RELATIVES VALUATION OF SPCG PUBLIC COMPANY LIMITED



A THEMATIC PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF MANAGEMENT COLLEGE OF MANAGEMENT MAHIDOL UNIVERSITY 2014

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RELATIVES VALUATION OF SPCG PUBLIC COMPANY LIMITED

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M.M. (FINANCIAL MANAGEMENT)

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ABSTRACT

The purpose of this thematic paper is to value the company and investment decision making on SPCG Public Company Limited. I value the Company's price by using multiple valuation while consider using Price/Earnings Ratio (P/E), Price/Book Value Ratio (P/BV) and EV/EBITDA. As I believe that it will reflect the most appropriated price of the Company. And the result show that the price of SPCG (Current price at 31 October 2014) is undervalue so I recommend to "Buy".

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KEY WORDS: valuation, P/E, P/BV, EV/EBITDA, alternative energy

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LIST OF ABBREVIATIONS

AEDP	Alternative Energy Development Plan		
BV	Book value		
CAGR	Compound Annual Growth Rate		
CAPEX	Capital Expenditure		
COD	Commercial Operation Date		
COGS	Cost of Goods Sold		
D/E	Debt/Equity		
DCF	Discount Cash Flow		
EBIT	Earnings Before Interest and Taxes		
EBITDA	Earnings Before Interest, Taxes and Depreciation		
EPC	Engineering, Procurement and Construction		
EPS	Earning per share		
EV	Enterprise value		
FCFF	Free Cash Flow to Firm		
FIT	Feed-in tariff		
KV	Kilovolt		
MDB	Main Distribution Board		
MEA	Metropolitan Electricity Authority		
MOU	Memorandum of Understanding		
MW	Megawatt		
MWp	Megawatt peak		
NOPAT	Net Operating Profit after Taxes		

LIST OF ABBREVIATIONS (cont.)

NOWC	Net Operating Working Capital		
OMM	Operation, Maintenance and Monitoring		
P/E	Price/Earnings		
PDP	Power Development Plan		
PEA	Provincial Electricity Authority		
PPA	Power Purchase Agreement		
РРЕ	Property, Plant and Equipment		
PV	Photovoltaic		
Rf	Risk free		
ROA	Return on Assets		
ROE	Return on Equity		
SET	Stock Exchange of Thailand		
SG&A	Selling, General and Administrative Expense		
WACC	Weight Average Cost of Capital		
YOY	Year on Year		

CHAPTER I VALUATION

1.1 Highlights

Opportunities from New PDP:

Under the draft of Thailand's Power Development Plan 2015 (PDP 2015), alternative energy reveal to contribute more 25% from 2014 (increase 17%) of total national power generating capacity. It is a big investment opportunities for SPCG business.

New Distribution Channel at HomePro:

SPCG announced to expand its EPC solar-roof distribution channel with Home Product Center Public Company Limited ("HMPRO") under a program called "SPR Solar Roof, the Best Quality Roof by HomePro" to attract the customer who interested on saving the electricity cost. At the first-stage of entering this program with HMPRO, would not make a significantly revenue growth in the near turn, but it will help creating the new awareness of green customer in a long-run.

New Investments in Japan:

Memorandum of Understanding (MOU) sealed with Thailand Factory Development Public Company Limited ("TFD") to develop Solar Roof Top about 5MW with total capital investment of 300 million Baht SPCG will get adder income of 6 Baht/MW, which expected to start recognize its revenue in Q3'2015. Additionally, SPCG announced to invest with Japan's Kyocera Corp to build solar photovoltaic (PV) panel manufacturing facility in Thailand to respond with the future demand on increasing of solar power business in Asia also give the brighten path of the SPCG's business.

Valuation and Recommendation

Based on the DCF valuation with WACC at 6.01% and multiple valuations, we recommended to "BUY" at target price of 28.45 Baht. Benefit from debt refinancing from 10 years bridging-loan to 5 years debentures with the lower

interest rate, it significantly leads to lower finance cost of SPCG in 2014. Together with the completion of starting commercial electricity distribution of 36 solar farm projects in 2Q'2014 lead to more efficiency operating cost and SG&A, then the major factor of driving higher revenue in our number. The forecasted revenue aims to increase about 165% YOY from Y2013. Moreover, the plenty opportunities aforementioned are the main reason to support SPCG's brighten future in solar power business and future sustainable earn.

Table 1.1 Financial H	lighlights	Ų	11			
				Recommen	dation	BUY
Current Price (31 Oc	ct 2014)	25. <mark>2</mark> 5 B	aht	Target Pric	e 28	.45 Baht
FY Ended 31 Dec	2011A	2012 <mark>A</mark>	2013A	2014F	2105F	2016F
Company Financial						
Revenue (Btm)	586	1,277	2,523	4,162	4,452	4,510
	225	(00)	1.001	2.115	2 202	2 420
EBITDA (Btm)	225	602	1,661	3,115	3,392	3,438
Net Profit (Btm)	14	166	644	2,016	2,415	2,456
EPS (Bt)	0.03	0.30	0.77	2.18	2.61	2.66
Dividend Yield (%)	0.20%	0.40%	0.49%	2.59%	3.10%	3.16%
ROA (%)	4.29%	3.85%	5.91%	7.38%	8.38%	8.70%
ROE (%)	9.94%	13.56%	29.92%	31.61%	26.47%	20.62%
Gearing (x)	3.50	4.04	5.40	3.70	2.33	1.56
Valuation 9						
P/E(x)	and and	182.65	20.39	9.76	9.59	9.38
EV/EBITDA (x)	49.13	34.62	24.90	105.53	114.94	116.48
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1.2 Business Description

1.2.1 Company Background



Figure 1.1 SPCG's business structure

SPCG Public Company Limited ("SPCG") formerly "Steel Intertech Public Company Limited", it was established in 1993 and listed on the Stock Exchange of Thailand (SET) under the Energy & Utilities sector in 2005 as a holding company with 44 Affiliates Company, and has current registered capital of 840 million Baht. SPCG now operates (1) Investment and Development of Solar Farm Engineering, Procurement and Construction (EPC) and Operation, Maintenance and Monitoring (OMM) (2) Manufacturing, distribute and installation of Roll forming Metal Sheet including other related roof and wall cladding materials and (3) Supply and installation of Solar Rooftop for residence, small building and medium and large building.

Regarding the Ministry of Energy announced the supporting on Renewable energy and Substitute energy policy, then SPCG merged with Solar Power Company Limited ("SPC") in 2011, aim to develop its existing 34 solar farm projects under the Power Purchase Agreement (PPAs) with Provincial Electricity Authority ("PEA"). And Solar Power Asset Company Limited ("SPA") as a developer of additional 2 solar farm projects. SPCG currently has totally 36 solar farm projects in Thailand in total of about 261 MW in 10 provinces throughout the Northeast of Thailand and Lopburi provinces with total land area about 5000 Rais (2000 Acres). Continue being a full-services provides of solar farm business, SPCG also has Solar Power Engineering Company Limited ("SPE"), aim to provide Engineering, Procurement and Construction (EPC) Service as well as provides Operation, Maintenance and Monitoring (OMM) Service of solar farms both domestically and internationally. And also has SPCG Capital Company Limited ("SPCGC") is a vehicle to invest in Solar Power projects and other related business.

For steel business, SPCG has Steel and Solar Roof Company Limited ("SSR") provides manufacturing, distribution and installation services for steel or metal roofing sheets. The products have been designed under research and development in order to be easy to use, save and prompt installing, and also has ENEGATE (THAILAND) Company Limited ("ENEGATE"), which is a joint venture company among SPCG Public Company Limited, ENEGATE Co., Ltd. (sub-business of Kansai Electric Power Co., Inc. (KANSAI)), and Thai Aichi Denki Co., Ltd. to manufacture High Voltage Electricity products such as High Voltage Cubicles under 33kV and Main Distribution Boards (MDBs) to be used in solar farms and other projects, and also develop Smart Grid Systems.

For solar roof business, SPCG has Solar Power Roof Company Limited ("SPR") is the pioneer in Solar Roof developer in Thailand and ASEAN as well as the leading solar roof developer for residence, small building and medium-large building.

SPCG is Thailand's and ASEAN's pioneer in solar power generation. As its solar farm projects located in rural of Thailand which it helped enhancing skills, knowledge and the quality of life of rural Thais and helped boost up Thailand's economy during past 5 years. Additionally, SPCG has implementing to be Solar Roof Brand Ambassador in pioneering the solar roof business in Thailand in May 2013.

SPCG is not only focus on well-operating on solar power business, it also well aware of social responsibilities. It continues explore on solar farm's operations to operate its solar farm as clean energy which produces zero pollutions, zero noises, zero dust and zero fuel costs in electricity generation, as well as help reduce global warming from climate change.

Based on SPCG's continuously success earned, SPCG continues being solar power generation leadership and aim to expand its business overseas: ASEAN, the Middle East, as well as other regions that offer business opportunities.

1.2.2 Overall Business Operations

SPCG operates in 3 main businesses 1) Investment and Development of Solar Farm Engineering, Procurement and Construction (EPC) and Operation, Maintenance and Monitoring (OMM) 2) Manufacturing, distribute and installation of Roll forming Metal Sheet including other related roof and wall cladding materials and 3) Supply and installation of Solar Rooftop for residence, small building and medium and large building.

In terms of the financial performance, the revenue breakdown are 1) electricity distribution which derived from its solar farm projects and solar roof business, 2) sales and services on solar roof and steel business and 3) other income i.e. interest income from LI deposits at financial institutions, which contribute 90%, 8% and 2% of its total revenue respectively.

Since the consolidation with SPC in 2011, SPCG started earn 586 million Baht, arising to 1,277 million Baht and 2,523 million Baht in 2012 and 2013 respectively. The SPCG's CAGR for 2011-2013 is 62.66%. According the aforementioned of SPCG's revenue breakdown, SPCG's main revenue comes from the electricity distribution which SPCG earn from its completed 23 solar farm projects.

<u>Projects</u>	<u>Installed</u>	<u>Total Installed</u>	COD	
	<u>capacity/farm</u>	<u>capacity</u>		<u>Location</u>
	<u>(MW)</u>	<u>(MW)</u>		
Project 1	7.46	7.46	2010	Korat
Project 2-5	7.46	29.84	2011	Sakon Nakorn,
				Nakorn Panom,
				Korat, Loei
Project 6-9	7.46	29.84	2012	Khon Kaen,
		71.1		Korat
Project10-16	7.46	52.22	Jan 2013	Khon Kaen,
	24			Korat
Project 17-19	7.46	22.38	Jun 2013	Khon Kaen,
1 6				Korat
Project 20	7.46	7.46	Jul 2013	Khon Kaen
Project 21	7.46	7.46	Oct 2013	Khon Kaen
Project 22-23	7.46	14.92	Feb 2014	Surin
Project 24-26	7.46	22.38	Mar <mark>201</mark> 4	Surin, Buriram
Project 27-34	7.46	59.68	Apr 2 <mark>01</mark> 4	Buriram,
	6	00000		Nakhon Panom
Project 35-36	3. <mark>73</mark>	7.46	Jun 2 <mark>01</mark> 3	Lopburi
Total		261.10	ter en	

Table 1.2 SPCG's solar power project summary

Notes: SPCG completed COD of 23 solar farms or 132.8MW in Dec 2013

Based on the revenue recognition of its solar farm, solar roof and steel business, we noted that the revenue of 2014F arise 66.17% from FY2013, will increase from the addition completed solar farm project which will fully completed in Q2' 2014.

1.3 Macro-Economic Analysis and Industry Analysis

Recently updated on the resolutions made at the National Energy Policy Office meeting, the new Power Development Plan 2015–2036 (PDP 2015) will be finished in the next three months. The new plan includes a revision of the energy source goals, reducing the portion of natural gas used while raising the contributions from coal and alternative energy. Further, the Alternative Energy Development Plan 2015-36 will be implemented in parallel with the new PDP policy.

Under new PDP 2015, the alternative energy portion is expected to increase 25% of the country's total capacity by 2013, which attract the alternative energy sector to invest. Based on the increasing 25% of alternative energy portion, we estimate new solar capacity will rise to 4,600MW (up 17%) assuming it accounts for 27% of total forecast capacity of alternative energy in 2030. Besides the big opportunities aforementioned, noted the new solar-farm projects; Power Purchase Agreement (PPA) will change from of the "Adder" subsidy scheme and change to "Feed-in-tariff (Fit)".

And under the adjusted Alternative Energy Development Plan (AEDP) after the new PDP 2015, we noted that the solar power capacity expected to increase to 3,000MW by 2021. From the original solar power target of 2,000MW, only 1,493MW in solar farm capacity has been granted PPA. The remaining 500MW+ of capacity will need to be added to meet the AEDP's target.

1.4 Competition Analysis

1.4.1 Competition Analysis

In the alternative energy generating sector, especially solar power sector, we count SPCG Public Company Limited (SPCG), Gunkul Engineering Public Company Limited (GUNKUL) and Energy Absolutes Public Company Limited (EA) as big player in solar industry. While EGCO, RATCH and DEMCO, they operate many type of alternative energy e.g. wind, biomass etc.

Comparing from the capacity size, SPCG is grouped in the same rank with GUNKUL, EA and DEMCO, which are 56.90MW, 278MW and 60MW. While RATCH and EGCO are a lot larger capacity as compare with SPCG. Therefore, in terms of revenue recognition and CAGR, comparing the same ranking, SPCG, EA and DEMCO, we noted that SPCG has CAGR 62.66% which is higher than others in the same rank.

Company	Revenue 2013 (MB)	CAGR (2011-2013)	Total Capacity (MW)
SPCG	2,523.30	62.66%	261.10
GUNKUL	3,005.73	4.04%	56.90
RATCH	54,197.91	5.83%	6,500
EGCO	26,054.32	25.02%	32,629
EA	3,786.92	-11.34%	278
DEMCO	5,717.63	19.77%	60
IFEC	626.50	0.07%	10.39
10		404	

Table 1.3 Competitors information

1.4.2 Competition Opportunities

EA is a company which manufacturer and distributor of biodiesel (B100), diesel fuel, pure glycerin and raw materials and by-products. The company also has a business that production and distribution of electricity from solar energy as biodiesel business and renewable energy business. GUNKUL is a manufacturer for Electrical Power System and Renewable Energy System which has variety of products. Company's customers are both government and public. They provide Electrical Generating Plant, Transmission Line System, Substation System, Distribution Line System and Low Voltage Line System. Company also provides solar farm and solar roof.

Both EA and GUNKUL is counted as SPCG's direct competitors, as they both manufacturer and distributor of solar power. Comparing its solar power capacity of each company owned, we noted that EA is the biggest player in solar industry, then SPCG and GUNKUL respectively. In order to increase its solar power capacity as the opportunity opens under PDP 2015, SPCG expected to be the first ranking of the beneficiaries who gain most experience under solar farm operator, solar rooftop installation as SPCG is the pioneer in solar roof business guarantees. While EA will also gain solar farm operation sector as well as SPCG does. Meanwhile GUNKUL will get most benefit from EPC tasks from its most experience as compare with others. The bidding to continue will be the key assumption of revenue growth among three of them.

1.5 Investment Summary

Opportunities from New PDP:

The benefit from revised Power Development Plan 2015-2036 (PDP2015), the energy source goal aims to reduce the portion of natural gas used while raising the contributions from coal and alternative energy. They decrease gas energy source by 40% and increase alternative energy source by 25%.

The maximum capacity was also raised to not more than 5MW per farm from 1MW while the commercial operation date should be within December 2015. A feed-in tariff (FIT) will be applied to solar power generation during 2015-2016 to reflect the actual operation cost.

From the increasing 25% on alternative energy source, the allocation to solar energy will be 3,000MW. And with the current granted PPA, there will be 1,500MW available on solar energy, which it would take as the beneficial to SPCG.

New Distribution Channel at HomePro:

SPCG announced it was partnering with HMPRO to expand its EPC solarroof distribution network (residential type) under a program called "SPR Solar Roof, the Best Quality Solar Roof by HomePro". Customers interested in saving on their energy costs can contact their nearest HMPRO branch to apply for the service. Then SPCG will then provide a full service including design, obtaining the operating license process (only needed for electricity sales), and installation with high quality solar modules made by Kyocera and 2-years after-sale service.

New Investments in Japan

Memorandum of Understanding (MOU) sealed with TFD to develop Solar Roof Top about 5MW with total capital investment of 300 million Baht. SCPG will get adder income of 6 Baht/MW, which expected to recognize in Q3'2015.

SPCG also announced it would invest in a 150MW solar farm project in Japan with its partner, Kyocera. Under the plan, SPCG will invest around 1.0-1.5 billion Baht in exchange for a 10% stake in the project, or equivalent to 15MW. Construction is expected to start in early 2015. In addition, SPCG plans to invest in a new solar module manufacturing plant with Kyocera, taking a 10% stake. The total investment cost of the factory is expected to be around 1.0 billion Baht (or 100 million

Baht for SPCG's portion). In the initial stage, the factory will be able to produce up to 1MW of solar modules per year but the capacity can be increased to 5MW per year in the future. SPCG expects to start the production of 1MW of solar modules in the beginning of 2015.

With these announcements as positive for SPCG as they will add value and increase future cash flow to the company. Even though the expected return from the solar farm project in Japan is not particularly attractive compared to the company's projects in Thailand, because of the higher investment cost (mainly due to higher land prices) and lower availability of sunlight, we believe this move will open a new investment channel for SPCG internationally. As for the investment in the solar module manufacturing factory, we expect it will create cost savings for future solar projects and also create small additional cash flow for the company.

1.6 Valuation

According to SPCG's operation relies on its huge amount of operating assets, thus to value the Company's price by using multiple valuation we consider using Price/Earnings Ratio (P/E), Price/Book Value Ratio (P/BV) and EV/EBITDA. As we believe that it will reflect the most appropriated price of the Company.

1.6.1 Trailing Multiple Valuation (P/E and P/BV)

The trailing multiple indicators will determine whether the Company's price is over/under when comparing with its SET, industry sector, peer's competitors and historical data.

Price/Earnings Ratio (P/E)

As of 30 December 2014, SPCG's trailing P/E was 18.50 times which means the market perception toward SPCG's price is 18.50 times of its earnings per share. Among the peer's competitors, we noted that SPCG was ranked at 4th in energy sector. Comparing with SET's P/E and Energy's sector's P/E which is 17.81 times and 13.69 times respectively, we noted that SPCG's P/E was higher than both SET and

Energy's P/E. Thus, we conclusively consider SPCG is a bit expensive as comparing with its energy sector.



Price/Book Value Ratio (P/BV)

The P/BV ratio indicates the market price of the company over its equity value. SPCG's P/BV as of 30 December 2014 was 4.78 times, which was ranked at 3rd among its peers. While the peer's P/BV is around 1.17 times to 16.60 times. Additionally, comparing with SET's P/BV and Energy sector's P/BV which were 2.13 times and 1.32 times, we could conclusively say that SPCG's is quite overvalued as compare with its competitors' peer, industry sector and SET.

Price/Book Value (P/BV)

	•			
Rank	Company	P/BV (times)		P/BV (times)
1	EA	16.60	SET	2.13
2	GUNKUL	6.37	ENERGY	1.32
3	SPCG	4.78	SPCG	4.78
4	DEMCO	2.91		
5	RATCH	1.39		
6	FGCO	1 17		

* Information as of 31 December 2014 Source: Bloomberg/SETSMART





1.6.2 Forward Multiple Valuation (P/E, P/BV and EV/EBITDA)

We used forward multiple valuations to evaluate the price of the Company by using the 2014 forecasted earnings per share (EPS), book value (BV) and earnings before interest, taxes, depreciation and amortization (EBITDA). We consider GUNKUL, EA and DEMCO as SPCG's peers as we consider they have similar size and product among the same industry.

Forward Price/Earnings Ratio (P/E)

As it the measurement of the Company's forward looking-focus in the next 12 month, then we use the 2014 forecasted earnings to calculated forward P/E. We calculated the P/E of peer group, which comprises of GUNKUL, EA and DEMCO by taking the forecasted earning of such peer group, which to get the average forward P/E among peer group then multiply with 2014 forecasted earnings of SPCG to get the target price of the Company.

Forward P/E		321	17
Group Peer	Minimum	Maximum	Median
Group reer	Forward P/E	Forward P/E	Forward P/E
GUNKUL	9.22	36.89	23.05
EA	16.59	62.50	<u>39.5</u> 5
DEMCO	13.82	38.57	26.20
Average Forv	vard P/E Pe <mark>er</mark>	Group	29.60
SPCG's 2014	2.18		
Target Price	64.58		

Figure 1.6 Forward P/E of peer group from Bloomberg

From the calculation by using forward P/E of SPCG's peer group, we noted that the target price of SPCG states at 64.58 Baht.

Price/Book Value Ratio (P/BV)

P/BV ratio is used to compare the stock market value to its book value, to see whether what investor paying too much for what would be left if the company went bankrupt immediately. We calculate P/BV of peer group to get the average forward book value among peer group, then taking the forecast 2014 book value per share of SPCG to get the target price of the Company.

Forward P/BV

Group Peer	Minimum Forward P/BV	Maximum Forward P/BV	Median Forward P/BV
GUNKUL	1.98	7.94	4.96
EA	5.70	21.48	13.59
DEMCO	1.39	3.88	2.63
Average Forward P/BV Peer Group			7.06
SPCG's 2014 Forecasted Book Value			3,897.03
SPCG's number of share (million shares)			840.00
Target Price SPCG			32.77

Figure 1.7 Forward P/BV of peer group from Bloomberg

From the calculation by using forward P/BV of SPCG's peer group, we noted that the target price of SPCG states at 32.77 Baht.

EV/EBITDA Ratio

EV/EBITDA ratio is used to measure value of the company, which will determine the cash of return on investments to investors. We calculate EV/EBITDA of peer group to get the average forward EV/EBITDA among peer group, then taking the forecast 2014 EBITDA of SPCG to get the target price of the Company.

Forward EV/EBIT	DA			
Group Peer	Minimum Forward EV/EBITDA	Maximum Forward EV/EBITDA	Median Forward EV/EBITDA	
GUNKUL	4.22	16.89	10.55	
EA	39.44	148.59	94.02	
DEMCO	4.86	13.56	9.21	
Average Forward	P/BV Peer Grou	р	37.93	
SPCG's 2014 Fore	casted EBIT DA (r	million Baht)	3,114.72	
SPCG's 2014 EV (r	million Baht)		118,136.23	
Add SPCG's 2014	Value of cash (m	illion Baht)	300.00	
Less SPCG's 2014	Value of debt (m	illion Baht)	17,586.51	
Value of Equity			100,849.72	
SPCG's number of	share (million sh	ares)	924.00	
Target Price SPC	G		109.14	

Figure 1.8 Forward EV/EBITDA of peer group from Bloomberg

From the calculation by using forward EV/EBITDA of SPCG's peer group, we noted that the target price of SPCG states at 109.14 Baht.

1.7 Financial Analysis

1.7.1 Size Analysis

Table 1.4 Competitor information

	SPCG	GUNKUL	EA	RATCH	EGCO	DEMCO
Revenue 2013 (MB)	2,523.30	3,005.73	3,786.92	54,197.91	26,054.32	5,717.63
CAGR (2011-2013) (%)	62.66%	4.04%	-11.34%	5.83%	25.02%	19.77%
Total Capacity (MW)	261.10	56.90	278	6,500	32,629	60

Comparing among peers, we noted that SPCG earns 2,523 million Baht and its CAGR during 2011-2013 of 62.66% with its total capacity of 261.10MW.





SPCG breaks down its revenue into 1) electricity distribution income, 2) sales and services income and 3) other income. Firstly, the electricity distribution income is derived from solar power generating from its completed solar farm projects which distribute to PEA/MEA under the Power Purchase Agreement. Secondly, the sales and services income is derived from selling the steel products including the related services. Lastly, other income is mainly derived from interest income from deposit. As of 31 December 2013, SPCG stated its electricity distribution income of 2,065 million Baht, sales and services income of 407 million Baht and other income of 50 million Baht, which are 90%, 8% and 2% respectively. Comparing with its direct competitors, GUNKUL and EA, we noted that EA is ranked number one on earnings from its electricity distribution. It is the result of EA has highest electricity generation among these three companies, follow by SPCG and GUNKUL. Their total capacity is 278MW/hour, 261MW/hour and 57MW/hour, respectively.



Figure 1.10 SPCG's expense and competitors' comparison

For expenses structures, SPCG breaks down expenses into 4 mains of cost of electricity distribution, cost of goods sold ("COGS"), selling and general administration expenses ("SG&A") and finance cost. Its cost of electricity distribution mainly derives from the depreciation charge from the solar farm projects. Its COGS mainly derives from the cost of steel manufacturing and its solar farm construction business. Its SG&A mainly drives from the related expense of steel business finished goods, management and affiliated fee, consultant fee including employee expenses. While its finance cost drives from its debt financing.

As of 31 December 2013, SPCG stated its COGS of 806 million Baht, finance cost of 605 million Baht and SG&A of 403 million Baht, which are 45%, 33% and 22% respectively. Comparing with its direct competitors, we noted that EA has highest cost from electricity distribution, follow by SPCG and GUNKUL, due to the different proportion of total capacity the Company could produce. For the COGS, as comparing the size of solar farm construction business they have, we noted that EA

ranked no.1 among these three companies follow by GUNKUL and SPCG, then COGS of them are in lines with such business.



Figure 1.11 SPCG's assets and competitors' comparison

SPCG's proportion on its assets presents property, plant and equipment ("PPE") which it invests in its 36 solar farm projects and the rest proportion on its assets show inventories and account receivables from selling its steel products.

As of 31 December 2013, SPCG presented PPE amount of 18,937 million baht and others amount of 3,564 million Baht. Comparing with its direct competitors, SCPG has most portions on PPE which 18.93 million Baht, while GUNKUL has PPE of 657 million Baht and EA has PPE 0.78 million Baht, respectively. The result of having high portion of PPE than its direct competitors due to SPCG has more solar farm project than others (36 solar farm projects).



Figure 1.12 SPCG's liabilities & equity and competitors' comparison

SPCG's liability side mainly is long-term borrowing, regarding to the Company's financing policy which will finance 75% debt and 25% equity on investing in its solar farm project.

As of 31 December 2013, SPCG presented its long-term borrowing amount of 16,630 million Baht or approximately 74% of its liabilities. Comparing with its direct competitors, we noted that SPCG has the highest portion on long-term borrowing as comparing with its competitors, which is 74%, while GUNKUL has 0.33 million Baht or approximately 7.31% and EA has 0.14 million Baht 2.68% on longterm borrowing. Note: GUNKUL and EA using short-term borrowing for their financing while SPCG only uses long-term borrowing.

In terms of equity side, SPCG has less equity portion as compare with its competitors; it has 15.61% on equity. While GUNKUL has 68.14% and EA has 80.71% on equity, respectively. It supports the rational on their different financing structure model between SPCG and its competitors, as its competitors will finance by its equity than debt.

1.7.3 Trend Analysis



Figure 1.13 SPCG's trend analysis

Consider since 2011 which is the year that SPCG conglomerated with SPC, it leads SPCG has 34 solar farm projects. And according to the gradually completion of solar farm projects since 2011 to 2013, SPCG shows increasing trend on its revenue on electricity distribution and also its steel sales and services. In line with the cost of sales and services which also increase in order of the number of completed solar farm projects.

In terms of assets and liabilities side, it also increases in line with the number of solar farm projects that the company invested.

1.7.4 Financial Ratios Profitability Ratio

In term of seeing how well SPCG performs, we will look through its efficiency ratio and its profitability ratio. According the main assets which will generate income for the company is its solar farm projects, the efficiency ratio since 2011A to 2018F show increasing trends. Even the Company has no addition invest in its plants (according to no additional success bidding) but its existing plants still can generate income from it, in order of power distribution under PPA for 25 years after COD.



Figure 1.14 Profitability Ratio



Figure 1.15 Efficiency Ratio

To support the Company's brighten performance, its profitability ratio still show increasing trend of it total revenue, its net profit margin, its ROA and its ROE throughout the forecasting period (2014 - 2018) which will be good rational of saying the Company can guarantee its well performance at least over 25 years according to the PPA sustainably. Moreover, the Company still have chance to get additional project in the future according to the available opportunities open from AEDP, which the Company can take it as its benefit of earning the sustainable profit and also could satisfy its stakeholders' expectation.

Comparing with its direct competitors' performance as of 31 December 2013, SPCG shows its net profit margin at 25.25% while DEMCO shows its net profit margin at 4.22%. According to the comparison number, SPCG outperforms DEMCO according to the net profit taken.

Liquidity Ratio

In terms of the liquidity concern of the company, SPCG shows its current ratio at 0.12 times, comparing with DEMCO states at 1.2 times. The interpretation of current ratio demonstrates how capable the Company could its obligation over 12 months. From this comparison between SPCG and DEMCO, we noted that SPCG may face the problem of paying its obligation as comparing with DEMCO.

In order of measuring how liquid of asset the Company could turn to repay its current liabilities, SPCG's quick ratio show at 0.42 times and DEMCO shows at 0.48 which mean SPCG has 0.42 Baht to cover its 1 Baht of its current liabilities while DEMCO has 0.48 Baht. It is insignificantly different in terms of comparing who has more liquid assets.

Solvency Ratio

Consider the solvency risk itself on SPCG, we noted that the Company has high risk regarding to its financing policy which will use 75:25. Comparing the D/E ratio of SPCG and GUNKUL, we noted that D/E ratio at 5.40 times and 0.88 times, respectively. The higher D/E ratio indicates that higher leverage and also indicated the higher financial risk of the company.



Figure 1.17 SPCG and GUNKUL total debt

However, although SPCG has higher D/E ratio than GUNKUL but we have no concern much as the Company still show its ability to pay its interest including its principal of debt. Those could demonstrate the company wellmanagement on it solvency risk. Additionally, the Company concerns refinancing debt which could lower its interest on the company leverage and in a long-run management.

1.8 Investment Risks

National Resources and National Disaster

Operating solar power business depends on the sunlight. In case the intensity of solar radiation is lower than average or there are more clouds in some

years, these will affect the company's solar farm, as it will be unable to produce electricity at full capacity and may have an impact on the income from the sale of generating electricity.

The solar farm project locations chosen also considered, as the location risky on having the effects of natural disasters will lead to higher construction and maintenance costs, then reflect the company's profit eventually.

Uncertainly of Government Regulations and Policies

Thailand is considered as country of instability political systems, which has influence to Thailand's financial market and the investor's attractiveness. Additionally, operating the alternative energy business need to comply all requirements set and the National Energy Policy released by the Ministry of Energy. Hence, the political instability will reflect to the instability of the Governments and the Cabinets to responsible on completing the Power Purchase Agreement ("PPA") and Commercial Operation Date ("COD") of the energy company.

Since the National Energy Policy given by the Ministry of Energy will announce the current Thailand's Energy Production and the expected energy demand. In order to support the National Energy Policy given, the 10 years Power Development Plan (PDP) is released to development and promote the energy production to be more achievable. Therefore, the PDP direction is much important to the energy company. The risk of instability announced policy and unclear of the rules and regulations will be concerned.

Relying on a Single Manufacturer of Solar Photovoltaic (PV) Panels and Inverters

Due to Solar Farm project, each of SPC and SPA's projects is ordered solar PV panels from Kyocera Asia Pacific Pte., Ltd. (Kyocera) and inverters from SMA Solar Technology AG (SMA) only. In the event that Kyocera and SMA discontinue their operations, this will effect on the construction of each remaining Solar Farm project.

The Early Degradation of Solar Panels

The amount of electricity produced by solar farms depends on several factors. One of those factors resulting in the amount of electricity is the degradation of solar panels. If the degradation is earlier than usual, it may have the effect on the amount of electricity which is less generated and the income is less than expected.

Reinvestment Risk

According to the energy project is normally used leverage financing, which SPCG refinanced its 10-years long-term borrowing to 5-years debentures to take benefit from low interest rate from the current situation. In terms of repay its long-term debt, SPCG still facing the reinvestment risk of its remaining 5 years long-term borrowings due to the fluctuation of the future interest rate.



CHAPTER II DATA

2.1 Income Statement

Table 2.1 Income statement

SPCG PUBLIC COMPANY LIMITED ("SPCG") STATEMENT OF COMPREHENSIVE INCOME (Unit : Million Baht)

201308

			-				A			
ltem	2009A	2010A	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
Revenue								12.1		
Electricity Distribution	148	145	451	1,001	2,265	3,876	4,141	4,167	4,199	4,232
Sales and Services	145	166	128	213	208	233	262	294	331	372
	293	311	579	1,214	2,473	4,109	4,403	4,462	4,530	4,604
Other Income	3	5	8	63	50	53	49	48	55	53
Total Rev <mark>enu</mark> es	296	316	586	1,277	2,523	4,162	4,452	4,510	4,585	4,657
Cost of Sales and Rendering Services	249	255	305	568	806	1,089	879	879	879	879
Selling and Administratives Expenses	40	47	131	271	403	855	916	928	943	958
Total Expesnses	289	302	437	838	1,209	1,944	1,795	1,808	1,822	1,837
Profit (Loss) before Finance Costs and				- 10						
Income Expenses	7	14	149	439	1,314	2,218	2,656	2,702	2,763	2,820
Finance Costs	2	1	103	230	605	915	812	750	672	593
Income Tax Expenses	2	4	33	43	64	119	168	178	190	203
Net Profit (Loss)	4	9	14	166	644	1,185	1,677	1,774	1,901	2,024

1110

UNIT

2.2 Balance Sheet

Table 2.2 Balance sheet

2009A	2010A	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
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			504	021					- 930
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41	20	30		667	488	466	477	472	474
									415
	-								2,339
	11								1,596
	-		556	007	1,420	1,527	1,047	1,371	1,590
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		-	106	-	C	5	C	Э	5
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	M	1000	1	-				-	5
						164	164	164	164
the state of					A 44 4				
17	23	2,644	7,145	16,815	17,771	16,898	14,873	11,929	9,722
17 105	23 70	2,644 4,045	7,145 10,463	16,815 18,988	17,771 20,793	18,681	16,333	13,742	11,091
17 105 50	23 70 500	2,644 4,045 840	7,145 10,463 840	16,815 18,988 840	17,771 20,793 840	18,681 840	16,333 840	13,742 840	11,091 840
17 105 50 50	23 70 500 50	2,644 4,045	7,145 10,463 840 560	16,815 18,988 840 840	17,771 20,793 840 924	18,681 840 924	16,333 840 924	13,742 840 924	11,091 840 924
17 105 50 50 26	23 70 500 50 26	2,644 4,045 840 500	7,145 10,463 840 560 1,252	16,815 18,988 840 840 1,163	17,771 20,793 840 924 1,163	18,681 840 924 1,163	16,333 840 924 1,163	13,742 840 924 1,163	11,091 840 924 1,163
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17 105 50 26 11	23 70 500 50 26 17	2,644 4,045 840 500 - (12) 80	7,145 10,463 840 560 1,252 53	16,815 18,988 840 840 1,163 548 89	17,771 20,793 840 924 1,163 1,466 89	18,681 840 924 1,163 2,766 89	16,333 840 924 1,163 4,142 89	13,742 840 924 1,163 5,617 89	11,091 840 924 1,163 7,186 89
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17 105 50 26 11	23 70 500 50 26 17	2,644 4,045 840 500 - (12) 80	7,145 10,463 840 560 1,252 53	16,815 18,988 840 840 1,163 548 89	17,771 20,793 840 924 1,163 1,466 89	18,681 840 924 1,163 2,766 89	16,333 840 924 1,163 4,142 89	13,742 840 924 1,163 5,617 89	11,091 840 924 1,163 7,186 89
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2.3 Statement of Cash Flow

Table 2.3 Statement of Cash Flow

SPCG PUBLIC COMPANY LIMITED ("SPCG")										
STATEMENT OF CASHFLOW										
(Unit : Million Baht)										
Item	2009A	2010A	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
Profit (Loss) before Income Tax Expenses	5	13	47	209	708	1.303	1.845	1.952	2.092	2.227
Depreciation and Amortization	8	8	76	163	347	897	736	736	736	736
Bad Debt and Doubtful Account (Reversal)	2	° 2	0	(14)	347	- 097	- 130		- 130	/ 30
Loss on Obsolescence (Reversal)	0.10	-	2	(14)	5	-				-
Loss on Diminution in Value of Inventories	0.10		2	-	-		-			-
(Reversal)	1	-	0.05		. 1	State of the local division of the local div				
Share of (Profit) Loss from Investments	100		0.05		• • ·				-	-
Accounted for using the Equity Method				2	403	1.1				
0 1 7			-	2	(19)	· ·	-		-	-
Unrealised (Gain) Loss on Foreign Currency	0.00	- C	40	(2.5.)	00			1 N N		
Exchange	- 0.22		19	(35)	26		-			-
(Gain) Loss on Disposal of Other Investments		- (2)	(2)	0						
(Gain) Loss on Disposal of Fixed Assets Loss on Write-Off Fixed Assets	(0)	(2)	(1)	5	(0)		1. C			-
	0.02		0		0	-		- /		
Loss on Write-Off Other Assets		•	1	0		-	-	-	-	-
Finance Costs	1	-	102	440	605	915	812	750	672	593
Income Tax	-	2	•	-	-	119	168	178	190	203
Other Reconciliation Items	-	1	2	(18)	(23)	-	-		-	
Cash Flows from (Used In) Operations	17	25	245	750	1,651	3,233	3,560	3,616	3,690	3,758
before Changes in Operating Assets and										- 11
Liabilities			-		4					
(Increase) Decrease in Operating Assets	(5)	32	(413)	(618)	(1,160)	(201)	154	(89)	31	(31)
Increase (Decrease) in Operating Liabilities	(3)	(12)	(20)	288	646	850	(1,239)	(323)	352	(443)
Cash Generated from Operations	9	44	(187)	420	1,138	3,882	2,475	3,204	4,072	3,285
Income Tax Paid	(4)	(4)	(31)	(54)	(57)	(57)	(57)	(57)	(57)	(57)
Net Cash Provided by (Used In) Operating		- I	M 4							- 11
Activities	5	40	(219)	366	1,080	3,824	2,418	3,146	4,015	3,227
(Increase) Decrease in Long-term Investments	-	•	13			-	-	1	-	12
(Increase) Decrease in Investment in	-	- 17	$T \sim 0$	(98)	(86)		-	11	-	18
Subsidiaries and Associates		- 11	(A)	I / I	<u> </u>			// /		
(Increase) Decrease in Advances and Short-	-	\mathcal{Y}^{-}	$\square h$	(50)	50	-	- <u></u>	1 - 4	-	11 -
term Loans - Related Parties	<u> </u>	1			- ///			-		
(Increase) Decrease in Property, Plant and	(1)	- 0.43	(1,771)	(6,053)	(8,336)	(3,200)	(310)	(10)	(10)	(10)
Equipments	<u> </u>		North Contraction	LAN"	11	100	100.		V/ 4	
(Increase) Decrease in Intangible Assets	- 0.09		- 0.32	(5)	(1)	11	1.00		12	-
(Increase) Decrease in Restricted Deposits at			(49)	0	(231)	(567)	(102)	(20)	(24)	(25
Financial Institutions	1	Lane -			1			111		
Interest Received		1.1.1	1	8	10	16	15	14	16	16
OtherItems		1.1	(46)			1.1	11		-	-
Net Cash Provided by (Used In) Investing						the set	1			
Activities	(1)	(0)	(1,852)	(6,198)	(8,595)	(3,752)	(397)	(16)	(17)	(20)
Increase (Decrease) in Borrowing	(1)	(16)	2,561	4,995	7,455	(705)	(2,280)	(3,298)	(4,049)	(3,145
Increase (Decrease) in Financial Lease	(2)	(4)	(5)	(4)	(3)	1	1	1	1	1
Contract Liabilties										
Proceeds from Issuance of Share Capital	-	-	-	25	366	84	-	-	-	-
Proceeds in Advance from Share Subscription	-	-	-	-	45	-	-	-	-	-
Durahara (Tarana Ohana	-	-	-	(20)	-	-	-	-	-	-
Purchase of Treasury Shares	(0)	(1)	-	-	(105)	(355)	(503)	(532)	(570)	(607
Dividend Paid	(9)		(74)	(238)	(11)	915	812	750	672	593
-	(9)	(12)	(71)	(/						-
Dividend Paid		(12)	(432)	833	(17)	-		-	-	-
Dividend Paid Interest Paid	(1)				(17)	-			-	
Dividend Paid Interest Paid Other Items	(1)				(17)	- (61)	- (1,971)	- (3,080)	(3,947)	
Dividend Paid Interest Paid Other Items Net Cash Provided by (Used In) Financeing	(1)	-	(432)	833					(3,947)	
Dividend Paid Interest Paid Other Items Net Cash Provided by (Used In) Financeing Activities	(1)	-	(432)	833					(3,947)	(3,158)
Dividend Paid Interest Paid Other Items Net Cash Provided by (Used In) Financeing Activities Net Increase (Decrease) in Cash and Cash	(1)	- (34)	(432) 2,054	833 5,592	7,732	(61)	(1,971)	(3,080)		(3,158

2.4 Common Size

Table 2.4 Common size

COMMON SIZE ANALYSIS								
PROFIT AND LOSS STATEMENT	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
Item	20110	2012A	2013A	20141	20101	20101	20111	20101
Revenue								
Electricity Distribution	76.92%	78.40%	89.77%	93.13%	93.02%	92.42%	91.59%	90.889
Sales and Services	21.76%	16.68%	8.23%	5.60%	5.89%	6.53%	7.21%	7.989
	98.68%	95.08%	98.00%	98.73%	98.90%	98,94%	98.81%	98.869
Other Income	1.32%	4.92%	2.00%	1.27%	1.10%	1.06%	1,19%	1.14
Total Revenues	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Sales and Services	52.11%	44.44%	31,95%	26.17%	19.75%	19.49%	19.17%	18.889
Selling and Administratives Expenses	22.43%	21.20%	15.98%	20.54%	20.58%	20.59%	20.56%	20.579
Finance Costs	17.52%	18.00%	23.99%	21.98%	18.23%	16.63%	14.65%	12.749
Income Tax Expenses	5.56%	3.36%	2.56%	2.85%	3.77%	3.94%	4.15%	4.359
Total Expenses	97.62%	87.00%	74.48%	71.54%	62.33%	60.65%	58.53%	56.54%
Net Profit (Loss)	2.38%	13.00%	25.52%	28.46%	37.67%	39.35%	41.47%	43.46
BALANCE SHEET								
	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
I tem S								
Cash and Cash Equivalents	0.93%	0.55%	1.28%	1.17%	1.39%	1.63%	1.88%	2.15
Cash and Cash Equivalents Investments	0.93%	0.55% 0.00%	1.28% 0.00%	1.17% 0.00%	1.39% 0.00%	1.63% 0.00%	1.88% 0.00%	2.159
Cash and Cash Equivalents Investments Restricted Cash	0.93%	0.55%	1.28%	1.17%	1.39%	1.63%	1.88%	2.159 0.009 6.879
ttem Cash and Cash Equivalents Investments Restricted Cash Account Receivables	0.93% 5.07% 0.00% 2.50%	0.55% 0.00% 4.28% 4.48%	1.28% 0.00% 3.81% 2.76%	1.17% 0.00% 5.57% 3.91%	1.39% 0.00% 6.07% 3.46%	1.63% 0.00% 6.30% 3.86%	1.88% 0.00% 6.58% 3.86%	2.159 0.009 6.879 4.099
ttem Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories	0.93% 5.07% 0.00% 2.50% 0.57%	0.55% 0.00% 4.28% 4.48% 0.42%	1.28% 0.00% 3.81% 2.76% 2.97%	1.17% 0.00% 5.57% 3.91% 1.91%	1.39% 0.00% 6.07% 3.46% 1.85%	1.63% 0.00% 6.30% 3.86% 1.94%	1.88% 0.00% 6.58% 3.86% 1.98%	2.159 0.009 6.879 4.099 2.049
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net	0.93% 5.07% 0.00% 2.50% 0.57% 78.27%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10%	2.159 0.009 6.879 4.099 2.049 80.169
BALANCE SHEET Ltem Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets	0.93% 5.07% 0.00% 2.50% 0.57%	0.55% 0.00% 4.28% 4.48% 0.42%	1.28% 0.00% 3.81% 2.76% 2.97%	1.17% 0.00% 5.57% 3.91% 1.91%	1.39% 0.00% 6.07% 3.46% 1.85%	1.63% 0.00% 6.30% 3.86% 1.94%	1.88% 0.00% 6.58% 3.86% 1.98%	2018F 2.159 0.009 6.879 4.099 2.049 80.169 4.699 100.009
ttem Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets	0.93% 5.07% 0.00% 2.50% 0.57% 78.27% 12.68% 100.00%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80% 4.43% 100.00%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00%	2.159 0.009 6.879 4.099 2.049 80.169 4.699 100.009
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing	0.93% 5.07% 0.00% 2.50% 0.57% 70.27% 12.66% 100.00% 9.48%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00% 9.18%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 0.00%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 0.00%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80% 4.43% 100.00% 0.00%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00% 0.00%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 0.00%	2.159 0.009 6.879 4.099 2.049 80.169 4.699 100.009 0.009
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables	0.93% 5.07% 0.00% 2.50% 0.57% 78.27% 12.66% 100.00% 9.48% 3.42%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00% 9.18% 1.59%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 0.00% 3.41%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 0.00% 7.04%	1.39% 0.00% 6.07% 3.46% 1.85% 02.80% 4.43% 100.00% 0.00% 2.97%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00% 0.00% 2.47%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 0.00% 4.79%	2.159 0.009 6.879 4.099 2.049 80.169 4.699 100.009 0.009 3.809
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Long-term Borrowings	0.93% 5.07% 0.00% 2.50% 0.57% 70.27% 12.66% 100.00% 9.48%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00% 9.18%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 0.00% 3.41% 73.91%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 0.00% 7.04% 53.13%	1.39% 0.00% 6.07% 3.46% 1.85% 02.80% 4.43% 100.00% 0.00% 2.97% 50.57%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00% 0.00%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 0.00% 4.79% 32.45%	2.159 0.009 4.099 2.049 80.169 100.009 0.009 3.809 23.839
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Long-term Borrowings Debentures	0.93% 5.07% 0.00% 2.50% 0.57% 12.68% 100.00% 9.48% 3.42% 47.01%	0.55% 0.00% 4.28% 4.48% 0.42% 0.42% 0.5.41% 4.86% 100.00% 9.18% 1.59% 53.38%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 0.00% 3.41%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 0.00% 7.04%	1.39% 0.00% 6.07% 3.46% 1.85% 02.80% 4.43% 100.00% 0.00% 2.97%	1.63% 0.00% 6.30% 3.86% 1.94% 4.50% 100.00% 0.00% 2.47% 43.51%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 0.00% 4.79%	2.159 0.009 6.879 4.099 2.049 80.169 4.699 100.009 0.009 3.809
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Long-term Borrowings Debentures Finance Lease Agreements	0.93% 5.07% 0.00% 2.50% 0.57% 12.68% 100.00% 9.48% 3.42% 47.01% 0.00%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.88% 100.00% 9.18% 1.59% 53.38% 0.00%	1.28% 0.00% 3.81% 2.76% 0.2.97% 04.16% 5.02% 100.00% 0.00% 3.41% 73.91% 0.00%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 0.00% 7.04% 53.13% 15.64%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80% 4.43% 100.00% 0.00% 2.97% 50.57% 15.91%	1.63% 0.00% 6.30% 3.88% 1.94% 4.50% 100.00% 0.00% 2.47% 43.51% 16.28%	1.88% 0.00% 6.58% 3.86% 1.98% 8110% 4.60% 4.60% 100.00% 0.00% 4.79% 32.45% 16.75%	2.159 0.009 6.879 4.099 2.049 80.169 100.009 100.009 3.809 23.839 17.219
ttem Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets	0.93% 5.07% 0.00% 2.50% 0.57% 12.66% 100.00% 9.48% 3.42% 47.01% 0.00% 0.20%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00% 9.18% 1.59% 53.38% 0.00% 0.05%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 100.00% 3.41% 73.91% 0.00% 0.07%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 7.04% 53.13% 15.64% 0.06%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80% 4.43% 100.00% 0.00% 2.97% 50.57% 15.91% 0.06%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00% 0.00% 2.47% 43.51% 16.28% 0.06%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 100.00% 4.79% 32.45% 16.75% 0.06%	2.159 0.009 6.879 4.099 2.049 80.169 100.009 0.009 3.809 23.839 17.219 0.059
Item Cash and Cash Equivalents Investments Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Long-term Borrowings Debentures Finance Lease Agreements Other Liabilities	0.93% 5.07% 0.00% 2.50% 0.57% 78.27% 12.66% 100.00% 9.48% 3.42% 47.01% 0.00% 0.20% 17.66%	0.55% 0.00% 4.28% 4.48% 0.42% 85.41% 4.86% 100.00% 9.18% 1.59% 53.38% 0.00% 0.05% 15.97%	1.28% 0.00% 3.81% 2.76% 2.97% 84.16% 5.02% 100.00% 0.00% 3.41% 7.381% 0.00% 0.07% 7.00%	1.17% 0.00% 5.57% 3.91% 1.91% 83.05% 4.38% 100.00% 7.04% 53.13% 15.64% 0.06% 5.44%	1.39% 0.00% 6.07% 3.46% 1.85% 82.80% 4.43% 100.00% 0.00% 2.97% 50.57% 15.91% 0.06% 4.80%	1.63% 0.00% 6.30% 3.86% 1.94% 81.77% 4.50% 100,00% 0.00% 2.47% 4.351% 16.28% 0.06% 4.16%	1.88% 0.00% 6.58% 3.86% 1.98% 81.10% 4.60% 100.00% 0.00% 4.79% 32.45% 16.75% 0.06% 3.51%	2.155 0.009 6.879 2.044 80.169 100.009 0.009 3.800 2.383 17.219 0.055 2.825

2.5 Trend Analysis

Table 2.5 Trend Analysis

SPCG PUBLIC COMPANY LIMITED ("SPCG" TREND ANALYSIS	1					
(Unit : '000 Baht)	B.4.05					
	BASE					
	2011	2012	2013	2011	2012	2013
Item						
Revenue	150.000					
Electricity Distribution	450,980	1,001,312	2,265,261	100%	222%	502%
Sales and Services	127,585	213,045	207,603	100%	167%	163%
	578,565	1,214,357	2,472,864	100%	210%	427%
Other Income	7,722	62,832	50,440	100%	814%	653%
Total Revenues	586,287	1,277,189	2,523,304	100%	218%	430%
Cost of Sales and Services	305,493	567,621	806,239	100%	186%	264%
Selling and Administratives Expenses	131,477	270,788	403,259	100%	206%	307%
Finance Costs	102,739	229,860	605,378	100%	224%	589%
Income Tax Expenses	32,596	42,855	64,472	100%	131%	198%
Total Expenses	572,305	1, <mark>1</mark> 11,124	1,879,348	100%	194%	328%
Net Profit (Loss)	13,982	166,065	643,956	100%	1188%	4606%
	BASE 2011	2012	2013	2011	2012	2013
Item	2011		2010	2011	LUIL	2010
Cash and Cash Equivalents	48,361	70,000				
		72,192	288,505	100%	149%	597%
Investments	263,620	72,192	288,505 -	100% 100%	149% 0%	
Investments Restricted Cash	263,620	72,192	288,505 - 857,464.00			
Restricted Cash	263,620		<u> </u>	100%	0%	0% #DIV/0!
		558,392.00	857,464.00	100% #DIV/0!	0% #DIV/0!	0% #DIV/0! 476%
Restricted Cash Account Receivables	130,285	- 558,392.00 584,369	857,464.00 620,712	100% #DIV/0! 1 <mark>00%</mark>	0% #DIV/0! 449%	0% #DIV/0! 476% 2260%
Restricted Cash Account Receivables Inventories	130,285 29,536	- 558,392.00 584,369 54,939	857,464.00 620,712 667,384	100% #DIV/0! 100% 100%	0% #DIV/0! 449% 186%	597% 0% #DIV/0! 476% 2260% 465% 172%
Restricted Cash Account Receivables Invertories Property, Plant and Equipments - Net	130,285 29,536 4,070,894	558,392.00 584,369 54,939 11,147,901	857,464.00 620,712 667,384 18,937,045	100% #DIV/0! 100% 100%	0% #DIV/0! 449% 186% 274%	0% #DIV/0! 476% 2260% 465%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets	130,285 29,536 4,070,894 658,504	558,392,00 584,369 54,939 11,147,901 634,036	857,464.00 620,712 667,384 18,937,045 1,129,717	100% #DIV/0! 100% 100% 100%	0% #DIV/0! 449% 186% 274% 96%	0% #DIV/0! 476% 2260% 465% 172%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing	130,285 29,536 4,070,894 658,504 5,201,200	558,392,00 584,369 54,939 11,147,901 634,036 13,051,829	857,464.00 620,712 667,384 18,937,045 1,129,717	100% #DIV/0! 100% 100% 100% 100%	0% #DIV/0! 449% 186% 274% 96% 251%	0% #DIV/0! 476% 2260% 465% 465% 172% 433%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets	130,285 29,536 4,070,894 658,504 5,201,200 493,241	558,392,00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827	100% #DIV/0! 100% 100% 100% 100% 100%	0% #DIV/0! 449% 186% 274% 96% 251% 243%	0% #DIV/0! 476% 2260% 465% 172% 433%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-ferm Borrowing Account Payables	130,285 29,536 4,070,894 658,504 5,201,200 493,241 177,721	558,392.00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870 208,057	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827 767,165	100% #DIV/0! 100% 100% 100% 100% 100% 100%	0% #DIV0! 449% 186% 274% 96% 251% 243% 117%	0% #DIV/0! 476% 2260% 465% 172% 433% 0% 432%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Borrowings	130,285 29,536 4,070,894 658,504 5,201,200 493,241 177,721	558,392.00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870 208,057	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827 767,165	100% #DIV/0! 100% 100% 100% 100% 100% 100%	0% #DIV0! 449% 186% 274% 96% 251% 243% 117%	0% #DIV/0! 476% 2260% 465% 172% 433% 0% 432%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Borrowings Debenture	130,285 29,536 4,070,894 658,504 5,201,200 493,241 177,721 2,445,322	558,392.00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870 208,057 6,967,304	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827 767,165 16,630,341	100% #DIV/0! 100% 100% 100% 100% 100% 100%	0% #DIV/0! 449% 186% 274% 96% 251% 243% 117% 285% -	0% #DIV/0! 476% 2260% 465% 172% 433% 0% 432% 680% - 156%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Borrowings Debenture Finance Lease Agreements	130,285 29,536 4,070,894 658,504 5,201,200 493,241 177,721 2,445,322 10,216 918,581	558,392,00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870 208,057 6,967,304 - 6,201 2,083,759	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827 767,165 16,630,341	100% #DIV/0! 100% 100% 100% 100% 100% 100% 100%	0% #DIV/0! 449% 186% 274% 96% 251% 243% 117% 285% - 61%	0% #DIV/0! 476% 2260% 465% 172% 433% 0% 432% 680%
Restricted Cash Account Receivables Inventories Property, Plant and Equipments - Net Other Assets Total Assets Bank Overdraft and Short-term Borrowing Account Payables Borrowings Debenture Finance Lease Agreements Other Liabilities	130,285 29,536 4,070,894 658,504 5,201,200 493,241 177,721 2,445,322	558,392,00 584,369 54,939 11,147,901 634,036 13,051,829 1,197,870 208,057 6,967,304 - 6,201	857,464.00 620,712 667,384 18,937,045 1,129,717 22,500,827 767,165 16,630,341 15,923 1,574,278	100% #DIV/0! 100% 100% 100% 100% 100% 100% 100% 10	0% #DIV/0! 449% 186% 274% 96% 251% 243% 117% 285% - 61% 227%	0% #DIV/0! 476% 2260% 465% 172% 433% 0% 432% 680% - 156% 171%

2.6 Financial Ratio

Table 2.6 Financial Ratio

SPCG PUBLIC COMPANY LIMITED ("SPCG")

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FINANCIAL RATIOS								
	2011A	2012A	2013A	2014F	2015F	2016F	2017F	2018F
Item								
Profitability Ratio								
Gross Profit Margin (%)	47.89%	55.56%	68.05%	73.83%	80.25%	80.51%	80.83%	81.12%
EBIT Margin (%)	25.47%	34.36%	52.07%	53.29%	59.67%	59.92%	60.27%	60.55%
EBITDA Margin (%)	12.54%	21.60%	38.31%	31.74%	43.14%	43.60%	44.21%	44.75%
Net Profit Margin (%)	2.38%	13.00%	25.52%	28.46%	37.67%	39.35%	41.47%	43.46%
ROA(%)	0.27%	1.27%	2.86%	4.63%	6.67%	7.22%	7.96%	8.71%
ROE (%)	2.46%	8.91%	24.40%	32.53%	33.93%	28.08%	24.40%	21.62%
SG&A/Sale	22.72%	22.30%	16.31%	20.81%	20.81%	20.81%	20.81%	20.81%
Liquidity Ratio					X			
Current Ratio (x)	0.24	0.14	0.12	0.12	0.12	0.15	0.19	0.24
Quick Ratio (x)	0.32	0.20	-0.42	0.43	0.68	0.92	0.76	1.06
Efficiency Ratio			0					
Total Asset Tumover (x)	0.22	0.13	0.14	0.17	0.17	0.18	0.19	0.20
Fixed Asset T urnover (x)	0.28	0.16	0.16	0.20	0.21	0.22	0.23	0.24
Solvency Ratio		<u> </u>	****					
Debt Ratio (%)	77.77%	80.1 <mark>7%</mark>	84.39%	81.30%	74.31%	<mark>66</mark> .49%	57.55%	47.70%
Debt to Equity Ratio (x)	3.50	4.04	5.40	4.35	2.89	1.98	1.36	0.91
Equity Multiply (x)	4.50	5.04	6.40	5.35	3.89	2.98	2.36	1.91
Long Term Debt Ratio (%)	47.01%	53.38%	73.91%	68.77%	66.49%	<mark>59.8</mark> 0%	49.20%	41.03%
Interest Coverage Ratio (x)	1.45	1.91	2.17	2.42	3.27	3.60	4.11	4.75

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REFERENCES

- Cheokul, Renu, Ph.D. (2012). The Renewable and Alternative Energy Development Plan for 25 Percent in 10 Years (AEDP 2012-2021). Available:
- Energy Power and Planning Office. Ministry of Energy. Thailand Energy Master Plan 2015-2035. Available: <u>http://www.eppo.go.th/index-e.html</u>. (2014, October 24).

http://www.dede.go.th/dede/images/stories/dede_aedp_2012_2021.pdf. (April 2012).

- Kurovat, Wattanapong. Financial Mechanism for Renewable Energy. Available: <u>http://eeas.europa.eu/delegations/thailand/documents/thailande_eu_coop/e</u> <u>nergy_efficiency/3_financial_mechanism_for_renewable_energy_by_mr_</u> <u>wattanapong_en.pdf</u>. (2012, November 27)
- SPCG Public Company Limited. Company Financial Data. Avaiable: <u>http://www.bloomberg.com/markets</u>. (2014, December 30)
- SPCG Public Company Limited. Company Financial Data. Available: http://www.setsmart.com/. (2014, October 18)
- SPCG Public Company Limited. Company Info. Available:

http://www.spcg.co.th/index.php/en/about/. (2014, October 18).

TISCO Securities Company Limited. Solar Sector. Available:

http://www.tiscosec.com/index.jsp?language=TH (2014, September 15).