm area (Korat 1), Nakhon Ratchasima. The learning center consists of an exhibition room about solar energy, a training and presentation room for students and visitors. Top floor of the learning center is a viewing area for the solar farm.

(5) Seek the opportunity to expand both domestic and international solar energy business. To increase the chances of growth, the company has expanded its investment in Japan as follows:

Tottori Yonago Mega Solar Farm Project

It is a project that SPCG invested with Kyocera Corporation (“Kyocera”), Japan and Tokyo Century Leasing Corporation (“TCL”), a capacity of 30 MW. It is located in Tottori, Japan which had an opening ceremony and sold commercially (Commercial Operation Date: COD) to the electricity grid with electricity purchase agreements at a price of 36 yen per unit for 20 years.



Tottori Yonago Mega Solar Farm in Tottori, Japan

Ukujima Mega Solar Project

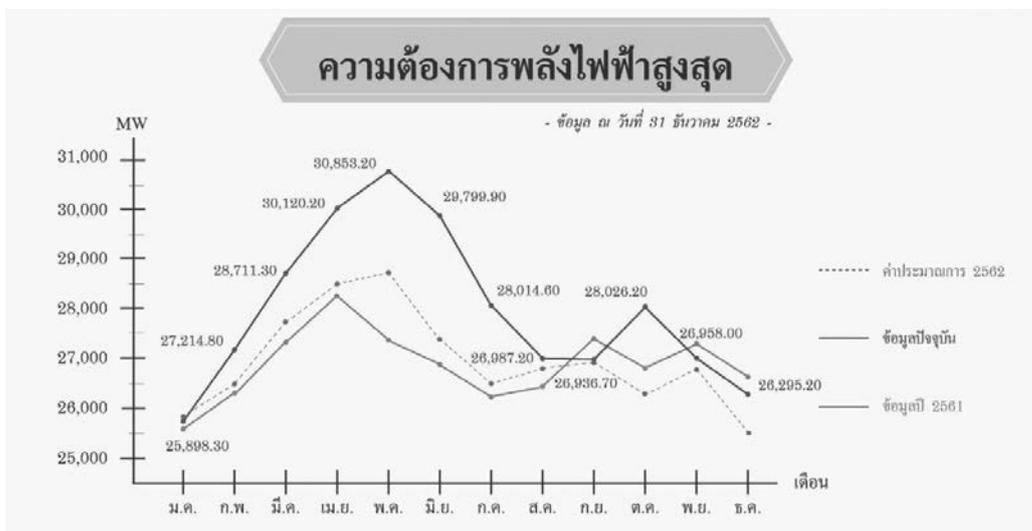
It is a project that SPCG invested with other companies: Kyocera Corporation, Kyudenko Corporation, Tokyo Century Corporation, Furukawa Electric Company Limited, Tsuboi Corporation, and other minor investors. The production capacity is approximately 469 Megawatt, under the project name “Ukujima Mega Solar Project” located on Ukujima island, Nagasaki, Japan. The Company’s investment budget for this investment project is approximately JPY 9,000 million (approx. THB 2,520

million (Rate Exchange at JPY 1 to THB 0.28 as of January 16, 2020). The project is scheduled to start the construction in March 2020.

Competition in the Industry Sector

(1) Electricity Demand in Thailand

In the year 2019, Thailand has the highest electricity demand in May, total 30,853.20 MW. And electricity consumption of Thailand is 178,602 GW, increase of 3.4%. The electricity consumption in Thailand by sector consists of 45% industry, 25% business, and 26% households.



Source: Electricity Generating Authority of Thailand

https://www.egat.co.th/index.php?option=com_content&view=article&id=348&Itemid=116

Industrial sector

Industrial sector had the highest proportion of electricity consumption at 45% when compared to other sectors. But the amount of electricity consumption decreased of 1.7%, mainly from the reduction of electricity consumption from steel and basic metal industry, and electronic industry, decreased of 10.2% and 6.0% respectively which in accordance with the reduction of Manufacturing Production Index (MPI) in November 2019, decreased of 8.27%. The main reasons were the economic downturn of major trading partner countries, and domestic purchasing power slowed down.

Business sector

Business sector had the proportion of electricity consumption at 25%, increased of 6% which mainly from apartment and guesthouse at 14.9%, Hotel at 3.3%, and department store at 3.2%. Because number of foreign tourists visiting Thailand increased.

Household sector

Household sector had the proportion of electricity consumption at 26%, increased of 10.1% which in accordance with the increasing of Economic and living Index of Thai Households (KR-ECI).

สาขา	ปริมาณการใช้ไฟฟ้า					
	GWh				2562 (ม.ค. - พ.ย.)	
	2559	2560	2561	2562 (ม.ค. - พ.ย.)	growth (%) YoY	share (%)
ครัวเรือน	43,932	44,374	45,205	45,763	10.1	26
ธุรกิจ	44,639	45,100	46,764	45,472	6.0	25
▪ ห้างสรรพสินค้า	5,086	5,154	5,235	4,942	3.2	
▪ อพาร์ทเมนต์และเกสต์เฮาส์	4,458	4,600	4,831	5,084	14.9	
▪ โรงแรม	4,210	4,228	4,363	4,127	3.3	
อุตสาหกรรม	86,878	87,772	87,829	79,532	-1.7	45
▪ อาหาร	10,873	11,362	11,228	10,237	-0.5	
▪ เหล็กและโลหะพื้นฐาน	7,176	7,861	7,913	6,555	-10.2	
▪ อิเล็กทรอนิกส์	7,034	7,248	7,294	6,350	-6.0	
อื่นๆ**	7,398	7,878	8,034	7,835	6.6	4
รวม	208,481	215,496	221,781	178,602	3.4	100

Source: Energy Policy and Planning Office, Ministry of Energy
<http://www.eppo.go.th/index.php/th/information/services/situation-energy>

From the above information, it shows that electricity demand in Thailand increased every year. According to the government policy about the strategic plan under “Thailand 4.0” model in order to create energy security and upgrade the industry and other economic development activities of Thailand. SPCG as a pioneer and leading developer of the first solar farm project in Thailand and ASEAN community. We realize the opportunity to invest and expand the business. Therefore, we’ve studied and developed various projects continuously in accordance with government policy, electricity demand, and to create sustainable energy security.

(2) Industry Trends in Power Generation and Electrical System in Thailand

Due to the electricity consumption changed from electricity demand forecast for power generation development plan in Thailand 2015-2036 (PDP2015). Therefore, Ministry of Energy, Electricity Generating Authority of Thailand, and other related institutions

developed the Power Development Plan of Thailand 2018 - 2037 (PDP2018) in accordance with the change of electricity demand because of the economic growth, electricity production technology in future, and the government policy and Thailand’s 20-Year National Strategy. There are 3 important issues as follows:

(2.1) Energy Security. It must cover the entire power generation system, power transmission system, and electricity distribution system. Moreover, it must respond the electricity demand. Including to the consideration of power plant for stability at appropriate level. To support the event of an energy crisis.

(2.2) Economy. It must consider and realize about maintaining appropriate costs of power generation and implementing energy efficiency. Moreover, it must not be obstacle to the long-term economic and social development of country. And it will be the preparation of the electricity system in order to create competition in electricity generation.

(2.3) Ecology. Focus on reduce the environmental and social impacts by supporting power generation from renewable energy, increasing efficiency in electrical systems, and developing smart grid.

According to PDP2018, the target of electricity generation from solar power is 10,000 MW. SPCG as a leader in solar power, we realize to this opportunity to develop and expand business of solar power generation in accordance with government policy, and to create sustainable energy security.

2. Engineering, Procurement and Construction (“EPC”) Business, and Operating, Maintenance and Monitoring (“OM&M”) Business

The service is a construction engineering consultant. Provide the installation and control of solar power systems, which focuses on services for solar farm projects connected to the distribution system (grid connected system), the company is committed to providing a full range of services and of the highest quality. The professional management and operation by a team of more than 30 years of experience in the solar industry.

Competitive Strategy

Engineering, Procurement and Construction (EPC) Business

(1) Focus on management by people who have expert knowledge in the industry. The management team has knowledge and experience in solar energy for more than 30 years, and highly qualified team with EPC experience in solar farm development, with the work of the Solar Farm project of the affiliates who have carried out commercial electricity totalling 36 projects.

(2) Focus on the quality of equipment used to build the solar farm project. Select only good quality equipment, high performance and durable, especially critical equipment

of the solar farm project such as the solar panel from Kyocera, which has the experience of producing and selling solar panels, business operations over 60 years. Another important equipment is the inverter from SMA, which is the manufacturer and distributor of solar inverters from Germany with products sold worldwide.

(3) Focus on the utmost benefits to the customers of our EPC services, with the appropriate procurement and procedures, ensuring that SPC can provide a complete EPC service with good value and reasonable price.

Operating, Maintenance and Monitoring (OM&M) Business

(1) To emphasize the leaders in the field of service and OM&M. As the first OM&M service provider in the industry, our team has excellent knowledge and experience in the industry and can provide efficient and comprehensive service to our customers.

(2) Emphasize the accuracy of data using technology to help store information and provide customers with continuous monitoring, anytime and anywhere.

Competition within the Industry

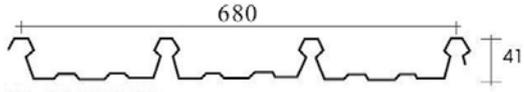
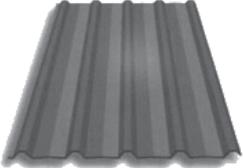
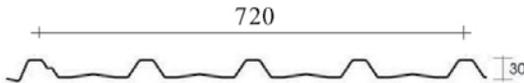
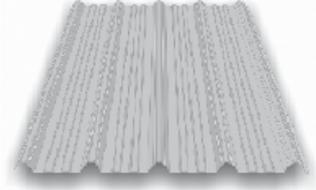
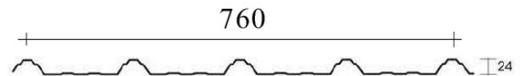
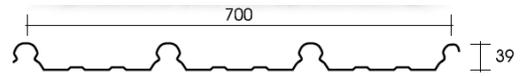
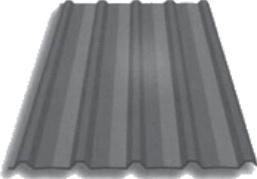
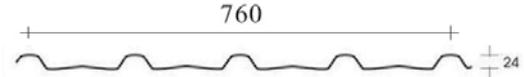
There is strong evidence that the growth of solar business and solar farm development will continue, which represents the opportunity for the growth of EPC and OM&M, since the EPC business is specialized, project design and construction should be done by specialized EPC with experience to produce electricity efficiently. In addition, OM&M service providers are often the same as EPC, because they share the same knowledge base and expertise. The OM&M service can face challenges later on due to inadequate design in the beginning. Therefore, the growth of solar farm business is an opportunity to grow the EPC and OM&M business.

2.1.2 Business of Steel Roof and Roof Structure with One-Stop Service.

Steel roofing business and construction with full service, also commonly referred to as the post metal sheet, is under the trademark “Rollform” and has been certified industrial product standard “1128-1992 Roofing Sheet “, which operates under Steel Roof Co., Ltd. (“SRC”).

Details of products manufactured and sold are as follows:

1. Roll Forming Metal Sheet

Model	Pattern	Size (mm)
<p>LOCK RIB V-680 BLH</p>		
<p>SAFE RIB S-720 B, S-720 BH</p>		
<p>ECON RIB E-760 B</p>		
<p>LOCK RIB V-700 BLH</p>		
<p>ECON RIB S-760 B</p>		

In addition to the five-coated steel plates, the company has been able to supply steel plates of other forms using either the method of employing other manufacturers or sending steel sheet coating to be formed by other companies under business alliance. However, the company does not have to produce other forms of coated steel sheet regularly, but is considered to be manufactured when the customer's order quantity and sales price is worth the cost of supplying the machinery and the company's processing costs of steel plates. In addition to the use as roofing material, it can also be used as a wall or other component of the building, such as an awning, a fence, air vent, ventilation, etc., the company can produce a wide range of sizes and patterns to meet customer needs.

The steel sheet is a product of the company. Waterproofing and Heat resistance for weather conditions in Thailand, good for maintaining optimal temperature within the building, with a lower temperature inside the building using a tile or other roofing material. It can also be used in harsh corrosive environments due to corrosion resistant properties, good against rust and also light weight.

The products require less support structures which makes it cost-effective and saves installation time. The shape of this coated steel sheet can be bent or turn over freely. The design has a wide variety of designs. Enhance the beauty of buildings with a long service life of up to 30 years which is four times longer than conventional galvanized steel sheet.

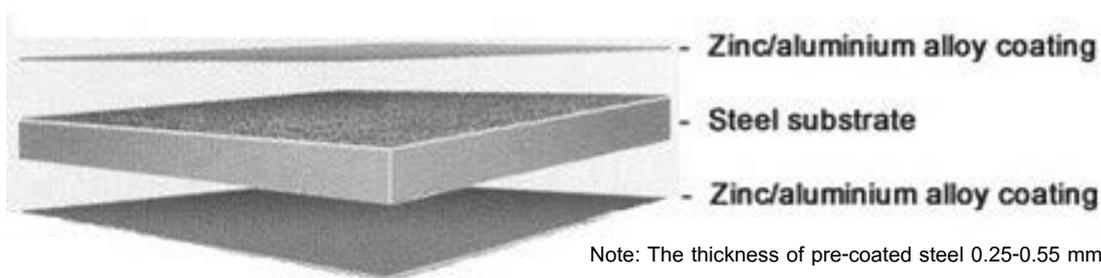
Types and features of coated steel sheet, other products and installation services

Customers of the company can choose from a variety of coated steel sheets made of different materials, each with different materials, durability and warranty. These materials are divided into two types:

(1) Non-Coated Steel Sheet

Made from coated steel sheets with a mixture between aluminum, 55 percent galvanized 43.5 and silicon percent 1.5 (zincalume), the aluminum alloy helps to prevent corrosion caused by the reaction between the air and the steel body. The zinc section prevents corrosion on the edges, cuts and scratches, making such a steel sheet. More durable than zinc coated steel in general.

The image shows the coating layer of non-coated steel sheet.



Note: The thickness of pre-coated steel 0.25-0.55 mm

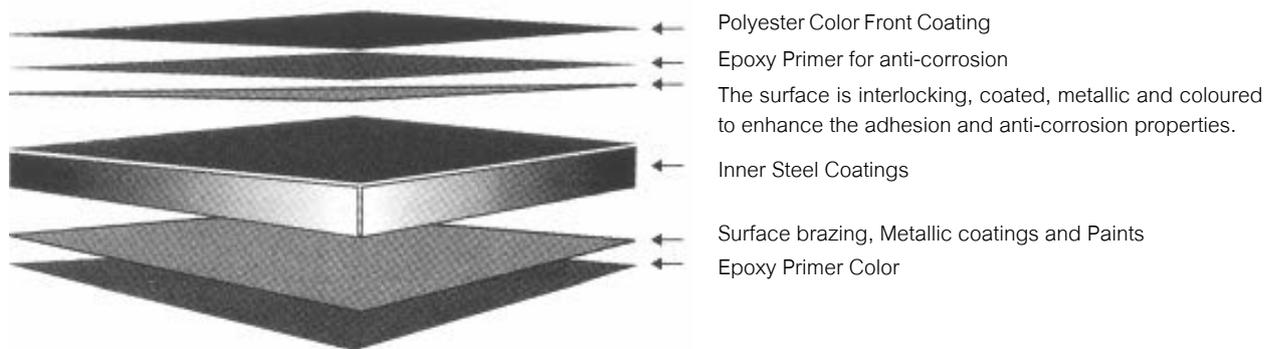
Table: Non-coated type steel sheet

Material Group	Minimum coating volume (g/sq. m.)	Warranty
Zacs RW 90	90	Corrosion Warranty 7 years
Zacs RW 100	100	Corrosion Warranty 10 years
ZINCALUME®	150	Corrosion Warranty 20 years

(2) Coating Type Steel Sheet

Made of non-coated steel sheet. It is coated with a surface pre-treatment, which serves to increase the adhesion between the steel and the paint, then the primer with a mixture of corrosion inhibitors, then coated with high-quality paints, thus making this coating type steel more resistant to corrosion than non-coated steel plates. Customers can choose the color according to their preference of 12 colors.

The image show the coating layer of color-coated steel sheet.



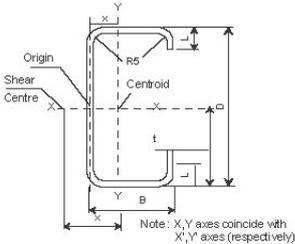
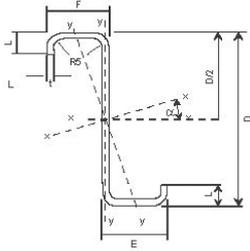
Note: For Clean Colorbond, there will be an additional layer of matte polyester coating to enhance the durability and aesthetics.

Different types of coating steel plates

Material Group	Inner Steel Coatings	Warranty
P-Zacs SC 90	Zacs RW 90	Warranty 12 years
P-Zacs RW 100	Zacs RW 100	Warranty 20 years
Clean COLORBOND®	AZ150	Warranty 30 years Warranty for fading or cracking 10 years Dust resistant Warranty 5 years

2. High Strength Purlins

In addition to the Roll forming metal sheet, the company has been manufacturing and distributing since the year 2006, the company has developed a high-power “C” and “Z” steel production line. The high-power steel sheet (G450), with two types of zinc coating, is suitable for use in structural steel roofing or beam frame, wall building, emphasis on the material of light weight quality. Reduce welding work and no need for extra paint, easy installation with screws.

C		
Z		

3. Other Products

The company distributes other roof and wall products. The main purpose is to complement the product with the main products that the company manufactures to provide a more comprehensive customer satisfaction.

(1) The Translucent Roof Company

The SKYLIGHT translucent canopy, for customers requiring natural light to enter the building, where the company distributes the translucent roof for both general and air-conditioned buildings.

(2) Assembly Equipment

The company is a supplier of various roof and wall mounting components such as screw insulation, etc. to provide a comprehensive product range, which is suitable as assembly equipment to company's existing products.

(3) Pre-Engineered Buildings (PEB)

The company is a distributor of pre-engineered buildings (PEB), the latest innovation designed by professional engineers with high experience according to the model that customers want under international design standards. A set delivery to the construction site, each of which parts of the structure is designed to adhere to the bolt and nut systems.

(4) Installation Service

The company provides installation services for all types of products that the company produces and distributes throughout the country, by hiring a contractor or using the company's installation team, with the engineering staff of the company to oversee installation quality control. Currently, the company has more than 20 assessed and selected subcontractors. If a delay or damage is made to the installation, the outsourcing company is responsible for all costs incurred and the company has guaranteed the work that has been installed for one year.

Competitive Strategy:

(1) The company, which manufactures and provides installation of roofing material and wall type, zinc coated steel sheet, aluminum alloy, corrugated type, and non-coated paint, which is located in a competitive industry market in various competitions. The operator, which is both the manufacturer and distributor of products under the company's "Rollform" brand, has used a differentiation strategy and creates the image of products and organizations by Brand "Rollform" to deliver products and services that are essential to create value-added and reliability in the market with the approval of NS BlueScope (Thailand) Co., Ltd. to use the brand of the company's raw material supplier "Steel supplied by BlueScope Steel" to increase customer confidence that the company's "Rollform" products are made of international standard materials, one of the company's marketing strategies.

(2) The company focuses on marketing by distributing goods through the reseller network. Currently, the company has more than 60 distributors covering the markets in Bangkok, the metropolitan area, and other regional markets, making the products of the company fully accessible to consumers in the region. It is another marketing strategy that the company maintains.

(3) The company focuses on marketing in a wider market, with the presentation of new products related to each other. The company has developed and introduced new product to the market which is a steel conversion high power "C" and "Z". Made of high-power steel, G450 coated with zinc. The highlight is that it is a light-weight steel, no welding required. No Paint required, fast installation using screw nut system which increase capability and comply with company policy. The company's products and services are presented in the format of Solution Provider.

(4) The company focuses on the speed of installation and delivery of non-coated steel roofing products. The company is a manufacturer and installation can be delivered within 7 days after receiving the order. If necessary, the company can manage the production time to meet the urgent needs of our customers. The company focuses on services that establish a long-term relationship, after the sale of goods, the company has assessed the customer satisfaction in various aspects, such as the service of sales representatives, after-sales service and quality of goods, so as to improve customer experience.

(5) The company focuses on making multi-dimensional campaign activities. Advertising, PR, the company's products and services are considered to be one dimension. Marketing communications and activities posted through various channels, including the Internet and social networks, to reach a broad target audience. The company also participates in expos and product fairs to better reach target customers.

Competition in the Industry

Market conditions in the steel roofing sheet industry nowadays are more competitive. In general, the competitive emphasis is on price, after-sales service, and design. There are businesses who are vendor only company and companies that is both a manufacturer and a distributor. It is easy for vendor only companies to enter the market but they face the challenge of price competitiveness. It is a disadvantage in regard to the cost of goods and service proficiency before and after sales. As a result, vendor only businesses are difficult to compete in a price sensitive market, therefore our company is both the manufacturer and the supplier. Currently, the industrial steel sheet roofing sheets in Thailand have large manufacturers. The total number of the market share is approximately 52 percent.

NS BlueScope Lysaght (Thailand) Co., Ltd., a company associated with the company NS BlueScope (Thailand) Co., Ltd., Siam Steel Service Center public Company Limited, and the Bangkok Steel Industry Public Company Limited. And there are small and medium producers.

The competitive advantage in this industry is the quality of raw materials and installation, competitive pricing, the style of the curls that meet the customer's needs, the adequacy of the working capital and after-sales service. Large-scale manufacturers have the advantage of a variety of products and working capital, which can support large project installation needs. Therefore, these company's target customers will emphasize on large project customer base. The company has a total market proportion of about 18 percent, which is provided by highlighting small and medium-sized sub-customers, especially industrial factories. Small producer account for approximately 30 percent of total market share, experience the disadvantage of smaller working capital. As our company provides a variety of goods for sales and service capacity of large projects, the company is classified as a medium-sized producer. The company has a competitive advantage over other medium-sized producers as follows:

1. Our business experience for up to 22 years has been the company's expertise in business with widespread customer base distribution and continuous growth. Overall, the company has more than 500 industrial customer base.

2. It has its own "rollform" branding to establish brand recognition in customers and target groups. Product quality and service quality is very high, already recognized under branding strategies.

3. Steel Sheet Roofing Products Company is licensed to display the standard marking with industrial products "Roofing Sheet"

4. It is one of the many companies recognized to use the brand "Steel supplied by BlueScope Steel" from the NS BlueScope (Thailand) Co., Ltd. Thailand's largest producer of raw materials, since it is used by almost all major raw materials BlueScope (Thailand) Co., Ltd., which is famous in the market to the quality of the raw materials that are consistent and standardized internationally, by customers who purchase the goods with this branded company will receive a warranty card directly from the NS BlueScope (Thailand) Co., Ltd.

5. Focus on meeting the needs of customers by offering new products together with the sale of current products to create a variety. In addition, the service is quick and easy. Production plans can be adjusted to meet customer's urgent needs. Maintain the opportunity to monetize the company.

6. There are more than 60 network dealers in different regions, especially small industrial factories in the provinces where the company is currently expanding distribution network to cover the region in the north and south.

Although the steel roofing sheet industry has fierce competition with many competitors. However, considering the expansion rate of the new industrial plants, along with existing industrial plants needing new steel roofing, the company is confident that the steel roof business will continue to grow in the future. The company has the opportunity to use competitive advantage to increase the sales of the company.

2.1.3 Business of Distribute and Installation of Solar Roof

Operating under Solar Power Roof Company Limited (SPR) registered on May 1, 2013, a leader in the business development of sales and installation of solar roof systems. SPR is the first solar roof company in Thailand and the ASEAN community. SPR has three main customer groups:

1. Residential Customer

On September 18, 2014, SPR appointed Home Product Center Public Company Limited (HomePro) as a distributor of solar power systems on the roof (SPR solar Roof) for residential customers. For more information, please visit our website at www.sprsolarroof.co.th or HomePro Call Center: 02-831-6000.

2. Commercial Customer for Office Building, and Government Building

SPR has been installing solar roof systems to commercial building clients both in Bangkok and upcountry as well as government agencies, such as the Bank of Thailand and the Stock Exchange of Thailand, etc. The direct benefit to saving electricity costs to customers and indirect benefits such as CO₂ emissions which is a big factor of global warming.



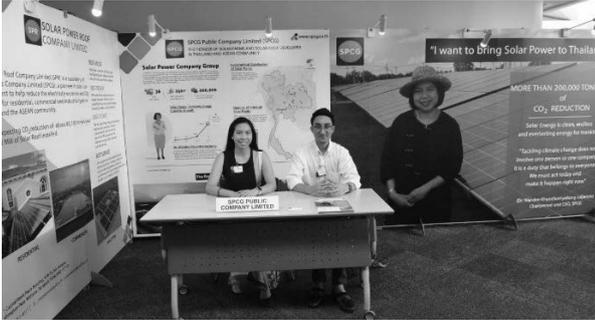
3. Industrial Customer

SPR has been focusing on a group of industrial plants because the government policy to promote and support solar power generation. The Board of Investment of Thailand (“BOI”) has established a policy for entrepreneurs who installed solar power generation systems on the roof, 50 percent of the total installation costs can be deduction from the the corporate income tax. This policy is until the end of 2020. Resulting in the increase in industrial customer group in 2019.

In the year 2019, SPR has continued publicity and promotion activities, under the brand “SPR Solar Roof” as follows:



On July 19 - 29, 2019, SPR attended the exhibition “4th HomePro Fair” (HomePro Fair 2019) to introduce SPR Solar Roof products at Muang Thong Thani, Nonthaburi Province. From this event, SPR has received a lot of customer interest to conduct survey and install solar power systems on the roof of customers.



On September 6, 2019, SPCG and SPR attended the exhibition “Asia Pacific Climate Week 2019” at United Nations ESCAP in order to help reduce global warming.

Competitive Strategy

SPR has a clear operational plan. With strong business partner such as Kyocera Corporation (Kyocera), the leader in the innovation of the highest quality solar panels in the world, SPR is attentive to the installation of solar roof systems to ensure that customers receive the utmost benefits and ensure the quality of company's products are able to meet customer's full requirements. Under the following strategies:

Best value of the solar power system on the roof can help to reduce electrical costs and reduce global warming immediately after installation. SPR has realized the importance of electrical costs of customers that can be controlled.

Best Design SPR professional team offers a full range of customer service. From the survey, design, and installation, test the entire system work, submission of government documents, and after-sales service by engineering team with knowledge and expertise in customer service to ensure the customer the best design.

Best Output solar power system on roof will be installed with the highest quality solar panels manufactured by Kyocera Corporation (“Kyocera”), Japan and the highest quality equipment with a life span of the system over 25 years.

Best Service SPR provides the monitoring and reporting services of solar power on the roof for a period of 2 years as part of the excellent service provided. After the system is successfully connected, SPR will monitor energy production in real time. The results will be reported in monthly and yearly reports to customers, which will display energy costs saved, analysis of the solar roof system, climate data, as well as the estimated reduction of CO2 emissions into the atmosphere. This report allows customers to be aware of any issues of their installed solar roof system, and SPR provides comprehensive service. SPR can also provide advice to customers to help with energy planning.

Competition in the Industry

The competition in business of selling and installing solar power roof system (“Solar Roof”) is likely the competition will increase. Because government policy and the Board of Investment of Thailand (BOI) policy promote and support solar roof installation. Resulting in an increase of solar roof installation. Moreover, it's because of equipment imported from abroad with a wide range of quality and price levels. Therefore, the solar power roof business is very competitive and price sensitive.

However, SPR has a knowledgeable and experienced team in the operation of the solar power business (Solar Farm) for a long time and the use of the highest quality equipment. Using the solar module from Kyocera, which has been producing and selling solar module for over 60 years. The inverter is from SMA, which is manufacturer and distributor the inverter from Germany with products sold all over the world, as well as the same equipments and tools used in solar farms to ensure that the quality of the equipment used is the best quality. Therefore, we ensure that we can compete with other competitors.

In the year 2019, SPR adjusted marketing plans and increase sales strategies to increase potentiality and investment opportunity by signing of Memorandum of Understanding (“MOU”) “Cooperation in the Development of Solar Roof project” on July 22, 2019. It's the cooperation between SPCG Public Company Limited, Mitsubishi UFJ Lease & Finance Company Limited, PEA ENCOM International Company Limited, and Kyocera Corporation, Japan. It is model of electrical selling to industrial plants under the power purchase agreement with the private sector (Private PPA). The Company will be the entirely investor and sell the electricity. Customer does not have to pay upfront Capital.

2.1.4 Authorized Sales and Service Partner of SMA Solar Technology AG (SMA), Germany

Operating under Solar Power Engineering Company Limited (“SPE”) since July 2018, SMA is the leader in the production of inverter, as the device integral to all solar power systems to produce electricity. SMA has sales of 630.8 million euros for the nine-month period of 2019, electricity generating over 7,494 MW (as of September 30, 2019), with its powerful solar power system products and solutions. SMA provides inverters for the residential scale to the commercial buildings and industrial solar power plants, offering products individually as well as whole system solutions and battery storage. SMA is a listed company on the Frankfurt Stock exchange of Germany, Prime Standard Type (code S92). SPCG has exclusively used SMA inverters in all solar farm and solar roof projects, SPCG is confident in the quality and performance of SMA inverters, consisting of modern technology, internationally recognized as a leading company in solar energy technology, as well as providing solutions for the installation. When SMA was searching for a Strategic Partner in the Indochina region, and SPCG was considered the best candidate because of more than 60% of the total number of inverter in Thailand has been installed by SPCG. As SPCG has been in the solar energy business in Thailand and the Indochina region for the longest, SMA chose to partner with SPE, an affiliate company of SPCG, to be a representative authorised Sales & Service Partner in order to service customers in Thailand, Vietnam, Laos, Cambodia, and Myanmar.

Competitive Strategy

(1) Authorized Sales Partner

SPE is committed to operating the business the authorized sales partner of SMA, where the company has established the goal of this business as increasing SMA's market share to 30% in Thailand. From the exploration of the Thailand market, there is high inverter demand in the solar market, especially in string inverter group. SPE will focus on the string inverter business first. However, SPE will start marketing both in the previous inverter customers, to be aware of SPE's operations, as well as reaching new customers through marketing. There are also four market opportunities in the Indochina region, consisting of Vietnam, Laos, Cambodia and Myanmar. Starting from Vietnam, the solar roof market is a new market and is a good opportunity to offer SMA products and increase brand recognition in new markets.

(2) Service Provider

SPE is committed to doing business as a service provider for SMA inverters, with a knowledgeable team and long working experience team with SMA. We are determined to provide the best service to existing SMA customers and new customers. The service will be the highest quality or equivalent to service standard from SMA. This is the key to building trust and reliability in

this business. SPE strives to provide customers with comprehensive solutions to their inverter problems, focusing on providing good communication in Thai and English language, no time delay of service due to different timezones. This allows customers to easily contact SPE for any service issues regarding SMA inverters.

Competition in the Industry

Nowadays, there are many manufacturers and distributors of inverters in Thailand. The increase in competition of inverter distributors in Thailand is largely due to the increased demand for equipment for solar roof projects, especially competition from Asian inverter brands. These brands focus primarily on strategic pricing. However, SPE as a sales and service partner of SMA, is committed to provide the customer with the best solution packages to their needs. SPE service reflects SMA's well-known reputation for high quality of inverters and the highest service standards, so there is a competitive advantage as SMA products are known for their quality products and service.

2.2 Revenue Structure

The company's revenue structure can be divided into four types:

2.2.1 Revenue from Solar Farm Business, which is divided into 3 parts as follows:

1. Revenue from solar power sales of solar farms
2. Revenue from engineering, procurement and construction service (EPC) of solar farms
3. Revenue from operation, maintenance and monitoring (OM&M) of solar farms

2.2.2 Revenue from Steel Roof Business and construction with one-stop service which is divided into 2 parts as follows:

1. Revenue from sales
2. Revenue from sales with installation

2.2.3 Revenue from Solar Roof Business which is divided into 2 parts as follows:

1. Revenue from sales
2. Revenue from sales with installation

2.2.4 Revenue from Authorised Sales and Service Partner Business which is divided into 2 parts as follows:

1. Revenue from sales
2. Revenue from service

The company's revenue structure for the fiscal year ended December 31, 2017, 2018 and 2019, is summarised below:

Revenue structure
<u>(1) Solar Farm business</u>
1. Revenue from sales of electricity
2. Revenue from construction contracts
3. Revenue from services
4. Revenue from sales
Total revenue from Solar Farm business
<u>(2) Steel Roof business</u>
1. Revenue from sales
2. Revenue from sales with installation
Total revenue from Steel Roof business
<u>(3) Solar Roof business</u>
1. Revenue from sales
2. Revenue from sales with installation
Total revenue from Solar Roof business
4) Authorised Sales & Service Partnership business
1. Revenue from sales
2. Revenue from services
Total revenue from Authorised Sales & Service Partner Business
<u>(5) Other revenues</u>
Total revenues

	Company financial statement						Consolidated financial statement					
	For the year ended 31-Dec-17		For the year ended 31-Dec-18		For the year ended 31-Dec-19		For the year ended 31-Dec-17		For the year ended 31-Dec-18		For the year ended 31-Dec-19	
	Amount (฿Million)	%*	Amount (฿Million)	%*	Amount (฿Million)	%*	Amount (฿Million)	%*	Amount (฿Million)	%*	Amount (฿Million)	%*
	-	-	-	-	-	-	4,273.0	69.8	4,297.5	71.1	4,475.7	84.1
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	6.0	0.1	4.6	0.1	6.8	0.1
	-	-	-	-	-	-	4,279.0	69.9	4,302.1	71.2	4,482.5	84.2
	-	-	-	-	-	-	148.2	2.4	99.8	1.6	108.1	2.0
	-	-	-	-	-	-	61.9	1.0	66.0	1.1	113.2	2.1
	-	-	-	-	-	-	210.1	3.4	165.8	2.7	221.3	4.2
	-	-	-	-	-	-	19.7	0.3	34.2	0.6	32.1	0.6
	-	-	-	-	-	-	1,499.6	24.5	1,415.6	23.4	474.3	8.9
	-	-	-	-	-	-	1,519.3	24.8	1,449.8	24.0	506.4	9.5
	-	-	-	-	-	-	-	-	0.2	0.0	3.3	0
	-	-	-	-	-	-	-	-	10.3	0.1	33.1	0.6
	-	-	-	-	-	-	-	-	10.5	0.1	36.4	0.7
	1,615.4	100.0	1,648.3	100.0	1,675.0	100.0	114.8	1.9	118.3	2.0	76	1.4
	1,615.4	100.0	1,648.3	100.0	1,675.0	100.0	6,123.2	100.0	6,046.5	100.0	5,322.6	100.0

Remark: * Percentage of total revenue

The company's revenue structure from solar farm, which the company operates through SPC for the fiscal year ended December 31, 2017, 2018 and 2019, is summarised below.

Revenue structure	Year End Date 31-Dec-17		Year End Date 31-Dec-18		Year End Date 31-Dec-19	
	Amount (\$Million)	%*	Amount (\$Million)	%*	Amount (\$Million)	%*
1.Solar Power (Korat 1) Co., Ltd.	125.4	2.9	126.2	2.9	129.8	2.9
2.Solar Power (Sakon Nakorn 1) Co., Ltd.	119.1	2.8	119.0	2.8	125.7	2.8
3.Solar Power (Nakorn Phanom 1) Co., Ltd.	117.6	2.8	120.3	2.8	123.0	2.7
4.Solar Power (Korat 2) Co., Ltd.	126.5	3.0	127.0	3.0	130.3	2.9
5.Solar Power (Loei 1) Co., Ltd.	113.0	2.6	116.1	2.7	122.6	2.7
6.Solar Power (Khon Kean 1) Co., Ltd.	117.5	2.8	121.1	2.8	125.1	2.8
7.Solar Power (Korat 3) Co., Ltd.	123.8	2.9	123.6	2.9	131.1	2.9
8.Solar Power (Korat 4) Co., Ltd.	119.6	2.8	120.8	2.8	124.5	2.8
9.Solar Power (Korat 7) Co., Ltd.	123.4	2.9	125.0	2.9	128.7	2.9
10.Solar Power (Korat 5) Co., Ltd.	125.7	2.9	125.0	2.9	132.9	3.0
11.Solar Power (Korat 8) Co., Ltd.	126.3	3.0	126.2	2.9	133.6	3.0
12.Solar Power (Korat 9) Co., Ltd.	121.2	2.8	123.0	2.9	126.2	2.8
13.Solar Power (Khon Kean 3) Co., Ltd.	119.6	2.8	121.2	2.8	126.3	2.8
14.Solar Power (Khon Kean 4) Co., Ltd.	118.6	2.8	118.5	2.8	124.5	2.8
15.Solar Power (Khon Kean 5) Co., Ltd.	124.3	2.9	125.4	2.9	131.2	2.9
16.Solar Power (Khon Kean 8) Co., Ltd.	125.2	2.9	127.3	3.0	132.3	3.0
17.Solar Power (Korat 6) Co., Ltd.	126.2	3.0	126.4	2.9	131.3	2.9
18.Solar Power (Bureerum 1) Co., Ltd.	123.9	2.9	123.8	2.9	127.5	2.8
19.Solar Power (Bureerum 2) Co., Ltd.	122.2	2.9	122.6	2.8	126.9	2.8
20.Solar Power (Khon Kean 2) Co., Ltd.	122.2	2.9	121.7	2.8	129.4	2.9
21.Solar Power (Khon Kean 7) Co., Ltd.	123.6	2.9	124.3	2.9	129.1	2.9
22.Solar Power (Nakorn Phanom 2) Co., Ltd.	117.1	2.7	119.4	2.8	122.0	2.7

Revenue structure	Year End Date 31-Dec-17		Year End Date 31-Dec-18		Year End Date 31-Dec-19	
	Amount (\$Million)	%*	Amount (\$Million)	%*	Amount (\$Million)	%*
23.Solar Power (Nong Kai 1) Co., Ltd.	116.8	2.7	119.0	2.8	123.4	2.8
24.Solar Power (Bureerum 3) Co., Ltd.	125.7	2.9	124.4	2.9	129.2	2.9
25.Solar Power (Nakorn Phanom 3) Co., Ltd.	118.3	2.8	122.3	2.8	125.4	2.8
26.Solar Power (Udon Thani 1) Co., Ltd.	116.1	2.7	119.6	2.8	127.9	2.9
27.Solar Power (Loei 2) Co., Ltd.	113.7	2.7	116.0	2.7	122.1	2.7
28.Solar Power (Sakon Nakorn 2) Co., Ltd.	123.1	2.9	125.4	2.9	129.7	2.9
29.Solar Power (Surin 3) Co., Ltd.	129.7	3.0	128.1	3.0	133.4	3.0
30.Solar Power (Khon Kean 9) Co., Ltd.	118.5	2.7	118.0	2.7	125.1	2.8
31.Solar Power (Khon Kean 10) Co., Ltd.	119.5	2.8	119.6	2.8	124.2	2.8
32.Solar Power (Khon Kean 6) Co., Ltd.	124.2	2.9	123.4	2.9	127.3	2.8
33.Solar Power (Surin 1) Co., Ltd.	129.9	3.0	126.9	2.9	132.4	3.0
34.Solar Power (Surin 2) Co., Ltd.	128.3	3.0	125.4	2.9	132.4	3.0
35.AJ Technology Company Limited (AJ)	63.0	1.4	62.0	1.4	63.4	1.4
36.Tipayanarai Company Limited (TP)	64.2	1.5	63.5	1.5	65.4	1.5
Total revenue from sales of electricity	4,273.0	99.9	4,297.5	99.9	4,475.7	99.85
Revenue from sales	6.0	0.1	4.6	0.1	6.8	0.2
Total revenue from solar power plant business	4,279.0	100.0	4,302.1	100.0	4,482.6	100.0

Remark: * As a percentage of the revenue of solar farm business

3 RISK FACTORS

SPCG Public Company Limited is currently operated in 4 main businesses as follows

- 3.1 Business of investment and development of Solar Farm, Engineering, Procurement and Construction (EPC) and Operation, Maintenance and Monitoring (OM&M) Operating under “Solar Power Co., Ltd. (SPC)” and “Solar Power Asset Co., Ltd. (SPA)”
- 3.2 Business of Steel Roof and Roof Structure with One-Stop Service (Steel Roof) Operating under “Steel Roof Co., Ltd. (SRC)”
- 3.3 Business of distribute and installation of solar roof (Solar Roof) Operating under “Solar Power Roof Co., Ltd. (SPR)”
- 3.4 Authorized Sales and Service Partner of SMA Solar Technology AG (SMA), Germany Operating under “Solar Power Engineering Co., Ltd. (SPE)”

3.1 The Risk from Business of Investment and Development of Solar Farm, Engineering, Procurement and Construction (EPC) and Operation, Maintenance and Monitoring (OM&M)

3.1.1 The Risks from Business of Investment and Development of Solar Farm.

(1) Risk from Dependence on the Only One Producer of Solar module and Inverter

Due to the entire photovoltaic project, the solar Panels from Kyocera Corporation (Kyocera) Japan, except AJ Technology Co., Ltd. who is using Singapore’s REC solar Panels. All solar farms use inverters from SMA Solar Technology AG (SMA), Germany only.

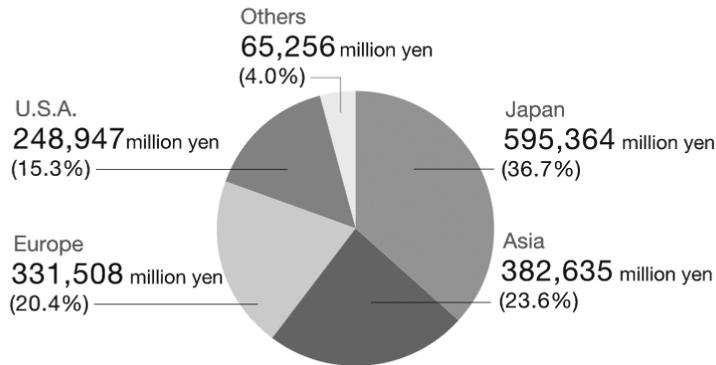
Kyocera was founded on April 1, 1959 and has been listed in the New York and Tokyo Stock Exchanges, a company with financial strength for a long period of time without loss throughout the operation period for more than 60 years. As at March 31, 2019, Kyocera had paid-up capital of 115,703 million yen, and a total sales of 1,623,710 million yen, with net profit from operations up to 103,210 million yen, Kyocera has a total number of 76,863 employees and is also affiliated with 286 companies worldwide, with the following details:

Consolidated Sales by Segment (Year ended March 31, 2019)

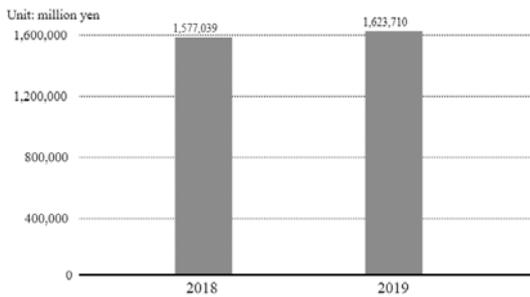
Consolidated Sales: **1,623,710** million yen

Industrial & Automotive Components	19.4%	Communications	15.5%
Fine Ceramic Components		Smartphones	
Automotive Components		Feature Phones	
Liquid Crystal Displays		Tablets	
Industrial Tools		IoT Communication Modules & Devices	
Optical Components		Information Systems & Telecommunication Services	
Semiconductor Components	15.3%	Document Solutions	23.1%
Ceramic Packages & Substrates		Printers & Multifunctional Products	
Organic Materials		Solutions Business	
Organic Packages & Printed Wiring Boards		Life & Environment	5.0%
Electronic Devices	22.5%	Solar Energy	
Capacitors		Medical & Dental Products	
SAW Devices		Jewelry & Kitchen Tools, etc.	
Crystal Devices			
Power Devices			
Connectors			
Printing Devices			
Total Components Business	57.2%	Total Equipment & Systems Business	43.6%
Others	1.0%		
Hotels, etc.			
Adjustments and Eliminations	-1.8%		
Others + Adjustments and Eliminations	-0.8%		

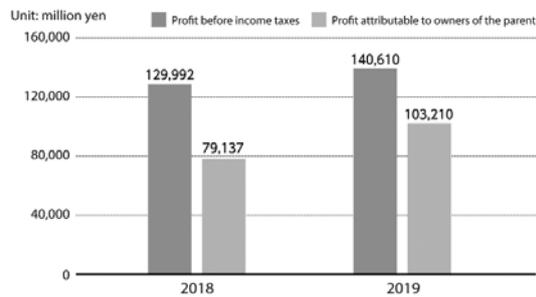
Consolidated Sales by Region (Year ended March 31, 2019)



Consolidated Sales Trend (Years ended March 31)



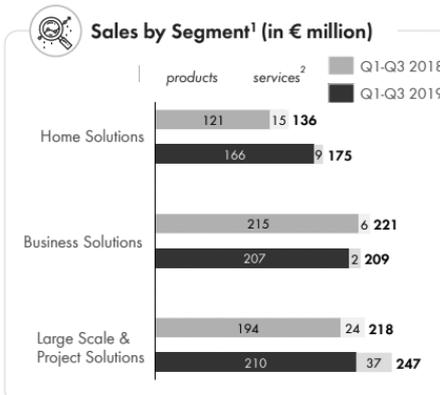
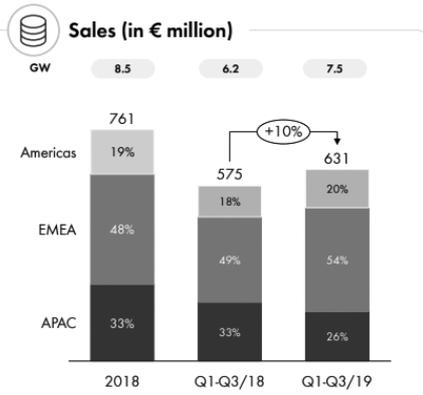
Consolidated Profit Trend (Years ended March 31)



Source: https://global.kyocera.com/company/summary/company_profile.html

SMA is a listed company in the stock exchange of Frankfurt and in the SDAX index. The company is a well-known company in the solar business, producing and selling inverters, 80 GW already installed globally. The company has its subsidiary, which are compatible with the production of solar energy business as well as maintenance and repair. As the leading global specialist in photovoltaics (PV) system technology for more than 35 years, SMA has more than 3,000 employees in 18 countries. And SMA has sales of 630.8 million euros for the nine-month period of 2019, electricity generating over 7,494 MW (as of September 30, 2019).

Revenues in Home Solutions Grew By 28%; Segment Large Scale & Project Solutions Delivers Growth of 13% Driven by Strong Sales in Q3 2019



Highlights: SMA is a leading global specialist in technology with an attractive business model as the following details:

- SMA has set the trend for technology in the future and drive the development of renewable energy for over 35 years
- SMA is the first leader in photovoltaics (PV) system technology
- SMA is the global leader for solar inverters for more than two decades
- Proven technology and new solutions for the energy internet
- Flexible business model and best-cost sourcing strategy
- Powerful global sales and service infrastructure
- Strong financial position due to high equity ratio and net cash in-hand
- Unique competitive positioning among competitors
- Stable shareholder structure with Danfoss as strategic anchor investor
- Experienced management team

SPCG strongly believes in the financial strength, long operational history and technology of the two companies, both in the part of Kyocera solar module which provides warranty period for production capacity of solar module for 25 years and the SMA inverters with warranty period up to 20 years. So SPCG is convinced that solar power systems provided to our customers will be supported in the future and the high quality products will provide sustainable electricity.

(2) Risk from the Lower Intensity of Sunlight

Solar farm business relies on sunlight as the key resources, solar irradiance is the key to be successful. If the sunlight has lower intensity than usual due to the change of weather condition or inclement weather, it may result to the reduction of electricity generation from forecasting which may be negative effect to our revenue and financial results.

Thailand is located near the equator; thus, there is high level of solar radiance. All our Solar Farm's locations are in the high level of the solar radiance in Thailand. Moreover, SPCG installed light intensity measurement equipment at all solar farms for analysis and climate change monitoring.

(3) Risk from Natural Disasters

Due to SPCG conduct the business by generating and selling electricity from solar energy both in Thailand and Japan, if any of these events happen, natural disaster, unexpected and unforeseen events; such as electrical system failure, flood, storm, fire, earthquake, volcanic eruption, and sabotage in the area of solar farms. It may cause the operation stopped or damage to our asset which may effect to operating result and revenue.

Our 36 Solar Farms in Thailand are located in 10 provinces consists of 34 solar farms in Northeast of Thailand such as, Nakhon Ratchasima, Sakon Nakhon, Nakhon Phanom, Khonkaen, Buriram, Surin, Nongkhai, Udon Thani, Loei and 2 solar farms in Lopburi which consider as high flat zone area, and 1 solar farm in Japan, "Tottori Yonago Mega Solar Farm" which is located close to Daisen-Oki National Park, Tottori. SPCG has comprehensively well considered the location before developing all of our solar farm projects by studying the possibility of flooding and strong wind from Typhoon.

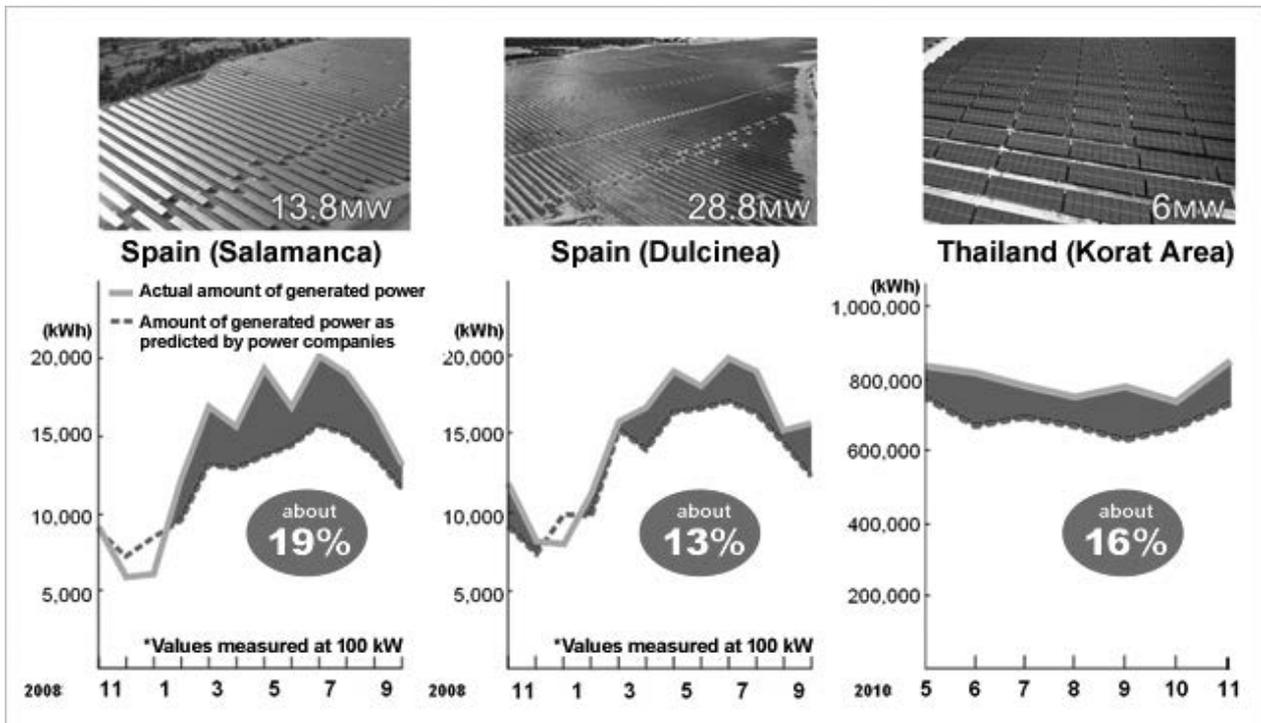
SPCG has studied statistic of flooding level in all area as well as the wind speed of Typhoon from the past 20 years. Every Solar Farms heighten the level of land field higher than level of highway and foundation of the support structure of solar module with engineering durability standard with 80 km./hr. wind pressure resistant. SPCG has the wiring systems that separate the array of solar module and wire the ground wire independently to protect thunderstorm damages. Moreover, SPCG has purchased the all risk insurance as well as business interruption insurance to protect future damages that beyond our control.

(4) Risk from Solar Modules' Deterioration ahead of Schedule.

Electricity output from solar farms depend on several factors, one of the factors which affected on electricity output is solar module's deterioration. Solar module is the main equipment for power generation. If solar modules have deteriorated earlier than standard, it may decrease the electricity output production which results in lower revenue.

However, SPCG has used Photovoltaic Solar Modules which had deterioration guaranteed by Kyocera for 25 Years. Kyocera has guaranteed that within 12 years from the operation date, the solar module from

the operation will produce electricity not less than 90 % of peak power and within 25 years of Solar Module from the operation date, the solar module will produce electricity not less than 80 % of its peak power. If it was found that the peak power were less than guaranteed, Kyocera will add more solar module in order to return to the guaranteed peak power or change solar module or refund under contract agreement between Solar Farms and Kyocera. Moreover, Kyocera has given information about Kyocera's Solar Farm Module in Japan which within period of 30 years, those Kyocera Solar Modules in Solar Farm produce electricity at 91.4 % of its peak power.



Resource: <http://global.kyocera.com>

(5) Risk from Dust on the Solar Module.

Due to SPCG conduct the business by generating and selling electricity from solar energy, solar module is the main equipment for power generation. If there is dust on the solar module, it will effect to the effective of power generation, and the reduction of power generation. Because the sunlight can't contact directly to power source.

However, SPCG realized and planned to reduce this risk by determining the period of solar module cleaning of all 36 solar farms, 8 times per year. We hire local employees to clean the solar farms and appoint engineers and supervisors to oversee.

(6) Risk from Being Supported by Adder Rate at 8 Baht per Kilowatt/hour (unit) which will Gradually Expire

Due to SPCG conduct the business by generating and selling electricity from solar energy which has Power Purchase Agreement (PPA) to Provincial Electricity Authority (PEA), all our solar farms have supported by Adder rate, 8 Baht per Kilowatt/hour (unit) for 10 years which will gradually expire from the year 2020 to 2024.

However, SPCG realized to this matter and planned to reduce this risk by looking for the new opportunity to invest in aboard such as, solar farm investment in Japan in order to compensate the cash flow that will be lost in the future. Our investment projects are as follows:

- Tottori Yonago Mega Solar Farm is located in Tottori, Japan which has the production capacity of 30 MW. It has sold commercially (Commercial Operation Date: COD). Company recognizes the revenue already in the form of dividend since 2018.
- Ukujima Mega Solar Project is located in Ukujima island, Nagasaki, Japan which has production capacity of 469 MW.

(7) Risks from Solar Farm Investment in Japan**(7.1) Risk from the Change in Policy of Government and Other Related Government Agencies**

Due to investment in solar farm business, if government sector and other related government agencies in Japan change or cancel policies of renewable energy purchase; it may affect our future investment plan. And it may stop or delay the construction and installation of solar farm, and may negatively effect to our operating result and financial status.

By the way, our experienced management team has studied and followed news continually related to policy of government and other related government agencies in order to estimate and plan in advance to cope with changes.

(7.2) Risk from Investment Return may not be as Expected

SPCG has target to continually expand the investment in solar farm business. At present, we have solar farm project, total production capacity of 469 MW which in the process of entering into a contract. If there's any factor that will significant impact on the development and operation of the project, company will has risk from investment return may not be as expected and/or loss the opportunity to invest in new projects and/or loss the investment budget.

However, before making investment decision in any projects, we have conducted feasibility study of the project, estimate revenue/profit/return of the project with various assumption scenarios. We have important steps as follows: (1) Selection of credible business partners who have experience and expertise in solar power and/ or renewable energy, and have strong financial status. (2) Advisors in various area such as, technical advisor/ engineer (to assess solar radiation and feasibility of project, to give technical engineering advice for development of project, and to monitor development/ construction process to ensure timely implementation

of the plan), and legal advisor (to provide advise related to legal and procedure requirement related to investment, to check documents (i.e. land deed, agreement documents, related license) and act follow the rules.) (3) Other advisors such as, financial advisor, accounting and tax advisor (to ensure reasonable conditions and complying with related rules and regulations correctly and completely.)

3.1.2 Risks from Engineering Procurement and Construction (EPC)

(1) Risk from Personnel Recruitment

Due to the fact that SPCG has a business plan to provide EPC service for customers outside its group operating under SPC which requires a large number of personnel. Therefore, there is a risk that SPC is unable to recruit enough staff if the projects of solar farms are being constructed simultaneously both inside the country and/or in foreign country which may lead SPC to the lost opportunity costs.

However, the construction of solar farms is not complicated and is easy to supervise. Hence, it is not necessary to permanently employ specialists which result in the flexibility in outsourcing easily, plus SPC will assign engineers and supervisors to oversee the construction and the installation closely.

(2) Risk from the Quality of Non-Static Workers

SPC as a complete solar farm contractor has hired local employees to construct the projects which need to use a lot of manpower. Each of SPC's project constructions will require approximately 180 workers to be manpower in the constructions. This might make the quality of solar farm construction labor change.

However, SPCG realized about this risk and prevented by appointing engineers and supervisors to oversee the projects. The engineers will give direction closely during the projects as well as the company's supervisors will evaluate the operations to ensure the quality of the constructions following the design standards of SPC. Even though, the solar farm

development under SPC and SPA were completed but for the future development of new solar farm, the company will use the same high efficiency and proficiently strategic operation.

3.1.3 Risks from Operation, Maintenance, and Monitoring (OM&M)

(1) Risk from Monitoring System Failure

Monitoring is the important key in the solar farm's OM&M services. In case of monitoring system failure which results in data loss or error, the company may deliver service error and cause damage to SPC and its customers.

However, SPC has leased transponder from Thailand Telecom Public Company (CAT) to use in transmitting data from solar farms to SPC head office through optic fiber. Thus, SPC has recorded 2 sources of monitoring data i.e. at each of solar farms' control centers and SPC office. Recording 2 sources reduces the risk of data loss in case of such error of a data system. Moreover, SPC has backup information system in daily report both in normal operation as well as in electronic files, to be risk preventive method too.

(2) Risk from Accident During Maintenance

Due to maintenance and cleaning solar modules, SPC does not have personnel in charge of duties. But the company has outsourced local labors who are not proficient instead. Therefore, there is a possibility of occurring accident which might cause damages to solar module or even other important equipments.

Nevertheless, SPC has held the training courses and educated local labors before taking up work to clearly understand their responsibilities. Moreover, the company's engineers are stationed at the project sites for supervising. As a result, those labors perform more efficiently and can help reducing accident risks. Apart from that, the reviewed training and instructing annually. However, any accident has never occurred under our operations yet.

3.2 The Risks from Business of Steel Roof and Roof Structure with One – Stop Service.

3.2.1 Risk from Reliance on Raw Materials from Major Manufacturers

In the steel industry, Steel and Solar Roof Company Limited (SRC) uses cold rolled steel sheets plated with zinc on aluminum-color coated and non-color coated sheets-which are generally purchased from NS BlueScope (Thailand) Co., Ltd. (BlueScope Steel). If BlueScope Steel ends production or discontinues distribution or unable to deliver products on time for SRC, These may effect to SRC due to shortage of raw materials and have to look for other manufacturers whose prices and the quality of raw materials are changeable. In addition, this event could cause delays in the distribution to customers and effected on the company bad reputation as well as business profits.

However, BlueScope Steel is a major manufacturer of cold rolled steel sheet plated with zinc on aluminum that has invested to build up its factories in Thailand. In partnering with Loxley PLC and Nippon Steel and Sumitomo Metal Corporation in 2013, they established the steel factory that manufactures the top grade quality steel as the biggest in Southeast Asia with capacity of manufacturing cold rolled steel sheets plated with zinc on aluminum-color coated for 400,000 tons, non-color coated sheets 375,000 tons, and color-coated sheets 90,000 tons with its employee of 400 staffs. Furthermore, BlueScope Steel is a subsidiary of BlueScope Steel Limited listed on the Australia Securities Exchange.

SRC and BlueScope Steel have been business partners for more than 10 years. In addition, SRC has consistently been well-supported by BlueScope Steel. Hence, the company believes that the risk of the business termination or discontinuing distribution or unable to deliver products on time of BlueScope Steel to SRC is in low-level.

3.2.2 Risk from a Business Competitor Relating to BlueScope Steel

BlueScope Steel who is a distributor of almost main raw materials for SRC has a related company having the same shareholders and directors that is NS BlueScope Lysaght (Thailand) Co., Ltd. (BlueScope Lysaght) established in 1988. BlueScope Lysaght has run manufacturing and distribution business of waved metal sheet that is the same as SRC and has used the identical raw materials from BlueScope Steel as well. In case BlueScope Steel distribute to BlueScope Lysaght under conditions and prices which will be an advantage over SRC. This may decrease the ability of SRC's price competition on the waved metal sheets and result in the low sales volume.

However, as BlueScope Steel is an affiliate of BlueScope Steel Limited listed on the Australian Securities Exchange. Hence, the company believes that BlueScope Steel do the related lists fairly and executes the operations normally. In addition, the executive of BlueScope Steel reassures the company that it will transact the business with its affiliate like other business partners. The company considers that the risk of BlueScope Lysaght getting an advantage over conditions and prices is low.

3.2.3 Risk from Fluctuations in the Price of Raw Materials

In the steel industry, a main raw material is steel sheets fluctuating following cold rolled steel sheets which are an upstream raw material. This may lead to the cost fluctuation or the higher cost.

Nevertheless, the cost of raw materials from BlueScope Steel has been adjusted on monthly basis, made the price fluctuations of raw materials are rather slight. Moreover, the company has ordered Just in Time manufacturing and products which a small amount of inventory is kept on hand. Furthermore, SRC will quote the prices to customers beforehand. When customers

agree to purchase, the company will place an order. As a result, the risk from fluctuations in the price of raw materials is low.

3.2.4 Risk from Hiring Subcontractors to Project Installation

Since 2013, the company has set up its own installation team to solve problems in monitoring and control of past problems closely and effectively.

However, even with increased sales and installation costs, SRC continues to have a project management approach that can control the costs and quality of the project. Key factors in project management. Are as follows

The Selection of Subcontractors: Generally, companies in the industry of roofing manufacturing and distribution does not have their own installation teams, but they will hire an outsource subcontractors which is a better way to control the capital as they don't have to supply wages for full-time employees. SRC selects the subcontractors from both the company's clients who install the products and the companies who particularly engage in the roofing installation through the consideration based on their yearly past performances, financial status, and quantity of workforce, quality of work as well as the potential of installation. Currently, SRC has the skilled subcontractors who have ability to install in the various size projects. Those who have been working with SRC for over 5 years and over 20 of them have been passed the quality evaluation. Therefore, the company does not have to depend on a small number of subcontractors and never experiences the shortage of subcontractors or abandoning the projects.

SRC established 2 installation teams to support the work increased by about 5,000 square meters per month. At the same time, they can solve problems in tracking and quality control more closely.

The Installation Quality Control: SRC has controlled the quality of subcontractors via the engineering staff who inspect the quality during the installation in all projects. After the installation is completed, SRC and customers will evaluate the whole work together. Moreover, the company will assess each of subcontractors on quarterly basis in order to ensure the overall quality of work, and also the subcontractors will grant a 1 year warranty from the date of completion of the work.

Controlling the Time of Installation to be Completed on Schedule: The Company has site supervisors inspect the work, there has so far been no problem that the subcontractors haven't completed the installation on schedule unless delays are caused by the company's customers themselves.

The Warranty and after-sales service: Since 2015, SRC has focused on quality and service. Therefore, the Quality and Service Department was established. To build confidence and satisfaction after installation.

3.2.5 Risk from Competition in Substitute Products

The main product of the company which is manufactured and distributed is waved metal sheets coated with zinc-aluminum used as materials for shingling roofs and walls. There is a variety of substitute products in the market such as tiles and corrugated steel sheets coated with zinc etc. Those substitute products allow customers to have more choices to choose the substitute product. Besides, the company's products have a higher price compared with the price of tiles or corrugated steel sheets coated with zinc. If consumers are in favor of using other materials of roofs and walls instead of the company's products, this may cause a decrease in SRC future income.

Although the price of the substitute products is cheaper, the galvanized rolled steel sheets plated with aluminum are more durable, more beautiful, and lighter

in weight. Moreover, the price of SRC's products isn't significantly more expensive than the substitute products. Therefore, SRC believes that the risk from competition in the substitute products is low.

3.2.6 Risk from Giving Trade Credit

In general business operation, SRC has accounts receivable from SRC's merchandise distribution with conditional agreement in payment terms that customers have to pay off within an agreement time. The debtor collection period is 50-65 days, therefore, SRC is vulnerable to the accounts receivable who is unable to pay off the amount due within the collection period or a deferred payment period. If the debtors have problems about operation, it may effect to the financial status of company.

However, SRC has debtor tracking continuously and has a collection policy through the progress of work. A partial payment must be made as the projects start. Next, the company collects the other part after the delivery. Afterwards, the payment will be made via the work progress. Then, the final amount of payment will be made once the work is completed. SRC always collects the debt gradually and is able to manage the accounts receivable in the appropriate level which results in managing the cash flow from the operations to pay off the amount of due to the account payables on time.

3.2.7 Risk from Account Receivables (A/R)

Due to SRC sell goods to domestic customers with payment terms and conditions within the deadline as agreed with the customer. Therefore, SRC will have risks from accounts receivable can't pay the debt within the specified time. There are 2 types of risk as follows: (1) Risk from debtor become bad debt. Company must set aside as allowance for bad debts or doubtful debts. (2) Risk from debt collection and litigation.

However, SRC has managed this risk by checking and analysis the information of accounts receivable such as, operating results and financial statement (liquidity ratio, liability, equity, revenue, profitability ratio) through data services from the Department of Business Development. Moreover, SRC has evaluated and analyzed credit of accounts receivable in order to consider the suitable credit line and credit term. And SRC has reviewed accounts receivable and credit line continuously. These can reduce risk from accounts receivable.

3.2.8 Risk from the Operation of Factory

SRC's business depends on the ability to operate the continual manufacturing process of the factory. There is the risk in the disruption of factory's manufacturing. This lead to hazards in manufacturing process and preservation of the raw materials which include explosion, fire, weather variance and natural disasters, machinery defects, shutting down of machines beyond the schedule, labor strike, transportation disruption, and other environmental risks. Those hazards may lead to injury or fatality, severely damaged properties or tools and cause of environmental damages, or forfeit, or debt, along with the effect on overall operations of SRC.

Nevertheless, SRC has implemented plant safety system. The equipment are stored in a suitable area. There are a small number of employees in the factory, thus the company can maintain a good relationship with its employees properly and thoroughly.

In addition, the company has achieved ISO 9001:2000 certification as well. Under the quality policy that "the company will produce the same quality and standard products and has continued to develop to provide customers with the highest satisfaction"

3.2.9 Risk from the Manufacturing's Impact on the Society and Communities

SRC has realized and placed importance on the risk of manufacturing process which may have the effect on social and communities including the impact on the environment, safety, or the economic and social. The company tries to avoid engaging in the activities which cause problems to social and the communities around them, for instance, any manufacturing processes that create loud noise and cause a disturbance in social and surrounding areas will be outsourced by SRC. Then, the completed products will be sent back to SRC. However, SRC has never had any complaints so far from the social and communities nearby.

SRC has still kept a good relationship with the social and communities nearby through generating benefits to society such as building roofs of the temple and a motorcycle taxi shelter in the surrounding areas etc.

There are only a few types of wastes or industrial wastes that are produced by the process, such as scrap steel and hydraulic oil. The Company has dealt with the waste or industrial waste in accordance with the regulation of the Department of Industrial Works.

3.3 The Risk from Business of Distribute and Installation of Solar Roof.

3.3.1 Risk from Competition in the Industry

For solar roof business, it is very high competition market since the government promotes the renewable energy and solar power energy. Therefore, there are many competitors entering to solar roof market that import variety of brand of solar modules and inverters from both oversea and in Thailand. Whereas, the Company has the very clear positioning in the market that we use the only high quality & effective of equipment and technology, and high quality installation which differentiate our price from competitors.

SPR, one of the subsidiaries of SPCG, signed a contract with Home Product Center Public Company Limited (HomePro) and appointed HomePro to be an exclusive distributor for households Solar Roof. HomePro provides demonstration of solar Roof system in HomePro branches all over Thailand in order to advertise, promote, and be a distribution channel that helps interested customers and to provide the best services to SPR Solar Roof's customers.

However, there are many small company entering solar roof market that may not have enough experience of solar business and installation knowledge, while SPR Solar Roof offer the highest quality of equipment and highly expertise of installation team from our staff that developing 36 solar farms. SPR Solar Roof Can offer the total solution one stop service of solar roof from surveying, developing, designing, procuring, installing to monitoring and after-sale service. SPR Solar Roof is the exclusive partner of Kyocera in Thailand for solar roof business that has experience in this field for long time. Therefore, SPR Solar Roof has the advantage over competitors in the market.

3.3.2 Risk from Dependence on the Only One Producer of Solar module and Inverter

Due to the installation of solar roof system uses solar module from Kyocera Corporation (Kyocera), Japan and use inverters from SMA Solar Technology AG (SMA), Germany only.

However, we adjust strategy to reduce this risk by offering solar module from Hansol, Korea in order to be the another choice for prospective customer and to help them make a decision easier. It may increase sales opportunity and sales volume.

3.3.3 Risk from the Supporting Policy of Government Sector and Other Related Government Agencies

As the Board of Investment (BOI) announced the policy to promote investment in solar power generation. Entrepreneurs who install solar roof system will be exempted the corporate income tax for 3 years, in the proportion of 50% of investment budget. According to this policy, it causes the customers postpone the decision and investment to install solar roof system. Because they can submit the request document until December 30, 2020.

However, we adjust marketing and sales strategies to increase the competitive advantage and increase choice to customer by launching new business model, leasing model for installation of solar roof system. This project is the cooperation in the development of solar roof project between SPCG Public Company Limited or “SPCG”, Mitsubishi UFJ Lease & Finance Company Limited or “MUL”, PEA ENCOM International Company Limited or PEA ENCOM, and KYOCERA Corporation, Japan or “KYOCERA”. It is model of electrical selling to industrial plants under the power purchase agreement with the private sector (Private PPA). The Company will be the entirely investor and sell the electricity. Customer mustn't pay upfront capital.

3.3.4 Risk from Global Economic Situation

Due to the uncertainty of global economic situation such as, trade war between China and United States of America, and Middle East war. It effects to the economy in Thailand, and the customer postpone the decision and investment.

Nevertheless, company adjusts marketing and sales strategies to increase the competitive advantage and to encourage customer to make faster investment decision by using leasing business model for installation of solar roof system. The company will focus on industrial group. Moreover, we provide full service regarding survey, system design, feasibility study, installation,

maintenance, and daily monitoring from 6.00 am. to 6.00 pm. In addition, we provide installation warranty of 2 years.

3.3.5 Risk from Foreign Exchange Rate Fluctuations

SPR Solar Roof is the total solution solar roof service provider for commercial building, residential housing, and factories that imports solar module from Kyocera Corporation, Japan and inverter from SMA Technology AG, Germany in foreign currency.

SPR Solar Roof closely monitors the fluctuation of the exchange and manages the risk by means of a FX Forward Contract and the right to exchange money through a financial instrument called FX Option in order to fully hedge fluctuations in the foreign exchange rates. The company will engage in a full amount of a forward foreign exchange transaction (FX Forward) or a foreign-exchange option (FX Option) when solar panels and inverters are recorded as assets of the company.

3.4 The Risk from Authorized Sales and Service Partner of SMA Solar Technology AG, Germany.

3.4.1 Market Risk

Because SPCG chose the inverter from SMA since the start of solar farm business with confidence in the quality and performance of the inverter, comprising modern technology internationally recognized by the solar project developers. We provide SMA inverters for the installation of solar roof systems to all customers, the company exclusively uses SMA inverter when SMA was looking for strategic partner in the Indochina region, SPCG was the first choice, as SPCG accounts for a proportion of more than 60% of the total number of inverter in the region. As a strategic partner, SPCG has the opportunity to increase business, activity in Thailand and the Indochina region through Solar Power Engineering Co., Ltd. (SPE), appointed as an authorized

sales and service to take care of the SMA customers in Thailand and four Indochina countries, consisting of Vietnam, Laos, Cambodia and Myanmar since July 2018 onwards.

(1) Risk of Sales

For marketing of the inverter in the Thai market, it is a risk of SPE as a new sales partner, which needs to start marketing to both the existing SMA customers to be aware of SPE operations as sales partner, as well as reaching new customers. There are also four market opportunities in the Indochina region, consisting of Vietnam, Laos, Cambodia and Myanmar. Therefore, SPE will enter those markets that quite new to SMA, it is necessary to track the policies associated with promoting the national solar energy business in each country.

However, SPE is confident that it can fulfil the role of Authorized Sales Agent, during the transition period from SMA Thailand to SPE, SMA customers experienced issues with communication, such as the language differences and different time zone and business hour of each country. The customers now will have contact with SPE for sales and service issues to help ensure that all SMA inverter users will receive better service and SPE is committed to resolve the issue, often possible through preliminary assessment and solutions. SPE is fully supported by SMA India team. So, any problems that SPE is unable to solve, we will coordinate and follow-up on behalf of customers. SPE will focus on Thailand and continue to expand in the Indochina region.

(2) Service Provider

As Authorized Service Partner, SPE continually focuses on building employee's capacity and improving service operations to meet the excellent service standards as set by SMA. So, it has been our responsibility to restore confidence in the excellent service and quality of products, as well as demonstrate. Since SMA is

renowned for its good and fast service, SPE strives to develop human resources and working processes in order to provide the best service to SMA customers. SPE team have received in-depth training conducted by staff from SMA Germany directly to provide the knowledge and training for skills needed to service SMA inverters, equal to the international standard. SPE will be available to all SMA's customers in-warranty and out-of-warranty by providing out-of-warranty customers the best quality service, and the service fees collected from out-of-warranty customers will be a revenue stream for SPE.

3.4.2 Risk from the Competition of Substitute Goods

Although SPE is the official sales partner of SMA inverters, it also has competitors who are manufacturers and distributors of other inverter brands in the Thai market. At present, there is strong competition in the Solar Roof market, especially manufacturers and distributors from the Asia. It focuses primarily on the price strategy, but SMA focuses on serving the best quality. So, SMA has a competitive advantage in terms of quality by offering a whole package solution that satisfies the customers' needs.

Therefore, we are confident in SMA Inverter performance, as well as a good service at international standards and long warranty period of SMA. As the leader of solar energy technology, with good quality and service always come; SPCG has always chosen to use SMA products at all of the solar farms. It makes SPCG is one of the biggest customers of SMA. Now with the solar roof clients, they are offered only the best quality products, which are SMA inverters, because we are confident that SMA will continue to be a leading solar inverter manufacturer that will continue operating a sustainable business well into the future, which means SPE will remain competitive in the long run.

3.5 Other Risks

3.5.1 Risks from Being Controlled in the General Meeting by Major Shareholders

A group of majority shareholders of the company, namely, The Khunchornyakong's consisted of Ms. Wandee Khunchornyakong, Mrs. Prakong Khunchornyakong, Mr. Somsak Khunchornyakong, Ms. Sompong Khunchornyakong, Mrs. Kanokporn Khunchornyakong, and Ms. Woracha Khunchornyakong (collectively called "the Majority Shareholders") who have collective intentions to cast the majority of votes in the same direction in order to control the voting rights or to supervise the business together. In addition, they hold the mutual relationship and behaviors in accordance with the Notification of Capital Market Supervisory Board TorChor 7/2009 Re: Acting in concert as a result of the nature of a relationship or behaviors. The majority shareholders hold 36.91 percent of the company's total issued shares and they are the executives and directors who have signing authority for the company's budget. As a result, they are the authority who manages and nearly controls the crucial majority votes such as an appointment of director, or engaging in other matters requiring approval by the majority of the general meeting

with the exception of laws and company's regulations requiring three-fourth of the number of shareholders attending the meeting and having the voting rights. Therefore, the other shareholders who attend the meeting and have the voting rights may not gather the votes to counterbalance the management of the majority shareholder.

The management structure of the company is comprised of 3 sets of the board of directors and the subcommittees which are, namely, the board of directors, the audit committee, and the nomination, remuneration and corporate governance committee. The duties and responsibilities of each subcommittee are set clearly. Hence, the operations of the board of directors and the sub committees are well-organized and can be verified. Plus, there is the audit committee composed of 3 independent committees who are knowledgeable. Furthermore, the company has a policy in regard to a linked list concerning the directors, the majority shareholders, or the authorized persons. This includes a person who has a conflict of interest that such person does not have the authority to approve in creating such list which reduces the risks that may occur in business.

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- Capital Information and Lists of Share holders.
 - Management Structure.
 - Internal Control.
 - Related Transactions.

4 Capital Information and List of Shareholders



4.1 Registered Capital and Paid-Up Capital

SPCG Public Company Limited (SPCG) is a listed company on the Stock Exchange of Thailand (“SET”)

(1) Registered Capital and Paid-Up Capital

SPCG has a registered capital of 1,016,389,000 Baht which is 1,016,389,000 shares of common stock and registered paid-up capital of 973,990,000 Baht with a par value of 1 Baht per share.

(2) Share Transfer Restriction

The transfer of shares must not cause the proportion of shares held by foreigners exceed 49 percent of the total paid-up share capital.

4.2 The Shareholders

List of Major Shareholders of SPCG

Here is a list of the first 10 major shareholders of the company with the right to receive interim dividends (Record Date) as of August 28, 2019 by Thailand Securities Depository Company Limited (“TSD”) divided into 71.77% of the major shareholders and 28.23% of minority shareholders as follows:

No.	Name of Shareholders	No. of Shares	Percentage
1.	The KHUNCHORNYAKONG Consist of	359,531,137	36.91
	Ms. Wandee Khunchornyakong	298,950,000	
	Mrs. Prakhong Khunchornyakong	31,350,000	
	Mr. Somsak Khunchornyakong	13,500,000	
	Ms. Sompong Khunchornyakong	11,777,937	
	Mrs. Kanokporn Khunchornyakong	2,025,000	
	Ms. Woracha Khunchornyakong	1,928,200	
2.	UBS AG SINGAPORE BRANCH	95,200,050	9.77
3.	GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED	85,941,252*	8.82
4.	KYOCERA CORPORATION	63,500,000	6.52
5.	THAI NVDR COMPANY LIMITED	37,945,510	3.90
6.	Mr. Withoon Manomaikul	19,290,000	1.98
7.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	12,577,833	1.29
8.	Mahidol University	9,114,200	0.94
9.	N.C.B.TRUST LIMITED-NORGES BANK 1	7,992,004	0.82
10.	The SETHIWAN Consist of	7,990,500	0.82
	Mr. Suchart Sethiwan	5,400,000	
	Mr. Pongchai Sethiwan	930,000	
	Mr. Ponthep Sethiwan	1,587,500	
	Ms. Saowanee Sethiwan	40,000	
	Ms. Warunee Sethiwan	33,000	
	Total Major Shareholders	699,082,486	71.77
	Total Minority Shareholders	274,907,514	28.23
	Total Shareholders	973,990,000	100.00

Remark:

* The period between August 28, 2019 - September 26, 2019, GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED purchased additional shares amount 10,621,400 shares; equivalent to 1.09 percent. As a result, GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED had a total of 96,562,652 shares equivalent to 9.91 percent. And on 24 September 2019, GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED purchased additional shares of SPCG Public Company Limited ("The Company") amount 1,577,700 shares; equivalent to 0.16 percent. As a result, GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED had a total of 98,140,352 shares; equivalent to 10.08 percent of the company's paid up capital. Resulting in the changing of major shareholder structure

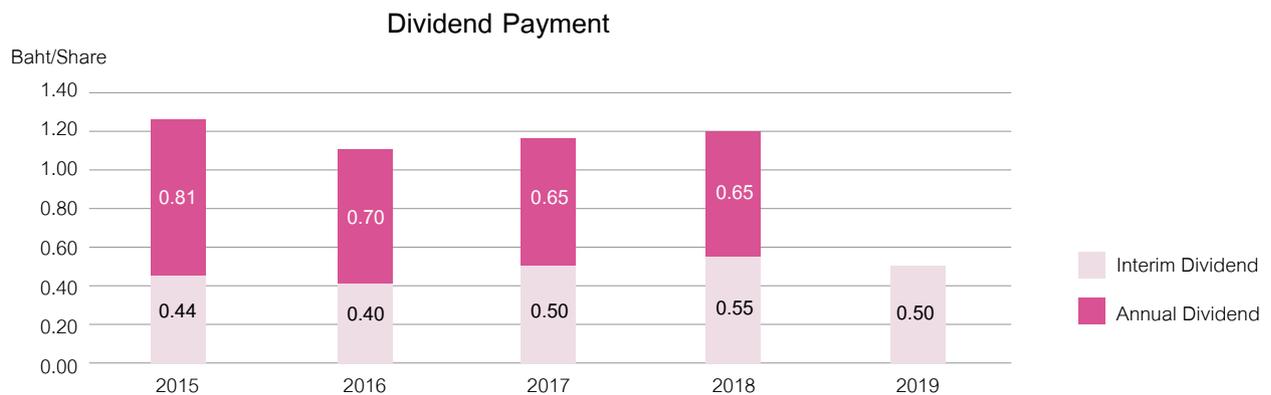
4.3 Dividend Policy

SPCG has set the dividend policy to pay dividend to shareholders not less than 40 percent of net profit of the company's financial statements after legal reserve in compliance with the company regulations and laws, if for no other reason and such dividend payment shall have no impact on the normal operations of the business significantly concerning the board's consideration. Moreover, such operations will create the maximum benefit to the shareholders. The board resolution considering such payment must be presented for approval from the general meeting unless such payment is an interim dividend which the board of directors has the authority to approve and report this issue on the next general meeting.

SPCG and subsidiaries has set the dividend policy to pay dividend to shareholders regarding net profit of the Company's financial statements after legal reserve in compliance with the company regulations and laws, if for no other reasons and such dividend payment shall have no impacts on the normal operations of SPCG and its subsidiaries significantly concerning the board's consideration. In addition, such operations will create the maximum benefit to the shareholders. The board resolution of SPCG and its subsidiaries considering such payment must be presented for approval from the general meeting of SPCG and its subsidiaries as well.

4.4 Historical Dividend Payment

The company made dividend payments during 2015 - 2019 with details as follows:

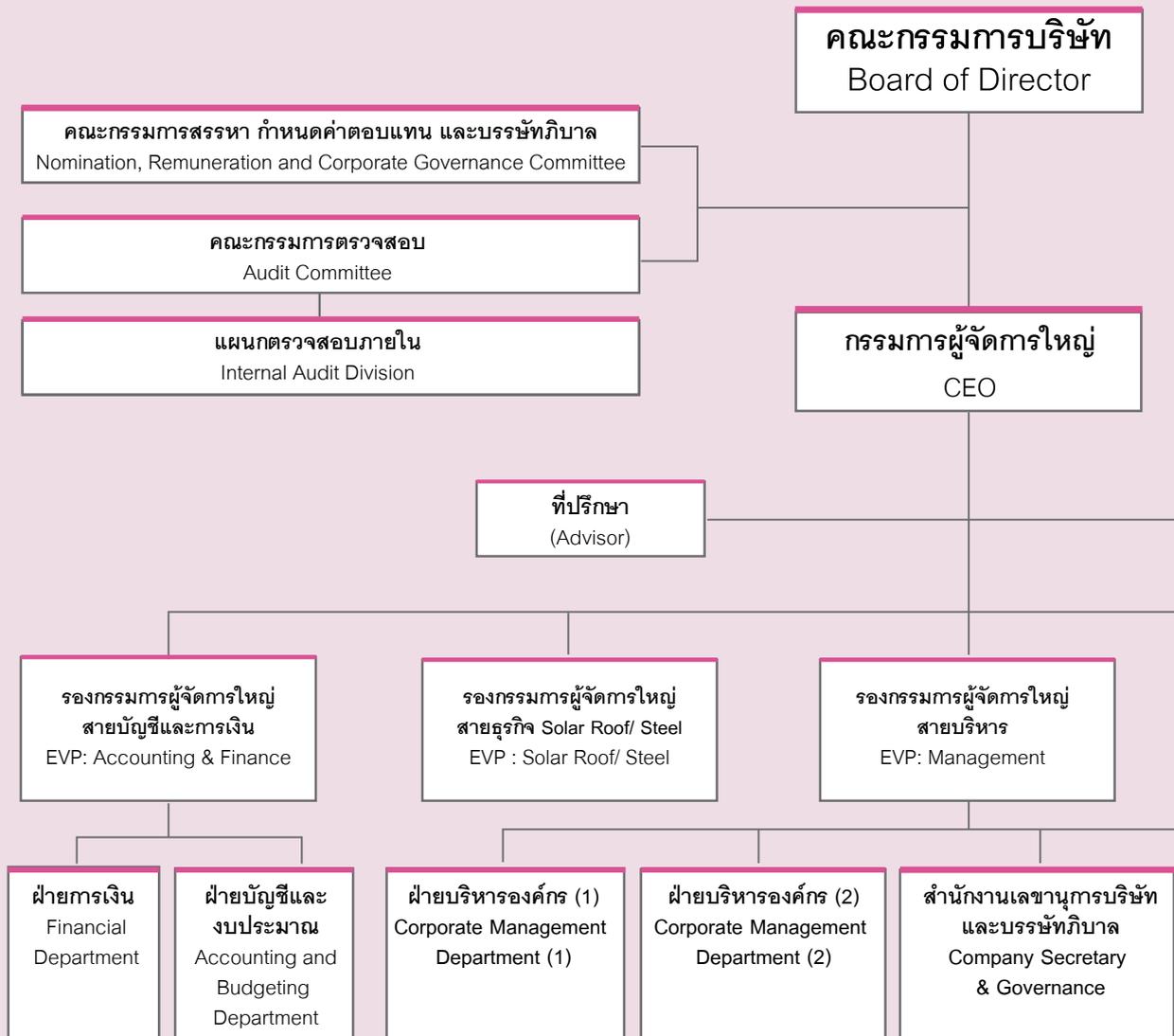


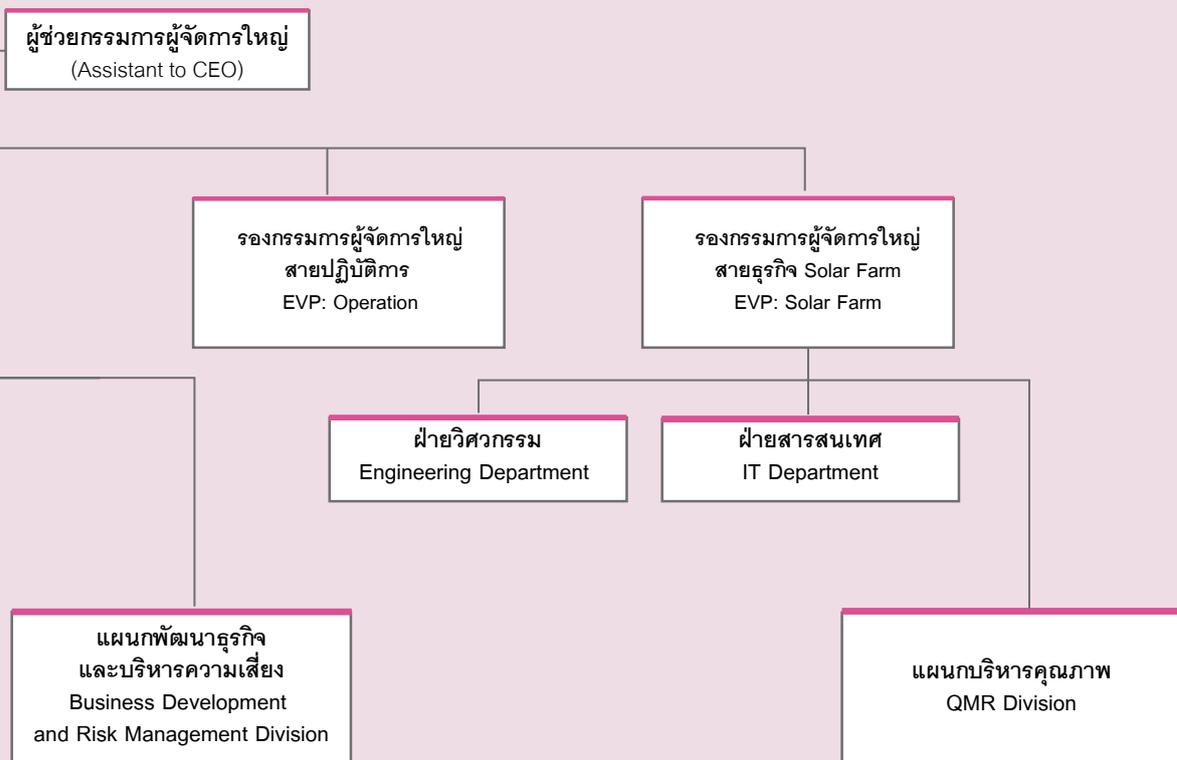
Dividend Payment	2019		2018		2017		2016		2015	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Oct-Dec	Jan-Sep
Dividend Payment (THB/Share)	0.50	0.65	0.55	0.65	0.50	0.70	0.40	0.81	0.44	
Total Dividend Payment (THB/Share)	0.50	1.20		1.15		1.10		1.25		



5 Management Structure

5.1 Organization Chart of SPCG Public Company Limited





5.2 Management Structure

Management structure consisted of 3 sets: Board of Directors, Audit Committee, and Nomination, Remuneration and Corporate Governance Committee. The details are as follows;

5.2.1 Board of Directors

As of December 31, 2019 The company has the total of 9 Directors as listed below;

No.	Name.	Position.	Number of attendance / total number of meetings In the year 2019 (times)
1.	Dr.Wandee Khunchornyakong Juljarern	Chairperson	4/4
2.	Mr.Somsak Khunchornyakong	Director	4/4
3.	Mr.Jirakom Padumanon	Director	4/4
4.	Mr.Withoon Manomaikul	Director	4/4
5.	Police Major General Wanchai Wisuttinan	Director	4/4
6.	Mr.Shoji Nishizawa	Director	4/4
7.	Mr.Wanchai Lawatanatrakul	Independent Director	4/4
8.	Dr.Art-ong Jumsai Na Ayudhya	Independent Director	4/4
9.	Mr.Apichat Limsethanuwat	Independent Director	4/4

Company's Authorized Directors are as follows:

Dr. Wandee Khunchornyakong Juljarern sign her name and affix the company's seal, or Mr. Somsak Khunchornyakong jointly sign with Mr. Withoon Manomaikul, and affix the company's seal.

Elements of the Company's Board of Directors

1. The Board of Directors must qualify and act according to Public Limited Companies Act.

2. The Board of Directors consists of a minimum of 5 directors and up to 11 persons, no less than half of the total number of directors must be local in the kingdom.

3. The Board of Directors comprises at least one-third of independent directors, but not less than 3 persons, and must meet the criteria of the Securities and Exchange Commission of Thailand.

4. The Board of Directors possess the knowledge, expertise and experience in renewable energy, financial accounting, internal control, risk management, and corporate governance, which have at least 1 independent director who has sufficient knowledge and experience to be able to act in reviewing the reliability of the financial statements.

5. The company recognizes the importance of performing duties effectively and efficiently as a director, the company has determined that the directors cannot hold director positions at more than 5 other listed companies, no exceptions.

Independent Directors

The Board of Directors comprises three independent directors, which is equal to one-third of the total number of directors, so that independent directors are the key to good corporate governance and can comment freely. The Board of Directors has determined the definition and qualifications of independent directors in good corporate governance policy as follows:

1. Holding no more than 1 % of total voting shares including the parent company, subsidiary company, affiliate company, major shareholder(s), or controlling parties of the company and including the shareholding of persons related to the independent directors

2. Not currently be or never been the company's executive director, worker, employee, salaried consultant, or controlling parties including the parent company, subsidiary company, affiliate company, major shareholder(s), or controlling parties of the company. Exception: It has been at least two years after the person has held the position.

3. Not by blood or legally registered with other directors, executives, major shareholders, controlling parties, or persons who will be nominated as directors, executives, or controlling parties of the company or subsidiary.

4. Not currently having or never had any relations with the company including the parent company, subsidiary company, affiliate company, major shareholder(s), or controlling parties of the company in the way that such relation may impede the person from having independent views. Also, the person should not currently be or never be a significant shareholder or controlling person for persons having business relations with the company including the parent company, subsidiary, affiliate, major shareholder(s), or controlling parties of the company. Exception: It has been at least two years after the person has held the position.

5. Not currently being or never been the company's auditor including the parent company, subsidiary, affiliate, major shareholder(s), or controlling parties of the company . Also, the person should not currently be or never be a significant shareholder, controlling person, or partners of current auditor's auditing firm including the parent company, subsidiary, affiliate, major shareholder(s), or controlling parties of the company. Exception: It has been at least two years after the person has held the position.

6. Not currently be providing or never provided professional services, legal consulting, nor financial consulting services to the company with a fee more than THB 2 million per year including the parent company, subsidiary company, affiliate company, major shareholder(s), or controlling parties of the company. Also, the person should not currently be or never be a significant shareholder, controlling person, or partners of current service providers. Exception: It has been at least two years after the person has held the position.

7. Not currently be a director appointed to represent the company's directors, major shareholders, or the shareholder related to major shareholder.

8. Not currently be operating under similar business nature and significant competition to the company or subsidiary company; or not a significant partner of the partnership, executive director, worker, employee, or salaried consultant; or holding more than 1% of voting shares of any other companies operating under similar business nature and significant competition to the company and subsidiary.

9. Not under any conditions that may impede the person from having independent views towards the company's operations

Authority and Responsibility of the Board of Directors

The Board of Directors has the authority and responsibility to manage the company to be in accordance with law, objectives and regulations of the company as well as the shareholders' meeting resolution with integrity, cautions and to protect the company's benefit.

The scope of authorities and responsibilities of the Board of Director can be summarized as follow:

1. Set the company's vision, mission, strategy, financial goal, risk, framework, and budget; control and govern administration and management of the Executive Board to be in line with the assigned policies and plan effectively.

2. Supervise the company to comply with the Securities and Exchange Law, the set of the main market requirements such as transactions connected and purchase or sale of significant assets in accordance with the set or applicable laws of the company's business.

3. Arrange shareholders' meeting as annual ordinary meeting within 4 months commencing from the end of company's accounting period.

4. To provide the company's corporate governance policy in writing and to agree to the policy and to review the policies and procedures regularly at least once a year.

5. To provide code of business ethics in writing to all executives and employees understand the ethical standards that the company uses to conduct their business and support them with serious compliance with such code.

6. Consider the conflict of benefit carefully. The consideration of transactions that may have conflicts of interest should have a clear and beneficial approach to the company's interests and overall shareholders. The stakeholders should not participate in the decision-making and supervise compliance with the process requirements, procedures, and disclosure of the transactions that may contain conflicts of benefit.

7. Provide operational control system. Financial reporting and compliance rules and policies include providing individuals or entities that are independent of the duties responsible for monitoring such control systems and reviewing important systems at least once a year and disclosed in the annual report.

8. To determine the risk management policy that covers the entire organization and review the system or assess the effectiveness of risk management at least once a year and to be disclosed in the annual report.

9. The Board of Directors or the Audit Committee shall review the adequacy of the internal control system and risk management in the annual report.

10. Provide clear guidelines to those who wish to notify the clues through the website or the report directly to the company, by the way of notification of a clue may be prescribed through an independent director or audit committee of the company in order to verify the information in accordance with the process prescribed by the company and report to the board of directors

11. The Board of Directors shall provide authority to one or more directors or any other persons to perform any action on behalf of the board. Under the control of the board of directors or to be authorized to provide such persons with the power of the board of directors and within the period that the board deems appropriate. May revoke, change or amend the authorized person or authority when appropriate. The Board of directors may provide the management with the authority to perform operations with details of the jurisdiction of the management's duties, which shall not be a delegation under the authority of management with a conflict of benefit in the company or its subsidiaries.

12. To ensure the company's subsidiaries to maintain the benefits of the company's investments by considering the suitability of the persons to be submitted as a director of the subsidiary to control the management of the company's policies and transactions according to the laws and regulations of the Securities and Exchange Act and the announcement of the Stock Exchange of Thailand (SET).

13. To appoint the company secretary under Securities and Exchange Act in order to create and retain documents, to conduct various activities of the board of directors, including the board of Directors' meeting, shareholders' meeting, and other legal and regulatory counsel to the company's board of directors. The company secretary should be trained and continually updated on the knowledge of the law, accounting and other duties of the company secretary.

Nomination of Directors of the Company

The nomination, remuneration and corporate governance committee shall consider the selection of qualifications to be nominated as directors. To propose an opinion to the board of directors and the annual general meeting of shareholders for election of directors by using the majority vote in accordance with the company's articles of association:

1. Shareholders vote for each individual board member.

2. In voting for each board member, each shareholder have one vote per share.

3. The individual with the most votes respectively become director, depending on number of available director positions or number of directors which was going to appointed at that period. In the case where there is a tie, the decision is then made by the Chairperson of the Board.

At every Annual General Meeting, at least one-third of the director must be replaced. If the number of directors cannot be divided evenly into one-third, then should divide into the closest number to one-third as possible. The director that sits in the position for the longest period should resign first then the director that resign on that agenda may be appointed back to sit in the position again.

Nevertheless, Board of Directors has provided opportunities for the subsidiaries to offer a list of qualified personnel to be considered during the election as directors in advance of the annual general meeting of shareholders.

Company's Director Term Completion

1. At the annual general meeting of shareholders, one-third of the board of directors shall leave their positions. If the number of directors is not divisible by three, the number of board of directors leaving their position will be the closest to one-third of total directors, and each member may be chosen to hold a new term as member of the board of directors.

2. Besides the position of the agenda, the director shall be complete their term when they die, retire or is prohibited by law or the shareholders' meeting.

3. Any director intending to leave the position must submit the resignation to the company, and will be effective from the submission date of the resignation. The resignation of director shall be notified by the registrar.

4. A successful vote for a particular director to resign from his/her position before the end of his/her term must carry at least three-quarters of the total number of shareholders in attendance, with the right to vote, and with no less than half of the total number of shares held by the shareholders in attendance with the right to vote.

5. In the event of the position of member of the board of directors is vacated before the end of his/her normal tenure, the board, in its next meeting, should select a qualified, and without legally prohibited characteristics-person to replace that member unless that member's tenure remains less than two months; the replacement will be chosen to take over the remaining tenure.

Term of Board of Directors

The company's board of directors comprises of 9 members consisting of 4 executive directors and 5 non-executive directors. Of these 9 directors, 3 must be independent directors in accordance with the criteria of the SEC. Each director's term is a period of 3 years and not exceeding 9 years. If any director is deemed appropriate to hold a longer term exceeding 9 years, the board of directors shall consider the independence and effectiveness of the duties of such director and clarify the reasons and the performance of duties to the shareholders.

Board of Directors' Meeting

The Board of Directors' meeting is set up in advance each year so that directors can schedule and attend the meeting. The company will deliver the meeting documents to the directors in advance with the following guidelines:

1. The board of directors shall have the meeting at least 4 times per year. The company's directors must attend at least half of the meeting to be a quorum.

2. The company shall submit the appointment letter to the directors for consideration prior to the meeting at least 7 days prior, so that the directors have sufficient time to study, consider and make the correct decisions in the board of directors' meetings.

3. The chairman of the company and president of the board of directors shall consider the agenda items of the board of directors' meeting, allowing each director to propose various matters to be considered as an agenda.

4. To consider the various matters, the chairman of the board of directors who served the chairman of the meeting, gives opportunity to directors to provide independent opinions. During the board of directors' meeting, for the vote on each matter, each director has one vote while directors with conflict of interest or in a stakeholder position will not be entitled to vote on that matter. If the votes are equal, the chairman of the meeting will have the decisive vote.

5. In the board of directors' meeting, the executive committee shall attend the meeting in order to provide useful information and to acknowledge the policy directly to be able to conduct it effectively.

6. For a resolution to be reached, no less than two-third of directors must be present at the board of directors meeting. Each director is obligated to attend the meeting no less than 75% of all board of directors' meeting in the year.

7. At the end of each meeting, it is the responsibility of the company's secretary to produce and submit a meeting minute report at the next board of directors' meeting. The chairman of the board of directors will have the right to edit the report to be more detailed, before considering signing authentication. And the directors will have the right to comment, edit, and add information to be the most accurate information.

New Director Orientation

The company has determined the orientation for the new directors by providing the presentation of the company's business overview to the new directors to be aware of the following topics:

1. Framework of operation (law, regulation, practice methodology)
2. Operational and activity information
 - vision, missions, goals, and operational strategies of the company
 - the structure of the company and its affiliates, the management structure and the management
 - the nature of the company and its affiliates, past performance and operational plan
 - investment and key projects.
3. Roles, duties and responsibilities of the Directors

4. Good corporate governance principles
5. Responsibilities to society and the environment, etc.

Development of Directors

The company promotes and encourages the training and education of those involved in the corporate governance of the company, such as directors, audit committees, executives, etc. to ensure continuous performance improvement, to understand the principles of good corporate governance, including rules, regulations, and duties of the company's directors for more efficient management. We encourage the training of Thai Institute of Directors (IOD) or attending training and seminars to exchange opinions, knowledge and experiences that are beneficial to the development of the directors and executives.

Summary of Training Courses Organized by Thai Institute of Directors (IOD)

No.	Name	DAP	DCP	FND	ACP	QFR
1.	Dr. Wandee Khunchornyakong Juljareem	2004	2004	-	-	-
2.	Mr. Somsak Khunchornyakong	2004	2005	-	-	-
3.	Mr. Jirakom Padumanon	2011	-	-	-	-
4.	Mr. Withoon Manomaikul	2020	-	-	-	-
5.	POL.MAJ.GEN. Wanchai Wisuttinan	2005	2006	2005	2006	2006
6.	Mr. Shoji Nishizawa	-	-	-	-	-
7.	Mr. Wanchai Lawattanatrakul	-	2004	2003	-	-
8.	Dr. Art-ong Jumsai Na Ayudhya	2011	-	-	2012	-
9.	Mr. Apichat Limsethanuwat	2019	-	-	-	-

In the year 2019, Mr. Apichat Limsethanuwat, Independent Director and Member of Audit Committee attended the course "Director Accreditation Program (DAP) Class 159". , And in the year 2020, Mr. Withoon Manomaikul, Director attended the course "Director Accreditation Program (DAP) Class169" which Organized by Thai Instiute of Directors (IOD)

Performance Assessment of the Board of Directors

The company has provided an evaluation of the performance of the Board of Directors and the Sub-Committees at least once a year for the framework to verify its performance during the past year. The scope of duties is based on good corporate governance principles showing the link between the performance and operating result, and the use of such assessments for the next year's development. The details are as follows:

1. Self-assessment form of board of directors by group. There are topics to evaluate such as, structure and qualifications of the board of directors, duties in the meeting of the board of directors, and duties and responsibilities of the committee.

2. Self-Assessment form of sub-committee by group. There are topics to evaluate, such as structure and qualifications of the sub-committee, duties in the meeting of the sub-committee, and duties and responsibilities of the sub-committee.

Ranking method in order for the committee to compare the assessment results in each topic as follows:

- 0 = Strongly disagree or never conducted
- 1 = Disagree or seldom conducted
- 2 = Fair or moderately conducted
- 3 = Agree or well conducted
- 4 = Strongly agree or excellently conducted

Assessment criteria by calculating from the total points in each item as follows:

More than 85 percent	= Excellent
More than 75 percent	= Very Good
More than 65 percent	= Good
More than 50 percent	= Satisfactory
Less than or equal to 50 percent	= Should Improve

Summary of Board of Directors and Sub-Committee Assessment Results for the year 2019 as follows:

1. Result of Board of Directors' Self-Assessment by group, it shows that most directors proceeded in various matters excellently and practiced regularly. Average point is in an excellent level, equal to 92.01%

2. Result of Audit Committee's Self-Assessment by group, it shows that most committees proceeded in various matters excellently and practiced regularly. Average point is in an excellent level, equal to 97.54%

3. Result of Nomination, Remuneration and Corporate Governance Committee's Self-Assessment by group, it shows that most committees proceeded in various matters excellently and practiced regularly. Average point is in an excellent level, equal to 97.89%

5.2.2 Sub-Committees

The board of directors has appointed a sub-committee to ensure the shareholders that the company has carefully selected audit committee and nomination, remuneration, and corporate governance committee to perform the specific duties and propose the matters to the board of directors for further consideration.

1. Audit Committee

The audit committee comprises of 3 independent directors with full qualifications as specified by The Office of the Securities and Exchange Commission (SEC), The Stock Exchange of Thailand, and Charter of the Audit Committee. There must be at least one member of the audit committee who has sufficient knowledge and experience in accounting and finance to be able to review the trust of the financial statements. The following lists are listed below:

No.	Name.	Position.	Number of attendance / total number of meetings In the year 2019 (times)
1.	Mr. Wanchai Lawattanarakul	Chairperson of Audit Committee*	4/4
2.	Dr. Art-ong Jumsai Na Ayudhya	Member of Audit Committee *	4/4
3.	Mr. Apichat Limsethanuwat	Member of Audit Committee	4/4

Remark: *possess knowledge and experience in accounting and finance.

Scopes of Authority and Responsibilities of Audit Committee

1. To review and ensure that company has correct and sufficient financial report.

2. To review and ensure that company has appropriate and effective internal control and internal audit and to consider the independent of internal audit sector as well as approve on the appoint, transfer, lay off the head of internal audit or other divisions that are responsible for internal audit.

3. To review and ensure that company practices according to Securities and Exchange of Thailand laws, regulation of Stock Exchange of Thailand and other laws related to the company's business.

4. To consider, select, and propose to appoint and lay off independent individual to stand in the company's auditor and purpose remuneration, including attend a meeting once a year with the auditor and without the presence of the management team.

5. To consider the connected transaction or the transaction that may have a conflict of benefit in accordance with the laws and regulations of the Stock Exchange of Thailand (SET), to ensure that the transaction is reasonably beneficial to the company.

6. To prepare the audit committee's report which will be disclosed in the annual report of the company. It must be signed by the Chairman of the Audit Committee and must contain at least the following detail:

6.1. Opinion of company financial report is accurate, complete and reliable

6.2. Opinion on the adequacy of the company's internal control system

6.3. Opinion on the compliance with the Securities and Exchange Act Regulations of the Stock Exchange of Thailand or the laws relating to the company's business

6.4. Opinion on the suitability of the auditor

6.5. Opinion on the transaction that may have conflicts of benefit

6.6. Number of the audit committee meetings and attendance of each member of the audit committee

6.7. The opinion or the overall remarks that the audit committee received from duty based on the Charter

6.8. Other items that the shareholders and general investors should know under the scope of duties and responsibilities assigned by the board of directors.

7. To perform other operations as per the board of directors authorized by the audit committee.

2. Nomination, Remuneration and Corporate Governance Committee

The Nomination, Remuneration and Corporate Governance Committee consists of 5 directors, with the following names:

No.	Name	Position	Number of attendance / total number of meetings In the year 2019 (times)
1.	Mr. Wanchai Lawatanatrakul	Chairperson of Nomination, Remuneration and Corporate Governance Committee	2/2
2.	Dr. Wandee Khunchornyakong Juljareem	Member of Nomination, Remuneration and Corporate Governance Committee	2/2
3.	Mr. Somsak Khunchornyakong	Member of Nomination, Remuneration and Corporate Governance Committee	2/2
4.	Dr. Art-ong Jumsai Na Ayudhya(*)	Member of Nomination, Remuneration and Corporate Governance Committee	1/2
5.	Mr. Apichat Limsethanuwat(*)	Member of Nomination, Remuneration and Corporate Governance Committee	1/2

Remark⁽¹⁾ The Board of Directors Meeting, No.1/2019 held on February 22, 2019 approved to edit name from "Nomination and Remuneration Committee" to "Nomination, Remuneration and Corporate Governance Committee" and appointed Dr. Art-ong Jumsai Na Ayudhya and Mr. Apichat Limsethanuwat to be Member of Nomination, Remuneration and Corporate Governance Committee

Scope of Duties and Responsibilities of Nomination, Remuneration and Corporate Governance Committee

Nomination

1. Selection and recruitment of individual that is suitable to propose to be the director with principles and transparency by the individual who was proposed

must have knowledge, competence, independence, perform director's duties with carefulness, faithfulness, able to fully dedicate their time, be of an appropriate age, healthy, able to attend directors' meeting regularly. This is also to consider from other name lists which the shareholders propose as candidate to be nominated as the company's director.

2. Preparation in advance the name list of suitable individuals to be directors and/or in the case where there's vacancy in the director or chief executive officer position.

3. Asking for opinions from board of director and/ or other committees to include in the consideration of recruiting before proposing to the committee or shareholders meeting, depending on the case, to consider and appoint.

4. Evaluation the performance of committee, sub-committee, and chief executive officer according to the operating performance of each year.

5. Consideration the qualifications of the top executive to suit the business management of the company and its subsidiaries, covering education, experience, knowledge, and expertise.

6. Supervising to ensure that the company arranges orientation programs to the newly appointed director(s)

7. Performing other duties as assigned by the board of directors.

Remuneration

1. Consideration the remuneration for committee and sub-committee, which also includes monthly allowance, meeting allowance, yearly bonus and other benefits, both monetary and non-monetary with principles and structure that are fair and reasonable to propose to the board of directors and shareholders meeting for approval.

2. Consideration the remuneration for the chief executive officer which includes wages, yearly bonus and other benefits, both monetary and non-monetary with principles or method and structure that are fair and reasonable.

3. Reconsideration the remuneration for committee, sub-committee and chief executive officer by considering from performance and operating result of company as well as regulations in industry and top listed companies in Stock Exchange of Thailand and scope of responsibilities.

4. Disclosure the remuneration policy and available options and comments from the Nomination, Remuneration and Corporate Governance Committee in the Annual Report.

5. Performing other duties as assigned by the Board of Directors.

Corporate Governance

1. Determination the policy and regulation of corporate governance processes, important operation and related issues such as, sustainability management, social responsibility in accordance with principles and Standards, and regulations of the Stock Exchange of Thailand, The Securities and Exchange Commission, and agencies or organizations with a reputation that is accepted both national and international level.

2. Specify guidelines as well as supervise and monitor in order to ensure that company operates in accordance with the policies and guidelines.

3. Supervise, give advice, evaluate and review policies of corporate governance and business ethics to develop and raise the level of corporate governance of the company.

4. Prepare report of corporate governance and performance result of nomination, remuneration, and corporate governance committee to the board of directors regularly. Disclosure in annual report of company and signed by the Chairman of Nomination, Remuneration, and Corporate Governance Committee.

5. Performing other duties as assigned by the Board of Directors.

Remuneration for Directors

The company takes appropriate consideration to the obligations and responsibilities as assigned and can be comparable to companies listed on the stock exchange that are in the industry and similar sized businesses. The nomination, remuneration and corporate governance committee shall consider the appropriateness of such remuneration and propose for approval from the Board of Directors, and then propose for approval from the shareholder meeting every year.

The Annual General Meeting of the Shareholders for the year 2019 on April 12, 2019, passed a resolution to approved the remuneration payment of the Board of Directors, the Audit Committee, and the Nomination, Remuneration and Corporate Governance Committee for the year 2019, with the following details:

Board of Directors

The remuneration for directors of the company is divided into two parts; monthly allowance and meeting allowance with the following details:

	Monthly Allowance (only for non-executive persons)	Meeting Allowance (only for directors who attend the meeting)
Chairperson of the Board of Directors	35,000 Baht per month	20,000 Baht per meeting
Director	20,000 Baht per month	15,000 Baht per meeting

Audit Committee

The remuneration for the audit committee is divided into two parts; monthly allowance and meeting allowance with the following details:

	Monthly Allowance (only for non-executive persons)	Meeting Allowance (only for directors who attend the meeting)
Chairperson of Audit Committee	35,000 Baht per month	20,000 Baht per meeting
Member of Audit Committee	30,000 Baht per month	15,000 Baht per meeting

Nomination, Remuneration and Corporate Governance Committee

The remuneration for the nomination, remuneration and corporate governance committee (meeting allowance) has the following details:

	Monthly Allowance (only for non-executive persons)	Meeting Allowance (only for directors who attend the meeting)
Chairperson of Nomination, Remuneration and Corporate Governance Committee	None	20,000 Baht per meeting
Member of Nomination, Remuneration and Corporate Governance Committee	None	20,000 Baht per meeting

Board of Directors Bonus

The company determines that the bonus is reflected and linked to the company's performance or net profit, but not exceeding 2% of the annual net profit, with the following limit:

Position	Bonus
Chairperson of the Board of Directors and Chairperson of the Audit Committee	Maximum limit up to 1,200,000 Baht
Executive Director and Managing Director	Maximum limit up to 1,000,000 Baht
Director and Audit Committee member	Maximum limit up to 800,000 Baht

The Nomination, Remuneration and Corporate Governance Committee shall appoint the criteria and process the allocation of such bonus and propose to the board of directors' meeting at the shareholders meeting for consideration prior to the actual allocation.

Summary of the Remuneration of the Company's Directors for the Year 2019

Unit: Baht

Name	Monthly Remuneration	Meeting Allowance	Total Remuneration for Directors
Dr. Wandee Khunchornyakong Juljarern	-	110,000	110,000
Mr. Somsak Khunchornyakong	-	90,000	90,000
Mr. Jirakom Padumanon	240,000	60,000	300,000
Mr. Withoon Manomaikul	240,000	60,000	300,000
POL.MAJ.GEN. Wanchai Wisuttinan	240,000	60,000	300,000
Mr. Shoji Nishizawa	240,000	60,000	300,000
Mr. Wanchai Lawattanatrakul	420,000	180,000	600,000
Dr. Art-ong Jumsai Na Ayudhya	360,000	135,000	495,000
Mr. Apichat Limsethanuwat	360,000	135,000	495,000
Total	2,100,000.00	890,000.00	2,990,000.00

Remark: The remuneration of the monthly directors shall be received only by non-executive directors.

The company paid the board bonus for the annual performance of the year 2019, amounting 7,754,521 Baht (seven million seven hundred fifty four thousand five hundred twenty one Baht).

Other Expenses of the Directors

The company does not have any other remunerations. But the company prepares Director and Officer Liability Insurance in the total amount limit not over 200 million Baht.

5.2.3 Company Secretary

In order to comply with the Securities and Exchange Act 1992 (as further amendments) to the Board of Directors' Meeting No. 1/2015, on 20 February 2015, approved the appointment of the company secretary, Ms. Parichat Saipia effectively from February 20, 2015 onwards, with the following responsibilities:

1. To organize and maintain the following documents
 - 1.1. Register of Director
 - 1.2. Arrange meeting of directors and report of the board of directors and annual report of the company.
 - 1.3. Arrange meeting of shareholders and shareholders' meeting report
 - 1.4. Important documents of the related company.

2. Keep the report of stakeholders reported by directors or executives.

3. Schedule an annual general meeting and notify the board of directors from the beginning of the year.

4. To organize the board of directors' meetings and submit related documents to the board of directors at least 7 days prior to the date of the board of directors meeting.

5. To organize the shareholders' meeting in accordance with regulations and related laws, as well as coordinate with the resolution of the shareholders' meeting.

6. To provide instructions to the board of directors according to the Memorandum of Association, Company's Articles of Association, The Securities and Exchange Act, The Public Limited Companies Act, and other related laws.

7. Act as the center of communication between directors, executives and shareholders.

8. To ensure the disclosure of information and report in the section responsible for regulatory authorities and regulations of government departments.

9. To perform other operations as determined by the capital market supervisory board or as assigned by the board of directors.

5.2.4 Executives

Company's executives consisted of 8 persons which are as follow;

No.	Name	Position
1.	Dr. Wandee Khunchornyakong Juljarern	Chief Executive Officer
2.	Mr. Somsak Khunchornyakong	Executive Vice President (Operation) and Managing Director, Solar Power Co., Ltd.
3.	Mrs. Narinporn Malasri ⁽¹⁾	Executive Vice President (Management)
4.	Mr. Chaiwat Tungsuwanpanit	Executive Vice President (Accounting & Finance)
5.	Mr. Chanchai Banditsaowapak	Executive Vice President (Solar Farm Business)
6.	Mr. Jirakom Padumanon	Executive Vice President (Solar Roof & Steel Roof Business)
7.	Mr. Shoji Nishizawa ⁽²⁾	Managing Director, Solar Power Roof Co., Ltd.
8.	Mr. Tomohide Hirashima ⁽³⁾	Managing Director, Solar Power Engineering Co., Ltd.

- Remarks:**
- (1) The Board of Directors Meeting, No.3/2019 held on August 9, 2019 approved to appoint Mrs. Narinporn Malasri as Executive Vice President (Management) which is effective since September 2, 2019.
 - (2) The Board of Directors Meeting, No.4/2019 held on August 10, 2018 approved to appoint Mr. Shoji Nishizawa as Managing Director of Solar Power Roof Co., Ltd. ("SPR") which is effective since 2018.
 - (3) The Board of Directors Meeting, No.1/2019 held on February 22, 2019 approved to appoint Mr. Tomohide Hirashima as Managing Director of Solar Power Engineering Co., Ltd. ("SPE") which is effective since January 1, 2019.

Recruiting Senior Executives

The company has a policy on succession plan for an important position of the organization, such as the position of the Managing Director or the equivalent position. When the position is vacant, or those in the position can no longer perform their function as required, the company will allow executive in a close level or a lower level to temporarily act in his/her position, until the nomination, remuneration and corporate governance committee will select another person in compliance with the company's qualified persons characteristics. These individuals must be those who have the vision, knowledge, abilities, and experience of the organization's corporate culture to propose the board of directors for further consideration.

Scope of Duties and Responsibilities of Chief Executive Officer

1. Manage company business and daily operation and administration in accordance with the business policies, plan, and strategies that the board of directors approved.

2. Has the authority to approve in doing any transaction in company's general business operating including compile proposal in entering into procurement contract or in accordance with the authorization regulations which the board of director had set periodically.

3. Assign duties and responsibilities in company's managing and operating to the management team and company's staff in line with the organization structure that the board of director had approved; to conform to the Company's laws and regulations.

4. Has the authorities to authorized a substituted agent and/or assigned other individual to perform one or many tasks instead of the Chief Executive under the scope of authorities that the Chief Executive was assigned to and in accordance with the regulations and laws. In authorizing a substituted agent, must be in accordance with the Company's laws and regulations, order or resolution of the board of director and/or what the company had specified.

5. Has the authority to hire, appoint, transfer, lay-off and set salary for employees that are lower than the executives position, along with appoint employer representative in the company's provident fund committee.

6. Has the authority to instruct on the regulations, announcements and records regarding employee operations to be in accordance with the company's policies and to protect the company's benefit as well as maintain discipline within the organization.

7. Perform other duties on matters assigned by the board of directors.

The scope and operations of the chief executive officer is under the regulations of the board of directors governance so as to be in line with the company's policy set forth by the board and act within the laws and regulations of the company. The chief executive officer must accept policies set forth by the board and act on them accordingly. As well as set up annual reports of all operations to the board.

Executives Remuneration

Executive Remuneration consisted of (1) Monetary remuneration which are salary and bonus (2) Executive remuneration (including employees of the company) in other forms which are social security, outpatient medical expense, inpatient medical expense, provident fund, life insurance, and accident insurance.

As of December 31, 2019, the company has a total of 7 executives. Therefore, the company's executive remuneration in 2019 and 2018 are at the total of 13.41 million baht and 11.88 million baht respectively.

5.3 Personnel

5.3.1 Personnel

Change of employees of the company and its subsidiaries which received compensation from the company. The details are as follows;

Number of Employees	SPCG	SPC	SRC	SPR	SPE	SPC & SPA and its Subsidiaries (36 Companies)*	Total
December 31, 2017	57	22	79	18	0	0	176
December 31, 2018	66	17	62	34	0	0	179
December 31, 2019	68	15	56	31	6	0	176

Source: PND. 51st of each company.

* No employees of SPC and SPA, total 36 companies. Due to hiring SPC to manage instead.

As of December 31, 2019, employees of the company and subsidiaries which received remuneration from the company, a total of 176 persons. The details are as follows;

Unit: Person

The Main Work	SPCG	SPC	SRC	SPR	SPE	SPC & SPA and its Subsidiaries (36 Companies)*	Total
Executive	9	2	1	2	0	0	14
Human Resource	4	0	2	0	0	0	6
Account and Finance	22	0	4	0	0	0	26
Office Staff	21	6	32	10	0	0	69
Production and Maintenance	0	0	0	0	0	0	0
Sales and Marketing	0	0	7	1	2	0	10
Engineering	1	7	9	10	0	0	27
IT	4	0	1	0	0	0	5
Quality	7	0	0	0	0	0	7
Customer Service	0	0	0	8	4	0	12
Total	68	15	56	31	6	0	176

Source: Employee Records

* No employees of SPC and SPA, total 36 companies. Due to hiring SPC to manage instead.

5.3.2 Employee Compensation

The company has defined a short-term and long-term employee compensation policy so that employees receive fair compensation for their work, including:

1. The company pays the total compensation of the employee in the form of salary, overtime pay, allowance, diligent allowance, and bonus, according to the duties of each person's responsibilities based on the qualifications and performance of the company.

2. Employee welfare includes social security, provident fund, life insurance, health insurance, outpatient medical expenses, inpatient medical expense, accident insurance, employee uniform, and other rights according to policies and related laws, such as the annual vacation right., the right of various types, employee activities held by the company, etc.

The company has established a provident fund on behalf of the company's name for the employees by appointing American International Assurance Co., Ltd. as a fund manager starting since the year 2005. The

employee will pay the accumulated at 3.0 percent of salary every month, while the company will pay the contribution at 3.0 percent of salary every month. And executives of company will receive this benefit too.

In the year 2019, the company has paid the total compensation of the employee in the form of salary, overtime pay, allowance, diligent allowance, bonus, group insurance fee, training fee, social security, provident fund, and other benefits in the year ended December 31, 2019, total amount of 98.75 million baht.

5.3.3 Labor Disputes

In the year 2019, there were no labor dispute.

5.3.4 Statistics of Accident or Rate of Work-Related Sick Leave

The company emphasizes on workplace safety and sanitation policies and practices. As a result, in the year 2019, the company has no accident or rate of work-related sick leave.

5.3.5 Policy on Training and Employee Development

The company recognizes that human resource development is very important to develop competitiveness with other companies. It is the company's priority in managing existing resources, especially focusing on development of people. Good occupational skills and attitude, as well as promote quality of work. The company has policy on selection of new employees, development of employees, and employee retention as follows:

1. The company has a thorough employee selection process through a human resource provider, based on the graduate degree field and grade. In addition, the company has a policy for the manager to provide regular assessment for employees still under probation period. This process to ensure that the company employs personnel with the desired qualities to be part of the company's success.

2. The company has a policy to develop personnel regularly. It aims to improve performance of employees at all levels. In addition, the company encourages

employees to develop their own knowledge and expertise (On the Job Training). The company considers sending employees and executives in various departments to attend trainings and seminars to improve their performance, to bring the knowledge to improve work processes. For example, the company sends accounting and financial staffs for training about the new accounting standard, as well as the training of employees to increase their knowledge and ability, to promote the collaboration in the various departments, and to establish positive company's culture. On average training/seminar hours is 42 hours/person/year.

3. The company has a policy to maintain personnel with the opportunity to demonstrate their ability to be promoted in accordance with the consideration of suitability and capability. The company also has a policy to give employees the opportunity to receive compensation and salary for the work they do.

5.4 Audit Fee

5.4.1 Audit Fee

In the year 2019, company paid the audit fee to auditor of KPMG Phoomchai Audit Ltd., the amount of 800,000 Baht. Auditor lists are as follows:

- 1) Mr. Natthapong Tantichattanon
Certified Public Accountant No. 8829
- 2) Mr. Vairoj Jindamaneepitak
Certified Public Accountant No. 3565
- 3) Ms. Dussanee Yimsuwan
Certified Public Accountant No. 10235

The auditors as specified above have no relationship and no interest in the company, subsidiaries, executives, major shareholders, and related person. Moreover, there is no one in charge of reviewing or examining, and expressing opinions to financial statement of company for five fiscal years consecutively.

5.4.2 Other Services (Non-Audit Service) - None -

5.5 Corporate Governance

The Board of Directors has a policy to comply with good corporate governance principles as a guideline for various operations as follows:

1. The board of directors along with the executives in determining the company's vision, strategies, policies and key plans, as well as to structure the management of the board of directors, executives and shareholders.

2. The board of directors, executives and all employees will act with dedication to the utmost benefit of the company and to adhere to the company's corporate governance principles and business ethics.

3. The board of directors and executives shall be the leader of the business ethics and represent in performing duties with honesty, transparency, and verifiable in accordance with the company's business ethics.

4. The board of directors, executives and employees will adhere to fairness by complying with the shareholders and all stakeholders equally, and to monitor and prevent any acts of conflict of interest or transactions.

5. Compliance with the corporate governance policy is an important measure of the evaluation of the business management of the board of directors, and executives as well as evaluating the performance of all employees.

6. The board of directors must provide a system that supports effective anti-corruption. To ensure that the management is aware and is responsible for the anti-corruption, as well as complying with anti-corruption measures.

It is categorized into 5 categories according to good corporate governance principles for listed companies, 2006 of the Stock Exchange of Thailand by defining the provisions to be a practical approach. In addition, the company has implemented good corporate governance principles as a guideline for efficient and transparent management of the company's operations and business operations to increase confidence in the

shareholders, investors, employees, and all stakeholders with the following guidelines in each category:

Category 1: Shareholder Rights

The company specified the corporate governance policy by taking into account of shareholders rights in order to build confidence and ensure that all shareholders receive fundamental rights which are purchasing, selling and transferring of shares, receiving dividends from the company, receiving efficient company's information, attending shareholder meeting, the ability to freely express their opinions at the shareholder meeting, and participation in the company's significant decision making. Regardless, every shareholder has voting rights according to the number of shares hold, one vote per share. The shareholder meetings operates as follow;

1. Regularly disseminate important and necessary information to shareholders through the company website and the news system of the Stock Exchange of Thailand.

2. Arrange and send shareholder meeting notice, specifying the date time and place of the meeting as well as the meeting agenda and related materials which includes; map of meeting address, detail of each shareholder meeting's agenda, annual report, authorization form as well as information on independent directors in order to provide shareholders with the option to authorize for a representative/proxy to attend the meeting on their behalf. The shareholder meeting notice will contain details of the documents that shareholder need to bring on the day of meeting as well as the company regulations on matters related to the shareholder meeting. The Company will send the notice within the time frame under the law or announced regulations set forth. The company will send the invitation to the meeting no less than 14 days before the meeting date, and announce the meeting notification in the newspapers for 3 consecutive days and not less than 3 days before the meeting date, including the publication of the meeting invitation in advance on the company's website not less than 30 days before the meeting date.

In the event that the agenda is added, the shareholder will be notified in advance.

3. Before the shareholder meeting, the Chairman of the Board will inform the amount/ proportion of shareholders attending the meeting, including those that attend themselves and those that are authorized representatives. After that the chairman will explain the procedures of voting and the counting of votes. The chairman will assign a director who will be in charge of vote counts which of whom will include; independent directors, auditors and company personal to ensure transparency as well as show vote results of every agenda in the meeting.

4. In the shareholders' meeting, the company has provided a resolution to each item. In the event that the agenda has several items, such as the appointment of director, the shareholders have the right to vote individually, with each person having one vote per share.

5. Give shareholders the opportunity to participate in the meeting by allowing shareholders to ask question or to comment on doubtful issues before the voting takes place as well as summarize each shareholder meeting resolution. The relevant directors and managing directors in charge of the topic presented in the meeting will also be present to give further information and to answer shareholders inquiries.

6. The shareholders have the privilege to enter the meeting after the meeting has started and have the rights to vote on issues that are in progress of considering and have not yet been concluded.

7. Arrange for directors to be present at every meeting so that shareholders can ask questions on related issues.

8. After the meeting of shareholders, the company will publish information regarding the results and resolutions of the shareholders' meeting on the Stock Exchange of Thailand as well as the minutes of the shareholders meeting within 14 days after the date of the shareholders' meeting and publish the meeting details appropriately.

9. Operate with efficient manner for the growth

and sustainability of the company to ensure that shareholders receive appropriate return.

Operation in the Year 2019

In the part of the Annual General Meeting of Shareholders for the year 2019, company prepared the form to propose the meeting agenda and to nominate person to be elected as directors in advance. And company announced on company website and system of the Stock Exchange of Thailand during October 11 - December 31, 2018 in order for company secretary department to consider before presenting to the board of directors for consideration. The company will have the clear and reasonable rules and regulations for consideration the issues and topics that presented by shareholders. However, there is no nomination of person, issue, and topic that presented by shareholders in advance.

Moreover, the company sent meeting invitation letter, meeting agenda, and annual report 2018 to shareholders in advance, at least 14 days before the meeting date. We also disclosed the meeting invitation letter and documents on website (<https://www.spcg.co.th>) on March 12, 2019 which is disclosure in advance more than 30 days before the meeting date. Moreover, the company notified in the newspaper for 3 consecutive days and not less than 3 days before the meeting date. Therefore, the shareholders will have enough time to study and consider information. In the year 2019, the company did not call an extraordinary meeting of shareholders.

Refer to quality evaluation result of annual general meeting 2019 which prepared by Thai Investors Association, company received a score of 96.00%, higher than the score in 2018.

And company received an increasing of survey results scores about the Corporate Governance of Thai Listed Companies - CGR) in 2019 which is prepared by Thai Institute of Directors (Thai IOD) to be "Very Good" level. Previously rated "Good" level in 2018.

Category 2: Equal Treatment for All Shareholders

The company take into consideration every shareholder, major and minor shareholders by promoting equal treatment and justice by operating as follow;

1. The company will maintain the rights of shareholders and treat the shareholders fairly and equally. All shareholders are entitled to receive information or documentation in Thai or English for foreign shareholders.

2. Give shareholders the right to request for more meetings and nominate candidates to sit in the director position in the annual general shareholder meeting in advance at least 90 days before the meeting date. The process and deadline of which must be reported in the Stock Market's news system.

3. Conduct the shareholder meeting according to the order that are stated in the shareholder meeting notice (without changing items) while also prohibiting the adding of items other than what is reporting in the shareholder meeting notice.

4. Present information regarding independent directors as an option for shareholders to authorize proxy/representative and support the use of proxy forms that can determine voting direction.

5. Arrange ballot cards for each item so that shareholders can use in voting, especially for shareholder who votes against or abstain from voting. This will enable shareholders to freely vote on each item and able to check the details at the end of the meeting.

6. The board of directors shall report the changes in the securities holding of the directors, and executives of the company according to the announcement of the Office of the Securities and Exchange Commission (SEC) and disclosure of the securities holding of the directors and executives in the Annual Information Report (Form 56-1).

7. Set guidelines to maintain company's confidential information, and set preventive measures of the use of company's inside information in the company's business ethics as a guidelines for directors, executives and employees in the organization to follow, in order to protect the impact on the Company.

8. Set guidelines for directors, executives and

personals on conflict of interest matters. Such guidelines should be in the company's business ethics, in order to protect the company's best interest.

Company has communication channel with independent directors in various matters relating to their rights. Including whistleblowing or complaints on various matters as follows:

1. Illegal actions, corruption, company regulations, and unethical behavior of directors, executives, and personals.

2. Abnormality of financial reports and defective internal control system.

3. Any matter that affect the benefits or reputation of the company.

The company will publish policies and methods on the company website. Whistleblower or complainant can inform via company website, in the topic of "Good Corporate Governance" or "Complaint Channel" as this link www.spcg.co.th/th/page/15/Whistle%20Blowing or other channels as follows:

1. "Sealed Letter" to the Audit Committee at SPCG Public Company Limited (Head Office) No.1 Capital Work Place Building, 10th Floor, Soi Jamjan, Klongton Nua, Wattana, Bangkok Thailand 10110

2. Electronic Mail (E-mail) to Audit Committee
e-mail: whistleblower@spcg.co.th

3. Telephone Number : 0-2011-8111

Operations in the Year 2019

Company did not receive any complaint about not respecting the basic rights of shareholders. The company treated to shareholders equally and no use of company's inside information for seeking any benefit.

Category 3 The Roles of Stakeholders

In operating business of the company, from shareholders, directors, executives, personals, creditors, customers, business partners, competitors as well as communities and the nation order, all of which have different need and different benefit. Therefore, stakeholders treatment policies will conform with requirements specified without violating any rights of stakeholders, as follows:

1. The company divides stakeholders into groups, which are; major shareholders, minor shareholders, institutional investors, creditors, customers, trading partners and subsidiaries/joint venture, communities, and societies. In each of the groups, the company must establish communication channel and response adequately to the need from the company for each group.

2. Towards its customers and partners, the company sets prices at a reasonable rate and operates its business appropriately and neutrally, but setting the company's interest as priority and not exploit its business partners unnecessarily.

3. Towards its employees and personals, the company takes into account their welfare and not take advantage in employment contract. Set appropriate remuneration suitable with the skills to encourage work incentives. Offer training, and good environment by setting up safety standards, build work discipline and receive thorough care.

4. The company has social responsibilities, supports, assist and establish community and society benefits as a whole. Framework in conserving the environment and safety, especially environmental effects caused by the company business. The Company also has compensation plan for accident and sustainably solving plan. This is to reciprocate to the public for considering the company as being one with the society in environment area.

5. The company has provided policies and guidelines for anti-corruption and encourage the company's personnel to focus on the anti-corruption,

compliance with applicable laws and regulations, as well as provide a systematic procedure to prevent fraud and receiving or bribery in all forms.

Category 4 Disclosure of Information and Transparency

The company must disclose significant information correctly and accurately for stakeholders help with decision making process and build up investor confidence by showing integrity as well as accountability. The company therefore gives high importance in disclosure of company information and increase channel to be able to continuously give information.

1. The board of directors is responsible for the disclosure of information on the financial statements and all other matters that are important to the event, so that the shareholders and stakeholders of the company receive information equally, as determined by the company's laws and regulations.

2. The company publishes information through various channels such as the Stock Exchange of Thailand news system for the annual information (Form 56-1), the annual report (Form 56-2), and the company website, which is accurate, reliable, and current to ensure that shareholders are able to find additional information and contact the authorities responsible for providing information quickly and efficiently.

3. Directors and executives must disclose information about its stakeholders and those involved in the case of stakeholders relating to the company.

4. Disclosure of the roles and duties of the board of directors, sub-committee, the number of meetings, the number of times each director attended the meeting, training, development of professional knowledge of the board of directors, and the remuneration policy for directors and executives in the annual report.

5. Maintain a public relations department which communicate the company's information to the shareholders, investors, personals, related persons, and the general public regularly and effectively to eliminate misunderstandings. As well as the investor relations

department, acting as coordination with institutional investors, creditors, analysts, and shareholders to provide the company's operations and investment information in a convenient, fast, and easy-to-access way.

6. The board of directors shall provide the financial statements and audit report of the auditor, along with the annual report of the board of directors and present to the shareholders meeting in the annual general meeting for approval.

7. The board of directors shall prepare the company's assessment and trend report which describes its own responsibility for the reporting of financial reports, shown in conjunction with the auditor's report, audit fee, and auditor's other fees required for the analysis of the financial statements in various formats is defined in the annual report.

8. The board of directors and executives must report the changes in company securities holding as defined by the regulations of the Securities and Exchange Commission and the Stock Exchange of Thailand.

Operations in the Year 2019

Company participated in activities of the Stock Exchange of Thailand continuously in order to publish information to investors. The company joined "Opportunity Day" to inform operating result, organized "Analyst Meeting Day", doing "Press Release", and welcoming institutional investors to visit the business and update information such as, operation result.

No.	Activity	Number (time)
1.	Opportunity Day	4
2.	IR Day	11
3.	SPCG Analyst Meeting	1
4.	SPCG Conference Call	2
5.	Press Release	1

Section 5 Responsibilities of the Board of Directors

The board of directors shall be responsible for performing duties with caution, honestly, legally, be in line with objectives, regulations and resolutions of the board of directors, as well as the resolutions of the shareholders' meeting. And the board of directors has an important role in the corporate governance for the utmost benefit of the company by performing the following:

1. The board of directors has leadership, vision, and independent thinking to make the most of the company's and overall shareholders, with the separation of roles, duties, responsibilities between the board and management, and to ensure that the company has a system that provides confidence that the activities of the company are conducted in a legitimate and ethical manner.

2. The committee consists of directors with various qualifications, both in the field of skill, experience, and the ability to be beneficial to the company as well as dedication of time and effort to perform the duty to strengthen the company.

3. To define and review the vision, mission, and business goals of the company.

4. Arrange the board of directors' meeting at least four time per calendar year to consider and follow the activities related to the operation.

5. To report the company's performance and financial status on a quarterly basis.

6. To provide internal control system and risk management measures with regular review and assessment.

7. Arrange the independent director meeting at least 2 times per year to give suggestions to the management for the use in development of the company's operations to be more efficiency.

6 Internal Control



6.1 Internal Control Policies

The Board of Directors recognizes the importance of internal control and assigned the audit committee and management assess the adequacy assessment of the internal control system according to the guidelines of COSO 2013 (COSO: The committee of Sponsoring Organizations of the Treadway Commission) to ensure that the internal control system is appropriate, sufficient and effective for the business comply with related laws and regulations.

The Board of Directors agreed with the audit committee that the company's internal control system is sufficient and suitable for business operations. The essence of all 5 components can be summarized as follows;

1. Control Environment

The company operates business under the principles of good corporate governance by establishing policies and regulations in accordance with the principles of corporate governance and business ethics in writing. Including the determination of the code of ethics for directors, executives, and employees, which requires that the board of directors, executives and employees comply with the above policies and regulations. Therefore, The roles, duties and responsibilities of the Board of Directors have been specified including duties and responsibilities in accordance with the charter of the sub-committee clearly with approval authority and appropriate responsibilities. In addition, the company has been assessed for Corporate Governance Report of Thai Listed Companies (CGR) annually. In the year 2019, the company received Very Good score.

2. Risk Management

The company emphasize on the risk management by establishing an operational plan to manage both internal and external risks to prevent or reduce the impact that may occur on business operations to be in an acceptable level. Including determining important risk indicators to track changes in various factors, and setting additional measures for responding to changes effectively and timely. In order to ensure that the investment achieves the objectives and generates sustainable income for the company.

3. Control Activities

The company has specified control activities that are efficient and effective by having a clear operation manual including determining the approval authority. In order to set authorization and hierarchy of authorized persons which covers budget, finance and accounting, procurement as well as the transfer and elimination of assets. In order to decentralize and prevent fraud. Information technology infrastructure is controlled by providing access control and data security. The company has also been certified and passed the ISO 27001: 2013 standard on December 15, 2017.

4. Information and Communication

The company provides information systems and communication channels both inside and outside the organization effectively by providing communication channels within the organization via electronic mail in order to be able to achieve the objectives more efficiently. Including the communication of important information for proper consideration of the Board of Directors with the delivery of meeting documents to the

Board of Directors at least 7 days before the meeting. For external communication, company communicates through public relations, advertising in the form of publications, and the company's website. So that external stakeholders can access important information more conveniently and quickly. And company has communication channel for receiving complaints or Whistle Blowing.

5. Monitoring Activities

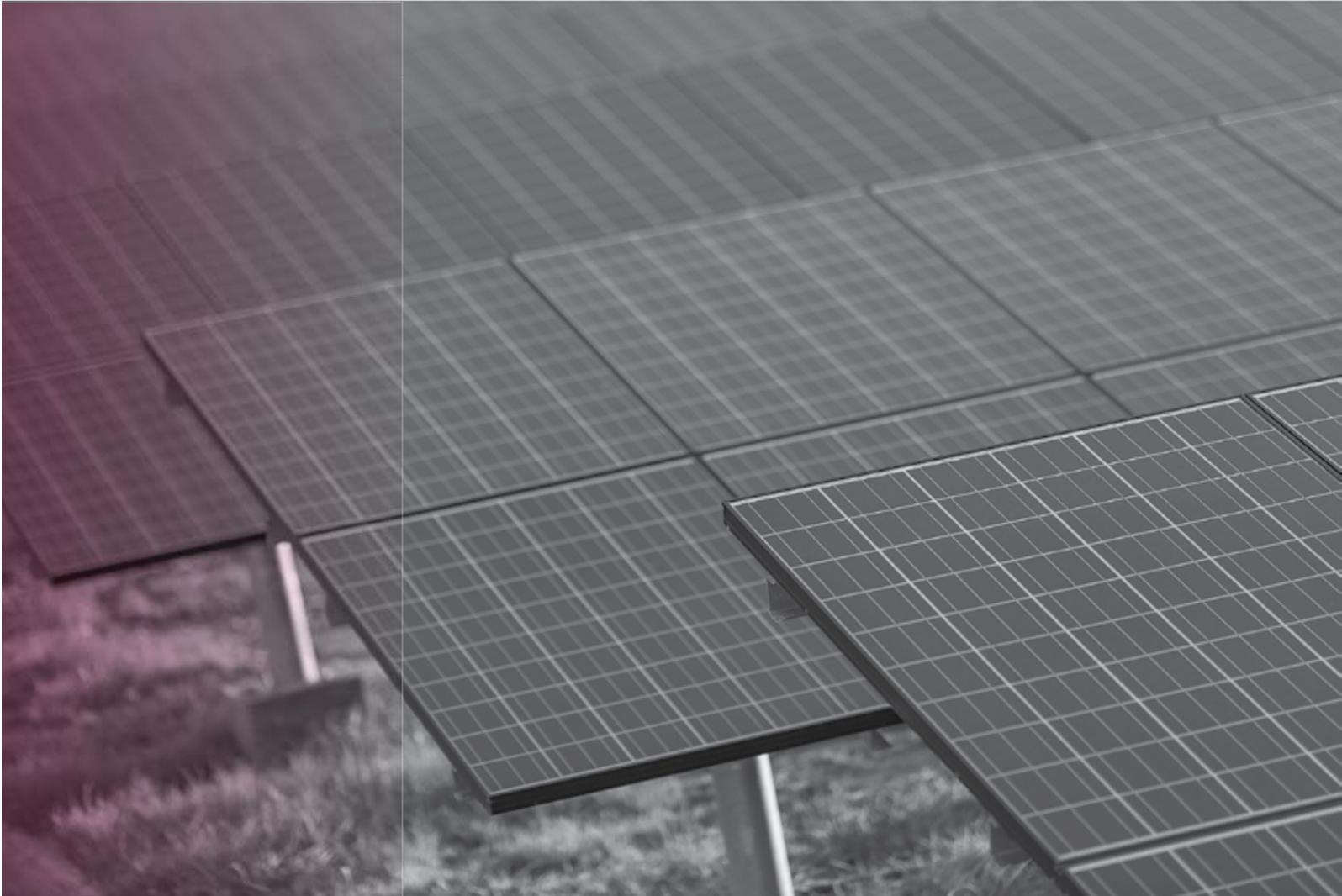
The company regularly monitors and evaluates the adequacy of the internal control system, set business goals according to the business plan which is defined as a measure of achievement of work and the performance evaluation. In order to analyze the cause and determine the solution in time. In this regard, the company hired BKI & IC Company Limited ("BK IA&IC") as an internal auditor which has a chain of command directly with the Audit Committee. BK IA&IC will assess the performance in various areas regularly. When found bugs or things that should be improved, they will report to the management and the audit committee for improvement effectively as well as following up and evaluating the system solutions according to the recommendations of the audit committee.

In the year 2019, BK IA&IC presented its internal audit plan to the Company and subsidiaries in accordance with the following topics.

No.	Subject	SPCG	SPC	SPV	SPR	SRC
1.	Assessing the adequacy assessment of the internal control system	✓				
2.	Revenue-expense control	✓				
3.	Payment control	✓			✓	
4.	Procurement control		✓		✓	
5.	Inventory control		✓		✓	
6.	Debt record		✓		✓	
7.	Account recording, repayment		✓			
8.	Solar farm management control			✓		
9.	Sales control				✓	
10.	Control of product delivery and installation for customers				✓	
11.	Control of accounting for income and cost recognition				✓	
12.	Fixed assets control				✓	✓
13.	Personnel control					✓

7

Related Transactions



7.1 Related Transactions of SPCG and its subsidiaries

SPCG and subsidiaries have important transactions with related companies and related persons whereas the company has disclosed the related transactions of SPCG and its subsidiaries regarding to consolidated financial statement ended December 31, 2019 and 2018 for comparison as follows;

Person/Potential ARM's Length Basis Juristic Person	Relationship	Transactions	Transactions Value (Thousand Baht)		Necessity and Reasonability
			Year 2019 Ended December 31, 2019	Year 2018 Ended December 31, 2018	
<p>1. JPEN Co., Ltd. (JPEN)</p> <p>Is the operating service company Maintenance of solar farm processing and installation of solar roof</p>	<p>1. Mr. Jirakom Padumanon</p> <ul style="list-style-type: none"> Taking a position of the board of directors and holds 0.15% One of the company major shareholder Holding 10.0% shares of JPEN Co., Ltd. <p>2. Mrs. Piyarat Suksombat</p> <ul style="list-style-type: none"> Sister of Mr. Jirakom Padumanon Holding 70% of JPEN Co., Ltd. shares However in accordance to section 258 of the securities and exchange act B.E 2535, Ms. Wandee Khunchornyakong and related person are not shareholder, executive, authorized person, stakeholder or beneficial in JPEN Co., Ltd. or gain any benefit that occur from related transactions of the company or subsidiaries of JPEN Co., Ltd. 	<p>1. Cost of OM&M</p> <p>This transaction is cost recognition solar farm for SPC hiring JPEN Co., Ltd.</p> <p>2. Account payable - OM&M</p> <p>This transaction is account payable of OM&M contract regarding to SPC with JPEN Co., Ltd.</p> <p>3. Account payable - equipment</p> <p>This transaction is account payable of selling equipment for SPV and SPE with JPEN Co., Ltd.</p>	168,000	168,000	<p>1. This transaction is an ordinary cause of business transaction and in accordance with the condition of designer and construction contract between JPEN Co., Ltd. and SPC</p> <p>2. This transaction is an ordinary cause of business transaction and in accordance with the condition of designer and construction contract between JPEN Co., Ltd. and SPC</p> <p>3. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPV and SPE</p>

Person/Potential ARM's Length Basis Juristic Person	Relationship	Transactions	Transactions Value (Thousand Baht)		Necessity and Reasonability
			Year 2019 Ended December 31, 2019	Year 2018 Ended December 31, 2018	
		<p>4. Cost of Solar Roof Installation This transaction is acquired of solar roof installation and O&M for SPR with JPEN Co., Ltd.</p> <p>5. Account payable - Solar Roof Installation This transaction is account payable of solar roof installation and O&M for SPR with JPEN Co., Ltd.</p> <p>6. Revenue from selling equipment This transactions is revenue from selling equipment of SPR and SPC to JPEN Co., Ltd.</p> <p>7. Account Receivables This transactions is account receivables from solar roof installation charged by SPR</p> <p>8. Buying goods This transactions is buying goods from JPEN Co., Ltd</p>	56,061	206,654	<p>4. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR</p> <p>5. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR</p> <p>6. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd., SPR and SPC</p> <p>7. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR</p> <p>8. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR</p>
			123,190	210,990	
			30,785	29,216	
			4	572	
			31,306	48,993	

Person/Potential ARM's Length Basis Juristic Person	Relationship	Transactions	Transactions Value (Thousand Baht)		Necessity and Reasonability
			Year 2019 Ended December 31, 2019	Year 2018 Ended December 31, 2018	
<p>2. Woracha Holding Co., Ltd. is a company of property and asset management</p>	<p>1. Ms. Wandee Khunchornyakong</p> <ul style="list-style-type: none"> is a director and holds 30.69% shares of SPCG Public Company Limited. is one of the major shareholders holds 1.00% shares in Woracha Holding Co., Ltd. <p>2. Ms. Sompong Khunchornyakong</p> <ul style="list-style-type: none"> holds 1.21% shares is a director and holds 2% shares in Woracha Holding Co., Ltd. <p>3. Ms. Prakong Khunchornyakong</p> <ul style="list-style-type: none"> holds 3.22% shares is a director in Woracha Holding Co., Ltd. <p>4. Ms. Woracha Khunchornyakong</p> <ul style="list-style-type: none"> holds 0.19% shares is an Assistant to CEO of SPCG Public Company Limited. is a director and holds 97% shares in Woracha Holding Co., Ltd. 	<p>1. Warehouse rental</p> <p>This transaction is acquired of warehouse rental contract between SPC, SPR, SPE and SPV with Woracha Holding Co., Ltd.</p>	11,509	10,977	<p>1. This transaction is a normal business transaction and in accordance to the condition of rental contract between Woracha Holding Co., Ltd. with SPC, CPR, SPE and SPV</p>

Person/Potential ARM's Length Basis Juristic Person	Relationship	Transactions	Transactions Value (Thousand Baht)		Necessity and Reasonability
			Year 2019 Ended December 31, 2019	Year 2018 Ended December 31, 2018	
3. Capital Work Place Co., Ltd. is a company of real estate rental company	<p>1. Ms. Wandee Khunchornyakong</p> <ul style="list-style-type: none"> is a director and holds 30.69% shares of SPCG Public Company Limited. is one of the major shareholders is a director and holds 2% of Capital Work Place Co., Ltd. 	<p>1. Account payable</p> <p>This transaction is account payable of office rental contract between SPCG, SPC and SPR with Capital Work Place Co., Ltd</p>	305	277	1. This transaction is a normal business transaction and in accordance to the condition of rental contract between Capital Work Place Co., Ltd. and SPCG, SPC and SPR
	<p>2. Ms. Sompong Khunchornyakong</p> <ul style="list-style-type: none"> is a director and holds 1.21% shares of SPCG Public Company Limited is a director and holds 8% of Capital Work Place Co., Ltd. 	<p>2. Office rental</p> <p>This transaction is acquired of office rental contract between SPCG, SPC and SPR with Capital Work Place Co., Ltd</p>	7,426	7,399	2. This transaction is a normal business transaction and in accordance to the condition of rental contract between Capital Work Place Co., Ltd. and SPCG, SPC and SPR
	<p>3. Ms. Woracha Khunchornyakong</p> <ul style="list-style-type: none"> is a director and holds 0.19% shares of SPCG Public Company Limited. is an Assistant to CEO of SPCG Public Company Limited. is a director and holds 90% shares of Capital Work Place Co., Ltd. 	<p>3. Maintenance fee</p> <p>This transaction is acquired of maintenance fee between SPCG, SPC and SPR with Capital Work Place Co., Ltd</p>	12,914	12,803	3. This transaction is a normal business transaction and in accordance to the condition of rental contract between Capital Work Place Co., Ltd. and SPCG, SPC and SPR.

Person/Potential ARM's Length Basis Juristic Person	Relationship	Transactions	Transactions Value (Thousand Baht)		Necessity and Reasonability
			Year 2019 Ended December 31, 2019	Year 2018 Ended December 31, 2018	
4. SW PARTNERS INC. is a company of foreign investment consulting company	<p>1. Mr. Shoji Nishizawa</p> <ul style="list-style-type: none"> • is a director of SPCG Public Company Limited. • is a managing director of Solar Roof Company Limited. • is a director and holds 67% of SW PARTNERS INC. 	<p>1. Foreign investment advisory fee</p> <p>This transaction is acquired of foreign investment advisory fee between SPCG with SW PARTNERS INC.</p>	15,186	13,316	1. This transaction is a normal business transaction and in accordance to the condition of service contract between SW PARTNERS INC. and SPCG

On February 28, 2020, The board of director has considered the related transaction of the company at the end of fiscal year on December 31, 2019. The board of director said that related transaction of the company in the fiscal year ended December 31, 2019 was the information for running the business as usual and according to general trade conditions as a person of ordinary prudence would have done to the general party under the same circumstances with trade negotiation power without influence. In the event of the other party being as individual that might be arm's length basis and there is no transferring of benefit between company and a person who might be arm's length basis.

7.2 Related Transactions Approval Policies or Procedure

The board of directors have considered and approved the related transaction in accordance with scope, authority. If there is a related transaction occurs in the future, this shall be proposed to the board of directors for consideration and approval for the highest profit to the business and also to protect investors including stakeholders of the company. Whereas the said related transaction shall be conducted in accordance with the law of securities and exchange, regulations, orders or requirements of the stock exchange of Thailand, these individual who might have conflict of interest on related transaction have no right to participant in this approval.

The company has hired JPEN Co., Ltd. to be a sub-contractor to construct the solar power plant project. JPEN Co., Ltd. is connected to the major shareholders of the company, however the company has given precedence to procurement system based on the highest profit for the shareholders and specific the procurement policies or terms and condition of procurement contract to the related division as in Policies and sub-contractor selection procedures.

7.3 Policies or the related transactions trend in the future

The company has prescribed the policies of the related transaction in the future that the related transaction need to be in line with the general business nature of the company without company profit transferring to the shareholders, the committee or the related person to the company. The company audit committee will consider reasonability of the transactions based on pricing conditions and transactions terms whether it is in accordance with the general business nature of the company and to compare pricing with the third party without involving stakeholders in such related transactions consideration. However at the end of the consideration, the audit committee will approve the related transaction and propose to the board of directors for another approval.

However, the board of directors will comply with the law of securities and exchange, regulations, notification or requirements of the stock exchange of Thailand including abiding by the information disclosure regulations of the related transactions and acquisition or disposition the company assets or subsidiaries, also in accordance with the accounting standards mentioned by The Institute of Certified Accountants and Auditors of Thailand. Therefore the company will disclose the related transaction in the notes to audited financial statement that is verified by the company auditor.



- Financial Position and Operating Performance
- Management Discussion and Analysis: MD&A



8 Financial Position and Operating Performance



8.1 Key Financial Information

8.1.1 Name of auditors for the consolidated and company financial statements

The consolidated and company's financial statements for the year ended December 31, 2017

1. Mr. Vairoj Jindamaneepitak,
Certified Public Accountant No. 3565
2. Mr. Waiyawat Korsamarnchaiyaki,
Certified Public Accountant No. 6333
3. Mr. Natthaphong Tantichattanon,
Certified Public Accountant No. 8829

KPMG Phoomchai Holdings Co., Ltd.

The consolidated and company's financial statements for the year ended December 31, 2018

1. Mr. Natthaphong Tantichattanon,
Certified Public Accountant No. 8829
KPMG Phoomchai Holdings Co., Ltd.
2. Mr. Vairoj Jindamaneepitak,
Certified Public Accountant No. 3565
3. Miss Dussanee Yimsuwan
Certified Public Accountant No. 10235

The consolidated and company's financial statements for the year ended December 31, 2019

1. Mr. Natthaphong Tantichattanon
Certified Public Accountant No. 8829
2. Mr. Vairoj Jindamaneepitak,
Certified Public Accountant No. 3565
3. Miss Dussanee Yimsuwan
Certified Public Accountant No. 10235
KPMG Phoomchai Holdings Co., Ltd.

8.1.2 Summary of the auditor reports for the past 3 years

Auditor's opinion on the consolidated and company's financial statements for the year ended December 31, 2017 are as follows:

Unqualified auditor's report shows that the consolidated and company's financial statements of SPCG Public Company Limited present fairly, in all material respects, the consolidated and company's financial statements for the year ended December 31, 2017, and its consolidated and company results of operations and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Auditor's opinion on the consolidated and company's financial statements for the year ended December 31, 2018 are as follows:

Unqualified auditor's report shows that the consolidated and company's financial statements of SPCG Public Company Limited present fairly, in all material respects, the consolidated and company's financial statements for the year ended December 31, 2018, and its consolidated and company results of operations and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Auditor's opinion on the consolidated and company's financial statements for the year ended December 31, 2019 are as follows:

Unqualified auditor's report shows that the consolidated and company's financial statements of SPCG Public Company Limited present fairly, in all material respects, the consolidated and company's financial statements for the year ended December 31, 2019, and its consolidated and company results of operations and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

8.1.3 Summary Table of the company and its subsidiaries financial statements

Consolidated and Company Statements of Financial Position

List	Audited for the year ended						Audited for the year ended					
	31-Dec-17		31-Dec-18		31-Dec-19		31-Dec-17		31-Dec-18		31-Dec-19	
	(Consolidated)						(Company)					
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
Current assets												
Cash and cash equivalents	345.9	1.5	129.2	0.6	460.1	2.1	40.1	0.2	70.0	0.5	23.7	0.2
Current investments	1,441.1	6.3	1,857.1	8.1	2,644.4	12.1	1,270.6	7.8	1,702.0	11.3	2,600.7	20.5
Trade and other accounts receivable	1,525.9	6.6	1,226.7	5.4	1,025.1	4.7	16.3	0.1	84.9	0.6	15.8	0.1
Short-term loans to related parties	-	-	-	-	-	-	274.7	1.7	101.0	0.7	22.0	0.2
Current portion of long-term loans to related parties	-	-	-	-	-	-	2,114.9	12.9	2,322.1	15.5	2,477.7	19.5
Inventories	709.0	3.1	906.3	4.0	762.6	3.5	-	-	-	-	-	-
Other current assets	149.6	0.6	138.0	0.6	122.4	0.5	0.2	-	0.4	-	0.4	-
Total current assets	4,171.5	18.1	4,257.3	18.7	5,014.6	22.9	3,716.8	22.7	4,280.4	28.6	5,140.3	40.5
Non-current assets												
Investments held as available for sale	251.5	1.1	681.8	3.0	29.8	0.1	251.5	1.5	681.8	4.5	29.8	0.2
Investments in a joint venture	1.8	-	-	-	40.0	0.2	3.0	-	-	-	40.0	0.3
Investments in subsidiaries	-	-	-	-	-	-	3,083.8	18.9	3,085.3	20.5	3,089.3	24.3
Other long-term investments	468.7	2.0	468.7	2.0	128.7	0.6	340.0	2.1	340.0	2.3	-	-
Long-term loans to related parties	-	-	-	-	-	-	8,890.5	54.4	6,568.4	43.7	4,339.9	34.2
Investment properties	39.7	0.2	37.9	0.2	38.3	0.2	29.4	0.2	28.3	0.2	27.2	0.2
Property, plant and equipment	17,150.0	74.5	16,458.4	72.2	15,800.3	72.1	38.9	0.2	30.1	0.2	21.9	0.2
Intangible assets	99.3	0.4	94.7	0.4	101.4	0.5	0.6	-	3.4	-	18.3	0.1
Deferred tax assets	156.7	0.7	157.3	0.7	162.4	0.7	-	-	-	-	-	-
Prepaid warranty expense for invertors	682.9	2.9	636.3	2.7	583.2	2.6	-	-	-	-	-	-
Other non-current assets	4.5	0.1	5.2	0.1	4.6	0.1	1.4	-	1.5	-	1.6	-
Total non-current assets	18,855.1	81.9	18,540.3	81.3	16,888.7	77.1	12,639.1	77.3	10,738.8	71.4	7,568.0	59.5
Total assets	23,026.6	100.0	22,797.6	100.0	21,903.3	100.0	16,355.9	100.0	15,019.2	100.0	12,708.3	100.0

List	Audited for the year ended						Audited for the year ended					
	31-Dec-17		31-Dec-18		31-Dec-19		31-Dec-17		31-Dec-18		31-Dec-19	
	(Consolidated)						(Company)					
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
Current liabilities												
Bank overdrafts and short-term borrowings from financial institutions	10.9	-	99.0	0.4	30.6	0.1	-	-	-	-	-	-
Trade and other accounts payable	1,085.8	4.7	545.0	2.4	368.0	1.7	55.3	0.3	137.5	0.9	30.3	0.2
Current portion of debentures	2,940.5	12.8	2,369.4	10.4	1,696.2	7.8	2,940.5	18.1	2,369.4	15.8	1,696.2	13.4
Current portion of finance lease liabilities	1.4	-	0.7	-	0.7	-	1.2	-	0.6	-	0.7	-
Income tax payable	38.6	0.2	29.2	0.1	19.9	0.1	5.4	-	0.5	-	1.7	-
Other current liabilities	62.3	0.3	66.1	0.3	64.9	0.3	7.1	-	5.1	-	2.6	-
Total current liabilities	4,139.5	18.0	3,109.4	13.6	2,180.3	10.0	3,009.5	18.4	2,513.1	16.7	1,731.5	13.6
Non-current liabilities												
Debentures	7,661.0	33.3	5,791.2	25.4	4,095.2	18.7	7,661.0	46.9	5,791.2	38.6	4,095.2	32.2
Finance lease liabilities	2.0	-	1.4	-	0.7	-	2.0	-	1.4	-	0.7	-
Deferred tax liabilities	4.9	-	0.4	-	7.0	-	4.8	-	0.3	-	7.0	0.1
Non-current provisions for employee benefits	11.0	-	14.3	0.1	15.6	0.1	7.2	-	7.5	-	8.0	0.1
Other Non-current liabilities	-	-	0.3	-	0.3	-	-	-	-	-	-	-
Total non-current liabilities	7,678.9	33.3	5,807.6	25.5	4,118.8	18.8	7,675.0	46.9	5,800.4	38.6	4,110.9	32.4
Total liabilities	11,818.4	51.3	8,917.0	39.1	6,299.1	28.8	10,684.5	65.3	8,313.5	55.3	5,842.4	46.0

List	Audited for the year ended						Audited for the year ended					
	31-Dec-17		31-Dec-18		31-Dec-19		31-Dec-17		31-Dec-18		31-Dec-19	
	(Consolidated)						(Company)					
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
Shareholders' equity												
Authorised share capital												
Ordinary shares, 1,016,389,000 shares **	1,016.4	-	1,016.4	-	1,016.4	4.6	1,016.4	-	1,016.4	-	1,016.4	8.0
Issued and paid share capital												
Ordinary shares, 973,990,000 shares **	-	-	974.0	4.3	974.0	4.4	-	-	974.0	6.5	974.0	7.7
Ordinary shares, 923,990,000 shares **	924.0	4.0	-	-	-	-	924.0	5.6	-	-	-	-
Share premium on ordinary shares	2,920.9	12.7	3,955.9	17.4	3,955.9	18.1	3,747.8	22.9	4,782.8	31.8	4,782.8	37.6
Share premium from business combination	89.0	0.4	89.0	0.4	89.0	0.4	-	-	-	-	-	-
Retained earnings – appropriated - legal reserve	101.6	0.4	101.6	0.4	101.6	0.5	101.6	0.7	101.6	0.7	101.6	0.8
Retained earnings – unappropriated	5,672.6	24.7	7,119.2	31.2	8,668.6	39.5	891.7	5.5	851.5	5.7	980.1	7.7
Other components of shareholder's equity	6.7	-	(4.0)	-	27.8	0.1	6.3	-	(4.2)	-	27.4	0.2
Equity attributable to owners of the parent	9,714.8	42.2	12,235.7	53.7	13,816.9	63	5,671.4	34.7	6,705.7	44.7	6,865.9	54.0
Non-controlling interests	1,493.4	6.5	1,644.9	7.2	1,787.3	8.2	-	-	-	-	-	-
Total shareholders' equity	11,208.2	48.7	13,880.6	60.9	15,604.2	71.2	5,671.4	34.7	6,705.7	44.7	6,865.9	54.0
Total liabilities and shareholders' equity	23,026.6	100.0	22,797.6	100.0	21,903.3	100.0	16,355.9	100.0	15,019.2	100.0	12,708.3	100.0

Remarks: *Percentage of the total assets

**At par value and Paid-up of Baht 1 each

The Consolidated and Company's Statements of Comprehensive Income

List	Audited for the year ended						Audited for the year ended					
	31-Dec-17		31-Dec-18		31-Dec-19		31-Dec-17		31-Dec-18		31-Dec-19	
	(Consolidated)						(Company)					
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
Revenues												
Revenue from sales and rendering of services	6,008.4	98.1	5,928.2	98.0	5,246.5	98.6	-	-	-	-	-	-
Other income	114.8	1.9	118.3	2.0	76.0	1.4	1,615.4	100.0	1,648.3	100.0	1,675.0	100.0
Total Revenues	6,123.2	100.0	6,046.5	100.0	5,322.5	100.0	1,615.4	100.0	1,648.3	100.0	1,675.0	100.0
Expenses												
Costs of sales and rendering of services	2,303.5	37.6	2,222.6	36.7	1,620.6	30.4	-	-	-	-	-	-
Selling and distribution expenses	73.2	1.2	76.8	1.3	17.3	0.3	-	-	-	-	-	-
Administrative expenses	240.5	4.0	258.9	4.3	276.5	5.2	109.5	6.8	123.4	7.5	140.4	8.4
Share of loss of investment in joint ventures	0.9	-	0.1	-	-	-	-	-	-	-	-	-
Total Expenses	2,618.1	42.8	2,558.4	42.3	1,914.4	35.9	109.5	6.8	123.4	7.5	140.4	8.4
Profit before finance costs and tax expense	3,505.1	57.3	3,488.1	57.7	3,408.1	64.1	1,505.9	93.2	1,524.9	92.5	1,534.6	91.6
Finance costs	618.2	10.1	503.3	8.3	360.2	6.8	485.7	30.1	391.4	23.7	275.8	16.5
Profit before income tax expense	2,886.9	47.2	2,984.8	49.4	3,047.9	57.3	1,020.2	63.1	1,133.5	68.8	1,258.8	75.1
Tax expense	(64.8)	(1.1)	(61.2)	(1.0)	(36.6)	(0.7)	(19.7)	(1.2)	(6.8)	(0.4)	(10.2)	(0.6)
Profit for the year	2,822.1	46.1	2,923.6	48.4	3,011.3	56.6	1,000.5	61.9	1,126.7	68.4	1,248.6	74.5
Other comprehensive income (loss) for the year, net of tax	(19.5)	(0.3)	(8.9)	(0.2)	31.7	0.6	(19.4)	(1.2)	(8.6)	(0.5)	31.6	1.9
Total comprehensive income for the year	2,802.6	45.8	2,914.7	48.2	3,043.0	57.2	981.1	60.7	1,118.1	67.9	1,280.2	76.4
Profit attributable to:												
Owners of parent	2,524.3	-	2,613.6	-	2,669.4	-	1,000.5	-	1,126.7	-	1,248.6	-
Non-controlling interests	297.8	-	310.0	-	341.9	-	-	-	-	-	-	-
Total income for the year	2,822.1	-	2,923.6	-	3,011.3	-	1,000.5	-	1,126.7	-	1,248.6	-
Basic earnings per share (Baht)	2.73	-	2.70	-	2.74	-	1.08	-	1.16	-	1.28	-
Weighted average number of ordinary shares (Million shares)	924.0	-	967.8	-	974.0	-	924.0	-	967.8	-	974	-

Remarks:* Percentage of the total revenues

Consolidated and Company's Statements of Cash Flows

List (Unit: Baht Million)	Audited for the year ended			Audited for the year ended		
	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-17	31-Dec-18	31-Dec-19
	(Consolidated)			(Company)		
Cash flow from operating activities						
Profit for the year	2,822.1	2,923.6	3,011.3	1,000.5	1,126.7	1,248.6
Adjustments						
Depreciation & amortization	642.8	689.4	668.4	8.4	11.3	10.5
Gain from sale of investment held as available for sale	(68.4)	(8.9)	(30.0)	(59.6)	(3.5)	(22.8)
Dividend income	-	(2.1)	(9.3)	(924.4)	(1,097.8)	(1,205.6)
Interest income	(39.4)	(37.5)	(9.3)	(518.5)	(433.9)	(320.7)
(Reversal of) bad and doubtful debts expenses	(0.6)	1.0	19.7	-	-	-
Reversal of losses on inventories devaluation	-	-	-	-	-	-
(Gain) loss on disposal of plant and equipment	(0.6)	(1.6)	(0.1)	(0.7)	-	-
Finance costs	618.2	503.3	360.2	485.7	391.4	275.8
Impairment loss on investment in subsidiary	-	-	-	-	1.9	-
Unrealized (gain) loss on foreign exchange	(11.2)	0.1	2.4	1.6	0.2	2.3
Provisions for employee benefit	1.0	5.4	1.3	0.8	2.6	0.6
Share of loss of investment in joint venture	0.9	0.1	-	-	-	-
Tax expenses	64.8	61.2	36.6	19.7	6.8	10.2
	4,029.6	4,134.1	4,051.2	13.5	5.7	(1.1)
Changes in operating assets and liabilities						
Trade and other current accounts receivable	(549.9)	301.2	173.5	(1.2)	(64.6)	65.7
Inventories	(128.1)	(197.2)	143.7	-	-	-
Other current assets	(30.1)	26.2	33.6	5.1	(0.2)	-
Other non-current assets	28.6	45.8	53.7	0.3	(0.2)	-
Trade and other accounts payable	51.3	(541.8)	(173.7)	10.6	79.2	(104.6)
Other current liabilities	(27.9)	3.9	(1.3)	(1.6)	(2.0)	(2.5)
Other non-current liabilities	-	0.3	-	-	-	-
Net cash generated from (used in) operating	3,373.5	3,772.4	4,280.7	26.7	17.9	(42.5)
Tax paid	(38.9)	(88.4)	(70.3)	(17.0)	(14.0)	(10.4)
Net cash from (used in) operating activities	3,334.6	3,684.0	4,210.4	9.7	3.9	(52.9)

List (Unit: Baht Million)	Audited for the year ended			Audited for the year ended		
	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-17	31-Dec-18	31-Dec-19
	(Consolidated)			(Company)		
Cash flows from investing activities						
(Increase) decreased in short term deposits at financial institutions	(171.0)	81.0	90	(171.0)	81.0	90
Decreased in investments in debt securities held to maturity		340.0	-	-	340.0	-
(Increase) decreased in restricted fixed deposits		(340.0)	340	-	(340.0)	340
Proceeds from sale of available for sale securities	12,311.8	11,582.1	8,642.9	8,217.5	7,726.5	4,876.6
Acquisition of available for sale securities	(10,886.3)	(12,513.9)	(8,800.8)	(6,891.3)	(8,678.9)	(5,153.3)
Acquisition of plant and equipment	(89.5)	(13.9)	(14.1)	(33.0)	(1.2)	(1.1)
Acquisition of intangible assets	(0.2)	(3.4)	(15.1)	-	-	-
Acquisition of intangible Investment properties	-	-	(2.3)	-	-	-
Proceed from sale of plant and equipment	26.5	27.3	14.1	1.6	-	-
Proceed from sale of intangible assets	-	-	-	-	(2.9)	(15)
Proceeds from repayment of short-term loans to related parties	-	-	-	365.3	1,084.0	273
Proceeds from repayment of long-term loans to related parties	-	-	-	11,654.0	2,114.9	2,072.9
Short-term loans to related parties	-	-	-	(633.0)	(910.3)	(194)
Long-term loans to related parties	-	-	-	(9,546.5)	-	-
Proceed (acquisition) of non-controlling interest	(104.6)	-	-	(104.6)	-	-
Payment of investment in subsidiary	-	-	-	-	(2.5)	(4)
Proceeds from sale of investment in subsidiary	-	-	-	-	0.4	-
Payment of Investments in Associated Companies	-	-	(40)	-	-	(40)
Dividends received	-	2.1	9.3	924.4	1,097.8	1,205.6
Interest received	36.1	36.2	17.8	516.3	431.6	324.0
Net cash from (used in) investing activities	1,122.8	(802.5)	241.8	4,299.7	2,940.4	3,774.7
Cash flows from financing activities						
decreased in bank overdrafts from financial institutions	10.9	(1.9)	-	-	-	-
Proceeds from short-term loans from financial institutions	--	742.7	53.8	-	-	-
Payment of short-term loans from financial institutions	-	(652.7)	(122.3)	-	-	-
Proceeds from issue of ordinary shares	-	1,085.0	-	-	1,085.0	-
Proceeds from debentures	-	499.4	-	-	499.4	-
Payment of debentures	(2,715.0)	(2,950.0)	(2,375.0)	(2,715.0)	(2,950.0)	(2,375)
Payment of finance lease liabilities	(2.5)	(1.6)	(0.8)	(1.9)	(1.4)	(0.8)
Dividends paid	(1,255.6)	(1,327.2)	(1,319.5)	(1,108.8)	(1,168.8)	(1,120.0)
Interest paid	(604.3)	(491.9)	(357.5)	(475.0)	(378.5)	(272.3)
Net cash from (used in) financing activities	(4,566.5)	(3,098.2)	(4,121.3)	(4,300.7)	(2,914.3)	(3,768.1)
Net increase (decrease) in cash and cash equivalents	(109.1)	(216.7)	330.9	8.7	30.0	(46.3)
Cash and cash equivalents at 1 January	455.0	345.9	129.2	31.4	40.0	70.0
Cash and cash equivalents at 31 December	345.9	129.2	460.1	40.1	70.0	23.7

Key Financial Ratio of the Consolidated and Company's Financial statements

Financial Ratio	Unit	For the year ended			For the year ended		
		31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-17	31-Dec-18	31-Dec-19
		(Consolidated)			(Company)		
Liquidity Ratio							
Current ratio	Times	1.0	1.4	2.3	1.2	1.7	3.0
Accounts receivable turnover	Times	4.8	4.3	4.7	-	-	-
Average collection period	Days	75.9	84.7	78.3	-	-	-
Inventory turnover	Times	3.6	2.8	1.9	-	-	-
Average inventory period	Days	102.2	132.6	187.9	-	-	-
Accounts payable turnover	Times	2.2	2.7	3.6	-	-	-
Average payment period	Days	169.0	133.9	102.8	-	-	-
Profitability Ratio							
Gross profit margin	%	61.7	62.5	69.1	-	-	-
EBIT margin	%	57.2	57.7	64.0	93.2	92.5	91.6
Net profit margin	%	41.2	43.2	50.2	61.9	68.4	74.5
Return on equity	%	28.0	23.8	20.5	17.4	18.2	18.4
Debt to equity ratio	Times	1.2	0.7	0.4	1.9	1.2	0.9
Dividend payout ratio	%	42.1	44.4	44.5	106.5	103.4	95.3
Efficiency Ratio							
Return on assets	%	14.8	15.2	15.2	8.5	9.7	11.1
Total asset turnover	Times	0.3	0.3	0.2	0.1	0.1	0.1

9 Management Discussion and Analysis: MD&A



9.1 Analysis of Operation Results According to Consolidated Financial Statement

	2018		2017		Change	
	Amount (MB)	% to Revenue	Amount (MB)	% to Revenue	Amount (MB)	% to Revenue
REVENUES	5,246.5	100%	5,928.2	100%	(681.7)	-11%
COST OF SALES	(1,620.5)	-31%	(2,222.6)	-37%	(602.1)	-27%
GROSS PROFIT	3,626.0	69%	3,705.6	63%	(79.6)	-2%
OTHER INCOME	76.0	1%	118.3	2%	(42.3)	-36%
SELLING EXPENSES	(17.3)	0%	(76.8)	-1%	(59.5)	-77%
ADMINISTRATIVE EXPENSES	(276.6)	-5%	(258.9)	-4%	17.7	7%
SHARE OF GAIN (LOSS) OF JOINT VENTURE	-	0%	(0.1)	0%	0.1	100%
EBIT	3,408.1	65%	3,488.1	59%	(80.0)	-2%
FINANCE COSTS	(360.2)	-7%	(503.3)	-8%	(143.1)	-28%
EBT	3,047.9	58%	2,984.8	50%	63.1	2%
INCOME TAX INCOME (EXPENSE)	(36.6)	-1%	(61.2)	-1%	(24.6)	-40%
NET PROFIT (LOSS)	3,011.3	57%	2,923.6	49%	87.7	3.0%
OTHER COMPREHENSIVE INCOME	31.7	1%	(8.9)	0%	40.6	456%
COMPREHENSIVE INCOME	3,043.0	58%	2,914.7	49%	128.3	4%

Net Profit (Loss) attributable to :

Owners of the parent	2,669.4	2,613.6		
Non-controlling interests	341.9	310.0		
	3,011.3	2,923.6		

Comprehensive Income attributable to:

Owners of the parent	2,701.2	2,604.7		
Non-controlling interests	341.8	310.0		
	3,043.0	2,914.7		

EARNINGS PER SHARE

NO.OF SHARES (Million shares)	974.0	967.8		
EPS (Baht per share)	2.74	2.70		

The operating results according to the consolidated financial statements of the Company and its subsidiaries for the year ended 31 December 2019 presented the net profit of Baht 3,011.3 million or Baht 2.74 per share which increasing by Baht 87.7 million or 3.0%, compared to the net profit of Baht 2,923.6 million or Baht 2.70 per share of the year ended 31 December 2018. The significant reasons were as follows:

9.1.1 Revenue from Sales and Services

Revenue from sales and services of 2019 was Baht 5,246.5 million which decreasing by Baht 681.7 million or 11% from Baht 5,928.2 million in 2018. The main reasons were as follows:

- Solar Power Roof Company Limited (SPR), operates the business of solar roof installation for residential, commercial and industrial customers, its revenue from sales and services of 2019 was Baht 506.7 million which decreasing by Baht 949.4 million or 65% from Baht 1,456.1 million in 2018. The main reason was the uncertainty in global economic condition resulting in customers postponing the investment then. In order to drive sales revenue, SPR made some changes in marketing strategies to increase our competitive advantage and delivered the alternative options to customer.

- Revenue from electricity sales of 36 solar farms for 2019 was Baht 4,475.7 million which increasing by Baht 178.2 million or 4% from Baht 4,297.5 million in 2018 because the energy output for 2019 was 397.4 million units which increasing by 13.2 million units or 3% from 384.2 million units in 2018

- Steel Roof Company Limited (SRC), operates the business of metal sheet roofing distribution and installation, its revenue from sales and services for 2019 was Baht 221.3 million which increasing by Baht 55.5 million or 33% from Baht 165.8 million in 2018.

9.1.2 Cost of Sales and Services and Gross Profit

Cost of sales and services of 2019 was Baht 1,620.5 million which decreasing by Baht 602.1 million or 27% from Baht 2,222.6 million in 2018. The decrease in cost of sales and services was in line with the revenue of solar roof business (SPR).

Gross profit margin of 2019 was 69% which increasing from 63% in 2018. The main reason was the increasing in the proportion of solar farm business with higher gross profit margin.

9.1.3 Selling Expenses

Selling expenses for 2019 was Baht 17.3 million which decreasing by Baht 59.5 million or 77% from Baht 76.8 million in 2018. The decrease in selling expenses was in line with the revenue of solar roof business (SPR).

9.1.4 Administrative Expenses

Administrative expenses for 2019 was Baht 276.6 million which increasing by Baht 17.7 million or 7% from Baht 258.9 million in 2018 resulting from the increasing in provision for doubtful accounts of solar roof business (SPR).

9.1.5 Finance Costs

Finance costs for 2019 was Baht 360.2 million which decreasing by Baht 143.1 million or 28% from Baht 503.3 million in 2018. The main reason was the Company paid on debentures in the amount of Baht 2,950.0 million and Baht 2,375.0 million in the year 2018 and 2019 respectively.

9.2 Analysis of Financial Position According to Consolidated Financial Statement

9.2.1 Analysis of Assets

As at 31 December 2019, the total assets were Baht 21,903.3 million, decreasing by Baht 894.3 million or 4% from Baht 22,797.6 million as at 31 December 2018. The details were as follows:

	31-Dec-19	31-Dec-18	Change	
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)	% Change
Property, plant and equipment, net	15,800.3	16,458.4	(658.1)	-4%
Other assets	6,103.0	6,339.2	(236.2)	-4%
Total assets	21,903.3	22,797.6	(894.3)	-4%

- As at 31 December 2019, property, plant and equipment were Baht 15,800.3 million, decreasing by Baht 658.1 million or 4% from Baht 16,458.4 million as at 31 December 2018. The main reason was the depreciation in the amount of Baht 668.4 million.

- As at 31 December 2019, other assets were Baht 6,103.0 million, decreasing by Baht 236.2 million or 4% from Baht 6,339.2 million as at 31 December 2018. The main reasons were as follows:

- The decreasing of trade accounts receivable in the amount of Baht 168.3 million
- The decreasing of inventories in the amount of Baht 143.7 million.
- The acquisition of investment in associated companies in the amount of Baht 40.0 million

9.2.2 Analysis of Liabilities and Shareholders' Equity

As at 31 December 2019, the total liabilities and shareholders' equity were Baht 21,903.3 million, decreasing by Baht 894.3 million or 4% from Baht 22,797.6 million as at 31 December 2018. The details were as follows:

	31-Dec-19	31-Dec-18	Change	
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)	% Change
Interest bearing debt	5,823.4	8,261.7	(2,438.3)	-30%
Other liabilities	475.7	655.3	(179.6)	-27%
Shareholders' equity	15,604.2	13,880.6	1,723.6	12%
Total liabilities and shareholders' equity	21,903.3	22,797.6	(894.3)	-4%

- As at 31 December 2019, interest bearing debt was Baht 5,823.4 million, decreasing by Baht 2,438.3 million or 30% from Baht 8,261.7 million as at 31 December 2018. The main reasons were as follows:

- The payment of debenture in the amount of Baht 2,375.0 million
- The payment of short-term loans from financial institutions in the amount of Baht 122.3 million
- The increasing of short-term loans from financial institutions in the amount of Baht 53.9 million

- As at 31 December 2019, other liabilities was Baht 475.7 million, decreasing by Baht 179.6 million or 27% from Baht 655.3 million as at 31 December 2018. The main reason was the decreasing of accounts payable.

- As at 31 December 2019, shareholders' equity was Baht 15,604.2 million, increasing by Baht 1,723.6 million or 12% from Baht 13,880.6 million as at 31 December 2018. The main reasons were as follows:

- The net profit of 2019 in the amount of Baht 3,011.3 million
- The payment of dividend in the amount of Baht 1,319.5 million

9.2.3 The Appropriateness of Financial Structure

According to statement of financial position as at 31 December 2019, debt to equity ratio equal to 0.40 which decreased from 0.64 as at 31 December 2018 mainly due to

- The payment of debenture in the amount of Baht 2,375.0 million
- The net profit of 2019 in the amount of Baht 3,011.3 million
- The payment of dividend in the amount of Baht 1,319.5 million

9.3 Analysis of Cash Flow According to Consolidated Financial Statement

	2019	2018	Change
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)
Net cash generated from (used in) operating activities	4,210.4	3,684.0	526.4
Net cash generated from (used in) investing activities	241.8	(802.5)	1,044.3
Net cash generated from (used in) financing activities	(4,121.3)	(3,098.2)	(1,023.1)
Net increase (decrease) in cash and cash equivalents	330.9	(216.7)	547.6
Cash and cash equivalents at the beginning of the period	129.2	345.9	(216.7)
Cash and cash equivalents at the end of the period	460.1	129.2	330.9

As at 31 December 2019, cash and cash equivalents were Baht 460.1 million, increasing by Baht 330.9 million from Baht 129.2 million as at 31 December 2018. The reasons were as follows:

- 1) Net cash generated from operating activities in the amount of Baht 4,210.4 million, resulting in
 - Net cash generated from operating profit in the amount of Baht 4,280.7 million
 - Taxes paid in the amount of Baht 70.3 million

- 2) Net cash generated from investing activities in the amount of Baht 241.8 million, resulting in
 - Proceed from sale of available-for-sale securities in the amount of Baht 8,642.9 million
 - Proceed from restricted fixed deposits in the amount of Baht 340.0 million
 - Proceed from short-term deposits at financial institutions in the amount of Baht 90.0 million
 - Acquisition of available-for-sale securities in the amount of Baht 8,800.8 million
 - Acquisition of investment in associated companies in the amount of Baht 40 million

- 3) Net cash used in financing activities in the amount of Baht 4,121.3 million.
 - Payment of debenture in the amount of Baht 2,375.0 million
 - Interest paid in the amount of Baht 357.6 million
 - Dividend paid in the amount of Baht 1,319.5 million
 - Repayment of short-term loans from financial institutions in the amount of Baht 122.3 million
 - Proceed from short-term loans from financial institutions in the amount of Baht 53.9 million

10

Declaration of the Directors' Responsibility for the Financial Statements

The Board of Directors recognizes and emphasizes on duties and responsibilities to comply with the good corporate governance. By preparation and presentation the consolidated and separate financial statements of company and its subsidiary including other information in annual report, ended December 31, 2019 correctly in accordance with financial reporting standard and accounting practice guidelines announced by the Federation of Accounting Professions. The Board of Directors considers the selection of appropriate accounting policies and practices regularly. Including careful discretion and reasonable estimate. Moreover, the important information is disclosed sufficiently in the notes to the financial statements. And it passed the examination and gave unconditional opinions from the independent Certified Public Accountant.

The Board of Directors appointed Audit Committee which consist of independent director who will be responsible for the quality of financial reports and internal control systems, and the opinion of Audit Committee was presented in the part of Audit Committee report in annual report.

Moreover, the Board of Directors has an opinion that overall internal control system of company is effective at a satisfactory level, and able to build the confidence on reliable of consolidated and separate financial statements of company and its subsidiary, as of December 31, 2019.



(Dr. Wandee Khunchornyakong Juljarern)
Chairperson and Chief Executive Officer

11 Financial Statements

SPCG Public Company Limited and its Subsidiaries

Financial statements for the year ended
31 December 2019
and
Independent auditor's report



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Independent auditor's report

To the Shareholders of SPCG Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of SPCG Public Company Limited and its subsidiaries (the "Group") and of SPCG Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2019, the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2019 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

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 Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

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



Valuation of inventories

Refer to Notes 3 (f), 8 to the financial statements.

Inventories are measured at the lower of cost and net realizable value. Due to some inventories have slow movement and long outstanding which may cause the net realizable value to be lower than cost, therefore, this is focus area in my audit.

My audit procedures included understanding the policies and procedures that the management applied for net realizable value calculation. I verified the appropriateness of the net realizable value calculation and randomly tested the price of inventories with the relevant documents. I considered the adequacy of the disclosure of inventories.

Other Information

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

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

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

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

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

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

Those charged with governance are responsible for overseeing the Group's 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 skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's 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 those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

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

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current 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.

(Natthaphong Tantichattanon)
Certified Public Accountant
Registration No. 8829

KPMG Phoomchai Audit Ltd.
Bangkok
28 February 2020

SPCG Public Company Limited and its Subsidiaries
Statement of financial position

Assets	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2019	2018	2019	2018
<i>(in thousand Baht)</i>					
Current assets					
Cash and cash equivalents	5	460,067	129,152	23,702	70,043
Current investments	6	2,644,396	1,857,065	2,600,694	1,701,953
Trade and other accounts receivable	4, 7	1,025,058	1,226,707	15,838	84,920
Short-term loan to related parties	4	-	-	22,000	101,000
Current portion of long-term loans to related parties	4	-	-	2,477,672	2,322,072
Inventories	8	762,581	906,265	-	-
Other current assets		122,490	138,077	428	445
Total current assets		5,014,592	4,257,266	5,140,334	4,280,433
Non-current assets					
Available-for-sale investments	6	29,794	681,816	29,794	681,816
Investments in associate	4, 9	39,976	-	40,000	-
Investments in subsidiaries	4, 10	-	-	3,089,313	3,085,313
Other long-term investments	6	128,678	468,678	-	340,000
Long-term loans to related parties	4	-	-	4,339,913	6,568,372
Investment properties		38,312	37,864	27,191	28,292
Property, plant and equipment	12	15,800,320	16,458,438	21,894	30,072
Intangible assets	13	101,361	94,682	18,329	3,439
Deferred tax assets	21	162,427	157,340	-	-
Prepaid warranty expense for inventors		583,150	636,348	-	-
Other non-current assets		4,691	5,192	1,519	1,519
Total non-current assets		16,888,709	18,540,358	7,567,953	10,738,823
Total assets		21,903,301	22,797,624	12,708,287	15,019,256

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

SPCG Public Company Limited and its Subsidiaries**Statement of financial position**

	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2019	2018	2019	2018
<i>(in thousand Baht)</i>					
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions	14	30,632	99,021	-	-
Trade and other accounts payable	4, 15	367,981	544,989	30,345	137,474
Current portion of debentures	14	1,696,189	2,369,374	1,696,189	2,369,374
Current portion of finance lease liabilities	14	691	715	691	645
Income tax payable		19,941	29,197	1,656	526
Other current liabilities		64,894	66,148	2,601	5,102
Total current liabilities		2,180,328	3,109,444	1,731,482	2,513,121
Non-current liabilities					
Debentures	14	4,095,219	5,791,195	4,095,219	5,791,195
Finance lease liabilities	14	677	1,368	677	1,368
Deferred tax liabilities	21	7,050	399	6,965	343
Non-current provisions for employee benefits		15,564	14,264	8,052	7,475
Other non-current liabilities		300	300	-	-
Total non-current liabilities		4,118,810	5,807,526	4,110,913	5,800,381
Total liabilities		6,299,138	8,916,970	5,842,395	8,313,502
Equity					
Share capital					
Authorised share capital <i>(1,016,389,000 ordinary shares, par value at Baht 1 per share)</i>		1,016,389	1,016,389	1,016,389	1,016,389
Issued and paid-up share capital <i>(973,990,000 ordinary shares, par value at Baht 1 per share)</i>		973,990	973,990	973,990	973,990
Share premium on ordinary shares		3,955,923	3,955,923	4,782,793	4,782,793
Share premium from business combination		89,000	89,000	-	-
Retained earnings					
Appropriated					
Legal reserve	16	101,639	101,639	101,639	101,639
Unappropriated		8,668,521	7,119,160	980,041	851,525
Other components of equity	16	27,774	(3,957)	27,429	(4,193)
Equity attributable to owners of the parent		13,816,847	12,235,755	6,865,892	6,705,754
Non-controlling interests	11	1,787,316	1,644,899	-	-
Total equity		15,604,163	13,880,654	6,865,892	6,705,754
Total liabilities and equity		21,903,301	22,797,624	12,708,287	15,019,256

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

SPCG Public Company Limited and its Subsidiaries**Statement of comprehensive income**

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2019	2018	2019	2018
<i>(in thousand Baht)</i>					
Revenue from sales and rendering of services	4, 17	5,246,538	5,928,170	-	-
Cost of sales and rendering of services	4	(1,620,566)	(2,222,558)	-	-
Gross profit		3,625,972	3,705,612	-	-
Other income	4, 18	76,028	118,324	1,675,044	1,648,307
Selling and distribution expenses		(17,320)	(76,813)	-	-
Administrative expenses		(276,578)	(258,908)	(140,378)	(123,408)
Share of loss of investment in associate and joint venture		(24)	(64)	-	-
Finance costs		(360,201)	(503,301)	(275,862)	(391,406)
Total expenses		(654,123)	(839,086)	(416,240)	(514,814)
Profit before income tax expense		3,047,877	2,984,850	1,258,804	1,133,493
Tax expense	21	(36,619)	(61,268)	(10,225)	(6,763)
Profit for the year		3,011,258	2,923,582	1,248,579	1,126,730
Other comprehensive income (loss)					
<i>Items that will be reclassified subsequently to profit or loss</i>					
Gains (losses) on remeasurements available-for-sale investments		39,667	(13,245)	39,527	(13,052)
Income tax relating to items that will be reclassified		(7,934)	2,636	(7,905)	2,610
Total items that will be reclassified subsequently to profit or loss		31,733	(10,609)	31,622	(10,442)
<i>Items that will not be reclassified to profit or loss</i>					
Gains on remeasurements of defined benefit plans		-	2,138	-	2,271
Income tax relating to items that will not be reclassified		-	(441)	-	(454)
Total items that will not be reclassified to profit or loss		-	1,697	-	1,817
Other comprehensive income (loss) for the year, net of tax		31,733	(8,912)	31,622	(8,625)
Total comprehensive income for the year		3,042,991	2,914,670	1,280,201	1,118,105
Profit attributable to:					
Owners of the parent		2,669,424	2,613,610	1,248,579	1,126,730
Non-controlling interests		341,834	309,972	-	-
Profit for the year		3,011,258	2,923,582	1,248,579	1,126,730
Total comprehensive income attributable to:					
Owners of the parent		2,701,155	2,604,714	1,280,201	1,118,105
Non-controlling interests		341,836	309,956	-	-
Total comprehensive income for the year		3,042,991	2,914,670	1,280,201	1,118,105
Basic earnings per share (in Baht)	22	2.74	2.70	1.28	1.16

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

SPCG Public Company Limited and its Subsidiaries
Statement of changes in equity

Consolidated financial statements									
Other components									
Retained earnings of equity									
Equity									
attributable to									
Available- Non-controlling Total									
for-sale owners of the parent equity									
investments interests									
Unappropriated									
reserve the parent equity									
Legal Non-controlling Total									
reserve interests equity									
Share premium Shares premium									
from business combination									
Share premium on ordinary shares									
Issued and paid-up share capital									
Legal reserve									
Unappropriated reserve									
(in thousand Baht)									
Year ended 31 December 2018									
Balance at 1 January 2018									
	923,990	2,920,923	89,000	101,639	5,672,623	6,636	9,714,811	1,493,389	11,208,200
Transactions with owners, recorded directly in equity									
<i>Contributions by and distributions to owners of the parent</i>									
Issue of ordinary shares	50,000	1,035,000	-	-	-	-	1,085,000	-	1,085,000
Dividend paid	-	-	-	(1,168,770)	-	-	(1,168,770)	(158,446)	(1,327,216)
<i>Total contributions by and distributions to owners of the parent</i>	50,000	1,035,000	-	(1,168,770)	-	-	(83,770)	(158,446)	(242,216)
Comprehensive income (loss) for the year									
Profit	-	-	-	2,613,610	-	-	2,613,610	309,972	2,923,582
Other comprehensive income (loss)	-	-	-	1,697	(10,593)	(8,896)	(8,896)	(16)	(8,912)
Total comprehensive income (loss) for the year	-	-	-	2,615,307	(10,593)	(10,593)	2,604,714	309,956	2,914,670
Balance at 31 December 2018	973,990	3,955,923	89,000	101,639	7,119,160	(3,957)	12,235,755	1,644,899	13,880,654

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

SPCG Public Company Limited and its Subsidiaries
Statement of changes in equity

		Consolidated financial statements								
		Other components of equity			Equity					
		Retained earnings	Available-for-sale investments	Attributable to owners of the parent	Non-controlling interests	Total equity				
		<i>(in thousand Baht)</i>								
Year ended 31 December 2019										
	Balance at 1 January 2019	973,990	3,955,923	89,000	101,639	7,119,160	(3,957)	12,235,755	1,644,899	13,880,654
Transactions with owners, recorded directly in equity										
	<i>Distributions to owners of the parent</i>	-	-	-	-	(1,120,063)	-	(1,120,063)	(199,419)	(1,319,482)
	Dividend paid	-	-	-	-	(1,120,063)	-	(1,120,063)	(199,419)	(1,319,482)
	<i>Total distributions to owners of the parent</i>	-	-	-	-	(1,120,063)	-	(1,120,063)	(199,419)	(1,319,482)
	Comprehensive income for the year	-	-	-	-	2,669,424	-	2,669,424	341,834	3,011,258
	Profit	-	-	-	-	2,669,424	-	2,669,424	341,834	3,011,258
	Other comprehensive income	-	-	-	-	-	31,731	31,731	2	31,733
	Total comprehensive income for the year	-	-	-	-	2,669,424	31,731	2,701,155	341,836	3,042,991
	Balance at 31 December 2019	973,990	3,955,923	89,000	101,639	8,668,521	27,774	13,816,847	1,787,316	15,604,163

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

SPCG Public Company Limited and its Subsidiaries
Statement of changes in equity

	Separate financial statements						Total equity
	Retained earnings			Other components of equity		Total equity	
	Issued and paid-up share capital	Share premium on ordinary shares	Legal reserve <i>(in thousand Baht)</i>	Unappropriated	Available-for-sale investments		
Year ended 31 December 2018							
Balance at 1 January 2018	923,990	3,747,793	101,639	891,748	6,249	5,671,419	
Transactions with owners, recorded directly in equity							
<i>Contributions by and distributions to owners of the parent</i>							
Issue of ordinary shares	50,000	1,035,000	-	-	-	1,085,000	
Dividends paid	-	-	-	(1,168,770)	-	(1,168,770)	
Total contributions by and distributions to owners of the parent	50,000	1,035,000	-	(1,168,770)	-	(83,770)	
Comprehensive income (loss) for the year							
Profit	-	-	-	1,126,730	-	1,126,730	
Other comprehensive income (loss)	-	-	-	1,817	(10,442)	(8,625)	
Total comprehensive income (loss) for the year	-	-	-	1,128,547	(10,442)	1,118,105	
Balance at 31 December 2018	973,990	4,782,793	101,639	851,525	(4,193)	6,705,754	

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

SPCG Public Company Limited and its Subsidiaries
Statement of changes in equity

	Separate financial statements					Total equity
	Issued and paid-up share capital	Share premium on ordinary shares	Retained earnings		Other components of equity	
			Legal reserve	Unappropriated		
Year ended 31 December 2019						
Balance at 1 January 2019	973,990	4,782,793	101,639	851,525	(4,193)	6,705,754
Transactions with owners, recorded directly in equity						
<i>Distributions to owners of the parent</i>						
Dividends paid	-	-	-	(1,120,063)	-	(1,120,063)
<i>Total distributions to owners of the parent</i>	-	-	-	(1,120,063)	-	(1,120,063)
Comprehensive income for the year						
Profit	-	-	-	1,248,579	-	1,248,579
Other comprehensive income	-	-	-	-	31,622	31,622
Total comprehensive income for the year	-	-	-	1,248,579	31,622	1,280,201
Balance at 31 December 2019	973,990	4,782,793	101,639	980,041	27,429	6,865,892

Note

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(in thousand Baht)

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

SPCG Public Company Limited and its Subsidiaries**Statement of cash flows**

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
<i>Cash flows from operating activities</i>				
Profit for the year	3,011,258	2,923,582	1,248,579	1,126,730
<i>Adjustments to reconcile profit (loss) to cash receipts (payments)</i>				
Depreciation and amortisation	668,369	689,410	10,473	11,262
Gain from sale of available-for-sale securities	(30,015)	(8,900)	(22,797)	(3,508)
Dividends income	(9,287)	(2,105)	(1,205,640)	(1,097,760)
Interest income	(9,303)	(37,539)	(320,696)	(433,864)
Bad and doubtful debts expenses	19,704	977	-	-
Losses on inventories devaluation	-	15	-	-
(Gain) loss on disposal of plant and equipment	(87)	(1,586)	-	1
Loss from liquidation of investments in joint venture and subsidiary	-	-	-	1,884
Finance costs	360,201	503,301	275,862	391,406
Unrealised loss on foreign exchange	2,465	104	2,308	150
Provisions for employee benefits	1,300	5,382	577	2,596
Share of loss of investment in associate and joint venture	24	64	-	-
Tax expense	36,619	61,268	10,225	6,763
	<u>4,051,248</u>	<u>4,133,973</u>	<u>(1,109)</u>	<u>5,660</u>
<i>Changes in operating assets and liabilities</i>				
Trade and other accounts receivable	173,518	301,231	65,774	(64,571)
Inventories	143,684	(197,188)	-	-
Other current assets	33,635	26,235	20	(210)
Other non-current assets	53,699	45,837	-	(168)
Trade and other accounts payable	(173,797)	(541,899)	(104,698)	79,192
Other current liabilities	(1,254)	3,882	(2,501)	(1,985)
Other non-current liabilities	-	300	-	-
Net cash generated from operating	<u>4,280,733</u>	<u>3,772,371</u>	<u>(42,514)</u>	<u>17,918</u>
Taxes paid	<u>(70,293)</u>	<u>(88,388)</u>	<u>(10,382)</u>	<u>(14,000)</u>
Net cash from (used in) operating activities	<u>4,210,440</u>	<u>3,683,983</u>	<u>(52,896)</u>	<u>3,918</u>

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

SPCG Public Company Limited and its Subsidiaries**Statement of cash flows**

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
<i>Note</i>	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
<i>Cash flows from investing activities</i>				
Decreased in short-term deposits at financial institutions	90,000	81,000	90,000	81,000
Proceeds from sale of available-for-sale securities	8,642,893	11,582,162	4,876,624	7,726,538
Acquisition of available-for-sale securities	(8,800,825)	(12,513,929)	(5,153,325)	(8,678,882)
Decreased in investments in debt securities held to maturity	-	340,000	-	340,000
(Increased) decreased in restricted fixed deposits	340,000	(340,000)	340,000	(340,000)
Acquisition of investment properties	(2,264)	-	-	-
Acquisition of plant and equipment	(14,148)	(13,923)	(1,115)	(1,210)
Proceeds from sale of plant and equipment	14,077	27,277	1	25
Acquisition of intangible assets	(15,058)	(3,418)	(14,971)	(2,934)
Short-term loans to related parties	-	-	(194,000)	(910,300)
Proceeds from repayment of short-term loans to related parties	-	-	273,000	1,084,000
Proceeds from repayment of long-term loans to related parties	-	-	2,072,859	2,114,912
Payment of investment in associate	(40,000)	-	(40,000)	-
Payment of investment in subsidiary	-	-	(4,000)	(2,500)
Proceeds from disposal of investment in a subsidiary	-	-	-	381
Dividends received	9,287	2,105	1,205,640	1,097,760
Interest received	17,803	36,230	324,004	431,557
Net cash from (used in) investing activities	241,765	(802,496)	3,774,717	2,940,347
<i>Cash flows from financing activities</i>				
Decreased in bank overdraft from financial institutions	-	(1,938)	-	-
Proceeds from short-term loans from financial institutions	53,862	742,749	-	-
Payment of short-term loans from financial institutions	(122,250)	(652,728)	-	-
Proceeds from issue of ordinary shares	-	1,085,000	-	1,085,000
Proceeds from issue of debentures	-	499,360	-	499,360
Payment of debentures	(2,375,000)	(2,950,000)	(2,375,000)	(2,950,000)
Payment of finance lease liabilities	(835)	(1,510)	(763)	(1,346)
Dividends paid	(1,319,482)	(1,327,216)	(1,120,063)	(1,168,770)
Interest paid	(357,585)	(491,949)	(272,336)	(378,516)
Net cash used in financing activities	(4,121,290)	(3,098,232)	(3,768,162)	(2,914,272)
Net increase (decrease) in cash and cash equivalents	330,915	(216,745)	(46,341)	29,993
Cash and cash equivalents at 1 January	129,152	345,897	70,043	40,050
Cash and cash equivalents at 31 December	460,067	129,152	23,702	70,043

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

SPCG Public Company Limited and its Subsidiaries**Notes to the financial statements****For the year ended 31 December 2019**

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Notes to the financial statements
For the year ended 31 December 2019

These notes form an integral part of the financial statements.

The financial statements issued for Thai regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language financial statements, and were approved and authorized for issue by the Board of Directors on 28 February 2020.

1 General information

SPCG Public Company Limited, the “Company”, is incorporated in Thailand and was listed on the Stock Exchange of Thailand in March 2005. The Company’s registered office as follows:

Head office : 1 Capital Work Place Building, 10th floor, Soi Jamjan,
Klongton Nua, Wattana, Bangkok

Branch office 1st : 8/88 Moo 12 Rachathewa, Bangplee, Samutprakarn

Branch office 2nd : 8 Moo 15 Bangplee Yai, Bangplee, Samutprakarn

The Company’s major shareholder during the financial year was the Kunchornyakong family (46.69% shareholding).

The principal activity of the Company is holding company. The principal activities of the Group are summarised as follows:

- Production and distribution of electricity from solar energy;
- Trading and installation service of solar roof;
- Manufacture, trading and installation service of roof sheets and
- Distribution and providing service about inverter.

Details of the Company’s subsidiaries as at 31 December 2019 and 2018 were as follows:

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2019	2018
Direct subsidiaries				
Solar Power Company Limited	Holding company	Thailand	100	100
Steel Roof Company Limited	Manufacturing, trading and installation services for roof sheets	Thailand	100	100
Solar Power Engineering Company Limited	Distribution and providing service about inverter.	Thailand	100	100
Solar Power Roof Company Limited	Trading and installation services for solar roofing	Thailand	100	100
Solar Power Asset Company Limited	Holding company	Thailand	100	100

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2019	2018
Indirect subsidiaries				
Solar Power (Korat 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	85	85
Solar Power (Korat 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	56	56
Solar Power (Korat 3) Company Limited	Production and distribution of electricity from solar energy	Thailand	60	60
Solar Power (Korat 4) Company Limited	Production and distribution of electricity from solar energy	Thailand	60	60
Solar Power (Korat 5) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Korat 6) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Korat 7) Company Limited	Production and distribution of electricity from solar energy	Thailand	60	60
Solar Power (Korat 8) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Korat 9) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	70	70
Solar Power (Khonkaen 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 3) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 4) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 5) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 6) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 7) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100

SPCG Public Company Limited and its Subsidiaries
Notes to the financial statements
For the year ended 31 December 2019

Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2019	2018
Solar Power (Khonkaen 8) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 9) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Khonkaen 10) Company Limited	Production and distribution of electricity from solar energy	Thailand	75	75
Solar Power (Surin 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	75	75
Solar Power (Surin 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	75	75
Solar Power (Surin 3) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Bureerum 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Bureerum 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Bureerum 3) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Nakornphanom 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	70	70
Solar Power (Nakornphanom 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Nakornphanom 3) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Sakonnakorn 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	70	70
Solar Power (Sakonnakorn 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Loei 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	56	56
Solar Power (Loei 2) Company Limited	Production and distribution of electricity from solar energy	Thailand	75	75

SPCG Public Company Limited and its Subsidiaries
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Name of the entity	Type of business	Country of incorporation	Ownership interest (%)	
			2019	2018
Solar Power (Nongkai 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
Solar Power (Udonthani 1) Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100
AJ Technology Company Limited	Production and distribution of electricity from solar energy	Thailand	75	75
Tipayanarai Company Limited	Production and distribution of electricity from solar energy	Thailand	100	100

2 Basis of preparation of the financial statements

(a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission.

New and revised TFRS are effective for annual accounting periods beginning on or after 1 January 2019. The initial application of these new and revised TFRS has resulted in changes in certain of the Group’s accounting policies. There is no material impact on the Group’s financial statements except for initial applying TFRS 15 Revenue from Contracts with Customers which replaces TAS 18 Revenue, TAS 11 Construction Contracts and related interpretations. The effects of these changes, where such effects are considered material to the financial statements, are disclosed in note 3 (r).

In addition, the Group has not early adopted a number of new and revised TFRS which are not yet effective for the current period in preparing these financial statements. Those new and revised TFRS that are relevant to the Group’s operations are disclosed in note 27.

(b) Functional and presentation currency

The financial statements are prepared in Thai Baht, which is the Company’s functional currency

(c) Use of judgements and estimates

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

3 Significant accounting policies

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in associate and joint venture.

Business combinations

The Group applies the acquisition method for all business combinations when control is transferred to the Group, as describe in subsidiaries section, other than those with entities under common control.

The acquisition date is the date on which control is transferred to the acquirer. Judgment is applied in determining the acquisition date and determining whether control is transferred from one party to another.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Any gain on bargain purchase is recognized in profit or loss immediately.

Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration.

Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

Transaction costs that the Group incurs in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

Non-controlling interests

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Changes in the Group’s interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

Loss of control

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

Interests in equity-accounted investees

The Group's interests in equity-accounted investees comprise interests in an associate and a joint venture.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associate and joint venture are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency at the exchange rates at the dates of the transactions.

Foreign currency differences are generally recognized in profit or loss. However, foreign currency differences arising from the translation of the available-for-sale equity investments are recognized in other comprehensive income.

SPCG Public Company Limited and its Subsidiaries
Notes to the financial statements
For the year ended 31 December 2019

(c) Derivatives

Hedge of future foreign currency transactions

Gains and losses from forward exchange contracts and currency swaps used to hedge anticipated future currency transactions are deferred until the forecasted transaction occurs. Where the hedged item is a recognised asset or liability, it is translated at the contracted forward rates. Transaction fee and discounts are amortised to profit and loss on a straight-line basis over the length of the agreements.

Hedge of interest rates

The Group is party to derivative financial instruments, comprise “cross currency interest rate swap” which is not recognised on the inception date of the contract.

(d) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, call deposits and highly liquid short-term investments. Bank overdrafts that are repayable on demand are a component of financing activities for the purpose of the statement of cash flows.

(e) Trade, other accounts receivable and contract assets

A receivable is recognised when the Group has an unconditional right to receive consideration. If revenue has been recognised before the Group has an unconditional right to receive consideration, the amount is presented as a contract asset.

A receivable is stated at invoice value less allowance for doubtful accounts which is determined based on an analysis of payment histories and future expectations of customer payments. Bad debts are written off when incurred.

Contract assets are measured at the amount of consideration that the Group is entitled to, less impairment losses

(f) Inventories

Inventories are measured at the lower of cost and net realisable value.

Cost is calculated using the weighted average cost principle, and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(g) Investments

Investments in associate, subsidiaries and joint venture

Investments in associate, subsidiaries and joint venture in the separate financial statements of the Company are accounted for using the cost method. Investments in associate and joint venture in the consolidated financial statements are accounted for using the equity method.

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

Investments in other debt and equity securities

Debt securities and marketable equity securities held for trading are classified as current assets and are stated at fair value, with any resultant gain or loss recognised in profit or loss.

Debt securities that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are stated at amortised cost, less any impairment losses. The difference between the acquisition cost and redemption value of such debt securities is amortised using the effective interest rate method over the period to maturity.

Debt securities and marketable equity securities, other than those securities held for trading or intended to be held to maturity, are classified as available-for-sale investments. Available-for-sale investments are, subsequent to initial recognition, stated at fair value, and changes therein, other than impairment losses and foreign currency differences on available-for-sale monetary items, are recognised directly in equity. Impairment losses and foreign exchange differences are recognised in profit or loss. When these investments are derecognised, the cumulative gain or loss previously recognised directly in equity is recognised in profit or loss. Where these investments are interest-bearing, interest calculated using the effective interest method is recognised in profit or loss.

Equity securities which are not marketable are stated at cost less any impairment losses.

The fair value of financial instruments classified as held-for-trading and available-for-sale is determined as the quoted bid price at the reporting date.

Disposal of investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount together with the associated cumulative gain or loss that was reported in equity is recognised in profit or loss.

If the Group disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method applied to the carrying value of the total holding of the investment.

(h) Investment properties

Investment properties are properties which are held to earn rental income, for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

Investment properties are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, and other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each property. The estimated useful lives are as follows:

Investment property	5 and 20 years
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No depreciation is provided on land.

SPCG Public Company Limited and its Subsidiaries
Notes to the financial statements
For the year ended 31 December 2019

(i) Property, plant and equipment

Recognition and measurement

Owned assets

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Any gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised in profit or loss.

Leased assets

Leases in terms of which the Group substantially assumes all the risk and rewards of ownership are classified as finance leases. Property, plant and equipment acquired by way of finance leases is capitalised at the lower of its fair value and the present value of the minimum lease payments at the inception of the lease, less accumulated depreciation and impairment losses. Lease payments are apportioned between the finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly to the profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

For the year ended 31 December 2019

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

Buildings, building improvements and infrastructure	5 - 25 years
Solar modules	30 years
Inverters	20 years
Equipment and machinery	3 - 15 years
Office equipment	3 and 5 years
Vehicles	5 years

No depreciation is provided on land or assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(j) *Intangible assets*

Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. The measurement of goodwill at initial recognition is described in note 3(a). Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment, and an impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying amount of the equity-accounted investee.

Energy Industry License

Energy Industry license acquired in a business combination are recognised at fair value at the acquisition date. Energy Industry License have a finite useful life and are carried at cost less accumulated amortisation. Amortisation is calculated using the straight-line basis over their estimated useful lives of 25 years.

Other intangible assets

Other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses.

Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates.

Amortisations

Amortisation is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset.

SPCG Public Company Limited and its Subsidiaries
Notes to the financial statements
For the year ended 31 December 2019

The estimated useful lives for the current and comparative periods are as follows:

Computer software	5 - 10 years
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Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(k) Impairment

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised if the carrying amount of an asset exceeds its recoverable amount. The impairment loss is recognised in profit or loss.

When a decline in the fair value of an available-for-sale financial asset has been recognised directly in equity and there is objective evidence that the value of the asset is impaired, the cumulative loss that had been recognised directly in equity is recognised in profit or loss even though the financial asset has not been derecognised. The amount of the cumulative loss that is recognised in profit or loss is the difference between the acquisition cost and current fair value, less any impairment loss on that financial asset previously recognised in profit or loss.

Calculation of recoverable amount

The recoverable amount of available-for-sale financial assets is calculated by reference to the fair value.

The recoverable amount of a non-financial asset is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Reversals of impairment

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised in profit or loss. For financial assets carried at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognised in profit or loss. For available-for-sale financial assets that are equity securities, the reversal is recognised in other comprehensive income.

An impairment loss in respect of goodwill is not reversed. Impairment losses recognised in prior periods in respect of non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

SPCG Public Company Limited and its Subsidiaries**Notes to the financial statements****For the year ended 31 December 2019****(l) Interest-bearing liabilities**

Interest-bearing liabilities are recognised initially at fair value less attributable transaction charges. Subsequent to initial recognition, interest-bearing liabilities are stated at amortised cost with any difference between cost and redemption value being recognised in profit or loss over the period of the borrowings on an effective interest basis.

(m) Trade and other accounts payable

Trade and other accounts payable are stated at cost.

(n) Contract liabilities

A contract liability is the obligation to transfer goods or services to the customer. A contract liability is recognised when the Group receives or has an unconditional right to receive non-refundable consideration from the customer before the Group recognises the related revenue.

(o) Employee benefits*Defined contribution plans*

Obligations for contributions to defined contribution plans are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount.

The calculation of defined benefit obligations is performed every 3 years by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any application minimum funding requirements.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognized immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

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Notes to the financial statements

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(p) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

(q) Measurement of fair values

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If the inputs used to measure the fair value of an asset or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

(r) Revenue

Accounting policies for revenue recognition in 2019

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax or other sales taxes and is after deduction of any trade discounts and volume rebates.

Income from sale of electricity

Income from the sale of electricity is recognised in profit or loss in accordance with delivery units supplied as stipulated in the contract. Income from the sale of electricity for entities within Thailand is entitled to receive ADDER for a period of 10 years from the commencement of commercial sales. Thereafter, subsequent to this initial period income from sale of electricity is recognised at normal rates.

Sale of goods and services

Revenue from sales of goods is recognised when a customer obtains control of the goods, generally on delivery of the goods to the customers. For contracts that permit the customers to return the goods, revenue is recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. Therefore the amount of revenue recognised is adjusted for estimated returns, which are estimated based on the historical data.

Revenue for rendering of services is recognised over time based on stage of completion. The stage of completion is assessed based on cost-to-cost method. The related costs are recognised in profit or loss when they are incurred

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Notes to the financial statements

For the year ended 31 December 2019

For bundled packages, the Group accounts for individual products and services separately if they are distinct (i.e. if a product or service is separately identifiable from other items and a customer can benefit from it) or the multiple services are rendered in different reporting periods. The consideration received is allocated based on their relative stand-alone selling prices which are determined based on the price list at which the Group sells the products and services in separate transactions.

Commission revenue

For the contracts that the Group is arranging for the provision of the goods or services on behalf of its customers and does not control the goods or services before the primary sellers or service providers will provide the goods or services to the customers. The Group acts in the capacity of an agent and recognises the net amount of consideration as commission revenue.

Accounting policies for revenue recognition in 2018

Revenue excludes value added taxes and is arrived at after deduction of trade discounts and volume rebates.

Income from sale of electricity

Income from the sale of electricity is recognised in profit or loss in accordance with delivery units supplied as stipulated in the contract. Income from the sale of electricity for entities within Thailand is entitled to receive ADDER for a period of 10 years from the commencement of commercial sales. Thereafter, subsequent to this initial period income from sale of electricity is recognised at normal rates.

Sale of goods

Revenue is recognised in profit or loss when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there is continuing management involvement with the goods or there are significant uncertainties regarding recovery of the consideration due, associated costs or the probable return of goods.

Rendering of services

The Group recognises revenue from rendering of services in proportion to the stage of completion of the transaction at the reporting date.

Construction contracts

Contract revenue includes the initial amount agreed in the contract plus any variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and can be measured reliably. As soon as the outcome of a construction contract can be estimated reliably, contract revenue and expenses are recognised in profit or loss in proportion to the stage of completion of the contract.

The stage of completion is assessed by reference to surveys of work performed. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognised only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognised immediately in profit or loss.

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Commission revenue

When the Group acts in the capacity of an agent rather than as the principal in a transaction, the revenue recognised is the net amount of commission made by the Group.

(s) *Rental income*

Rental income from investment property is recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives granted are recognised as an integral part of the total rental income. Contingent rentals are recognised as income in the accounting period in which they are earned.

(t) *Investment income*

Investment income comprises dividend and interest income from investments and bank deposits. Dividend income is recognised in profit or loss on the date the Group's right to receive payments is established. Interest income is recognised in profit or loss as it accrues.

(u) *Finance costs*

Interest expenses and similar costs are charged to profit or loss for the period in which they are incurred, except to the extent that they are capitalised as being directly attributable to the acquisition, construction or production of an asset which necessarily takes a substantial periods of time to be prepared for its intended use or sale.

(v) *Lease payments*

Payments made under operating leases are recognised in profit or loss on a straight line basis over the term of the lease. Lease incentives received are recognised in profit or loss as an integral part of the total lease expense, over the term of the lease.

Contingent lease payments are accounted for by revising the minimum lease payments over the remaining term of the lease when the lease adjustment is confirmed.

Determining whether an arrangement contains a lease

At inception of an arrangement, the Group determines whether such an arrangement is or contains a lease. A specific asset is the subject of a lease if fulfilment of the arrangement is dependent on the use of that specified asset. An arrangement conveys the right to use the asset if the arrangement conveys to the Group the right to control the use of the underlying asset.

At inception or upon reassessment of the arrangement, the Group separates payments and other consideration required by such an arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Group concludes for a finance lease that it is impracticable to separate the payments reliably, an asset and a liability are recognised at an amount equal to the fair value of the underlying asset. Subsequently the liability is reduced as payments are made and an imputed finance charge on the liability is recognised using the Group's incremental borrowing rate.

(w) *Income tax*

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

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Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognise a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(x) Earnings per share

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year.

(y) Related parties

A related party is a person or entity that has direct or indirect control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or has significant influence over the financial and managerial decision-making of a person or entity.

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(z) **Segment reporting**

Segment results that are reported to the Group's president (the chief operating decision maker) include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

4 Related parties

Relationships with subsidiaries, associates and joint ventures are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Country of incorporation	Nature of relationships
JPEN Co., Ltd.	Thailand	Common shareholders and some directors
Woracha Holding Co., Ltd.	Thailand	Common shareholders
Capital Work Place Co., Ltd.	Thailand	Common shareholders and some directors
SW PARTNERS INC.	Japan	Common some directors
Key management personnel	Thailand	Persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group

The pricing policies for particular types of transactions are explained further below:

Transactions	Pricing policies
Sale of goods	Contractually agreed prices
Interest on loans	Contractually agreed rate with reference to market rate
Dividends income	Upon declaration
Management service income	Contractually agreed prices
Other income	Contractually agreed prices
Purchase of goods and services	Contractually agreed prices
Service expense for operation and maintenance	Contractually agreed prices
Building rental and utilities expense	Contractually agreed prices
Warehouse rental expense	Contractually agreed prices
Contractual installation service of solar roof	Contractually agreed prices
Consulting fee	Contractually agreed prices

Significant transactions for the year ended 31 December with related parties were as follows:

Year ended 31 December	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Subsidiaries				
Interest income	-	-	299,091	327,345
Dividends income	-	-	1,205,640	1,097,760
Management service income	-	-	116,981	110,526
Other income	-	-	8,644	2,526

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<i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Other related parties				
Sales of goods	30,785	29,216	-	-
Purchases of goods	31,306	48,993	-	-
Service expense for operation and maintenance	168,000	168,000	-	-
Building rental expense and utilities expense	20,340	20,202	8,673	8,548
Warehouse rental expense	11,509	10,977	115	-
Contractual installation service of solar roof	56,061	206,654	-	-
Consulting fee	15,186	13,316	15,186	13,316
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	41,694	35,918	37,352	21,859
Post-employment benefits	988	4,129	521	1,634
Total	42,682	40,047	37,873	23,493

Balances as at 31 December with related parties were as follows:

<i>Trade and other accounts receivable</i>	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Subsidiaries	-	-	11,078	71,611
Other related parties	4	572	-	-
Total	4	572	11,078	71,611

<i>Loans to</i>	Interest Rate		Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018	2019	2018
	<i>(% per annum)</i>		<i>(in thousand Baht)</i>			
Short-term loans						
Subsidiaries	3.50	3.50	-	-	22,000	101,000
Total short-term loans			-	-	22,000	101,000
Long-term loans						
Subsidiaries	THBFIX3M	THBFIX3M				
	+1.55	+1.55	-	-	5,072,672	6,896,319
	3.50	3.50	-	-	109,756	125,375
	5.65	5.65	-	-	1,635,157	1,868,750
Total			-	-	6,817,585	8,890,444
<i>Less current portion due within one year</i>			-	-	(2,477,672)	(2,322,072)
Total long-term loans			-	-	4,339,913	6,568,372
Total loans to			-	-	6,839,585	8,991,444

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Movements during the year ended 31 December of loans to were as follows:

	Interest rate		Separate financial statements			
	31 December 2018 (% per annum)	31 December 2019	31 December 2018	Increase	Decrease	31 December 2019
Short-term loans						
Subsidiaries	3.50	3.50	101,000	194,000	(273,000)	22,000
Total short-term loans			101,000	194,000	(273,000)	22,000
Long-term loans						
Subsidiaries	THBFIX3M	THBFIX3M				
	+1.55	+1.55	6,896,319	-	(1,823,647)	5,072,672
	3.50	3.50	125,375	-	(15,619)	109,756
	5.65	5.65	1,868,750	-	(233,593)	1,635,157
Total			8,890,444	-	(2,072,859)	6,817,585
<i>Less current portion due within one year</i>			<i>(2,322,072)</i>	<i>-</i>	<i>155,600</i>	<i>(2,477,672)</i>
Total long-term loans			6,568,372	-	(2,228,459)	4,339,913
Total loans to			8,991,444	194,000	(2,345,859)	6,839,585

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
<i>(in thousand Baht)</i>				
Subsidiaries	-	7	42	65,778
Other related parties	152,924	242,083	115	87
Total	152,924	242,090	157	65,865

Significant agreements with related parties

As at 31 December 2019, the Group has significant agreements with related parties as follows:

Operation, maintenance and monitoring agreement

A subsidiary entered into operation, maintenance and monitoring agreements with a related party for service operation control, maintenance and monitoring each solar farm projects. The agreement is for a period of 5 years, commencing from the effective date as specified in the agreement and expiring in December 2020 with the service charge as stipulated in the agreement.

Building rental agreement

The Company and various subsidiaries have entered into building rental agreement with a related party. The agreement term is for a period of 3 years, commencing from the effective date as specified in the agreement and expiring in December 2022 with the rental fee and condition are as stipulated in the agreement.

Warehouse rental agreement

Various subsidiaries have entered into warehouse rental agreement with a related party. The agreement term is for a period of 3 years, commencing from the effective date as specified in the agreement and expiring in December 2021 with the rental fee and condition are as stipulated in the agreement.

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Service agreement

The Company has entered into service agreement with various subsidiaries for general management service. The Company agreed to provide human resources to manage operation process in accordance with subsidiaries' condition. The agreement term is for a period of 1 year, commencing from the effective date as specified in the agreement and expiring in December 2020 with the service fee and condition are as stipulated in the agreement.

Consulting agreement

The Company has entered into consulting agreement with a related party for provide consultancy and advice on the Company's activities in Japan. The agreement term is for a period of 3 years from the effective date as specified in the agreement and expiring in March 2021 with the service fee and condition are as stipulated in the agreement.

Loan agreements

On 1 April 2015, the Company entered into a long-term loan agreement with related party totaling of Baht 3,120 million which has repayment period every 6 months with the last due date for repayments in 2022. The loans bear interest at the rate of 5.65% per annum, loans are unsecured.

On 29 July 2016, the Company entered into a long-term loan agreement with related party totaling of Baht 170 million which has repayment period every 6 months with the last due date for repayments in 2022. The loans bear interest at the rate of 3.50% per annum, loans are unsecured.

On 30 June 2017, the Company entered into a long-term loan agreement with related party totaling of Baht 267 million which has repayment period every 3 months with the last due date for repayments in 2022. The loans bear interest at the rate of THBFIX3M + 1.55% per annum, loans are unsecured.

On 30 June 2017, the Company entered into a long-term loan agreement with related party totaling of Baht 8,450 million which has repayment period every 3 months with the last due date for repayments in 2024. The loans bear interest at the rate of THBFIX3M + 1.55% per annum, loans are unsecured.

On 31 July 2017, the Company entered into a long-term loan agreement with related party totaling of Baht 151 million which has repayment period every 3 months with the last due date for repayments in 2020. The loans bear interest at the rate of THBFIX3M + 1.55% per annum, loans are unsecured.

On 31 August 2017, the Company entered into a long-term loan agreement with related party totaling of Baht 679 million which has repayment period every 3 months with the last due date for repayments in 2025. The loans bear interest at the rate of THBFIX3M + 1.55% per annum, loans are unsecured.

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5 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Cash on hand	181	211	20	20
Cash at financial institutions	459,886	128,941	23,682	70,023
Total	460,067	129,152	23,702	70,043

6 Other investments

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
<i>Current investments</i>				
Short-term deposits at financial institutions (Private fund)	-	90,000	-	90,000
Equity securities available for sale (Short-term fixed income fund)	2,644,396	1,671,579	2,600,694	1,516,467
Debt securities available for sale (Private fund)	-	95,486	-	95,486
	2,644,396	1,857,065	2,600,694	1,701,953
<i>Long-term investments</i>				
<i>- Available-for-sale securities</i>				
Debt securities available for sale (Private fund)	-	654,191	-	654,191
Equity securities available for sale (Equity fund)	29,794	27,625	29,794	27,625
	29,794	681,816	29,794	681,816
<i>- Other long-term investments</i>				
Non-marketable equity securities	128,678	128,678	-	-
Restricted fixed deposit	-	340,000	-	340,000
	128,678	468,678	-	340,000
	158,472	1,150,494	29,794	1,021,816
Total	2,802,868	3,007,559	2,630,488	2,723,769

Other long-term investments in non-marketable equity security is investment in ordinary share capital of an entity in Japan.

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Movement during the year ended 31 December of equity securities were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Available-for-sale securities				
At 1 January	2,448,881	1,521,609	2,293,769	1,351,119
Purchases during the year	8,800,825	12,513,929	5,153,325	8,678,882
Sales during the year	(8,642,893)	(11,582,162)	(4,876,624)	(7,726,538)
Gain on sale of investments	30,015	8,900	22,797	3,508
Valuation adjustment	39,667	(13,245)	39,527	(13,052)
Exchange rates adjustment	(2,305)	(150)	(2,306)	(150)
At 31 December	2,674,190	2,448,881	2,630,488	2,293,769

7 Trade and other accounts receivable

	Note	Consolidated financial statements		Separate financial statements	
		2019	2018	2019	2018
		<i>(in thousand Baht)</i>			
Related parties	4	4	572	11,078	71,611
Other parties					
Trade accounts receivable		558,095	592,746	-	1,403
Accrued income		474,110	607,753	-	1
Retention receivable		3,045	2,994	-	-
Others		14,012	27,146	4,760	13,308
		1,049,262	1,230,639	4,760	14,712
Total		1,049,266	1,231,211	15,838	86,323
Less allowance for doubtful accounts		(24,208)	(4,504)	-	(1,403)
Net		1,025,058	1,226,707	15,838	84,920
Bad and doubtful debts expense for the year		19,704	977	-	-

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Aging analyses for trade accounts receivable were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Other parties				
Within credit terms	502,692	501,775	-	-
Overdue:				
Less than 3 months	23,659	52,315	-	-
3-6 months	4,244	4,264	-	-
6-12 months	1,657	24,523	-	-
Over 12 months	25,847	9,869	-	1,403
	<u>558,099</u>	<u>592,746</u>	<u>-</u>	<u>1,403</u>
<i>Less allowance for doubtful accounts</i>	<i>(22,680)</i>	<i>(4,504)</i>	<i>-</i>	<i>(1,403)</i>
Total	<u>535,419</u>	<u>588,242</u>	<u>-</u>	<u>-</u>

The normal credit term granted by the group ranges from 30 days to 120 days.

8 Inventories

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Finished goods	11,780	18,059	-	-
Work in progress	4,070	13,494	-	-
Raw materials	717,435	878,234	-	-
Goods in transit	32,818	-	-	-
Total	<u>766,103</u>	<u>909,787</u>	<u>-</u>	<u>-</u>
<i>Less allowance for decline in value of inventories</i>	<i>(3,522)</i>	<i>(3,522)</i>	<i>-</i>	<i>-</i>
Net	<u>762,581</u>	<u>906,265</u>	<u>-</u>	<u>-</u>
Inventories recognised in 'cost of sales of goods':				
- Cost of sales	483,464	896,080	-	-
- Write-down	-	15	-	-
Net	<u>483,464</u>	<u>896,095</u>	<u>-</u>	<u>-</u>

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9 Investment in associate

Investment in associate as at 31 December 2019 and 2018 and dividend income for the year then ended were as follows:

Type of business	Ownership interest (%)		Paid-up capital				Cost				Equity				Impairment		Equity - Net		Dividend income for the year	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
SET Energy Co.,Ltd. (Incorporation on 19 September 2019)	40	-	100,000	-	40,000	-	40,000	-	39,976	-	-	-	-	-	-	-	-	-	-	-
Total			40,000		40,000		39,976		39,976											

(in thousand Baht)

Ownership interest (%)	Paid-up capital		Cost Method		Impairment		At cost - net		Dividend income for the year	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
SET Energy Co.,Ltd. (Incorporation on 19 September 2019)	40	-	100,000	-	40,000	-	-	-	40,000	-
Total			40,000		40,000				40,000	

(in thousand Baht)

Associate was incorporated and mainly operate in Thailand. None of the Group's associate is publicly listed and consequently does not have published price quotations.

On 19 September 2019, the Board approved to establish Set Energy Company Limited which is registered share capital totalling of Baht 100 million (divided into 1,000,000 shares at Baht 100 per share). A associate is held 40% by the Company (divided into 1,000,000 shares at Baht 4 per share).

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Changes in investment in subsidiaries

At the Board of Director's Meeting of Solar Power Engineering Company Limited held on 8 January 2019, the board approved the additional payment of 40% of the registered capital of 4 million baht. (divided into 1,000,000 shares at Baht 4 per share). The Company fully received the called-up share capital during January 2019.

At the Board of Director's Meeting of Solar Power Engineering Company Limited held on 29 November 2018, the Board approved an additional called-up share capital of 25% of the registered share capital totalling of Baht 2.5 million (divided into 1,000,000 shares at Baht 2.5 per share). The Company fully received the called-up share capital during December 2018.

11 Non-controlling interests

The following table summarises the information relating to each of the Group's subsidiaries that has a material non-controlling interest.

	31 December 2019		Total
	Solar power group company	Other individually immaterial subsidiaries <i>(in thousand Baht)</i>	
Current assets	1,225,172		
Non-current assets	16,110,583		
Current liabilities	2,587,775		
Non-current liabilities	4,250,346		
Net assets	10,497,634		
Carrying amount of non-controlling interest	1,752,845	34,471	1,787,316
Revenue	4,367,279		
Profit	2,907,546		
Other comprehensive income	10		
Total comprehensive income	2,907,556		
Profit allocated to non-controlling interest	331,124	10,710	341,834
Other comprehensive income allocated to non-controlling interest	2	-	2
Net cash from operating activities	3,995,436		
Net cash from investing activities	14,715		
Net cash from financing activities	(3,741,672)		
Net increase in cash and cash equivalents	268,479		

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	31 December 2018		
	Solar power group company	Other individually immaterial subsidiaries <i>(in thousand Baht)</i>	Total
Current assets	974,901		
Non-current assets	16,796,491		
Current liabilities	2,412,643		
Non-current liabilities	6,427,214		
Net assets	8,931,535		
Carrying amount of non-controlling interest	<u>1,614,175</u>	30,724	1,644,899
Revenue	4,190,185		
Profit	2,620,469		
Other comprehensive income (loss)	(117)		
Total comprehensive income	2,620,352		
Profit allocated to non-controlling interest	<u>300,098</u>	9,874	309,972
Other comprehensive income (loss) allocated to non-controlling interest	<u>(16)</u>	-	(16)
Net cash from operating activities	3,708,625		
Net cash from investing activities	52,423		
Net cash from financing activities	<u>(3,763,221)</u>		
Net decrease in cash and cash equivalents	(2,173)		

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12 Property, plant and equipment

		Consolidated financial statements						
		Buildings, building improvements and infrastructure	Solar modules, inverters, equipment and machinery	Office equipment	Vehicles	Asset under construction	Total	
		<i>(in thousand Baht)</i>						
Cost								
At 1 January 2018		1,186,237	16,943,865	31,866	19,267	-	20,174,288	
Additions		3,306	3,757	4,660	299	1,605	13,627	
Transfers		1,960	(391)	1	-	(1,570)	-	
Disposals		(15,725)	(19,729)	(1,619)	(2,441)	(35)	(39,549)	
At 31 December 2018 and 1 January 2019		1,175,778	16,927,502	34,908	17,125	-	20,148,366	
Additions		5,181	6,365	2,449	-	51	14,046	
Transfers		(503)	542	12	-	(51)	-	
Disposals		(7,280)	(17,970)	(1,131)	-	-	(26,381)	
At 31 December 2019		1,173,176	16,916,439	36,238	17,125	-	20,136,031	
Depreciation								
At 1 January 2018		230,955	2,764,709	17,997	10,674	-	3,024,335	
Depreciation charge for the year		95,466	576,238	4,822	2,928	-	679,454	
Transfers		47	(47)	-	-	-	-	
Disposals		(3,714)	(7,034)	(1,530)	(1,583)	-	(13,861)	
At 31 December 2018 and 1 January 2019		322,754	3,333,866	21,289	12,019	-	3,689,928	
Depreciation charge for the year		75,070	576,792	4,737	1,606	-	658,205	
Transfers		(542)	542	-	-	-	-	
Disposals		(6,358)	(5,588)	(476)	-	-	(12,422)	
At 31 December 2019		390,924	3,905,612	25,550	13,625	-	4,335,711	

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Consolidated financial statements

	Land	Buildings, building improvements and infrastructure	Solar modules, inverters, equipment and machinery	Office equipment	Vehicles	Asset under construction	Total
<i>Net book value</i>							
At 31 December 2018							
Owned assets	1,993,053	853,024	13,593,636	13,429	2,342	-	16,455,484
Assets under finance leases	-	-	-	190	2,764	-	2,954
	1,993,053	853,024	13,593,636	13,619	5,106	-	16,458,438
At 31 December 2019							
Owned assets	1,993,053	782,252	13,010,827	10,688	1,446	-	15,798,266
Assets under finance leases	-	-	-	-	2,054	-	2,054
	1,993,053	782,252	13,010,827	10,688	3,500	-	15,800,320

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	Separate financial statements			
	Buildings and building improvements	Office equipment <i>(in thousand Baht)</i>	Vehicles	Total
Cost				
At 1 January 2018	31,774	9,951	11,239	52,964
Additions	105	1,105	-	1,210
Disposals	-	(177)	-	(177)
At 31 December 2018 and 1 January 2019	31,879	10,879	11,239	53,997
Additions	-	1,115	-	1,115
Disposals	-	(108)	-	(108)
At 31 December 2019	31,879	11,886	11,239	55,004
Depreciation				
At 1 January 2018	3,895	4,688	5,447	14,030
Depreciation charge for the year	6,373	1,642	2,031	10,046
Disposals	-	(151)	-	(151)
At 31 December 2018 and 1 January 2019	10,268	6,179	7,478	23,925
Depreciation charge for the year	6,375	1,662	1,255	9,292
Disposals	-	(107)	-	(107)
At 31 December 2019	16,643	7,734	8,733	33,110
Net book value				
At 31 December 2018				
Owned assets	21,611	4,700	997	27,308
Assets under finance leases	-	-	2,764	2,764
	21,611	4,700	3,761	30,072
At 31 December 2019				
Owned assets	15,236	4,152	452	19,840
Assets under finance leases	-	-	2,054	2,054
	15,236	4,152	2,506	21,894

The gross amount of the Company's fully depreciated property, plant and equipment that was still in use as at 31 December 2019 mounted to Baht 9.28 million (2018: Baht 6.85 million).

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13 Intangible assets

	Consolidated financial statements			
	License for Energy Industry	Goodwill	Computer software	Total
	<i>(in thousand Baht)</i>			
Cost				
At 1 January 2018	57,895	11,286	58,875	128,056
Additions	-	-	3,418	3,418
At 31 December 2018 and 1 January 2019	57,895	11,286	62,293	131,474
Additions	-	-	15,058	15,058
Disposals	-	-	(37)	(37)
At 31 December 2019	57,895	11,286	77,314	146,495
Amortisation				
At 1 January 2018	9,262	-	19,464	28,726
Amortisation for the year	2,315	-	5,751	8,066
At 31 December 2018 and 1 January 2019	11,577	-	25,215	36,792
Amortisation for the year	2,388	-	5,960	8,348
Disposals	-	-	(6)	(6)
At 31 December 2019	13,965	-	31,169	45,134
Net book value				
At 31 December 2018	46,318	11,286	37,078	94,682
At 31 December 2019	43,930	11,286	46,145	101,361
			Separate financial statements	
			Computer software	
			<i>(in thousand Baht)</i>	
Cost				
At 1 January 2018			1,233	
Additions			2,934	
At 31 December 2018 and 1 January 2019			4,167	
Additions			14,971	
At 31 December 2019			19,138	
Amortisation				
At 1 January 2018			607	
Amortisation for the year			121	
At 31 December 2018 and 1 January 2019			728	
Amortisation for the year			81	
At 31 December 2019			809	
Net book value				
At 31 December 2018			3,439	
At 31 December 2019			18,329	

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14 Interest-bearing liabilities

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Current				
Short-term loans from financial institutions				
- Secured	30,632	99,021	-	-
Current portion of debentures				
- Secured	-	574,337	-	574,337
- Unsecured	1,696,189	1,795,037	1,696,189	1,795,037
	<u>1,696,189</u>	<u>2,369,374</u>	<u>1,696,189</u>	<u>2,369,374</u>
Current portion of finance lease liabilities	691	715	691	645
Total current	<u>1,727,512</u>	<u>2,469,110</u>	<u>1,696,880</u>	<u>2,370,019</u>
Non-current				
Debentures				
- Unsecured	4,095,219	5,791,195	4,095,219	5,791,195
	<u>4,095,219</u>	<u>5,791,195</u>	<u>4,095,219</u>	<u>5,791,195</u>
Finance lease liabilities	677	1,368	677	1,368
Total non-current	<u>4,095,896</u>	<u>5,792,563</u>	<u>4,095,896</u>	<u>5,792,563</u>
Total	<u>5,823,408</u>	<u>8,261,673</u>	<u>5,792,776</u>	<u>8,162,582</u>

Debentures

Detail of debentures as at 31 December 2019 and 2018 were as follows;

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Debentures	5,800,000	8,175,000	5,800,000	8,175,000
Less Unamortised deferred expenses on debentures	(8,592)	(14,431)	(8,592)	(14,431)
	<u>5,791,408</u>	<u>8,160,569</u>	<u>5,791,408</u>	<u>8,160,569</u>
Less Current portion due within one year	(1,696,189)	(2,369,374)	(1,696,189)	(2,369,374)
Total	<u>4,095,219</u>	<u>5,791,195</u>	<u>4,095,219</u>	<u>5,791,195</u>

On 10 January 2018, the Company issued the name-registered, unsubordinated and unsecured debentures, the repayment date is the same with maturity date with no debentureholders' representative to investors in an amount of Baht 500 million. The debentures have maturity period 3 years which interest is payable on semi-annual basis with the maturity date in January 2021.

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For the year ended 31 December 2019

On 16 December 2015, the Company issued the name-registered, unsubordinated and unsecured debentures, the repayment date is the same with maturity date with no debentureholders' representative to institutional investors and high net worth investors in an amount of Baht 12,500 million with 8 series which interest is payable on semi-annual basis. The maturity dates from December 2016 to 2023.

On 30 May 2014, the Company issued the Guaranteed and amortised debentures in an amount of Baht 4,000 million with the interest of 5.55% per annum and repayment in principal every 6 months and interest every 3 months. Its maturity date is 30 June 2019.

Details debentures as at 31 December 2019 were as follow:

Amount (in million Baht)	Interest rates (%) p.a.	Term (years)	Maturity dates
1,700	3.37	5 years	16 December 2020
1,700	3.62	6 years	16 December 2021
1,250	3.80	7 years	16 December 2022
650	3.94	8 years	16 December 2023
500	2.20	3 years	10 January 2021

Movements during the year ended 31 December 2019 and 2018 of debentures which included current portion were as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
At 1 January	8,160,569	10,601,499	8,160,569	10,601,499
Issue of debentures	-	499,360	-	499,360
Repayment of debentures	(2,375,000)	(2,950,000)	(2,375,000)	(2,950,000)
Adjusted debentures per effective interest rate method	5,839	9,710	5,839	9,710
At 31 December	5,791,408	8,160,569	5,791,408	8,160,569

Secured debenture as at 31 December were secured on the following assets:

	Note	Consolidated financial statements		Separate financial statements	
		2019	2018	2019	2018
		<i>(in thousand Baht)</i>			
Restricted fixed deposit	6	-	340,000	-	340,000

As at 31 December 2019, the Group had unutilised credit facilities totalling Baht 1,350 million and US dollar 35 million (2018: Baht 1,200 million and US dollar 35 million).

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For the year ended 31 December 2019

15 Trade and other accounts payable

	Note	Consolidated financial statements		Separate financial statements	
		2019	2018	2019	2018
		<i>(in thousand Baht)</i>			
Related parties	4	152,924	242,090	157	65,865
Other parties					
Trade accounts payable		69,512	37,181	-	-
Accrued expense		98,519	158,939	9,855	8,516
Unearned revenues		13,702	30,598	-	-
Accrued interest expense		14,374	17,717	13,688	16,119
Others		18,950	58,464	6,645	46,974
		215,057	302,899	30,188	71,609
Total		367,981	544,989	30,345	137,474

16 Reserve

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 Section 116 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

Other components of equity

Fair value changes in available-for-sale investments

The fair value changes in available-for-sale investments account within equity comprises the cumulative net change in the fair value of available-for-sale investments until the investments are derecognised or impaired.

Movements in reserves

Movements in reserves are shown in the statements of changes in equity.

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For the year ended 31 December 2019

17 Segment information and disaggregation of revenue

Management determined that the Group has three reportable segments which are the Group's strategic divisions for different products and services, and are managed separately because they require different technology and marketing strategies. The following summary describes the operations in each of the Group's reportable segments

- Segment 1 Manufacture, trading, and installation service of roof sheets and solar roof
- Segment 2 Production and distribution of electricity from solar energy
- Segment 3 Others

Each segment's performance is measured based on segment profit before tax, as included in the internal management reports that are reviewed by the Group's CODM. Segment profit before tax is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing is determined on an arm's length basis

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Information about reportable segments

	Manufacture, trading, and installation service of roof sheets and solar roof		Production and distribution of electricity from solar energy		Others		Total
	2019	2018	2019	2018	2019	2018	
For the year ended at 31 December							
Consolidated financial statements							
<i>(in thousand Baht)</i>							
Information about reportable segments							
External revenue	728,022	1,621,870	4,482,471	4,302,127	36,045	4,173	5,928,170
Total Revenue	728,022	1,621,870	4,482,471	4,302,127	36,045	4,173	5,928,170
Type of goods or services							
Revenue from sale electricity distribution	-	-	1,297,595	1,224,892	-	-	1,297,595
Revenue from subsidy of adders	-	-	3,178,130	3,072,586	-	-	3,178,130
Revenue from sales and installation service of roof sheets and solar roof	587,453	1,481,594	-	-	-	-	587,453
Revenue from sales of goods and other services	140,569	140,276	6,746	4,649	36,045	4,173	183,360
Total	728,022	1,621,870	4,482,471	4,302,127	36,045	4,173	5,928,170
Timing of revenue recognition							
At a point in time	512,121	133,912	6,746	4,649	3,343	268	522,210
Over time	215,901	1,487,958	4,475,725	4,297,478	32,702	3,905	4,724,328
Total	728,022	1,621,870	4,482,471	4,302,127	36,045	4,173	5,928,170

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Consolidated financial statements

	Manufacture, trading, and installation service of roof sheets and solar roof		Production and distribution of electricity from solar energy		Others		Eliminations		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Operating profit (loss)	(30,933)	252,045	3,416,480	3,200,847	4,365	(5,812)	(400)	1,495	3,389,512	3,448,575
Interest income	86	147	340	255	320,704	433,861	(311,827)	(396,728)	9,303	37,535
Finance costs	(2,103)	(11,992)	(393,611)	(496,630)	(276,314)	(391,407)	311,827	396,728	(360,201)	(503,301)
Finance costs, net	(2,017)	(11,845)	(393,271)	(496,375)	44,390	42,454	-	-	(350,898)	(465,766)
Share of loss of investment in associate and joint venture	-	-	-	-	(24)	(64)	-	-	(24)	(64)
Profit (loss) before income tax expense	(32,950)	240,200	3,032,496	2,706,577	1,254,371	1,134,338	(1,206,040)	(1,096,265)	3,047,877	2,984,850
Tax expense	(37)	(49,367)	(31,383)	(5,534)	(10,225)	(6,763)	5,026	396	(36,619)	(61,268)
Profit (loss) for the year	(32,987)	190,833	3,001,113	2,701,043	1,244,146	1,127,575	(1,201,014)	(1,095,869)	3,011,258	2,923,582

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<i>As at 31 December</i>	Consolidated financial statements						
	Manufacture, trading, and installation service of roof sheets and solar roof		Production and distribution of electricity from solar energy		Others		Total
	2019	2018	2019	2018	2019	2018	
	<i>(in thousand Baht)</i>						
Segment assets							
Property, plant and equipment	41,425	47,794	15,732,910	16,377,111	24,064	31,985	15,800,320
Investments in associate	-	-	-	-	39,976	-	39,976
Current investments	3,057	104,476	40,645	50,637	2,600,694	1,701,952	2,644,396
Available-for-sale investments	-	-	-	-	29,794	681,816	29,794
Other long-term investments	-	-	128,678	128,678	-	340,000	128,678
Unallocated assets	-	-	-	-	-	-	3,260,137
Total assets							21,903,301
							16,458,438
							1,857,065
							681,816
							468,678
							3,331,627
							22,797,624
Segment liabilities							
Loans	30,632	200,021	6,817,584	8,890,444	22,000	-	30,632
Debtentures	-	-	-	-	5,791,408	8,160,569	5,791,408
Unallocated liabilities	-	-	-	-	-	-	477,098
Total liabilities							6,299,138
							8,916,970
							99,021
							8,160,569
							657,380
							8,916,970

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Promotional privileges

The Group has been granted promotional certificates by the Office of the Board of Investment for production and distribution of electricity from solar energy. The Group has been granted several privileges including exemption and/or reduction from payment of income tax on the net profit derived from promoted operations with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted and non-promoted business:

Consolidated financial statements					
2019			2018		
Promoted businesses	Non-promoted businesses	Total	Promoted businesses	Non-promoted businesses	Total
<i>(in thousand Baht)</i>					
Total local sales	4,475,726	770,812	5,246,538	4,297,478	1,630,692
					5,928,170

18 Other income

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Dividends income	9,287	2,105	1,205,640	1,097,760
Income from import duty refund	1,428	55,369	-	-
Interest income	9,303	37,539	320,696	433,864
Gain on sale of other investments	30,015	8,900	22,797	3,508
Management service income	-	-	116,981	110,526
Compensations for damage	13,853	557	-	-
Others	12,142	13,854	8,930	2,649
Total	76,028	118,324	1,675,044	1,648,307

19 Employee benefit expenses

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Salaries and wages	82,894	77,075	42,456	36,857
Overtime and bonus	13,618	13,519	8,817	8,144
Defined contribution plan	1,660	1,548	853	743
Defined benefit plans	1,269	5,382	577	2,596
Others	7,038	7,896	3,321	3,366
Total	106,479	105,420	56,024	51,706

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Defined contribution plans

The defined contribution plans comprise provident funds established by the various Companies within the Group for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at rates ranging from 3% to 6% of their basic salaries and by the Group at rates ranging from 3% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by licensed Fund Manager.

20 Expense by nature

The statements of comprehensive income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	Consolidated		Separate	
	financial statements	financial statements	financial statements	financial statements
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Changes in inventories	143,684	(197,187)	-	-
Raw materials and consumables used	339,780	1,093,282	-	-
Depreciation and amortisation	668,369	689,409	10,473	11,263
Management and utilities fee	293,622	296,937	10,166	9,760
Contractual installation service of solar roof	106,693	281,937	-	-
Employee benefit expenses	106,479	105,420	56,024	51,706
Warranty expense for invertors	46,643	28,333	-	-
Signboard tax and property tax	35,193	34,355	-	-
Commission expenses	5,770	63,071	-	-
Others	168,231	162,722	63,715	50,679
Total cost of sale of goods, selling and distribution expenses and administrative expenses	1,914,464	2,558,279	140,378	123,408

21 Income tax expense

Income tax recognised in profit or loss

	Consolidated		Separate	
	financial statements	financial statements	financial statements	financial statements
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
Current tax expense				
Current year	43,037	64,166	11,510	9,101
(Over) under provided in prior years	(48)	95	(2)	(4)
	42,989	64,261	11,508	9,097
Deferred tax expense				
Movements in temporary differences	(6,370)	(2,993)	(1,283)	(2,334)
	(6,370)	(2,993)	(1,283)	(2,334)
Total income tax expense	36,619	61,268	10,225	6,763

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Reconciliation of effective tax rate

	Consolidated financial statements			
	2019		2018	
	<i>Rate (%)</i>	<i>(in thousand Baht)</i>	<i>Rate (%)</i>	<i>(in thousand Baht)</i>
Profit before income tax expense		3,047,877		2,984,850
Income tax using the Thai corporation tax rate	20	609,575	20	596,970
Income not subject to tax		(583,435)		(541,079)
Expenses not deductible for tax purposes		6,110		1,875
Tax losses for which no deferred income tax asset was recognised		4,417		3,407
(Over) under provided in prior years		(48)		95
Total	1.2	36,619	2.1	61,268

Reconciliation of effective tax rate

	Separate financial statements			
	2019		2018	
	<i>Rate (%)</i>	<i>(in thousand Baht)</i>	<i>Rate (%)</i>	<i>(in thousand Baht)</i>
Profit before income tax expense		1,258,804		1,133,493
Income tax using the Thai corporation tax rate	20	251,761	20	226,699
Income not subject to tax		(241,919)		(220,393)
Expenses not deductible for tax purposes		385		461
Over provided in prior years		(2)		(4)
Total	0.8	10,225	0.6	6,763

Deferred tax

	Consolidated financial statements			
	Assets		Liabilities	
	2019	2018	2019	2018
	<i>(in million Baht)</i>			
Total	164,039	159,827	(8,662)	(2,886)
Set off of tax	(1,612)	(2,487)	1,612	2,487
Net deferred tax assets (liabilities)	162,427	157,340	(7,050)	(399)

Deferred tax

	Separate financial statements			
	Assets		Liabilities	
	2019	2018	2019	2018
	<i>(in million Baht)</i>			
Total	1,611	2,543	(8,576)	(2,886)
Set off of tax	(1,611)	(2,543)	1,611	2,543
Net deferred tax assets (liabilities)	-	-	(6,965)	(343)

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<i>Deferred tax</i>	Consolidated financial statements (Charged) / Credited to:			At 31 December 2019
	At 1 January 2019	Profit or loss <i>(in thousand Baht)</i>	Other comprehensive income	
<i>Deferred tax assets</i>				
Property, plant and equipment	155,983	102	-	156,085
Provisions for employee benefits	2,853	260	-	3,113
Available-for-sale investments	991	-	(991)	-
Allowance for doubtful accounts	-	4,841	-	4,841
Total	159,827	5,203	(991)	164,039
<i>Deferred tax liabilities</i>				
Available-for-sale investments	-	-	6,943	6,943
Debentures	2,886	(1,167)	-	1,719
Total	2,886	(1,167)	6,943	8,662
Net	156,941	6,370	(7,934)	155,377
<i>Deferred tax</i>	Consolidated financial statements (Charged) / Credited to:			At 31 December 2018
	At 1 January 2018	Profit or loss <i>(in thousand Baht)</i>	Other comprehensive income	
<i>Deferred tax assets</i>				
Property, plant and equipment	155,893	90	-	155,983
Provisions for employee benefits	2,204	1,090	(441)	2,853
Available-for-sale investments	-	-	991	991
Total	158,097	1,180	550	159,827
<i>Deferred tax liabilities</i>				
Available-for-sale investments	1,645	-	(1,645)	-
Debentures	4,699	(1,813)	-	2,886
Total	6,344	(1,813)	(1,645)	2,886
Net	151,753	2,993	2,195	156,941

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<i>Deferred tax</i>	At 1 January 2019	Separate financial statements (Charged) / Credited to:		At 31 December 2019
		Profit or loss (in thousand Baht)	Other comprehensive income	
<i>Deferred tax assets</i>				
Provisions for employee benefits	1,495	116	-	1,611
Available-for-sale investments	1,048	-	(1,048)	-
Total	2,543	116	(1,048)	1,611
<i>Deferred tax liabilities</i>				
Available-for-sale investments	-	-	6,857	6,857
Debentures	2,886	(1,167)	-	1,719
Total	2,886	(1,167)	6,857	8,576
Net	(343)	1,283	(7,905)	(6,965)

<i>Deferred tax</i>	At 1 January 2018	Separate financial statements (Charged) / Credited to:		At 31 December 2018
		Profit or loss (in thousand Baht)	Other comprehensive income	
<i>Deferred tax assets</i>				
Provisions for employee benefits	1,430	519	(454)	1,495
Available-for-sale investments	-	-	1,048	1,048
Total	1,430	519	594	2,543
<i>Deferred tax liabilities</i>				
Available-for-sale investments	1,562	-	(1,562)	-
Debentures	4,701	(1,815)	-	2,886
Total	6,263	(1,815)	(1,562)	2,886
Net	(4,833)	2,334	2,156	(343)

<i>Unrecognised deferred tax assets</i>	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
Tax losses	225,206	486,698	-	-

The tax losses expire during 2019 to 2024. The deductible temporary differences do not expire under current tax legislation. Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit will be available against which the can utilise the benefits therefrom.

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22 Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2019 and 2018 were based on the profit for the years attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the years as follows:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(thousand shares / thousand Baht)</i>			
Profit for the year attributable to ordinary shareholders of the Company	<u>2,669,424</u>	<u>2,613,610</u>	<u>1,248,579</u>	<u>1,126,730</u>
Number of ordinary shares as at 1 January	973,990	923,990	973,990	923,990
Effect from issued shares	<u>-</u>	<u>43,836</u>	<u>-</u>	<u>43,836</u>
Number of ordinary shares by weighted average method (basic)	<u>973,990</u>	<u>967,826</u>	<u>973,990</u>	<u>967,826</u>
Basic earnings per share (in Baht)	<u>2.74</u>	<u>2.70</u>	<u>1.28</u>	<u>1.16</u>

23 Dividends

At the Board of Director's Meeting of the Company held on 9 August 2019, the Board approved the appropriation of interim dividends of Baht 0.50 per share amounting to Baht 487 million. The dividend was paid to the shareholders in September 2019.

At the Annual General Meeting of the shareholders of the Company held on 12 April 2019, the shareholders approved the appropriation of dividend for the year 2018 and the Company's unappropriated retained earnings of Baht 1.20 per share, amounting to Baht 1,168.79 million. The Company had paid interim dividend at the rate of Baht 0.55 per share, amounting to Baht 535.69 million. The remaining dividend was paid at the rate of Baht 0.65 per share, amounting to Baht 633.10 million. The dividend was paid to shareholders during May 2019.

At the Board of Director's Meeting of the Company held on 10 August 2018, the Board approved the appropriation of interim dividends of Baht 0.55 per share amounting to Baht 535.69 million. The dividend was paid to the shareholders in September 2018.

At the Annual General Meeting of the shareholders of the Company held on 20 April 2018, the shareholders approved the appropriation of dividend for the year 2017 and the Company's unappropriated retained earnings of Baht 1.15 per share, amounting to Baht 1,095.09 million. The Company had paid interim dividend at the rate of Baht 0.50 per share, amounting to Baht 462 million. The remaining dividend was paid at the rate of Baht 0.65 per share, amounting to Baht 633.08 million. The dividend was paid to shareholders during May 2018.

24 Financial instruments

Financial risk management policies

The Group is exposed to normal business risks from changes in market interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group does not hold or issue derivatives for speculative or trading purposes.

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Risk management is integral to the whole business of the Group. The Group has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Group's risk management process to ensure that an appropriate balance between risk and control is achieved.

Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because loan interest rates are mainly fixed. The Group is primarily exposed to interest rate risk from its borrowings (see note 14). The Group mitigates this risk by ensuring that the majority of its borrowings are at fixed interest rates and uses derivatives, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific debt securities and borrowings.

	Effective interest rate (% per annum)	Separate financial statement Maturity period			Total
		Within 1 year	After 1 year but within 5 years (in thousand Baht)	After 5 years	
As at 31 December					
2019					
Current					
Loans to related parties	3.50	22,000	-	-	22,000
Non-current					
Loans to related parties	THBFIX3M				
	+1.55	1,730,034	3,337,645	4,993	5,072,672
	3.50	46,855	62,901	-	109,756
	5.65	700,783	934,374	-	1,635,157
Total		2,477,672	4,334,920	4,993	6,817,585
2018					
Current					
Loans to related parties	3.50	101,000	-	-	101,000
Non-current					
Loans to related parties	THBFIX3M				
	+1.55	1,823,647	5,053,051	19,621	6,896,319
	3.50	31,237	94,138	-	125,375
	5.65	467,188	1,401,562	-	1,868,750
Total		2,423,072	6,548,751	19,621	8,991,444

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The effective interest rates of interest-bearing financial liabilities as at 31 December and the periods in which those liabilities mature or re-price were as follows:

	Effective interest rate (% per annum)	Consolidated financial statements			Total
		Maturity period			
<i>As at 31 December</i>		Within 1 year	After 1 year but within 5 years (in thousand Baht)	After 5 years	
2019					
Current					
Loans from financial institutions	2.45	30,632	-	-	30,632
Non-current					
Debentures	2.20 - 3.94	1,696,189	4,095,219	-	5,791,408
Total		1,726,821	4,095,219	-	5,822,040
2018					
Current					
Loans from financial institutions	2.30	96,021	-	-	96,021
	MLR-1	3,000	-	-	3,000
Non-current					
Debentures	2.20 - 5.55	2,369,374	5,791,195	-	8,160,569
Total		2,468,395	5,791,195	-	8,259,590
Separate financial statement					
Maturity period					
<i>As at 31 December</i>		Within 1 year	After 1 year but within 5 years (in thousand Baht)	After 5 years	Total
2019					
Non-current					
Debentures	2.20 - 3.94	1,696,189	4,095,219	-	5,791,408
Total		1,696,189	4,095,219	-	5,791,408
2018					
Non-current					
Debentures	2.20 - 5.55	2,369,374	5,791,195	-	8,160,569
Total		2,369,374	5,791,195	-	8,160,569

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Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases and sales which are denominated in foreign currencies. The Group primarily utilizes forward exchange contracts with maturities of less than one year to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
USD				
Other investments	29,794	27,625	29,794	27,625
Trade and other accounts payable	(5)	-	-	-
Gross balance sheet exposure	29,789	27,625	29,794	27,625
EUR				
Trade and other accounts receivable	19,159	7,349	-	-
Trade and other accounts payable	(39,728)	(5,955)	-	-
Gross balance sheet exposure	(20,569)	1,394	-	-

Credit risk

Credit risk is the potential financial loss resulting from the failure of a customer or counterparty to settle its financial and contractual obligations to the Group as and when they fall due. The Group has concentrations of credit risk since most of its revenues are contracted under long-term agreements with a small number of parties. However counterparties are generally government authorities and large public or private corporations and the risk perceived is low.

Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

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For the year ended 31 December 2019

Carrying amounts and fair values

As at 31 December 2019 and 2018, fair value of financial assets and liabilities is taken to approximately the carrying value, except the following items;

	Carrying amount	Consolidated financial statements			Total
		Fair value			
		Level 1	Level 2	Level 3	
		<i>(in million Baht)</i>			
31 December 2019					
<i>Financial assets measured at fair value</i>					
Equity securities available for sale (Short-term fixed income fund)	2,644.40	-	2,644.40	-	2,644.40
Equity securities available for sale (Equity fund)	29.79	-	29.79	-	29.79
<i>Financial liabilities not measured at fair value</i>					
Debentures	(5,791.41)	-	(5,993.59)	-	(5,993.59)
Interest rate swap contract	-	-	(112.92)	-	(112.92)
31 December 2018					
<i>Financial assets measured at fair value</i>					
Equity securities available for sale (Short-term fixed income fund)	1,671.58	-	1,671.58	-	1,671.58
Debt securities available for sale (Private fund)	749.68	-	749.68	-	749.68
Equity securities available for sale (Equity fund)	27.63	-	27.63	-	27.63
<i>Financial liabilities not measured at fair value</i>					
Debentures	(8,160.57)	-	(8,339.77)	-	(8,339.77)
Interest rate swap contract	-	-	(195.62)	-	(195.62)

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	Carrying amount	Separate financial statements			Total
		Fair value			
		Level 1	Level 2	Level 3	
		<i>(in million Baht)</i>			
31 December 2019					
<i>Financial assets measured at fair value</i>					
Equity securities available for sale (Short-term fixed income fund)	2,600.69	-	2,600.69	-	2,600.69
Equity securities available for sale (Equity fund)	29.79	-	29.79	-	29.79
<i>Financial liabilities not measured at fair value</i>					
Debentures	(5,791.41)	-	(5,993.59)	-	(5,993.59)
Interest rate swap contract	-	-	52.56	-	52.56
31 December 2018					
<i>Financial assets measured at fair value</i>					
Equity securities available for sale (Short-term fixed income fund)	1,516.47	-	1,516.47	-	1,516.47
Debt securities available for sale (Private fund)	749.68	-	749.68	-	749.68
Equity securities available for sale (Equity fund)	27.63	-	27.63	-	27.63
<i>Financial liabilities not measured at fair value</i>					
Debentures	(8,160.57)	-	(8,339.77)	-	(8,339.77)
Interest rate swap contract	-	-	(7.10)	-	(7.10)

Measurement of fair values

Level 2 fair values for equity securities available for sale are based on the net asset value as of the reporting date, for debt securities are based on the yield rate quoted by the Thai Bond Market Association as of the reporting date and for derivatives the fair value are based on broker quotes. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group and counterparty when appropriate.

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Notes to the financial statements

For the year ended 31 December 2019

25 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2019	2018	2019	2018
	<i>(in thousand Baht)</i>			
<i>Future minimum lease payments under non-cancellable operating leases</i>				
Within 1 year	4,028	3,358	859	409
1-5 years	3,593	1,932	2,578	105
Total	7,621	5,290	3,437	514
<i>Future minimum payments under service contracts</i>				
Within 1 year	57,432	60,397	791	928
1-5 years	2,100	53,381	-	360
Total	59,532	113,778	791	1,288
<i>Other commitments</i>				
Purchase orders for goods	271,668	184,119	-	-
Bank guarantees	90,080	152,720	-	-
Total	361,748	336,839	-	-

26 Lawsuits

On 14 September 2019, the Group received a civil complaint from the Central Intellectual Property and International Trade Court between ICONICS Inc. by EDA International Ltd., power of attorney (plaintiff) and Solar Power (Korat 1) Co., Ltd., the first defendant and 37 companies within the Group in violation of copyright infringement using the SCADA system and claiming damages totaling Baht 50 million. The court scheduled the examination of witnesses on 18-20 November 2020. The outcome of the case is still uncertain and under the process of the court.

On 28 September 2019, the Company received a criminal complaint from the Central Intellectual Property and International Trade Court between ICONICS Inc. by EDA International Ltd., power of attorney (plaintiff) and SPCG Public Company Limited, the first defendant and Ms. Wandee Kunchornyakong, the second defendant in the offense of copyright infringement using the SCADA system for benefit and public disclosure. The court scheduled the preliminary hearing on 2 April 2020. The outcome of the case is still uncertain and under the process of the court.

SPCG Public Company Limited and its Subsidiaries

Notes to the financial statements

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27 Thai Financial Reporting Standards (TFRS) not yet adopted

New and revised TFRS are effective for annual accounting periods beginning on or after 1 January 2020. The initial application of these new and revised TFRS has resulted in changes in certain of the Group's accounting policies.

TFRS	Topic
TFRS 7*	Financial Instruments: Disclosures
TFRS 9*	Financial Instruments
TFRS 16*	Leases
TAS 32*	Financial Instruments: Presentation
TFRIC 16*	Hedges of a Net Investment in a Foreign Operation
TFRIC 19*	Extinguishing Financial Liabilities with Equity Instruments

* TFRS - Financial instruments standards

(a) TFRS - Financial instruments standards

These TFRS - Financial instruments standards establish requirements related to definition, recognition, measurement, impairment and derecognition of financial assets and financial liabilities, including accounting for derivatives and hedge accounting. When these TFRS are effective, some accounting standards, interpretations and guidance which are currently effective will be cancelled.

(b) TFRS 16 Leases

TFRS 16 introduces a single lessee accounting model for lessees. A lessee recognises a right-of-use asset and a lease liability, with recognition exemptions for short-term leases and leases of low-value items. As a result, the Group will recognise new assets and liabilities for its operating leases. As at 31 December 2019, the Group's future minimum lease payments under non-cancellable operating leases amounted to Baht 52.92 million 13.26 million, respectively, on an undiscounted basis. Lease accounting for lessor remains similar to the current standard, i.e. lessors continue to classify leases as finance or operating leases. When this TFRS is effective, some accounting standards and interpretations which are currently effective will be cancelled.

Management is currently considering the potential impact from these TFRS on the financial statements in the initial period adopted.

28 Events after the reporting period

At the Board of Directors' meeting held on 28 February 2020, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2019 dividend payment at the rate of Baht 1.22 per share, totaling Baht 1,188.27 million, of which Baht 0.50 per share was paid as an interim dividend on 9 August 2019 as disclosed in note 23. Thus, the remaining dividend will be at the rate of Baht 0.72 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 17 April 2020.

On 16 January 2020, the Board of Directors' meeting approved the investment in Ukujima Mega Solar Project in Japan. The investors of the project including Kyocera Corporation, Kyudenko Corporation, Tokyo Century Corporation, Furukawa Electric Company Limited, Tsuboi Corporation and other minority investors. The investment fund is set at approximately JPY 9,000 million or approximately Baht 2,520 million. The project is scheduled to start the construction in March 2020.

12 Corporate Social Responsibilities : CSR



12.1 Overview Policy

SPCG Public Company Limited “SPCG” conducting business with the consideration of all stakeholders, economy, society and the environment. The company commits to running business with honest and fair based on ethics and good corporate governance principles. Aware of the negative effects that may occur to the economy, society and environment including being ready to solve and reduce such effects while also truly showing responsibility to all stakeholders. Which aims to benefit the business sustainably, including for stable and sustainable growth. The company has therefore established a framework for operations on corporate social responsibility towards sustainability with reference to international guidelines covering

economic, social and environmental under good corporate governance principles. To achieve consistent operations across all business groups as well as creating an attitude and organizational culture for the employees in order to be responsible to society, the company has the following guidelines as follows:

1. The company is committed to understanding and communicate with society about the status and facts of the company’s operations, company responsibilities to the community, society as a whole and environment without concealing facts. Cooperate in providing information to investors, shareholders and general interested persons in time.

2. The company is actively involved in social responsibility in terms of quality and environment in using natural resources for maximum benefits. By recognizing the importance of the environment and the safety of relevant stakeholders. As well as promoting social activities in protecting the environment and improving the quality of life of people in the community in accordance with the principles of sustainable development.

3. The company will consider the alternatives for using natural resources with the least damage to society, environment and quality of life of the people. Support the reduction of energy and resources usage.

4. The company instills awareness about social and environmental responsibility in the company's personnel. And give importance to transactions with business partners regarding social and environmental responsibility and promote efficient use and conservation of energy for the benefit of future generations.

5. The company will contribute to society and the environment on a regular basis. Activities must be appropriate activities that can benefit the community, society and environment. In terms of donations, the company will check the donee information to ensure that they are used for charity effectively and efficiently to be truly beneficial. The documents and evidence must be provided.



11.1.1 Social and environmental responsibility

SPCG recognizes the importance of climate change problems. Which is a global issue that all countries must cooperate to reduce greenhouse gas emissions to be less than 2% in accordance with the United Nations Framework Convention on Climate Change (UNFCCC) or the convention together more than 150 countries around the world.

SPCG is aware of the importance of conducting business with social and environmental responsibility. SPCG has always emphasized on strengthening

communities and society as well as focusing on participation and support for various activities and projects of the community around the Solar Farm Projects.

Also has a determination to conduct business in parallel with conserving energy and the environment sustainably. As the Pioneer of Solar Farm and Solar Roof developer in Thailand and ASEAN community with a total of 36 solar farms in Thailand, with a total capacity of 260 megawatts (MW), we can reduce carbon dioxide more than 200,000 tons per year.

In the year 2019, the company conducted social and environmental activities as follows

(1) Solar Rooftop Installation on the company's headquarters building

The company has installed a solar roof system on the 12th floor of the headquarters building with a capacity of 26.5 kWp and renovated the building by using tempered glass to prevent heat. It also relies on natural light to help brighten the workplace as well as use the electricity-saving air-conditioning system. In order to save energy and helps to reduce the electricity consumption during day time.

(2) Environmental lecture

In the year 2019, SPCG was honored by the United Nations regarding the United Nations Framework Convention on Climate Change (UNFCCC) to join the UN Thailand Forum to push for helping to reduce global warming to be concrete from the concept of A RACE WE CAN WIN with 3 guidelines as follows: (1) Enhancing Ambitions (2) Low Carbon and Climate Resilient Development (3) Access to Finance.



(3) ERP system (Enterprise Resource Planning)

SPCG recognizes the importance of energy management and resource utilization for maximum efficiency. The company has therefore created an ERP (Enterprise Resource Planning) system or planning the business resources of the organization as a whole. The purpose is to maximize use of business resources and is the linking of various organization systems such as accounting, finance, purchasing and warehouse. To help planning and managing various resources efficiently as well as to reduce working process and mistakes.



(4) 5S activity

Moreover SPCG has provided 5S activity for all of 36 Solar Farm projects, for the purposes of 5S as follows:

- To elevate 5S activity by using 3S (Seiri, Seiton and Seiso) to cultivate consciousness and preparing to Seketsu and Shitsuke
- Big Cleaning Day activity, for staffs to attend for making their work place for more conducive for working.

5S activity is a basic factor of good quality management that helps us create good environment for the work place, good atmosphere and sanitary work area so that staff can work efficiency at full capacity and with good attitude to the company. 5S activity is a strategy to open opportunity for the staff to self-develop, the result of this activity is effective and will be a basic guideline for the managing strategy for company in the future.

12.1.2 The managing operation for sustainable and all stakeholder.

SPCG committed to run the business under strict moral and ethical code and conduct the company together with all stakeholder, by provided the principle for treating each group of stakeholder by following

1. Shareholders and Invertors

Company's shareholders and investors include all shareholders as well as fund, investor and securities analyst who has stakes in company's turnover and securities value.

We have policy to run our business honestly and morally, and will develop our corporation to growth with good outcomes for suitable rewards of shareholders and investors consistently and permanently by equitable treatment of shareholders.

2. Customers

The Provincial Electricity Authority (PEA) is the only customer of Solar Farm Business but the customers of Solar Roof and Steel Roof are general public, housing estate, home office, economic building, factory, warehouses, government, and state enterprise etc.

The Company is aware of customer's satisfaction as well as operational safety standard, then ISO 9001:2000 and ISO 14001 have been applied with policy as "We'll produce quality products with same standard and continuous development for highest satisfaction of customer". By fairness of business, we set qualitative policy as "Continuing to Give Best Value, Best Design, Best Output, Best Service to all of Customers"

3. Traders and/or Creditors

The Company has the policy to create good relationship with traders and/or creditors, run business with basis of fairness, undifferentiated between traders and/or creditors, avoiding any circumstances that may cause conflict of interest and complying with all commitments to reach mutual benefits.

4. Business Competitors.

The Company has policy to deal with competitors on the basis of airness, not search for competitor's secret information by dishonest and unsuitable practice, will not be dishonest or deceptive. Occasionally, the Company has cooperated with competitors with transparency and not conceal any necessary information.

5. Staff

The Company gives precedence to staffs and takes into consideration of staffs' safety and work place sanitation which are conducive to work forwards the business target. Respect to human right, the company has policy to look after all staffs and support good quality living with fair employment, safety, suitable welfare and promotions for staffs to concentrate in performance in keeping with rules and regulations.

6. Government and Authorities

The company runs the business for the sake of country's progress and development adhering to related laws, rules and regulations concerned in accordance with business requirements. Go along with government and control authorities in creating knowledge and understanding which aim to develop Renewable Energy Industry to be sustainable for the country in every format for instance; exchanging information, exchange & link technology with foreign entrepreneur, join lecture or give opinion to create knowledge and understanding for the benefit of Industry Growth.

7. Communities and Society

The company has recruited generalists who interested in Solar Farm Business, most of them live in nearby communities around the 36 Solar Farms. They came to work in control room as well as look after Solar Farms which generate support and participation in developing the communities under standard of work which concentrate in security, safety, sanitation, strengthen conscious of environment standard and preservation.

12.2 Activity for benefit of Society and Environment

SPCG committed to run the business, conscious of social and environment impacts and continuously plan for improving knowledge and developing the quality of life for society and community and in the year 2018, SPCG has made the following activities.

12.2.1 Social Activities

SPCG realized about the important of running the business for benefit of sustainable social and environmental aspects under the policy which support and encourage the activity to return profit to the community by provided the learning activity, scholarship and support education activity, include others social activities as follows.



*SPCG joined the opening ceremony of "Returning to Nature Year 2"
Wat Tham Suk Kasem Sawan, Thoen District, Lampang Province.*



*SPCG Support the Walk-Run Campaign for Health of Hai Sok sub district, Ban Phue District,
Udon Thani Province.*



SPCG Support sports day activity for the elderly, Wang Saphung District, Loei Province.



*SPCG Support sports events Khon Kaen Provincial Police Station,
Khao Suan Kwang District, Khon Kaen Province.*

12.3 Anti-Corruption Policy

Directors, executives, employees and related parties of the company will not solicit, commit, or accept corruption in any form for our own benefit or for family, friends and acquaintances, both directly and indirectly. This involves every business, all departments both public and private sectors. The company will regularly review the implementation of policies as well as the guidelines and operational requirements in accordance with changes in business regulations and legal requirements. The company therefore has guidelines for anti-corruption practices as follows:

12.3.1 The company must specify anti-corruption measures as part of business operations. It is the responsibility of the Board of Directors, executives, supervisors, and employees at all levels to contribute to achieving anti-corruption action. To achieve the specified policies appropriately, including reviewing the guidelines and operation requirements to ensure compliance with business changes, regulations and legal requirements, through:

(1) Arrange to do a quarterly assessment of the corruption risk of the company and create practical response measures that are consistent and follow the internal control system.

(2) Providing orientation and training for personnel which provides knowledge and understanding about policies, measures and procedures in the fight against corruption.

(3) Providing an internal control system to ensure the efficiency and effectiveness of the anti-corruption policy.

(4) Providing a report, monitoring, and review on the implementation of the anti-corruption policy with appropriate procedures to ensure that the policy is complete, sufficient, and up to date.

(5) Providing safe and secure communication channels for the Company's personnel and all interested parties where they can submit suggestions, evidence of wrongdoing, or complaints in the case of corruption, with measures to protect their rights.

(6) Arrange for the internal and external communication of anti-corruption policies to achieve broad compliance. This includes notifying subsidiaries, associates, other companies that the company has authority, business representatives should implement the anti-corruption policy of the company.

11.3.2 Executives and employees must prioritize common interests over personal interests and must perform their duties only for the benefit of the company in order to prevent conflicts of interest, as follows:

(1) Perform their duties with transparency and honesty, which means being ready to receive a performance inspection from the company or related departments at all times.

(2) It is extremely inappropriate to provide valuable items or services such as gifts, entertainment, and travel to government officers, foreign states, and related parties either directly or indirectly, to allow that person to act illegally. All personnel must refrain from committing, supporting, or helping others be involved in these acts.

(3) In Purchasing and Hiring must take place according to procedures in accordance with the company's regulations, be transparent, and be verifiable.

(4) Spending on business receptions and other costs associated with the fulfilment of business contracts are allowed according to the regulations, but such events must be reasonably priced and properly audited, in order to prevent corruption. To ensure that anti-corruption measures are implemented evenly throughout the organization, the company must provide a sufficient support process that prevent the occurrence of corruption, such as checking various working processes and internal controls. By defining the rules and regulations within the organization including internal control that covers the prevention of corruption effectively.



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