

**Innovative Power Flagship of PTT Group**

# **3Q 17 Results Presentation Opportunity Day**

*18<sup>th</sup> November 2017*



**GLOBAL POWER SYNERGY PUBLIC  
COMPANY LIMITED**



# Company Overview

## Investment in Affiliates

## Financial Performance

# GPSC stock's performance

THB / Share

## GPSC's Stock Price (May 15 – Nov 17)



Ranked "Excellent"  
for CGR Scoring  
(26 Oct 2016)

STANDARD  
& POOR'S

BBB-

FitchRatings

A+(tha)

Credit Rating  
(25 Jan 2017)

Thailand  
Sustainability  
Investment  
(8 Nov 2017)



Best CEO (Investor Relation)  
Best IR Company (Thailand)  
Best Environmental Responsibility  
(9 June 2017)

Investors' Choice  
Award  
(27 Jul 2016)

Best CFO Award  
(15 Jul 2016)

Included in SET50  
(4 Jul 2016)

FTSE  
Russell

Asia Pacific ex  
Japan Small Cap  
(19 Sep 2016)



ESG100  
Environmental • Social • Governance  
2016  
(29 Apr 2016)

Included in SET100  
(4 Jan 2016)



### SET50/SET100 Index

Calculated from the stock price of the top 50 and top 100 listed companies on SET in term of :

- ✓ Large market capitalization
- ✓ High liquidity
- ✓ High turnover
- ✓ Compliance with requirements regarding the shares distribution of minority shareholders (Free float  $\geq$  20%)

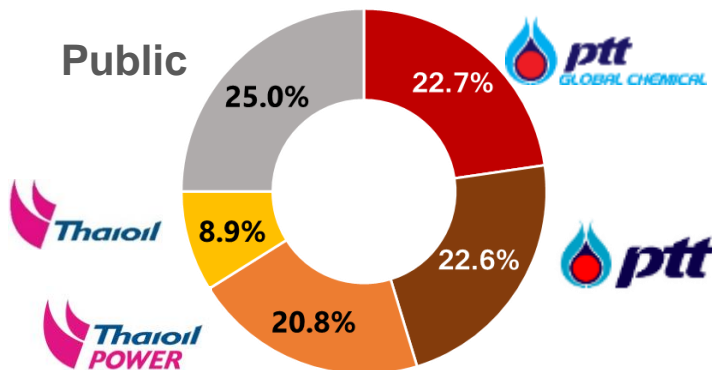
First trading  
Day  
(18 May 2015)

May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15 Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16 Dec-16 Jan-17 Feb-17 Mar-17 Apr-17 May-17 Jun-17 Jul-17 Aug-17 Sep-17 Oct-17 Nov-17

- IPO in May 2015, GPSC has been growing business with continuously increase market capitalization.
- Starting from November 2015 where GPSC has been included in the Global standard, namely **FTSE Index**.
- GPSC was classified to be in **SET100** in January 2016 and then in July 2016, progressed to be included in **SET50** until now.
- In April 2016, GPSC has been shortlisted in **ESG 100** with sustainable business awarded by Thaipat Institute. In 2H/2016, GPSC's CFO received **Best CFO Award** from Investment Analysts Association. The company also received **Investors' Choice Award** from Thai Investors Association, ranked **"Excellent" for CGR Scoring** by Thai Institute of Directors and GPSC received **Most Progress in IR Award** from IR Magazine.
- In December 2016, GPSC has been initially ranked **BBB- rating by S&P's** and **A+(tha) by Fitch Ratings** with **Investment Grade and Stable Outlook**. In June 2017, GPSC was granted **Best CEO (Investor Relation)**, **Best IR Company (Thailand)** and **Best Environmental Responsibility** from Corporate Governance Asia. Also, in November 2017, GPSC was included in **Thailand Sustainability Investment** from SET. These are the results of confidence on GPSC performance from all stakeholders.

# GPSC Innovative Power Company at a Glance

## GPSC's Shareholding Structure



Thai Oil Power is 73.99% held by Thai Oil and 24.01% by PTT  
As of 27 February 2017

## Company Information

Head Office	555/2 Energy Complex Building B, 5th Floor, Vibhadi-Rangsit Road, Chatuchak, Bangkok
Business Type	Energy & Utilities
Registered Capital (Fully Paid)	THB 14,983 million
Market Cap (As of 3 October 2017)	THB 76,772.5 million

GPSC's committed capacity is 1,922 Equity MW electricity and 1,582 T/H steam in year 2019



COMBINED CYCLE / COGENERATION

Electricity 1,517 MW  
Steam 1,582 T/H  
Industrial Water 2,080 Cu.m./H  
Chilled Water 12,000 RT



RENEWABLE ENERGY

Electricity 58 MW



HYDROELECTRIC

Electricity 347 MW

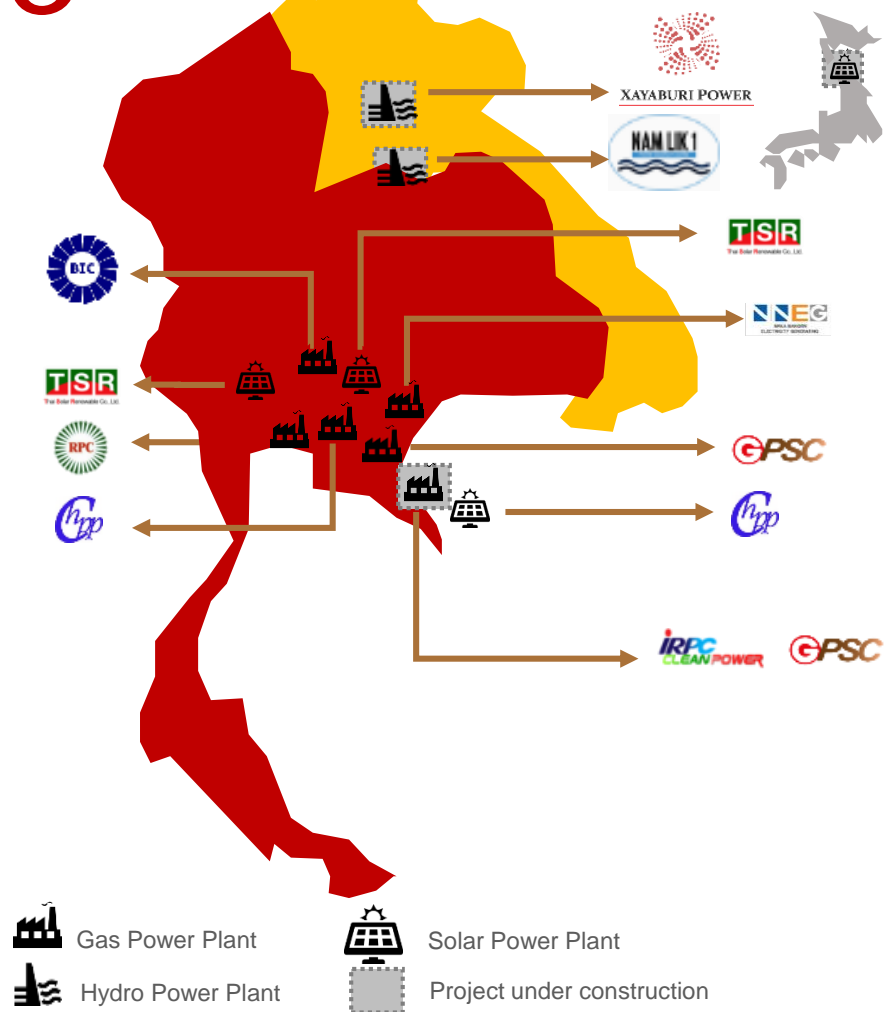


OTHER BUSINESSES

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

# GPSC's Business Portfolio in Thailand, Lao PDR and Japan





**3 Countries**



Today, GPSC's power plants continue to grow in locations, customer groups, and fuel types, as illustrates in the picture..



As of November 15, 2017, GPSC committed equity capacities below:

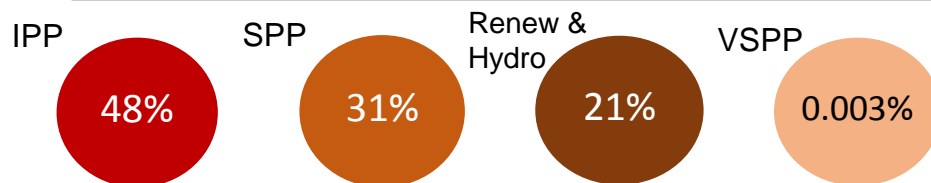
POWER 	1,922 megawatts*
STEAM 	1,582 tons/hour**
CHILLED WATER 	12,000 refrigeration tons
INDUSTRIAL WATER 	2,080 cu.m./hour

\*Of 1,922 megawatts: operates 1,509 MW and under construction 413 MW

\*\* of 1,582 tons/hour: operates 1,512 T/H

## CAPACITY BREAKDOWN

1,922 equity MW





# GPSC's Business Portfolio : 11 Affiliates in 4 Countries

## Combined Cycle / Cogeneration

### Sriracha Power Plant (IPP)

100%

- Electricity: 700 MW
- Industrial water: 80 Cu.m./h



### Rayong Power Plant (SPP Non-firm)

100%

#### CUP 1-3

- Electricity: 339 MW
- Steam: 1,340 T/H
- Industrial water: 2,000 Cu.m./h



#### Rayong Expansion

- Electricity: 45 MW
- Steam: 70 T/h

### IRPC Clean Power (SPP Firm)

51%

#### Total

- Electricity: 240 MW
- Steam: 300 T/h



#### Phase 1

- Electricity: 45 MW
- Steam: 170 T/h

#### Phase 2 (SCOD in Nov 2017)

- Electricity: 195 MW
- Steam: 130 T/h

### Combined Heat and Power Producing (VSPP)

100%

- Electricity: 5 MW
- Chilled water: 12,000 RT



### Nava Nakorn Electricity Generation (SPP Firm)

30%

- Electricity : 125 MW
- Steam: 30 T/h



### Bangpa-in Cogeneration (SPP Firm)

25%

#### Phase 1

- Electricity: 117 MW
- Steam: 20 T/h



#### Phase 2 (SCOD in June 2017)

- Electricity: 117 MW
- Steam: 20 T/h

### Ratchaburi Power (IPP)

15%

- Electricity: 1,400 MW



## Renewable Energy

### Thai Solar Renewable (VSPP)

40%

- Electricity: 80 MW



### Ichinoseki Solar Power

99%

#### (SCOD in Q4/2017)

- Electricity: 20.8 MW



### CHPP Solar Cooperatives (VSPP)

100%

- Electricity: 5 MW



## Hydroelectric

### Xayaburi Power (IPP)

25%

#### (SCOD in October 2019)

- Electricity: 1,285 MW



### Nam Lik 1 Power

40%

#### (SCOD in 2019)

- Electricity: 65 MW



## Other Businesses

### Business Service Alliance

25%



### 24M Technologies

18%



Project under construction

Project COD in 2017

# 3Q 2017 Highlights



## GROWTH

**Robust growth in pipeline with new growth opportunities**

**IRPC-CP Ph2** and **Ichinoseki Solar Power (ISP1)** are ready to COD in Q4/17 adding more 216 operating MW. Also, the development of **expansion phase at Rayong Plant** is continuing to support the growing demands from customers. Furthermore, GPSC is studying the business expansion at **NNEG** and **solar rooftop** in industrial estate, service station, housing station.



## PROFIT

**23% Increase in Net profit YoY**

GPSC's **net profit in Q3/17 was THB 888 million increased by THB 171 million** from Q3/16 and by THB 71 million from Q2/17 thanks to the rises in sales price, resulted from the rise in Ft rate, and higher demand from customers at Rayong Plant. Moreover, GPSC gained dividend income from RPCL for THB 150 million in Q3/17 and construction income at IRPC-CP Ph.1 for THB 66 million.



## SUSTAINABILITY

**Selected to include in THSI 2017 by SET**

GPSC is selected to include in **Thailand Sustainability Investment (THSI)** by the Stock Exchange of Thailand (SET) in 2017. This reflects the emphasis on 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 and promotion for business and social innovation of GPSC.



## CONTROL

**5 Projects in progress meet milestone as planned**

IRPC-CP Ph2, which has completed the synchronization with Ph1, and **Ichinoseki** construction progressed as planned and ready to COD in Q4/17 **while another three power plants, which are under construction, are expected to COD within 2019.** All the projects are closely monitored by GPSC and construction specialists to meet the milestones.

**GROWING PROFIT WITH SUSTAINABILITY AND CONTROL**

# Strategic Growth : 3 Growth Engines



## 1 Priority Thailand



- Focus in MAPTAPHUT area
- Be PTT Group's power supplier of choice
- Contribute to strategic priorities across the PTT group
- Increase new customers in Thailand



## 2 International Business



- Focus countries
- Enhance country knowledge and make relationship
- Strategic partners
- Invest in both conventional and renewable energies

### **"Focus Countries"**

**Go into country where we can play multiple fuel to avoid risk.**

## 3 Future Energy



- Be at the forefront of innovation in energy sector
- Leverage IP technology license partnership
- Leverage existing investments, and PTT's asset base to deploy new technologies
- Smart grids for smart cities



# First Debentures Issuance THB 5,000 million

- ✓ **Unsubordinated and unsecured THB debentures**
- ✓ **Issue rating A+ by Fitch Ratings (Thailand)**
- ✓ **Offering to institutional and high net worth investors**

## Tranche 1



- 4 years maturity due 2021
- Principal amount of THB 3,500 million
- Fixed coupon rate of **2.21%** per annum

## Tranche 2



- 7 years maturity due 2024
- Principal amount of THB 1,500 million
- Fixed coupon rate of **2.82%** per annum

**Strengthen  
Capital  
Structure**



***Decrease Cost  
of Fund by 1%***



***Fixed  
Interest Rate***



***Longer Loan  
Tenor***

**Company Overview**

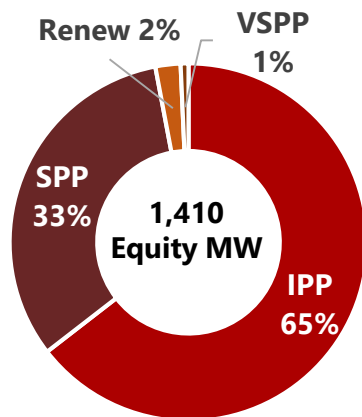
**Financial Performance**

**Investment in Affiliates**

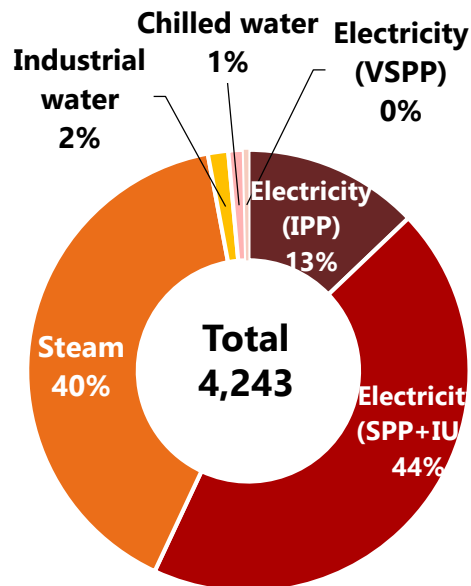
# Majority of GPSC's revenue is from electricity, PTT Group is GPSC's major customer

## ELECTRICITY CAPACITY BREAKDOWN

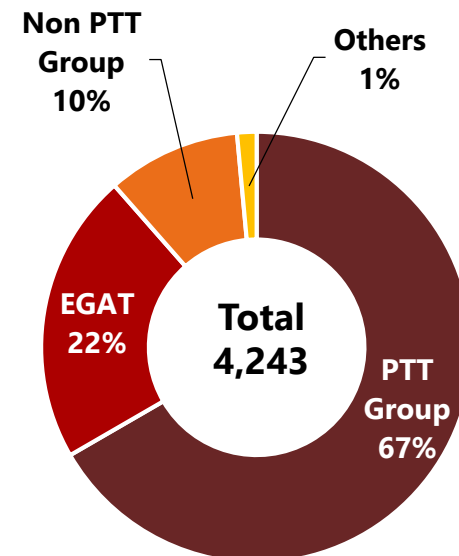
(Unit: Equity Megawatt)



## Q3/2017 Revenue by product (THB million)



## Q3/2017 Revenue by customer (THB million)



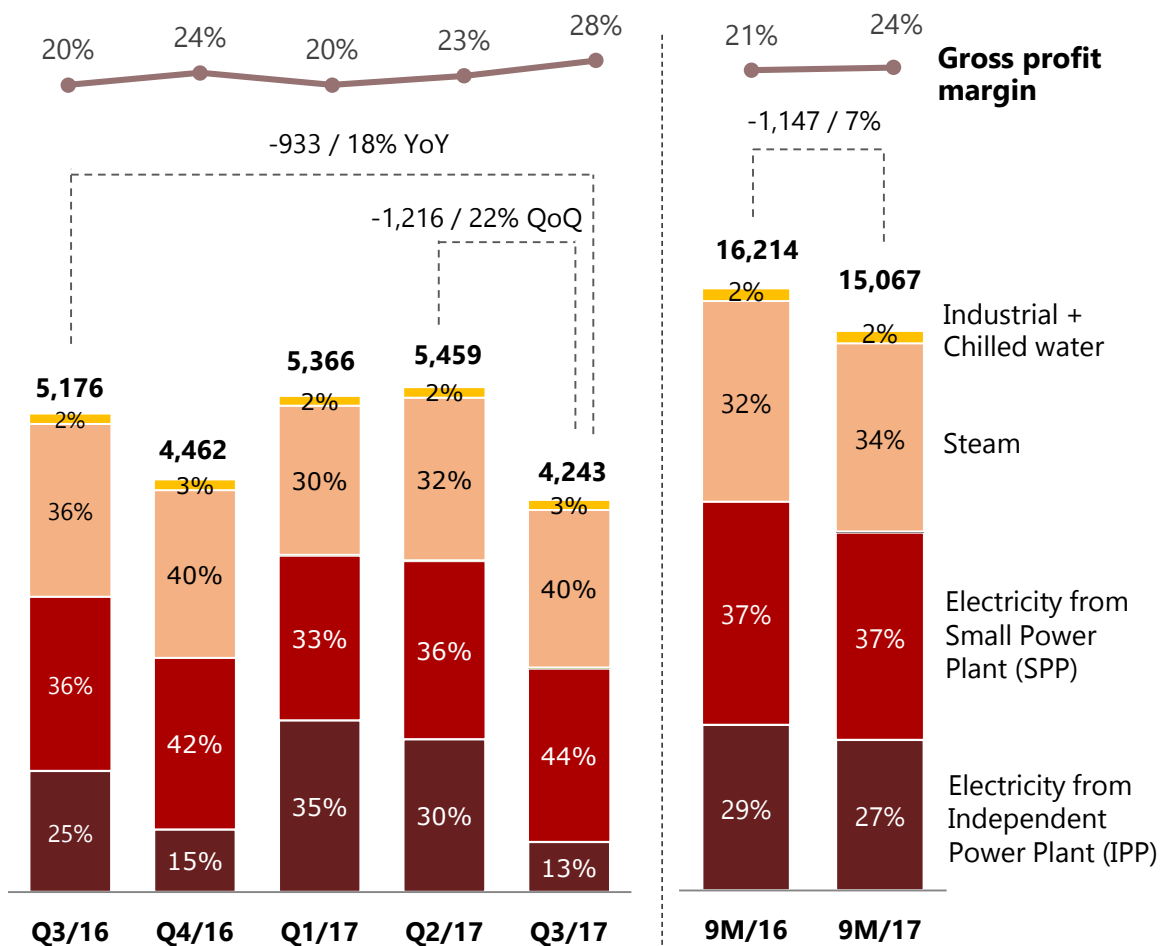
- Electricity and Steam are major sources of GPSC's revenue, accounted for 97% of total revenue.

- Accounted for more than 60% of total revenue, PTT Group is consistently the largest customer of GPSC in Q3/17.

Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	Steam (T/H)
<b>IN OPERATION</b>					
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
CHPP (Solar)	VSPP	100%	5	5	
<b>Consolidate to Financial Statement</b>				<b>1,072</b>	<b>1,427</b>
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	IPP	15%	1,400	210	
<b>Share of Profit / Dividend Income</b>				<b>338</b>	<b>19</b>
<b>Total operating</b>				<b>1,410</b>	<b>1,446</b>

# Revenue decreased THB 1,216 million or 22% QoQ mainly from Sriracha and IRPC-CP

## Quarterly revenue (THB MM)



### Q3/17 VS Q2/17 (QoQ)

Operating revenue in Q3/17 decreased by THB 1,216 million or 22% resulted from the shutdown of IRPC-CP Phase 1 to commissioning with Phase 2 and the decrease in sales volume at Sriracha from reserved shutdown.

### Q3/17 VS Q3/16 (YoY)

Operating revenue in Q3/17 decreased by THB 933 million or 18% from the decrease in sales volume at IRPC-CP Phase 1 and Sriracha.

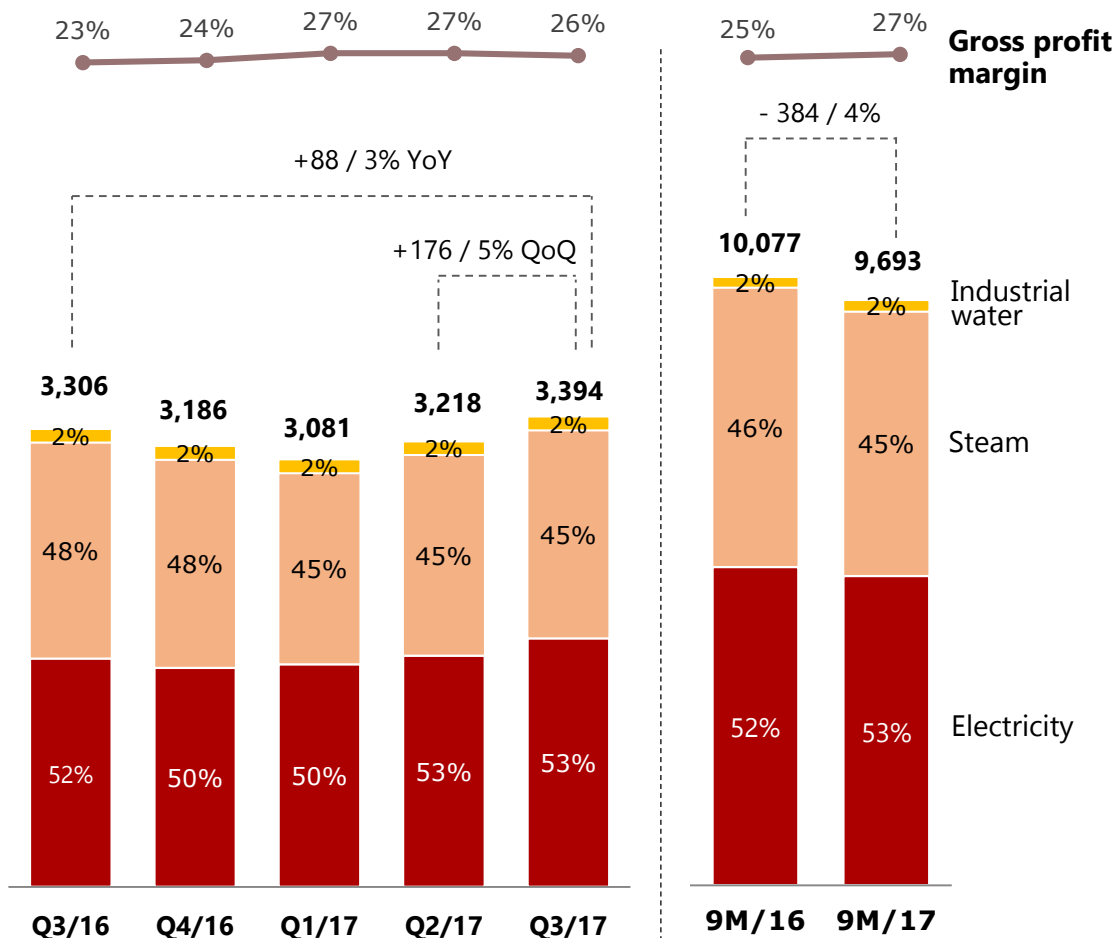
### 9M/17 VS 9M/16

Operating revenue in 9M/17 decreased by THB 1,147 million or 7% resulted from the shutdown of major customer of IRPC-CP Phase 1 in Q1/17 and the commissioning in Q3/17 also, the reserved shutdown of Sriracha together with lower average selling prices of electricity and steam which followed decreased Ft rate and natural gas price.

Remark: \*Revenue from Electricity (IPP) includes income from electricity sales and finance lease.  
Electricity (VSPP) is too small to be recognized in the graph.

# Rayong Power Plant (SPP) : Revenue & GPM

## Quarterly revenue & gross profit margin (THB MM, %)



### Q3/17 VS Q2/17 (QoQ)

- Total revenue in Q3/17 increased by THB 176 million or 5% from higher sales volume of electricity and steam after customers resumed their operations from planned shutdown in Q2/17 together with higher selling price from rising Ft rate.

### Q3/17 VS Q3/16 (YoY)

- Total revenue in Q3/17 increased by THB 88 million or 3% because there was no planned maintenance shutdown of gas turbine generator as in Q3/16. Plus, the average selling price of electricity increased following higher Ft rate.

### 9M/17 VS 9M/16

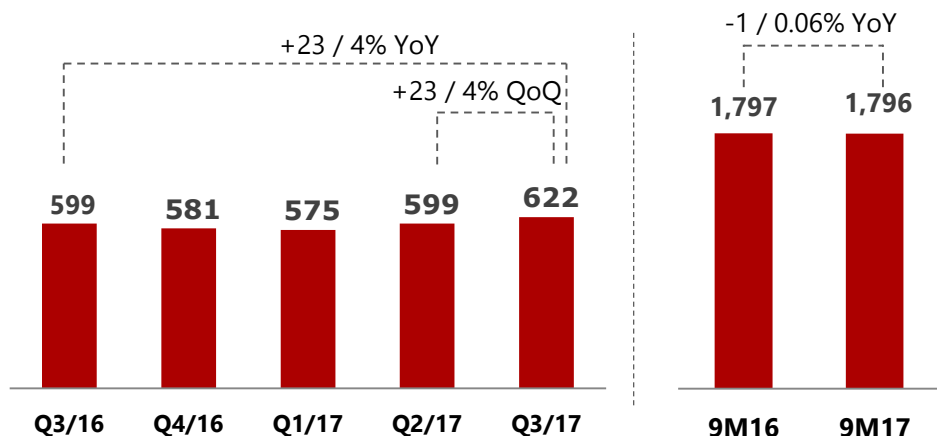
- Total revenue in 9M/17 decreased by THB 384 million or 4% due to lower average selling price of electricity and steam following the drop in Ft rate and natural gas price respectively.

Remark: \*Revenue from Electricity (IPP) includes income from electricity sales and finance lease.

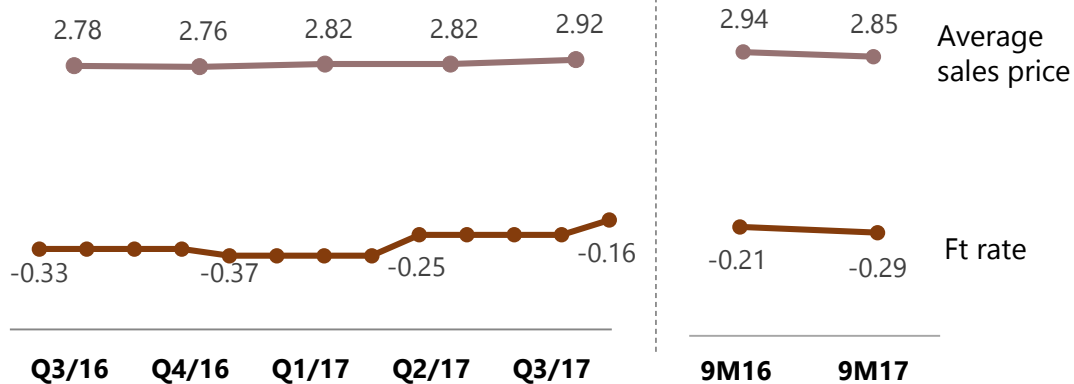


# Rayong Power Plant (SPP): Power

## Quarterly power sales volume (GWh)



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



### Q3/17 VS Q2/17 (QoQ)

■ **Volume** : increased by 23 GWh or 4% due to higher demand from customers as they returned to normal operation after planned maintenance in Q2/17.

■ **Price** : increased mainly due to higher Ft rate.

### Q3/17 VS Q3/16 (YoY)

■ **Volume** : increased by 23 GWh or 4% resulted from gas turbine shutdown in Q3/16.

■ **Price** : increased by 0.14 Baht per kWh due to higher Ft rate.

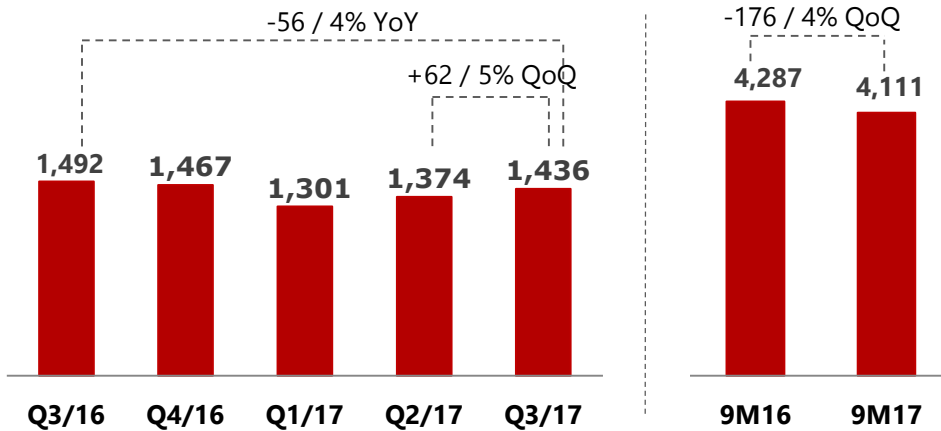
### 9M17 VS 9M16

■ **Volume** : slightly decreased by 1 GWh or 0.06%.

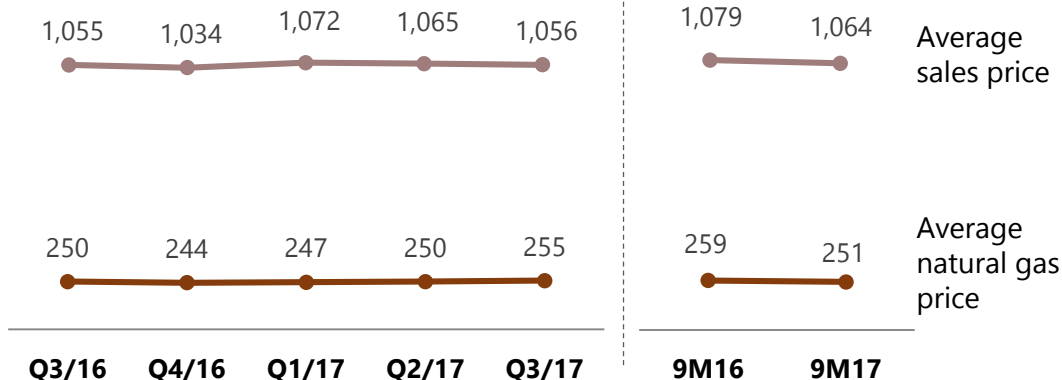
■ **Price** : slightly decreased by 0.09 Baht per kWh due to lower Ft rate.

# Rayong Power Plant (SPP): Steam

## Quarterly steam sales volume ('000 tons)



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



### Q3/17 VS Q2/17 (QoQ)

Volume : increased by 62 thousand tons or 5% due to higher demand from customers as they returned to normal operation after maintenance shutdown in Q2/17.

Price : decreased by 9 Baht per ton or 1%.

### Q3/17 VS Q3/16 (YoY)

Volume : decreased by 56 thousand tons or 4% due to maintenance shutdown of customers in Q3/17.

Price : slightly increased by 1 Baht per ton followed higher natural gas price.

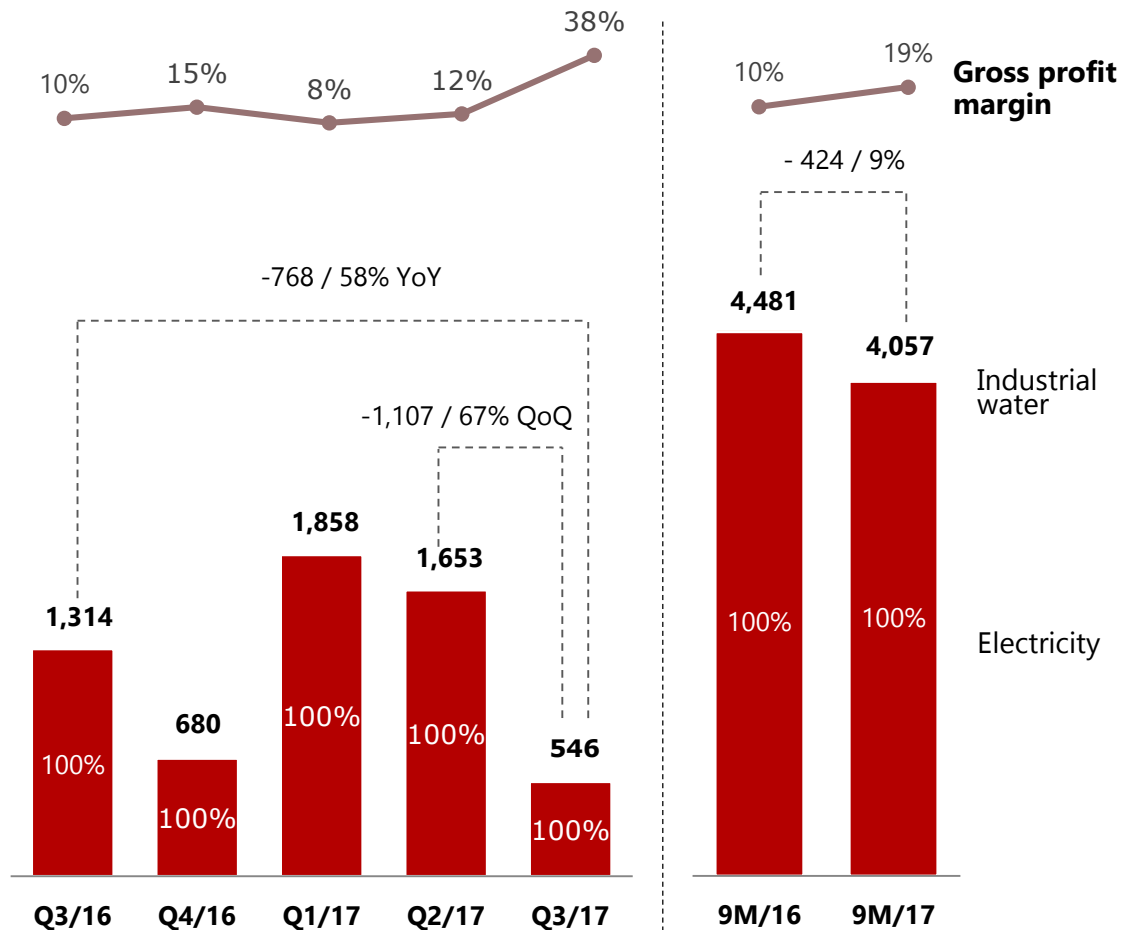
### 9M/17 VS 9M/16

Volume : decreased by 176 thousand tons or 4% due to maintenance shutdown of customers in 9M/17.

Price : decreased by 15 Baht per ton or 1% due to the decrease in natural gas price.

# Sriracha Power Plant: Revenue & GPM

## Quarterly revenue & gross profit margin (THB MM, %)



### Q3/17 VS Q2/17 (QoQ)

■ Total revenue in Q3/17 decreased by THB 1,107 million or 67% due to lower Energy Payment (EP) following the decline in electricity dispatch volume according to EGAT's demand, while Availability Payment also decreased from a drop in the Weight factor.

### Q3/17 VS Q3/16 (YoY)

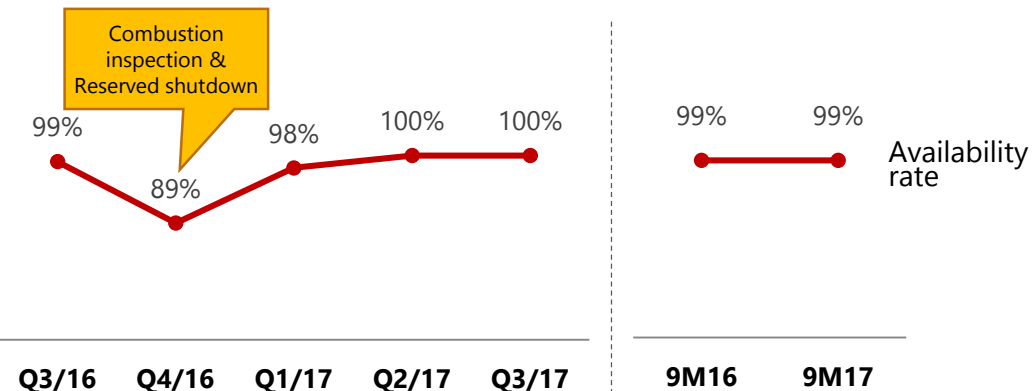
■ Total revenue in Q3/17 decreased by THB 768 million or 58% due to a decrease in revenue from Energy Payment (EP) from the drop in dispatch volume.

### 9M/17 VS 9M/16

■ Total revenue in 9M/17 decreased by THB 424 million or 9% which is in-line with the decrease in the dispatch volume according to EGAT's instruction.

# Sriracha Power Plant (IPP): Power

## Quarterly Availability Payment Rate (%)



### Q3/17 VS Q2/17 (QoQ)

- Availability payment rate in Q3/17 was 100% which did not change from Q2/17.
- Revenue from Availability Payment (AP) in Q3/17 decreased by THB 38 million or 20% due to lower Weight factor and THB appreciated against USD.

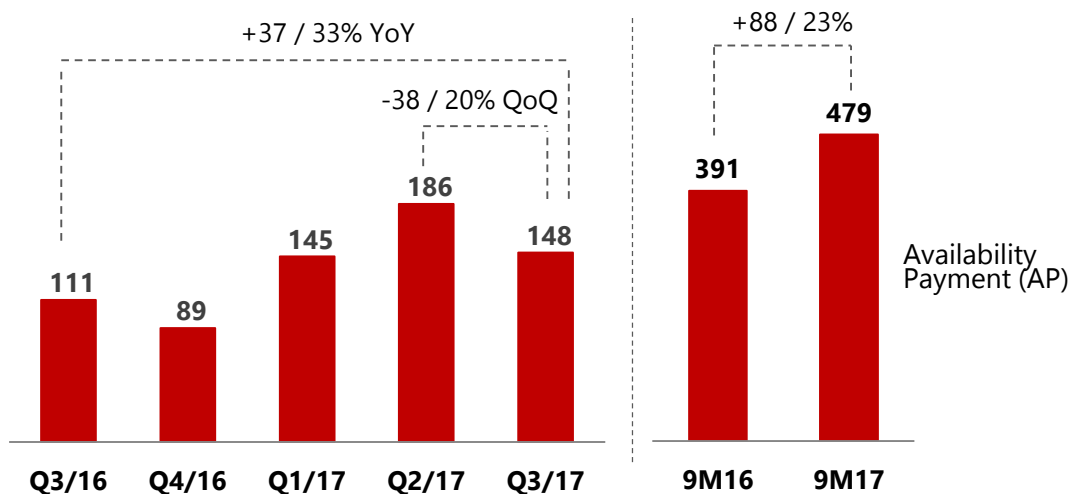
### Q3/17 VS Q3/16 (YoY)

- Revenue from Availability Payment (AP) in Q3/17 increased by THB 37 million or 33% mainly from higher availability rate.

### 9M/17 VS 9M/16

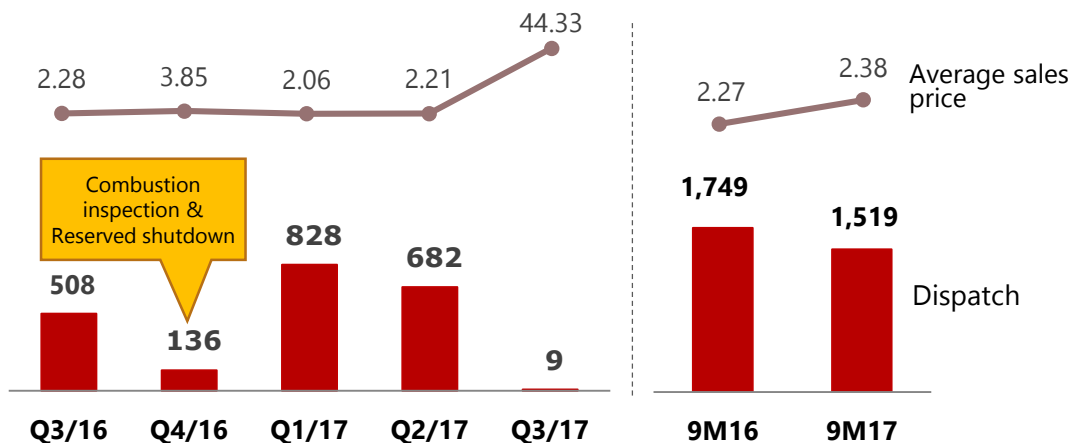
- Revenue from Availability Payment (AP) in 9M/17 increased by THB 88 million or 23% resulted from higher Weight factor.

## Quarterly revenue from Availability Payment (AP) (THB MM)

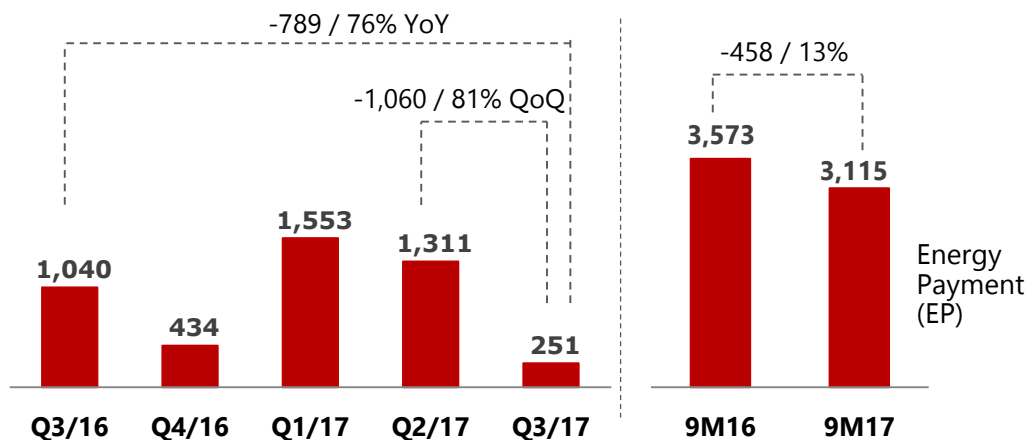


# Sriracha Power Plant (IPP): Power

## Quarterly average sales price & dispatch (Baht/kWh, GWh)



## Quarterly revenue from Energy payment (EP) (THB MM)



### Q3/17 VS Q2/17 (QoQ)

- ✓ Average sales price in Q3/17 largely increased due to lower dispatch volume to EGAT during reserved shutdown.
- ✗ Dispatch volume decreased by 673 GWh or 99% resulted from reserved shutdown.
- ✗ Revenue from Energy Payment (EP) decreased by THB 1,060 million or 81% due to the decrease in dispatch volume.

### Q3/17 VS Q3/16 (YoY)

- ✗ Dispatch volume decreased by 499 GWh or 98% from lower dispatch volume according to EGAT's demand.
- ✗ As a result, revenue from Energy Payment (EP) decreased by THB 789 million or 76%.

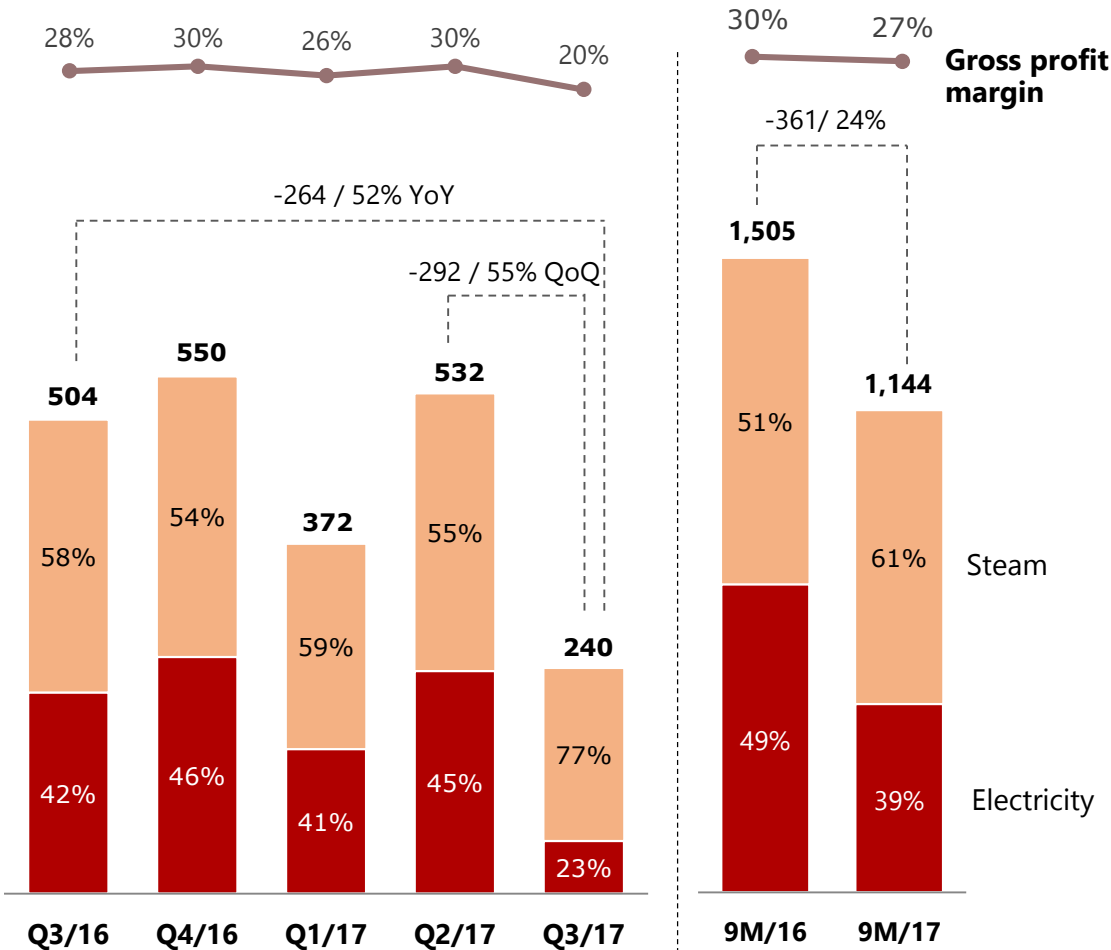
### 9M17 VS 9M16

- ✗ Dispatch volume decreased by 230 GWh or 13% resulted from lower dispatch volume according to EGAT's demand.
- ✗ Revenue from Energy Payment (EP) also decreased by THB 458 million or 13% following dispatch volume.



# IRPC - CP Power Plant (SPP): Revenue & GPM (1/3)

## Quarterly revenue & gross profit margin (THB Million, %)



### Q3/17 VS Q2/17 (QoQ)

- Total revenue in Q3/17 decreased by Baht 292 million or 55% mainly due to the shutdown for commissioning between Phase 1 & 2 in Q3/17.
- GPM decreased by 10% due to lower sales volume of electricity.

### Q3/17 VS Q3/16 (YoY)

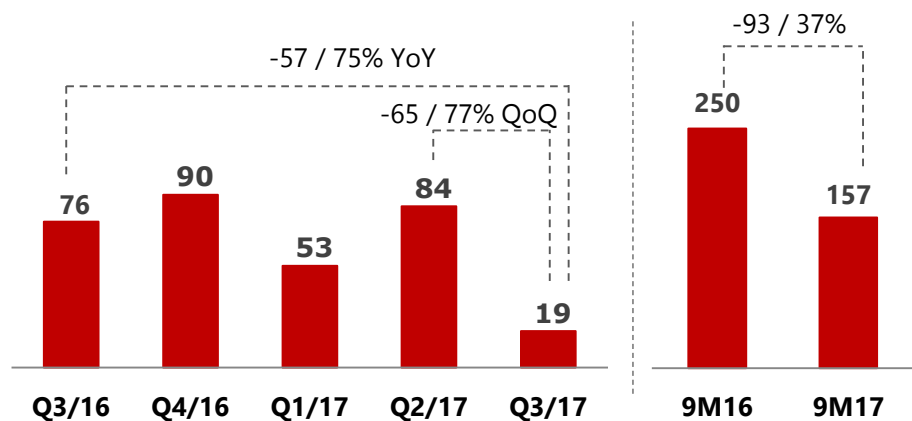
- Total revenue in Q3/17 decreased by Baht 264 million or 52% due to the shutdown for commissioning phases.
- GPM decreased by 8% due to lower sales volume of electricity.

### 9M/17 VS 9M/16

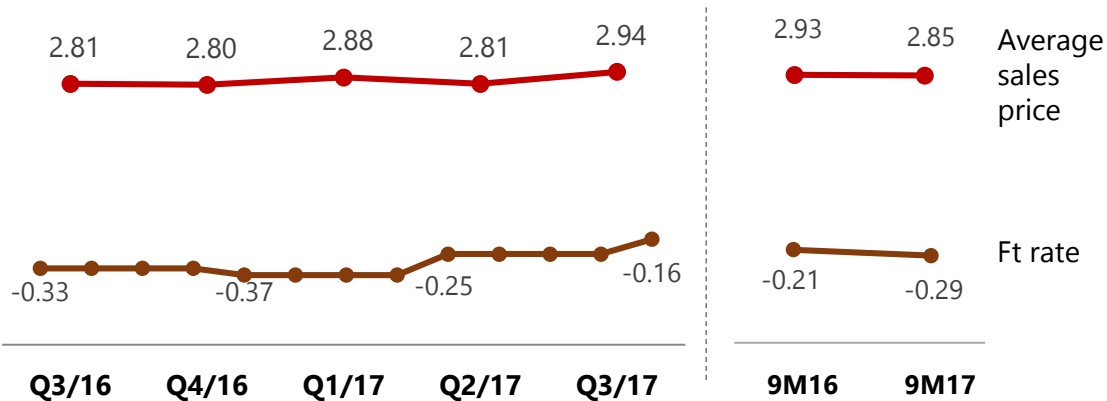
- Total revenue in 9M/17 decreased by Baht 361 million or 24% due to the shutdown of major customer in Q1/17 and the shutdown of Phase 1 for commissioning in Q3/17 together with lower Ft rate.
- GPM also dropped by 3% due to lower sales volume of electricity.

# IRPC - CP Power Plant (SPP): Power (2/3)

## Quarterly power sales volume (GWh)



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



### Q3/17 VS Q2/17 (QoQ)

- Volume decreased by 65 GWh or 77% due to the shutdown to commissioning between Phase 1 & 2.
- Price increased 0.13 Baht per kWh or 4.6% due to higher Ft rate.

### Q3/17 VS Q3/16 (YoY)

- Volume decreased by 57 GWh or 75% due to the shutdown to commissioning between Phase 1 & 2.
- Price increased 0.13 Baht per kWh or 4.6% due to higher Ft rate.

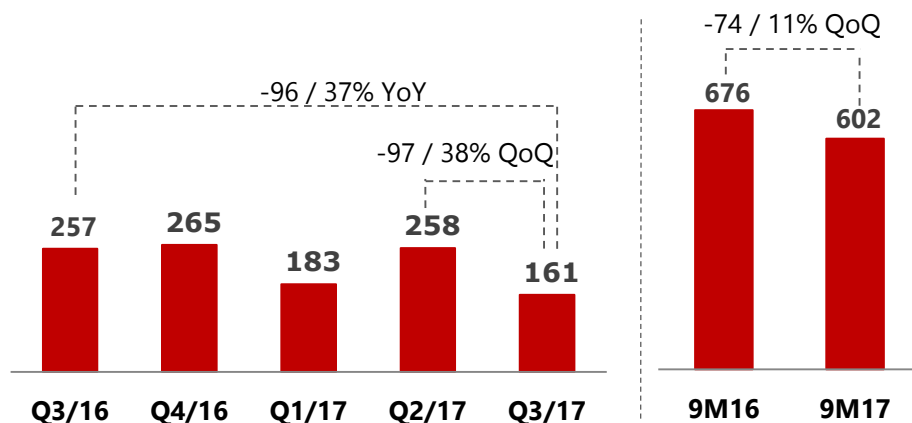
### 9M/17 VS 9M/16

- Volume decreased by 93 GWh or 37% due to maintenance shutdown of major customer in Q1/17 and the shutdown for commissioning between Phase 1 & 2 in Q3/17.
- Price decreased by 0.08 Baht per kWh due to lower Ft rate.

# IRPC - CP Power Plant (SPP): Steam (3/3)

## Quarterly steam sales volume

('000 tons)



## Q3/17 VS Q2/17 (QoQ)

- Volume decreased 97 thousand tons or 38% due to the shutdown for commissioning between Phase 1 & 2.
- Price increased by 3 Baht per ton or 0.3%.

## Q3/17 VS Q3/16 (YoY)

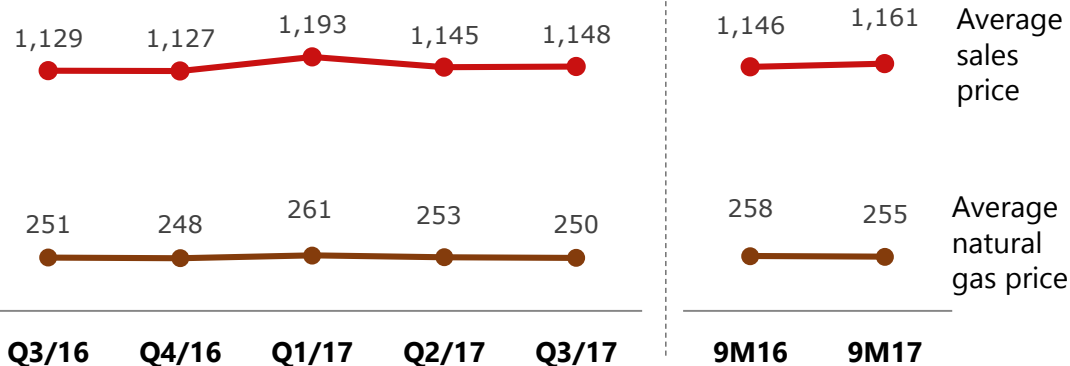
- Volume decreased 96 thousand tons or 37% due to the shutdown for commissioning between Phase 1 & 2.
- Price increased by 19 Baht per ton or 1.7%.

## 9M/17 VS 9M/16

- Volume decreased by 74 thousand tons or 11% due to maintenance shutdown of major customer in Q1/17 and the shutdown to commissioning between Phase 1 & 2 in Q3/17.
- Price increased 15 Baht per ton or 1.3%.

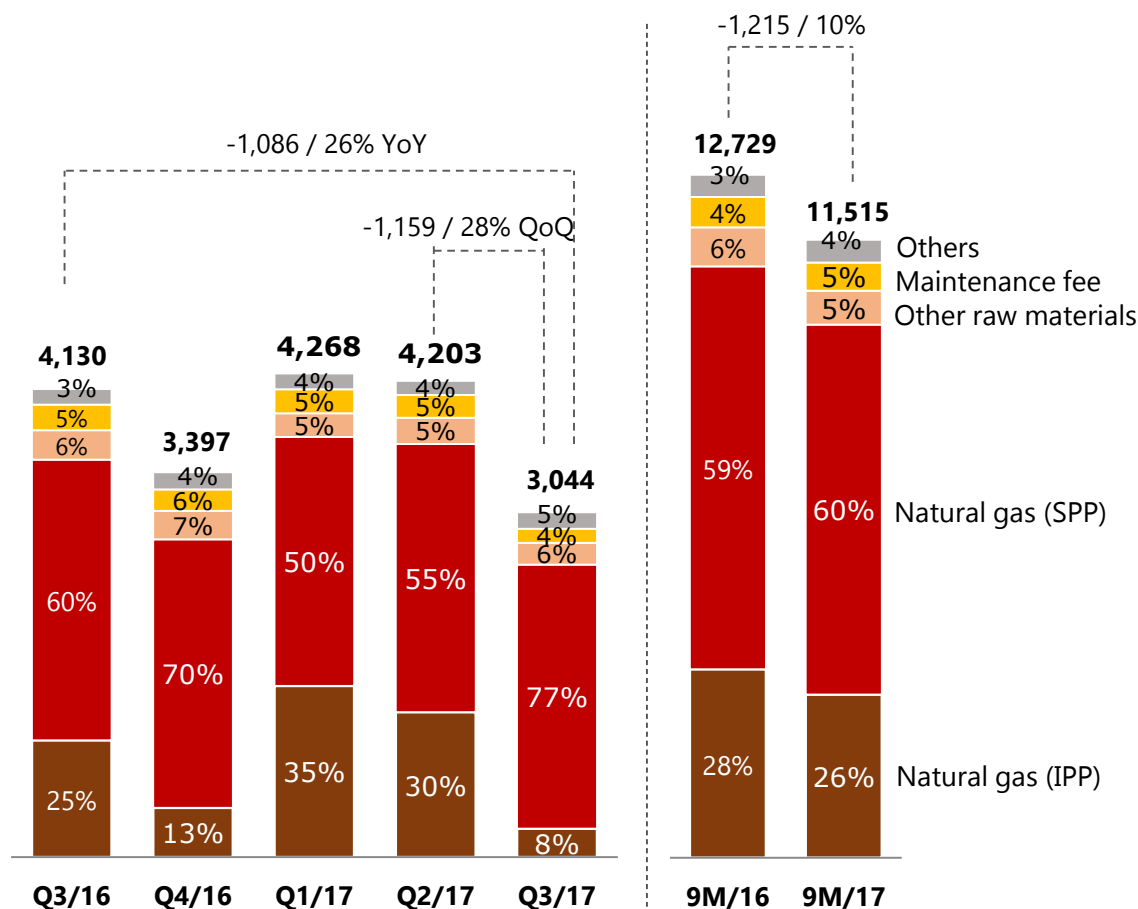
## Quarterly average sales price & average natural gas price

(THB/ton, THB/MMBTU)



# Decrease in cost of sales and services YoY mainly from Customer Shutdown and lower gas price

## Quarterly cost of sales and services\* (THB MM)



### Q3/17 VS Q2/17 (QoQ)

- Cost of sales and services in Q3/17 decreased by THB 1,159 million or 28%.
- The decreased was from lower cost of raw materials due to Sriracha's lower dispatch to EGAT and IRPC-CP Phase 1 shutdown for commissioning with Phase 2.

### Q3/17 VS Q4/16 (YoY)

- When compared with Q3/16, cost of sales and services decreased by THB 1,086 million or 26%.
- The decrease was from lower dispatch of Sriracha and lower sales volume of IRPC-CP.

### 9M/17 VS 9M/16

- Cost of sales and service in 9M/17 decreased by THB 1,215 million or 10%.
- The decrease was from lower natural gas price and lower dispatch of Sriracha together with the drop in sales volume of IRPC-CP.

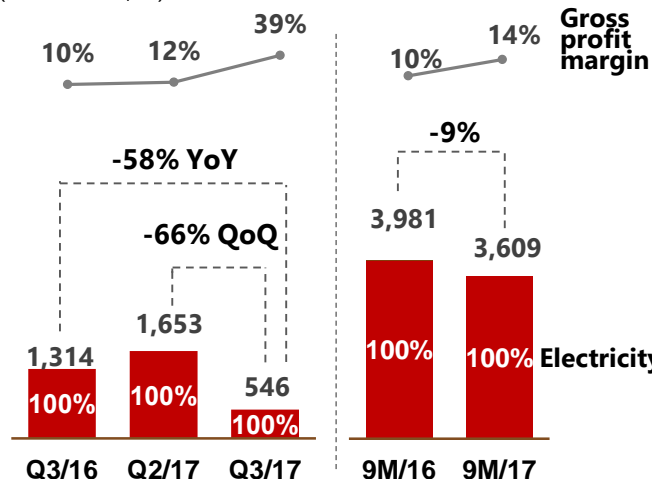
Remark: \*Cost of sales and services excludes depreciation and amortization expenses.

# Q3/17 Revenue and GPM by Major plant

## Sriracha Plant

### Total revenue & GPM

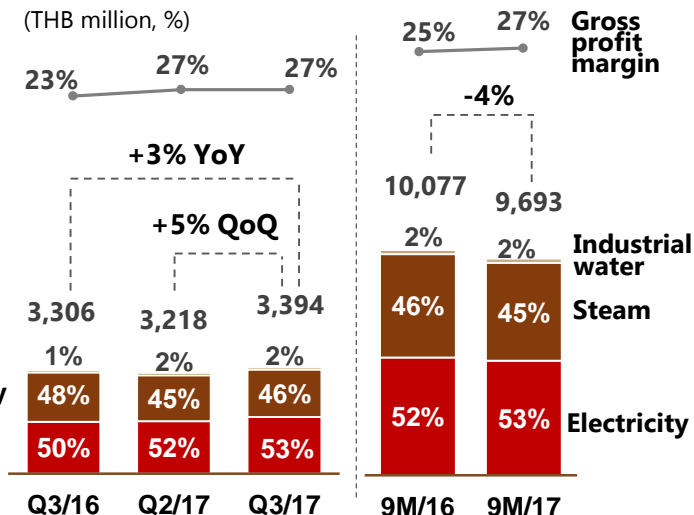
(THB million, %)



## Rayong Central Utilities Plant

### Total revenue & GPM

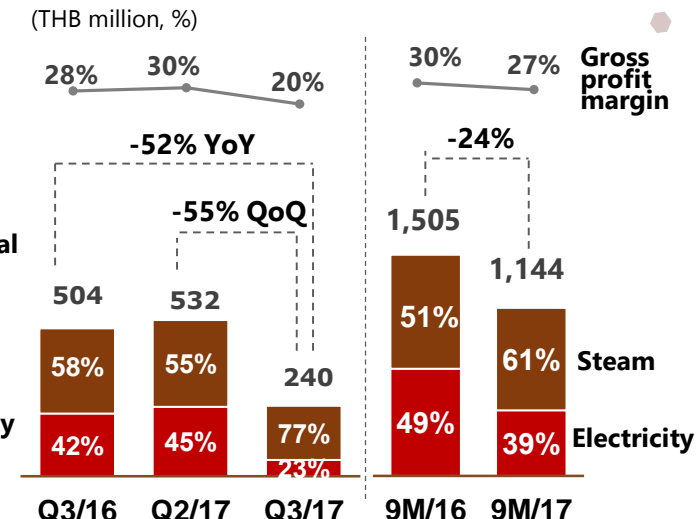
(THB million, %)



## IRPC-CP (Phase 1) Plant

### Total revenue & GPM

(THB million, %)



🟡 **QoQ:** Total revenue declined by 67% mainly from the reserve shutdown causing the lower dispatch volume.

🟡 **YoY:** Total revenue decreased by 58%, mainly due to lower Energy Payment from the drop in dispatch volume.

🟡 **9M:** Total revenue dropped by 9% because of the decrease in electricity sales volume submitted to EGAT by 13%.

🟢 **QoQ:** Total revenue rose by 5% from a rise in electricity sales volumes resulted from the resume of normal operation of the customers and the increase in selling price from a rise in Ft rate.

🟢 **YoY:** Total revenue increased by 3%, mainly from the rise in electricity sales volume because the customers did not have maintenance shutdowns.

🟡 **9M:** Total revenue decreased by 4% due to the decrease in sales volumes of both electricity and steam with the decrease in selling price from the drop in Ft rate comparing to 2016

🟡 **QoQ:** Total revenue declined by 55% from the decrease in sales volumes from the shutdown for commissioning with IRPC-CP Ph1 in Q3/17.

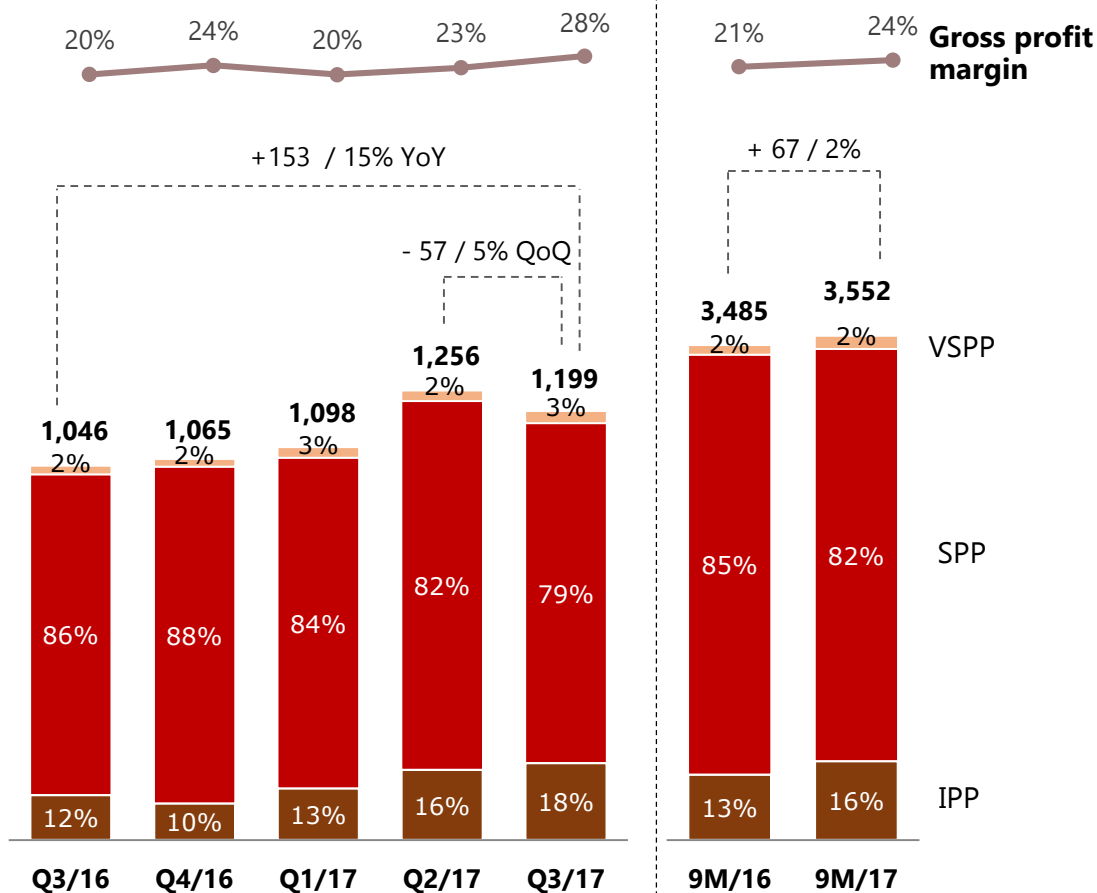
🟡 **YoY:** The revenue of IRPC-CP Ph1 decreased by 52% mainly because lower sales volume from the shutdown for commissioning.

🟡 **9M:** The lower in revenue in 9M for 24% was caused by the decrease in electricity sales volume and price resulted from the shutdown and the drop in Ft rate comparing to 9 months in 2016.



# SPP is GPSC's main and prospering profit generator

## Quarterly gross profit and gross profit margin\* (THB MM, %)



### Q3/17 VS Q2/17 (QoQ)

✖ Gross profit in Q3/17 decreased by THB 57 million or 5% mainly due to the drop in revenue of IRPC-CP Phase 1.

### Q3/17 VS Q3/16 (YoY)

✔ Compare with Q3/16, gross profit increased by THB 153 million or 15% due to higher sales volume from Rayong together with higher Ft rate.

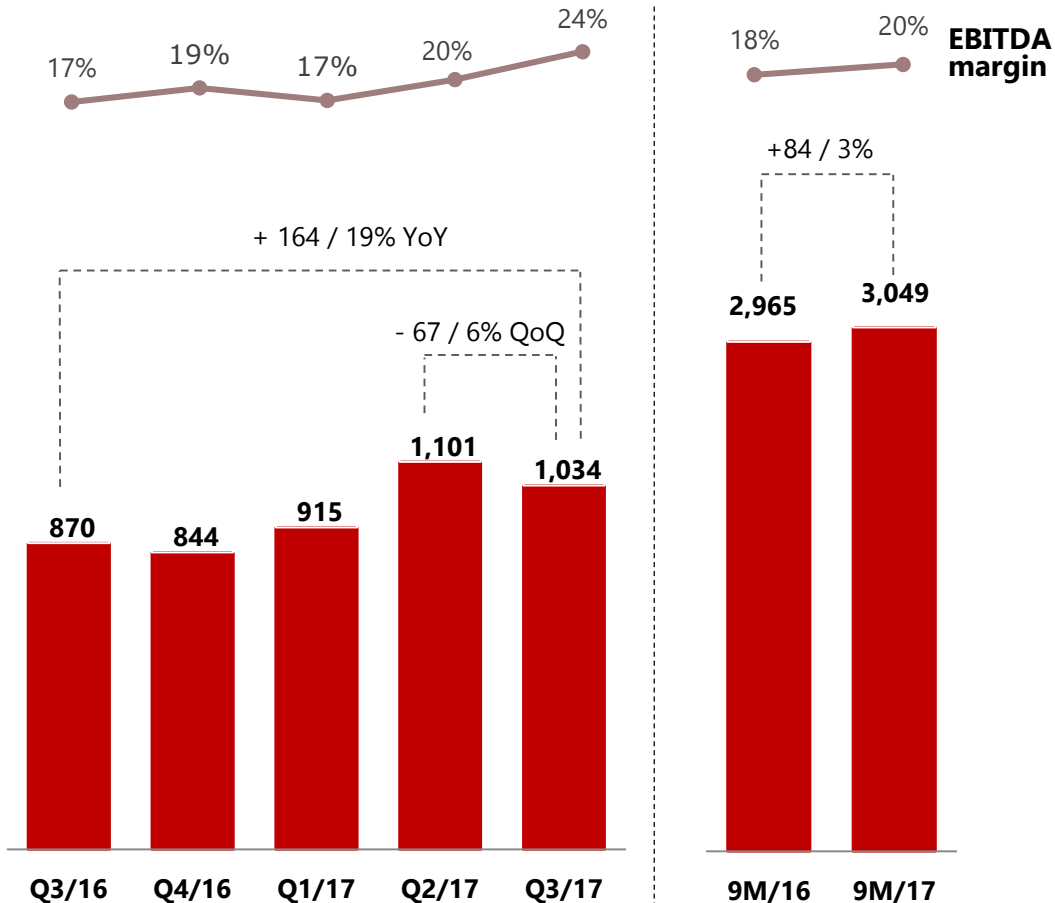
### 9M/17 VS 9M/16 (YoY)

✔ Gross profit in 9M/17 increased by THB 67 million or 2% due to lower cost of raw materials and maintenance cost following lower dispatch of Sriracha to EGAT.

Remark: \*Gross profit margin does not include depreciation and amortization expenses.

# EBITDA increased by 6% QoQ

## Quarterly EBITDA and EBITDA margin (THB MM, %)



### Q3/17 VS Q2/17 (QoQ)

EBITDA in Q3/17 was THB 1,034 million decreased by THB 67 million or 6% mainly resulted from the shutdown of IRPC-CP Phase 1 to commissioning with Phase 2.

### Q3/17 VS Q3/16 (YoY)

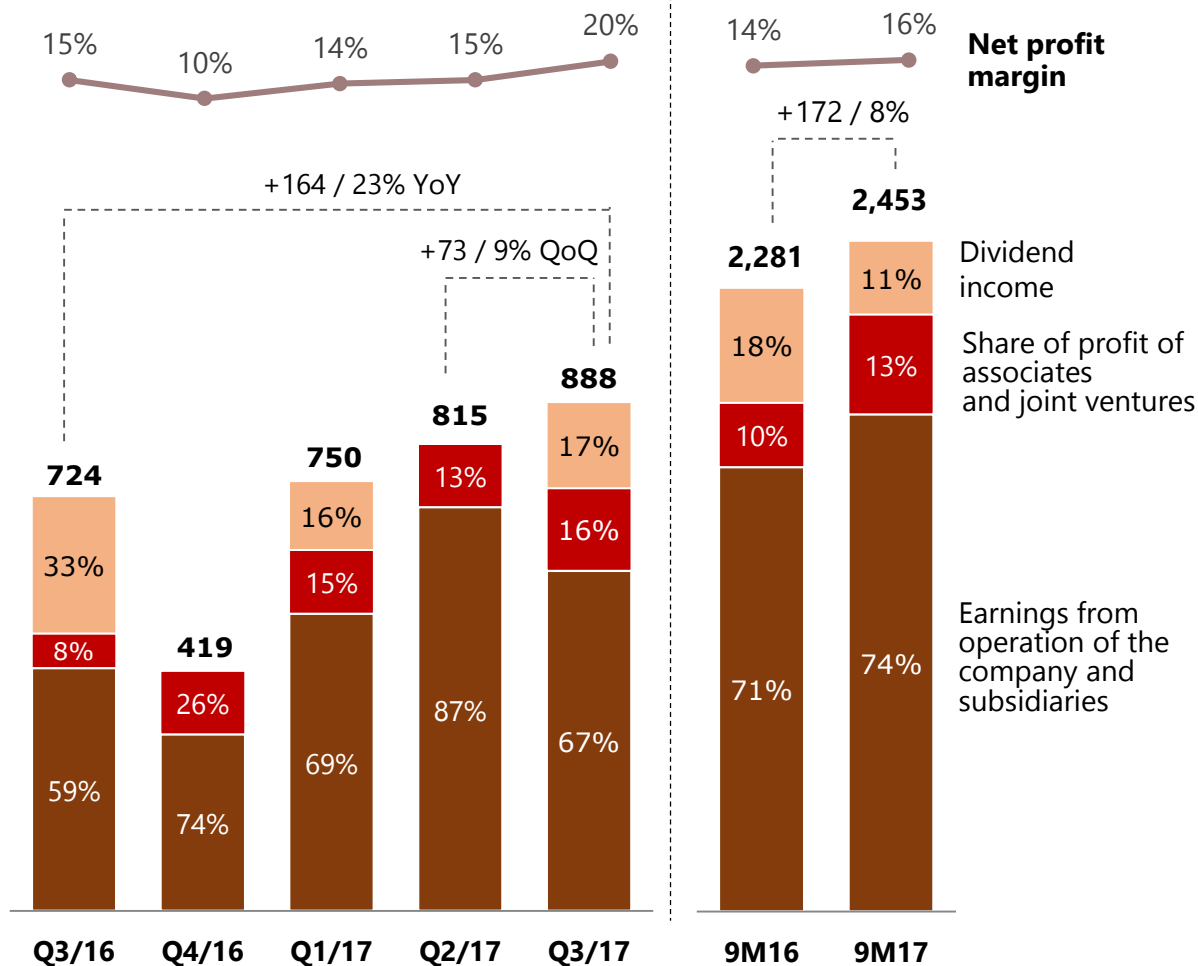
Compare with Q3/16, EBITDA increased by THB 164 million or 19% due to lower SG&A from a drop in business development cost.

### 9M/17 VS 9M/16

EBITDA in 9M/17 increased by THB 84 million or 3% when compare to 9M/16 from lower SG&A due to a drop in business development cost.

# Net profit grew 23% YoY from strong operating earnings and supported by return from investments

## Quarterly net profit and net profit margin (THB Million, %)



### Q3/17 VS Q2/17 (QoQ)

Net profit increased by THB 73 million or 9% due to better performance of the power plants together with dividend receive from RPCL for Baht 150 million and the recognition of construction income from IRPC-CP Phase 1's contractor for Baht 66 million.

### Q3/17 VS Q3/16 (YoY)

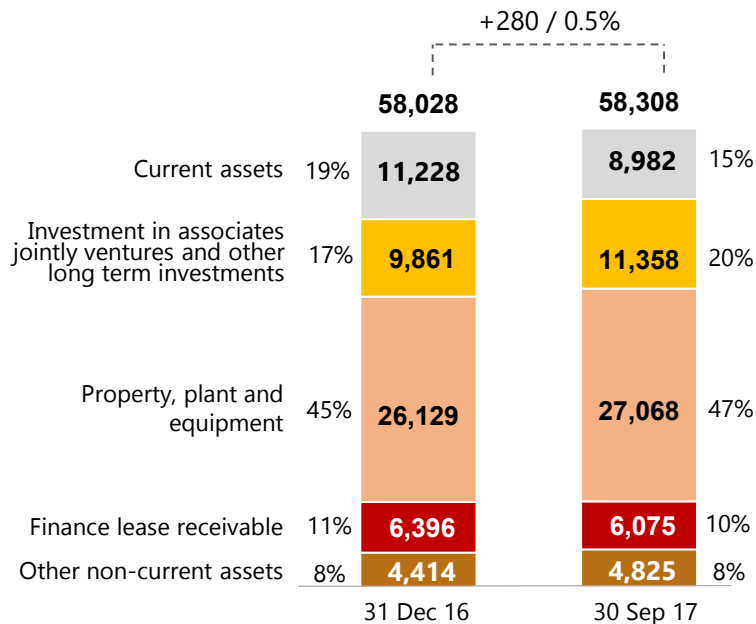
Net profit increased by THB 164 million or 23% due to the rise in selling price from higher Ft rate and the rise in sales volume at Rayong. Plus, the company recognized construction income from contractor of IRPC-CP Phase 1. Also, higher share of profit from NNEG and BIC.

### 9M/17 VS 9M/16

Net profit increased by THB 172 million or 8% due to better performance of the power plants together with higher share of profit from NNEG and BIC. Plus, a recognition of construction income from IRPC-CP Phase 1's contractor for Baht 66 million.

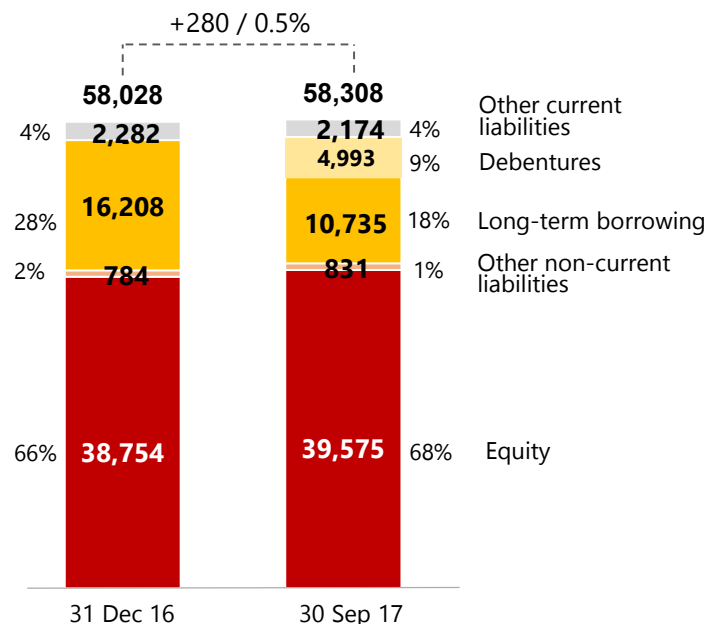
# Summary of financial position of GPSC and subsidiaries

## Total Assets (THB MM)



- Total assets were THB 58,308 million, increased by Baht 280 million or 0.5% from THB 58,028 million.
- The increase was mainly from increases in investments due to the capital raising of XPCL and BIC

## Total Liabilities & Shareholders equity (THB MM)

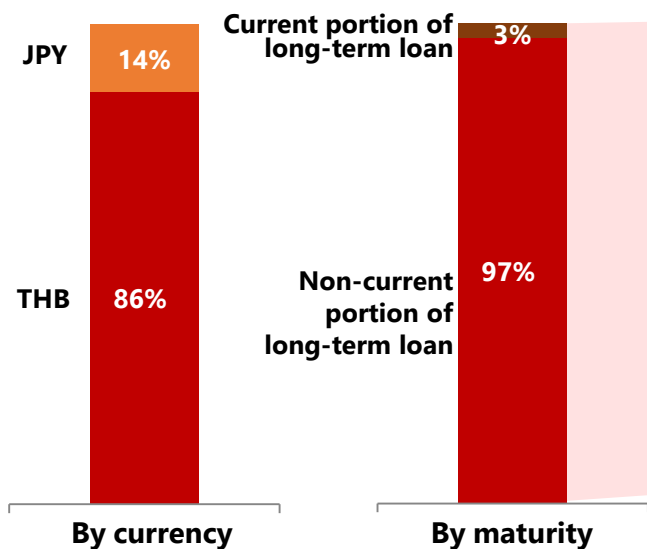


- Total liabilities were THB 18,733 million decreased by THB 541 million or 3% mainly from repayment of long-term loan and account payable from construction.
- Equity were THB 39,575 million increased by THB 821 million or 2% mainly from an increase in the unappropriated retained earnings.

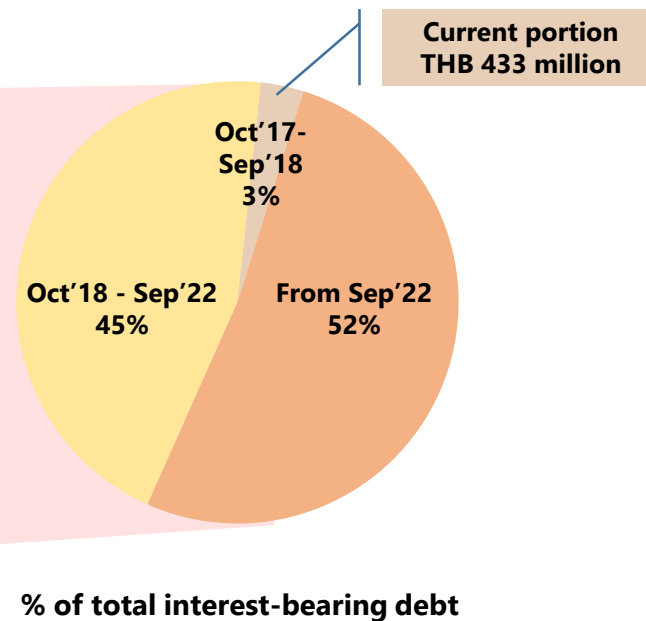
# Well-managed debt profile and continuous deleveraging

## Debt profile

**Total interest-bearing debt: THB 15,728 million**



## Debt repayment plan



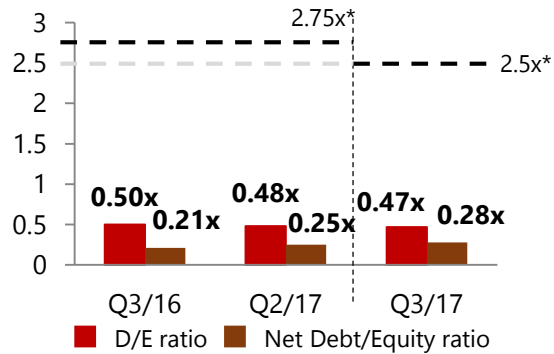
- All debt balance as at 30 September 2017 is in THB and JPY currency.
- 100% of total interest-bearing debt is long-term loan which includes 15% of current portion.

- Non-current portion of long-term debt equals to THB 13,483 million while current portion equals to THB 2,333 million.
- 51% of total interest-bearing debt will be repaid between July 2018 – June 2022.

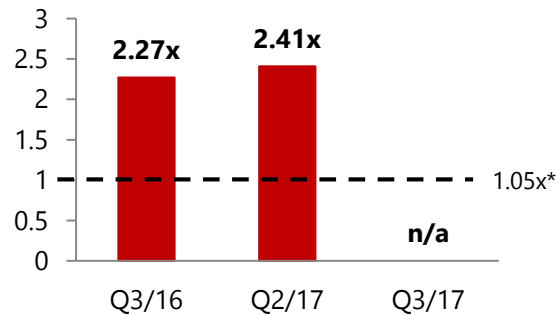


# Key financial ratios support GPSC's strong financial position

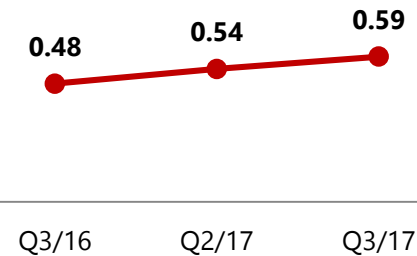
## Total D/E and Net Debt/ Equity ratio (Times)



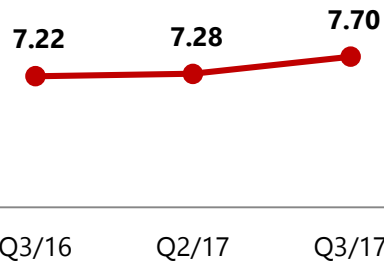
## DSCR (Times)



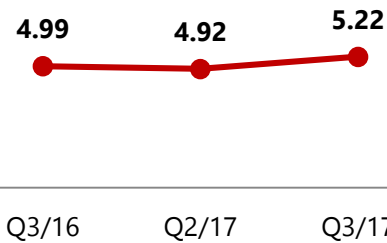
## Earning per share (EPS) (Baht/share)



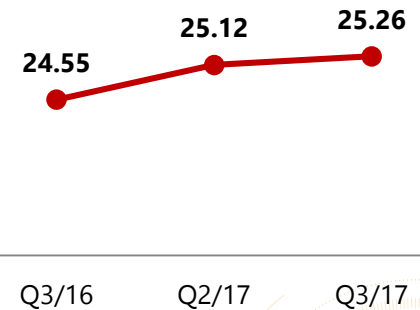
## ROE (%)



## ROA (%)



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



Remark: \*D/E ratio of 2.5x and DSCR ratio of 1.05x are a maximum and minimum of financial covenant rate, respectively, according to the company's policy

**Company Overview**

**Financial Performance**

**Investment in Affiliates**

# Bangpa-In Cogeneration Phase 2

(Commercial Operation dated on 29 June 2017)

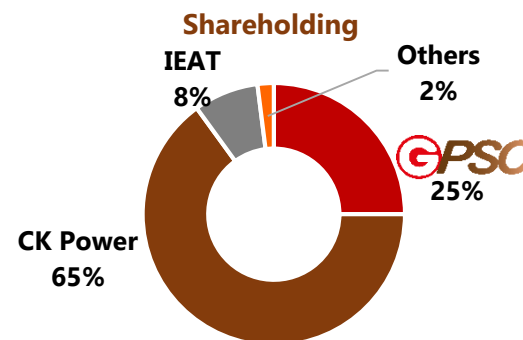


**Bangpa-In Cogeneration Company Limited**  
(Phase 2)

Ayutthaya Province



<b>Type</b>	SPP Cogeneration
<b>Capacity</b>	<ul style="list-style-type: none"> <li>Electricity: 117 MW (gross)</li> <li>Steam: 20 T/h</li> </ul>
<b>Customer</b>	<ul style="list-style-type: none"> <li>Electricity: EGAT 90 MW (25 years), IUs 27 MW</li> <li>Steam: IUs 20 T/h</li> </ul>
<b>SCOD</b>	29 June 2017
<b>Total Investment</b>	5,340 THB Million
<b>D/E</b>	3:1



# IRPC Clean Power Phase 2

(Commercial Operation dated 15 November 2017)



**IRPC Clean Power Company Limited (IRPC-CP)**  
In IRPC Industrial Zone at Rayong Province (118 Rai)

<b>Type</b>	SPP Cogeneration
<b>Capacity*</b>	<ul style="list-style-type: none"> <li>Electricity: 240 MW</li> <li>Steam: 180-300 T/H</li> </ul>
<b>Customer*</b>	<ul style="list-style-type: none"> <li>Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years)</li> <li>Steam: IRPC 180-300 T/H</li> </ul>
<b>SCOD</b>	2017
<b>Total Investment</b>	13,600 THB Million
<b>D/E</b>	3:1

Shareholding



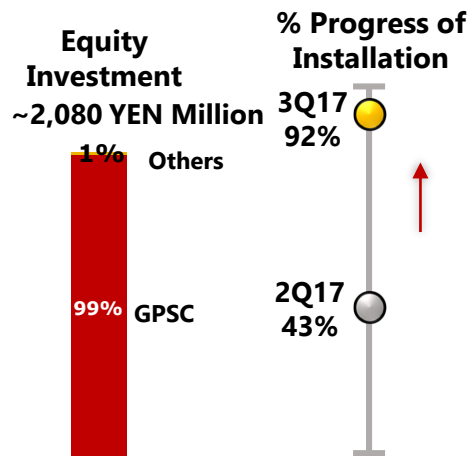
# Ichinoseki Solar Power 1



## ICHINOSEKI SOLAR POWER 1 GK

## Ichinoseki Solar Power (ISP1)

Ichinoseki City, Japan

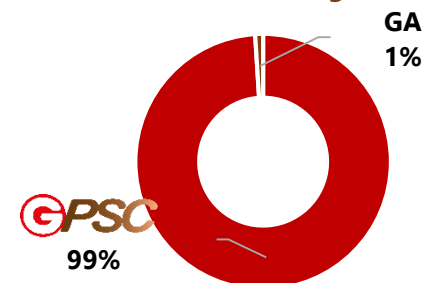


Type	Solar Farm
Capacity	• Electricity: 20.8 MWac
Customer	• Tohoku Electric Power (20 years)
SCOD	2017
Total Investment	~10,001 JPY million
D/E	4:1

### Progress update

- Secure FiT at 40 JPY/kWh (exclude tax) for 20 years
- Main activities in Area B are piling work, structure work and module installation.
- GPSC first international project to COD in 2017.

### Shareholding





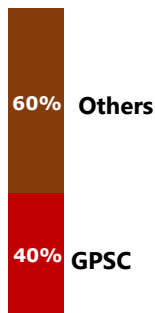
# Nam Lik 1 Power



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

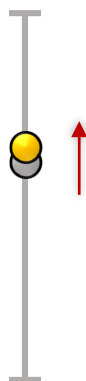


**Equity Investment**  
~37 USD Million



**% Progress**

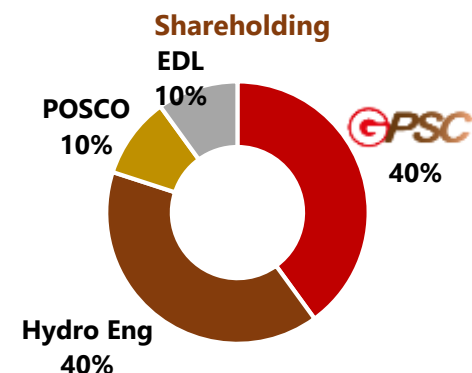
3Q17  
66%  
2Q17  
62%



Type	Run-of-River Hydropower
Capacity	• Electricity: 65 MW
Customer	• Electricity: EDL 63.8 MW (30 years PPA)
SCOD	Q1 2019
D/E	7:3

### Progress update

- Construction progress of the project was 65.9% appraised by technical advisor. The progress was continuing well as planned. Although flooding overtopping in Jul'17 at night time, with the prudence design the works at powerhouse's wall concrete and works inside powerhouse were still ongoing.



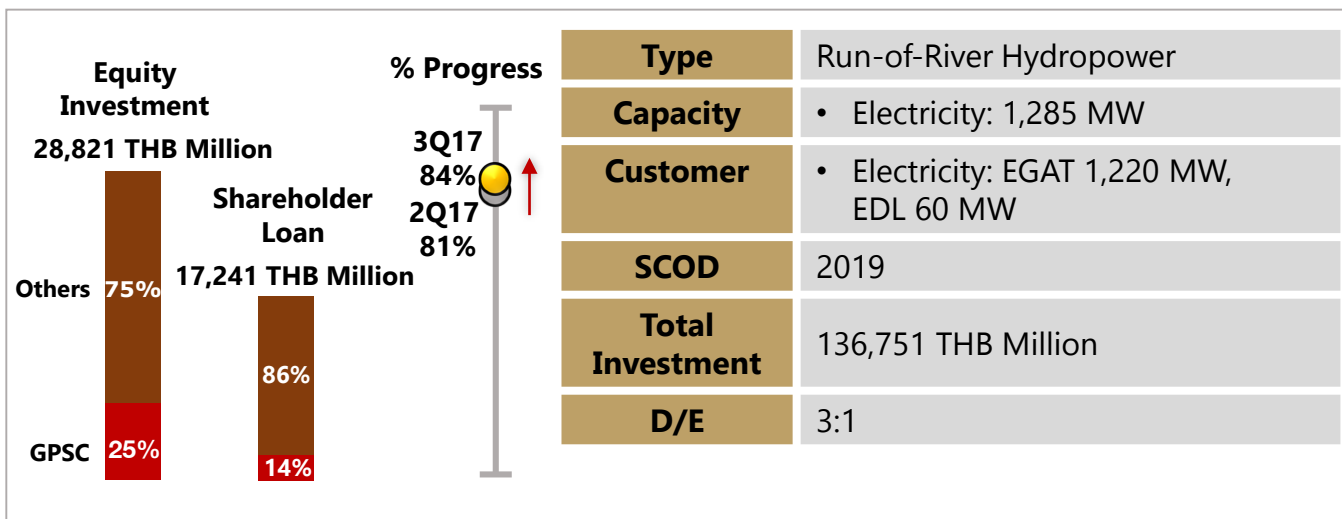
# Xayaburi Power



XAYABURI POWER

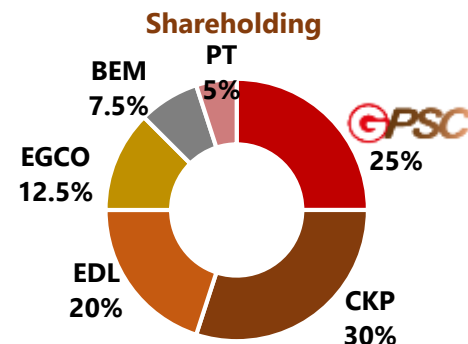
## Xayaburi Power Company Limited (XPCL)

Xayaburi, Lao PDR



### Progress update

- Construction progress of the project continued as planned at 84% which appraised by the government of Lao PDR. Main construction of power house, intermediate block fish ladder and 500 kV transmission line also progressed as planned.





# Map Ta Phut Expansion Project

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



**Rayong Power Plant**  
Rayong Province

CUP -1



CUP -2



CUP -3



Type	Cogeneration
Capacity	<p>CUP-1</p> <ul style="list-style-type: none"> <li>Electricity: 226 MW</li> <li>Steam: 890 T/h</li> <li>Industrial water: 720 Cu.m/h</li> </ul> <p>CUP-2</p> <ul style="list-style-type: none"> <li>Cu.m/H</li> <li>Industrial water: 510 Cu.m/h</li> </ul> <p>CUP-3</p> <ul style="list-style-type: none"> <li>Steam: 280 T/h</li> <li>Industrial water: 770 Cu.m/h</li> </ul>
Customer	<ul style="list-style-type: none"> <li>PTT Group</li> <li>Other IU Customers</li> <li>EGAT</li> </ul>
COD	2006-2009
Contract	<ul style="list-style-type: none"> <li>CUP-1: 10-15 years ++</li> <li>CUP-2: 15 years ++</li> <li>CUP-3: 15 years ++</li> </ul>



Shareholding



# THANK YOU

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

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

### **Disclaimer**

The information contained here is being furnish on a confidential basis for discussion purposes only and only for the use of the recipient, and may be subject to completion or amendment through the delivery of additional documentation. Except as otherwise provided herein, this document does not constitute an offer to sell or purchase any security of engage in any transaction. The information contained herein has been obtained from sources that Global Power Synergy Public Company Limited ("GPSC") considers to be reliable; however, GPSC makes no representation as to, and accepts no responsibility or liability for, the accuracy or completeness of the information contained herein. Any projections, valuations and statistical analyses contained herein have been provided to assist the recipient in the evaluation of the matters described herein; such projections, valuations and analyses may be based on subjective assessments and assumptions and may utilize one among alternative methodologies that produce differing results; accordingly, such projections, valuations and statistical analyses are not to be viewed as facts and should not be relied upon as an accurate representation of future events. The recipient should make an independent evaluation and judgement with respect to the matters contained herein.

### **IR Contact**

**Sukittee Chaiyarak**  
**Pimploey Wichienprakarn**  
**Chayanant Seneenant**  
ir@gpscgroup.com  
Tel. +662 140 4628  
+662 140 4691  
+662 140 4715  
www.gpscgroup.com

Ratios	Formula
Gross profit margin	$\frac{\text{Gross profit}}{\text{Revenue from sales of goods and service} + \text{Revenue from finance lease}}$
Net profit margin	$\frac{\text{Net profit}}{\text{Total Revenue}}$
Total Debt to Equity	$\frac{\text{Total liabilities}}{\text{Total shareholder's equity}}$
Net debt to Equity ratio	$\frac{\text{Interest bearing debts} - (\text{Cash and cash equivalents} + \text{Restricted cash} + \text{Current investments})}{\text{Total shareholder's equity}}$
DSCR	$\frac{\text{EBITDA for DSCR for the last 12 months}}{\text{Principal and Interest to be paid in the next 12 months}}$
Earning per share (EPS)	$\frac{\text{Net profit for the company}}{\text{Weighted average number of shares}}$
ROE	$\frac{\text{Net profit for the company}}{\text{Average shareholder's equity}}$
ROA	$\frac{\text{Net profit (last 12 months)}}{\text{Average assets}}$
Book value per share (BVPS)	$\frac{\text{Shareholder's equity for the company}}{\text{Average shareholder's equity for the company}}$

# 2017 Maintenance schedule: Sriracha and Rayong plants

Plant	Tag no.	Description	2017											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CUP-1	H-13701	Aux. Boiler.11			2 <b>1Y</b> 12									
	N-13901	GTG11												
	H-13702	HRS11		18 <b>1Y</b> 28										
	N-13902	GTG12			30/3	<b>HG</b> 12/4								
	H-13703	HRS12			30/3	<b>3Y</b> 12/4								
	N-13903	GTG13			24 <b>PSV</b> 27									
	H-13704	HRS13							1 <b>1Y</b> 11					
	N-13904	GTG14			24 <b>PSV</b> 27									
CUP-2	H-23701	Aux. Boiler.21						18 <b>1Y</b> 28						
	N-23901	GTG21						17 <b>1Y</b> 27						
	H-23701	HRS21												
	N-23902	GTG22					16-29/6	<b>1Y</b>	<b>HG</b> 12-25/7					
	H-23702	HRS22					<b>3Y: 16-29</b>	<b>3Y &amp; Mod</b>	<b>Mod: 12/6-25/7</b>					
	N-23911	Steam Turbine21						17 <b>MI</b> 30						
	H-33701	Aux. Boiler 31						18-30/7 <b>3Y</b>		<b>3Y</b> 1-13/8				
	H-33711	Aux. Boiler 32										1 <b>3Y</b> 13		
CUP-3	H-33712	Aux. Boiler 33									15 <b>3Y</b> 27			18/11-21/12
	11MB	GT11												<b>CI</b>
	1-211-SG-101	HRS11											<b>1Y</b> <b>1Y</b>	
SRC	12MB	GT12												<b>CI</b>
	1-211-SG-201	HRS12											<b>1Y</b> <b>1Y</b>	
	STG	Steam Turbine 10												<b>MI</b>

## Notes

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 HRS1	11 days
3Y	Three Year Inspection HRS1	14 days
PSV	Pressure Safety Valve Installation	4 days

## Rayong Site

## Notes

CI	Combustion Inspection for Gas Turbine	9 days
1Y	One Year Inspection HRS1	8 days

## Sriracha Site

- Maintenance schedule as of 1Q17
- Additional schedule as of 2Q17

# Maintenance schedule: IRPC-CP

Plant	Unit	2016											
		Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IRPC-CP	CTG 2B								22/09	A	30/09		
	HRSG2B								22/09	YI	30/09		
	Aux. Boiler				23/05	YI	27/05						

## Notes

A Level A inspection  
YI Yearly inspection

5 days  
5 days

Plant	Unit	2017											
		Q1			Q2			Q3			Q4		
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
IRPC-CP	CTG 2B	12/02	IRPC Turnaround	13/03		27/06-16/09			1st Synchronization/Commission		21/07-30/10		
	HRSG2B	12/02	IRPC Turnaround	13/03		27/06-16/09			1st Synchronization/Commission		21/07-30/10		
	Aux. Boiler	7/02	IRPC Turnaround	7/03		26-30/06	SD	YI	15-19/07				

  Maintenance schedule as of 1Q17

# Power Plant Definition and Revenue Structure

## IPP

### Independent Power Producer (IPP):

- A larger power producer who has electricity capacity more than 90 MW
- IPPs are obliged to sell their entire output to EGAT

## SPP

### Small Power Producer (SPP):

- A small power producer who sell their electricity no more than or equal to 90 MW to EGAT

#### SPP Type

- Firm : Contract Term > 5 Years
- Non-Firm : Contract Term ≤ 5 Years
- SPPs can sell their electricity and steam to industrial customers located next to the SPP plant

## VSPP

### Very Small Power Producer (VSPP):

- A very small generator whose power generating process is generated from renewable energy, specific fuels, and energy with no more than 10 MW of electricity capacity
- VSPPs are able to sell power to the Distribution Utility

**Availability Payment**



**Energy Payment**



Availability %  
x  
Availability Payment Rate (APR)



Energy cost regarding % Dispatch to EGAT

### EGAT (Power)

Firm	Capacity Payment	+	Energy Payment
Non-Firm	K factor (seasonal weight)	×	Energy Payment

### Industrial Customers

Electricity	PEA tariff TOU Rate 4.2*
Steam	Steam Base Cost x (Gas index + CPI index)

**Base Tariff**



**Ft**










**adder**

**Feed in Tariff**

\*<https://www.pea.co.th/Documents/Rate2015.pdf>  
Reference rate with conditions

# Pricing structure for each type of GPSC's power plant

## GPSC's Business Portfolio

 Sriracha 700 MW	 Rachaburi Power 1,400 MW	 Xayaburi Power 1,285 MW
 Nava Nakorn Electricity Generation 125 MW 30 T/h	 Bangpa-in Cogeneration Phase 1 : 117 MW Phase 2 : 117 MW 20 T/h 20 T/h	 IRPC Clean Power 240 MW 300 T/h
 CUP 1-4 384 MW 1,410 T/h		
 Chantaburi's Shrimp Farmer Cooperative 5 MW	 Thai Solar Renewable 80 MW	

Japan : ISP1 20.8 MW ICHINOSEKI SOLAR POWER 1 GK

Lao PDR : NL1PC 65 MW

## Pricing Structure

**IPP/Import = Availability Payment + Energy Payment**

Investment cost {

- Equity Return
- Financing Cost
- Fix O&M

- Fuel Cost
- Variable O&M

**SPP (firm) = Capacity Payment + Energy Payment**

- Vary by type of fuel & Contract Period
- FX adjustment
- Vary by type of fuel
- Fuel adjustment

**Cogen (SPP non-firm) = K factor(seasonal weight) x EP**

**Cogen (Sell to IU) = Electricity + Steam**

- Base Tariff (PEA : TOU 4.2) + Ft
- Cost Plus Basis

**VSPP Renewable = Base tariff + Ft + Adder**

**VSPP Renewable = FiT**

**Renewable = FiT**

**Renewable = Fixed Rate with escalation**



# Details of GPSC Group's Power Plants

Name	Type	GPSC's	Total capacity (MW)	Equity capacity	Steam	Industrial water (Cu.m/H)	COD	Tenor
		share %		(MW)	(T/H)			
IN OPERATION								
Sriracha	IPP	100%	700	700	-	80	2000	25/2025
CUP-1	SPP	100%	226	226	890	720	2006	10-15/2021++
CUP-2	SPP	100%	113	113	170	510	2008	15/2022++
CUP-3	SPP	100%	-	-	280	770	2009	15/2023++
CHPP	VSPP	100%	5	5	-	-	2008	30/2038
IRPC-CP Phase 1	SPP	51%	45	23	86.7	-	2015	25/2040
IRPC-CP Phase 2	SPP	51%	195	99.4	66.3	-	2017	25-27/2044
CHPP (Solar)	VSPP	100%	5	5	-	-	2016	2041
Consolidate to Financial Statement				1,171.4	1,493.3	2080		
TSR	Renew	40%	80	32		-	2013	25/2038
NNEG	SPP	30%	125	38	9		2016	25/2041
BIC-1	SPP	25%	117	29.25	5	-	2013	25/2038
BIC-2	SPP	25%	117	29.25	5		2017	25/2042
RPCL	IPP	15%	1,400	210		-	2008	25/2033
Share of Profit / Dividend Income				338.5	19			
Total operating				1,509.9	1,512.3	2,080		
UNDER CONSTRUCTION								
Rayong Expansion	SPP	100%	45	45	70	-		
ISP1	Solar	99%	20.8	20.6	-	-	2017	20/2037
NL1PC	Hydro	40%	65	26	-	-	2019	27/2044
XPCL	IPP	25%	1,285	321	-	-	2019	29/2048
Total under construction				412.6	70			
Total capacity				1,922	1,582	2,080		