

Q1/2018 Performance
Analyst Meeting
21 May 2018



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## Q1/2018 Highlights

## **GROWTH**Becoming an Innovative Global Power Company

- ♦ GPSC **signed MOU with Chiang Mai University** to develop **smart city** inside the campus. 17 kWh of energy storage system was installed as a prototype for further study together to response to Thailand Energy 4.0 policy.
- ♦ Detail engineering design for 100 MWh lithium-ion battery pilot plant is on progress. The plant is expected to commercialize at the end of 2019.

## SUSTAINABILITY Awarded TPM Excellence Award Category A

- ♦ Awarded in **TPM Excellence Award Category A in 2018** by Japan Institute of Plant Maintenance (JIPM). To confirm the company's ability to increase capacity, reduce cost, and managing safety and environment with high standard.
- ♦ Responsibility towards the **environmental**, **social and governance**, **simultaneously with the creation of economic returns** to ensure sustainable growth and the efficiency in managing the supply chain risks.



# GROWING PROFIT WITH SUSTAINABILITY AND CONTROL

# PROFIT 28% Increase in Net profit QoQ

- ♦ GPSC's Q1/18 net profit of THB 922 million increased by THB 200 million or 28% QoQ due to the rise in sales to EGAT from IRPC-CP, the efficient cost management in electricity and steam production from Cogeneration plants, and the rise in revenue of Sriracha power plant.
- ♦ Q1/18 net profit increased by THB 172 million or 23% YoY resulted from the rise in sales to EGAT from IRPC-CP and better performance of Rayong plant with higher Ft.



#### CONTROL

- 3 Projects in progress meet milestone as planned
- ♦ Nam Lik1, Xayaburi and CUP4 which are under construction expected to COD within 2019.
- ♦ All projects are meeting the milestones.



## **Strategic Growth: 3 Growth Engines (2018-2022)**

#### **Thailand as Priority**



- Focus in Rayong and EEC
- Be PTT Group's power and utility supplier of choice
- Contribute to strategic priorities across the PTT group
- Increase new customers

#### **International Business**



# "Focus Countries" to diversify and lower risk

- Myanmar and Laos
- Strategic partners
- Enhance country knowledge and relationship
- Conventional and renewable energies

#### **Future Energy**



- Forefront of innovation in energy sector
- Leverage IP technology license partnership
- Leverage existing investments and PTT's asset base to deploy new technologies
- **EEC** as priority area
- Smart grids for smart cities

#### **Action Plan 2018-2019**

#### PTT Group Power Flagship

- ✓ Target new industrial customers under PTT Group
- ✓ Expand through PTT Group expansion
  - PTTGC: LLDPE2, PO/POL, MCC

#### Develop Power Plant Project

- / Myanmar
  - Industrial users
  - Gas to power
- √ Laos
  - Hydro power plant

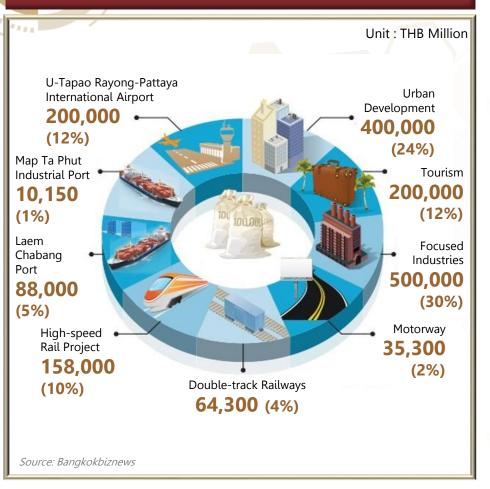
#### Energy Storage System Integrator

- ✓ First 100MWh battery pilot project to commercialize within 2019
- ✓ Development of system integrator position



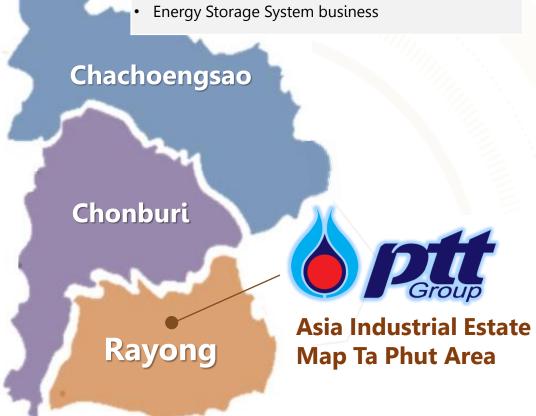
# Rising Demand in Eastern Economic Corridor (EEC) & Rayong Area

#### **EEC Infrastructure Investment in 5 Years**



#### **Strategy in EEC Area**

- Engineering Procurement Construction contractor
- Operation & Maintenance service provider
- Asset Management service provider









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







Type:

Run-of-River Hydropower

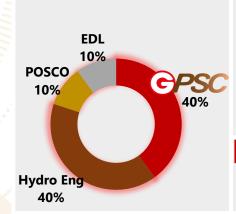
SCOD:

Q1 2019

**Equity Investment:** 

**\$37 M USD** 

Shareholding:



**Electricity:** 

**65 MW** 

**Progress YE2017:** 

**76%** 

D/E:

7:3

Progress Q1/2018:

86%

#### **Progress Update:**

• Construction progress of the project as appraised by technical advisor was 86%, more than the plan at 84%. When compare with the end of Q4/17, about 10% increased from the progress of main activities such as installation of turbine unit 1 and 2, construction of spillway gates and 115 kV transmission line.

#### **Customer:**

• Electricity: EDL 63.8 MW (30 years PPA)





## **Xayaburi Power Company Limited (Lao PDR)**







#### Type:

Run-of-River Hydropower

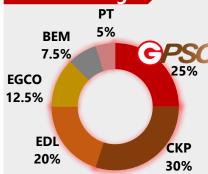
#### SCOD:

October 2019

#### **Total Investment:**

136,751 MB

## **Shareholding:**



#### **Electricity:**

1,285 MW

#### **Progress YE2017:**

88%

#### D/E:

3:1

## Progress Q1/2018:

92%

#### **Progress Update:**

 Construction progress of the project continued as planned at 92% as appraised by the government of Lao PDR's technical advisor. Main construction tasks such as powerhouse, intermediate block, fish ladder and 500 kV transmission line are progressed as planned.

#### **Customer:**

- Electricity: EGAT 1,220 MW
- EDL 60 MW





# PSC Map Ta Phut Expansion Project (Thailand)

## **Grow with PTT: Be PTT Group's Power in Petrochemical Complex**



#### Type:

Cogeneration

COD: 2006-2009



#### CUP-2

- Electricity: 113 MW
- Steam 170 T/h
- Industrial water: 510 Cu.m/h



#### CUP-3

- Steam: 280 T/h
- Industrial water: 770

Cu.m/h





#### **Capacity:**

#### CUP-1

- Electricity: 226 MW
- Steam: 890 T/h
- Industrial water: 720 Cu.m/h

#### **Customer:**

**Contract:** 

CUP-1: 10-15 years

CUP-2: 15 years ++

CUP-3: 15 years ++

- PTT Group
- Non-PTT Group industrial customers
- EGAT

#### **Shareholding:**







# **CPSC** Central Utility Plant 4 : CUP4 (Thailand)





Type:

Cogeneration

SCOD:

2019

**Electricity:** 

**45 MW** 

**Progress YE2017:** 

**19%** 

Steam:

70 T/h

Progress Q1/2018:

34%

**Total Investment:** 

3,980 MB

#### **Shareholding:**



#### **Progress Update:**

- CUP-4 will provide electricity and steam to support new demand from customers in Asia industrial estate and nearby. In order to increase the system's reliability and stability, the project is now in the design of connecting between CUP-4 and CUP-3 existing operation system. Currently, some customers have signed PPA with CUP-4 while some are under negotiation process.
- At the end of Q1/2018. EPC started site work. Detail engineering design and equipment specification approval are on progress.

#### **Customer:**

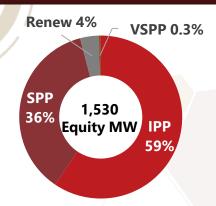
- PTT Group
- Non-PTT Group industrial customers
- EGAT





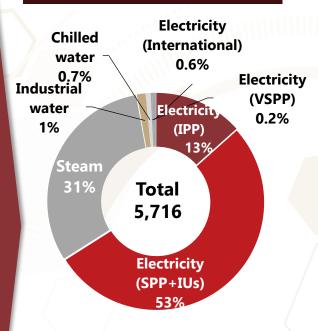
## **PTT Group is GPSC's Major Customer**

## **ELECTRICITY CAPACITY BREAKDOWN** (Unit: Equity Megawatt)



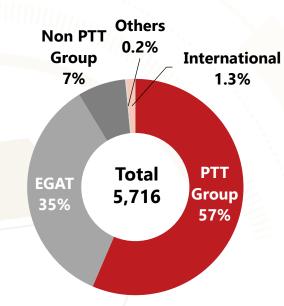
Name	Туре	GPSC's	Total capacity	Equity capacity	Steam	
		share %	(MW)	(MW)	(T/H)	
IN OPERATION						
Sriracha	IPP	100%	700	700	-	
CUP-1	SPP	100%	226	226	890	
CUP-2	SPP	100%	113	113	170	
CUP-3	SPP	100%	-	-	280	
CHPP	VSPP	100%	5	5	-	
IRPC-CP Phase 1	SPP	51%	45	23	86.7	
IRPC-CP Phase 2	SPP	51%	195	99.4	66.3	
CHPP (Solar)	VSPP	100%	5	5	-	
ISP1	Solar	99%	20.8	20.6	-	
Consolidate	ment	1,192	1,493.3			
TSR	Renew	40%	80	32		
NNEG	SPP	30%	125	38	9	
BIC-1	SPP	25%	117	29.25	5	
BIC-2	SPP	25%	117	29.25	5	
RPCL	CL IPP 1		1,400	210		
S	338.5	19				
	1,530	1,512				

## Q1/18 Revenue by product (THB Million)



 Electricity and steam are major sources of GPSC's revenue, accounted for 98% of total revenue

## Q1/18 Revenue by customer (THB Million)



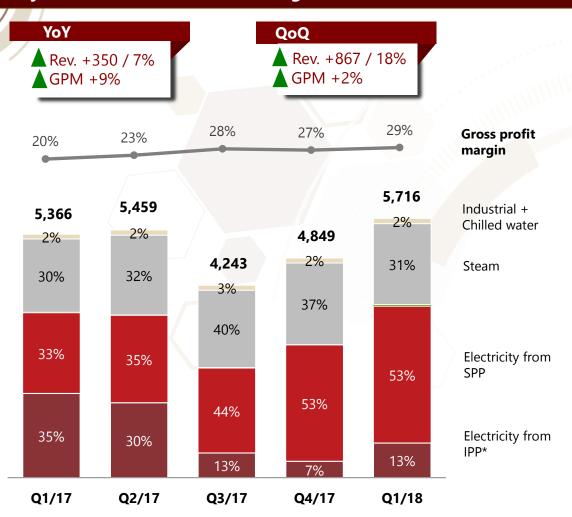
 PTT Group is the largest customer of GPSC, accounted for 57% of total revenue



## Q1/18 Revenue of THB 5,716 million, Increased 18% QoQ

#### **Quarterly Revenue & Gross Profit Margin**

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

Operating revenue in Q1/18 was THB 5,716 million increased by THB 867 million or 18% from Q4/17 due to the first full quarter of IRPC-CP full capacity operation (Phase 1 & 2) and higher Availability Payment (AP) from Sriracha power plant after resuming from planned maintenance in Q4/17.

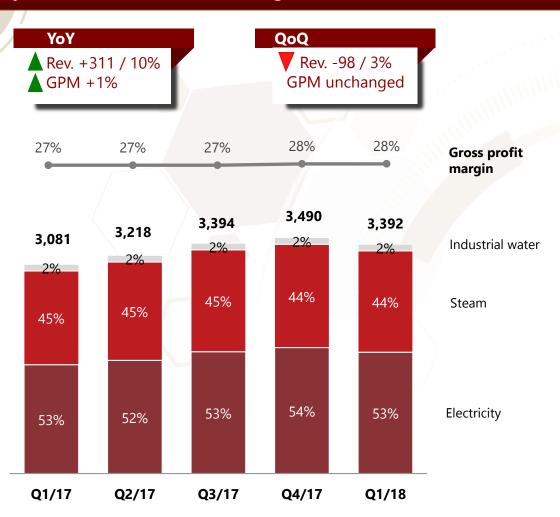
#### Q1/18 VS Q1/17 (YoY)

Operating revenue in Q1/18 increased by THB 350 million or 7% from Q1/17 due to the first full quarter that IRPC-CP started selling electricity to EGAT together with higher demand at Rayong plant as well as higher Ft.

## Rayong Power Plant (SPP): Revenue & GPM

#### **Quarterly Revenue & Gross Profit Margin**

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

**Total revenue** in Q1/18 was THB 3,392 million decreased by THB 98 million or 3% from Q4/17 mainly from **lower electricity** sales volume exported to EGAT due to maintenance shutdown in Q1/18.

#### Q1/18 VS Q1/17 (YoY)

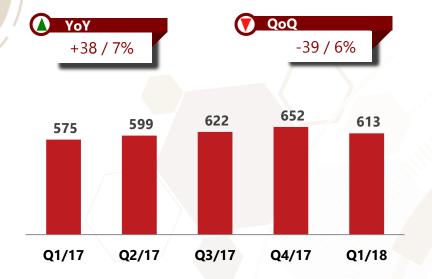
Total revenue in Q1/18 increased by THB 311 million or 10% from Q1/17 due to major customers shutdown in Q1/17 together with higher Ft rate in Q1/18.



## **Rayong Power Plant (SPP): Power**

#### **Quarterly power sales volume**

(GWh)



### Quarterly average sales price & Ft rate (THB/kWh, THB)



#### Q1/18 VS Q4/17 (QoQ)

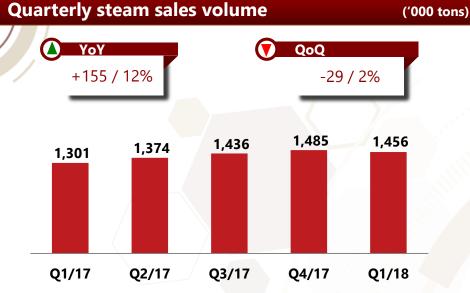
- **Volume** decreased by 39 GWh or 6% due to lower electricity sales volume exported to EGAT as a result of maintenance shutdown in Q1/18.
- **Price** slightly increased by 0.07 Baht per kWh or 2%.

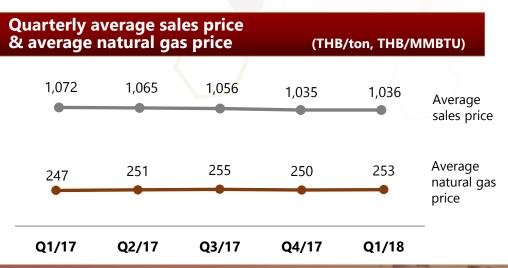
#### Q1/18 VS Q1/17 (YoY)

- **Volume** increased by 38 GWh or 7% due to major customers shutdown in Q1/17.
- **Price** increased by 0.13 Baht per kWh or 5% in line with higher Ft.



## **Rayong Power Plant (SPP): Steam**





#### Q1/18 VS Q4/17 (QoQ)

- **Volume** decreased by 29 thousand tons or 2% due to lower demand from customer.
- **Price** slightly increased by 1 Baht per ton or 0.1% in line with higher natural gas price.

#### Q1/18 VS Q1/17 (YoY)

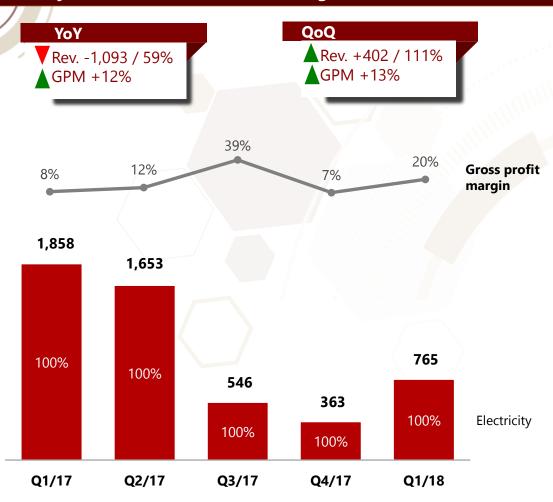
- **Volume** increased by 155 thousand tons or 12% due to major customers shutdown in Q1/17.
- **Price** decreased by 36 Baht per ton or 3% since there is a fixed income when sales volume increase, price decrease.



## Sriracha Power Plant: Revenue & GPM

#### Quarterly Revenue & Gross Profit Margin

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

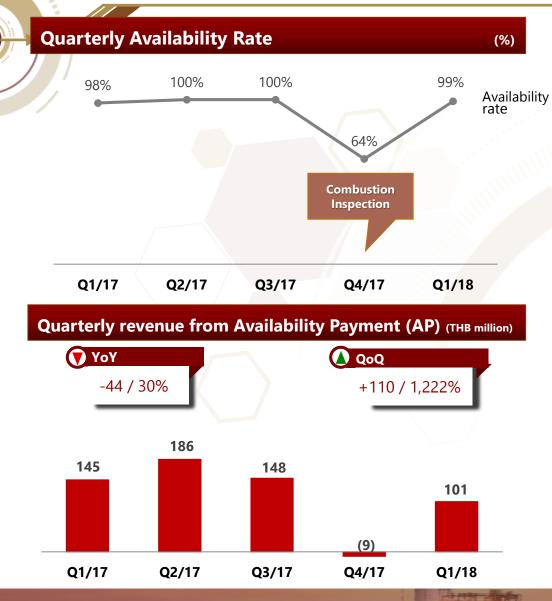
Total revenue in Q1/18 was THB 765 million increased by THB 402 million or 111% from Q4/17 due to higher Availability Payment (AP) resulted from planned maintenance in Q4/17 also, higher Energy Payment (EP) followed higher electricity dispatched volume per EGAT's instruction in Q1/18.

#### Q1/18 VS Q1/17 (YoY)

**Total revenue** in Q1/18 decreased by THB 1,093 million or 59% from Q1/17 due to **the drop in Energy Payment** (EP) followed lower electricity dispatched volume according to EGAT's instruction.



## **Sriracha Power Plant (IPP): Power**



#### Q1/18 VS Q4/17 (QoQ)

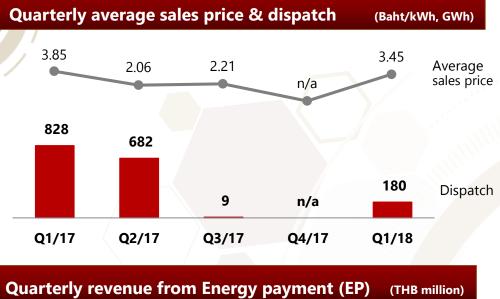
- Availability rate in Q1/18 was 99% increased by 35% from Q4/17 due to the resume from planned maintenance in Q4/17.
- Revenue from Availability Payment (AP) in Q1/18 increased by THB 110 million in line with higher availability rate.

#### Q1/18 VS Q1/17 (YoY)

- Availability rate in Q1/18 increased slightly by 1% from Q1/17.
- Revenue from Availability Payment (AP) in Q1/18 decreased by THB 44 million or 30% mainly due to the depreciation of USD against THB.



## **Sriracha Power Plant (IPP): Power**





251

Q3/17

Q2/17

228

Q4/17

Q1/18

#### Q1/18 VS Q4/17 (QoQ)

- Dispatch volume increased to 180 GWh in Q1/18 according to higher demand from EGAT's dispatch instruction.
- Revenue from Energy Payment (EP) in Q1/18 increased by THB 292 million or 128% from Q4/17 due to the increase in dispatch volume per EGAT's dispatch instruction.

#### Q1/18 VS Q1/17 (YoY)

- Dispatch volume decreased by 648 GWh or 78% according to EGAT's dispatch instruction.
- As a result, revenue from Energy Payment (EP) decreased by THB 1,033 million or 67%.

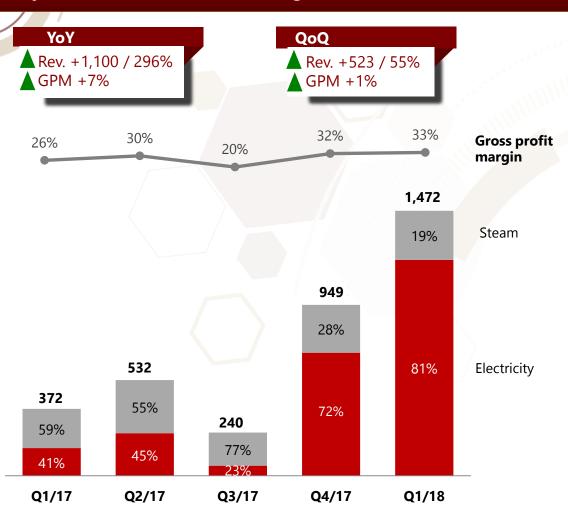


Q1/17

## **IRPC-CP Power Plant (SPP): Revenue & GPM**

#### **Quarterly Revenue & Gross Profit Margin**

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

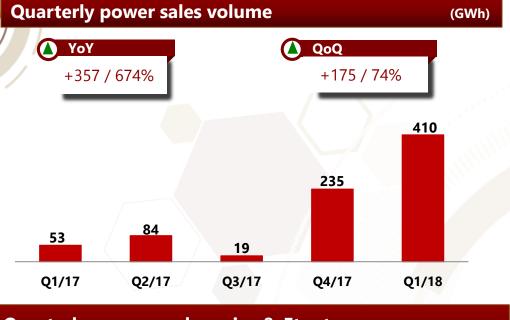
Total revenue in Q1/18 was THB 1,472 million increased by THB 523 million or 55% from Q4/17 due to the first full quarter of IRPC-CP full capacity (Phase 1 & 2) operation in Q1/18.

#### Q1/18 VS Q1/17 (YoY)

**Total revenue** in Q1/18 increased by THB 1,100 million or 296% from Q1/17 due to **the first full quarter that IRPC-CP started selling electricity to EGAT** after the COD of Phase 2 in Nov'17 together with higher Ft rate.



## **IRPC-CP Power Plant (SPP): Power**



#### **Quarterly average sales price & Ft rate** (THB/kWh, THB) 2.94 2.92 2.93 2.88 2.81 Average sales price Ft rate -0.16 -0.16 -0.37 Q1/17 Q2/17 Q3/17 Q1/18 Q4/17

#### Q1/18 VS Q4/17 (QoQ)

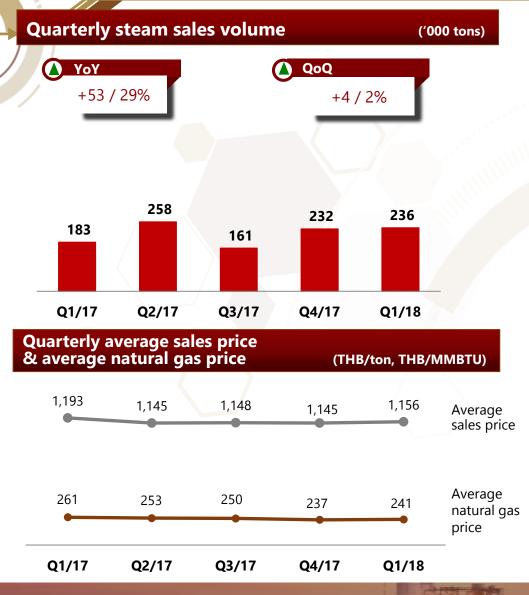
- **Volume** increased by 175 GWh or 74% due to the first full quarter of IRPC-CP full capacity (Phase 1 & 2) operation.
- **Price** slightly increased by 0.01 Baht per kWh or 0.3%.

#### Q1/18 VS Q1/17 (YoY)

- **Volume** increased by 357 GWh or 674% due to higher electricity volume exported to EGAT from the COD of Phase 2 in Nov'17.
- **Price** increased by 0.05 Baht per kWh or 2% in line with higher Ft rate in Q1/18.



## **IRPC-CP Power Plant (SPP): Steam**



#### Q1/18 VS Q4/17 (QoQ)

- **Volume** increased by 4 thousand tons or 2% from Q4/17 after resume back from the commissioning shutdown between IRPC-CP Phase 1 & 2 in Q4/17.
- **Price** increased by 11 Baht per ton or 5% which in line with higher natural gas price in Q1/18 when compare to Q4/17.

#### Q1/18 VS Q1/17 (YoY)

- **Volume** increased by 53 thousand tons or 29% from Q1/17 since there was IRPC (customer) turnaround in Q1/17.
- **Price** decreased by 37 Baht per ton or 3% which in line with lower natural gas price in Q1/18 when compare to Q1/17.



## **Cost of Sales and Services**

#### **Quarterly cost of sales and services\***

(THB Million)

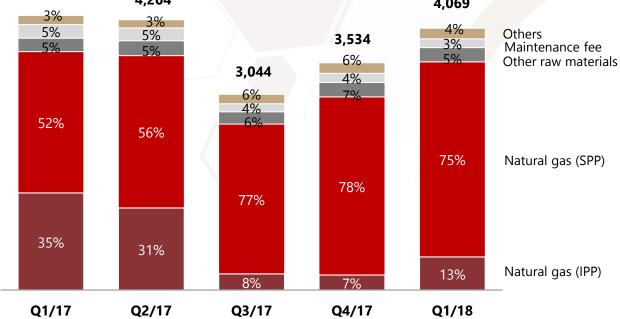


#### Q1/18 VS Q4/17 (QoQ)

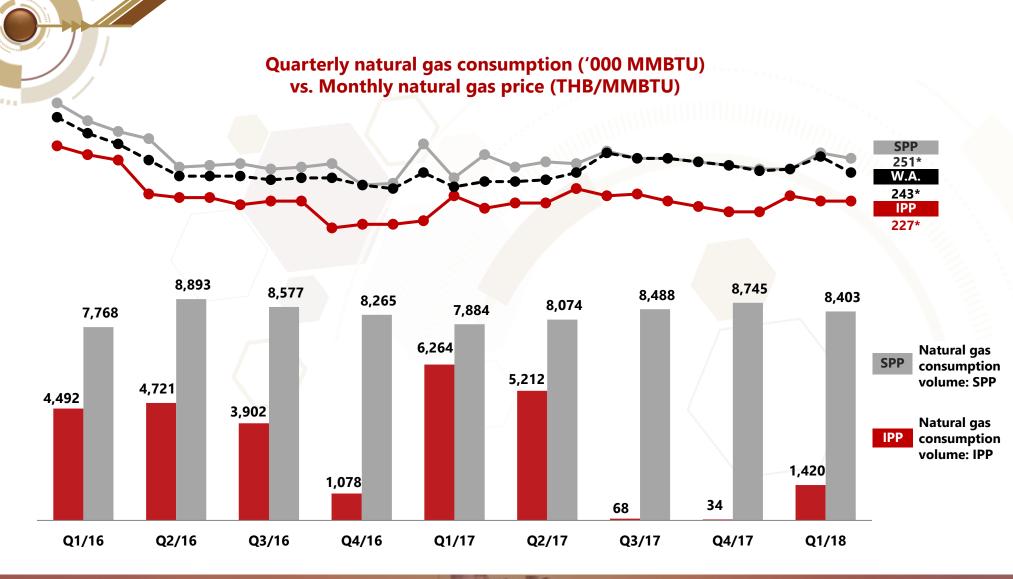
Cost of sales and services in Q1/18 was THB 4,069 million increased by THB 535 million or 15% mainly from higher cost of natural gas of IRPC-CP that started full phases operation for the first full quarter.

#### Q1/18 VS Q1/17 (YoY)

Cost of sales and services decreased by THB 199 million or 5% mainly due to **lower cost** of natural gas of Sriracha plant according to lower electricity dispatch volume per EGAT's instruction.



## **Natural Gas Consumption vs Price Trend**





## **Revenue and GPM by Major Plants**

# Sriracha Plant (IPP) (THB Million, %) QoQ Rev. -1,093 / 59% ARev. +402 / 111% GPM +12% GPM +13%

7%

8%

1,858

100%

Q1/17

20%

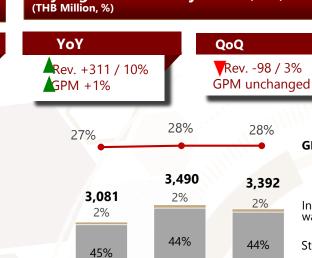
765

100%

Q1/18

**GPM** 

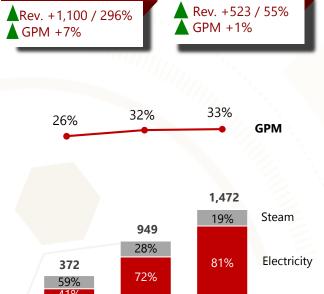
Electricity



53%

Q1/17

Rayong Central Utility Plants (SPP)



QoQ

**IRPC-CP** Plant (SPP)

Q1/17

(THB Million, %)

YoY

**GPM** 

Industrial

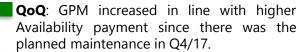
water

Steam

Electricity

53%

Q1/18

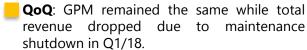


363

100%

Q4/17

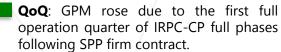
**YoY**: GPM increased whereas the total revenue dropped due to lower cost of natural gas according to lower electricity dispatch volume per EGAT's instruction.



54%

Q4/17

**YoY**: GPM rose due to higher electricity and steam sales volume together with higher Ft.



Q4/17

Q1/18

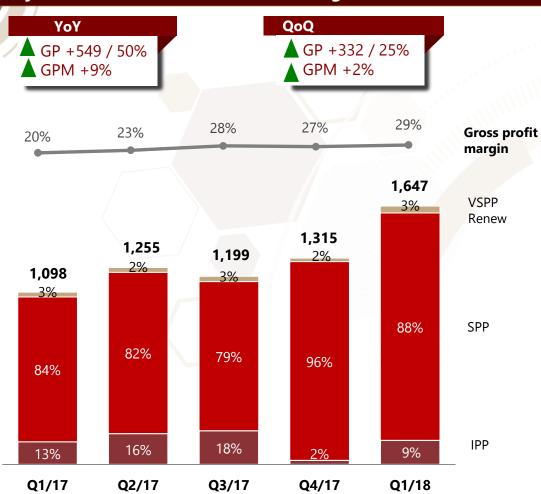
**YoY**: GPM rose since IRPC-CP started selling electricity to EGAT for the first full quarter, IRPC turnaround in Q1/17.



## **SPP is GPSC's Main Profit Generator**

#### **Quarterly Gross Profit and Gross Profit Margin\***

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

- Gross profit in Q1/18 was THB 1,647 million increased by THB 332 million or 25% mainly due to the first full operation quarter of IRPC-CP full phases together with higher income from Sriracha plant after planned maintenance in Q4/17.
- Gross profit margin increased by 2% from IRPC-CP and Sriracha plants as the reason above.

#### Q1/18 VS Q1/17 (YoY)

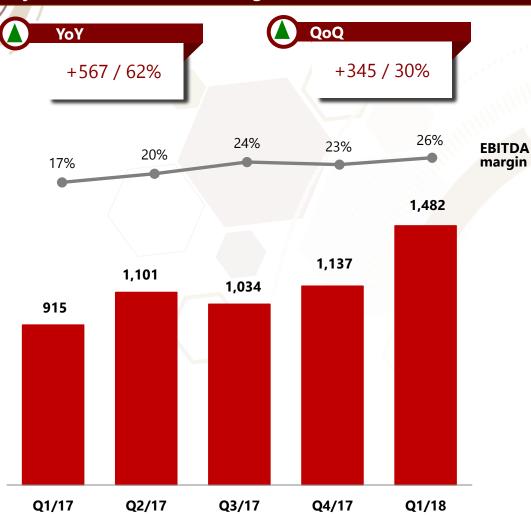
- Gross profit increased by THB 549 million or 50% due to the first full operation quarter of IRPC-CP full phases operation and higher demand at Rayong plant
- **Gross profit margin** increased by 9% in line with gross profit.



## **EBITDA Increased 30% QoQ**

#### **Quarterly EBITDA and EBITDA margin**

(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

**EBITDA** in Q1/18 was THB 1,482 million increased by THB 345 million or 30% mainly due to the rise in operating income from IRPC-CP and Sriracha plant.

#### Q1/18 VS Q1/17 (YoY)

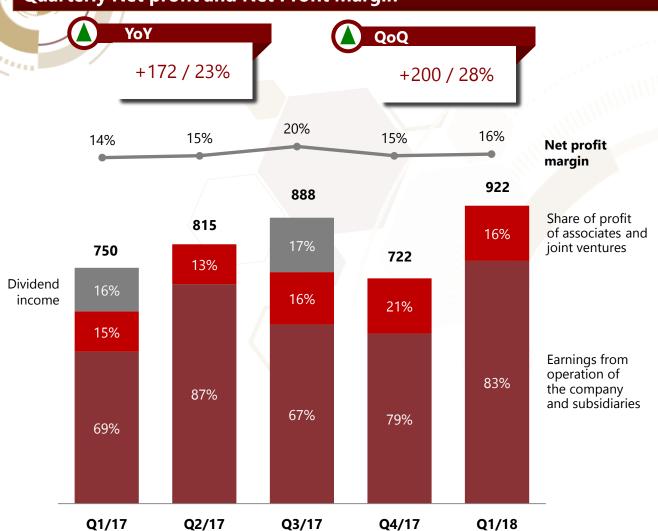
**EBITDA** increased by THB 567 million or 62% due to the rise in operating income from IRPC-CP and Sriracha plant together with higher Ft.



## **Net profit grew 28% QoQ**



(THB Million, %)



#### Q1/18 VS Q4/17 (QoQ)

Net profit in Q1/18 was THB 922 million increased by THB 200 million or 28% resulted mainly from higher income from higher sales volume of IRPC-CP and the increase in AP from Sriracha plant.

#### Q1/18 VS Q1/17 (YoY)

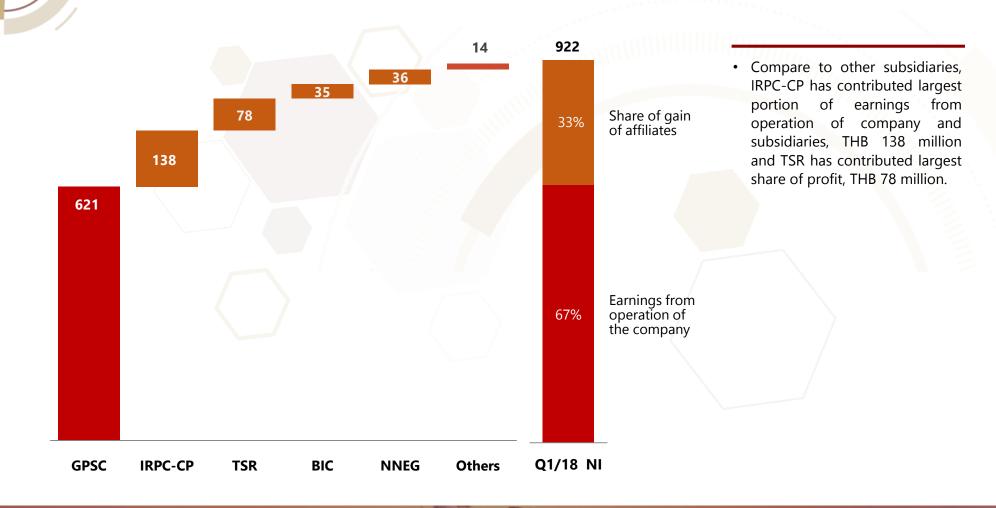
Net profit increased by THB 172 million or 23% even though the company did not receive.



# IRPC-CP has contributed largest portion of earning from operation of company and subsidiaries

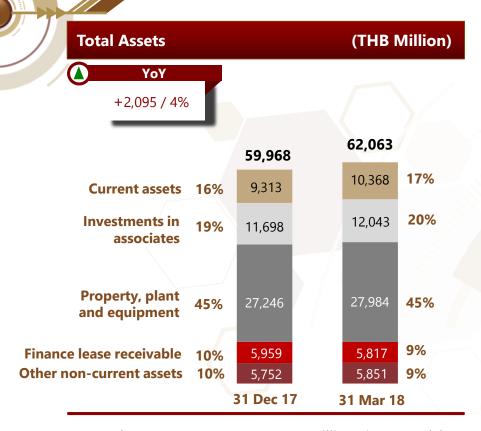


(THB Million)

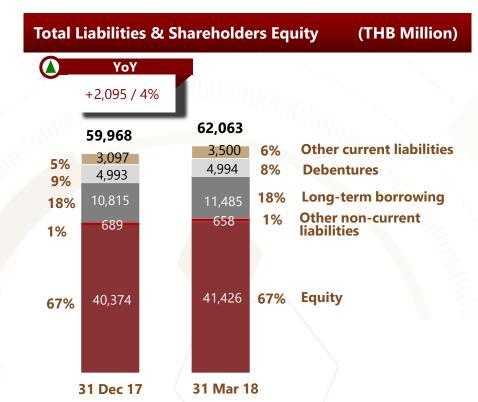




## Financial position of GPSC and subsidiaries



- Total assets were THB 62,063 million, increased by THB 2,095 million or 4% from 31 Dec 17.
- The increase was mainly from increases in cash & cash equivalent from operation and PPE from land & asset under construction of CUP-4 project.



- Total liabilities were THB 20,637 million increased by THB 1,042 million or 5% mainly from long-term loan of IRPC-CP.
- Equity were THB 41,426 million increased by THB 1,052 million or 3% mainly from an increase in the unappropriated retained earnings.



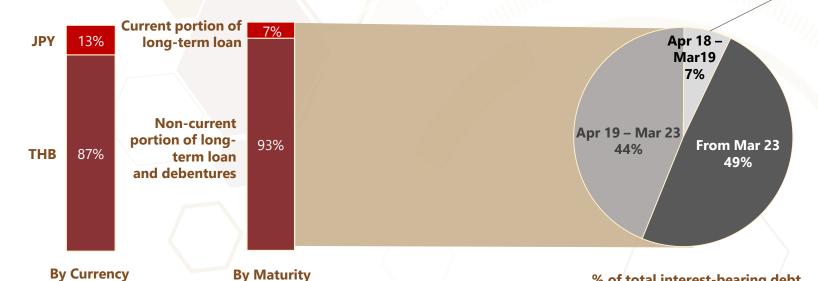
## Well-managed debt profile and continuous deleveraging

#### **Debt profile**

Total interest-bearing debt: THB 16,479 million

#### **Debt repayment plan**

**Current portion** THB 1,173 million



- All debt balance as at 31 March 2018 is in THB and JPY currency.
- The interest-bearing debt is comprised of long-term loan and debentures which includes 7% of current portion.

Non-current portion of interest-bearing debt equals

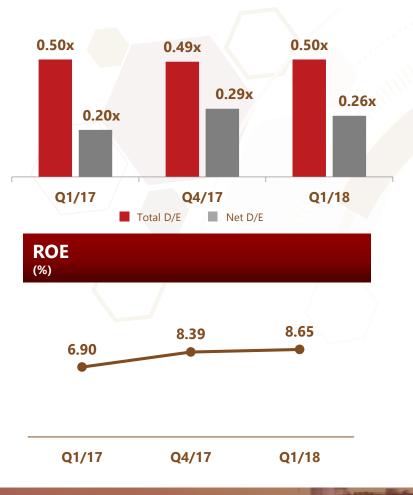
% of total interest-bearing debt

- to THB 15,306 million while current portion equals to THB 1,173 million.
- 44% of total interest-bearing debt will be repaid between April 2019 – March 2023.



## **Key Financial Ratios**

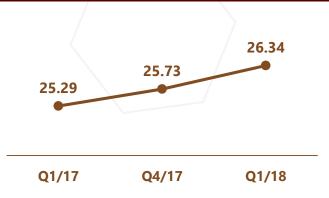




## Earning per share (EPS) (Baht/share)











# **THANK YOU**

# Please scan to complete the survey



#### **IR Contact**

Punnchalee Laothumthut Pimploy Wichienprakarn Janthakarn Chanhorm Chayanant Seneenant

+662 140 4630

+662 140 4691

+662 140 5318

+662 140 4715

ir@gpscgroup.com www.gpscgroup.com



## 2018 Maintenance schedule: Sriracha and Rayong plants

			Description	2018											
/	Plant	Tag no.		Q1		Q2			Q3			Q4			
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2	CUP-1	H-13701	Aux. Boiler.11		16 <b>1Y</b> 26										
		N-13901 H-13702	GTG11 HRSG11			5 <b>1Y</b> 16									
		N-13902 H-13703	GTG12 HRSG12				7 <b>1Y</b> 17								
		N-13903 H-13704	GTG13 HRSG13							7 <b>HG</b> 20 7 <b>3Y</b> 20	) )				
		N-13904 H-13705	GTG14 HRSG14		3 <b>1Y</b> 13										
		N-13961 H-13761	GTG15 HRSG15										16 <b>1Y</b> 26		
		N-13962 H-13762	GTG16 HRSG16	21 <b>1Y</b> 31											
	CUP-2	H-23701	Aux. Boiler.21							1 1Y 11					
		N-23901 H-23701	GTG21 HRSG21			1 <b>HG</b> 14 1 3Y 14									
		N-23902 H-23702	GTG22 HRSG22						10 <b>1Y</b> 20						
		N-23911	Steam Turbine21												
	CUP-3	H-33701	Aux. Boiler 31								4 <b>1Y</b> 14	4			
		H-33711	Aux. Boiler 32										14 <b>1Y</b> 24		
		H-33712	Aux. Boiler 33								20	6/9 <b>1Y</b> 10	)/10	15/10 – 3/12	
	SRC	11MB 1-211-SG-101	GT11 HRSG#1											MO 3Y	
		12MB 1-211-SG-201	GT12 HRSG#2											MO 3Y	
		STG	Steam Turbine 10											MO	



HGPI Hot Gas Path Inspection for Gas Turbine 14 days Major Inspection for Gas Turbine 22 days

One Year Inspection Aux. Boiler Three Year Inspection Aux. Boiler

1Y One Year Inspection HRSG 3Y Three Year Inspection HRSG

1Y One Year Inspection NG Station Test 5Y Five Year Inspection NG Station (NDT) FO Forced Outage

14 days Online

Depending on physical damage

#### Notes Sriracha Site

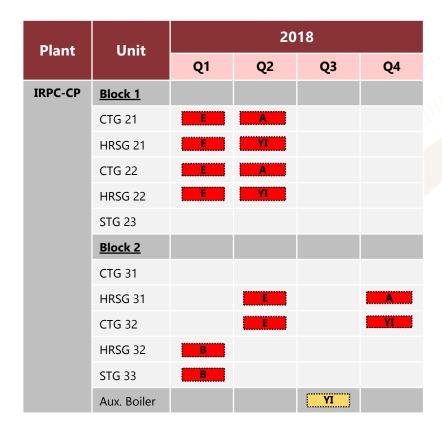
CI Combustion Inspection for Gas Turbine HGPI Hot Gas Path Inspection for Gas Turbine MO Major Overhaul for Gas Turbine RCIE Rotor and Casting Inspection Evaluation

8 days 26 days 33 days 49 days

3Y Three Year Inspection HRSG

1Y One Year Inspection NG Station Test 5Y Five Year Inspection NG Station (NDT) 33 days

## **2018 Maintenance schedule: IRPC-CP**





#### **Notes**

ΥI	Yearly Inspection	5 days
ΥI	Yearly Inspection Aux Boiler	15 days
Α	CTG Inspection Level A	5 days
В	CTG Inspection Level B	20 days
C	CTG Inspection Level C	24 days
Ε	EPC Inspection End of Warranty	3 days

