



# Q1 2016 Results Presentation Analyst Meeting

12th May 2016



## 9.5% committed CAGR

New 5 MW solar farm project has been recently added to GPSC's committed projects. GPSC's existing committed projects will add 584 MW more to achieve 1,922 operating MW by 2019, marking 9.5% committed CAGR within 3 years.

# **THB 871 Million in profit**

GPSC achieved significant higher profit in Q1 2016 by 64% YoY and 160% QoQ from capacity expansion of operating power plants and the optimization of the power plants'

production process.

Moreover, dividend income contributed to net profit by THB 180 million.

Crowth



# **Operational Effectiveness**

Sustainability

Control

# 8 projects in progress

GPSC's Management team ensure efficient project management and high competent staffs, both domestic and international projects in order to meet the construction schedule and COD according to predetermined schedule.

GPSC has developed a Sustainability Framework in order to drive business growth paralleling with sustainability to achieve DJSI listing within 2019. In 2016, GPSC focus on Operational Effectiveness to improve operating performance. In Q1/2016, Rayong Power Plant's optimization has improved gross profit margin to 25%.







## **EPSC** GPSC's equity MW capacity of 1,922 MW

#### **BUSINESS PORTFOLIO**



**Combined Cycle / Cogeneration** 

- Electricity 1,517 MW
- Steam 1,582 T/H

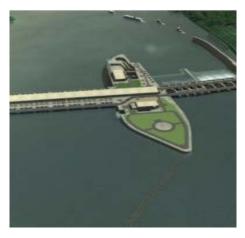
Capacity

Chilled Water 12,000 RT



**Renewable Energy** 

• Electricity 58 MW



**Hydroelectric** 

• Electricity 347 MW



**Other Businesses** 

- 24M Technologies, Inc. (USA)
- **Business Service Alliance** Co.,Ltd.

## **STEAM**

1,582 T/H (operate 1,431.7 T/H)

## **INDUSTRIAL WATER**

2,080 Cu.m./H

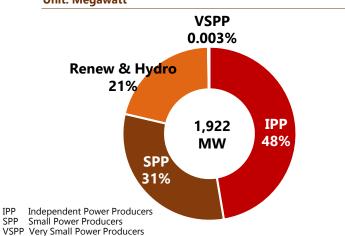
## **ELECTRICITY**

1,922 MW (operate 1,338 MW, under constriction 584 MW)

### **CHILLED WATER**

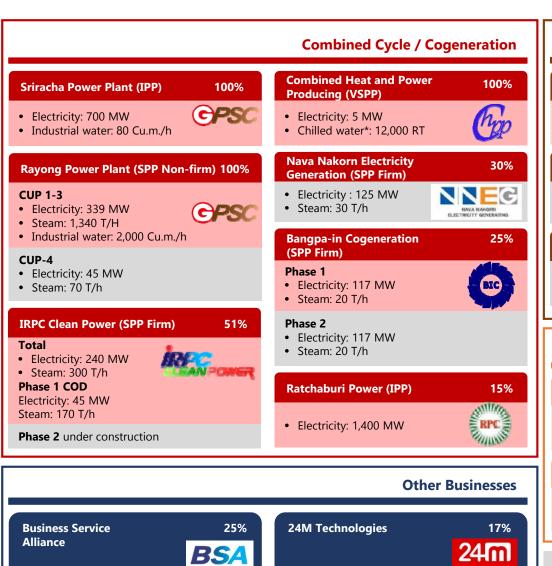
12.000 RT

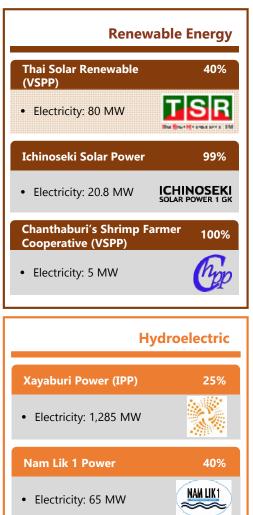
#### **ELECTRICITY CAPACITY BREAKDOWN Unit: Megawatt**





## GPSC's Business Portfolio





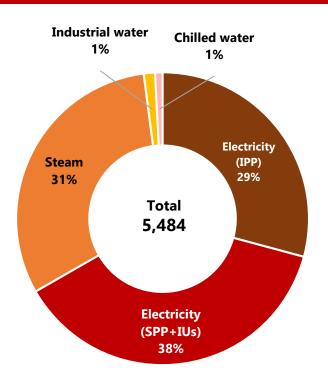


Project under construction



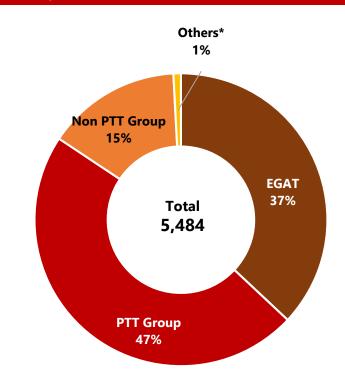
# 70% of GPSC's revenue is from electricity, PTT Group is GPSC's major customer

## Q1/16 Revenue by product (THB million)



• Electricity and Steam are major source of GPSC's revenue, accounted for 98% of total revenue.

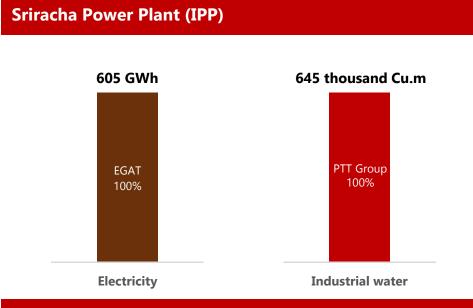
## Q1/16 Revenue by customer (THB million)



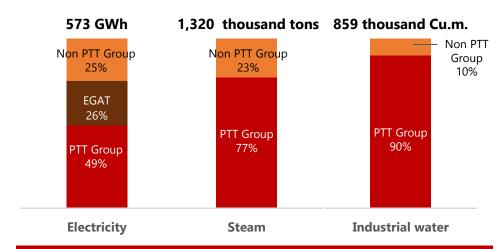
• Accounted for almost 50% of total revenue, PTT Group is the largest customer of GPSC in Q1/16.



## SC Sales volumes breakdown by customers

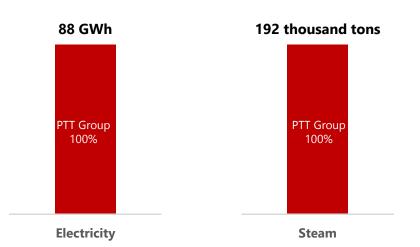






### **IRPC Clean Power (IRPC-CP) Phase 1 (SPP)**

**Combine Heat and Power Producing (VSPP)** 



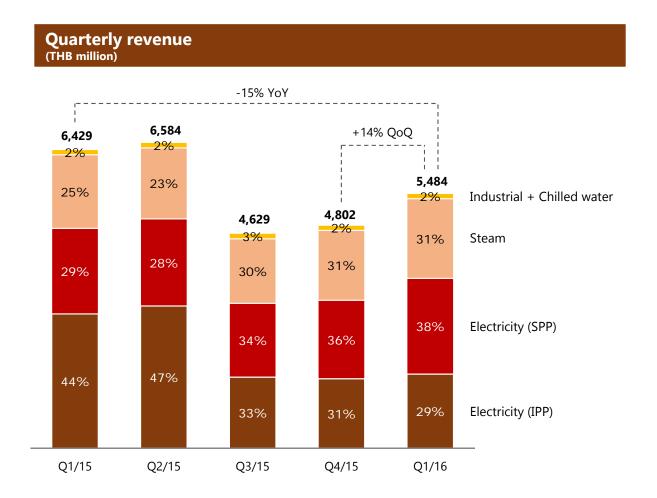








# **Q1/16** Revenue of THB 5,484 million, increased 14% QoQ



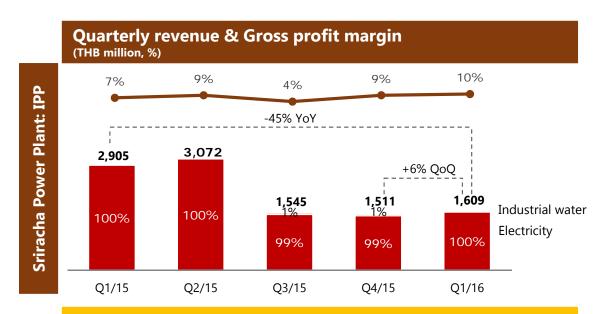
#### Q1/16 VS Q4/15 (QoQ)

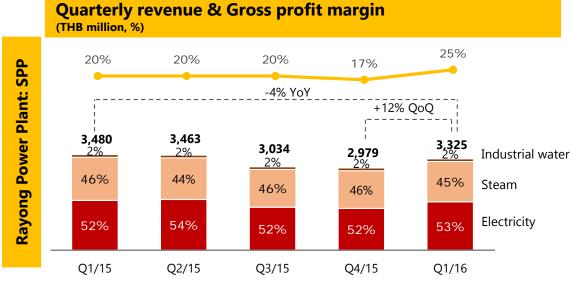
- Total revenue in Q1/16 increased by THB 682 million or 14%.
- The increase were mainly caused **by higher** sales volume from the company's operating power plants.
- In addition, the **first full operating quarter of IRPC-CP Phase 1** also helped enhance the total revenue in Q1/2016.

- Total revenue in Q1/16 decreased by THB 945 million or 15%.
- The decrease was mainly caused by the decline in revenue from Energy Payment (EP), which were resulted from the lower sales volume of Sriracha power plant as EGAT's dispatch instruction.



## Sriracha and Rayong plants revenue breakdown





#### Q1/16 VS Q4/15 (QoQ)

Total revenue in Q1/16 increased by THB 98 million or 6% mainly due to higher sales volumes, resulted in a higher Energy Payment (EP), and higher weight factor, resulted from the higher demand in electricity consumption than in Q4/15.

#### Q1/16 VS Q1/15 (YoY)

Total revenue in Q1/16 decreased by THB 1,296 million or 45%. The decrease was mainly from a decrease in dispatch volume submitted to EGAT and in EP caused by a drop in natural gas price.

#### Q1/16 VS Q4/15 (QoQ)

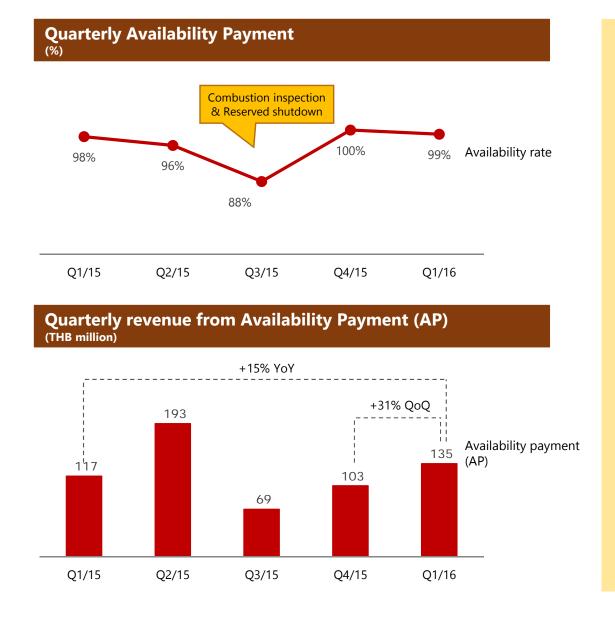
Total revenue from Rayong plants went up by THB 346 million or 12% mainly from the higher sales volumes of electricity and steam, since both existing and new customers demanded more electricity and steam to support the expanding businesses.

#### Q1/16 VS Q1/15 (YoY)

Total revenue from Rayong plants slightly decreased by THB 155 million or 4% mainly affected from the lower average sales prices of both electricity and steam, while the sales volume slightly increased.



## Sriracha Power Plant (IPP): Power (1/2)



There are two components of calculating total revenue from Availability Payment (AP):

- Availability Rate is a total of reserved capacity that the plant can produce the electricity to submit to EGAT.
- **APR** is an agreed rate with EGAT, which is affected by changes in depreciation/appreciation of Thai Baht against US Dollar and in weight factor.

#### Q1/16 VS Q4/15 (QoQ)

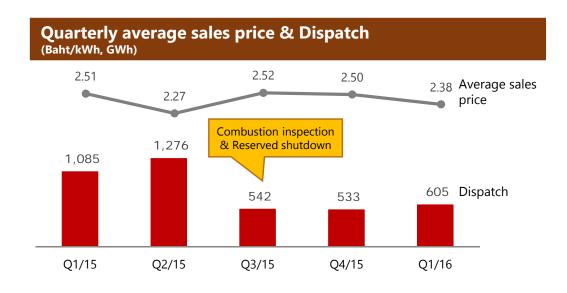
Although an availability rate slightly decreased from 100% in Q4/15 to 99% in Q1/16, it showed a strong growth in revenue from AP for THB 32 million or 31%, resulted from higher weight factor, mainly affected by the increase in demand of power consumption of Q1/2016.

#### Q1/16 VS Q1/15 (YoY)

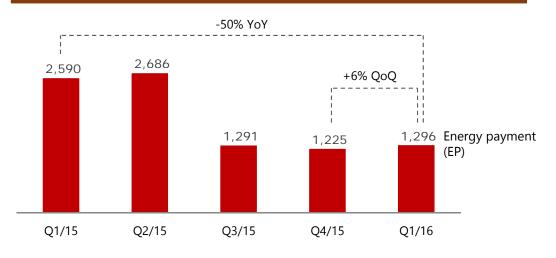
In comparison with Q1/15, revenue from AP increased by THB 18 million or 15%. This was mainly caused by the higher availability rate and the more depreciation of Thai Baht against US Dollar in Q1/2016.



## Sriracha Power Plant (IPP): Power (2/2)



## **Quarterly revenue from Energy payment (EP)** (THB million)



#### Q1/16 VS Q4/15 (QoQ)

- In Q1/16, the average sales price decreased from 2.50 Baht to 2.38 Baht, resulted from a drop in natural gas price.
- Nevertheless, revenue from EP increased by THB 71 million or 6% as a result of higher dispatch, for 72 Gigawatt-Hours, submitted to EGAT than in Q4/15.

#### Q1/16 VS Q1/15 (YoY)

Revenue from EP decreased by THB 1,294 million or 50% mainly due to a decrease in average sales price which was in line with a decline in natural gas price and a lower dispatch to EGAT for 480 Gigawatt-Hours as EGAT's dispatch instruction.



## Rayong Power Plant (SPP): Power



#### Q1/16 VS Q4/15 (QoQ)

It showed a strong recovery in power sales volume for 77 Gigawatt-Hours or 16%, mainly caused by the higher sales to EGAT, the demand from existing and new customers and the operation resume after the maintenance shutdown and the debottleneck in the production process of a major customer.

#### Q1/16 VS Q1/15 (YoY)

Sales volume **increased by 32 Gigawatt-Hours or 6%** mainly thank **to a normal operation** after the plant had a Minor Inspection in Q1/15.

#### Q1/16 VS Q4/15 (QoQ)

Average sales price per unit in Q1/16 slightly increased to THB 3.12 which was caused by higher k-factor.

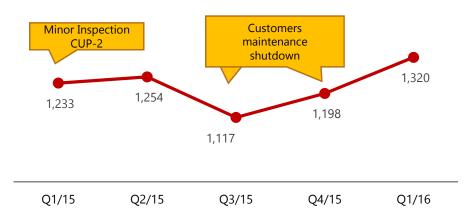
#### Q1/16 VS Q1/15 (YoY)

In comparison with Q1/15, it showed a drop in average sales price per unit from THB 3.40 to THB 3.12 which was resulted from the decrease in Ft rate caused by the lower natural gas price.

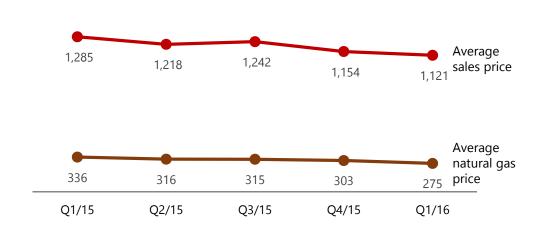


## Rayong Power Plant (SPP): Steam

## Quarterly Steam sales volume ('000 tons)



## Quarterly Average sales price & Average natural gas price (THB/ton, THB/MMBTU)



#### Q1/16 VS Q4/15 (QoQ)

Sales volume significantly increased by 122 thousand tons or 10% thank to the higher demands from existing and new customers and the plant operation resume and the process improvement of the Rayong's major customer.

#### Q1/16 VS Q1/15 (YoY)

Sales volume **increased by 87 thousand tons or 7%** thanks to a **normal operation** after the plant had a Minor Inspection in Q1/15.

#### Q1/16 VS Q4/15 (QoQ)

Average sales price in Q1/16 decreased by THB 33 per ton or 3% which was mainly resulted by the lower natural gas price.

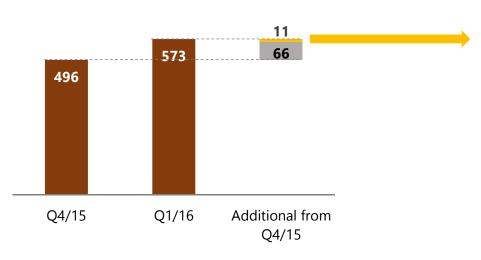
#### Q1/16 VS Q1/15 (YoY)

Average sales price dropped by THB 164 per ton or 13% caused by the fall in natural gas price.



# New Projects of PTTGC support 'Growth Along with PTT Group' Strategy; resulting in higher sales revenue

## **Quarterly Electricity Sales Volume** (GWh)



Additional 10.81 GWh of electricity to new projects

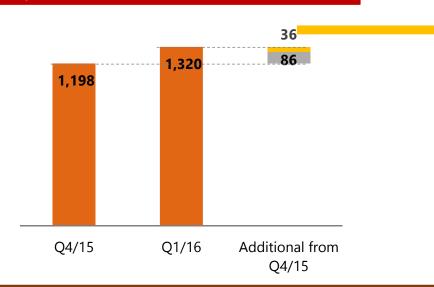


Phenol II: 10 MW
Vencorex: 2.7 MW
LLDPE 2: 18 MW
SCOD: April 2018

## **Potential Future Projects**



## **Quarterly Steam Sales Volume** ('000 tons)



Additional 36,000 tons of steam to new customer



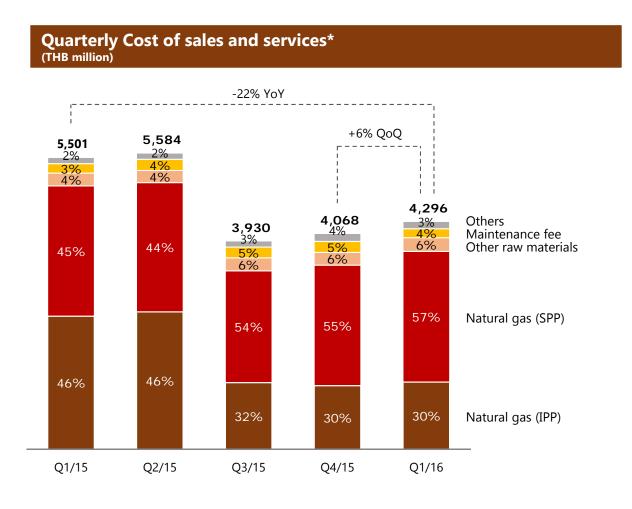
Phenol II: 110 T/HVencorex: 3 T/H

### **Potential Future Projects**





# Increase in cost of sales and services was in line with the increase in production volume



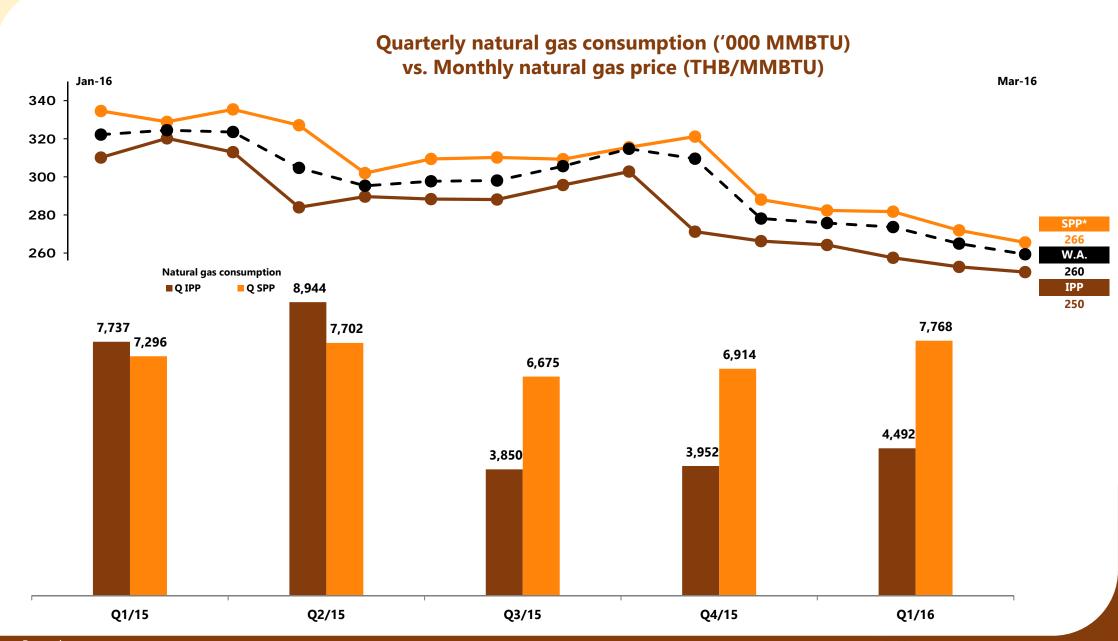
#### Q1/16 VS Q4/15 (QoQ)

- Cost of sales and services in Q1/16 increased by THB 228 million or 6%.
- The increase in natural gas cost was resulted from the increase mainly from the production volume.
- While the total production costs increased due to the higher production volume, production costs per unit reduced mainly from the plant optimization, resulting in higher gross profit margin.

- When compared with Q1/15, cost of sales and services decreased by THB 1,205 million or 22%.
- The decrease was caused by a drop in cost of raw materials from lower dispatch to EGAT and natural gas price together with the decrease in maintenance costs due to the boiler inspection and cooling tower and GTG motor renovation costs at Rayong plant that occurred in Q1/2015.

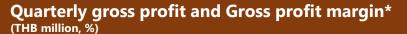


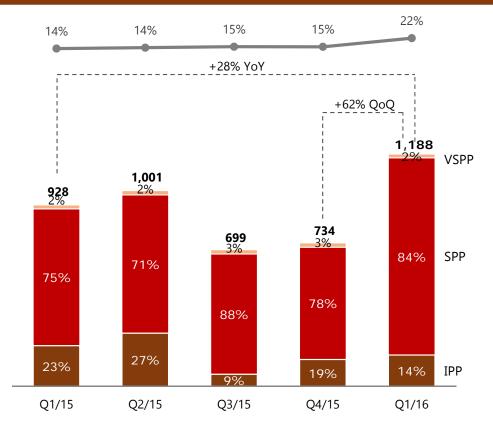
## PSC Natural gas price and consumption





# Gross profit improved 62% QoQ from plant optimization and higher SPP's sales volume





#### Q1/16 VS Q4/15 (QoQ)

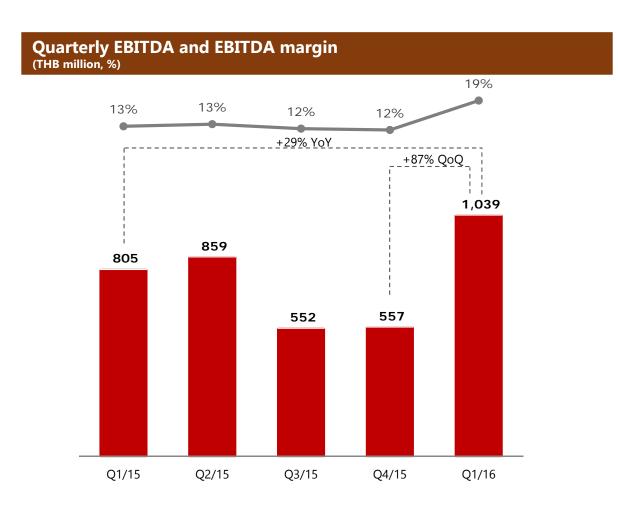
- Gross profit in Q1/16 was THB 1,188 million increased by THB 454 million or 62%.
- Rayong's sales volume from higher demand from both existing and new customers together with company's process improvement through plant optimization.

  Moreover, IRPC-CP Phase 1 was also a key factor in enhancing the company's gross profit from its first full quarter of operation.

- Compare with Q1/15, gross profit increased by THB 260 million or 28%.
- The increase was mainly caused by the **more efficient production** process from Rayong's plants optimization and **the drop in maintenance costs.**



# Q1/2016 EBITDA strongly increased by 87% QoQ with better EBITDA margin of 19%



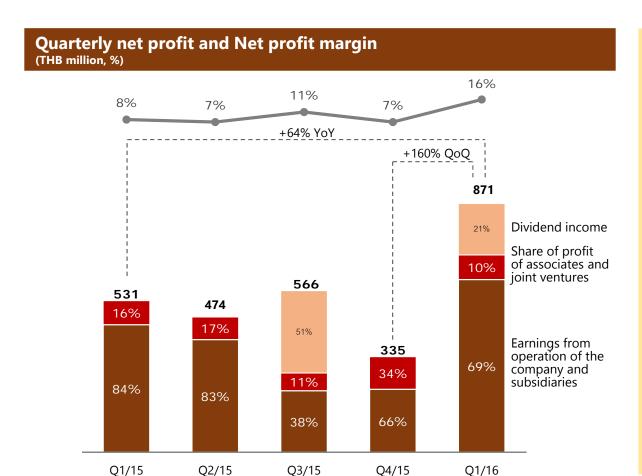
#### Q1/16 VS Q4/15 (QoQ)

- EBITDA in Q1/16 was THB 1,039 million which showed a strong increase by THB 482 million or 87%.
- The favorable outcome was mainly caused by the increase in sale volume and the drop in production cost resulting from the plant optimization and lower business development expenses.

- In comparison with Q1/15, EBITDA increased by THB 234 million or 29%.
- The increase was mainly caused by the lower cost of raw materials from the drop in natural gas price.



# Net profit for the company increased outstandingly from a better operating result and dividend income



#### Q1/16 VS Q4/15 (QoQ)

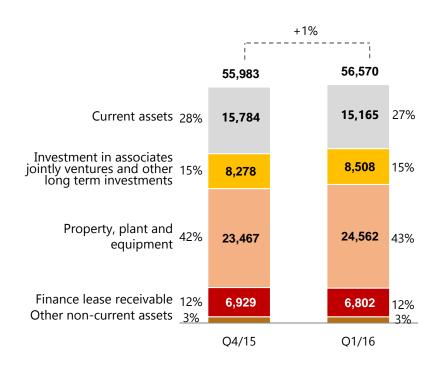
- Net profit for the company was THB 871 million increased by **THB 536 million or 160%**.
- The outstanding increase in the net profit mainly came from the **rising in sales volume** from the expansion of production capacity of the operating power plants and the **optimization** of the power plant's production process. Furthermore, the company gained **dividend income from Ratchaburi Power** Company Limited (RPCL) for Baht 180 million during Q1/16.

- In comparison with Q1/15, net profit for the company increased by THB 340 million or 64%.
- The increase was mainly caused by the increase in demand of electricity and steam consumptions from the existing and new customers and the better production cost management resulted from the plant optimization.



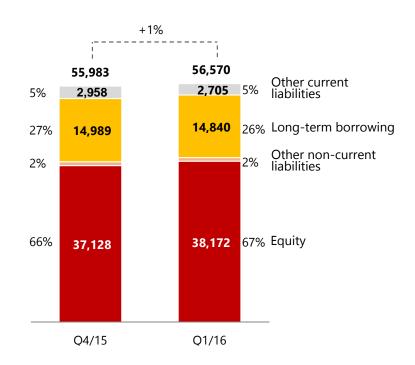
## Summary of financial position of GPSC and its subsidiaries

## Total Assets (THB million)



- Total assets were THB 56,570 million, increased by 1% from THB 55,983 million.
- Mainly from the increase in assets under constructions of IRPC-CP Phase 2.

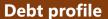
## **Total Liabilities & Shareholders equity** (THB million)



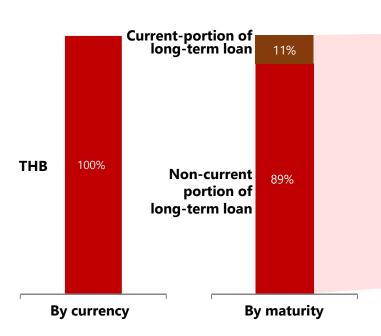
- Total liabilities were THB 18,398 million decreased by THB 457 million or 2% mainly from the outstanding payable balance from PTT in Nov and Dec 2015.
- Equity were THB 38,172 million increased by THB 1,044 million or 3% mainly from an increase in the unappropriated retained earnings and gains from translation of foreign currency.



## Well-managed debt profile and continuous deleveraging



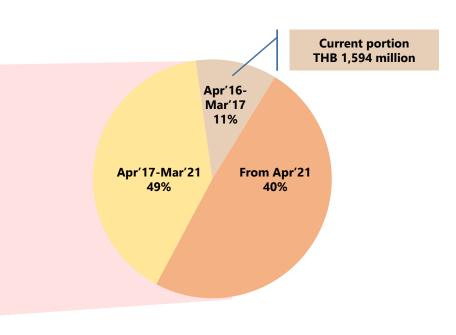
#### Total interest-bearing debt: THB 14,840 million



## • All debt balance as at 31 March 2016 is in THB currency.

• 100% of total interest-bearing debt is long-term loan which includes 11% of current portion.

### **Debt repayment plan**



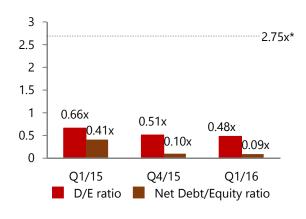
% to total interest-bearing debt

- Non-current portion of long-term debt equals to THB 13,246 million while current portion equals to THB 1.594 million.
- 49% of total interest-bearing debt will **be repaid between April 2017 March 2021.**



# Q1/16 Earning per share (EPS) significantly increased with a strong financial position

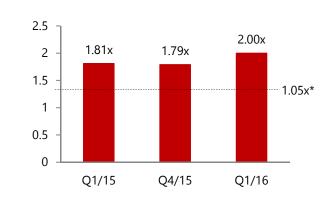
# Total D/E and Net Debt/ Equity ratio (Times)







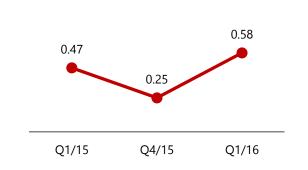
## DSCR (Times)



## ROA (%)



## Earning per share (EPS) (Baht/share)



## Book value per share (BVPS) (Baht/share)

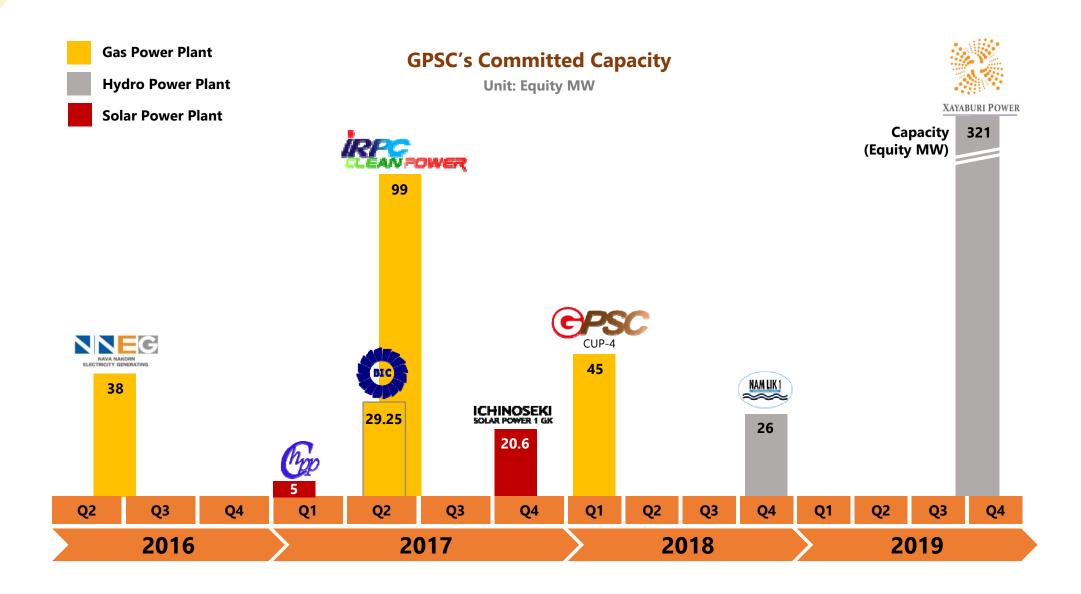








# **PSC** 8 Committed Projects to operate by 2019





## Nava Nakorn Electricity Generating (NNEG)





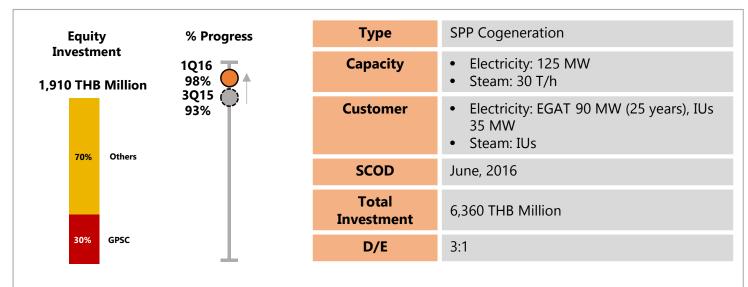




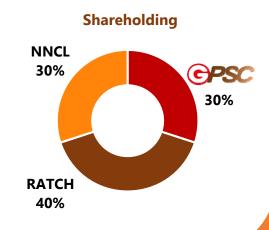


# Nava Nakorn Elecricity Generating Company Limited (NNEG)

Pathumthani Province



- NG&MRS construction progress 100%
- Secure MOU with IUs 38MW and 41T/h
- LTSA was signed
- O&M service agreement was completed
- In progress of plant commissioning





## **PSC** IRPC Clean Power Phase 2 (IRPC-CP Phase 2)

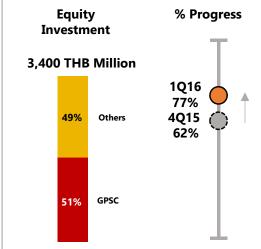




### **IRPC Clean Power Company Limited (IRPC-CP)**

In IRPC Industrial Zone at Choeng Noen, Rayong Province (118 Rai)





Туре	SPP Cogeneration
Capacity*	<ul><li>Electricity: 240 MW</li><li>Steam: 180-300 T/H</li></ul>
Customer*	<ul> <li>Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years)</li> <li>Steam: IRPC 180-300 T/H</li> </ul>
SCOD	June, 2017
Total Investment	13,600 THB Million
D/E	3:1



#### **Progress update**

#### **Phase2 Under Construction**

Progress 76.60% against plan 76.80%





# **Bangpa-In Cogeneration Phase 2 (BIC-2)**





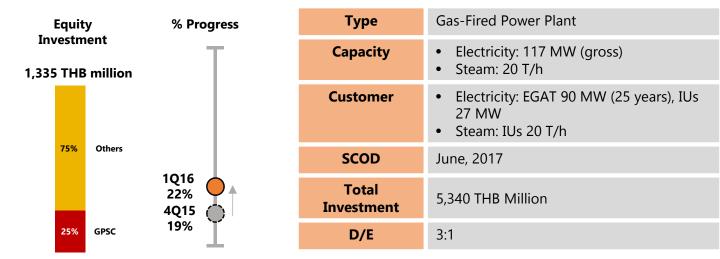






# **Bangpa-In Cogeneration Company Limited** (Phase 2)

Ayutthaya Province



- EIA has been approved
- BOI has been approved
- Commenced construction in February 2015
- Power and steam sales is under negotiation with IUs within industrial estates
- Main equipment is in installation phase





## PSC Ichinoseki Solar Power (ISP1)







## **Ichinoseki Solar Power (ISP1)**

Japan

Equity Investment	% Progress Site preparation	Туре	Solar
		Capacity	Electricity: 20.8 MW
~2,080 YEN Million Others		Customer	Tohoku Electric Power (20 years)
		SCOD	Q42017
99% GPSC	1Q16	Total Investment	~10,000 JPY million
	33% A 4Q15(1)	D/E	4:1
	24%		



- Project received permission to expand power capacity to 20.8 MWAC
- Already received relevant licenses including Grid Connection Agreement
- PPA contract with Tohoku Electric Power Company is almost concluded.
- EPC contracts and Facility agreement have been executed
- Construction will start in Q2/2016





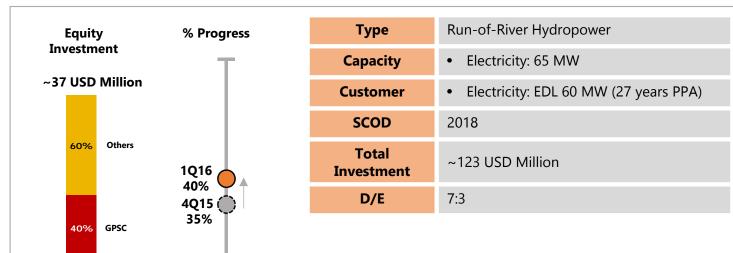
## C Nam Lik 1 Power Company Limited (NL1PC)





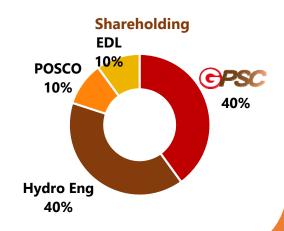


# Nam Lik 1 Power Company Limited (NL1PC) Lao PDR





- The overall project progress until Mar 16, was 39.90%
- The construction works for the period were related to dam excavation, diversion works, permanent access road and operator's village





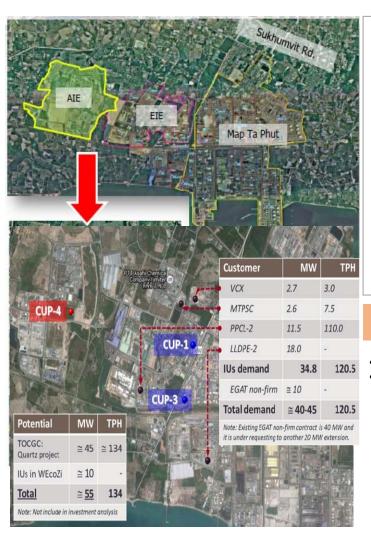
## PSC Central Utility Plant Project 4: Phase 1 (CUP-4 Ph1)

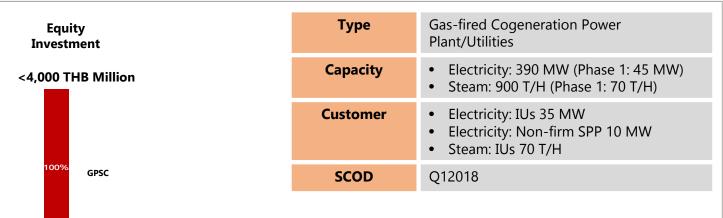




#### **Central Utility Plant Project 4 (CUP-4)**

PTT's WEcoZi, Asia Industrial Estate (AIE) Rayong Province





#### **Progress update**

- EIA has been approved
- SCOD: Q1/2018





## **PSC** Xayaburi Power Company Limited (XPCL)





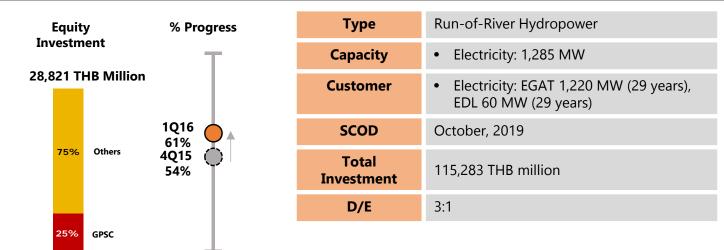




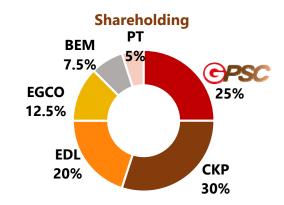


## **Xayaburi Power Company Limited (XPCL)**

Xayaburi, Lao PDR



- Concrete work at intermediate bock, powerhouse and Fish Ladder can continue with no interruption
- Hydro-Mechanical work and Electro-Mechanical work progressed as plan
- Erection of 500kV transmission line tower at section 2-3 work progressed as plan





## **SC** Chanthaburi's Shrimp Farmer Cooperative









# Chanthaburi's Shrimp Farmer Cooperative (Solar Farm) Chanthaburi Province

Туре	Solar
Capacity	Electricity: 5MW
Customer	• PEA
SCOD	2017
Total Investment	244 THB million
Contract	<ul><li>FiT THB 5.66/unit</li><li>25 years</li><li>End 2041</li></ul>

#### **Progress update**

- Solar installations on the ground (area 65 rai)
- For government agencies, and agricultural cooperatives
- In the process of financing and Engineering Procurement and Construction





# PSC 24M Technologies, Inc. (24M)







### 24M Technologies, Inc. (24M)

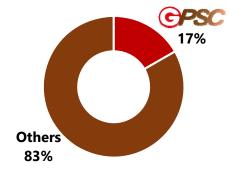
Cambridge, Massachusetts (MA), USA

Business	Lithium-Ion Battery (LFP) technology
Application	Energy Storage System (ESS)
Status	Series B: Pilot Plant
Next Step	Series C: High Volume Manufacturer
Total Investment	~15 USD million*



#### **Progress update**

- During process of Lithium-ion cells chemistry and Manufacturing process optimization for enhance the battery cells life cycle and the cells bill of materials cost
- In addition, 24M has been starting in small project in EV battery according to US DOE's grant
- Jun 2015; 24M was out of stealth mode to present the low cost Semisolid Lithium-Ion battery
- Oct 2015; 24M Announced the company signed a MOU whereby 24M has agreed to supply its semisolid lithium-ion cells for use in NEC Energy Solutions' integrated storage systems





## **PSC** Future project: Waste Management Project



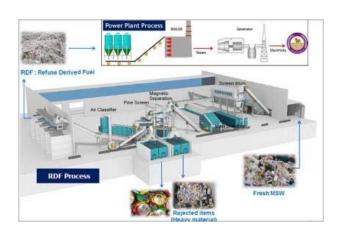


### **Waste Management Project**

Rayong Province



Туре	Biomass Power Plant (MSW and RDF)
Capacity	• 6 – 9 MW
Customer	• PEA
Total Investment	~1,500 – 2,000 THB million



#### **Progress update**

- Finished Basic Engineering Design Package (BED)
- Finished PQ EPC
- Completed ITB
- In a process of PPA approval from ERC.





# **PSC** Future project: Power Plants in Myanmar





Thanlyin Project		
Location	Yangon Region, Myanmar	
Туре	Combined Cycle Gas Turbine	
Capacity	Approx. 400 MW (Phase 1: approx. 140MW)	
Customer	• MEPE	
SCOD	• 2020	
Status	FSR Clarification & MOA     Negotiation	



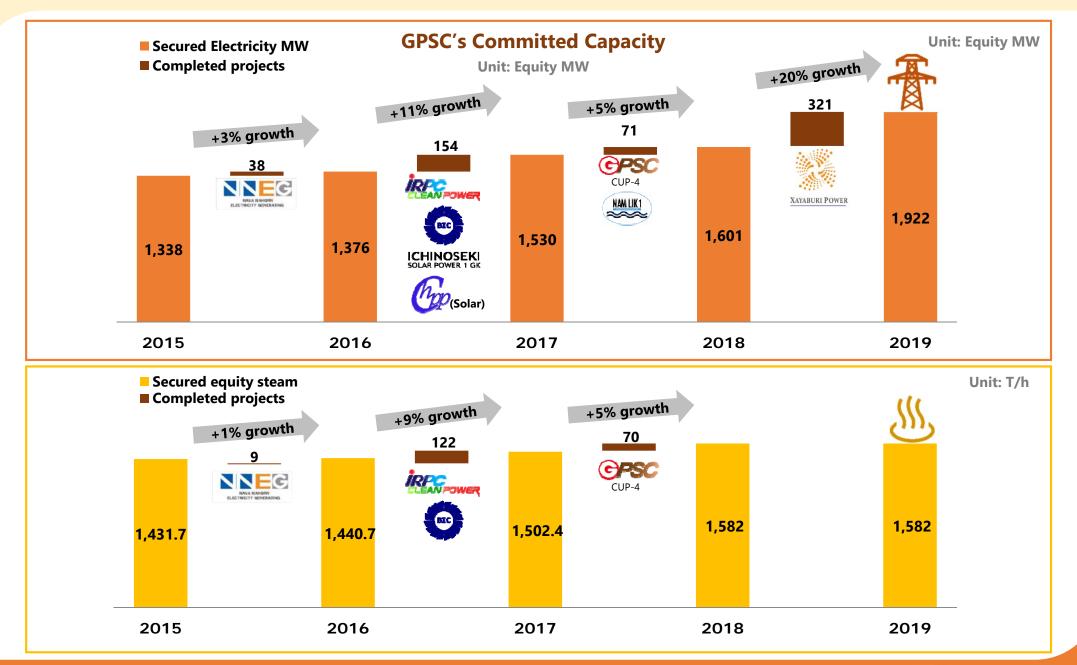
Myeik Project		
Location	Tanintharyi Region, Myanmar	
Туре	Coal-Fired Power Plant	
Capacity	2,500 MW	
Customer	<ul><li>MEPE</li><li>EGAT</li></ul>	
SCOD	• 2021 - 2022	
Status	MOA Negotiation	



Ayeyarwady Project	
Location	Ayeyarwady Region, Myanmar
Туре	Combined Cycle Gas Turbine
Capacity	Approx. 500 MW
Customer	• MEPE
SCOD	• 2020
Status	MOA Execution



## GPSC will deliver outstanding growth during 2016-2019





Name	Туре	Location	Fuel Type	Technology	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	Steam (T/h)	Industrial water (Cu.m/h)	COD	Tenure/ Expiry year
					IN OPERA	ATION					
Sriracha	IPP	Chonburi	Natural gas	Combined cycle	100%	700	700	-	80	2006	25/2025
CUP-1	SPP	Rayong	Natural gas	Cogeneration	100%	226	226	890	720	2006	10-15/2021
CUP-2	SPP	Rayong	Natural gas	Cogeneration	100%	113	113	170	510	2008	15/2022
CUP-3	SPP	Rayong	Natural gas	Cogeneration	100%	-	-	280	770	2009	15/2023
СНРР	VSPP	Rayong	Natural gas	Combined heat and power with district cooling	100%	5	5	-	-	2008	30/2038
IRPC-CP Phase 1	SPP	Rayong	Natural gas	Cogeneration	51%	240	122 (Phase 1: 23 MW)	86.7	-	2015	25/2030
TSR	VSPP	Suphanburi & Karnchanaburi	Solar	Solar	40%	80	32	-	-	2013	10/2023
BIC-1	SPP	Ayutthaya	Natural gas	Cogeneration	25%	117	29.25	5	-	2013	25/2038
RPCL	IPP	Ratchaburi	Natural gas	Combined cycle	15%	1,400	210	-	-	2008	25/2033
					T	otal operating	1,338	1,431.7	2,080		
				UI	NDER CON	STRUCTION					
CHPP (Solar)	VSPP	Chanthaburi	Solar	Solar	100%	5	5			2016	
CUP-4	SPP	Rayong	Gas-fired Cogeneration	Cogeneration	100%	45	45	70		2018	-
ISP1	Solar	Japan	Solar	Solar	99%	20.8	20.6	-		2017	20/2037
IRPC-CP Phase 2	SPP	Rayong	Natural gas	Cogeneration	51%	240	122 (Phase 1: 99 MW)	66.3		2017	25-27/2044
NL1PC	Hydro	Lao PDR	Hydro	Run-of-river	40%	65	26	-		2018	27/2044
NNEG	SPP	Pathum-thani	Natural gas	Cogeneration	30%	125	38	9		2016	25/2041
BIC-2	SPP	Ayutthaya	Natural gas	Cogeneration	25%	117	29.25	5		2017	25/2042
XPCL	IPP	Lao PDR	Hydro	Run-of-river	25%	1,285	321	-		2019	29/2048
					Total unde	r construction	584	150.3			
					T	otal capacity	1,922	1,582	2,080		





# **Appendix**



Sriracha Power Plant: IPP

Unit: THB million

Sindena i ower i lane. Il i				+/(-)		
Product/Service	Q1/15	Q4/15	Q1/15	QoQ	YoY	
o Revenue from electricity sales						
• Availability payment (AP)	118	103	135	31%	14%	
• Energy payment (EP)	2,590	1,225	1,296	6%	(50%)	
<ul> <li>Received money submitted to power development fund</li> </ul>	11	5	6	20%	(45%)	
Total revenue from electricity sales	<u>2,719</u>	<u>1,333</u>	<u>1,437</u>	<u>8%</u>	<u>(47%)</u>	
o Industrial water	11	11	8	(27%)	(27%)	
o Revenue from financial lease	175	167	164	(2%)	(6%)	
Total revenue	2,905	1,511	1,609	6%	(45%)	
o Natural gas	2,511	1,203	1,271	6%	(49%)	
o Water	14	11	16	45%	14%	
<ul> <li>Power Development Funds</li> </ul>	11	5	6	20%	(45%)	
o Others	11	17	12	(29%)	9%	
Total cost of raw materials	<u>2,547</u>	<u>1,236</u>	<u>1,305</u>	<u>6%</u>	(49%)	
o Maintenance fee	106	85	94	11%	(11%)	
o Others (exclude depreciation, amortisation and ESOP)	43	52	49	(6%)	14%	
Total cost of sales and services	2,696	1,373	1,448	5%	(46%)	



## **GPSC's operating results (2/4)**

### Rayong Power Plant (CUP1-3): SPP

Unit: THB million

Dradust/Comics	01/14	04/15	01/16	+/(-)		
Product/Service	Q1/14	Q4/15	Q1/16	QoQ	YoY	
o Revenue from electricity sales	1,838	1,543	1,786	16%	(3%)	
o Steam	1,584	1,383	1,480	7%	(7%)	
o Industrial water	58	53	59	11%	2%	
Total revenue	3,480	2,979	3,325	12%	(4%)	
o Natural gas	2,453	2,096	2,140	2%	(13%)	
o Steam	127	105	125	19%	(2%)	
o Water	33	36	34	(6%)	3%	
o Others	28	39	38	(3%)	36%	
Total cost of raw materials	<u>2,641</u>	<u>2,276</u>	<u>2,337</u>	<u>3%</u>	<u>(12%)</u>	
o Maintenance fee	71	118	63	(47%)	(11%)	
<ul> <li>Others (Others (exclude depreciation, amortisation and ESOP)</li> </ul>	69	78	78	0%	13%	
Total cost of sales and services	2,781	2,472	2,478	0%	(11%)	
Gross profit	699	507	847	67%	21%	



IRPC-CP1: SPP

Unit: THB million

Duodust (Comico	01/14	04/15	01/16	+/(-)		
Product/Service	Q1/14	Q4/15	Q1/16	QoQ	YoY	
o Revenue from electricity sales	-	145	272	88%	NA	
o Steam	-	119	233	96%	NA	
Total revenue	-	264	505	91%	NA	
o Natural gas	-	173	319	84%	NA	
o <i>Water</i>	-	2	5	150%	NA	
o Others	-	4	5	25%	NA	
Total cost of raw materials	-	<u>179</u>	<u>329</u>	<u>84%</u>	<u>NA</u>	
o Maintenance fee	-	4	10	150%	NA	
<ul> <li>Others (Others (exclude depreciation, amortisation and ESOP)</li> </ul>	-	14	5	(64%)	NA	
Total cost of sales and services	-	197	344	75%	NA	
Gross profit	-	67	161	140%	NA	



CHPP: VSPP
Unit: THB million

Drodust/Comiss	01/14	04/15	01/16	+/(-)		
Product/Service	Q1/14	Q4/15	Q1/16	QoQ	YoY	
o Revenue from chilled water	44	48	45	(6%)	2%	
Total revenue	44	48	45	(6%)	2%	
<ul> <li>Electricity power</li> </ul>	17	20	18	(10%)	6%	
o Others	0.3	0.3	0.3	0%	0%	
Total cost of raw materials	<u>17</u>	<u>20</u>	<u>18</u>	<u>(10%)</u>	<u>6%</u>	
o Maintenance fee	1	1	2	100%	100%	
<ul> <li>Others (Others (exclude depreciation, amortisation and ESOP)</li> </ul>	6	5	6	20%	0%	
Total cost of sales and services	24	26	26	0%	8%	
Gross profit	20	22	19	(14%)	(5%)	



## **CPSC** Share of profit of associates and joint ventures

Unit: THB million

Company	Shareholding Q412015		04/2015	01/2016	+/(-)	
Company	Shareholding	Q412015	Q4/2015	Q1/2016	QoQ	YoY
Independent Power Producer (IPP)						
- Xayaburi Power Company Limited (XPCL)	25%	(8)	(10)	(10)	(0%)	(25%)
Small Power Producer (SPP)						
- Bangpa-in Cogeneration Company Limited	25%	13	16	12	(25%)	(8%)
<ul> <li>Nava Nakorn Electricity Generating Company Limited (NNEG)</li> </ul>	30%	(3)	2	(5)	NA	(67%)
- Nam Lik 1 Power Company Limited (NL1PC)	40%	(2)	31	9	(71%)	NA
Total small Power Producer		8	49	16	(67%)	100%
Very Small Power Producer (VSPP)						
- Thai Solar Renewable Company Limited (TSR)	40%	84	75	80	7%	(5%)
Total share of profit of associates and joint ventures		84	114	86	(25%)	2%



## **Current Operating Asset (IPP): Sriracha**





#### **Sriracha Power Plant**

Chonburi Province (40 Rai leasehold land)

Туре	Combined cycle	
Capacity	<ul><li>Electricity: 700 MW</li><li>Industrial water: 80 Cu.m/h</li></ul>	
Customer	<ul><li>Electricity: EGAT 700 MW</li><li>Industrial water: Thaioil Power 50 Cu.m/h</li></ul>	
Supplier	<ul> <li>Natural Gas – PTT</li> <li>Raw Water – EASTW</li> <li>Power Back up – EGAT and TP</li> </ul>	
Construction	2005 - 2010	
COD	2006	
Contract	<ul><li>25 Years</li><li>End: 2025</li></ul>	





# Current Operating Asset (SPP): Rayong – Central Utility Plant 1-3 (CUP1-3)



#### **Rayong Power Plant**

**Rayong Province** 



-2

CUP

**CUP-3** 







Туре	Cogeneration
Capacity	<ul> <li>CUP-1</li> <li>Electricity: 226 MW</li> <li>Steam: 890 T/h</li> <li>Industrial water: 720 Cu.m/h</li> <li>CUP-2</li> <li>Cu.m/H</li> <li>Industrial water: 510 Cu.m/h</li> <li>CUP-3</li> <li>Steam: 280 T/h</li> <li>Industrial water: 770 Cu.m/h</li> </ul>
Customer	<ul><li>PTT Group</li><li>Other IU Customers</li><li>EGAT</li></ul>
COD	2006-2009
Contract	<ul> <li>CUP-1: 10-15 years ++</li> <li>CUP-2: 15 years ++</li> <li>CUP-3: 15 years ++</li> </ul>





## **Current Operating Asset:**



#### **Combined Heat and Power Producing** Co., Ltd.

**Bangkok Province** 

Туре	Combined heat and power with district cooling (VSPP)
Capacity	<ul><li>Electricity: 5 MW</li><li>Chilled water: 12,000 RT</li></ul>
Customer	• DAD 8,700 RT
COD	<ul><li>2008</li><li>Electric Chiller Jan 1, 2009</li></ul>
Contract	<ul><li>30 Years</li><li>End: 2038</li></ul>









### **IRPC Clean Power Company Limited** (IRPC-CP Phase 1)

Rayong Province (118 Rai)

Туре	Cogeneration (SPP)		
Capacity*	<ul><li>Electricity: 240 MW</li><li>Steam: 180-300 T/h</li></ul>		
Customer*	<ul> <li>Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years)</li> <li>Steam: IRPC 180-300 T/h</li> </ul>		
COD	2015		
Contract	<ul><li>25 Years</li><li>End: 2030</li></ul>		









## **Current Operating Asset:**



**Thai Solar Renewable Company Limited** Kanchanaburi and Suphanburi Province

Туре	Solar
Capacity	Electricity: 80 MW
Customer	• PEA
COD	2013-2014
Contract	<ul><li>10 Years</li><li>End: 2023</li></ul>









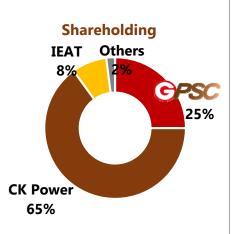
#### **Bangpa-in Cogeneration Company** Limited

Ayutthaya Province

Туре	Cogeneration (SPP)		
Capacity	<ul><li>Electricity: 117 MW</li><li>Steam: 5 T/h</li></ul>		
Customer	<ul><li>Electricity: EGAT 90 MW, IUs 27 MW</li><li>Steam: 5 T/h</li></ul>		
COD	28 Jun 2013		
Contract	<ul><li>25 Years</li><li>End: 2038</li></ul>		









## **Current Operating Asset:**

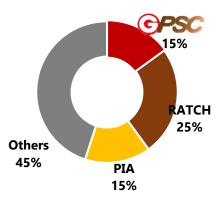


## **Ratchaburi Power Company Limited**

Ratchaburi Province

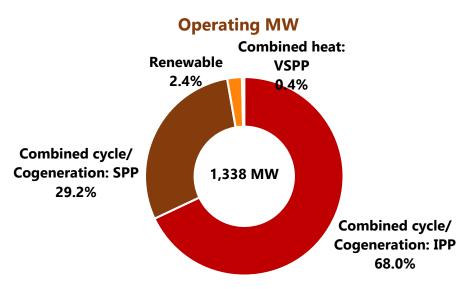
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Туре	Combined Cycle (IPP)					
Capacity	Electricity: 1,400 MW					
Customer	• EGAT					
COD	Mar 2008					
Contract	<ul><li>25 Years</li><li>End: 2033</li></ul>					
	Shareholding  CPSC 15%					



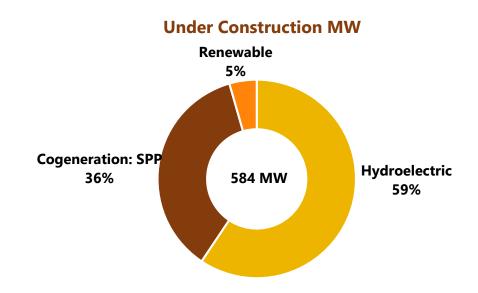




# Electricity: Operating capacity of 1,338 MW, with another 579 MW in pipeline



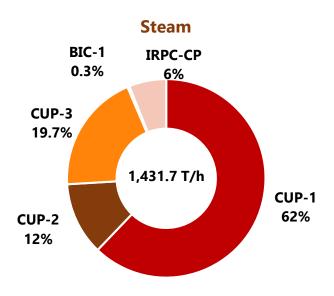
Name	Туре	GPSC's share %	Total capacity (MW)	Equity capacity (MW)
Sriracha	IPP	100%	700	700
CUP-1	SPP	100%	226	226
CUP-2	SPP	100%	113	113
СНРР	VSPP	100%	5	5
IRPC-CP Phase 1	SPP	51%	240	122 (Phase 1: 23 MW)
TSR	Solar	40%	80	32
BIC-1	SPP	25%	117	29.25
RPCL	IPP	15%	1,400	210
			Total	1,338



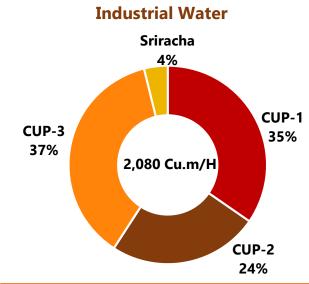
Name	Туре	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	SCOD
CUP-4	SPP	100%	45	45	2018
CHPP (Solar)	Solar	100%	5	5	2017
ISP-1	Solar	99%	20.8	20.6	2017
IRPC-CP Phase 2	SPP	51%	240	122 (Phase 2: 99 MW)	2017
NL1PC	Hydro	40%	65	26	2017
NNEG	SPP	30%	125	38	2016
BIC-2	SPP	25%	117	29.25	2017
XPCL	Hydro	25%	1,285	321	2019
			Total	584	



# Operate 1,432 T/h of Steam and 2,080 Cu.m./h of Industrial Water



Name	Operating capacity (T/h)	Under construction Capacity (T/h)
CUP-1	890	
CUP-2	170	
CUP-3	280	
BIC-1	5	
IRPC-CP Phase 1	86.7	
CUP-4		70
IRPC-CP Phase 2		66.3
NNEG		9
BIC-2		5
Total	1,431.7	150.3



Name	Operating capacity (Cu.m/h)
Sriracha	80
CUP-1	720
CUP-2	510
CUP-3	770
Total	2,080



## **PSC** Maintenance schedule

		Description	2016											
Plant	Tag no.		Q1		Q2			Q3			Q4			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CUP-1	H-13701	Aux. Boiler.11		1	15 <b>3Y</b> 27									
	N-13901 H-13702	GTG11 HRSG11	5 <b>HG</b> 18 5 <b>3Y</b> 18											
	N-13902 H-13703	GTG12 HRSG12						2 <b>1Y</b> 12						
	N-13903 H-13704	GTG13 HRSG13						20 <b>1Y</b> 30	)					
	N-13904 H-13705	GTG14 HRSG14		MI 21/02 3Y 21/02										
	N-13961 H-13761	GTG15 HRSG15							31/07 31/07	MI 21/08 3Y 21/08				
	N-13962 H-13762	GTG16 HRSG16		22/02 1	<b>Y</b> 3/03							2 <b>MI</b> 23 2 <b>3Y</b> 23		
CUP-2	H-23701	Aux. Boiler.21						21/06 31	3/07					
	N-23901 H-23701	GTG21 HRSG21	26/01	<b>1Y</b> 5/02							1 <b>3Y</b> 30			
	N-23902 H-23702	GTG22 HRSG22											26/11 <b>1</b>	<b>Y</b> 6/12
	N-23911	Steam Turbine21												
CUP-3	H-33701	Aux. Boiler 31								6 <b>3Y</b> 18				
	H-33711	Aux. Boiler 32										14 <b>3Y</b> 26		
	H-33712	Aux. Boiler 33									23/09 31	5/10		
SRC	11MB 1-211-SG-101	GT11 HRSG#1				3Y						16 <b>CI</b> 24		
	12MB 1-211-SG-201	GT12 HRSG#2				3Y						16 <b>CI</b> 24		

Notes	Rayong Site	
MI	Major Inspection for Gas Turbine	22 days
HGPI	Hot Gas Path Inspection for Gas Turbine	14 days
MO	2nd Major Overhaul for Steam Turbine	27 days
Mi	Minor Inspection for Steam Turbine	15 days
1Y	One Year Inspection Aux. Boiler	11 days
3Y	Three Year Inspection Aux. Boiler	13 days
1Y	One Year Inspection HRSG	11 days
3Y	Three Year Inspection HRSG	14 days

Notes Sriracha Site CI Combustion Inspection for Gas Turbine МО Major Overhaul for Gas Turbine

9 days 33 days

52



Ratios	Formula
	Gross profit
Gross profit margin	Revenue from sales of goods and service + Revenue from finance lease
Not and Change of	Net profit
Net profit margin	Total Revenue
Total Debt to Equity	Total liabilities
Total Debt to Equity	Total shareholder's equity
	Interest bearing debts – (Cash and cash equivalents + Restricted cash + Current investments)
Net debt to Equity ratio	Total shareholder's equity
DCCD	EBITDA for DSCR for the last 12 months
DSCR	Principal and Interest to be paid in the next 12 months
Farning per chare (EDS)	Net profit for the company
Earning per share (EPS)	Weighted average number of shares
ROE	Net profit for the company
ROL	Average shareholder's equity
BOA.	Net profit (last 12 months)
ROA	Average assets
Do ak valva nar shara (DV/DC)	Shareholder's equity for the company
Book value per share (BVPS)	Average shareholder's equity for the company



## **THANK YOU**

### **Global Power Synergy Public Company Limited**

555/2 Energy Complex, Building B Vibhavadi Rangsit Rd. Chatuchak, Bangkok 10900

#### Disclaimer

#### **IR Contact**

Sukittee Chaiyarak
Pimploy Wichienprakarn
Juthamas Singanurak
ir@gpscgroup.com
Tel. +662 140 4628, +662 140 4691, +662 140 4742
www.gpscgroup.com

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