The Leading Solar Farm & Solar Roof Developer in ASEAN





รายงานประจำปี 2561 ANNUAL 2018 REPORT

Best Value • Best Design • Best Output • Best Service

ENGLISH VERSION



02 Annual Report 2018 SPCG Public Company Limited



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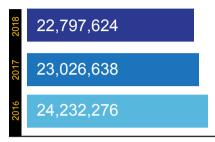
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Financial Highlights

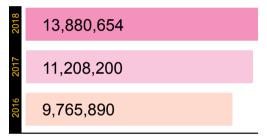
		(Unit: t	housand Baht)
	2561/2018	2560/2017	2559/2016
Consolidated Statement of Financial Position			
Current assets	4,257,266	4,171,537	5,019,557
Property, plant and equipment	16,458,438	17,175,788	17,743,670
Total assets	22,797,624	23,026,638	24,232,276
Current liabilities	3,109,444	4,139,478	3,841,857
Total liabilities	8,916,970	11,818,438	14,466,386
Issued and paid share capital	973,990	923,990	923,990
Total shareholders' equity	13,880,654	11,208,200	9,765,890
Consolidated Statement of Comprehensive Income			
Revenue from electricity distribution	4,297,478	4,273,029	4,361,507
Revenue from sales of goods	138,561	173,797	155,444
Revenue from sales and installation services of roof & solar roof	1,492,131	1,561,527	931,145
Total revenue from sales and services	5,928,170	6,008,353	5,448,096
Total revenues	6,046,494	6,123,177	5,544,302
Total expenses	3,122,912	3,301,072	2,926,835
Net Profit (loss)	2,923,582	2,822,105	2,617,467
Comprehensive income	2,914,670	2,802,625	2,605,180
Profit attributable to owners of the parent	2,613,610	2,524,325	2,314,209
Comprehensive income attributable to owners of the parent	2,604,714	2,504,834	2,301,975
Basic earnings per share (Baht)	2.70	2.73	2.50
Key Financial Ratios			
Gross Profit margin	62.5%	62.1%	64.8%
Net Profit margin	43.2%	41.2%	41.7%
EBIT margin	57.7%	57.2%	60.8%

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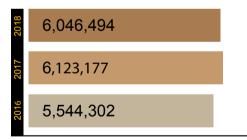
Annual Report 2018	SPCG Public Company Limited	05



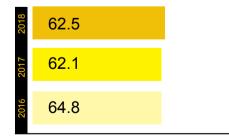
Total assets



Total shareholders' equity



Total revenues



Gross profit margin

2018	8,916,970
2017	11,818,438
2016	14,466,386

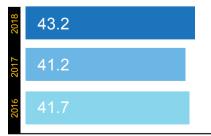
Total liabilities



Total revenue from sales and services

2018	2,914,670
2017	2,802,625
2016	2,605,180

Comprehensive income



Net profit margin

Message from the Chairperson

In the year 2018, SCG Public Company Limited ("SPCG") have committed to continuous and sustainable business growth. By management under the quality policy "continuing to give best value, best design, best output, and best service to all customers" means to commit to building confidence in product quality, design development for optimum performance and excellent service to our customers. SPCG continues to seek new opportunities and investment options in both domestic and foreign markets to grow and expand the business base, which creates added value to the shareholders.

SPCG as a pioneer in solar power business, a form of clean energy, does not generate pollution therefore the company is environmentally friendly. Apart from our 36 solar farm project with a generation capacity of over 260 megawatts, in 2018 SPCG has expanded its investment to develop solar farm project in Japan under project name Tottori Yonago Mega Solar with a capacity of 30 MW which has started commercial electricity distribution. So at the end of 2018, SPCG's total production capacity has become 290 MW. In addition, SPCG has expanded its business opportunity through Solar Power Engineering Company Limited ("SPE"), a subsidiary company, appointed as the authorized Sales and Service Partner of SMA Solar Technology AG (SMA), Germany.

SPCG focuses on doing business with fairness, transparency in accordance with good corporate governance principles, which is a key mechanism to drive business towards sustainable development and growth. To build trust in the shareholders and all stakeholders. To recognize the importance of business operations with social and environmental responsibility, which SPCG is focused on strengthening communities and societies, focusing on participation and supporting community activities and projects around the solar farm area. By cooperating with the community to develop water resources, road and building work to improve the quality of life of people. In addition, the company also organized events and seasonal occasions in the area of the solar farms, resulting in the project of the solar farm being well received within the local community.

On behalf of the Chairperson of SPCG, I thank the shareholders and all stakeholders who trust and support SPCG operations. Board of Directors, executives and employees are committed to our mission to maintain organization growth steadily and sustainably for the future.

Of Am

(Dr. Wandee Khunchornyakong Juljarern) Chairperson



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Message from Chairperson of the Audit Committee

The Audit Committee has performed the duties and responsibilities assigned by the Board of Directors independently in accordance with the terms and best practices of the Office of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand. There were four meetings in the year 2018, with the Audit Committee in conjunction with the executives, the auditors and internal auditors. The audit committees meet to consider issues, to exchange feedback, to listen to matters, and provide useful suggestions to the management of the company.

Together, the Audit Committee is fully operational. The performance is based on the strategic plans by SPCG Public Company Limited ("SPCG"). The company has improved performance and is considered to experience significant positive change in the years to come as its affiliates, Solar Power Engineering Company Limited ("SPE") has appointed as authorized sales and service partner of SMA Solar Technology AG (SMA), Germany. It is a new and promising business opportunity to contribute to SPCG's future revenue. It also helps to support the operations of other businesses to grow together.

The business of selling and installing solar roof systems which operate under Solar Power Roof Company Limited ("SPR") continues to be a highly competitive and profitable business because the public sector Board of Investment (BOI) has a policy to promote investment in solar power generation by providing 50% deduction of total investment in solar roof system to be deducted from the company's corporate income tax. This policy will last until the year 2020 so SPR will strive to expand our customer base covering the three main groups: residential, commercial and industrial. At the same time, SPCG is still determined to pursue business opportunities abroad, with the investment and development of the solar farm projects in Japan.

The Audit Committee has the opinion that the company has disclosed information of the company both financial reports and other important information that affect the company's securities prices, which affect the decision-making process of the investors and the company's stakeholders. The company has published important information to the shareholders, investors and the public through the channels of the Stock Exchange of Thailand and post regularly updated information on the company website in both Thai and English. The reports are in compliance with financial reporting standards, including risk management system, efficient internal control system and compliance with good corporate governance policy.

(Mr. Wanchai Lawattanatrakul) Chairperson of Audit Committee

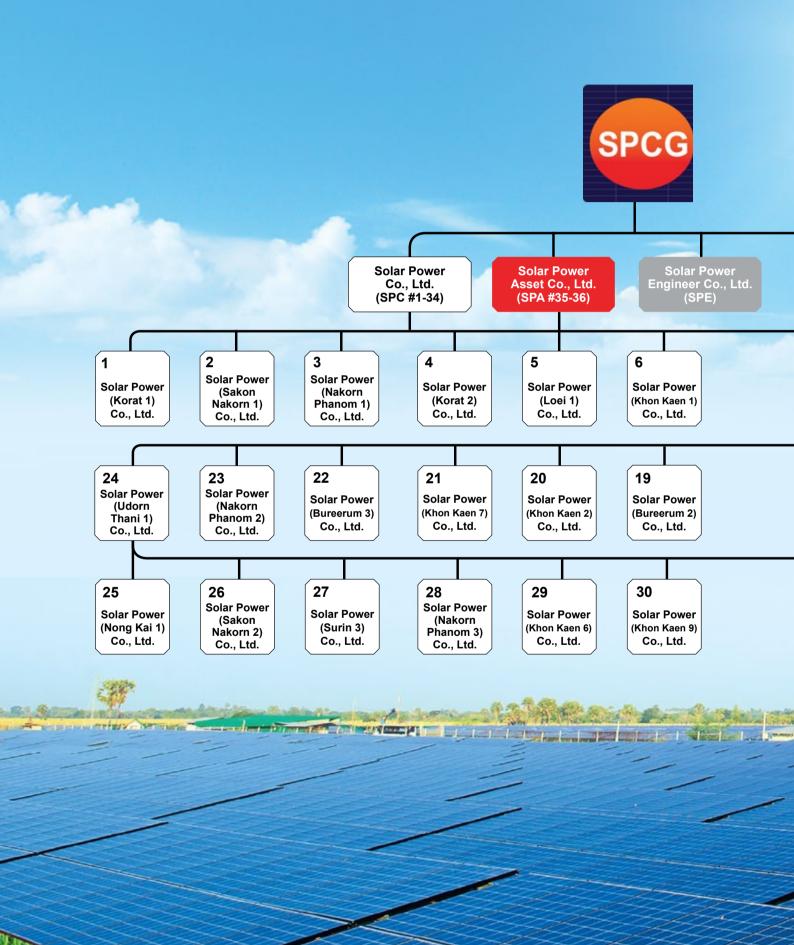


General Information

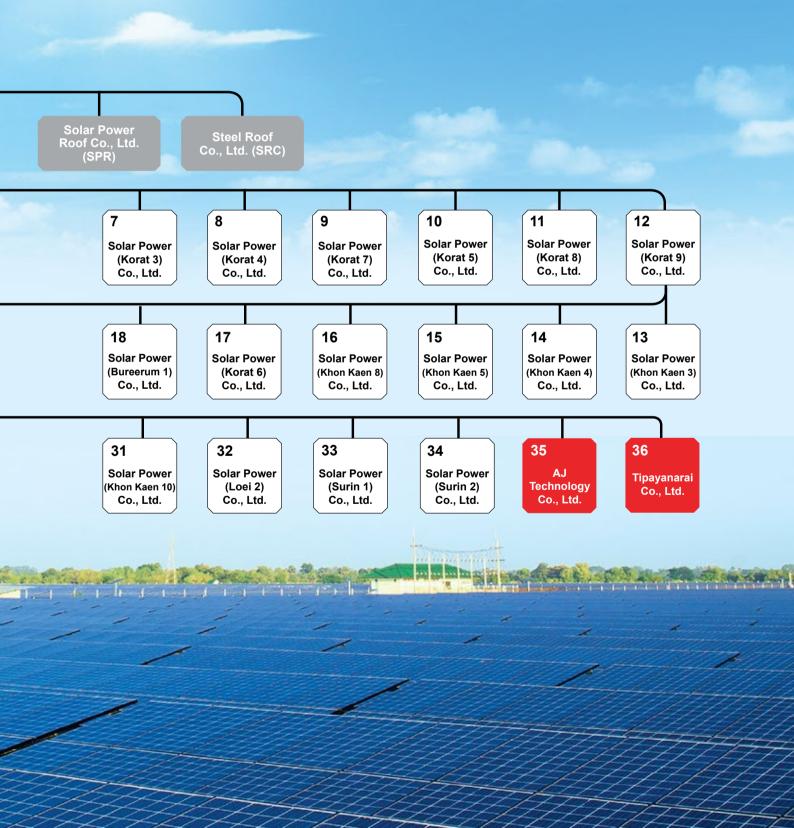
Company name	SPCG PUBLIC COMPANY LIMITED
English name	SPCG PUBLIC COMPANY LIMITED
Type of business	 Run business in investment by holding shares in subsidiary companies and associates to operate 4 type of business, which are as follow; (1) Business of investment and development of Solar Farm, Engineering, 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	 Solar farm business of corporation group are located in 10 provinces with the total of 36 projects. Steel business is located on 8 Moo. 15, Bangplee Yai, Bangplee, Samutprakarn 10540. Solar roof business is located on 1 Capital Work Place Building, 9Fl. Soi Jamjan Sukhumvit Rd., Klongton-Nua, Wattana, Bangkok 10110. 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 numb	Der 0107548000137

Website	www.spcg.co.th			
Telephone	0-2011-8111			
Facsimile	0-2011-8112			
Registered capital	1,016,389,000 Shares			
Paid-up capital	973,990,000 Baht			
Par value	1 Baht per share			
Registrar	Thailand Securities Depository Co.,L	td. ("TSD")		
-	93 Rachadaphisek Rd., Dindaeng, D			
	Telephone 0-2009-9000 Facsimile 0			
Company's auditors	Mr. Vairoj Jindamaneepitak	Certified Public Accountant No. 3565 or		
	Mr. Natthaphong Tantichattanon	Certified Public Accountant No. 8829 or		
	Ms. Dussanee Yimsuwan	Certified Public Accountant No. 10235		
	KPMG Phoomchai Audit Ltd.			
	Empire Tower, 50 th - 51 st Floors,			
	1 South Sathorn Road, Yannawa, Sathorn, Bangkok 10120			
	Telephone 0-2677-2000 Facsimile 02-677-2222			
Contact	Company Secretary & Governance	e		
	Telephone 02-011-8111 Extension	n 1031 Facsimile 02-011-8112		
	E-mail: info@spcg.co.th			
	Investor Relation Division			
	Telephone 02-011-8111 Extension	n 1041 Facsimile 02-011-8112		
	E-mail: ir@spcg.co.th			

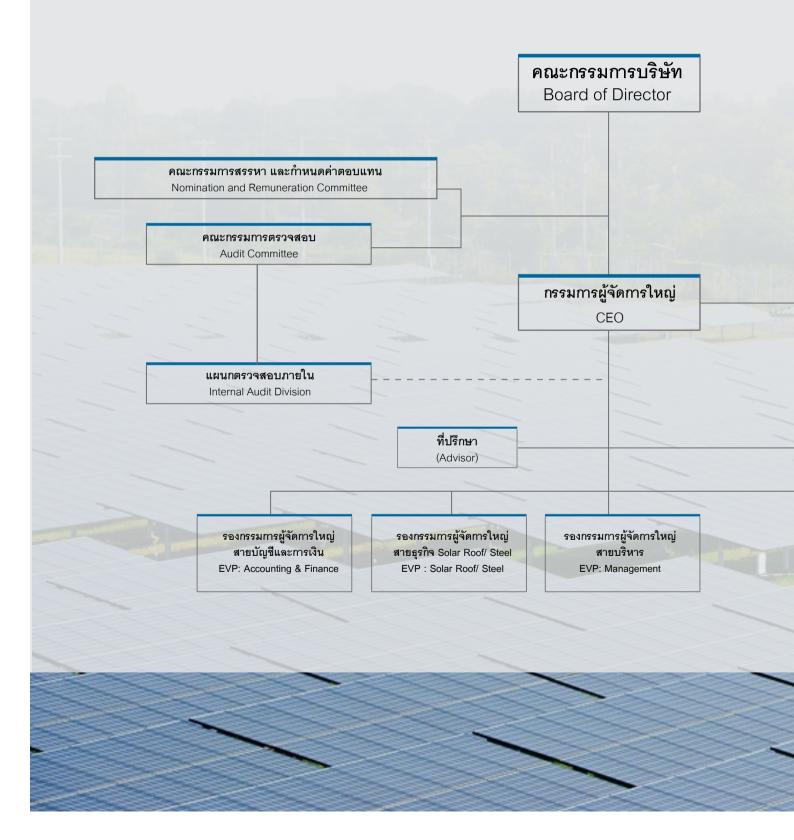
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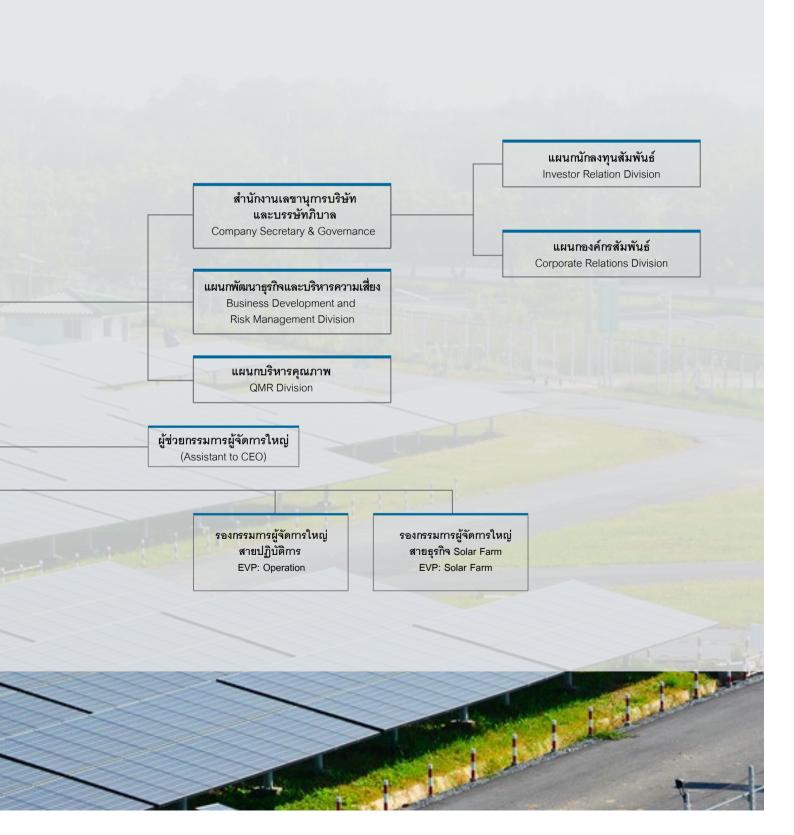


42 Companies



Organization Chart





Board of Directors Executive Officers 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) POL.MAJ.GEN.Wanchai Wisuttinan Director

Mr. Withoon Manomaikul Director

Mr. Wanchai Lawattanatrakul Chairperson of Audit Committee & Independent Director

Mr. Shoji Nishizawa Director **Dr. Art-ong Jumsai Na Ayudhya** Audit Committee and Independent Director

Mr. Apichat Limsethanuwat Audit Committee and Independent Director

> Miss Parichat Saipia Company Secretary



Dr. Wandee Khunchornyakong Juljarern

- Chairperson
- Member of Nomination and Remuneration Committee
- Chief Executive Officer

Date Appointed: April 1, 2011 Age: 60 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
- Currently Undertaking the course of health 1st generation (between August 2, 2561 and March 7, 2562), Chulabhorn Royal 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)

- Chairperson, Solar Power Co., Ltd.
- Chairperson, 34 subsidiaries of Solar Power Co., Ltd.
- Chairperson, Solar Power Asset Co., Ltd.
- Chairperson, 2 subsidiaries of Solar Power Asset Co., Ltd.
- Chairperson, Solar Power Engineering Co., Ltd.
- Chairperson, Solar Power Roof Co., Ltd.
- Chairperson, Steel Roof Co., Ltd (1)
- Chairperson, Capital Resident Co., Ltd.
- Chairperson, Capital Workplace Co., Ltd.

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	:	300,000,000 Shares (30.80%)
Spouse	:	None
Minor	:	None
Total	:	300,000,000 Shares (30.80%)
Qualified Accord	ing t	o Related Laws and Does Not Have
Deskilster d. Osselliferetter en Maria		

Prohibited Qualifications: None

- ⁽¹⁾ The annual general Meeting of Shareholders No. 1/2561 on 1 June 2561 approved to change the company name from steel and solar Roof Co., Ltd. to Steel Roof Co., Ltd.
- ⁽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 27, 2018.



Mr. Somsak Kunchornyakong

- Director
- Member of Nomination and Remuneration 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: 59 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: ASMP8, 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)

- Managing Director, Solar Power Co., Ltd.
- Director, 34 subsidiaries of Solar Power Co., Ltd.
- Director, Solar Power Asset Co., Ltd.
- Director, 2 subsidiaries of Solar Power Asset Co., Ltd.
- Director, Solar Power Engineering Co., Ltd.
- Director, Solar Power Roof Co., Ltd.
- Director, Steel Roof Co., Ltd. (1)

Experiences

- 2011 Present Director and Executive Vice President (Operation), SPCG Public 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

- ⁽¹⁾ At the Extraordinary General Meeting of Shareholders No. 1/2018 on June 1, 2018, approved to change the company name from Steel and Solar Roof Co., Ltd. to Steel Roof Co., Ltd.
- ⁽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 27, 2018.

Mr. Jirakom Padumanon

Director

Executive Vice President (Solar Roof & Steel)

Date Appointed: June 16, 2011 Age: 65 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 Co., Ltd.
- Director, Solar Power Engineering Co., Ltd.
- Director, Steel Roof Co., Ltd.⁽¹⁾
- Director, Solar Power (Sakon Nakorn 1) Co., Ltd.
- Director, Solar Power (Nakorn Phanom 1) Co., Ltd.
- Director, Solar Power (Korat 3) Co., Ltd.
- Director, Solar Power (Korat 4) Co., Ltd.
- Director, Solar Power (Korat 7) Co., Ltd.
- Director, Solar Power (Loei 2) Co., Ltd.
- Director, Solar Power (Khon Kaen 10) Co., Ltd.
- Director, Solar Power (Surin 1) Co., Ltd.
- Director, Solar Power (Surin 2) Co., Ltd.
- Project Director, JPEN Co., Ltd. (power plant subcontract).

Experiences

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

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

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

- ⁽¹⁾ At the Extraordinary General Meeting of Shareholders No. 1/2018 on June 1, 2018, approved to change the company name from Steel and Solar Roof Co., Ltd. to Steel Roof Co., Ltd.
- ⁽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 27, 2018.

Mr.Withoon Manomaikul

• Director

Date Appointed: April 11, 2012 Age: 62 Years old



Education

 Bachelor of Business Administration, Suan Sunandha Rajabhat University.

Training Record with Thai Institute of Directors (IOD)

None

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) Co., Ltd.

Experiences

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

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 27, 2018.

POL.MAJ.GEN.Wanchai Wisuttinan

Director

Date Appointed: April 25,2014 Age: 81 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 (FN), 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

- 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	:	25,000 Shares (0.003%)
Spouse	:	None
Minor	:	None
Total	:	25,000 Shares (0.003%)

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 27, 2018.

Mr. Shoji Nishizawa

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

Date Appointed: April 21, 2018 Age: 61 Years old

Education

 B.A. in International Law, Kwansei 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)

None

Experiences

- 1983 Jointed Kyocera Corporation, Japan, Semiconductor Components, International Sales, Sales Engineer.
- 1986 Transferred to Kyocera International Inc. (Subsidiary, CA, USA), Design Center, Semiconductor Components.
- 1987Transferred to Kyocera International Inc. (Subsidiary, AZ, USA), Sales Engineer.
- 1992 Returned to Kyocera Corporation, Japan, International Sales, Semiconductor Components Group, Sales Manager.
- 2002 Transferred to Solar Energy Group, International

Sales Division, Kyocera Corporation, Japan, Senior Sales Manager.

- 2007 Global Production Promotion Division, Kyocera Corporation, Japan, General Manager.
- 2008 International Sales Division, Kyocera Corporation, Japan, General Manager.
- General Manager, Domestic Sales Division, International Sales Division, Kyocera Corporation, Japan.

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 27, 2018.

Mr. Wanchai Lawattanatrakul

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

Date Appointed: May 17, 2012 Age: 62 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.

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

Other Positions

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

Experiences

- 2018 Present Chairperson Audit Committee and Independent Director 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)⁽²⁾

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

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

- ⁽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 27, 2018.



Dr. Art-ong Jumsai Na Ayudhya

- Independent Director
- Audit Committee⁽¹⁾

Date Appointed: April 11,2012 Age: 78 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 And Chairman of the Audit Committee, Lam Soon (Thailand) Public Company Limited.

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

• Director, AJ Technology Co., Ltd. (a subsidiary of SPCG Public Company Limited).

Experiences

- 2017 Present Audit Committee and Independent Director, SPCG Public Company Limited.
- 2012 2015 Audit Committee and Independent Director, SPCG Public Company Limited.
- 2012 2013 Chairman of the 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

- ⁽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 27, 2018.

Mr. Apichat Limsethanuwat

- Independent Director
- Audit Committee⁽¹⁾

Date Appointed: April 21, 2017 Age: 54 Years old



Education

• Engineering (Civil 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

- 2017 Present Independent Director and 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
Vinor	:	None
Total	:	None

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

- ⁽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 27, 2018.

Mr.Chanchai Banditsaowapak

Executive Vice President (Solar Farm)

Date Appointed: March 1, 2015 Age: 65 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, 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 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 27, 2018.

Mr. Chaiwat Tangsuwanphanit

Executive Vice President (Accounting & Finance)
 Date Appointed: March 1,2015
 Age: 58 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 Co., Ltd.⁽¹⁾
 (Affiliated company of SPCG Public Company Limited).

Experiences

 2013 - 2015 Assistant CEO, SPCG Public 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 and its Subsidiaries: None

- ⁽¹⁾ At the Extraordinary General Meeting of Shareholders No. 1/2018 on June 1, 2018, approved to change the company name from Steel and Solar Roof Co., Ltd. to Steel Roof Co., Ltd.
- ⁽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 27, 2018.

Miss Parichat Saipia

Company Secretary
 Date Appointed: February 20, 2015
 Age: 32 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 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 27, 2018.

- Business Operation
- Nature of Business
- Risk Factors



1 Policy and Overall Business Operation

1.1 Vision, Mission, Business Goals of SPCG and Subsidiaries⁽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 SPCG 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 long-term, steady growth value added for shareholders.

(5) Commitment to create confidence in the product value. To develop the most effective deisgn 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 project development. It has a plan to increase 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 their 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 on the Stock Exchange of Thailand under the energy and utilities Business category. In the form of Holding company, SPCG is a major shareholder of the company, including a total of 41 companies, SPCG has a total registered share capital of 1,016,389,000 shares, which has paid-up capital of baht 973,990,000 per share.

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, Surin, Nongkhai, Udon Thani, Loei and central region, Lopburi province with an geographic area of more than 5,000 Rai.

Remark:

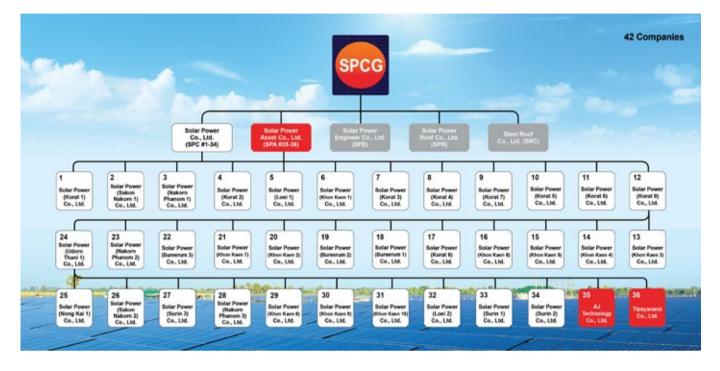
⁽¹⁾ The Board of Directors Meeting No. 1/2019 on February 22, 2019 resolved to approve the review of the vision, mission, goals and strategies of the Company's operations.

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

In the year 2018, the changes and developments of SPCG is as follows:

January	 The Board of Directors 'Meeting No. 1/2018, on 31 January 2018, approved the issuance and allocation of ordinary capital increase (general Mandate) to individuals. In the limited loop, Kyocera Corporation ("Kyocera") at the offering price of baht 21.70 per share is 1.085 billion baht and approved for the offering date for the additional ordinary shares from 1 to 15 February 2018.
	 On 24 January 2018, SPCG announced the investment in the project "Ukujima Mega Solar Project", the capacity of approximately 480 megawatts at Ukujima Island, Nagasaki, Japan, with the total investment of 8 companies including Kyocera Corporation, Kyudenko Corporation, Mizuho Bank, SPCG Pubic Company Limited, Tokyo Century Corporation, Furukawa Electric Company Limited, Tsuboi Corporation and the eighteenth Bank Limited Limited. The investment budget is approximately 200 Billion Yen. The project is scheduled to start construction in the year 2019.
April	• The Annual General Meeting of Shareholders for the year 2018 on 20 April 2018, approved to pay dividends for the annual operating results of 2018 for the period from July to December 2017, 0.65 baht per share of 973,990,000 shares, the total amount of baht 633,093,500 and the dividend payment to shareholders on 11 May 2018.
	 On April 27, 2018, Tottori Yonago mega Solar Power Plant (capacity of 30 MW) is a project located in Tottori, Japan, near the Mt. Daisen National Park on the area of more than 1.2 million square meters. SPCG invested with Kyocera Corporation and Tokyo Century Leasing Corporation which began construction by TESS Engineering Co., Ltd. since the beginning of the year 2016 and maintained by Kyocera Solar Corporation by the commercial power Operation Date: (COD) In the past, with an electricity purchase contract at a price of 36 yen per unit for a 20-year period.
May	 The Board of Directors ' Meeting No. 3/2018 held on 11 May 2018 approved Closing of company SPCG Holding Pte. Ltd., Singapore
July	 SPCG has announced a partnership with SMA Solar Technology AG (SMA), Germany. As Solar Power Engineering Company Limited, "SPE" (a subsidiary of SPCG) was appointed as authorized sales partner for SMA family products in Indochina region and service provider in Thailand.
August	 The Board of Directors ' Meeting No. 4/2018, on 10 August 2018, approved the interim dividend payment from the operating results of 1 January 2018 to 30 June 2018 at the rate of 0.55 baht per share of 973,990,000, the total share of Baht 535,694,500 and the interim dividend payment on 7 September 2018.
	• Approval of the appointment of Mr. Shoji Nishizawa as Managing Director Solar Power Roof Company Limited. ("SPR"), which is effective from September 1, 2018 onwards.
November	 The Board of Directors ' Meeting No. 5/2018, on 9 November 2018, approved the company's internal auditor for the year 2019, with an internal audit fee of 1,082,000 baht (including VAT).

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 Co.,Ltd.	SPC	1,500,000,000	 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 Co.,Ltd.	SPE	10,000,000	Authorized Sales & Service Partner of SMA Solar Technology AG (SMA)	-
4	Solar Power Asset Co.,Ltd.	SPA	240,000,000	A Joint Venture Business for Solar Farm Development	-
5	Solar Power Roof Co.,Ltd.	SPR	400,000,000	The Leader of Solar Power Roof Business	-

No.	Company name and its subsidiary	Initial	Registered capital (Baht)	Business Type	COD ⁽¹⁾
6	Steel Roof Co.,Ltd. ⁽²⁾	SRC	57,373,340	Manufacturing, distribution and installation services for steel roofing with structure and all fitting	-
7	Solar Power (Korat 1) Co.,Ltd.	KR1	320,000,000	Solar Farm Business	21 Apr 2010
8	SolarPower (Sakonnakhon 1) Co.,Ltd.	SN1	217,800,000	Solar Farm Business	9 Feb 2011
9	SolarPower (Nakhonpanom 1) Co.,Ltd.	NP1	218,100,000	Solar Farm Business	22 Apr 2011
10	SolarPower (Korat 2) Co.,Ltd.	KR2	219,900,000	Solar Farm Business	13 Sep 2011
11	SolarPower (Loei 1) Co.,Ltd.	LO1	220,500,000	Solar Farm Business	15 Sep 2011
12	SolarPower (Khonkaen 1) Co.,Ltd.	КК1	226,500,000	Solar Farm Business	15 Feb 2012
13	SolarPower (Korat 3) Co.,Ltd.	KR3	188,750,000	Solar Farm Business	9 Mar 2012
14	SolarPower (Korat 4) Co.,Ltd.	KR4	199,250,000	Solar Farm Business	14 May 2012
15	SolarPower (Korat 7) Co.,Ltd.	KR7	188,750,000	Solar Farm Business	30 May 2012
	SolarPower (Korat 5) Co.,Ltd.	KR5	157,500,000	Solar Farm Business	15 Jan 2013
17	SolarPower (Korat 8) Co.,Ltd.	KR8	157,500,000	Solar Farm Business	15 Jan 2013
	SolarPower (Korat 9) Co.,Ltd.	KR9	160,000,000	Solar Farm Business	16 Jan 2013
	SolarPower (Khonkaen 3) Co.,Ltd.	ккз	157,500,000	Solar Farm Business	17 Jan 2013
20	SolarPower (Khonkaen 4) Co.,Ltd.	KK4	157,500,000	Solar Farm Business	17 Jan 2013
	SolarPower (Khonkaen 5) Co.,Ltd.	кк5	157,500,000	Solar Farm Business	
	SolarPower (Khonkaen 8) Co.,Ltd.	КК8	157,500,000	Solar Farm Business	18 Jan 2013
23	SolarPower (Korat 6) Co.,Ltd.	KR6	160,000,000	Solar Farm Business	26 Jun 2013
24	Solar Power (Buriram 1) Co.,Ltd.	BR1	160,000,000	Solar Farm Business	26 Jun 2013
	Solar Power (Buriram 2) Co.,Ltd.	BR2	160,000,000	Solar Farm Business	26 Jun 2013
 26	SolarPower (Khonkaen 2) Co.,Ltd.	КК2	165,000,000	Solar Farm Business	29 Jul 2013
 27	SolarPower (Khonkaen 7) Co.,Ltd.	КК7	162,500,000	Solar Farm Business	1 Oct 2013
28	Solar Power (Nakhonpanom 2) Co.,Ltd.	NP2	157,500,000	Solar Farm Business	27 Feb 2014
 29	Solar Power (Nongkhai 1) Co.,Ltd.	NK1	157,500,000	Solar Farm Business	28 Feb 2014

No.	Company name and its subsidiary	Initial	Registered capital (Baht)	Business Type	COD ⁽¹⁾
30	Solar Power (Buriram 3) Co.,Ltd.	BR3	157,500,000	Solar Farm Business	6 Mar 2014
31	Solar Power (Nakhonpanom3) Co.,Ltd.	NP3	157,500,000	Solar Farm Business	10 Mar 2014
32	Solar Power (Udonthani 1) Co.,Ltd.	UD1	162,500,000	Solar Farm Business	1 Apr 2014
33	Solar Power (Loei 2) Co.,Ltd.	LO2	165,000,000	Solar Farm Business	24 Apr 2014
34	Solar Power (Sakonnakhon 2) Co.,Ltd.	SN2	157,500,000	Solar Farm Business	25 Apr 2014
35	Solar Power (Surin 3) Co.,Ltd.	SR3	157,500,000	Solar Farm Business	29 Apr 2014
36	Solar Power (Khonkaen 9) Co.,Ltd.	KK9	157,500,000	Solar Farm Business	20 May 2014
37	Solar Power (Khonkaen 10) Co.,Ltd.	KK10	165,000,000	Solar Farm Business	20 May 2014
38	Solar Power (Khonkaen 6) Co.,Ltd.	KK6	157,500,000	Solar Farm Business	30 May 2014
39	Solar Power (Surin 1) Co.,Ltd.	SR1	165,000,000	Solar Farm Business	27 Jun 2014
40	Solar Power (Surin 2) Co.,Ltd.	SR2	165,000,000	Solar Farm Business	27 Jun 2014
41	AJ Technology Co.,Ltd.	AJ	75,000,000	Solar Farm Business	25 Jun 2013
42	Tippayanarai Co.,Ltd.	TP	80,000,000	Solar Farm Business	25 Jun 2013

Remark:

⁽¹⁾ COD (Commercial Operation Date)

⁽²⁾ The annual general Meeting of Shareholders No. 1/2018 on June 1, 2018, approved to change the company name from Steel and Solar Roof Co., Ltd. to Steel Roof Co., Ltd.

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	16 Mar 2005	1,016,389,000	973,990,000	1	 Khunchornyakong Family Group UBS AG SINGAPORE BRANCH Gulf International Investment (Hong Kong) Limited Kyocera Corporation Others 	36.77 9.77 8.38 6.52 38.56
2	Solar Power Co., Ltd.	SPC	20 Aug 1996	1,500,000,000	150,000,000	10	SPCG Public Company Limited	100
3	Solar Power Engineering Co., Ltd.	SPE	3 Aug 2011	10,000,000	1,000,000	10	SPCG Public Company Limited	100
4	Solar Power Asset Co., Ltd.	SPA	4 May 2012	240,000,000	24,000,000	10	SPCG Public Company Limited	100
5	Solar Power Roof Co., Ltd.	SPR	1 May 2013	400,000,000	4,000,000	100	SPCG Public Company Limited	100
6	Steel Roof Co., Ltd. ⁽¹⁾	SRC	5 Sep 2011	57,373,340	5,737,334	10	SPCG Public Company Limited	100
7	Solar Power (Korat 1) Co., Ltd.	KR1	19 Aug 2009	320,000,000	32,000,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	85 15
8	Solar Power (Sakon Nakorn1) Co., Ltd.	SN1	25 Dec 2009	217,800,000	21,780,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	70 30
9	Solar Power (Nakon Phanom 1) Co., Ltd.	NP1	5 Jan 2010	218,100,000	21,810,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	70 30
10	Solar Power (Korat 2) Co., Ltd.	KR2	25 Feb 2010	219,900,000	21,990,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	56 44
11	Solar Power (Loei 1) Co., Ltd.	LO1	25 Dec 2009	220,500,000	22,050,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	56 44
12	Solar Power (Khon Khen 1) Co., Ltd.	KK1	29 Dec 2009	226,500,000	22,650,000	10	1.Solar Power Co., Ltd. 2.Thaifah Power Co., Ltd.	70 30
13	Solar Power (Korat 3) Co., Ltd.	KR3	26 Mar 2010	188,750,000	18,875,000	10	 Solar Power Co., Ltd. Ratchaburi Energy Co., Ltd. (Ratchaburi Electricity Generating Holding Public Company Limited) 	60 40
14	Solar Power (Korat 4) Co., Ltd.	KR4	26 Mar 2010	199,250,000	19,925,000	10	 Solar Power Co., Ltd. Ratchaburi Energy Co., Ltd. (Ratchaburi Electricity Generating Holding Public Company Limited) 	60 40
15	Solar Power (Korat 7) Co., Ltd.	KR7	26 Mar 2010	188,750,000	18,875,000	10	 Solar Power Co., Ltd. Ratchaburi Energy Co., Ltd. (Ratchaburi Electricity Generating Holding 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 5) Co., Ltd.	KR5	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
17	Solar Power (Korat 8) Co., Ltd.	KR8	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
18	Solar Power (Korat 9) Co., Ltd.	KR9	26 Mar 2010	160,000,000	16,000,000	10	Solar Power Co., Ltd.	100
19	Solar Power (Khon Khen 3) Co., Ltd.	ККЗ	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
20	Solar Power (Khon Khen 4) Co., Ltd.	KK4	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
21	Solar Power (Khon Khen 5) Co., Ltd.	KK5	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
22	Solar Power (Khon Khen 8) Co., Ltd.	KK8	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
23	Solar Power (Korat 6) Co., Ltd.	KR6	26 Mar 2010	160,000,000	16,000,000	10	Solar Power Co., Ltd.	100
24	Solar Power (Buriram 1) Co., Ltd.	BR1	29 Mar 2009	160,000,000	16,000,000	10	Solar Power Co., Ltd.	100
25	Solar Power (Buriram 2) Co., Ltd.	BR2	25 Mar 2010	160,000,000	16,000,000	10	Solar Power Co., Ltd.	100
26	Solar Power (Khon Khen 2) Co., Ltd.	KK2	26 Mar 2010	165,000,000	16,500,000	10	Solar Power Co., Ltd.	100
27	Solar Power (Khon Khen 7) Co., Ltd.	KK7	26 Mar 2010	162,500,000	16,250,000	10	Solar Power Co., Ltd.	100
28	Solar Power (Nakon Phanom 2) Co., Ltd.	NP2	25 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
29	Solar Power (NongKai 1) Co., Ltd.	NK1	5 Jan 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
30	Solar Power (Buriram 3) Co., Ltd.	BR3	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
31	Solar Power (Nakon Phanom 3) Co., Ltd.	NP3	25 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
32	Solar Power (Udon Thani 1) Co.,Ltd.	UD1	6 Jan 2010	162,500,000	16,250,000	10	Solar Power Co., Ltd.	100
33	Solar Power (Loei 2) Co., Ltd.	LO2	25 Mar 2010	165,000,000	16,500,000	10	 Solar Power Co., Ltd. PEA Encom International Co., Ltd. 	75 25
34	Solar Power (Sakon Nakorn2) Co., Ltd.	SN2	25 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
35	Solar Power (Surin 3) Co., Ltd.	SR3	25 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
36	Solar Power (Khon Khen 9) Co., Ltd.	КК9	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
37	Solar Power (Khon Khen 10) Co., Ltd.	КК10	26 Mar 2010	165,000,000	16,500,000	10	 Solar Power Co., Ltd. PEA Encom International Co., Ltd. 	75 25
38	Solar Power (Khon Khen 6) Co., Ltd.	KK6	26 Mar 2010	157,500,000	15,750,000	10	Solar Power Co., Ltd.	100
39	Solar Power (Surin 1) Co., Ltd.	SR1	24 Dec 2009	165,000,000	16,500,000	10	 Solar Power Co., Ltd. PEA Encom International Co., Ltd. 	75 25

No.	Company name and its subsidiary	Initial	Registered Date	Registered Capital	Quantity of Share	Value per Share	Shareholder	Total (%)
40	Solar Power (Surin 2) Co., Ltd.	SR2	25 Mar 2010	165,000,000	16,500,000	10	 Solar Power Co., Ltd. PEA Encom International Co., Ltd. 	75 25
41	AJ Technology Co., Ltd.	AJ	18 Feb 1987	75,000,000	750,000	100	1. Solar Power Asset Co., Ltd. 2. Dr. Art-ong Jumsai Na Ayudhya	75 25
42	Thippayanarai Co., Ltd.	TP	18 Mar 2005	80,000,000	800,000	100	Solar Power Asset Co.,Ltd.	100

Remark:

⁽¹⁾ The Extraordinary General Meeting of Shareholders No. 1/2018 on June 1, 2018, approved to change the company name from Steel and Solar Roof Co., Ltd. to Steel Roof Co., Ltd.





2.1 Nature of Business

2.1.1 Business of investment and development of Solar Farm, Business of Engineering, Procurement and Construction (EPC), Business of Operation, Maintenance and Monitoring (OM&M)

1. Business of investment and development of Solar Farm.

It is the main business of the group which operates under Solar Power Co., Ltd. (SPC) Total 34 project and Solar Power Asset Co., Ltd. (SPA) has 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 project of SPC and SPA as follows:

					TIL		
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) Co., Ltd.	5.88	Nakhon Ratchasima	320,000,000	85%	15 May 2009	21 Apr 2010
2	Solar Power (Sakon Nakorn 1) Co., Ltd.	5.88	Sakon Nakhon	217,800,000	70%	19 Jun 2009	9 Feb 2011
3	Solar Power (Nakorn Phanom 1) Co., Ltd.	5.88	Nakhon Phanom	218,100,000	70%	18 Jun 2009	22 Apr 2011
4	Solar Power (Korat 2) Co., Ltd.	5.88	Nakhon Ratchasima	219,900,000	56%	27 Jul 2009	13 Aug 2011
5	Solar Power (Loei 1) Co., Ltd.	5.88	Loei	220,500,000	56%	29 Jul 2009	15 Aug 2011
6	Solar Power (Khon Kean 1) Co., Ltd.	5.88	Khon Kaen	226,500,000	70%	28 Jul 2009	15 Feb 2012
7	Solar Power (Korat 3) Co., Ltd.	5.88	Nakhon Ratchasima	188,750,000	60%	8 Jan 2010	9 Mar 2012
8	Solar Power (Korat 4) Co., Ltd.	5.88	Nakhon Ratchasima	199,250,000	60%	8 Jan 2010	14 May 2012
9	Solar Power (Korat 7) Co., Ltd.	5.88	Nakhon Ratchasima	188,750,000	60%	8 Jan 2010	30 May 2012
10	Solar Power (Korat 5) Co., Ltd.	5.88	Nakhon Ratchasima	157,500,000	100%	8 Jan 2010	15 Jan 2013
11	Solar Power (Korat 8) Co., Ltd.	5.88	Nakhon Ratchasima	157,500,000	100%	8 Jan 2010	15 Jan 2013
12	Solar Power (Korat 9) Co., Ltd.	5.88	Nakhon Ratchasima	160,000,000	100%	8 Jan 2010	16 Jan 2013
13	Solar Power (Khon Kean 3) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	8 Jan 2010	17 Jan 2013
14	Solar Power (Khon Kean 4) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	8 Jan 2010	17 Jan 2013
15	Solar Power (Khon Kean 5) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	8 Jan 2010	18 Jan 2013
16	Solar Power (Khon Kean 8) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	8 Jan 2010	18 Jan 2013
17	Solar Power (Korat 6) Co., Ltd.	5.88	Nakhon Ratchasima	160,000,000	100%	8 Jan 2010	26 Jun 2013
18	Solar Power (Bureerum 1) Co., Ltd.	5.88	Burirum	160,000,000	100%	8 Jan 2010	26 Jun 2013
19	Solar Power (Bureerum 2) Co., Ltd.	5.88	Burirum	160,000,000	100%	8 Jan 2010	26 Jun 2013
20	Solar Power (Khon Kean 2) Co., Ltd.	5.88	Khon Kaen	165,000,000	100%	8 Jan 2010	29 Jul 2013
21	Solar Power (Khon Kean 7) Co., Ltd.	5.88	Khon Kaen	162,500,000	100%	8 Jan 2010	1 Oct 2013
22	Solar Power (Nakom Phanom 2) Co., Ltd.	5.88	Nakhon Phanom	157,500,000	100%	8 Jan 2010	27 Feb 2014
23	Solar Power (Nong Kai 1) Co., Ltd.	5.88	Nong Khai	157,500,000	100%	8 Jan 2010	28 Feb 2014

No.	Name of Solar Farm	Capacity under the PPA. (MW)	The Province	registered Capital	The proportion of investment SPC	Agreement dated	COD
24	Solar Power (Bureerum 3) Co., Ltd.	5.88	Burirum	157,500,000	100%	8 Jan 2010	6 Mar 2014
25	Solar Power (Nakorn Phanom 3) Co., Ltd.	5.88	Nakhon Phanom	157,500,000	100%	8 Jan 2010	10 Mar 2014
26	Solar Power (Udon Thani 1) Co., Ltd.	5.88	Udon Thani	162,500,000	100%	8 Jan 2010	1 Apr 2014
27	Solar Power (Loei 2) Co., Ltd.	5.88	Loei	165,000,000	75%	8 Jan 2010	24 Apr 2014
28	Solar Power (Sakon Nakorn 2) Co., Ltd.	5.88	Sakon Nakhon	157,500,000	100%	8 Jan 2010	25 Apr 2014
29	Solar Power (Surin 3) Co., Ltd.	5.88	Surin	157,500,000	100%	11 Mar 2010	29 Apr 2014
30	Solar Power (Khon Kean 9) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	11 Mar 2010	20 May 2014
31	Solar Power (Khon Kean 10) Co., Ltd.	5.88	Khon Kaen	165,000,000	75%	8 Jan 2010	20 May 2014
32	Solar Power (Khon Kean 6) Co., Ltd.	5.88	Khon Kaen	157,500,000	100%	8 Jan 2010	30 May 2014
33	Solar Power (Surin 1) Co., Ltd.	5.88	Surin	165,000,000	75%	8 Jan 2010	27 Jun 2014
34	Solar Power (Surin 2) Co., Ltd.	5.88	Surin	165,000,000	75%	8 Jan 2010	27 Jun 2014
35	AJ Technology Co., Ltd. (AJ)	3.00	Lopburi	75,000,000	75%	18 Aug 2011	25 Jun 2013
36	Tipayanarai Co., Ltd. (TP)	3.00	Lopburi	80,000,000	100%	18 Aug 2011	25 Jun 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 requiring key components crucial for operations, solar panels, in particular, the company has selected the highly efficient solar panels of Kyocera. The company is listed on the stock exchange of Japan. Business for more than 55 years, with a generation capacity of over one third of Japan with strong financial stability. The production capacity of Kyocera solar panels is 25 years, in the first 12 years, minimum production of 90 percent, and in the 25th year 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 PV panel manufacturer is crucial to ensure solar power generation and to be responsible for the 25-year warranty period (http://www.kyocera.com.sg/).

Another important part of the main unit is a power adaptor (Inverter). The company chooses the most powerful inverter in solar business which is SMA, a listed company located in the German stock exchange, which gives warranty up to 20 years. Additionally, Solar Power Engineering (SPE), an affiliate of SPCG, were appointed as the authorized sales and service partner of SMA Solar Technology AG (SMA), Germany, from July 2018 onwards. Therefore, SPCG has a firm belief that SMA products are of the best quality with comprehensive service due to SMA's over 30 years of experience in the solar business (http://www.sma.de/en).

(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 of 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 project with a total capacity of 260 MW, the customer can trust the projects to 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 Education 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 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 to the electricity grid with electricity purchase agreements at a price of 36 yen per unit for 20 years.



Opening ceremony of Tottori Yonago Mega Solar Farm and Commercial Operation Date : COD on 27 April 2018

Ukujima Mega Solar Project

It is a project that SPCG invested with 7 companies: Kyocera Corporation, Kyudenko Corporation, Mizuho Bank, Tokyo Century Corporation, Furukawa Electric Company Limited, Tsuboi Corporation and The Eighteenth Bank Limited capacity of approximately 480 MW at Ukujima, Nagasaki City, Japan. The investment budget is approximately 200 Billion Yen. The project is scheduled to start construction in the year 2019.

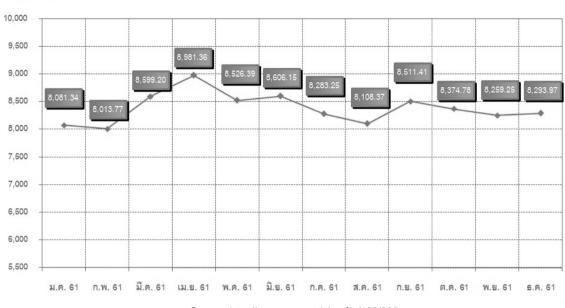
Solar farm Project in Fukuoka City, Japan

SPCG is currenty studying the possibility to invest in solar farm projects in Fukuoka, Japan, total capacity 65 MW.

Competition in the Industry Sector

(1) Electricity demand in Thailand

Thailand has increased electrical energy consumption every year, in April 2018, with a maximum energy consumption of up to 8,981.36 MW per month with increasing power consumption expected. There is a tendency in the same way as the increase in domestic products. The demand for electricity in Thailand is mainly from the industrial sector.



Source: http://www.mea.or.th/profile/122/305

(2) Industry trends in power generation and electrical system in Thailand

เมกกะวัตต์

The transportation and access to the ASEAN ECONOMIC COMMUNITY (AEC) on December 31, 2015 will affect the country's electricity consumption, including the Office of Energy policies and plans, the Ministry of Energy, and the development of Thailand's Electricity generating Plan 2015–2036 (PDP 2015) for the following purposes:

(2.1) Stability of the country's electrical system.To provide a stable coverage for both power generation systems. Electrical transmission and distribution system

(2.2) Keep electricity costs reasonable and reflects actual costs. The public does not bear too much burden and does not hinder the long-term development of the country.

(2.3) Environmental impacts reduction, CO_2 emissions is not higher than the PDP 2010 update, which promotes renewable energy generation and energy saving, reduces global warming for sustainable development.

Engineering, Procurement and Construction (EPC), Business and Operation, Maintenance and Monitoring (OM&M) Business

The service is a construction Contruction 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

(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.

(4) 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.

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

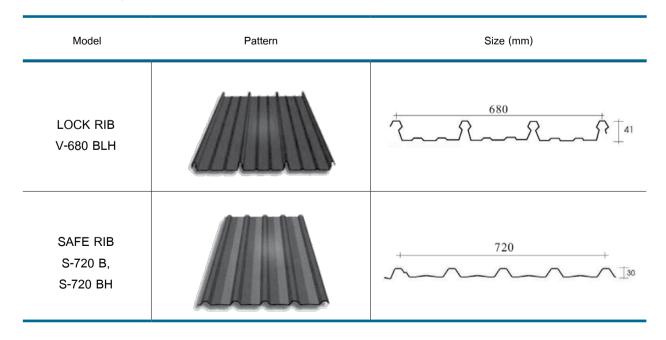
There is strong evidence that the growth of solar business and solar farm development will continue, which represents the opportunity for the growth of EPC and OM&M, since the EPC business is specialized, project design and construction should be done by specialized EPC with experience to produce electricity efficiently. In addition, OM&M service providers are often the same as EPC, because they 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.

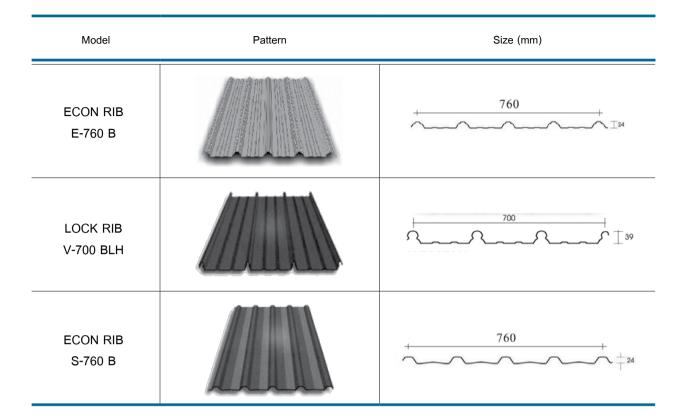
Steel roofing business and construction with full service, also commonly referred to as the post metal sheet, is under the trademark "Rollform" and has been certified industrial product standard "1128-1992 Roofing Sheet ", which operates under Steel Roof Co., Ltd. (SRC).

Competition within the Industry

Details of products manufactured and sold are as follows:



1. Roll Forming Metal Sheet



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.

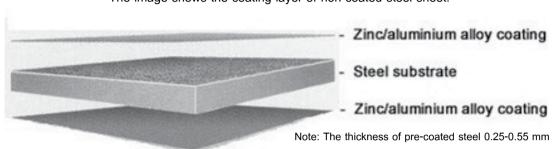
The steel sheet is a product of the company. Waterproofing and Heat resistance for weather conditions in Thailand, good for maintaining optimal temperature within the building, with a lower temperature inside the building using a tile or other roofing material. It can also be used in harsh corrosive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



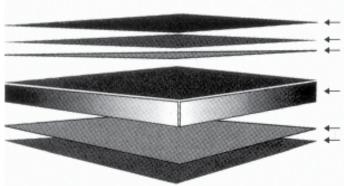
The image shows the coating layer of non-coated steel sheet.

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.



Polyester Color Front Coating

Epoxy Primer for anti-corrosion

the surface is interlocking, coated, metallic and coloured to enhance the adhesion and anti-corrosion properties.

Inner Steel Coatings

Surface brazing, Metallic coatings and Paints Epoxy Primer Color

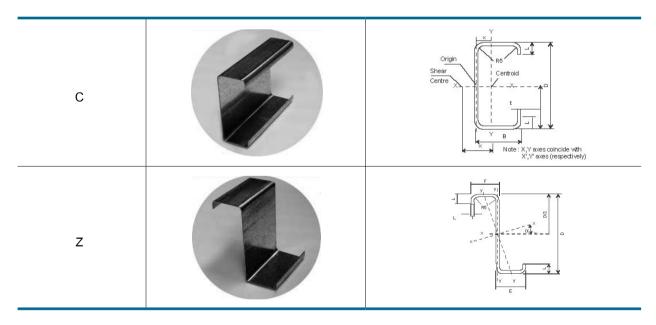
Note: For Clean Colorbond, there will be an additional layer of matte polyester coating to enhance the durability and aesthetics.

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

Different types of coating steel plates

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.



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.

Competetive Strategy:

(1) The company, which manufactures and provides installation of roofing material and wall type, zinc coated steel sheet, aluminum alloy, corrugated type, and noncoated 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 multidimensional 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, 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 Industy 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 Co., Ltd. (SPR) registered on 1 May 2013, a leader in the development of business, sales and installation of solar power systems. SPR is the first solar roof company in Thailand and the ASEAN community. SPR has three main customer groups:

1. Residential Customers

On 18 September 2014, SPR appointed Home Pro Product Center Public Company Limited (HomePro) as a distributor of solar power systems on the roof (SPR solar Roof) for customers. With a total of 82 branches nationwide, customers could select from four standard packages S, M, L and XL. HomePro has allocated an area for advertising, which aims to educate customers about solar power system on the roof, which can be viewed at www. sprsolarroof.co.th or HomePro Call Center: 02-831-6000.

In the year 2018, SPR has continued publicity and promotion activities. In conjunction with the SPR Solar Roof in combination with the HomePro for two events as follows:



• On March 16 -25, 2018, SPR attended the exhibition booth to introduce SPR Solar Roof products at the 27th HomePro Expo, which is a trade show for home products from over 300 leading manufacturers at Muang Thong Thani, Nonthaburi Province. From this event, SPR has received a lot of customer interest to condct survey to install solar power systems on the roof of customers.



On July 20-29, 2018, SPR participated in the exhibition booth to introduce SPR Solar Roof products within the 3rd Homepro Fair, which received a lot of customer attention to open the survey to install the solar power generation system on the roof as well.

2. Commercial Customers for office buildigs, government buildings

SPR has been installating 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 Customers

SPR has been focusing on a group of industrial plants because the policy to promote and support solar power generation. The Office of the Board of Investment (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, the policy is until the end of 2020 Resulting in a big portion of SPR customers are industrial customers.

Competitive Strategy

SPR has a clear operational plan. With strong business partners 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 immediately and reduce global warming immediately after installation by SPR. It is the important to the customer to be in control of their electrical cost.

Best Design our professional team at SPR offers a full range of customer service. From the survey design, the installation tests to the entire system works. Submission of government documents including after-sales service by engineering team with knowledge and expertise in customer service ensures the customer the best design.

Best Output solar power system on roof 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 is monitoring energy production in real time. The results are reported in monthly and yearly reports to customers, which will display both 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 roof system, and SPR provides comprehensive service. SPR can also provide advice to customers to help with energy planning.

Competition in the Industry

The business is to sell and install solar roof systems on the roof. Because of BOI policy promotes and supports solar roof installations, there has been in increase in companies providing solar roof installations. The Thai market has also seen an increase of equipment imported from abroad with a wide range of quality and price levels. Therefore, the solar 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 panel from Kyocera, which has been producing and selling solar panels for over 60 years. The inverter is from SMA, which manufactures and sells the inverter from Germany with products sold all over the world, as well as the same equipment and tools used in solar farms to ensure that the quality of the equipment used is of the best quality, ensuring that it can compete with the solar roof companies.

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

Operating under Solar Power Engineering Co., Ltd. (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. The net profit of 11 million euros included power generation over 4,305 MW (as of June 30, 2018), with its powerful solar power system products and solutions. SMA provides inverters for the residential scale to the commercial buildings and insutrial 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 by 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 is 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.

On 30 August 2018, the SPCG held a press conference with the SMA Solar Technology AG (SMA), by Dr. Wandee Khunchornyakong Juljarern, Chairperson and CEO of SPCG, with Mr.Rakesh Khanna, Managing Director of SMA India, and Mr.Joseph Helweg, Head of Global Service Operations APAC, at Central Plaza Ladprao, as Solar Power Engineering Co., Ltd. "SPE" (a subsidiary of SPCG) was appointed as a Sales partner for SMA Inverter and to take care of the SMA customers in Thailand and Indochina, including Vietnam, Laos, Cambodia and Myanmar.







Competetive 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 for string inverters, SPE will focus on the strng 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) Servive provider

SPE is committed to doing business as a service rovider for SMA Inverters, with a knowledgeable team with working experience working with SMA products. We are determined to provide the best service to existing SMA customers and new customers. The service will be equivalent to or even better quality service standard to previous SMA Thailand performance. 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.

Competion 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 focuses primarily on strategic pricing. However, SPE as a sales and service partner of SMA, are committed to providing 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 photovoltaic Farms

2. Business Revenue Construction Service solar farm turnkey EPC

3. Revenue from operations, services, maintenance and processing solar farms (OM&M)

- 2.2.2 Revenue from Steel Roof business and construction with one-stop service is divided into 2 parts as follows:
 - 1. Revenue from sales
 - 2. Sales revenue of products ready to install

2.2.3 Revenue from Solar Roof business which are divided into 2 parts as follows:

- 1. Revenue from sales
- 2. Sales Revenue of installation

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

- 1. Sales revenue
- 2. Service income

	Revenue structure
(1) Solar Fram business	2
1. Revenue from sales	of electricity
2 Revenue from constru	uction contracts
3. Revenue from servic	es
4.Revenue from sales	
Total revenue from sola	ar Fram business
(2) Steel Roof business	
1. Revenue from sales	
2. Revenue from sales	with installation
Total revenue from Ste	el Roof business
(3) Solar Roof business	1
1. Revenue from sales	
2. Revenue from sales	with installation
Total revenue from sola	ar roof business
(4) Authorised Sales &	Service Partnership business
1. Revenue from sales	
2. Revenue from servic	es
Total revenue from Aut	horised Sales & Service Partner Business
(5) Other revenues	
Total revenues	

	Com	npany finar	ncial stater	nent			Conso	olidated fin	ancial stat	ement	
end	e year ded ec-16	ended		For th end 31-De		enc	e year ded ec-16	For the end 31-De		ene	e year ded ec-18
Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*
-	-	-	-	-	-	4,361.50	78.7	4,273.0	69.8	4,297.5	71.1
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	6.0	0.1	4.6	0.1
-	-	-	-	-	-	4,361.50	78.7	4,279.0	69.9	4,302.1	71.2
-	-	-	-	-	-	143.1	2.6	148.2	2.4	99.8	1.6
-	-	-	-	-	-	68.3	1.2	61.9	1.0	66.0	1.1
-	-	-	-	-	-	211.4	3.8	210.1	3.4	165.8	2.7
-	-					12.4	0.2	19.7	0.3	34.2	0.6
-	-					862.8	15.6	1,499.6	24.5	1,415.6	23.4
-	-	-	-	-	-	875.2	15.8	1,519.3	24.8	1,449.8	24.0
				-	-					0.2	0.0
				-	-					10.3	0.1
				-	-					10.5	0.1
1,636.90	100.0	1,615.4	100.0	1,657.6	100.0	96.2	1.7	114.8	1.9	118.3	2.0
 1,636.90	100.0	1,615.4	100.0	1,657.6	100.0	5,544.30	100.0	6,123.2	100.0	6,046.5	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, 2016, 2017 and 2018, is summarised below.

Revenue structure	Year Er 31-De		Year Er 31-De		Year Ei 31-De	nd Date ec-18
	Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*
1.Solar Power (Korat 1) Co., Ltd.	126.7	2.9	125.4	2.9	126.2	2.9
2.Solar Power (Sakon Nakorn 1) Co., Ltd.	120.6	2.8	119.1	2.8	119.0	2.8
3.Solar Power (Nakorn Phanom 1) Co., Ltd.	119.4	2.7	117.6	2.8	120.3	2.8
4.Solar Power (Korat 2) Co., Ltd.	127.6	2.9	126.5	3.0	127.0	3.0
5.Solar Power (Loei 1) Co., Ltd.	117.3	2.7	113.0	2.6	116.1	2.7
6.Solar Power (Khon Kean 1) Co., Ltd.	121.9	2.8	117.5	2.8	121.1	2.8
7.Solar Power (Korat 3) Co., Ltd.	126.3	2.9	123.8	2.9	123.6	2.9
8.Solar Power (Korat 4) Co., Ltd.	122.6	2.8	119.6	2.8	120.8	2.8
9.Solar Power (Korat 7) Co., Ltd.	125.6	2.9	123.4	2.9	125.0	2.9
10.Solar Power (Korat 5) Co., Ltd.	127.4	2.9	125.7	2.9	125.0	2.9
11.Solar Power (Korat 8) Co., Ltd.	127.6	2.9	126.3	3.0	126.2	2.9
12.Solar Power (Korat 9) Co., Ltd.	124.5	2.9	121.2	2.8	123.0	2.9
13.Solar Power (Khon Kean 3) Co., Ltd.	123.2	2.8	119.6	2.8	121.2	2.8
14.Solar Power (Khon Kean 4) Co., Ltd.	119.7	2.7	118.6	2.8	118.5	2.8
15.Solar Power (Khon Kean 5) Co., Ltd.	126.1	2.9	124.3	2.9	125.4	2.9
16.Solar Power (Khon Kean 8) Co., Ltd.	128.2	2.9	125.2	2.9	127.3	3.0
17.Solar Power (Korat 6) Co., Ltd.	127.2	2.9	126.2	3.0	126.4	2.9
18.Solar Power (Bureerum 1) Co., Ltd.	127.4	2.9	123.9	2.9	123.8	2.9
19.Solar Power (Bureerum 2) Co., Ltd.	126.5	2.9	122.2	2.9	122.6	2.8
20.Solar Power (Khon Kean 2) Co., Ltd.	125.8	2.9	122.2	2.9	121.7	2.8
21.Solar Power (Khon Kean 7) Co., Ltd.	125.2	2.9	123.6	2.9	124.3	2.9
22.Solar Power (Nakorn Phanom 2) Co., Ltd.	119.9	2.7	117.1	2.7	119.4	2.8

Revenue structure	Year End Date 31-Dec-16		Year End Date 31-Dec-17		Year End Date 31-Dec-18	
	Amount (₿Million)	%*	Amount (₿Million)	%*	Amount (₿Million)	%*
23.Solar Power (Nong Kai 1) Co., Ltd.	120.3	2.8	116.8	2.7	119.0	2.8
24.Solar Power (Bureerum 3) Co., Ltd.	129.4	3.0	125.7	2.9	124.4	2.9
25.Solar Power (Nakorn Phanom 3) Co., Ltd.	122.8	2.8	118.3	2.8	122.3	2.8
26.Solar Power (Udon Thani 1) Co., Ltd.	123.7	2.8	116.1	2.7	119.6	2.8
27.Solar Power (Loei 2) Co., Ltd.	118.2	2.7	113.7	2.7	116.0	2.7
28.Solar Power (Sakon Nakorn 2) Co., Ltd.	125.5	2.9	123.1	2.9	125.4	2.9
29.Solar Power (Surin 3) Co., Ltd.	131.0	3.0	129.7	3.0	128.1	3.0
30.Solar Power (Khon Kean 9) Co., Ltd.	120.3	2.8	118.5	2.7	118.1	2.7
31.Solar Power (Khon Kean 10) Co., Ltd.	122.2	2.8	119.5	2.8	119.7	2.8
32.Solar Power (Khon Kean 6) Co., Ltd.	125.7	2.9	124.2	2.9	123.4	2.9
33.Solar Power (Surin 1) Co., Ltd.	128.1	2.9	129.9	3.0	126.9	2.9
34.Solar Power (Surin 2) Co., Ltd.	128.9	3.0	128.3	3.0	125.5	2.9
35.AJ Technology Company Limited (AJ)	63.8	1.5	63.0	1.4	62.0	1.4
36.Tipayanarai Company Limited (TP)	64.9	1.5	64.2	1.5	63.6	1.5
Total revenue from sales of electricity	4,361.5	100.0	4,273.0	99.9	4,297.5	99.9
Revenue from sales	-	-	6.0	0.1	4.6	0.1
Total revenue from solar power plant business	4,361.5	100.0	4,279.0	100.0	4,302.1	100.0

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



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)

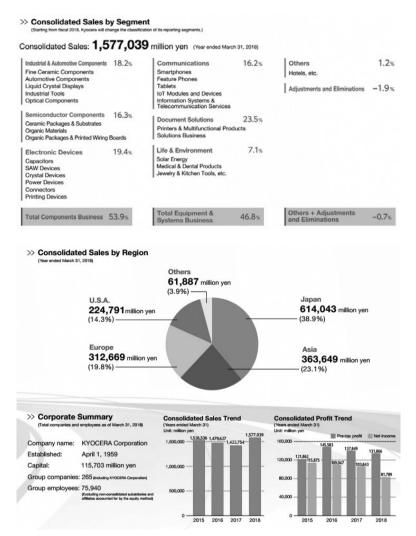
3.1.1 The risk from business of investment and development of Solar Farm.

(1) The risk of dependence on the production of solar panels and the inverter only

Due to the entire photovoltaic project, the solar panels from Kyocera Corporation (Kyocera) Japan, except

AJ Technology who are using Singapore's REC solar panel. All 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 period. As at 31 March 2018, Kyocera had paid-up capital of 115,703 million yen, and a total sales of 1,577,039 million yen, with net profit from operations up to 81,789 million yen, Kyocera has a total number of 75,940 employees and is also affiliated with 265 companies worldwide, with the following details:



Resource: http://global.kyocera.com/company/download/index.html

SMA is a listed company in the stock exchange of Frankfurt. The company is a well-known company in the solar business, producing and selling inverters, 50 GW already installed globally. The company has its affiliates, which are compatible with the production of solar energy business as well as maintenance and repair. As technological leaders for more than 30 years, SMA has sales of 394.65 million euros in the first half of 2018. The net profit of 11 million euros, electricity generating over 4,305 MW (as of June 30, 2018).

Highlights: SMA is a technology driven company with an attractive business model

Direct exposure to the global solar market

• SMA is the Number 1 for solar inverters for more than two decades

Proven technology and game changing new products

Flexible business model and best-cost sourcing
strategy

• Powerful sales and after-sale service infrastructure

• Transformation process will lead to significant cost reduction

• Strong financial position due to high equity ratio and net cash in-hand

• Unique positioning among competitors

• Stable shareholder structure with Danfoss as strategic anchor

SPCG is strongly believes in the financial strength, long operational history and technology of the two companies, both in the part of Kyocera solar panels which provides product warranty 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) Risks from the Lower Intensity of Sunlight

SPCG's solar farm and solar roof business are relying on sunlight as the key resources, so solar irradiance is the key to be successful. If SPCG cannot receive sufficient sunshine to our Solar Farm, it may result to the reduction of energy from forecasting which may affect the revenue.

Thailand is located near the equator; thus, there is high level of solar radiance. Moreover, SPCG has seriously researched and collected all relating statistic of solar irradiance for the past 10 years by utilizing National Aeronautics and Space Administration of America (NASA)'s database and we are confident that all of our Solar Farm's locations are in the high level of the solar radiance in Thailand.

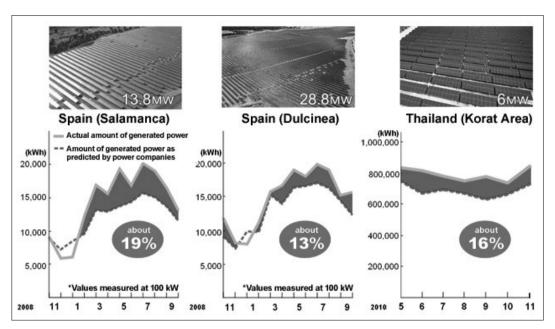
(3) Risks from Natural Disasters

36 Solar Farms of SPCG are located in 10 provinces consists of 34 solar farms in Northeastern part of Thailand which consider as a high flat zone and 2 Solar Farms in Lopburi which is consider a high flat zone area as well. 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) 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. 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

3.1.2 Risks from Engineering Procurement and Construction (EPC)

(1) Risks 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 are 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) Risks 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) Risks of 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 equipment.

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 risk 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 for SRC, this may have the effect on SRC 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 of BlueScope Steel to SRC is in low-level.

3.2.2 Risks 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 Risks 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 Risks 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 don't have their own installation teams, but they will hire an outsources 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 Risks of 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 Risks on 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. However, SRC 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 Risks 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"

3.2.8 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 The risk of 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 highest quality of equipment 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 distributer for households Solar Roof. HomePro provides demonstration of solar Roof system in 61 branches from all of HomePro 82 branches all over Thailand in order to 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 Risks 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 foreignexchange 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 Ristk

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 partners 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 a 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 Burma so SPE will enter those markets that quite new to SMA, so 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 hours 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 followup on behalf of customers. SPE will focus 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. In 2018, SPE took over sales and service operations from SMA Thailand, so it has been our responsibility to restore confidence in the excellent service and quality of products, as well as demonstrate SMA's commitment to further business in Thailand and Indochina Region and worldwide. Since SMA is renowned for its good and fast service, SPE is committed to developing human resources and working processes to provide the best service to SMA customers, SPE employees 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 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, we can have a strong customer base in Thailand.

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, making SPCG 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 Miss Wandee Khunchornyakong, Mrs. Prakong Khunchornyakong, Mr. Somsak Khunchornyakong, Miss Sompong Khunchornyakong, and Mrs. Kanokporn 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 36.77 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 and remuneration 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.

- Capital Information and List of Shareholders
- 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 foreign shares shall not 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 27, 2018 by Thailand Securities Depository Company Limited ("TSD") divided into 71.50% of the major shareholders and 28.50% of minority shareholders as follows:

No.	NAME OF SHAREHOLDERS	No. OF SHARES	% OF SHARES	
1.	The KHUNCHORNYAKONG Consist of	358,128,837	36.77	
	Ms. Wandee Khunchornyakong	300,000,000		
	Mrs. Prakhong Khunchornyakong	32,400,000		
	Mr. Somsak Khunchornyakong	13,500,000		
	Ms. Sompong Khunchornyakong	10,203,837		
	Mrs. Kanokporn Khunchornyakong	2,025,000		

No.	NAME OF SHAREHOLDERS	No. OF SHARES	% OF SHARES
2.	UBS AG SINGAPORE BRANCH	95,200,050	9.77
3.	GULF INTERNATIONAL INVESTMENT (HONG KONG) LIMITED	81,658,452	8.38
4.	KYOCERA CORPORATION	63,500,000	6.52
5.	THAI NVDR COMPANY LIMITED	28,454,497	2.92
6.	Mr. Withoon Manomaikul	19,290,000	1.98
7.	EGAT, Employees Provident Fund	17,121,900	1.76
8.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	12,356,133	1.27
9.	N.C.B.TRUST LIMITED-NORGES BANK 1	11,958,939	1.23
10.	The SETHIWAN Consist of	8,756,500	0.90
	Mr. Suchart Sethiwan	5,400,000	
	Mr. Pongchai Sethiwan	1,696,000	
	Mr. Ponthep Sethiwan	1,587,500	
	Ms. Saowanee Sethiwan	40,000	
	Ms. Warunee Sethiwan	33,000	
	Total	696,425,308	71.50

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.

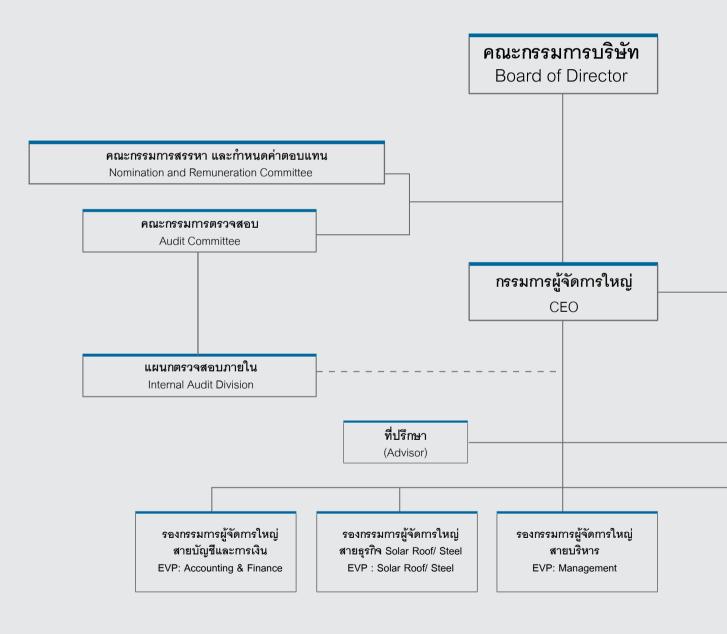
4.4 Historical dividend payment

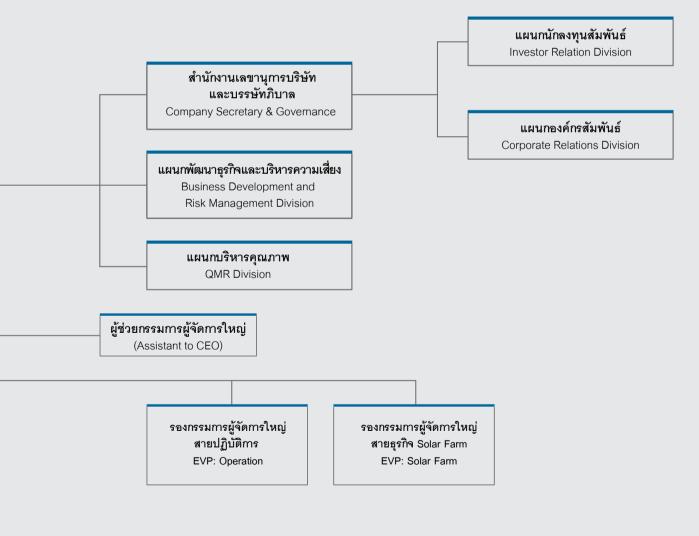
The Company made dividend payments during 2015-2018 with details as follows:

Dividend Decement	2018	20	17	20	16	20	15
Dividend Payment	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Oct-Dec	Jan-Sep
Dividend Payment (THB/Share)	0.55	0.65	0.50	0.70	0.40	0.81	0.44



5.1 Organization Chart of SPCG Public Company Limited





5.2 Management Structure

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

5.2.1 Board of Directors

As at December 31, 2018 The company has the total of 9 Directors as listed below;

No.	Name.	Position.	Number of attendance / total number of meetings In the year 2018 (times)
1.	Dr.Wandee Khunchornyakong Juljarern	Chairperson	5/5
2.	Mr.Somsak Khunchornyakong	Director	4/5
3.	Mr.Jirakom Padumanon	Director	5/5
4.	Mr.Withoon Manomaikul	Director	5/5
5.	Police Major General Wanchai Wisuttinan	Director	4/5
6.	Mr.Shoji Nishizawa	Director	3/3
7.	Mr.Wanchai Lawatanatrakul	Independent Director	5/5
8.	Dr.Art-ong Jumsai Na Ayudhya	Independent Director	4/5
9.	Mr.Apichat Limsethanuwat	Independent Director	5/5

Remark: The Annual General Meeting of Shareholders for the year 2018 on 20 April 2018 approved the appointment of Mr. Shoji Nishizawa to replace Mr. Ratthaphol Cheunsomchit as a member of the company's director of the Board of Directors, effective April 21, 2018, which was successfully completed for new directors.

Company's authorized directors are as follows;

Dr. Wandee Khunchornyakong Juljarern sign her name alone and affix the Company's seal, or Mr. Somsak Khunchornyakong jointly sign with Mr.Withoon Manomaikul, a total of two persons 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 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, affiliate, 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, 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.

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, affiliate, 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, 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 service providers. Exception: It has been at least two years after the person has held the position.

7. Not currently 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; or not a significant partner of the partnership, executive director, salaried worker, employee, or 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 the law, objectives and regulations of the Company as well as the shareholders' meeting resolution with integrity, cautions and to protect the company's interest.

The scope of authorities and responsibilities of the Board of Directors can be summarized as follow;

1. Set the Company's goal, guideline, policies, framework and budget; control and govern administration and management of the Executive Board to be in line with the assigned policies 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 interest 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 interest

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 person 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 interest 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 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 and remuneration 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 held by the company to 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 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.

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, regulations, Practice methodology)

2. Operational and activity information

• vision, mission, goal and operational strategy 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.

In the year 2018, the company has conducted the orientation for Mr. Shoji Nishizawa, which was appointed as a new director on 21 April 2018, to replace Mr. Ratthaphol Cheunsomchit, which was issued from the company's director prior to the first meeting of the board of directors to establish an understanding of the

business operations and acknowledge the policy and related information, as a guideline for further operation.

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, management committee member, etc. to ensure continuous performance improvement 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.

No.	Name	DAP	DCP	FND	ACP	QFR
1.	Dr. Wandee Khunchornyakong Juljarern	2004	2004	-	-	-
2.	Mr. Somsak Khunchornyakong	2004	2005	-	-	-
3.	Mr. Jirakom Padumanon	2011	-	-	-	-
4.	Mr.Withoon Manomaikul	-	-	-	-	-
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	-	-	-	-	-

Summary of training courses organized by Thai Institute of Directors (IOD)

In the year 2018, the company did not submit any director to attend the Board of Directors ' program from Thai Institute of Directors (IOD), but the internal training course was organized, such as foreign investment and future energy business trends by the honor of Dr. Wandee Khunchornyakong Juljarern, company chairperson, as the lecturer to the directors and related employees of the company in order to increase cognition and prepare for future changes.

Evaluating the performance 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 of the company's performance and the use of such assessments for the next year's development.

5.2.2 Sub-Committees

The Board of Directors has appointed a sub-committee to ensure the shareholders that the

company has carefully selected the audit committee and the nomination and remuneration 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 three independent directors with full qualifications as specified by the office of the Securities and Exchange Commission, 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 2018 (times)
1.	Mr. Wanchai Lawattanatrakul	Chairperson*	4/4
2.	Dr. Art-ong Jumsai Na Ayudhya	Director *	3/4
3.	Mr. Apichat Limsethanuwat	Director	4/4

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

Scope of Authority and Responsibilities of Audit Committee

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

2. To review and ensure that the 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 division that are responsible for internal audit.

3. To review and ensure that the 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. Consider, select and propose to appoint

independent individual to stand in the Company's auditor and purpose remuneration for the said person, including attend a meeting once a year with the auditor and without the presence of the management team.

5. Considering the connected transaction or the transaction that may have a conflict of interest in accordance with the laws and regulations of the Stock Exchange of Thailand, to ensure that the transaction is reasonably beneficial to the company.

6. The Audit Committee's report which will be disclosed in the annual report of the company. Must be signed by the Chairman of the Audit Committee and must contain at least The following:

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 interest

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 and Remuneration Committee

The nomination and remuneration committee consists of at least 3 directors, with the following names:

No.	Name	Position	Number of attendance / total number of meetings In the year 2018 (times)
1.	Mr. Wanchai Lawatanatrakul	Chairperson of Nomination and Remuneration Committee	2/2
2.	Dr. Wandee Khunchornyakong Juljarern	Nomination and Remuneration Committee	2/2
3.	3. Mr. Somsak Khunchornyakong Nomination and Remuneration Committee		2/2

Scope of duties and responsibilities of Nomination and Remuneration committee

Nomination

1. Selection and recruitment of individual that is suitable to be proposed to the director with principles by which the individual that was proposed must have knowledge, competence, independence, to 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 list which the shareholders propose as candidate to be nominated as the company's director.

2. Prepare in advance the name list of suitable individuals to be directors and/or in the case where there's vacancu 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. Evaluate performance of committee, subcommittee and chief executive officer according to the operating performance of each year.

5. Considers the qualifications of the Top Executive to suit the business management of the company and its subsidiaries, covering education, experience, knowledge, and expertise.

6. Supervises to ensure that the Company arranges orientation programs to the newly appointed director(s)

7. Perform other duties as assigned by the Board of Directors.

Remuneration

1. Consider remuneration for committee and subcommittee, 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. Consider 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. Reconsider remuneration for committee, subcommittee and chief executive officer by considering from performance and Company's operating performance as well as regulations in industry and top listed companies in Stock Exchange of Thailand and scope of responsibilities.

4. Disclose the remuneration policy and available options and comments from the Nomination,

Remuneration and Corporate Governance Committee in the Annual Report.

5. Perform 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 and remuneration committee shall consider the appropriateness of such remuneration and propose to the approval of the Board of Directors to approve at the meeting of shareholders every year.

The annual general meeting of the Company's shareholders for the year 2018 on 21 April 2018, passed a resolution to approve the remuneration Member of the Audit Committee and nomination and remuneration committee for the year 2018, with the following details:

Board of Directors

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

	Monthly Commission (only for non-executive persons)	Meeting allowances (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 allowances with the following details:

	Monthly Commission allowance	Meeting allowances (only for directors who attend the meeting)	
Chairperson of Audit Committee	35,000 Baht per month	20,000 Baht per meeting	
Audit Committee Member	30,000 Baht per month	15,000 Baht per meeting	

Nomination and remuneration committee

The remuneration for the nomination and remuneration Committee (meeting allowance) has the following details:

	Monthly Commission (only for non-executive persons)	Meeting allowances (only for directors who attend the meeting)
Chairperson of Nomination and Remuneration Comittee	None	20,000 Baht per meeting
Member of Nomination and Remuneration Committee	None	15,000 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 1.2 million baht
Executive Director and Managing Director	Maximum limit up to 1 million baht
Director and Audit Committee member	Maximum limit up to 800,000 baht

The Nomination and Remuneration 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 2018, with the following details:

Unit: Baht Monthly Total Remuneration Name Meeting allowance Remuneration⁽²⁾ for directors Dr. Wandee Khunchornyakong Juljarern 130,000 130,000 Mr. Somsak Khunchornyakong 90,000 90.000 Mr. Jirakom Padumanon 240.000 75.000 315.000 _____ 240 000 75 000 315 000 Mr Withoon Manomaikul POL.MAJ.GEN.Wanchai Wisuttinan 240,000 60,000 300.000 Mr. Shoji Nishizawa⁽¹⁾ 165.333.33 45.000 210.333.33 _____ •••••• Mr. Wanchai Lawattanatrakul 420.000 195,000 615,000 Dr. Art-ong Jumsai Na Ayudhya 360,000 105,000 465,000 Mr. Apichat Limsethanuwat 360,000 495,000 135.000 ToTal 2,025,333.33 910,000.00 2,935,333.33

Remark: ⁽¹⁾Mr. Shoji Nishizawa was appointed as director on 20 April 2018.

⁽²⁾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 2018 to 7,319,452 baht (seven million three hundred and nine thousand four hundred and fifty twelve baht).

Other expenses of the directors

The company does not have any other remuneration, but it is the responsibility of the directors and executives for the total amount of baht 200 million.

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 a 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 5 persons which are as follow;

No.	Name	Position
1.	Dr. Wandee Khunchornyakong Juljarern	Chief executive officer
2.	Mr. Somsak Khunchornyakong	Executive Vice President (Operation)
3.	Mr. Chaiwat Tungsuwanpanit	Executive Vice President (Accounting & Finance)
4.	Mr. Chanchai Banditsaowapak	Executive Vice President (Solar Farm)
5.	Mr. Jirakom Padumanon	Executive Vice President (Solar Roof & Steel)

Recruiting senior Executives

The company has a policy on succession plan for an important position of the Organization, such as the position of the President 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 has a management system in place to allow a close level or a level lower to temporarily act in his/her place, until the nomination and remuneration 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 the 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 Director 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. Have 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, announcement and records regarding employees operations to be in accordance with the company's policies and to protect the company's interest as well as maintain discipline within the organization.

7. Perform duties on matters assigned by the Board of Director.

Regardless, 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

As of December 31, 2018 the Company has a total of 5 executives. Therefore, the Company's executive remuneration in 2018 and 2017 are at the total of 11.88 million baht and 12.23 million baht respectively.

5.3 Personnel

5.3.1 Personnel

Changes of employees of the Company and its subsidiaries. Received compensation from the company. The details are as follows;

						Unit: Person
Number of employees at	SPCG	SPC	SRC	SPR	SPC & SPA and its Subsidiaries (36 Companies)*	Total
December 31, 2016	44	18	82	20	0	164
December 31, 2017	57	22	79	18	0	176
December 31, 2018	66	17	62	34	0	179

Source: PND. 51st of each company.

*No employees of the subsidiaries of the 36th SPC and SPA to hire a management company because instead.

SPC & SPA and SRC The main work SPCG SPC SPR its Subsidiaries Total (36 Companies) * Executive HR Account Office Staff Production & maintenance Sales & Marketing Engineering IT Quality

As of December 31, 2018 employees of the Company And subsidiaries Received compensation from the company. A total number of 179 persons The details are as follows; Unit: Person

Source: Employee Records

Total

* No employees of the subsidiaries of the 36th SPC and SPA to hire a management company because 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, allowance for the paid-up 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 and outpatient medical expenses, medical expense in accident insurance, employee uniform. Including rights, policies and related laws, such as the annual vacation right. The rights of various types of employee activities held by the company, etc.

The company has established a provident fund in the company's name for the company's employees by appointing American International Assurance Co. Ltd. As a fund manager starting from the year 2005, and 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, which includes the management of the company.

In the year 2018, the company has paid the total compensation of the employee in the form of salary, overtime, allowance, expense, premium bonus, insurance, Social Security, Provident Fund and other benefits in the year ended December 31, 2018, total amount of 92.07 million baht.

5.3.3 Labor disputes

In the year 2018, there were no labor disputes.

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 2018, 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 selction 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 seminar to improve their performance, to bring the knowledge to improve work processes. For example, the company sends finance department personnel be trained in the new accounting standards, as well as the training of employees for public speaking to increase their knowledge and ability. To promote consistent collaboration in the various departments and 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 just compensation and salary for the work they do.

5.4 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 set an example in performing duties with honesty, transparency and audit 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 higher management, 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 its 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, receive dividends from the company, receive efficient company's information, attend shareholder meetings, the ability to freely express their opinions at the shareholder meeting and participate 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 information necessary for 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 three consecutive days and not less than three 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 which 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 officers, 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 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.

Category 2: Equal treatment for all shareholders

The company take into consideration every shareholder, big and small 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 ordinary shareholders meeting 90 days before the meeting is scheduled to be held. 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 in the Company's business ethics as a guidelines for directors, executives and employees in the organization to follow, in order to protect the Company.

8. Set guidelines for company 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.

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 policy requirements specified without violating any rights of stakeholders, as follows: 1. The company divides stakeholders into groups, which are; major shareholders, minor shareholders and investors, institutions, 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's 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 Committee, the number of meetings and the number of times each director attended the meeting. Training and 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 communicates the company's information to the employees, staff, and the general public, and to effectively eliminate misunderstandings, as well as the Investor Relations department, acting as coordination with institutional investors. The company's securities, 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 of the shareholders meeting in the annual general meeting for approval.

7. The Board of Directors shall prepare the company's assessment report which describes its own responsibility for the reporting of financial reports, shown in conjunction with the auditor's report. The audit fee and other auditor's 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 any changes to the company's securities holding as defined by the company's related laws, in accordance with the Securities and Exchange Commission rules.

Section 5 Responsibilities of the Board of Directors

The Board of Directors shall be responsible for performing duties with caution, honestly and legally. Objectives, regulations and resolutions of the Board of Directors, as well as the resolutions of the shareholders 'meeting, 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.



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6.1 Internal Control Policies

SPCG Public Company Limited (SPCG) has been operating its business adhering to the corporate governance principle and business ethics as well as fairness in excellence enhancement, checks and balances systems and sufficient control ta gain the best benefit to all of related parties.

SPCG has hired BK IA&IC Co., Ltd. (BK IA&IC) as SPCG's internal control from BK IA&IC will conduct the Internal Audit Plan to support the Audit Committee to review, monitor and assess the sufficiency of the internal control system, operation efficiency and effectiveness control on the company's assets and property.

The Audit Committee will review the internal control plan purpose by BK IA&IC. That the current internal control system is sufficient and cover important section of the company as follow:

- 1) Organization and Environment
- 2) Risk Management
- 3) Supervising the management's operation
- 4) Information Technology and Data Communications
- 5) Monitoring System

After the evaluation of internal control system the Board of Director has opinion that the Company has sufficient internal control system. By which all of the 5 sections of internal control are appropriate, sufficient in preventing the Executive from wrongful use or without authorized. The Board of Director also has opinion that the Company has internal control system that is independence in tracking and evaluating. Moreover, the Company also has significant document organizing system that allows the directors, auditors and person in authority to be able to review in an appropriate period. In 2018, 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.	Human Resources Control	√				
2.	Information System Control	√				√
3.	Contract Control	√				√
4.	Revenue Control		√			
5.	Sales and Administrative Expenses Control		√			
6.	Petty Cash Control		√			
7.	Advance Payment Control		V			
8.	Asset Control		V			
9.	Asset of Solar Farm Control			V		
10.	Product Sales Control				√	√
11.	Revenue Recognition and Cost Control				√	√
12.	Payment Control				√	
13.	Purchasing Control				√	√
14.	Goods Receipt Control				√	
15.	Accounts Payable Record Control				√	V
16.	Payment Record Control				√	
17.	Sales Account Control					V
18.	Evaluate The Installation Work Proportion Control					V
19.	Product Dispensing Control			••••••	••••••	√

6.2 Roles of Audit Committee with Internal Control

The Audit Committee of SCPG Public Company Limited comprised of 3 independent directors, namely, Mr. Wanchai Lawatanatakul as the Chairperson of the Audit Committee, Dr. Art-ong Jumsai Na Ayudhya and Mr. Apichat Limsethanuwat as Member of the Audit Committee. The scope of authority and responsibilities in accordance to the Charter of the Audit Committee, maintain the Company's financial reports in accordance with standards and principles accounting, to review the Company's operations in accordance with the principles of good corporate governance, effective internal control system, compliance with laws and regulations and review related transactions or transaction that may have conflict of interest.

The Audit Committee act in accordance with the roles and responsibilities that were assigned by the Board of Directors. There are 4 Audit Committee Meetings altogether in 2018. The detail of the meeting attendance that each audit committee attends are as follows;

No.	Name	Position	No. of Time
1.	Mr. Wanchai Lawatanatrakul	Independent Director Chairperson of Audit Committee	4
2.	Dr. Art-ong Jumsai Na Ayudhya	Independent Director and Audit Committee	3
3.	Mr. Apichat Limsethanuwat	Independent Director and Audit Committee	4

The Audit Committee had joined in the meeting with the Chief Executive, Internal Auditors and Auditors, which the significant results of the reviewed of audit committee are as follows;

Reviewed Financial Report The Audit Committee and the Auditors had reviewed quarterly financial statements and annual financial statements for the year 2018. 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 rule 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 2018 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, Thailand (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.

Internal Audit Governance The Audit Committee had reviewed and considered the independence of internal auditors, work scope, annual audit plan, examine results of audit report and to follow up the results of the audit report amendment on the significant issues.

Reviewed and Selected Auditors and Determine Remuneration The Audit Committee had reviewed and selected auditors for the year 2019, 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 Director for approval from the Annual General Shareholders' Meeting for the year 2019 to appoint KPMG Phoomchai Audit Ltd. ("KPMG") as the Company's auditor for the year 2019, name as follow;

1. Mr. Vairoj Jindamaneepitak,

Certified Public Accountant No. 3565

- 2. Mr. Natthaphong Tantichattanon, Certified Public Accountant No. 8829
- Ms. Dussanee Yimsuwan Certified Public Accountant No. 10235

6.3 SCPG Public Company Limited and Subsidiary Companies

Overview, the results of internal control for the year 2018 shows that internal control is appropriate and sufficient. Most of the issues that were found are the results of error which have no significant impact and had notify the individual who are responsible to correct the error or has suggests appropriate guidelines. Most of the inspected issued has been solved or on solving process.





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, 2018 and 2017 for comparison as follows;

Person/Potential			Transections Value (Thousand Baht)	ns Value Id Baht)	
ARM's Length Basis Juristic Person	Relationship	Transactions	Year 2018 Ended December 31, 2018	Year 2017 Ended December 31, 2017	Necessity and Reasonability
1. JPEN Co., Ltd.	1. Mr. Jirakom Padumanon • Toking a position of the board	1. Cost of OM&M This transcotion is post	168,000	168,000	1. This transaction is an ordinary
Is the operating	of directors and holds 0.15%	recognition solar farm			in accordance with the condition
service company	 One of the company major 	for SPC hiring JPEN			of designer and construction
Maintenance	shareholder	Co., Ltd.			contract between JPEN Co., Ltd.
of solar farm	 Holding 10.0% shares of JPEN 				and SPC
processing and	Co., Ltd.				
installation of	2. Mrs. Piyarat Suksombat	2. Account payable - OM&M	28,980	28,980	2. This transaction is an ordinary
solar roof	Sister of Mr. Jirakom Padumanon	This transaction is			cause of business transaction and
	 Holding 70% of JPEN Co., Ltd. 	account payable of			in accordance with the condition
	shares However in accordance	OM&M contract regarding			of designer and construction
	to section 258 of the securities	to SPC with JPEN			contract between JPEN Co., Ltd.
	and exchange act B.E 2535, Ms.	Co., Ltd.			and SPC
	Wandee Khunchornyakong and				
	related person are not shareholder,	3. Account payable -	1,836	596	3. This transaction is a normal
	executive, authorized person,	equipment			business transaction and in
	stakeholder or beneficial in JPEN	This transaction is			accordance to the condition of
	Co., Ltd. or gain any benefit that	account payable of			Trading between JPEN Co., Ltd.
	occur from related transactions of	selling equipment for			and SPV and SPE
	the company or subsidiaries of	SPV and SPE with JPEN			
	JPEN Co., Ltd.	Co., Ltd.			

Person/Potential			Transections Value (Thousand Baht)	ns Value nd Baht)	
ARM's Length Basis Juristic Person	Relationship	Transactions	Year 2018 Ended December 31, 2018	Year 2017 Ended December 31, 2017	Necessity and Reasonability
		 Cost of Solar Roof Installation This transaction is acquired of solar roof installation and O&M for SPR with JPEN Co., Ltd. 	206,654	189,111	 This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR
		5. Account payable - Solar Roof Installation This transaction is account payable of solar roof installation and O&M for SPR with JPEN Co., Ltd.	210,990	229,339	 This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR
		6. Revenue from selling equipment This transactions is revenue from selling equipment of SPR and SPC to JPEN Co., Ltd.	29,216	20,529	 6. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd., SPR and SPC
		7. Account Receivables This transactions is account receivables from solar roof installation charged by SPR	572	I	7. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co. 1 td and SPR
		8. Buying goods This transactions is buying goods from JPEN Co., Ltd	48,993	28,796	8. This transaction is a normal business transaction and in accordance to the condition of Trading between JPEN Co., Ltd. and SPR

Derson/Dotential			Transectio (Thousa	Transections Value (Thousand Baht)	
ARM's Length Basis Juristic Person	Relationship	Transactions	Year 2018 Ended December 31, 2018	Year 2017 Ended December 31, 2017	Necessity and Reasonability
2. Woracha Holding Co., Ltd. is a company of property and asset management	 Ms. Wandee Khunchornyakong is a director and holds 30.80% shares of SPCG Public Company Limited. is one of the major shareholders holds 1.00% shares in Woracha Holding Co., Ltd. Ms. Sompong Khunchornyakong holds 1.05% shares is a director and holds 2% shares in Woracha Holding Co., Ltd. Ms. Prakong Khunchornyakong holds 3.33% shares a director in Woracha Holding Co., Ltd. Ms. Prakong Khunchornyakong is a director in Woracha Holding Co., Ltd. is a director and holds 97% shares in Woracha Holding Co., Ltd. 	 Warehouse rental This transaction is acquired of warehouse rental contract between SPC, SPR, SPE and SPV with Woracha Holding Co., Ltd. 	10,977	10,825	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

Darcon/Dotantial			Transections Value (Thousand Baht)	ons Value od Baht)	
ARM's Length Basis Juristic Person	Relationship	Transactions	Year 2018 Ended December 31, 2018	Year 2017 Ended December 31, 2017	Necessity and Reasonability
 Capital Work Place Co., Ltd. is a company of real estate rental company 		1. Account payable This transaction is account payable of office rental contract between SPCG, SPC and SPR with Capital Work	277	149	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
	 Capital Work Flace Co., Ltd. 2. Ms. Sompong Khunchornyakong is a director and holds 1.05% shares of SPCG Public Company Limited is a director and holds 8% of Capital Work Place Co., Ltd. 	2. Office rental This transaction is acquired of office rental contract between SPCG, SPC and SPR with Capital Work Place Co., Ltd	7,399	7,390	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
	 Ms. Woracha Khunchornyakong is an Assistant to CEO of SPCG Public Company Limited. is a director and holds 90% shares of Capital Work Place Co., Ltd. 	 Maintenance fee This transaction is acquired of maintenance fee between SPCG, SPC and SPR with Capital Work Place Co., Ltd 	12,803	12,754	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.

			Transectic (Thousar	Transections Value (Thousand Baht)	
ARM's Length Basis Juristic Person	Relationship	Transactions	Year 2018 Ended December 31, 2018	Year 2017 Ended December 31, 2017	Necessity and Reasonability
 SW PARTNERS INC. is a company of foreign investment consulting 	 4. SW PARTNERS 4. SW PARTNERS 1. Mr. Shoji Nishizawa INC. is a director of SPCG Public is a director and holds 67% 	 Foreign investment advisory fee This transaction is acquired of foreign investment advisory fee between SPCG with SW PARTNERS INC. 	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
company	OT DW PARTNERD INC.				

On February 22, 2019, The board of director has considered the related transaction of the company at the end of fiscal year on December 31, 2018. The board of director said that related transaction of the company in the fiscal year ended December 31, 2018 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, 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 Operaiing Performance
Management Discussion and Analysis: MD&A

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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, 2016

- Mr. Vairoj Jindamaneepitak, Certified Public Accountant No. 3565
- 2. Mr. Sakda Kaothanthong, Certified Public Accountant No. 4628
- 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, 2017

- Mr. Vairoj Jindamaneepitak, Certified Public Accountant No. 3565
- Mr. Waiyawat Korsamarnchaiyakij Certified Public Accountant No. 6333
- 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

- Mr. Vairoj Jindamaneepitak, Certified Public Accountant No. 3565
- 2. Mr. Natthaphong Tantichattanon Certified Public Accountant No. 8829
- 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, 2016 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, 2016, 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, 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.

8.1.3 Summary Table of the company and its subsidiaries financial statements Consolidated and Company Statements of Financial Position

		A	udited for th	ie year ende	ed			Au	udited for th	e year ende	ed	
	31-De	ec-16	31-De	ec-17	31-De	ec-18	31-De	ec-16	31-De	ec-17	31-De	ec-18
List			(Conso	lidated)					(Com	ipany)		
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
Current assets												
Cash and cash equivalents	455.0	1.9	345.9	1.5	129.2	0.6	31.4	0.2	40.1	0.2	70.0	0.5
Current investments	2,904.8	12.0	1,441.1	6.3	1,857.1	8.1	2,643.6	13.8	1,270.6	7.8	1,702.0	11.3
Trade and other accounts receivable	972.0	4.0	1,525.9	6.6	1,226.7	5.4	13.0	0.1	16.3	0.1	84.9	0.6
Short-term loans to related parties	-	-	-	-	-	-	7.0	-	274.7	1.7	101.0	0.7
Current portion of long-term loans to related parties	-	-	-	-	-	-	2,107.5	11.0	2,114.9	12.9	2,322.1	15.5
Inventories	581.0	2.4	709.0	3.1	906.3	4.0	-	-	-	-	-	-
Other current assets	106.8	0.4	149.6	0.6	138.0	0.6	5.3	-	0.2	-	0.4	-
Total current assets	5,019.6	20.7	4,171.5	18.1	4,257.3	18.7	4,807.8	25.1	3,716.8	22.7	4,280.4	28.6
Non-current assets												
Investments held as available for sale	-	-	251.5	1.1	681.8	3.0	-	-	251.5	1.5	681.8	4.5
Investments in a joint venture	2.7	-	1.8	-	-	-	3.0	-	3.0	-	-	-
Investments in subsidiaries	-	-	-	-	-	-	2,979.2	15.5	3,083.8	18.9	3,085.3	20.5
Other long-term investments	468.7	1.9	468.7	2.0	468.7	2.0	340.0	1.8	340.0	2.1	340.0	2.3
Long-term loans to related parties	-	-	-	-	-	-	11,005.4	57.4	8,890.5	54.4	6,568.4	43.7
Investment properties	14.1	0.1	13.9	0.1	37.9	0.2	2.2	-	2.0	-	28.3	0.2
Property, plant and equipment	17,743.7	73.2	17,175.8	74.6	16,458.4	72.2	39.1	0.2	66.3	0.4	30.1	0.2
Intangible assets	107.6	0.4	99.3	0.4	94.7	0.4	0.8	-	0.6	-	3.4	-
Deferred tax assets	159.9	0.7	156.7	0.7	157.3	0.7	-	-	-	-	-	-
Other non-current assets	716.0	3.0	687.4	3.0	641.5	2.8	1.6	-	1.4	-	1.5	-
Total non-current assets	19,212.7	79.3	18,855.1	81.9	18,540.3	81.3	14,371.3	74.9	12,639.1	77.3	10,738.8	71.4
Total assets	24,232.3	100.0	23,026.6	100.0	22,797.6	100.0	19,179.1	100.0	16,355.9	100.0	15,019.2	100.0

		Audited for the year ended					Audited for the year ended					
	31-De	ec-16	31-De	ec-17	31-De	ec-18	31-De	ec-16	31-De	ec-17	31-De	ec-18
List			(Conso	lidated)					(Com	ipany)		
	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	-	-		-	-	
Trade and other accounts payable	1,047.4	4.3	1,085.8	4.7	545.0	2.4	47.2	0.2	55.3	0.3	137.5	0.9
Current portion of debentures	2,702.2	11.2	2,940.5	12.8	2,369.4	10.4	2,702.2	14.1	2,940.5	18.1	2,369.4	15.8
Current portion of finance lease liabilities	1.4	-	1.4	-	0.7	-	0.9	-	1.2	-	0.6	-
Income tax payable	0.7	-	38.6	0.2	29.2	0.1	-	-	5.4	-	0.5	-
Other current liabilities	90.1	0.4	62.3	0.3	66.1	0.3	8.8	0.1	7.1	-	5.1	-
Total current liabilities	3,841.8	15.9	4,139.5	18.0	3,109.4	13.6	2,759.1	14.4	3,009.5	18.4	2,513.1	16.7
Non-current liabilities												
Debentures	10,601.5	43.8	7,661.0	33.3	5,791.2	25.4	10,601.5	55.3	7,661.0	46.9	5,791.2	38.6
Finance lease liabilities	0.6	-	2.0	-	1.4	-	0.6	-	2.0	-	1.4	-
Deferred tax liabilities	12.5	-	4.9	-	0.4	-	12.4	0.1	4.8	-	0.3	-
Non-current provisions for employee benefits	10.0	-	11.0	-	14.3	0.1	6.4	-	7.2	-	7.5	-
Ordinary shares of subsidiaries with conditions to buy/sell back	-	-	-	-		-	-	-		-	-	
Other Non-current liabilities	-	-	-	-	0.3	-	-	-	-	-	-	-
Total non-current liabilities	10,624.6	43.8	7,678.9	33.3	5,807.6	25.5	10,620.9	55.4	7,675.0	46.9	5,800.4	38.6
Total liabilities	14,466.4	59.7	11,818.4	51.3	8,917.0	39.1	13,380.0	69.8	10,684.5	65.3	8,313.5	55.3

		A	udited for th	ie year end	ed			A	udited for th	e year ende	ed	
	31-De	ec-16	31-De	ec-17	31-De	ec-18	31-De	ec-16	31-De	ec-17	31-De	ec-18
List			(Conso	lidated)					(Com	pany)		
	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	-	1,016.4	-
Ordinary shares, 923,990,000 shares **	924.0	-	-	-	-	-	924.0	-	-	-	-	-
Issued and paid share capital												
Ordinary shares, 923,990,000 shares **	924.0	3.8	924.0	4.0	974.0	4.3	924.0	4.8	924.0	5.6	974.0	6.5
Share premium on ordinary shares	2,920.9	12.1	2,920.9	12.7	3,955.9	17.4	3,747.8	19.5	3,747.8	22.9	4,782.8	31.8
Share premium from business combination	89.0	0.4	89.0	0.4	89.0	0.4	-	-	-	-	-	-
Retained earnings – appropriated - legal reserve	87.0	0.4	101.7	0.4	101.6	0.4	92.4	0.5	101.7	0.7	101.6	0.7
Retained earnings – unappropriated	4,247.6	17.5	5,672.6	24.7	7,119.2	31.2	1,009.2	5.3	891.7	5.5	851.5	5.7
Other components of shareholder's equity	26.1	-	6.6	-	(4.0)	-	25.7	0.1	6.2	-	(4.2)	-
Equity attributable to owners of the parent	8,294.6	34.2	9,714.8	42.2	12,235.7	53.7	5,799.1	30.2	5,671.4	34.7	6,705.7	44.7
Non-controlling interests	1,471.3	6.1	1,493.4	6.5	1,644.9	7.2	-	-	-	-	-	-
Total shareholders' equity	9,765.9	40.3	11,208.2	48.7	13,880.6	60.9	5,799.1	30.2	5,671.4	34.7	6,705.7	44.7
Total liabilities and shareholders' equity	24,232.3	100.0	23,026.6	100.0	22,797.6	100.0	19,179.1	100.0	16,355.9	100.0	15,019.2	100.0

Remarks:

* Persentage of the total assets

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

The Consolidated and Company's Statements of Comprehensive Income

		Aud	lited for th	ne year er	nded			Aud	lited for th	ne year er	nded	
	31-De	ec-16	31-De	ec-17	31-De	ec-18	31-De	ec-16	31-De	ec-17	31-De	ec-18
List			(Conso	lidated)					(Com	pany)		
	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*	Baht Million	%*
<u>Revenues</u>												
Revenue from sales and												
rendering of services	5,448.1	98.3	6,008.4	98.1	5,928.2	98.0	-	-	-	-	-	-
Other income	96.2	1.7	114.8	1.9	118.3	2.0	1,636.9	100.0	1,615.4	100.0	1,648.3	100.0
Total Revenues	5,544.3	100.0	6,123.2	100.0	6,046.5	100.0	1,636.9	100.0	1,615.4	100.0	1,648.3	100.0
Expenses												
Costs of sales and rendering	1 0 1 0 7	24.6	0.074.7	27.0	0.000.0	247						
of services	1,919.7	34.6	2,276.7	37.2	2,222.6	36.7	-	-	-	-	-	-
Selling and distribution expenses	14.0	0.3	68.7	1.1	76.8	1.3	-	-	-	-	-	-
' Administrative expenses	237.8	4.3	271.8	4.4	258.9	4.3	92.0	5.6	109.5	6.8	123.4	7.5
Share of loss of investement												
in joint ventures	0.6	-	0.9	-	0.1	-	-	-	-	-	-	-
Total Expenses	2,172.1	39.2	2,618.1	42.7	2,558.4	42.3	92.0	5.6	109.5	6.8	123.4	7.5
Profit before finance costs and tax expense	3,372.2	60.8	3,505.1	57.3	3,488.1	57.7	1,544.9	94.4	1,505.9	93.2	1,524.9	92.5
Finance costs	745.2	13.4	618.2	10.1	503.3	8.3	568.1	34.7	485.7	30.1	391.4	23.7
Profit before income tax												
expense	2,627.0	47.4	2,886.9	47.2	2,984.8	49.4	976.8	59.7	1,020.2	63.1	1,133.5	68.8
Tax expense	(9.5)	(0.2)	(64.8)	(1.1)	(61.2)	(1.0)	(5.5)	(0.3)	(19.7)	(1.2)	(6.8)	(0.4)
Profit for the year	2,617.5	47.2	2,822.1	46.1	2,923.6	48.4	971.3	59.4	1,000.5	61.9	1,126.7	68.4
Other comprehensive income (loss) for the year, net of tax	(12.3)	(0.2)	(19.5)	(0.3)	(8.9)	(0.1)	(12.3)	(0.8)	(19.4)	(1.2)	(8.6)	(0.5)
Total comprehensive income for the year	2,605.2	47.0	2,802.6	45.8	2,914.7	48.3	959.0	58.6	981.1	60.7	1,118.1	67.9
Profit attributable to:												
Owners of parent	2,314.2	-	2,524.3	-	2,613.6	-	971.3	-	1,000.5	_	1,126.7	-
Non-controlling interests	303.3	-	297.8	-	310.0	-	_	-	_	-	_	-
Total comprehensive income												
attributable for the year	2,617.5	-	2,822.1	-	2,923.6	-	971.3	-	1,000.5	-	1,126.7	-
Basic earnings per share (Baht)	2.50	-	2.73	-	2.70	-	1.05	-	1.08	-	1.16	-
Weighted average number of ordinary shares												
(Million shares)	924.0	-	924.0	-	967.8	-	924.0	-	924.0	-	967.8	-

Remarks: * Percentage of the total revenues

Consolidated and Company's Statements of Cash Flows

	Audite	ed for the year	ended	Audite	ed for the year	ended
List (Unit: Baht Million)	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-16	31-Dec-17	31-Dec-18
		(Consolidated))		(Company)	
Cash flow from operating activities						
Profit for the year	2,617.5	2,822.1	2,923.6	971.3	1,000.5	1,126.7
Adjustments						
Depreciation & amortisation	644.2	642.8	689.4	5.3	8.4	11.3
Gain from sale of investment held as available for sale	(71.4)	(68.4)	(8.9)	(63.5)	(59.6)	(3.5)
Dividend income	-	-	(2.1)	(898.9)	(924.4)	(1,097.8)
Interest income	(13.2)	(39.4)	(37.5)	(565.8)	(518.5)	(433.9)
(Reversal of) bad and doubtful debts expenses	0.2	(0.6)	1.0	-	-	-
Reversal of losses on inventories devaluation	-	-	-	-	-	-
(Gain) loss on disposal of plant and equipment	10.3	(0.6)	(1.6)	-	(0.7)	-
Finance costs	745.2	618.2	503.3	568.1	485.7	391.4
Impairment loss on investment in subsidiary	-	-	-	-	-	1.9
Unrealised (gain) loss on foreign exchange	13.9	(11.2)	0.1	-	1.6	0.2
Provisions for employee benefit	1.0	1.0	5.4	0.7	0.8	2.6
Share of loss of investment in join venture	0.6	0.9	0.1	-	-	-
Tax expense	9.5	64.8	61.3	5.5	19.7	6.8
	3,957.8	4,029.6	4,134.1	22.7	13.5	5.7
Changes in operating assets and liabilities						
Trade and other current accounts receivable	(31.9)	(549.9)	301.2	7.9	(1.2)	(64.6)
Inventories	(365.0)	(128.1)	(197.2)	-	-	-
Other current assets	42.4	(30.1)	26.2	9.7	5.1	(0.2)
Other non-current assets	(31.1)	28.6	45.8	(1.3)	0.3	(0.2)
Trade and other accounts payable	773.2	51.3	(541.8)	(19.0)	10.6	79.2
Other current liabilities	(31.4)	(27.9)	3.9	(38.4)	(1.6)	(2.0)
Other non-current liabilities	-	-	0.3	-	-	-
Net cash generated from (used in) operating	4,314.0	3,373.5	3,772.4	(18.4)	26.7	17.9
Tax paid	(42.6)	(38.9)	(88.4)	(9.1)	(17.0)	(14.0)
Net cash from (used in) operating activities	4,271.4	3,334.6	3,684.0	(27.5)	9.7	3.9

	Audite	ed for the year	ended	Audite	ed for the year	ended
List (Unit: Baht Million)	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-16	31-Dec-17	31-Dec-18
		(Consolidated))		(Company)	
Cash flows from investing activities						
(Increase) decreased in short term deposits at financial institutions	-	(171.0)	81.0	-	(171.0)	81.0
Restricted cash	-	-	-	-	-	-
Payments of long-term investment used as collateral	-	-	-	-	-	-
Decreased in investments in debt securities held to maturity	-	-	340.0	-	-	340.0
Increased in restricted fixed deposits	-	-	(340.0)			(340.0)
Payments of general investment	-	-	-	-	-	-
Proceeds from sale of available for sale securities	8,455.5	12,311.8	11,582.1	4,153.0	8,217.5	7,726.5
Acquisition of available for sale securities	(7,670.7)	(10,886.3)	(12,513.9)	(3,292.5)	(6,891.3)	(8,678.9)
Acquisition of plant and equipment	(79.7)	(89.5)	(13.9)	(6.6)	(33.0)	(1.2)
Acquisition of intangible assets	(10.9)	(0.2)	(3.4)	(0.5)	-	-
Proceed from sale of plant and equipment	3.5	26.5	27.3	0.1	1.6	-
Proceed from sale of intangible assets	0.5	-	-	-	-	(2.9)
Proceeds from repayment of short-term loans to related parties	-	-	-	165.0	365.3	1,084.0
Proceeds from repayment of long-term loans to related parties	-	-	-	2,037.3	11,654.0	2,114.9
Short-term loans to related parties	-	-	-	(172.0)	(633.0)	(910.3)
Long-term loans to related parties	-	-	-	(170.0)	(9,546.5)	-
Proceed (acquisition) of non-controlling interest	(169.7)	(104.6)	-	-	(104.6)	-
Payment of investment in subsidiary	-	-	-	-	-	(2.5)
Process from sale of investment in subsidiary	-	-	-	-	-	0.4
Dividends received	-	-	2.1	898.8	924.4	1,097.8
Interest received	13.2	36.1	36.2	578.2	516.3	431.6
Net cash from (used in) investing activities	541.7	1,122.8	(802.5)	4,190.8	4,299.7	2,940.4
Cash flows from financing activities						
Increases in bank overdrafts and short-term borrowings from financial						
institutions	(6.0)	10.9	88.1	-	-	-
Proceeds from issue of ordinary shares	-	-	1,085.0	-	-	1,085.0
Repayments on long-term loans from financial institutions	-	-	499.4	-	-	499.4
Proceeds from debentures	-	-	-	-	-	-
Payment of debentures	(2,480.0)	(2,715.0)	(2,950.0)	(2,480.0)	(2,715.0)	(2,950.0)
Payment of finance lease liabilities	(2.5)	(2.5)	(1.5)	(0.8)	(1.9)	(1.4)
Dividends paid	(1,229.0)	(1,255.6)	(1,327.2)	(1,118.0)	(1,108.8)	(1,168.8)
Interest paid	(716.7)	(604.3)	(492.0)	(554.4)	(475.0)	(378.5)
Net cash from (used in) financing activities	(4,434.2)	(4,566.5)	(3,098.2)	(4,153.2)	(4,300.7)	(2,914.3)
Net increase (decrease) in cash and cash equivalents	378.9	(109.1)	(216.7)	10.1	8.7	30.0
Cash and cash equivalents at 1 January	76.1	455.0	345.9	21.3	31.4	40.0
Cash and cash equivalents at 31 December	455.0	345.9	129.2	31.4	40.1	70.0

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

		Fo	or the year ende	ed		For the year ende	ed
Financial Ratio	Unit	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-16	31-Dec-17	31-Dec-18
			(Consolidated)			(Company)	
Liquidity Ratio							
Current ratio	Times	1.3	1.0	1.4	1.8	1.2	1.7
Accounts receivable turnover	Times	5.7	4.8	4.3	-	-	-
Average collection period	Days	64.0	75.9	84.7	-	-	-
Inventory turnover	Times	4.8	3.5	2.8	-	-	-
Average inventory period	Days	75.7	103.4	132.6	-	-	-
Accounts payable turnover	Times	3.0	2.1	2.7	-	-	-
Average payment period	Days	121.5	169.8	133.9	-	-	-
Profitability Ratio							
Gross profit margin	%	64.8	62.1	62.5	-	-	-
EBIT margin	%	60.8	57.2	57.7	94.4	93.2	92.5
Net profit margin	%	41.7	41.2	43.2	59.3	61.9	68.4
Return on equity	%	29.9	28.0	23.8	16.5	17.4	18.2
Debt to equity ratio	Times	1.7	1.2	0.7	2.3	1.9	1.2
Dividend payout ratio	%	44.0	42.1	42.1	104.7	106.5	106.5
Efficiency Ratio							
Return on assets	%	13.8	14.8	15.2	7.5	8.5	9.7
Total asset turnover	Times	0.2	0.3	0.3	0.1	0.1	0.1

9 Management Discussion and Analysis: MD&A



9.1 Significant events of the year 2018 effecting to the financial statements

9.1.1 The offering and allocation of the newly issued ordinary shares by way of private placement under the general mandate no.1

The Board of Directors' meeting of the Company No. 1/2018 held on January 31, 2018, approved the offering and allocation of the newly issued ordinary shares by way of private placement under the general mandate no.1 as previously approved by the Extraordinary General Meeting of Shareholders No. 1/2017 held on June 6, 2017 by approved the offering and allocation of 50 million newly issued ordinary shares of the Company under the general mandate to the specific person, at the offering price of Baht 21.70 per share (par value of Baht 1 and premium on ordinary shares of Baht 20.70), totaling Baht 1,085 million. The Company registered an increase of paid-up capital with the Ministry of Commerce on February 16, 2018.

9.2 Analysis of Operation Results According to Consolidated Financial Statement

	20	18	20	17	Chai	nge
	Amount (MB)	% to Revenue	Amount (MB)	% to Revenue	Amount (MB)	% to Revenue
REVENUES	5,928.2	100%	6,008.4	100%	(80.2)	-1%
COST OF SALES	(2,222.6)	-37%	(2,303.5)	-38%	(80.9)	-4%
GROSS PROFIT	3,705.6	63%	3,704.9	62%	0.7	0%
OTHER INCOME	118.3	2%	114.8	2%	3.5	3%
SELLING EXPENSES	(76.8)	-1%	(73.2)	-1%	3.6	5%
ADMINISTRATIVE EXPENSES	(258.9)	-4%	(240.5)	-4%	18.4	8%
SHARE OF GAIN (LOSS) OF JUINT VENTURE	(0.1)	0%	(0.9)	0%	0.8	89%
EBIT	3,488.1	59%	3,505.1	58%	(17.0)	0%
FINANCE COSTS	(503.3)	-8%	(618.2)	-10%	(114.9)	-19%
EBT	2,984.8	50%	2,886.9	48%	97.9	3%
INCOME TAX INCOME (EXPENSE)	(61.2)	-1%	(64.8)	-1%	(3.6)	-6%
NET PROFIT (LOSS)	2,923.6	49%	2,822.1	47%	101.5	4%
OTHER COMPREHENSIVE INCOME	(8.9)	0%	(19.5)	0%	10.6	54%
COMPREHENSIVE INCOME	2,914.7	49%	2,802.6	47%	112.1	4%

Net Profit (Loss) attributable to :

Owners of the parent	2,613.6	2,524.3		
Non-controlling interests	310.0	297.8		
	2,923.6	2,822.1		

Comprehensive Income attributable to:

Owners of the parent	2,604.7	2,504.8		
Non-controlling interests	310.0	297.8		
	2,914.7	2,802.6		

EARNINGS PER SHARE

		•••••	•••••	 	••••••
NO.OF SHARES (Million shares)	967.8		924.0		
EPS (Baht per share)	2.70		2.73		

The operating results according to the consolidated financial statements of the Company and its subsidiaries for the year ended 31 December 2018 presented the net profit of Baht 2,923.6 million or Baht 2.70 per share which increasing by Baht 101.5 million or 4%, compared to the net profit of Baht 2,822.1 million or Baht 2.73 per share for the year ended 31 December 2017. The significant reasons were as follows:

9.2.1 Revenue from Sales and Services

Revenue from sales and services of 2018 was Baht 5,928.2 million which decreasing by Baht 80.2 million or 1% from Baht 6,800.4 million in 2017. 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 2018 was Baht 1,456.1 million which decreasing by Baht 63.2 million or 4% from Baht 1,519.3 million in 2017.

• Revenue from electricity sales of 36 solar farms for 2018 was Baht 4,297.5 million which increasing by Baht 24.5 million or 1% from Baht 4,273.0 million in 2017 because (1) the power output of 2018 was 384.2 million units which decreasing by 0.7 million units or 0.2% from 384.9 million units in 2017 and (2) average selling price during 2018 was Baht 11.2 per unit which increasing by Baht 0.1 per unit from Baht 11.1 per unit in 2017.

• Steel Roof Company Limited (SRC), operates the business of metal sheet roofing distribution and installation, its revenue from sales and services for 2018 was Baht 165.8 million which decreasing by Baht 44.3 million or 21% from Baht 210.1 million in 2017.

9.2.2 Cost of Sales and Services and Gross Profit

Cost of sales and services of 2018 and 2017 were Baht 2,222.6 million and Baht 2,303.5 million respectively. Gross profit margin of 2018 and 2017 were 63% and 62% respectively. The decrease in cost of sales and services was in line with the revenue from sales and services. However, there was no any change in gross profit margin.

9.2.3 Selling Expenses

Selling expenses of 2018 was Baht 76.8 million which increasing by Baht 3.6 million or 5% from Baht 73.2 million in 2017 resulting from the increasing in advertising and promotion expenses.

9.2.4 Administrative Expenses

Administrative expenses of 2018 was Baht 258.9 million which increasing by Baht 18.4 million or 8% from Baht 240.5 million in 2017 resulting from the increasing in employee expenses and international investment consulting services expenses.

9.2.5 Finance Costs

Finance costs for 2018 was Baht 503.3 million which decreasing by Baht 114.9 million or 19% from Baht 618.2 million in 2017. The main reason was the Company paid on debentures in the amount of Baht 2,950.0 million and Baht 2,715.0 million in the year 2018 and 2017 respectively.

9.3 Analysis of financial position according to consolidated financial statement

9.3.1 Analysis of Assets

As at 31 December 2018, the total assets were Baht 22,797.6 million, decreasing by Baht 229.0 million or 1% from Baht 23,026.6 million as at 31 December 2017. The details were as follows:

	31-Dec-18	31-Dec-17		inge
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)	% Chang
Property, plant and equipment, net	16,458.4	17,150.0	(691.6)	-4%
Other assets	6,339.2	5,876.6	462.6	8%
Total assets	22,797.6	23,026.6	(229.0)	-1%

• As at 31 December 2018, property, plant and equipment were Baht 16,458.4 million, decreasing by Baht 691.6 million or 4% from Baht 17,150.0 million as at 31 December 2017. The main reasons were its depreciation was Baht 689.4 million and the purchase and sales of equipment in the amount of Baht 13.9 million and Baht 27.3 million respectively.

• As at 31 December 2018, other assets were Baht 6,339.2 million, increasing by Baht 462.6 million or 8% from Baht 5,876.6 million as at 31 December 2017. The main reasons were the acquisition of available-for-sale securities in the amount of Baht 846.3 million, the increasing of inventories in the amount of Baht 197.2 million, the decreasing of trade accounts receivable in the amount of Baht 289.9 million and the decreasing of cash and cash equivalents in the amount of Baht 216.7 million.

9.3.2 Analysis of Liabilities and Shareholders' Equity

As at 31 December 2018, the total liabilities and shareholders' equity were Baht 22,797.6 million, decreasing by Baht 229.0 million or 1% from Baht 23,026.6 million as at 31 December 2017. The details were as follows:

	31-Dec-18	31-Dec-17	Cha	inge
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)	% Chang
Interest bearing debt	8,261.7	10,615.8	(2,354.1)	-22%
Other liabilities	655.3	1,202.6	(547.3)	-46%
Shareholders' equity	13,880.6	11,208.2	2,672.4	24%
Total liabilities and shareholders' equity	22,767.6	23,026.6	(229.0)	-1%

• As at 31 December 2018, interest bearing debt was Baht 8,261.7 million, decreasing by Baht 2,354.1 million or 22% from Baht 10,615.8 million as at 31 December 2017. The main reasons were as follows:

- The issuance of the debentures in the amount of Baht 500.0 million

- The increasing of short-term loans from financial institutions in the amount of Baht 88.0 million

- The payment of debenture in the amount of Baht 2,950.0 million

• As at 31 December 2018, other liabilities was Baht 655.3 million, decreasing by Baht 547.3 million or 46% from Baht 1,202.6 million as at 31 December 2017. The main reason was the decreasing of accounts payable. • As at 31 December 2018, shareholders' equity was Baht 13,880.6 million, increasing by Baht 2,672.4 million or 24% from Baht 11,208.2 million as at 31 December 2017. The main reasons were as follows:

- The net profit of 2018 in the amount of Baht 2,923.6 million

- The issuance of ordinary shares during 1Q 2018 in the amount of Baht 1,085.0 million

- The payment of dividend in the amount of Baht 1,327.2 million

9.3.3 The Appropriateness of Financial Structure

According to statement of financial position as at 31 December 2018, debt to equity ratio equal to 0.64 which decreased from 1.05 as at 31 December 2017 mainly due to The payment of debenture in the amount of Baht 2,950.0 million and the issuance of ordinary shares during 1Q 2018 in the amount of Baht 1,085.0 million.

	2018	2017	Change
	Amount (Million Baht)	Amount (Million Baht)	Amount (Million Baht)
Net cash generated from (used in) operating activities	3,684.0	3,334.6	349.4
Net cash generated from (used in) investing activities	(802.5)	1,122.8	(1,925.3)
Net cash generated from (used in) financing activities	(3,098.2)	(4,566.5)	1,468.3
Net increase (decrease) in cash and cash equivalents	(216.7)	(109.1)	(107.6)
Cash and cash equivalents at the beginning of the period	345.9	455.0	(109.1)
Cash and cash equivalents at the end of the period	129.2	345.9	(216.7)

9.4 Analysis of Cash Flow According to Consolidated Financial Statement

As at 31 December 2018, cash and cash equivalents were Baht 129.2 million, decreasing by Baht 216.7 million from Baht 345.9 million as at 31 December 2017. The reasons were as follows:

1) Net cash generated from operating activities in the amount of Baht 3,684.0 million, resulting in

• Net cash generated from operating profit in the amount of Baht 3,772.4 million

Taxes paid in the amount of Baht 88.4
million

2) Net cash used in investing activities in the amount of Baht 802.5 million, resulting in

• Proceed from sale of available-for-sale securities in the amount of Baht 11,582.2 million

• Acquisition of available-for-sale securities in the amount of Baht 12,513.9 million

• Proceed from short term deposits at financial institutions in the amount of Baht 81.0 million

• Proceed from sale of plant, equipment and intangible assets in the amount of Baht 27.3 million

• Acquisition of plant, equipment and intangible assets in the amount of Baht 17.3 million

Interest received in the amount of Baht
36.2 million

3) Net cash used in financing activities in the amount of Baht 3,098.2 million.

• Proceed from issue of ordinary shares in the amount of Baht 1,085.0 million

Proceed from issue of debenture in the amount of Baht 499.4 million

• Proceed from short-term loans from financial institutions in the amount of Baht 88.1 million

• Dividend paid in the amount of Baht 1,327.2 million

• Payment of debenture in the amount of Baht 2,950.0 million

Interest paid in the amount of Baht 491.9
million

Declaration of the Directors' Responsibility for the Financial Statements

The Public Company Act 2535 (B.E.), the Accounting Act 2543 (B.E.), the Securities and Stock Exchange Act 2535 (B.E.) and the Securities and Exchange Commission's Announcement on the Rules, Conditions and Procedure of Financial Information and Company Performance Disclosure require the Board of Directors to prepare financial statements to describe the Company's financial position, operating performance and cash flow in the previous year is accurate, reasonable and transparent for the benefit of the shareholders and general investors.

The Board of Directors is responsible for the financial statements which have been prepared to provide assurance that the financial position, results of operations and cash flows are presented accurately and complies with a suitable accounting policies and reasonable discretion exercised in the preparation of financial statements. Adequate significant information has been disclosed in the notes to these financial statements for transparent use by shareholders and investors at large. The auditor KPMG Phoomchai Audit Limited has verified and expressed an opinion on the consolidated and separate financial statements of SCG Public Company Limited in the report of the authorized auditor.

Based on the internal control system sufficiency evaluation in five areas namely organizational structure and environment, risk management, control activities, information and communication, and operation monitoring activities; the Board of Directors found that the overall internal control system, and internal audit can be assured that Company's consolidated and separated financial statements ended December 31, 2018 show financial status, overall operation and cash flow which is correct and in accordance with financial reporting standards and relevant laws and regulations.

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(Dr.Wandee Khunchornyakong) Chairperson and Chief Executive Officer

Financial statements for the year ended 31 December 2018 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 2018, 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 2018 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.

Related party transactions

Refer to Notes 1, 4, 10 and 11 to the financial statements.

The Group has numerous transactions with related parties. As such, there is a risk in recognition and appropriateness of the related party transactions. In addition, necessary related party disclosures of information to understand the nature and effect of the various related party relationships and transactions may be inadequate. Therefore, this is focus area in my audit.

My audit procedures included understanding and assessment of the Group's controls to identify, recognise and disclose related party transactions. I compared the information and transactions provided by the management with internal/external sources and inspected relevant agreements and other information to assess the appropriateness of the transactions recognition and the adequacy of the disclosure of related party transaction.

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 22 February 2019

Statement of financial position

		Consolio	lated	Separ	ate
		financial st	atements	financial st	atements
		31 Dece	ember	31 Dece	mber
Assets	Note	2018	2017	2018	2017
			(in thousan	d Baht)	
Current assets					
Cash and cash equivalents	5	129,152	345,897	70,043	40,050
Current investments	6	1,857,065	1,441,067	1,701,953	1,270,577
Trade and other accounts receivable	4, 7	1,226,707	1,525,866	84,920	16,308
Short-term loan to related parties	4	-	-	101,000	274,700
Current portion of long-term loans to related parties	4	-	-	2,322,072	2,114,912
Inventories	8	906,265	709,093	-	-
Other current assets	9	138,077	149,614	445	235
Total current assets	_	4,257,266	4,171,537	4,280,433	3,716,782
Non-current assets					
Available-for-sale investments	6	681,816	251,542	681,816	251,542
Investments in joint venture	4, 10	-	1,799	-	3,000
Investments in subsidiaries	4, 11	-	-,	3,085,313	3,083,813
Other long-term investments	6	468,678	468,678	340,000	340,000
Long-term loans to related parties	4	-	-	6,568,372	8,890,444
Investment properties		37,864	39,755	28,292	29,388
Property, plant and equipment	13	16,458,438	17,149,953	30,072	38,934
Intangible assets	14	94,682	99,330	3,439	626
Deferred tax assets	15	157,340	156,667	-	-
Other non-current assets	16	641,540	687,377	1,519	1,351
Total non-current assets	_	18,540,358	18,855,101	10,738,823	12,639,098
Total assets	=	22,797,624	23,026,638	15,019,256	16,355,880

Statement of financial position

		Consolid	lated	Separ	ate
		financial sta	atements	financial sta	atements
		31 Dece	mber	31 Dece	mber
Liabilities and equity	Note	2018	2017	2018	2017
			(in thousan	d Baht)	
Current liabilities					
Bank overdrafts and short-term loans from					
financial institutions	17	99,021	10,938	-	-
Trade and other accounts payable	4, 18	544,989	1,085,772	137,474	55,282
Current portion of debentures	17	2,369,374	2,940,485	2,369,374	2,940,485
Current portion of finance lease liabilities	17	715	1,392	645	1,168
Income tax payable		29,197	38,625	526	5,430
Other current liabilities		66,148	62,266	5,102	7,087
Total current liabilities	-	3,109,444	4,139,478	2,513,121	3,009,452
Non-current liabilities					
Debentures	17	5,791,195	7,661,014	5,791,195	7,661,014
Finance lease liabilities	17	1,368	2,012	1,368	2,012
Deferred tax liabilities	15	399	4,914	343	4,833
Non-current provisions for employee benefits	15	14,264	11,020	7,475	7,150
Other non-current liabilities		300	11,020	7,475	7,150
	_			- 	-
Total non-current liabilities	-	5,807,526	7,678,960	5,800,381	7,675,009
Total liabilities	-	8,916,970	11,818,438	8,313,502	10,684,461
Equity					
Share capital	19				
Authorised share capital		1,016,389	1,016,389	1,016,389	1,016,389
Issued and paid-up share capital	=	973,990	923,990	973,990	923,990
Share premium on ordinary shares	20	3,955,923	2,920,923	4,782,793	3,747,793
Share premium from business combination		89,000	89,000	-	-
Retained earnings					
Appropriated					
Legal reserve	20	101,639	101,639	101,639	101,639
Unappropriated		7,119,160	5,672,623	851,525	891,748
Other components of equity	20	(3,957)	6,636	(4,193)	6,249
Equity attributable to owners of the parent	_	12,235,755	9,714,811	6,705,754	5,671,419
Non-controlling interests	12	1,644,899	1,493,389	-	-
Total equity	-	13,880,654	11,208,200	6,705,754	5,671,419
Total liabilities and equity	=	22,797,624	23,026,638	15,019,256	16,355,880

The accompanying notes are an integral part of these financial statements.

Statement of comprehensive income

		Consolic	lated	Separa	ate
		financial st	atements	financial sta	itements
		Year ended 31	December	Year ended 31	December
	Note	2018	2017	2018	2017
			(in thousand	d Baht)	
Revenue from sales and rendering of services	4, 22, 28	5,928,170	6,008,353	-	-
Cost of sales and rendering of services	4	(2,222,558)	(2,303,476)	-	-
Gross profit	-	3,705,612	3,704,877	-	-
Other income	4, 23	118,324	114,824	1,648,307	1,615,404
Selling and distribution expenses		(76,813)	(73,177)	-	-
Administrative expenses		(258,908)	(240,551)	(123,408)	(109,422)
Share of loss of investement in joint venture	10	(64)	(919)	-	-
Finance costs	26	(503,301)	(618,170)	(391,406)	(485,721)
Total expenses	-	(839,086)	(932,817)	(514,814)	(595,143)
Profit before income tax expense	-	2,984,850	2,886,884	1,133,493	1,020,261
Tax expense	27	(61,268)	(64,779)	(6,763)	(19,715)
Profit for the year	-	2,923,582	2,822,105	1,126,730	1,000,546
	-				
Other comprehensive income (loss)					
Items that will be reclassified subsequently to prof	it or loss				
Losses on remeasurement available-for-sale investment	nents	(13,245)	(24,365)	(13,052)	(24,294)
Income tax relating to items that will be reclassified	l _	2,636	4,885	2,610	4,859
Total items that will be reclassified subsequently	to profit or los	(10,609)	(19,480)	(10,442)	(19,435)
Items that will not be reclassified to profit or loss					
Gains on remeasurements of defined benefit plans		2,138	-	2,271	-
Income tax relating to items that will not be reclass	ified	(441)	-	(454)	-
Total items that will not be reclassified to profit	-	1,697		1,817	-
Other comprehensive income (loss) for the year,	-	(8,912)	(19,480)	(8,625)	(19,435)
Total comprehensive income for the year	-	2,914,670	2,802,625	1,118,105	981,111
Profit attributable to:					
Owners of the parent		2,613,610	2,524,325	1,126,730	1,000,546
Non-controlling interests		309,972	297,780	-,	-
Profit for the year	-	2,923,582	2,822,105	1,126,730	1,000,546
Total comprehensive income attributable to:	-				
Owners of the parent		2,604,714	2,504,834	1,118,105	981,111
Non-controlling interests		309,956	2,504,854		-
Total comprehensive income for the year	-	2,914,670	2,802,625	1,118,105	981,111
Total comprehensive income for the year	=	2,714,070	2,002,025	1,110,103	701,111
Basic earnings per share (in Baht)	29	2.70	2.73	1.16	1.08

				Consolid	Consolidated financial statements	atements			
					õ	Other components	S		
			<u> </u>	Retained	Retained earnings	of equity	Equity		
	Issued and	Share premium	Share premium Shares premium			Available-	attributable to		
	paid-up	on ordinary	from business	Legal		for-sale	owners of	Non-controlling	Total
Note	e share capital	shares	combination	reserve	Unappropriated investments	investments	the parent	interests	equity
)	(in thousand Baht)				
Year ended 31 December 2017									
Balance at 1 January 2017	923,990	2,920,923	89,000	86,984	4,247,596	26,127	8,294,620	1,471,270	9,765,890
Transactions with owners, recorded directly in equity									
Distributions to owners of the parent									
Dividend paid 30	'	1			(1, 108, 781)		(1,108,781)	(146,894)	(1, 255, 675)
Total distributions to owners of the parent	I	'	•	ı	(1,108,781)	ı	(1,108,781)	(146,894)	(1,255,675)
Changes in ownership interests in subsidiary									
Change in investment holding in subsidiary	·			ı	24,138	ı	24,138	(128,778)	(104, 640)
Total changes in ownership interests in subsidiary	I	1		ı	24,138	I	24,138	(128,778)	(104,640)
Total transactions with owners, recorded directly in equity	I			'	(1,084,643)	'	(1,084,643)	(275,672)	(1,360,315)
Comprehensive income (loss) for the year									
Profit			ı		2,524,325		2,524,325	297,780	2,822,105
Other comprehensive income (loss)	'		ı	·	·	(19,491)	(19, 491)	11	(19, 480)
Total comprehensive income (loss) for the year					2,524,325	(19,491)	2,504,834	297,791	2,802,625
Transfer to legal reserve 20	·	ı	ı	14,655	(14,655)		ı	ı	
Balance at 31 December 2017	000 000	1 010 013	000.00	101 (20	202002	101		000 007 1	00000011

The accompanying notes are an integral part of these financial statements.

SPCG Public Company Limited and its Subsidiaries

				Consolid	Consolidated financial statements	atements			
					Oti	Other components	S		
				Retained	Retained earnings	of equity	Equity		
	Issued and	Share premium	Share premium Shares premium			Available-	attributable to		
	paid-up	on ordinary	from business	Legal		for-sale	owners of	owners of Non-controlling	Total
Note	share capital	shares	combination	reserve	Unappropriated investments	investments	the parent	interests	equity
					(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									
Contributions by and distributions to owners of the parent									
Issue of ordinary shares 19	50,000	1,035,000	ı	ı	ı		1,085,000	ı	1,085,000
Dividend paid 30			ı		(1, 168, 770)		(1,168,770)	(158, 446)	(1,327,216)
Total contributions by and distributions to owners of the parent	50,000	1,035,000	•	ı	(1,168,770)	•	(83,770)	(158,446)	(242,216)
Comprehensive income (loss) for the year									
Profit	•		ı	·	2,613,610		2,613,610	309,972	2,923,582
Other comprehensive income (loss)			ı		1,697	(10, 593)	(8,896)	(16)	(8,912)
Total comprehensive income (loss) for the year			•		2,615,307	(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

Statement of changes in equity

The accompanying notes are an integral part of these financial statements.

				Separate finan	Separate financial statements		
						Other components	
			I	Retained earnings	earnings	of equity	
		Issued and	Share premium			Available-	
		paid-up	on ordinary	Legal		for-sale	Total
	Note	share capital	shares	reserve	Unappropriated	investments	equity
				(in thousand Baht)	nd Baht)		
Year ended 31 December 2017							
Balance at 1 January 2017		923,990	3,747,793	92,399	1,009,223	25,684	5,799,089
Transactions with owners, recorded directly in equity							
Distributions to owners of the parent							
Dividends paid	30				(1,108,781)		(1,108,781)
Total distributions to owners of the parent					(1,108,781)		(1,108,781)
Comprehensive income (loss) for the year							
Profit					1,000,546		1,000,546
Other comprehensive income (loss)		·				(19,435)	(19,435)
Total comprehensive income (loss) for the year		•			1,000,546	(19,435)	981,111
Transfer to legal reserve	20		ı	9,240	(9,240)	ı	ı
Balance at 31 December 2017		923,990	3,747,793	101,639	891,748	6,249	5,671,419

The accompanying notes are an integral part of these financial statements.

				Separate finan	Separate financial statements		
				Retained	Retained earnings	Other components of equity	
		Issued and	Share premium			Available-	
		paid-up	on ordinary	Legal		for-sale	Total
	Note	share capital	shares	reserve	Unappropriated	investments	equity
				(in thousand Baht)	ind Baht)		
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							
Contributions by and distributions to owners of the parent							
Issue of ordinary shares	61	50,000	1,035,000				1,085,000
Dividends to ownes of the company	30		ı		(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)
	I						
Comprehensive income (loss) for the year							
Profit		ı	ı	ı	1,126,730	ı	1,126,730
Other comprehensive income (loss)	I	ı		ı	1,817	(10, 442)	(8,625)
Total comprehensive income (loss) for the year		ı	1	ı	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

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

SPCG Public Company Limited and its Subsidiaries Statement of cash flows

	Consolid	ated	Separa	ate
	financial sta	tements	financial sta	tements
	Year ended 31	December	Year ended 31	December
	2018	2017	2018	2017
		(in thousan	d Baht)	
Cash flows from operating activities				
Profit for the year	2,923,582	2,822,105	1,126,730	1,000,546
Adjustments				
Depreciation and amortisation	689,410	642,804	11,262	8,426
Gain from sale of available-for-sale securities	(8,900)	(68,370)	(3,508)	(59,693)
Dividends income	(2,105)	-	(1,097,760)	(924,420)
Interest income	(37,539)	(39,458)	(433,864)	(518,467)
(Reversal of) bad and doubtful debts expenses	977	(607)	-	-
Losses on inventories devaluation	15	-	-	-
(Gain) loss on disposal of plant and equipment	(1,586)	(560)	1	(743)
Loss from liquidation of investments in joint venture and subsidiary	-	-	1,884	-
Finance costs	503,301	618,170	391,406	485,721
Unrealised (gain) loss on foreign exchange	104	(11,230)	150	1,635
Provisions for employee benefits	5,382	1,049	2,596	753
Share of loss of investment in joint venture	64	919	-	-
Tax expense	61,268	64,779	6,763	19,715
-	4,133,973	4,029,601	5,660	13,473
Changes in operating assets and liabilities				
Trade and other accounts receivable	301,231	(549,941)	(64,571)	(1,174)
Inventories	(197,188)	(128,097)	-	-
Other current assets	26,235	(30,090)	(210)	5,128
Other non-current assets	45,837	28,623	(168)	287
Trade and other accounts payable	(541,899)	51,393	79,192	10,539
Other current liabilities	3,882	(27,924)	(1,985)	(1,600)
Other non-current liabilities	300	-	-	-
Net cash generated from operating	3,772,371	3,373,565	17,918	26,653
Taxes paid	(88,388)	(38,932)	(14,000)	(16,981)
Net cash from operating activities	3,683,983	3,334,633	3,918	9,672

SPCG Public Company Limited and its Subsidiaries Statement of cash flows

	Consoli	dated	Separ	ate
	financial st	atements	financial st	atements
	Year ended 3	1 December	Year ended 31	December
Note	2018	2017	2018	2017
		(in thousan	d Baht)	
Cash flows from investing activities				
(Increased) decreased in short term deposits				
at financial institutions	81,000	(171,000)	81,000	(171,000)
Proceeds from sale of available-for-sale securities	11,582,162	12,311,828	7,726,538	8,217,519
Acquisition of available-for-sale securities	(12,513,929)	(10,886,318)	(8,678,882)	(6,891,288)
Decreased in investments in debt securities held to maturity	340,000	-	340,000	-
Increased in restricted fixed deposits	(340,000)	-	(340,000)	-
Acqusition of plant and equipment	(13,923)	(89,508)	(1,210)	(33,011)
Proceeds from sale of plant and equipment	27,277	26,466	25	1,577
Acquiition of intangible assets	(3,418)	(196)	(2,934)	-
Short-term loans to related parties	-	-	(910,300)	(633,000)
Long-term loans to related parties	-	-	-	(9,546,477)
Proceeds from repayment of short-term loans to related parties	-	-	1,084,000	365,300
Proceeds from repayment of long-term loans to related parties	-	-	2,114,912	11,653,947
Payment of investment in subsidiary	-	-	(2,500)	-
Acquisition of non-controlling interest	-	(104,640)	-	(104,640)
Proceess from sale of investment in subsidiary	-	-	381	-
Dividends received	2,105	-	1,097,760	924,420
Interest received	36,230	36,153	431,557	516,305
Net cash from (used in) investing activities	(802,496)	1,122,785	2,940,347	4,299,652
Cash flows from financing activities				
Increase in bank overdrafts and short-term loans				
from financial institutions	88,083	10,938	-	-
Proceeds from issue of ordinary shares	1,085,000		1,085,000	-
Proceeds from issue of debentures	499,360	_	499,360	_
Payment of debentures	(2,950,000)	(2,715,000)	(2,950,000)	(2,715,000)
Payment of finance lease liabilities	(1,510)	(2,485)	(1,346)	(1,908)
Dividends paid	(1,327,216)	(1,255,675)	(1,168,770)	(1,108,781)
Interest paid	(491,949)	(604,273)	(378,516)	(474,990)
Net cash used in financing activities	(3,098,232)	(4,566,495)	(2,914,272)	(4,300,679)
ret cush used in mining activities	(0,000,202)	(1,000,170)	(2,)11,272)	(1,000,077)
Net increase (decrease) in cash and cash equivalents	(216,745)	(109,077)	29,993	8,645
Cash and cash equivalents at 1 January	345,897	454,974	40,050	31,405
Cash and cash equivalents at 31 December 5	129,152	345,897	70,043	40,050

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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 22 February 2019.

1 General information

SPCG Public Company Limited, the "Company", is incorporated in Thailand and has its registered office as follows:

Head office :	1 Capital Work Place Building, 10 th floor, Soi Jamjan, Klongton Nua, Wattana, Bangkok
Branch office 1 st :	8/88 Moo 12 Rachathewa, Bangplee, Samutprakarn
Branch office 2 nd :	8 Moo 15 Bangplee Yai, Bangplee, Samutprakarn

The Company was listed on the Stock Exchange of Thailand in March 2005, namely Steel Intertech Public Company Limited. Subsequently, the Company has changed its registered name to SPCG Public Company Limited on 17 June 2011.

The Company's major shareholder during the financial year was the Kunchornyakong family (46.54% 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
- Engineering, procurement and construction for solar farms.

Details of the Company's subsidiaries as at 31 December 2018 and 2017 were as follows:

		Country of	Ownership interest (%)	
Name of the entity	Type of business	incorporation	2018	2017
Direct subsidiaries				
Solar Power Company Limited	Holding company	Thailand	100	100
Steel Roof Company Limited (Formerly Steel and Solar Roof Company Limited)	Manufacturing, trading and installation services for roof sheets	Thailand	100	100
Solar Power Engineering Company Limited	Engineering, Procurement and Construction for solar farms	Thailand	100	100
Solar Power Roof Company Limited	Trading and installation services for solar roofing	Thailand	100	100

		Country of		nip interest %)
Name of the entity	Type of business	incorporation	2018	2017
Solar Power Asset Company Limited	Holding company	Thailand	100	100
SPCG Leasing Company Limited (Completed the liquidation process on 2 March 2018)	Leasing company	Thailand	-	100
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	Thailand	60	60
Solar Power (Korat 4) Company Limited	from solar energy 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

		Constant of		ip interest
Name of the entity	Type of business	Country of incorporation	2018	%) 2017
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
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

		Country of	Ownership interest (%)	
Name of the entity	Type of business	incorporation	2018	2017
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
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 ("FAP"); and applicable rules and regulations of the Thai Securities and Exchange Commission.

The FAP has issued new and revised TFRS effective for annual accounting periods beginning on or after 1 January 2018. The initial application of these new and revised TFRS has resulted in changes in certain of the Group's accounting policies. These changes have no material effect on the financial statements.

In addition to the above new and revised TFRS, the FAP has issued a number of new and revised TFRS which are not yet effective for current periods. The Group has not early adopted these standards in preparing these financial statements. Those new and revised TFRS that are relevant to the Group's operations are disclosed in note 33.

(b) Basic of measurement

The financial statements have been prepared on the historical cost basis except for the following items.

Items	Measurement bases
Available-for-sale investments	Fair value
Defined benefit liability	Present value of the defined benefit obligation
	as explained in Note 3 (o)

(c) Functional and presentation currency

The financial statements are prepared and presented in Thai Baht, which is the Company's functional currency.

(d) 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 accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Information about assumption and estimation uncertainties that have a significant risk of resulting in a material adjustments to the carrying amounts of assets and liabilities within the year ending 31 December 2018 is included in the following notes:

Note 3 (1)	Impairment test: ke	y assumptions	underlying recov	verable amounts;

Note 3 (o) Measurement of defined benefit obligations: key actuarial assumptions

Measurement of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, for financial assets and liabilities.

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 (unadjusted) 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 (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

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.

Further information about the assumptions made in measuring fair values is included is included in note 31: Financial instruments.

3 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

(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 joint ventures.

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 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 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 and share-based payment awards of the acquiree that are replaced mandatorily in the business combination. If a business combination results in the termination of pre-existing relationships between the Group and the acquiree, then the lower of the termination amount, as contained in the agreement, and the value of the off-market element is deducted from the consideration transferred and recognised in other expenses.

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.

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 a joint venture.

Interests in joint ventures 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.

(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 and other accounts receivable

Trade and other accounts receivable are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of payment histories and future expectations of customer payments. Bad debts are written off when incurred.

(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) Construction contracts in progress

Construction contracts in progress represents the gross amount expected to be collected from customers for contract work performed to date. They are measured at costs incurred plus profits recognised to date (see note 3(q)) less progress billings and recognised losses. Cost includes all expenditure related directly to specific projects and an allocation of fixed and variable costs incurred in the Group's contract activities based on normal operating capacity.

Construction contracts in progress is presented under current assets in the statement of financial position for all contracts in which costs incurred plus recognised profits exceed progress billings and recognised losses. If progress billings and recognised losses exceed costs incurred plus recognised profits, then the difference is presented as other current liabilities under current liabilities in the statement of financial position.

(h) Investments

Investments in subsidiaries and joint venture

Investments in subsidiaries and joint venture in the separate financial statements of the Company are accounted for using the cost method. Investments in joint venture in the consolidated financial statements are accounted for using the equity method.

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.

(i) 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

No depreciation is provided on land.

(j) 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 selfconstructed 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.

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.

(k) Intangible assets

Good will

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.

The estimated useful lives for the current and comparative periods are as follows:

Computer software

5 - 10 years

Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(l) 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.

(m) 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.

(n) Trade and other accounts payable

Trade and other accounts payable are stated at cost.

(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.

(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) Revenue

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.

Commissions

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.

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.

Dividend income

Dividend income is recognised in profit or loss on the date the Group's right to receive payments is established

Interest and other income

Interest and other income is recognised in profit or loss as it accrues.

(r) 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.

(s) 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.

(t) 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.

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.

(u) 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.

(v) 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

For the purposes of these financial statements, parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control or joint control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

Relationships with subsidiaries, and joint venture are described in note 1, 10 and 11 Relationship with key managements or other related parties were as follows;

	Country of	
Name of entities	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
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:

	Consol financial s	Separate financial statements		
Year ended 31 December	2018	2017	2018	2017
	(in thousand Baht)			
Subsidiaries				
Interest income	-	-	327,345	419,183
Dividends income	-	-	1,097,760	924,420
Other income	-	-	113,052	111,881

	Consoli financial st		Separate financial statements	
Year ended 31 December	2018	2017	2018	2017
		(in thousa	nd Baht)	
Other related parties		,	,	
Sales of goods	29,216	20,529	-	-
Purchases of goods	48,993	28,796	-	-
Service expense for operation and maintenance	168,000	168,000	-	-
Building rental expense and utilities expense	20,202	20,144	8,548	8,577
Warehouse rental expense	10,977	10,825	-	-
Contractual installation service of solar roof	206,654	189,111	-	-
Consulting fee	13,316	-	13,316	-
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	35,918	31,576	21,859	19,870
Post-employment benefits	4,129	715	1,634	349
Total	40,047	32,291	23,493	20,219

Balances as at 31 December with related parties were as follows:

Trade and other accounts receivable - related parties		Consolidated financial statements		Separate financial statements			
			2018	2017	2018	2017	
				(in thouse	and Baht)		
Subsidiaries			-	-	71,611	6,364	
Other related parties			572	-	-	-	
Total		-	572	-	71,611	6,364	
Loans to related parties	Loans to related parties Consolidated		dated	Sepa	ırate		
*		st Rate	financial sta	atements	financial s		
	2018	2017	2018	2017	2018	2017	
	(% per	annum)		(in thouse	and Baht)		
Short-term loans							
Subsidiaries	3.50	3.50	-	-	101,000	269,700	
	-	4.00	-	-	-	5,000	
Total short-term loans	5	-	-	-	101,000	274,700	
Long-term loans							
0	THBFIX3M	THBFIX3M					
	+1.55	+1.55	-	-	6,896,319	8,717,131	
	3.50	3.50	-	-	125,375	143,225	
	5.65	5.65	-	-	1,868,750	2,145,000	
Total		-	-	-	8,890,444	11,005,356	
Less current portion due	e within on	e year	-	-	(2,322,072)	(2,114,912)	
Total long-term loans		-	-	-	6,568,372	8,890,444	
Total loans to related	parties	-	-	-	8,991,444	11,280,056	

Movements during the year ended 31 December of loans to related parties were as follows:

Loans to related parties	Consoli financial st 2018	atements 2017	Separate financial statements 2018 2017 usand Baht)		
Short-term loan		(in thous			
Subsidiaries					
At 1 January	-	-	274,700	7,000	
Increase	-	-	910,300	633,000	
Decrease			(1,084,000)	(365,300)	
At 31 December			101,000	274,700	
Long-term loans					
Subsidiaries					
At 1 January	-	-	11,005,356	13,112,826	
Increase	-	-	-	9,546,477	
Decrease			(2,114,912)	(11,653,947)	
At 31 December			8,890,444	11,005,356	
			C		
	Consoli		Sepa		
	financial st 2018	2017	financial s 2018	2017	
	2018		and Baht)	2017	
Investments in joint venture (Note 10)		1,799	unu Duni)	3,000	
Investments in subsidiaries (<i>Note 11</i>)		1,777	3,085,313	3,083,813	
Investments in subsidiaries (<i>ivole 11</i>)			3,003,313	5,005,015	
Trade and other accounts payable	Consoli	dated	Sepa	rate	
- related parties	financial st		financial s		
F an and	2018	2017	2018	2017	
		(in thous	and Baht)		
Subsidiaries	7		65,778	41	
Other related parties	242,083	259,064	87	57	
Total	242,090	259,064	65,865	98	

Significant agreements with related parties

As at 31 December 2018, 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 November 2019 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.

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 2019 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.

5 Cash and cash equivalents

	Consoli	dated	Separ	ate
	financial statements		financial statements	
	2018	2017	2018	2017
	(in thousand Baht)			
Cash on hand	211	211	20	20
Cash at financial institutions	128,941	345,686	70,023	40,030
Total	129,152	345,897	70,043	40,050

6 Other investments

	Consolidated		Separate financial statements	
	financial s 2018	2017	2018	2017
	2018	2017 (in thousa		2017
Current investments		(in inousu	na Dani)	
Short-term deposits at financial				
institutions (Private fund)	90,000	171,000	90,000	171,000
Equity securities available for sale	90,000	171,000	90,000	171,000
(Short-term fixed income fund)	1,671,579	1,223,372	1,516,467	1,052,882
Debt securities available for sale	, ,	, ,	, ,	, ,
(Private fund)	95,486	46,695	95,486	46,695
	1,857,065	1,441,067	1,701,953	1,270,577
Long-term investments				
- Available-for-sale securities				
Debt securities available for sale				
(Private fund)	654,191	212,149	654,191	212,149
Equity securities available for sale				
(Equity fund)	27,625	39,393	27,625	39,393
	681,816	251,542	681,816	251,542
- Other long-term investments				
Non-marketable equity securities	128,678	128,678	-	-
Restricted fixed deposit	340,000	-	340,000	-
Debt securities held to maturity	-	340,000	-	340,000
	468,678	468,678	340,000	340,000
	1,150,494	720,220	1,021,816	591,542
				1.0/0.110
Total	3,007,559	2,161,287	2,723,769	1,862,119

During the first quarter of 2017, the Company established private fund and engaged independent assets management company for the purpose of cash balance management of the Company. These private fund has invested in debt securities which has high liquidity and credit quality. As at 31 December 2018, the value of private fund outstanding totalling Baht 848 million (2017: Baht 434 million).

Other long-term investments in non-marketable equity security is investment in ordinary share capital of an entity in Japan.

Restricted fixed deposit is fixed deposit for the period 18 months with a financial institution and bear interest rate at 1.60% per annum. The fixed deposit is used as collateral for the Company's debentures (note 17).

Movement during the year ended 31 December of equity securities were as follows:

	Consolidated		Separate	
	financial s	tatements	financial st	tatements
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Available-for-sale securities				
At 1 January	1,521,609	2,904,750	1,351,119	2,643,586
Purchases during the year	12,513,929	10,886,318	8,678,882	6,891,288
Sales during the year	(11,582,162)	(12,311,828)	(7,726,538)	(8,217,519)
Gain on sale of investments	8,900	68,370	3,508	59,693
Valuation adjustment	(13,245)	(24,366)	(13,052)	(24,294)
Exchange rates adjustment	(150)	(1,635)	(150)	(1,635)
At 31 December	2,448,881	1,521,609	2,293,769	1,351,119

7 Trade and other accounts receivable

		Consolie	lated	Separate	
		financial sta	atements	financial sta	tements
	Note	2018	2017	2018	2017
			(in thousan	d Baht)	
Related parties	4	572	<u> </u>	71,611	6,364
Other parties					
Trade accounts receivable		592,746	540,962	1,403	1,403
Accrued income		607,753	948,239	1	-
Retention receivable		2,994	11,024	-	-
Others		27,146	29,168	13,308	9,944
		1,230,639	1,529,393	14,712	11,347
Total		1,231,211	1,529,393	86,323	17,711
Less allowance for doubtful acc	ounts	(4,504)	(3,527)	(1,403)	(1,403)
Net	-	1,226,707	1,525,866	84,920	16,308
(Reversal of) bad and doubtful c	lebts				
expense for the year	_	977	(607)		-

Aging analyses for trade accounts receivable were as follows:

	Consolidated financial statements		Separa financial sta	
	2018	2017 (in thousar	2018 1d Baht)	2017
Other parties				
Within credit terms	501,775	507,565	-	-
Overdue:				
Less than 3 months	52,315	24,356	-	-
3-6 months	4,264	1,139	-	-
6-12 months	24,523	4,158	-	-
Over 12 months	9,869	3,744	1,403	1,403
	592,746	540,962	1,403	1,403
Less allowance for doubtful accounts	(4,504)	(3,527)	(1,403)	(1,403)
Total	588,242	537,435		-

The normal credit term granted by the group ranges from 30 days to 90 days.

8 Inventories

	0 0 0 0	lidated statements	Separ financial st	
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Finished goods	18,059	14,258	-	-
Work in progress	13,494	1,029	-	-
Raw materials	878,234	691,199	-	-
Goods in transit	-	6,114	-	-
Total	909,787	712,600	_	
Less allowance for decline in value of inventories	(3,522)	(3,507)	-	-
Net	906,265	709,093	-	
Inventories recognised as an expense in 'cost of sales of goods': - Cost of sales - Write-down	896,080 15	1,141,924	-	-
Net	896,095	1,141,924		
INCL	070,095	1,141,724		-

9 Other current assets

		lidated statements	Separ financial st	
	2018	2017	2018	2017
		(in thousa	and Baht)	
Receivable from revenue department	21,558	50,164	-	-
Refundable corporate income tax	33,701	48,856	-	-
Others	82,818	50,594	445	235
Total	138,077	149,614	445	235

10 Investment in joint venture

Consoli	dated	Separ	rate
financial st	atements	financial st	atements
2018	2017	2018	2017
	(in thousa	ind Baht)	
1,799	2,718	3,000	3,000
(64)	(919)	-	-
(1,735)	-	(3,000)	-
	1,799	_	3,000
	financial st 2018 1,799 (64)	(in thousa 1,799 2,718 (64) (919) (1,735) -	financial statements financial st 2018 2017 2018 (in thousand Baht) (in thousand Baht) 1,799 2,718 3,000 (64) (919) - (1,735) - (3,000)

SPCG Public Company Limited and its Subsidiaries For the year ended 31 December 2018 Notes to the financial statements

Investment in joint venture as at 31 December 2018 and 2017 and dividend income for the year then ended were as follows:

					Coi	nsolidated fir	Consolidated financial statements	nents					
	Ownership	Doid un pont	-	Cost Mo	لمحطب	E 14	الملامط	Tanona	taca	Equiter Moth.	Mot	Dividend income	
	2018 2017	2018 201	7	2018 2018 20	cmod 2017	2018 201'	1emod 2017	2018 20	nent 2017	2018 2017	100 - Net 2017	2018 2017	
	(%)						(in thousand Baht)	nd Baht)					
Enegate (Thailand) Co., Ltd. (Completed the liquidation													
process on 7 March 2018)	- 30.00	- 10	0,000	' 	3,000	' 	1,799	' 	۱ ۱	' 	1,799	'	·
Total			1	'	3,000	'	1,799	'	' 	'	1,799	'	'
						Sei	Separate financial statements	ial statement	×				
		Ownership					•						
		interest		Paid-up capital	capital	Cost Method	ethod	Impairment	ment	At cost - net	- net	Dividend income	0
			2017	2018	2017	2018	2017	2018	2017	2018	2017	2018 2017	7
		(%)						(in thousand Baht)	nd Baht)				
Enegate (Thailand) Co., Ltd.													
Completed the liquidation													
process on 7 March 2018)		- 3(30.00		10,000	•	3,000	'	ľ	'	3,000		•
Total					ļ		3,000	'	'	'	3,000		
					' :								
None of the Group's joint venture is publicly listed and consequently does not have published price quotations.	t venture is publicly	y listed and con	sequently	/ does not	t have publi	shed price (quotations.						
At the extraordinary meeting of shareholders of Enegate	sting of shareholde	srs of Enegate	(Thailand	d) Co., Li	td., a joint	venture, h	eld on 12 C	October 20	17, the shar	eholders a _l	pproved the	(Thailand) Co., Ltd., a joint venture, held on 12 October 2017, the shareholders approved the dissolution of the	the

company. The Company registered its dissolution with the Ministry of Commerce on 6 December 2017. The Company was completed the liquidation process on 7 March 2018.

The following is summarized financial information for the Group's interest in immaterial joint venture based on the amounts reported in the Group's consolidated financial statements:

	Immaterial jo	int venture
	2018	2017
	(in thousan	nd Baht)
Carrying amount of interests in immaterial joint venture	-	1,799
Group's share of:		
- Loss	(64)	(919)
- Other comprehensive income		-
- Total comprehensive income (loss)	(64)	(919)

11 Investments in subsidiaries

	Sepa financial s	
	2018	2017
	(in thousa	nd Baht)
At 1 January	3,083,813	2,979,173
Increase	2,500	104,640
Decrease	(1,000)	-
At 31 December	3,085,313	3,083,813

Investments in subsidiaries as at 31 December 2018 and 2017, and dividend income from those investments for the year then ended were as follows;

	income 2017				886,500					,		'		37,920					924,420	
	Dividend income 2018 201				1,056,000			•		ı		,		41,760				'	1,097,760	
	st - net 2017				2,301,000			57,373		3,500		408,640		312,300				1,000	3,083,813	
	At cost - net 2018 20				2,301,000			57,373		6,000		408,640		312,300				'	3,085,313	
	ent 2017	(Baht)			'			'		ı		ı		ı				ı	ı	
Separate financial statements	Impairment 2018	(in thousand Baht)			ı									I					ı	
Separate finan	Cost 2017				2,301,000			57,373		3,500		408,640		312,300				1,000	3,083,813	
	C 2018				2,301,000			57,373		6,000		408,640		312,300				ı	3,085,313	
	capital 2017				1,500,000			57,373		3,500		400,000		240,000				1,000		
	Paid-up capital 2018 20				1,500,000			57,373		6,000		400,000		240,000				ı		
	p interest 2017				100			100		100		100		100				100		:
	Ownership interest 2018 2017	(%)			100			100		100		100		100				ı		
			Direct Subsidiaries	Solar Power	Company Limited	Steel Roof Company Limited	(Formerly Steel and Solar	Roof Company Limited)	Solar Power Engineering	Company Limited	Solar Power Roof	Company Limited	Solar Power Asset	Company Limited	SPCG Leasing	Company Limited	(Completed the liquidation	process on 2 March 2018)		

All subsidiaries were incorporated in Thailand.

Changes in investment in subsidiaries

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.

At the extraordinary meeting of shareholders of SPCG Leasing Company Limited, a subsidiary, held on 22 November 2017, the shareholders approved the dissolution of the company. The Company registered its dissolution with the Ministry of Commerce on 6 December 2017. The Company was completed the liquidation process on 2 March 2018.

On 31 July 2017, the Company entered into share sale & purchase agreement with non-related party and related party to purchase ordinary shares of Solar Power Roof Company Limited, a subsidiary of the Company for 24% of the issued and paid capital for consideration totaling Baht 104.64 million, bringing the Group's total interest in Solar Power Roof Company Limited from 76% to 100%.

12 Non-controlling interests

The following table summarises the information relating to each of the Group's subsidiaries that has a material non-controlling interest.

	Solar power group company	31 December 2018 Other individually immaterial subsidiaries (in thousand Baht)	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	1,614,175	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	300,098	9,874	309,972
Other comprehensive income (loss) allocated to non-controlling interest	(16)		(16)
Net cash from operating activities	3,708,625		
Net cash from investing activities	52,423		
Net cash from financing activities	(3,763,221)		
Net decrease in cash and cash equivalents	(2,173)		

	3	31 December 2017	
		Other	
	Solar power	individually	
	group	immaterial	
	company	subsidiaries	Total
		(in thousand Baht)	
Current assets	909,310		
Non-current assets	17,512,122		
Current liabilities	2,203,304		
Non-current liabilities	8,698,388		
Net assets	7,519,740		
Carrying amount of non-controlling interest	1,466,650	26,739	1,493,389
Revenue	4,165,650		
Profit	2,499,598		
Other comprehensive income (loss)	(20)		
Total comprehensive income	2,499,578		
Profit allocated to non-controlling interest	259,671	38,109	297,780
Other comprehensive income allocated to			
non-controlling interest	4	7	11
Net cash from operating activities	3,663,314		
Net cash from investing activities	22,179		
Net cash from financing activities	(3,679,781)		
Net increase in cash and cash equivalents	5,712		

г горегцу, риали алы еңшіршели							
			Consolidat	Consolidated financial statements	ements		
	, Lond	Buildings, building improvements and	Solar modules, inverters, equipment and	Office	Mahiolas	Asset under	Total
Cast	Tallu			(in thousand Baht)		COII301 0C0001	1 0 1 4 1
At 1 January 2017	1,972,402	1,138,416	16,966,285	25,188	19,342	ı	20,121,633
Additions	20,651	49,347	8,386	8,816	4,949	ı	92,149
Transfers	ı	1,593	(2, 434)	'	ı		(841)
Disposals	'	(3, 119)	(28, 372)	(2, 138)	(5,024)	•	(38,653)
At 31 December 2017 and 1 January 2018	1,993,053	1,186,237	16,943,865	31,866	19,267	1	20,174,288
Additions	'	3,306	3,757	4,660	299	1,605	13,627
Transfers	ı	1,960	(391)	1	ı	(1,570)	
Disposals	'	(15, 725)	(19, 729)	(1,619)	(2,441)	(35)	(39, 549)
At 31 December 2018	1,993,053	1,175,778	16,927,502	34,908	17,125	'	20,148,366
Depreciation							
At 1 January 2017	'	179,186	2,201,515	13,403	12,121	ı	2,406,225
Depreciation charge for the year	'	52,630	571,994	4,826	2,625	ı	632,075
Transfers	ı	286	(1,063)	'	ı	ı	(LLL)
Disposals	'	(1, 147)	(7, 737)	(232)	(4,072)		(13, 188)
At 31 December 2017 and 1 January 2018	•	230,955	2,764,709	17,997	10,674		3,024,335
Depreciation charge for the year	ı	95,466	576,238	4,822	2,928	I	679,454
Transfers	I	47	(47)	I	I	I	I
Disposals	'	(3,714)	(7,034)	(1,530)	(1,583)	ı	(13,861)
At 31 December 2018	'	322,754	3,333,866	21,289	12,019	ı	3,689,928

13 Property, plant and equipment

	Total	17,712,615 2,793	17,715,408	17,145,356 4,597	17,149,953	16,455,484 2,954	16,458,438
	Asset under construction						
ments	Vehicles	4,428 2,793	7,221	4,242 4,351	8,593	2,342 2,764	5,106
Consolidated financial statements	s, d Office equipment (in thousand Baht)	11,785 -	11,785	13,623 246	13,869	13,429 190	13,619
Consolidate	Solar modules, inverters, equipment and machinery (in	14,764,770 -	14,764,770	14,179,156	14,179,156	13,593,636 -	13,593,636
	Buildings, building improvements and infrastructure	959,230 -	959,230	955,282 -	955,282	853,024 -	853,024
	Land	1,972,402 -	1,972,402	1,993,053	1,993,053	1,993,053 -	1,993,053
		<i>Net book value</i> At 1 January 2017 Owned assets Assets under finance leases		At 31 December 2017 and 1 January 2018 Owned assets Assets under finance leases		At 31 December 2018 Owned assets Assets under finance leases	

		Separate financial	l statements	
	Buildings and building improvements	Office equipment	Vehicles	Total
		(in thousand	Baht)	
Cost				
At 1 January 2017	1,690	8,090	11,689	21,469
Additions	30,084	2,520	3,550	36,154
Disposals		(659)	(4,000)	(4,659)
At 31 December 2017 and	- · ·			
1 January 2018	31,774	9,951	11,239	52,964
Additions	105	1,105	-	1,210
Disposals	-	(177)		(177)
At 31 December 2018	31,879	10,879	11,239	53,997
Depreciation				
At 1 January 2017	29	3,676	7,013	10,718
Depreciation charge for the year	3,866	1,604	1,666	7,136
Disposals		(592)	(3,232)	(3,824)
At 31 December 2017 and				
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	10,268	6,179	7,478	23,925
Net book value				
At 1 January 2017				
Owned assets	1,661	4,414	2,777	8,852
Assets under finance leases			1,899	1,899
	1,661	4,414	4,676	10,751
At 31 December 2017 and 1 January 2018				
Owned assets	27,879	5,263	1,441	34,583
Assets under finance leases	_,,,,,		4,351	4,351
	27,879	5,263	5,792	38,934
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
			2,	- •,• · -

The gross amount of the Company's fully depreciated property, plant and equipment that was still in use as at 31 December 2018 mounted to Baht 6.85 million (2017: Baht 7.01 million).

14 Intangible assets

	Consolidated financial statements				
	License for Energy Industry	Goodwill (in thouse	Computer software and Baht)	Total	
<i>Cost</i> At 1 January 2017 Additions Disposals	57,895	11,286	58,463 221 (650)	127,644 221 (650)	
Transfers At 31 December 2017 and 1 January 2018 Additions	57,895	11,286	841 58,875 3,418	841 128,056 3,418	
At 31 December 2018	57,895	11,286	62,293	131,474	
<i>Amortisation</i> At 1 January 2017 Amortisation for the year Disposals Transfers At 31 December 2017 and 1 January 2018	6,947 2,315 	- - - - -	13,135 5,862 (310) 777 19,464 5,751	20,082 8,177 (310) 777 28,726	
Amortisation for the year At 31 December 2018	2,315 11,577		<u>5,751</u> 25,215	8,066 36,792	
<i>Net book value</i> At 1 January 2017 At 31 December 2017 and 1 January 2018 At 31 December 2018	50,948 48,633 46,318	11,286 11,286 11,286	45,328 39,411 37,078	107,562 99,330 94,682	
<i>Cost</i> At 1 January 2017 At 31 December 2017 and 1 January 2018 Additions At 31 December 2018			sta Compi	ate financial atements uter software usand Baht) 1,233 2,934 4,167	
<i>Amortisation</i> At 1 January 2017 Amortisation for the year At 31 December 2017 and 1 January 2018 Amortisation for the year At 31 December 2018				434 173 607 121 728	
<i>Net book value</i> At 1 January 2017 At 31 December 2017 and 1 January 2018 At 31 December 2018				799 626 3,439	

15 Deferred tax

Deferred tax assets and liabilities as at 31 December were as follows:

		Consoli financial st		
	Ass	Liabil	iabilities	
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Total	159,827	158,097	(2,886)	(6,344)
Set off of tax	(2,487)	(1,430)	2,487	1,430
Net deferred tax assets (liabilities)	157,340	156,667	(399)	(4,914)

		Separ financial sta			
	Asse	ts	Liabil	ities	
	2018	2017	2018	2017	
	(in thousand Baht)				
Total	2,543	1,430	(2,886)	(6,263)	
Set off of tax	(2,543)	(1,430)	2,543	1,430	
Net deferred tax liabilities		-	(343)	(4,833)	

Movements in total deferred tax assets and liabilities during the year were as follows:

	Consolidated financial statements					
	_	(Charged)	/ Credited to:	_		
	At 1 January 2018	Profit or loss (note 27) (in thou	Other comprehensive income sand Baht)	At 31 December 2018		
Deferred tax assets		X	,			
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		
Deferred tax liabilities						
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		

	Consolidated financial statements (Charged) / Credited to:				
	At 1 January 2017	Profit or loss (note 27) (in thou	Other comprehensive income sand Baht)	At 31 December 2017	
Deferred tax assets		x	,		
Property, plant and equipment	159,227	(3,334)	-	155,893	
Provisions for employee benefits	1,994	210	-	2,204	
Total	161,221	(3,124)	-	158,097	
Deferred tax liabilities					
Available-for-sale investments	6,530	-	(4,885)	1,645	
Debentures	7,246	(2,547)	-	4,699	
Total	13,776	(2,547)	(4,885)	6,344	
Net	147,445	(577)	4,885	151,753	

		-	eparate financial statements (Charged) / Credited to:		
	At 1 January 2018	Profit or loss (note 27) (in thou	Other comprehensive income sand Baht)	At 31 December 2018	
Deferred tax assets		X	,		
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	
Deferred tax liabilities					
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)	

		Separate fina (Charged)		
	At 1 January 2017	Profit or loss (note 27) (in thous	Other comprehensive income sand Baht)	At 31 December 2017
Deferred tax assets				
Provisions for employee benefits	1,279	151		1,430
Total	1,279	151		1,430
Deferred tax liabilities				
Available-for-sale investments	6,421	-	(4,859)	1,562
Debentures	7,246	(2,545)	-	4,701
Total	13,667	(2,545)	(4,859)	6,263
Net	(12,388)	2,696	4,859	(4,833)

Deferred tax assets have not been recognised in respect of the following items:

	Consoli financial st		Separate financial statements	
	2018	2017	2018	2017
		(in thous	and Baht)	
Tax losses	486,698	639,248	-	-

The tax losses expire during 2018 to 2023. 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.

16 Other non-current assets

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
	(in thousand Baht)			
Deferred warranty fee of invertors	636,348	682,852	-	-
Others	5,192	4,525	1,519	1,351
Total	641,540	687,377	1,519	1,351

17 Interest-bearing liabilities

		lidated statements 2017		arate statements 2017
		(in thousa	ind Baht)	
Current				
Bank overdrafts - Secured	-	1,938	-	-
Short-term loans from financial institutions				
- Secured	99,021	9,000	-	-
Current portion of debentures				
- Secured	574,337	1,146,556	574,337	1,146,556
- Unsecured	1,795,037	1,793,929	1,795,037	1,793,929
	2,369,374	2,940,485	2,369,374	2,940,485
Current portion of finance lease liabilities	715	1,392	645	1,168
Total current	2,469,110	2,952,815	2,370,019	2,941,653
Non-current				
Debentures				
- Secured	-	574,338	-	574,338
- Unsecured	5,791,195	7,086,676	5,791,195	7,086,676
	5,791,195	7,661,014	5,791,195	7,661,014
Finance lease liabilities	1,368	2,012	1,368	2,012
Total non-current	5,792,563	7,663,026	5,792,563	7,663,026
Total	8,261,673	10,615,841	8,162,582	10,604,679

Debentures

Detail of debentures as at 31 December 2018 and 2017 were as follows;

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
	(in thousand Baht)			
Debentures	8,175,000	10,625,000	8,175,000	10,625,000
Less Unamortised deferred expenses				
on debentures	(14,431)	(23,501)	(14,431)	(23,501)
	8,160,569	10,601,499	8,160,569	10,601,499
Less Current portion due within one year	(2,369,374)	(2,940,485)	(2,369,374)	(2,940,485)
Total	5,791,195	7,661,014	5,791,195	7,661,014

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.

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 2018 were as follow:

Amount	Interest rates	Term	Maturity dates
(in million Baht)	(%) p.a.	(years)	
575	5.55	5 years 1 month	30 June 2019
1,800	2.97	4 years	16 December 2019
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 2018 and 2017 of debentures which included current portion were as follows:

	Consol	idated	Separate			
	financial s	tatements	financial s	tatements		
	2018	2017	2018	2017		
		(in thousa	nd Baht)			
At 1 January	10,601,499	13,303,769	10,601,499	13,303,769		
Issue of debentures	499,360	-	499,360	-		
Repayment of debentures	(2,950,000)	(2,715,000)	(2,950,000)	(2,715,000)		
Adjusted debentures per effective						
interest rate method	9,710	12,730	9,710	12,730		
At 31 December	8,160,569	10,601,499	8,160,569	10,601,499		

Secured debenture as at 31 December were secured on the following assets:

		Consolic financial sta		Separate financial statements		
	Note	Note 2018 2017		2018	2017	
			(in thousan	d Baht)		
Other long-term investment	6	-	340,000	-	340,000	
Restricted fixed deposit	6	340,000	-	340,000	-	

As at 31 December 2018, the Group had unutilised credit facilities totalling Baht 1,200 million and US dollar 35 million (2017: Baht 666 million and US dollar 35 million).

18 Trade and other accounts payable

			lidated statements	Separate financial statements							
	Note	2018	2017	2018	2017						
	(in thousand Baht)										
Related parties	4	242,090	259,064	65,865	98						
Other parties											
Trade accounts payable		37,181	562,255	-	-						
Accrued expense		158,939	131,829	8,516	8,960						
Unearned revenues		30,598	71,090	-	-						
Accrued interest expense		17,717	16,264	16,119	13,118						
Others		58,464	45,270	46,974	33,106						
		302,899	826,708	71,609	55,184						
Total	_	544,989	1,085,772	137,474	55,282						

19 Share capital

	Par value	2	2018	201	17
	per share	Number	Baht	Number	Baht
	(in Baht)		(thousand shares	/ thousand Baht)	1
<i>Authorised</i> At 1 January					
- ordinary shares	1	1,016,389	1,016,389	923,990	923,990
Issue of new shares	1	-	-	92,399	92,399
At 31 December					
- ordinary shares	1	1,016,389	1,016,389	1,016,389	1,016,389
<i>Issued and paid-up</i> At 1 January					
- ordinary shares	1	923,990	923,990	923,990	923,990
Issue of new shares	1	50,000	50,000		
At 31 December					
- ordinary shares	1	973,990	973,990	923,990	923,990

At the Board of Directors' meeting of the Company held on 31 January 2018, the Board approved the offering and allocation of the newly issued ordinary shares by way of private placement under the general mandate as previously approved by the Extraordinary General Meeting of Shareholders held on 6 June 2017 by approved the offering and allocation of 50 million newly issued ordinary shares of the Company under the general mandate to the specific person, at the offering price of Baht 21.70 per share (par value of Baht 1 and premium on ordinary shares of Baht 20.70), totaling Baht 1,085 million. The Company registered an increase of paid-up capital with the Ministry of Commerce on 16 February 2018.

At the Extraordinary General Meeting held on 6 June 2017, the Shareholders approved of increase of the Company's registered share capital under the general mandate for the offering of the newly issued ordinary shares of the Company by way of private placement from the existing registered capital of Baht 923.99 million to Baht 1,016.39 million, by issuing of new shares of Baht 92.40 million (divided into 92,399,000 shares at Baht 1 par value). The Company registered an increase of registered share capital with the Ministry of Commerce on 9 June 2017.

20 Additional paid-in capital and reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividend distribution.

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.

21 Operating segments

The Group has reportable segments, as described below, which are the Group strategic divisions. The strategic divisions offer different products and services, and are managed separately because they require different technology and marketing strategies. For each of the strategic divisions, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The Group has reviewed business segments and the operations in each of the Group's reportable segments have 3 reportable segments as follow;

- 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

Information regarding the results of each reportable segment is included below. 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.

SPCG Public Company Limited and its Subsidiaries	Notes to the financial statements	For the year ended 31 December 2018
SPCG Public	Notes to the fin	For the year en

Information about reportable segments

Manufacture, trading, and Production and distribution installation service of of electricity	y Others Eliminations	2018 2017 2018 2017 2018 2017 2018 2017 2018 2017 2018	(in thousand Baht)	Revenue from operations 1,683,410 1,735,802 4,332,123 4,301,286 30,961 86,089 - 6,046,49	Revenue from inter-segment	Total revenue and other income 1,683,410 1,735,802 4,332,123 4,301,286 1,615,483 (1,621,479) (1,529,394) 6,046,49	Operating profit (loss) 252.045 218.460 3.200.847 3.182.855 (5.812) 62.429 1.495 2.771 3.448.57		Interest income 147 128 255 326 433,861 518,469 (396,728) (479,465) 37,53	Finance costs $(11,992)$ $(7,721)$ $(496,630)$ $(604,193)$ $(391,407)$ $(485,721)$ $396,728$ $479,465$ $(503,30)$	net (11,845) (7,593) (496,375) (603,867) 42,454 32,748 -	rvestment	in joint venture 004) (919) 0.04	Profit before income tax expense 240,200 210,867 2,706,577 2,578,988 1,134,338 1,018,678 (1,096,265) (921,649) 2,984,85	Tax expense (49,367) (41,790) (5,534) (2,986) (6,763) (19,715) 396 (288) (61,266)	
	Total	2018 2017		6,046,494 6,123,177	•	6,046,494 6,123,177	3,448,575 3,466,515	I	37,535 39,458	(503,301) (618,170)	(465,766) (578,712)		(64) (919)	2,984,850 2,886,884	(61,268) $(64,779)$	101 000 0 000 000 0
	tions	2017		ı	(1,529,394)				(479, 465)	479,465	1		ı	(921,649)	(288)	(200 100)
	Elimina	2018			(1,621,479)	(1, 621, 479)	1,495		(396,728)	396,728	I		ı	(1,096,265)	396	1070 200 17
	ers	2017	nd Baht)	86,089	1,529,394	1,615,483	62,429		518,469	(485, 721)	32,748		(619)	1,018,678	(19,715)	
	Oth	2018	(in thousa	30,961	1,621,479	1,652,440	(2.812)		433,861	(391, 407)	42,454		(64)	1,134,338	(6,763)	
d distribution tricity	r energy	2017		4,301,286		4,301,286	3.182.855		326	(604, 193)	(603, 867)		I	2,578,988	(2,986)	000 723 0
Production an of elec	from sola	2018	1	4,332,123	ı	4,332,123	3.200.847		255	(496, 630)	(496, 375)		I	2,706,577	(5,534)	2 701 0 13
trading, and service of	d solar roof	2017		1,735,802	ı	1,735,802	218,460		128	(7, 721)	(7, 593)		ı	210,867	(41, 790)	
Manufacture, installation	roof sheets an	2018	1	1,683,410		1,683,410	252,045		147	(11,992)	(11, 845)		I	240,200	(49, 367)	100 001
				Revenue from operations	Revenue from inter-segment	Total revenue and other income	Operating profit (loss)		Interest income	Finance costs	Finance costs, net	Share of loss of investment	in joint venture	Profit before income tax expense	Tax expense	Duefft for the recent

	nd distribution
ubsidiarie	Production a
SPCG Public Company Limited and its Subsidiaries Notes to the financial statements For the year ended 31 December 2018	Manufacture, trading, and Production and distribution

	installation service of	service of	of electricity	tricity						
	roof sheets and solar roof	l solar roof	from sola	r energy	Others	srs	Elimin	Eliminations	Total	al
As at 31 December	2018	2017	2018 2017	2017	2018	2017	2018	2017	2018	2017
					(in thous	(in thousand Baht)				
Segment assets										
Property, plant and equipment	47,794	52,024	16,377,111	17,057,782	31,985	38,934	1,548	1,213	16,458,438	17,149,953
Investments in joint venture			'	I	ı	1,799	ı			1,799
Current investments	104,476	102,044	50,637	66,137	1,701,952	1,272,886	I	ı	1,857,065	1,441,067
Available-for-sale investments		·	ı		681,816	251,542	I	ı	681,816	251,542
Other long-term investments		·	128,678	128,678	340,000	340,000	I		468,678	468,678
Unallocated assets									3,331,627	3,713,599
Total assets									22,797,624	23,026,638
Segment liabilities										
Loans	200,021	285,638	8,890,444	11,005,356	ı	ı	(8, 991, 444)	(11,280,056)	99,021	10,938
Debentures	ı	·	ı	·	8,160,569	10,601,499	ı	·	8,160,569	10,601,499
Unallocated liabilities									657,380	1,206,001
Total liabilities									8,916,970	11,818,438

22 Revenue from sale and rendering of services

	Consol financial s		Separ financial st	
	2018	2017	2018	2017
	2018	= • - ·		2017
		(in thousar	ia Baht)	
Revenue from sale electricity distribution	1,224,892	1,194,941	-	-
Revenue from subsidy of adders	3,072,586	3,078,087	-	-
Revenue from sales and installation				
service of roof sheets and solar roof	1,481,594	1,561,528	-	-
Revenue from sales of goods	138,561	173,797	-	-
Others	10,537	-	-	-
Total	5,928,170	6,008,353		-

23 Other income

	Consoli	dated	Separate	
	financial sta	atements	financial s	statements
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Dividends income	2,105	-	1,097,760	924,420
Income from import duty refund	55,369	-	-	-
Interest income	37,539	39,458	433,864	518,467
Gain on sale of other investments	8,900	68,370	3,508	59,693
Management service income	-	-	110,526	109,356
Others	14,411	6,996	2,649	3,468
Total	118,324	114,824	1,648,307	1,615,404

24 Employee benefit expenses

	Consoli	dated	Separate	
	financial sta	atements	financial st	atements
	2018	2017	2018	2017
		(in thousan	d Baht)	
Salaries and wages	77,075	68,970	36,857	31,674
Overtime and bonus	13,519	11,571	8,144	5,848
Defined contribution plan	1,548	1,491	743	696
Defined benefit plans	5,382	1,049	2,596	753
Others	7,896	7,185	3,366	2,710
Total	105,420	90,266	51,706	41,681

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.

25 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:

	Consol	idated	Separate	
	financial s	tatements	financial st	atements
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Changes in inventories	(197,187)	(128,097)	-	-
Raw materials and consumables used	1,093,282	1,270,021	-	-
Depreciation and amortisation	689,409	642,804	11,263	8,426
Management and utilities fee	296,937	290,609	9,760	9,841
Contractual installation service of				
solar roof	281,937	208,847	-	-
Employee benefit expenses	105,420	90,266	51,706	41,681
Commission expense	63,071	64,799	-	-
Signboard tax and property tax	34,355	26,929	-	-
Insurance expenses	39,875	24,051	664	606
Others	151,180	126,975	50,015	48,868
Total cost of sale of goods, selling and distribution expenses				
and administrative expenses	2,558,279	2,617,204	123,408	109,422

26 Finance costs

	Consoli financial st		Separ financial st	
	2018	2017	2018	2017
		(in thousa	nd Baht)	
Interest expense:				
Debentures	391,226	485,632	391,227	485,632
Bank loans and overdrafts	4,604	317	-	-
Interest rate swap	107,281	132,111	-	-
Total interest expense	503,111	618,060	391,227	485,632
Others finance costs	190	110	179	89
Total	503,301	618,170	391,406	485,721

27 Income tax expense

Income tax recognised in profit or loss

		Consoli	dated	Separate	
		financial st	atements	financial st	atements
	Note	2018	2017	2018	2017
			(in thousa	nd Baht)	
Current tax expense					
Current year		64,166	64,185	9,101	22,301
(Over) under provided in prior years		95	17	(4)	110
	-	64,261	64,202	9,097	22,411
Deferred tax expense	-				
Movements in temporary differences	15	(2,993)	577	(2,334)	(2,696)
	-	(2,993)	577	(2,334)	(2,696)
Total income tax expense	-	61,268	64,779	6,763	19,715

Reconciliation of effective tax rate

	(Consolidated fina	ncial sta	tements
		2018		2017
	Rate	(in thousand	Rate	(in thousand
	(%)	Baht)	(%)	Baht)
Profit before income tax expense		2,984,850		2,886,884
Income tax using the Thai corporation tax rate	20	596,970	20	577,377
Income not subject to tax		(541,079)		(521,792)
Expenses not deductible for tax purposes		1,875		1,744
Tax losses for which no deferred income tax asset				
was recognised		3,407		7,433
Under provided in prior years		95		17
Total	2.1	61,268	2.2	64,779

		Separate finance	cial state	ments
		2018		2017
	Rate	(in thousand	Rate	(in thousand
	(%)	Baht)	(%)	Baht)
Profit before income tax expense		1,133,493		1,020,261
Income tax using the Thai corporation tax rate	20	226,699	20	204,052
Income not subject to tax		(220,393)		(185,781)
Expenses not deductible for tax purposes		461		1,334
(Over) under provided in prior years		(4)		110
Total	0.6	6,763	1.9	19,715

Income tax reduction

Revenue Code Amendment Act No. 42 B.E. 2559 dated 3 March 2016 grants a reduction of the corporate income tax rate to 20% of net taxable profit for accounting periods which begin on or after 1 January 2016.

28 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Group has been granted privileges by the Board of Investment relating to production of electricity from solar energy. The privileges granted include:

- (a) exemption from payment of import duty on machinery approved by the Board;
- (b) exemption from payment of income tax for certain operations for a period of eight years from the date on which the income is first derived from such operations; and
- (c) a 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of five years, commencing from the expiry date in (b).

As promoted companies, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted businesses:

		Co	nsolidated fina	incial stateme	nts	
		2018			2017	
	Promoted busi-	Non- promoted		Promoted busi-	Non- promoted	
	nesses	businesses	Total	nesses	businesses	Total
			(in thousa	nd Baht)		
Local sales	4,297,478	1,981,920	6,279,398	4,273,028	2,086,553	6,359,581
Eliminations	-	(351,228)	(351,228)	-	(351,228)	(351,228)
Total revenue	4,297,478	1,630,692	5,928,170	4,273,028	1,735,325	6,008,353

29 Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2018 and 2017 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:

	Consoli financial st		Sepa financial s	arate statements
	2018	2017	2018	2017
	(th	ousand shares	/ thousand Bah	nt)
Profit for the year attributable to ordinary shareholders of the Company	2,613,610	2,524,325	1,126,730	1,000,546
Number of ordinary shares as at 1 January Effect from issued shares	923,990 43,836	923,990	923,990 43,836	923,990
Number of ordinary shares by weighted average method (basic)	967,826	923,990	967,826	923,990
Basic earnings per share (in Baht)	2.70	2.73	1.16	1.08

30 Dividends

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.

At the Board of Director's Meeting of the Company held on 11 August 2017, the Board approved the appropriation of interim dividends of Baht 0.50 per share amounting to Baht 462 million. The dividend was paid to the shareholders in September 2017.

At the Annual General Meeting of the shareholders of the Company held on 21 April 2017, the shareholders approved the appropriation of dividend for the year 2016 and the Company's unappropriated retained earnings of Baht 1.10 per share, amounting to Baht 1,016.39 million. The Company had paid interim dividend at the rate of Baht 0.40 per share, amounting to Baht 369.60 million. The remaining dividend was paid at the rate of Baht 0.70 per share, amounting to Baht 646.79 million. The dividend was paid to shareholders during May 2017.

31 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.

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 17). 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.

The effective interest rates of debt securities and loans receivable as at 31 December and the periods in which the loans receivable and debt securities mature or re-price were as follows:

	Consolidated financial statements				
			After 1		
	Effective	W/:41 1	year but	A. G	
	interest	Within 1	within 5	After 5	Tatal
	rate	year	years (in thous	years and Baht)	Total
2017	(% per annum)		(in inouse	ипа Бапі)	
Non-current					
Debt securities held to maturi	ty 3.75	340,000	_	_	340,000
Total	ly 5.75	340,000			340,000
Total		210,000			010,000
		Ś	Separate finan	cial statemen	t
			After 1		
	Effective		year but		
	interest	Within 1	within 5	After 5	
	rate	year	years	years	Total
	(% per annum)		(in thous	and Baht)	
2018					
Current					
Loans to related parties	3.50	101,000	-	-	101,000
Non-current					
Loans to related parties	THBFIX3M				
r	+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
2017					
Current					
Loans to related parties	3.50	269,700	-	-	269,700
	4.00	5,000	-	-	5,000
Non-current					
Loans to related parties	THBFIX3M				
	+1.55	1,820,812	6,455,442	440,877	8,717,131
	3.50	17,850	125,375	-	143,225
	5.65	276,250	1,868,750	-	2,145,000
Debt securities held to maturi		340,000	-	-	340,000
Total	<u> </u>	2,729,612	8,449,567	440,877	11,620,056
		,·=-,-==	- 7 7 7		.,

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:

	Consolidated financial statements				ents
	Effective interest rate (% per annum)	Within 1 year	After 1 year but within 5 years <i>(in thouse</i>	After 5 years and Baht)	Total
2018 Current					
Loans from financial institutions	2.30 MLR-1	96,021 3,000	-	-	96,021 3,000
Non-current Debentures Total	2.20 - 5.55	2,369,374 2,468,395	5,791,195 5,791,195		8,160,569 8,259,590
2017 Current Bank overdrafts Loans from financial institutions	MOR MLR - 1	1,938 9,000	-	-	1,938 9,000
Non-current Debentures Total	2.66 - 5.55	2,940,485 2,951,423	7,011,500 7,011,500	649,514 649,514	10,601,499 10,612,437
		S	eparate finan	cial stateme	nt
2018	Effective interest rate (% per annum)	Within 1 year	After 1 year but within 5 years (in thouse	After 5 years and Baht)	Total
Non-current	0.00 5.55	0 0 0 0 0 7 4	5 701 105		0.160.560
Debentures Total	2.20 - 5.55	2,369,374 2,369,374	5,791,195 5,791,195		8,160,569 8,160,569
2017		<i>, , ,</i>			

Total		2,940,485	7,011,500	649,514	10,601,499
Debentures	2.66 - 5.55	2,940,485	7,011,500	649,514	10,601,499
Non-current					
2017					

Interest rate swap contracts

The Company had interest rate swap contract in order to use it as a risk management instrument to manage on the fluctuation of future interest rate of debentures repayments by changing from floating interest rate which received from long-term loans to related parties to fixed interest rate under the interest rate swap contract. Under the interest rate swap contracts, the Company agreed to exchange the difference between fixed rate and floating rate which are calculated by reference to the agreed notional principal amounts. As at 31 December 2018, the notional principal from the contract was amounting to Baht 6,896 million (2017: Baht 8,717 million), the fixed interest rate was 3.31% and the floating interest rate was THBFIX3M plus 1.51%.

The subsidiaries entered into the interest rate swap contract in order to use it as a risk management instrument to manage on the fluctuation of future interest rate of long-term borrowings by changing from floating interest rate to fixed interest rate under the interest rate swap contract. Under the interest rate swap contracts, subsidiaries agreed to exchange the difference between fixed rate and floating rate which are calculated by reference to the agreed notional principal amounts. As at 31 December 2018, the notional principal from the contract was amounting to Baht 6,322 million (2017: Baht 8,509 million), the fixed interest rates ranged from 4.62% to 5.39% and the floating interest rates was THBFIX3M plus 1.80% to 2.00% (2017: the fixed interest rates ranged from 4.37% to 5.47% and the floating interest rates was THBFIX3M plus 1.80% to 2.00%).

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		Sepa financial st	
	2018	2017	2018	2017
		(in millio	n Baht)	
USD				
Other investments	27,625	39,393	27,625	39,393
Gross balance sheet exposure	27,625	39,393	27,625	39,393
Currency forwards		-		
EUR				
Trade and other accounts receivable	7,349	-	-	-
Trade and other accounts payable	(5,955)	(79,805)	-	-
Gross balance sheet exposure	1,394	(79,805)		-
Currency forwards		15,668		

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.

Carrying amounts and fair values

As at 31 December 2018 and 2017, fair value of financial assets and liabilities is taken to approximately the carrying value, except the following items;

	Consolidated financial statements				
	Carrying	Fair value			
	amount	Level 1	Level 2	Level 3	Total
		(in million Baht,)	
31 December 2018					
Financial assets measured at fair value	e				
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
Financial link:lition					
Financial liabilities					
<i>not measured at fair value</i> Debentures	(9, 160, 57)		(9 220 77)		(9,220,77)
	(8,160.57)	-	(8,339.77)	-	(8,339.77)
Interest rate swap contract	-	-	(195.62)	-	(195.62)
31 December 2017					
Financial assets measured at fair value	e				
Equity securities available for sale					
(Short-term fixed income fund)	1,223.37	-	1,223.37	-	1,223.37
Debt securities available for sale			ŕ		,
(Private fund)	258.84	-	258.84	-	258.84
Equity securities available for sale					
(Equity fund)	39.39	-	39.39	-	39.39
Financial assets and financial					
Financial assets and financial					
<i>liabilities not measured at fair value</i>	340.00		342.13		342.13
Debt securities held to maturity		-	•	-	
Debentures	(10,601.50)	-	(11,550.34)	-	(11,550.34)
Interest rate swap contract	-	-	(300.31)	-	(300.31)
Forward exchange contract	0.08	-	(0.08)	-	(0.08)

	Carrying	Separate financial statements Fair value			
	amount	Level 1	Level 2	Level 3	Total
		(in million Baht))	
31 December 2018					
Financial assets measured at fair value	2				
Equity securities available for sale (Short-term fixed income fund)	1,516.47	_	1,516.47	_	1,516.47
Debt securities available for sale	1,510.47		1,510.47		1,510.47
(Private fund)	749.68	-	749.68	-	749.68
Equity securities available for sale					
(Equity fund)	27.63	-	27.63	-	27.63
Financial liabilities					
<i>not measured at fair value</i> Debentures	(8,160.57)	_	(8,339.77)	_	(8,339.77)
Interest rate swap contract	(0,100.57)	-	(7.10)	-	(7.10)
1			()		
31 December 2017					
Financial assets measured at fair value	2				
Equity securities available for sale	1.052.00		1.052.99		1.052.99
(Short-term fixed income fund) Debt securities available for sale	1,052.88	-	1,052.88	-	1,052.88
(Private fund)	258.84	_	258.84	_	258.84
Equity securities available for sale	250.04		250.04		250.04
(Equity fund)	39.39	-	39.39	-	39.39
Financial assets and financial					
liabilities not measured at fair value	240.00		242 12		242 12
Debt securities held to maturity Debentures	340.00 (10,601.50)	-	342.13 (11,550.34)	-	342.13 (11,550.34)
Interest rate swap contract	(10,001.30)	-	(11,330.34) 47.75	-	(11,330.34) 47.75
interest face swap contract			11.15		17.75

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.

32 Commitments with non-related parties

	Consolidated financial statements		Separ financial st		
	2018	2017	2018	2017	
		(in thousa	nd Baht)		
Future minimum lease payments under non-cancellable operating leases		,			
Within one year	3,358	2,134	409	-	
After one year but within five years	1,932	2,170	105	-	
Total	5,290	4,304	514	-	
Future minimum payments under service contracts					
Within one year	60,397	66,158	928	784	
After one year but within five years	53,381	102,456	360	285	
Total	113,778	168,614	1,288	1,069	
<i>Other commitments</i> Unused letters of credit for goods					
and supplies	-	60,960	-	-	
Purchase orders for goods	184,119	110,604	-	-	
Bank guarantees	152,720	132,616	-	-	
Total	336,839	303,910		-	

33 Thai Financial Reporting Standards (TFRS) not yet adopted

A number of new and revised TFRS which relevant to the Group's operations are expected to have significant impact on the consolidated and separate financial statements on the date of initial application. Those TFRS become effective for annual financial reporting periods beginning on or after 1 January of the following years.

TFRS	Торіс	Effective
TFRS 15	Revenue from Contracts with Customers	2019
TFRS 7*	Financial Instruments: Disclosures	2020
TFRS 9*	Financial Instruments	2020
TAS 32*	Financial Instruments: Presentation	2020
TFRIC 16*	Hedges of a Net Investment in a Foreign Operation	2020
TFRIC 19*	Extinguishing Financial Liabilities with Equity	2020
	Instruments	

* TFRS - Financial instruments standards

TFRS 15 Revenue from Contracts with Customers

TFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. Revenue should be recognised when (or as) an entity transfers control over goods or services to a customer, measured at the amount to which the entity expects to be entitled.

The Group has completed assessment of potential impact of adopting TFRS 15 on the financial statements and there is no material impact on the consolidated and separate financial statements.

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.

The Group is presently considering the potential impact of adopting and initially applying TFRS - Financial instruments standards on the consolidated and separate financial statements.

34 Events after the reporting period

At the Board of Directors' meeting held on 22 February 2019, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2018 dividend payment at the rate of Baht 1.20 per share, totaling Baht 1,168.79 million, of which Baht 0.55 per share was paid as an interim dividend on 10 August 2018 as disclosed in note 30. Thus, the remaining dividend will be at the rate of Baht 0.65 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 12 April 2019.

11 Corporate Social Responsibilities : CSR



11.1 Overview Policy

SPCG Public Company Limited "SPCG" as a leader in solar farm development and solar roof system, commits to running the business under the Good corporate Governance policy and realize the importance of responsibility to the society and environment also considerate about the impact to the stakeholder for steady and sustainable growth, company provides the social responsibility policy as follows:

1. Business running together with the environment caring under the Corporate Governance to make sure that any company process will be in the same direction, without any impact to the environment to build trust of people and stakeholder. 2. Fairness in business operations, adhere to the morality and ethics, concern about the benefit and the company process that might affect the stakeholder such as anti-corruption policy.

3. Respect human rights by supporting and protecting human right by treating people with fairness as the root of management and development of human resource.

4. Be environmentally friendly by strictly follow the law and regulation about environment management so that Solar Farm projects were approved by ISO 14001:2015.

5. Importance of the collaboration to develop the community or society by supporting development projects in communities near our solar farms.

SPCG recognizes the importance of Climate change as a global problem. All countries must cooperate to reduce greenhouse gas emission to less than 2% according to the United Nations Framework Convention on Climate Change (UNFCCC) with more than 150 countries around the world committing to the pledge.

SPCG strives to develop electricity generation from solar energy. Clean energy is non-polluting, environmentally friendly and promotes sustainability. Current solar farms have been developed and operated commercial distribution of electricity to the Provincial Electricity Authority ("PEA") with 36 completed projects in total, more than 260 Megawatts capacity will reduce carbon dioxide more than 200,000 tons per year. SPCG has realized the importance of understanding Solar Farm principles, therefore, the company has established "Solar Farm Education Center" at its First Solar Farm Project in Don-Chompoo district, amphur Sungnoen, Nakhon Ratchasima province in order to provide education space for people to learn about solar energy.



SPCG always commit to sustainable energy and environmental conservation throughout the year 2018, we strive to develop solar farm project to join the Green Industry project for the purpose of publishing knowledge, information, idea and the significance of attending The Green Industry and sustainable development for the industry entrepreneur, government personnel and general people as a result, 19 solar power farm project out of 36 by Solar Power Co.,Ltd. Its subsidiary of SPCG Public Company Limited received the 4th level Green Culture certificate as follows:

- Solar Power (Khon kean1) Co.,Ltd Solar Power (Khon kean3) Co.,Ltd Solar Power (Khon kean7) Co.,Ltd Solar Power (Korat2) Co.,Ltd Solar Power (Nakon Panom3) Co.,Ltd Solar Power (Nakon Panom2) Co.,Ltd Solar Power (Loie2) Co.,Ltd Solar Power (Surin1) Co.,Ltd Solar Power (Surin3) Co.,Ltd
- Solar Power (Khon kean) Co.,Ltd Solar Power (Khon kean6) Co.,Ltd Solar Power (Khon kean9) Co.,Ltd Solar Power (Nakon Panom1) Co.,Ltd Solar Power (Bureerum1) Co.,Ltd Solar Power (Loie1) Co.,Ltd Solar Power (Sakon Nakorn1) Co.,Ltd Solar Power (Surin2) Co.,Ltd Solar Power (Nong Kai1) Co.,Ltd

These certificate represent the company's determination to develop and support the solar farm project to join the Green Industry project. In the future, SPCG Strives to develop all the solar power project to the 4th level (Green Culture) and 5th level afterward.



SPCG is committed to developing Solar Power business, adgering the social and environmental responsibility policy so we can get the successful reward from many organizations as follows:

SPCG passed the criteria a good environment governance and got certificate in "Promoting good governance, environment, industrial establishments Project" by Ministry of Industry in year 2018, held for bringing the good governance policy to be a role for the managing company structure into Green Industry SPCG realize that significance of living together with the community and environment. More than 427 companies obtain the certificate, including Solar Power (Nakon Panom1) Co.,Ltd, Solar Power (Nakon Panom2) Co.,Ltd, Solar Power (Nakon Panom3) Co.,Ltd and Solar Power (Surin1) Co.,Ltd.



SPCG was awarded a trophy and certificate in the event "Roy Duang Jai Ruam Jai Lod Lok Ron" from General Surasak Kanchanarat The Minister of Natural Resources and Environment in occasion that SPCG is a good role model in managing and reducing the greenhouse gas emission in Thailand.

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.

• For applying 5S with Green Industry Level 4 : Green Culture or Green cultural, staff will present their performance or suggestion for increasing product from the equipment that available in the solar farm project for the maximum benefit.

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.

The managing operation for sustainable and 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 Metal 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 safely 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 Fairness, 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.

11.2 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.

11.2.1 Solar Farm Education Center visit

SPCG gives opportunity to student, undergraduate, education Institution, public organization, private organization and general public interested to visit the Solar Farm Education Center that consist of Solar Power Exhibition and Solar Power Farm Site to boost up more information and understanding about Solar Power System which is a clean energy without pollution, no negative impact to the environment, no fuel cost and reduce carbon dioxide more than 200,000 tons per year. There are 7 organizations that have come to visit the solar farm education center in 2018 totaling 273 visitors.



Faculty of Engineering, Mahidol university



Anglo singapore international school nakhon ratchasima



Bright Management Co.,Ltd.



Thai Energy Academy

11.2.2 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 makes and off-season offering of robes and other needs to monks at Baan Don-Chompoo district, amphur Sungnoen, Nakhon Ratchasima province



SPCG Support the establishment of public service points during the New Year festival. Of Tha Ang Subdistrict Administration Organization Chok Chai District, Nakhon Ratchasima Province.



SPCG Support this classroom project for children Of the Volunteer Teachers Club at Ban Muang Po School Mueang Khon Kaen District, Khon Kaen Province.



SPCG Supporting internal sporting events Of the Red Bank Municipal Office, That Phanom District, Nakhon Phanom Province.















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