บริษัท โกลบอล เพาเวอร์ ซินเนอร์ยี่ จำกัด (มหาชน)
Global Power Synergy Public Company Limited

2Q 2017 Results Presentation
Opportunity Day

29th August 2017

Company Overview

Financial Performance

Project Update

2Q 2017 Highlights

Growing Profit with Sustainability and Control

Deliver committed growth as promised with new growth opportunities

BIC2 COD as planned adding new 117 operating MW as promised with 2 more plants to be COD in Q4. Also, GPSC co-invests with PTT in **Solar Rooftop** at petrol station project and aims to scale up meanwhile utilizes **ESS Technology** for commercializing power business.

19% Increase in Net profit YoY and 9% QoQ

GPSC's net profit in Q2/17 increased by THB 129 million from Q2/16 and by THB 65 million from Q1/17 thanks to better performance of the power plants especially IRPC-CP Ph1 and the reduction of SG&A. Also, Ft rate and Weight factor increased in Q2/17 while gas cost decreased.

Growth

Profit

Sustainability

Control

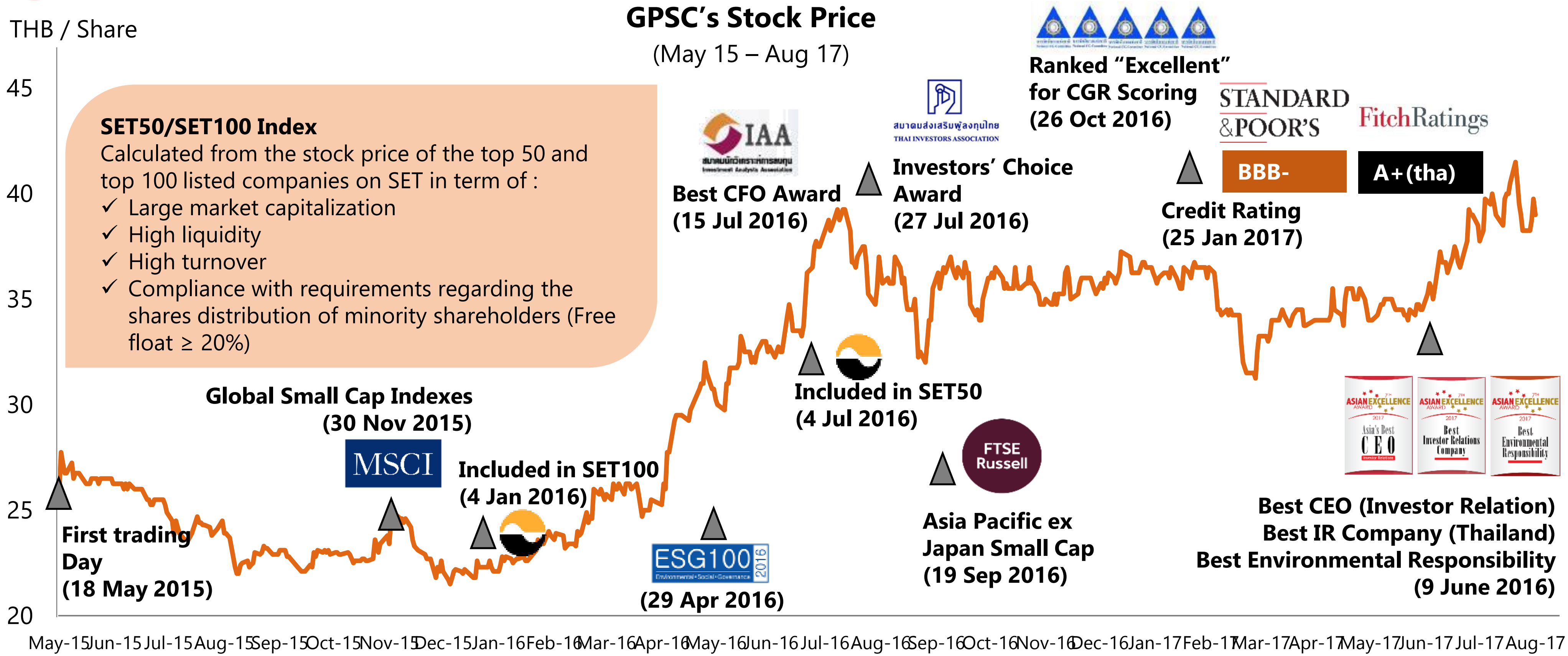
Operate business sustainably in considering ESG

GPSC is only Thai power and utility company that was awarded **Best CEO Award, Best Investor Relations Company** and **Best Environmental Responsibility** from the 7th Asian Excellence Award 2017. Also, GPSC is selected by Thaipat Institute to be in ESG100 for 2 consecutive years. This reflects that GPSC operates business sustainably in considering Environment, Social and Governance.

5 projects in progress meet milestones as planned

IRPC CP – Ph2 and **Ichinoseki** are expected to COD by 2017 in which IRPC-CP Ph 2 already started synchronization with Ph1 while **another three power plants are expected to COD within 2019.** All the projects are closely monitored by GPSC with construction specialists to meet the milestones as planned.

GPSC stock's performance



- 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 **MSCI Index** and included in **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**. Furthermore, GPSC granted recognitions in June 2017 for Best CEO (Investor Relation) Best IR Company (Thailand) and Best Environmental Responsibility from Corporate Governance Asia. **These are the results of confidence on GPSC performance from all stakeholders.**

GPSC's Committed Capacity is 1,922 Equity MW Electricity

(2,318 Equity MW equivalent ; electricity 1,922 Equity MW , steam 1,582 T/H)

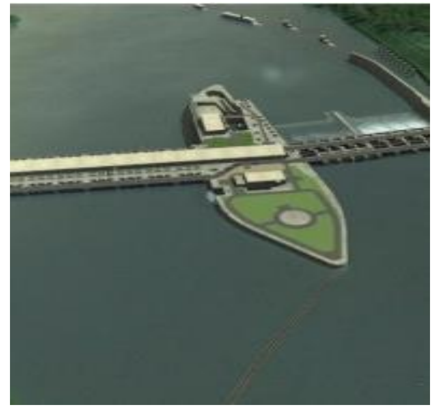
BUSINESS PORTFOLIO

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

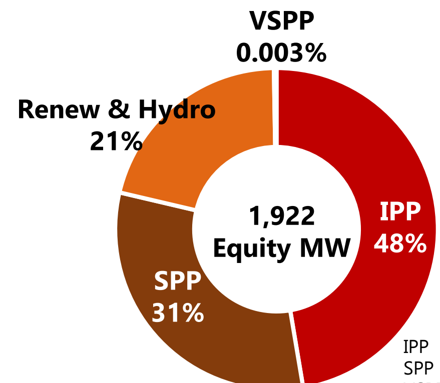
- 24M Technologies, Inc. (USA)
- Business Service Alliance Co.,Ltd.

Capacity

ELECTRICITY *1,922 MW (operate 1,410 MW, under constriction 512 MW)*	**STEAM** *1,582 T/H (operate 1,446 T/H)*
INDUSTRIAL WATER *2,080 Cu.m./H*	**CHILLED WATER** *12,000 RT*

ELECTRICITY CAPACITY BREAKDOWN

Unit: Megawatt



IPP Independent Power Producers
SPP Small Power Producers
VSPP Very Small Power Producers

5

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 COD
Electricity: 45 MW
Steam: 170 T/h

Phase 2 under construction ***(SCOD in 2017)***

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
Upcoming COD by 2017

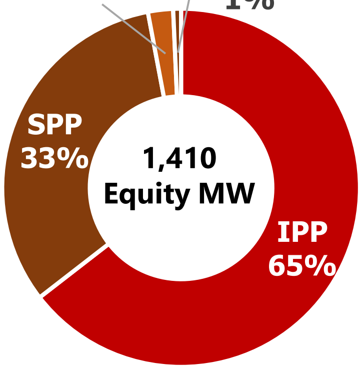
Company Overview

Financial Performance

Investment in Affiliates

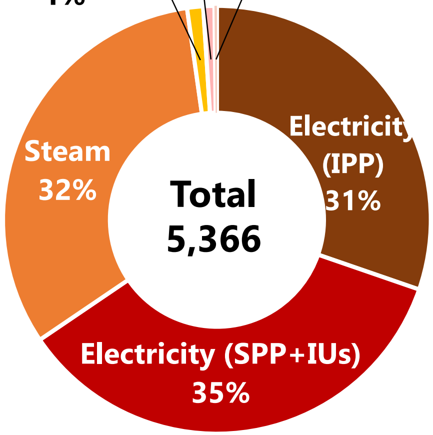
Majority of GPSC's revenue is from electricity, PTT Group is GPSC's major customer

ELECTRICITY CAPACITY BREAKDOWN
(Unit: Equity Megawatt)



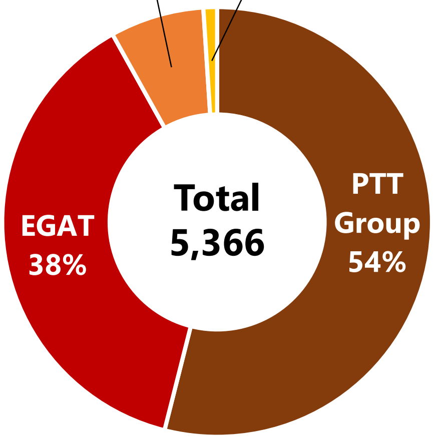
Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	Steam (T/H)
IN OPERATION					
Sriracha	IPP	100%	700	700	
CUP-1	SPP	100%	226	226	890
CUP-2	SPP	100%	113	113	170
CUP-3	SPP	100%	-		280
CHPP	VSPP	100%	5	5	
IRPC-CP Phase 1	SPP	51%	45	23	86.7
CHPP (Solar)	VSPP	100%	5	5	
Consolidate to Financial Statement				**1,072**	**1,427**
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	
Share of Profit / Dividend Income				**338**	**19**
Total operating				**1,410**	**1,446**

Q2/2017 Revenue by product
(THB million)



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

Q2/2017 Revenue by customer
(THB million)

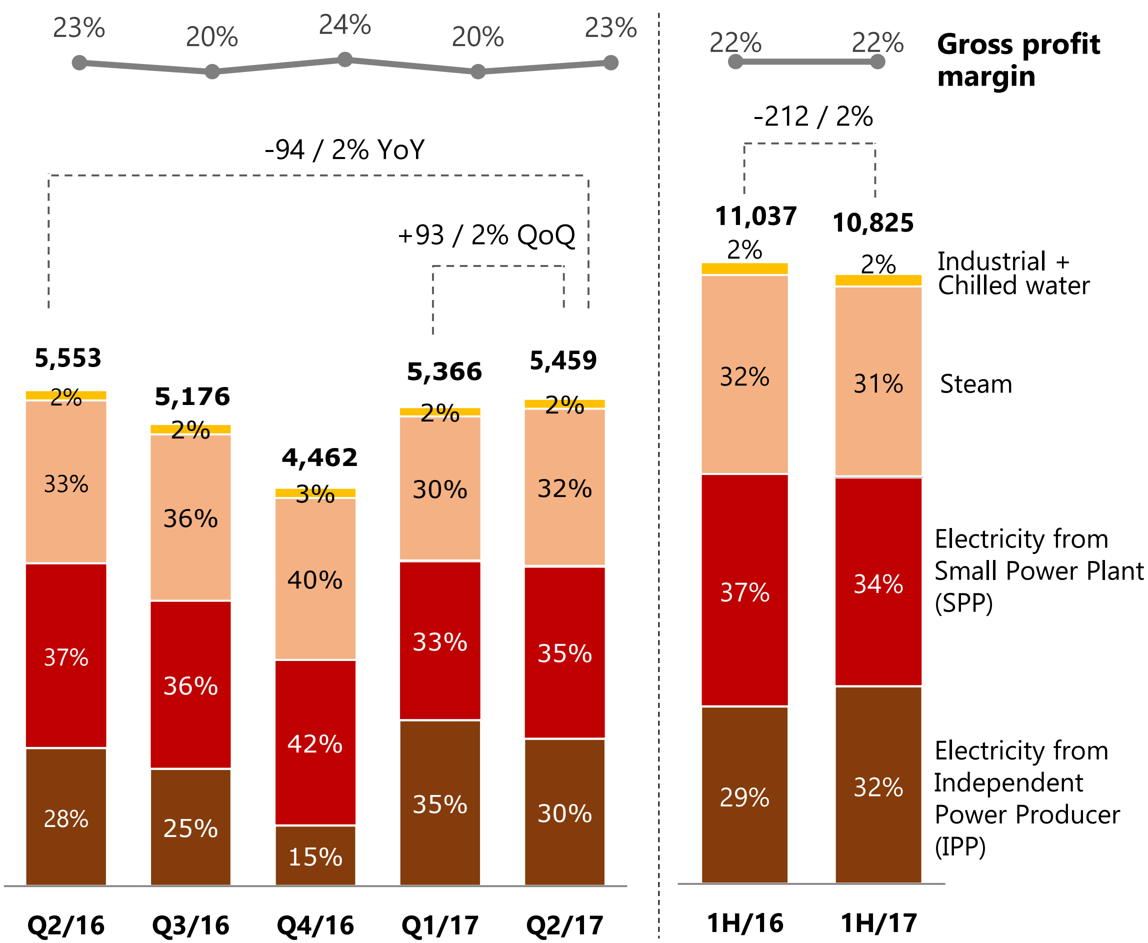


- Accounted for more than 50% of total revenue, PTT Group is consistently the largest customer of GPSC in Q2/17.

IUs : Industrial Users

Revenue increased THB 93 million or 2% QoQ mainly from Rayong and IRPC-CP

Quarterly revenue and Gross profit margin*
(THB Million, %)



Q2/17 VS Q1/17 (QoQ)

- Operating revenue in Q2/17 increased by THB 93 million or 2% compare to Q1/17 resulted from the resume of IRPC-CP's customer from maintenance in Q1/17 together with higher demand at Rayong Plants.

Q2/17 VS Q2/16 (YoY)

- Operating revenue in Q2/17 decreased by THB 94 million or 2% compare to Q2/16 because the customers at Rayong Plants had more maintenance than in last year.

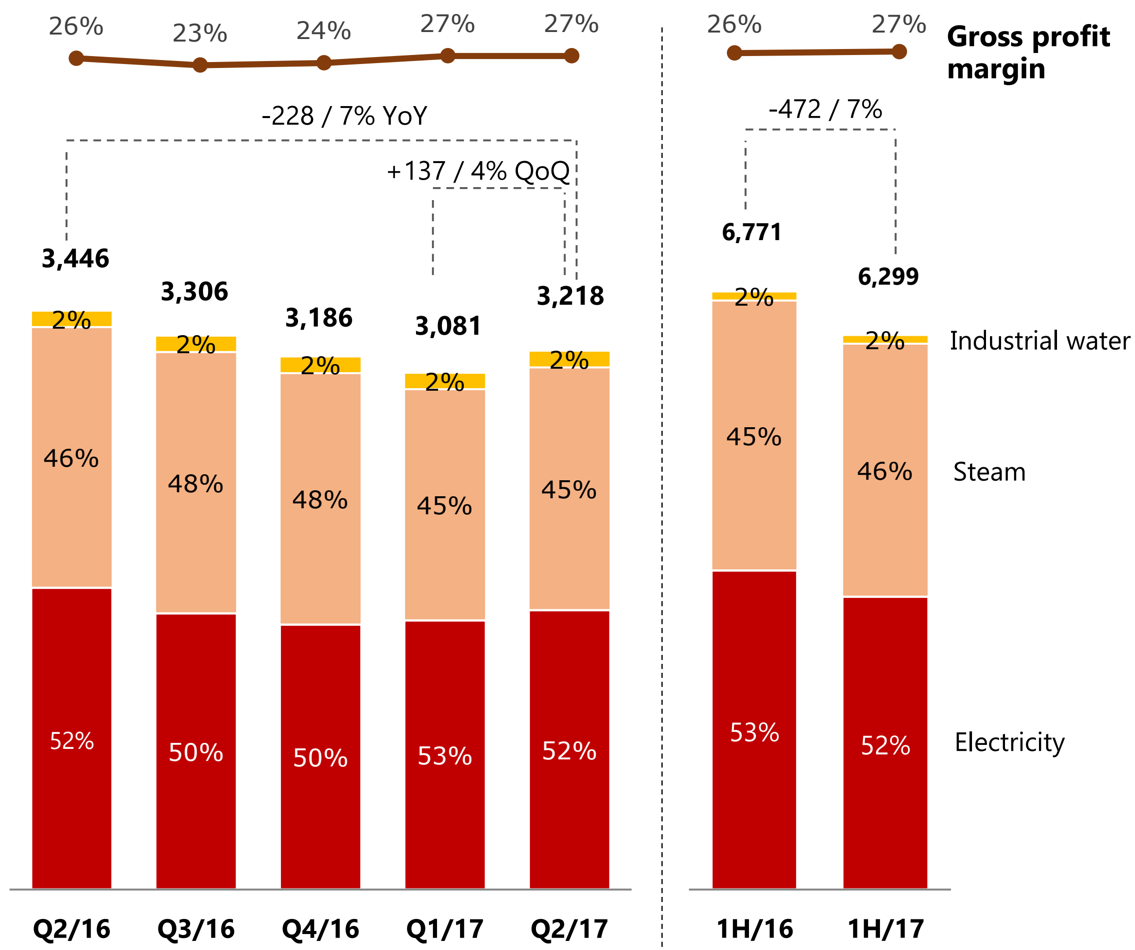
1H/17 VS 1H/16

- Operating revenue in 1H/17 decreased by THB 212 million or 2% compare to 1H/16 resulted from customer's maintenance at Rayong Plants and decrease in demand from customers at IRPC-CP compared to last year.

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

Rayong Power Plant (SPP) : Revenue & GPM

Quarterly revenue & gross profit margin
(THB million, %)



Q2/17 VS Q1/17 (QoQ)

- Total revenue in Q2/17 increased by THB 137 million or 4% due to a rise in electricity sales volumes resulted from the resume for normal operation of some customers.

Q2/17 VS Q2/16 (YoY)

- Total revenue in Q2/17 decreased by THB 228 million or 7% mainly from the drop in electricity sales volume caused by the more customer maintenance shutdowns than in last year.

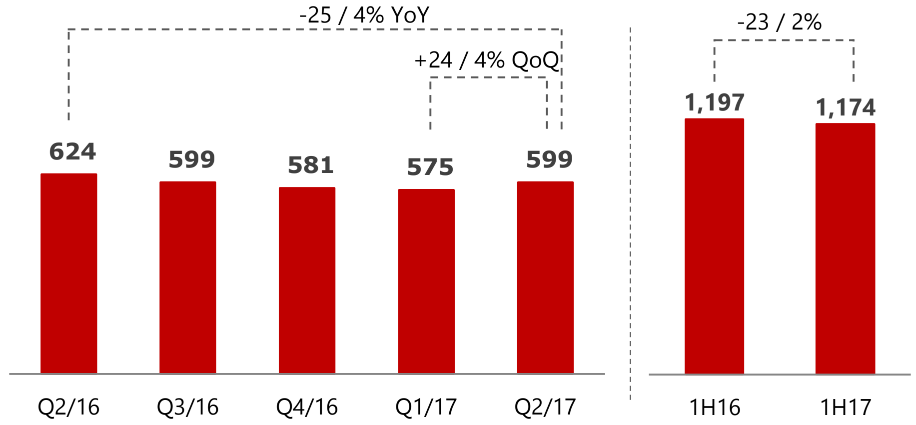
1H/17 VS 1H/16

- Total revenue in 6M/17 decreased by THB 472 million or 7% because of the decrease in sales volumes of both electricity and steam due to the maintenance shutdown by major customers.

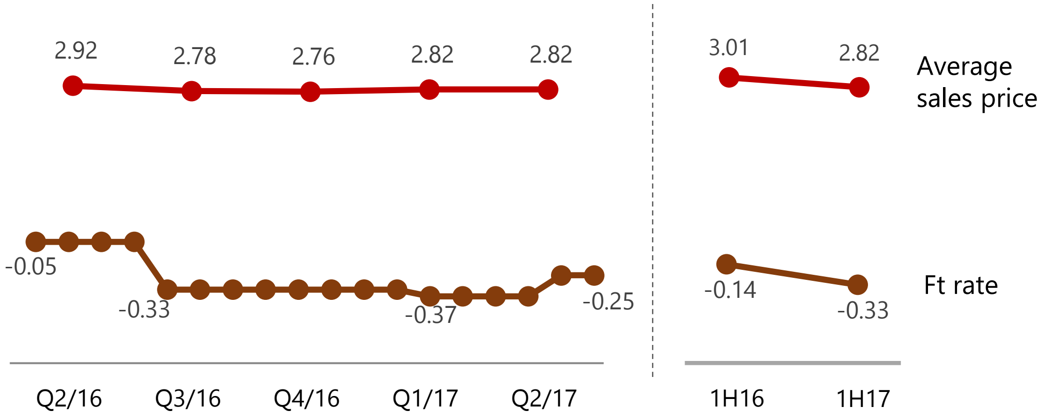
*Remark: *Revenue from Electricity (IPP) includes income from electricity sales and finance lease.*

Rayong Power Plant (SPP): Power

Quarterly power sales volume
(GWh)



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



Q2/17 VS Q1/17 (QoQ)

- **Volume** increased by 24 GWh or 4% due to the return to normal operation of some customers from maintenance shutdown in Q1/17.
- **Price** did not change.

Q2/17 VS Q2/16 (YoY)

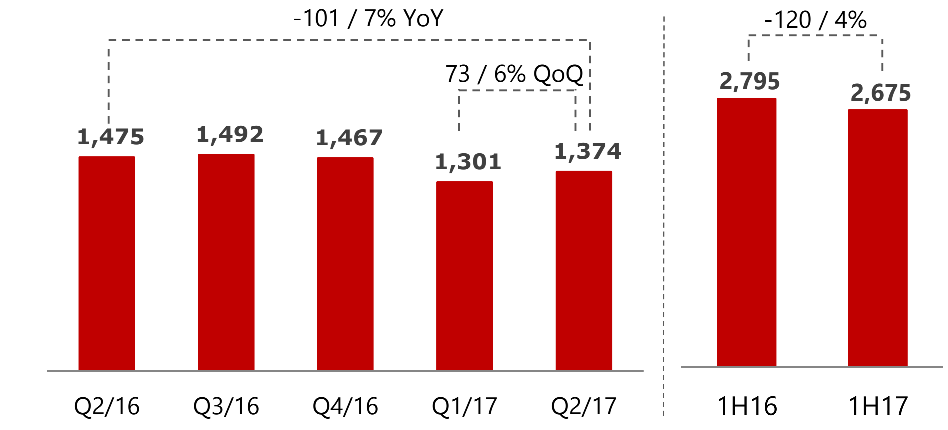
- **Volume** decreased by 25 GWh or 4% because there were more customer shutdowns than in last year.
- **Price** decreased by 0.10 Baht per kWh or 3% due to the decreases in Ft rate and natural gas price.

1H17 VS 1H16

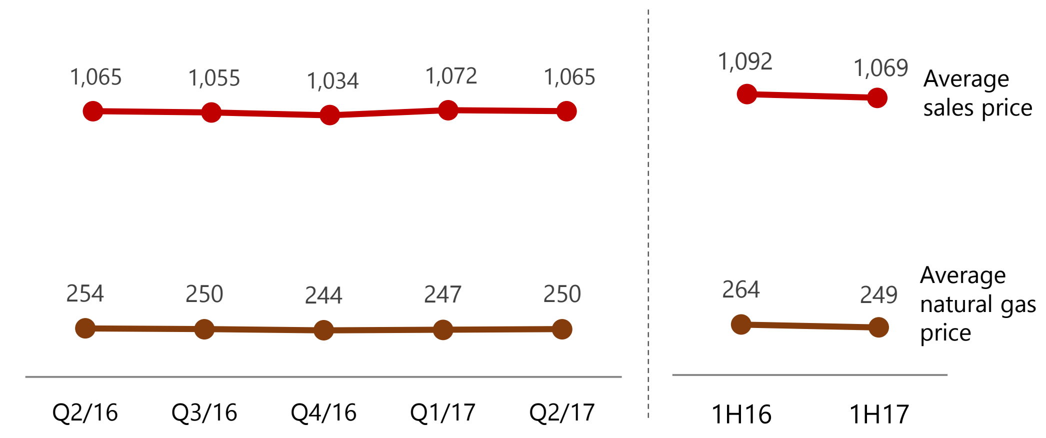
- **Volume** decreased by 23 GWh or 2% from customer maintenance shutdowns.
- **Price** decreased by 0.19 Baht per kWh or 6% due to the decreases in Ft rate and natural gas price.

Rayong Power Plant (SPP): Steam

Quarterly steam sales volume
('000 tons)



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



Q2/17 VS Q1/17 (QoQ)

- **Volume** increased by 73 thousand tons or 6% due to an increase in demands from industrial users.
- **Price** decreased by 7 Baht per ton or 1% due to higher sales price in Q1/17 from receiving fixed charge from customers that shutdown.

Q2/17 VS Q2/16 (YoY)

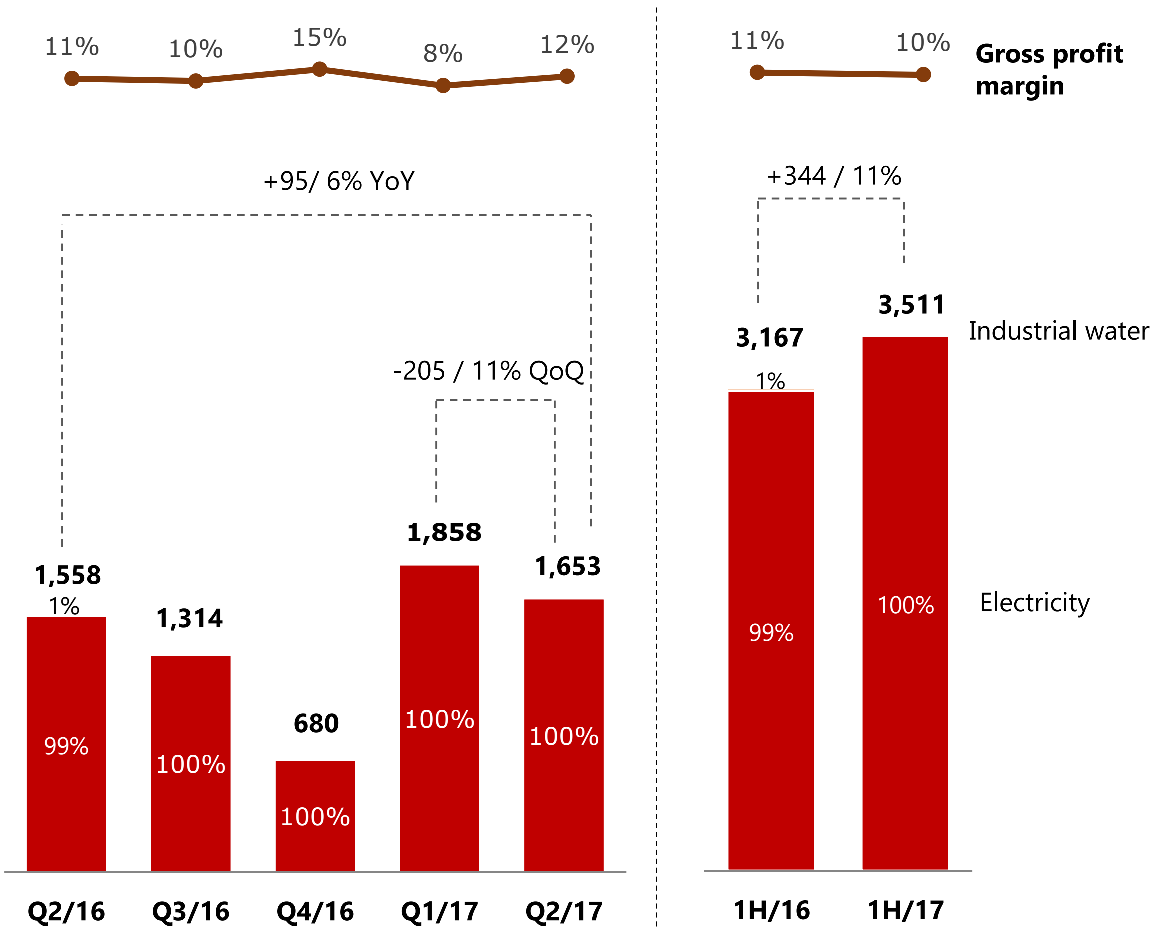
- **Volume** decreased by 101 thousand tons or 7% from the shutdown for maintenance of major customers.
- **Price** did not change.

1H17 VS 1H16

- **Volume** decreased by 120 thousand tons or 4% from the shutdown for maintenance of major customers.
- **Price** decreased by 23 Baht per ton or 2% due to the decrease in natural gas price.

Sriracha Power Plant: Revenue & GPM

Quarterly revenue & gross profit margin
(THB million, %)



Q2/17 VS Q1/17 (QoQ)

- Total revenue in Q2/17 decreased by THB 205 million or 11% mainly from a drop in dispatch volume causing the decrease in Energy Payment.

Q2/17 VS Q2/16 (YoY)

- Total revenue in Q2/17 increased by THB 95 million or 6% due to higher electricity volume submitted to EGAT.

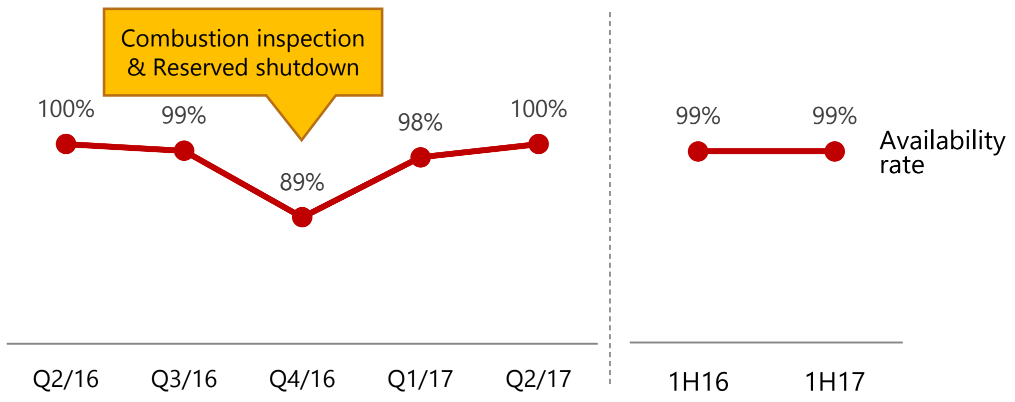
1H/17 VS 1H/16

- Total revenue in 1H/17 increased by THB 344 million or 11% because of the increase in electricity sales volume submitted to EGAT by 22%.

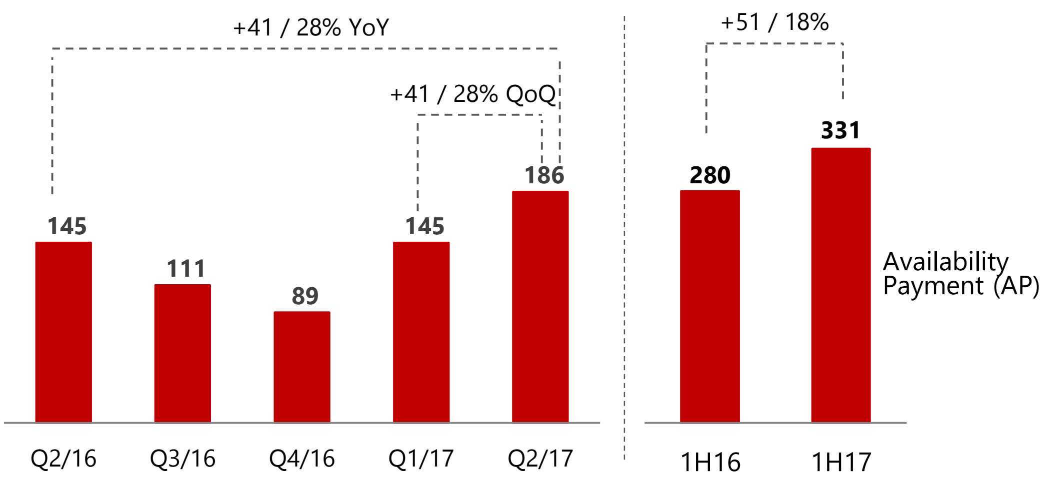
*Remark: *Revenue from Electricity (IPP) includes income from electricity sales and finance lease.*

Sriracha Power Plant (IPP): Power

Quarterly Availability Payment Rate
(%)



Quarterly revenue from Availability Payment (AP)
(THB million)



Q2/17 VS Q1/17 (QoQ)

- Availability rate in Q2/17 increased from 98% to 100% due to minor maintenance in Q1/17.
- Revenue from Availability Payment (AP) in Q2/17 increased by THB 41 million or 28% from a rise in availability rate along with higher Weight factor.

Q2/17 VS Q2/16 (YoY)

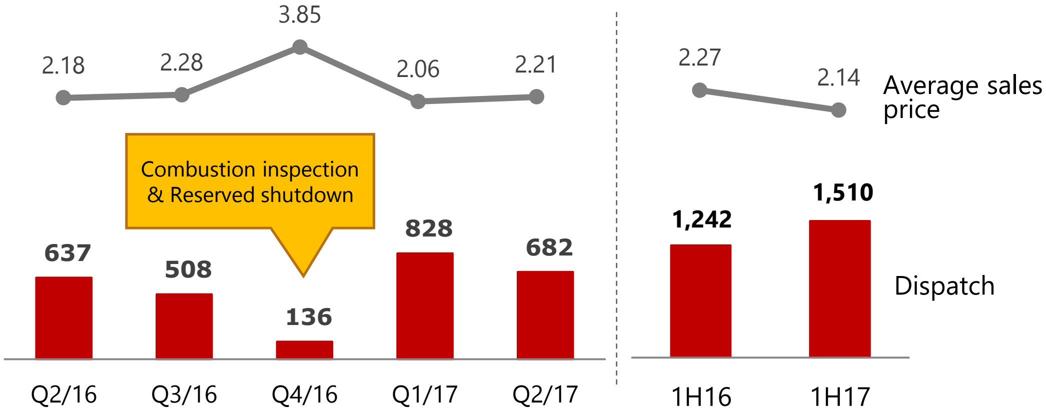
- Revenue from Availability payment in Q2/17 increased by THB 41 million or 28% from the higher Weight factor.

1H17 VS 1H16

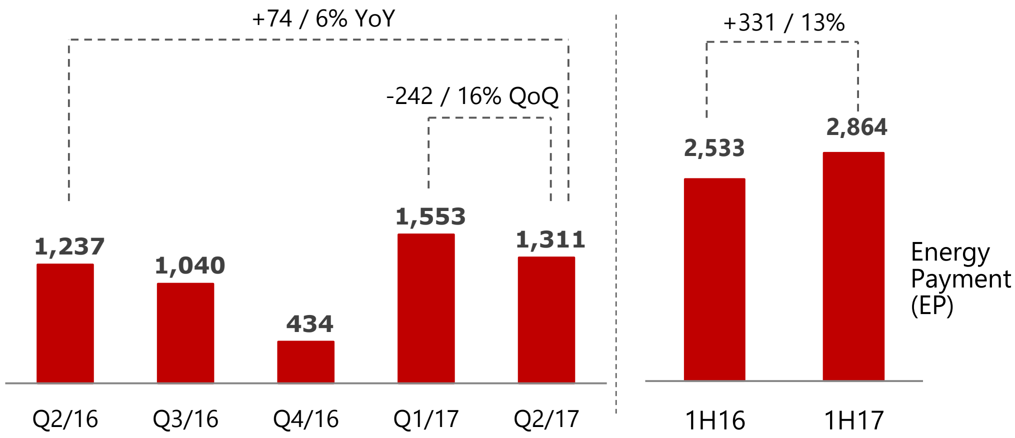
- Revenue from Availability payment in 1H17 increased by THB 51 million or 18% from the higher Weight factor in 1H17 than in 1H16.

Sriracha Power Plant (IPP): Power

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



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



Q2/17 VS Q1/17 (QoQ)

- Average sales price in Q1/17 increased by 0.15 Baht per kWh due to higher Weight factor and lower dispatch volume as per EGAT's instruction.
- Revenue from Energy Payment (EP) decreased by THB 242 million or 16% from a decline in dispatch volume.

Q2/17 VS Q2/16 (YoY)

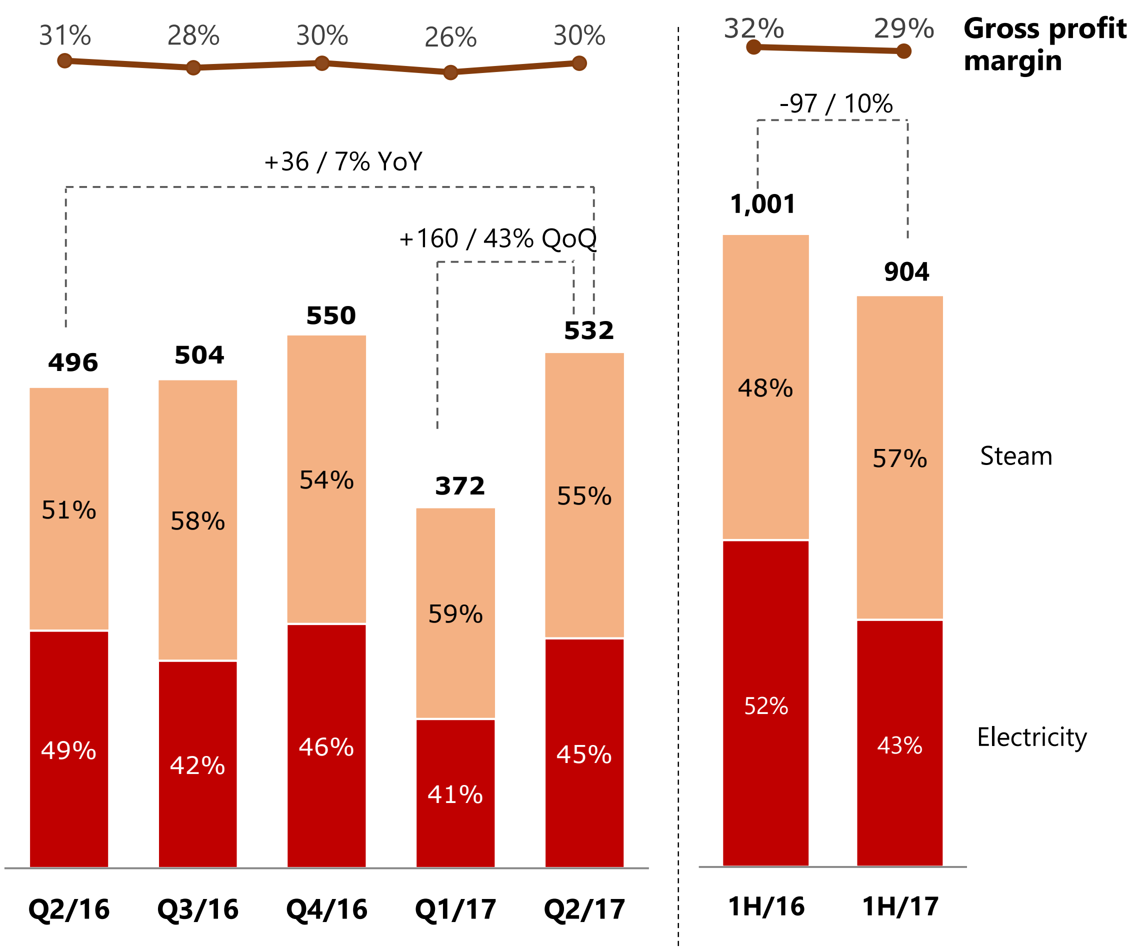
- Dispatch volume increased by 45 GWh or 7% according to EGAT's dispatch instruction.
- Revenue from EP increased by THB 74 million or 6% due to a rise in dispatch volume.

1H17 VS 1H16

- Dispatch volume increased by 269 GWh or 22% according to EGAT's dispatch instruction.
- Revenue from EP increased by THB 331 million or 13% largely due to the increase in dispatch volume.

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

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



Q2/17 VS Q1/17 (QoQ)

- Total revenue in Q2/17 increased by THB 160 million or 43% mainly from the increase in sales volumes from major industrial user who came back to normal operation after shutdown for maintenance.
- GPM increased by 4% due to the same reason as revenue.

Q2/17 VS Q2/16 (YoY)

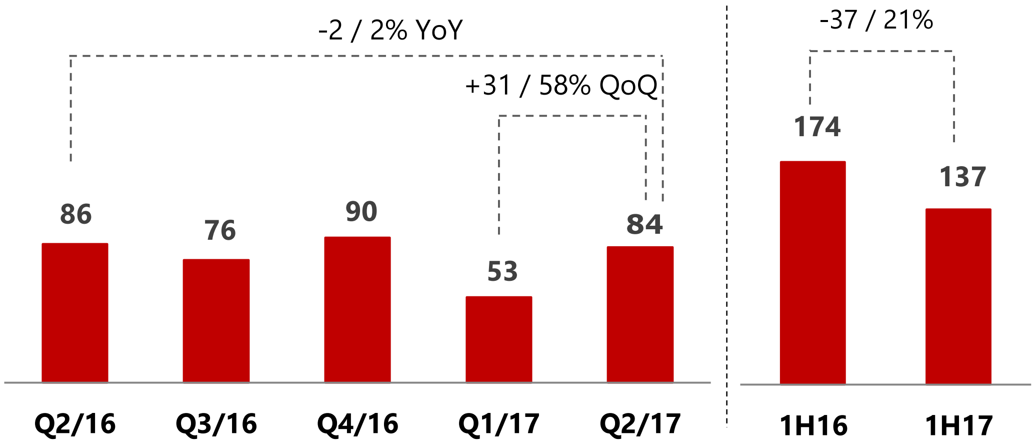
- Total revenue in Q2/17 increased by THB 36 million or 7% mainly because of the higher steam sales volume due to the increase in demand from existing and new customers.
- However, GPM in Q2/17 decreased slightly when compare to Q2/16 due to higher natural gas price.

1H/16 VS 1H/17

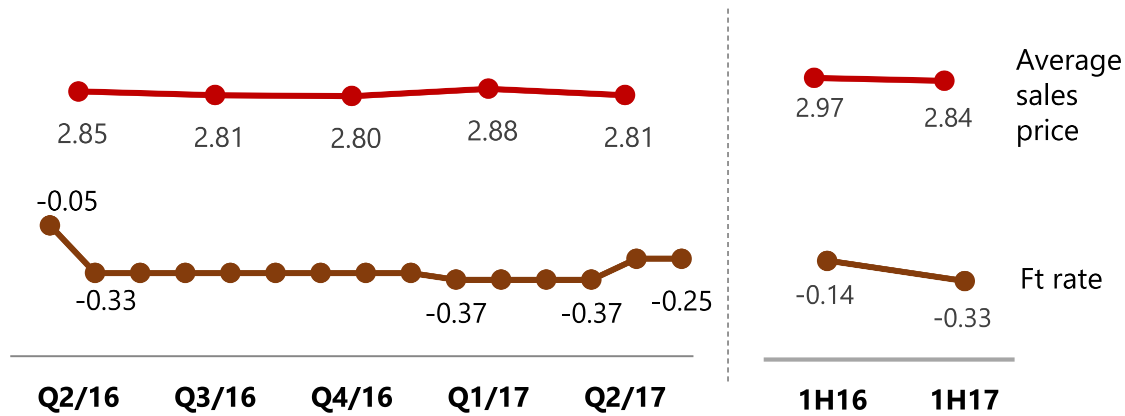
- Total revenue in 1H/17 decreased by THB 97 million or 10% as a result of the main customer halted for maintenance during Q1/17.
- GPM also dropped due to lower power sales volume.

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

Quarterly power sales volume
(GWh)



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



Q2/17 VS Q1/17 (QoQ)

- Volume increased by 31 GWh or 58% from an increase in demand from industrial users after maintenance.
- Price decreased by 0.07 Baht per kWh or 2.4% resulted from varied price of electricity depending on time interval.

Q2/17 VS Q2/16 (YoY)

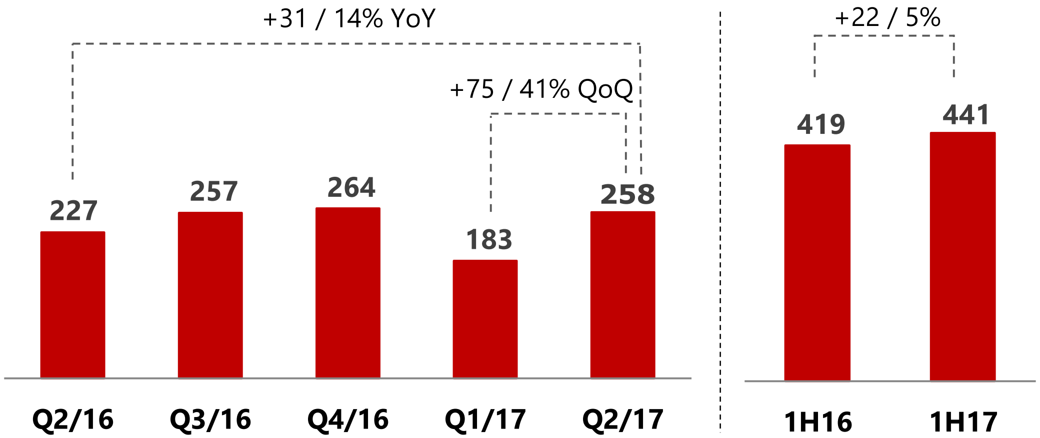
- Volume decreased by 35 GWh or 40% due to the **main customer temporarily ceased the operation.**
- Price slightly decreased by 0.21 Baht per kWh or 1% **due to a slight reduction in Ft rate.**

1H/17 VS 1H/16

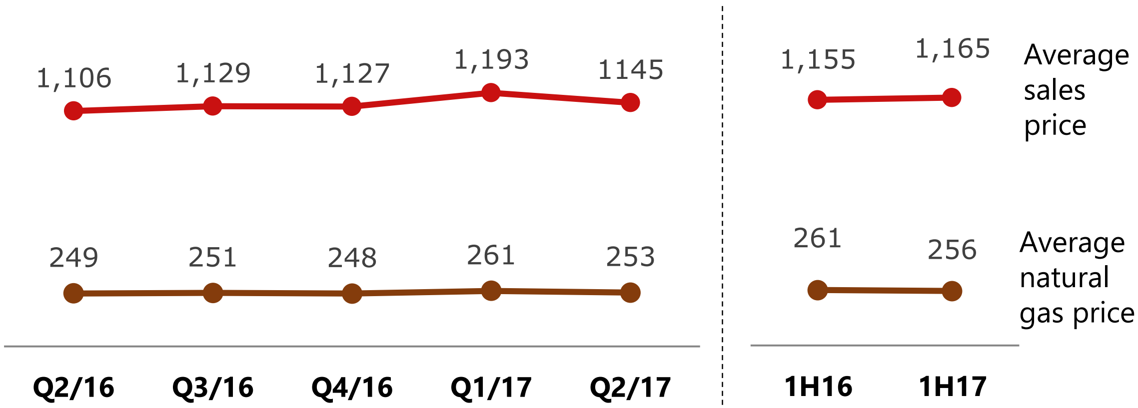
- Volume decreased by 37 GWh or 21% from the maintenance shutdown of major customers in Q1/17.
- Price decreased by 0.13 Baht per kWh or 4% due to a reduction in Ft rate.

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

Quarterly steam sales volume
('000 tons)



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



Q2/17 VS Q1/16 (QoQ)

- Volume increased by 75 thousand tons or 41% in Q2/17 due to higher demand from existing customers who resumed normal operation after maintenance.
- Price decreased by 48 Baht per ton or 4% in Q2/17 following the reduction of natural gas price.

Q2/17 VS Q2/16 (YoY)

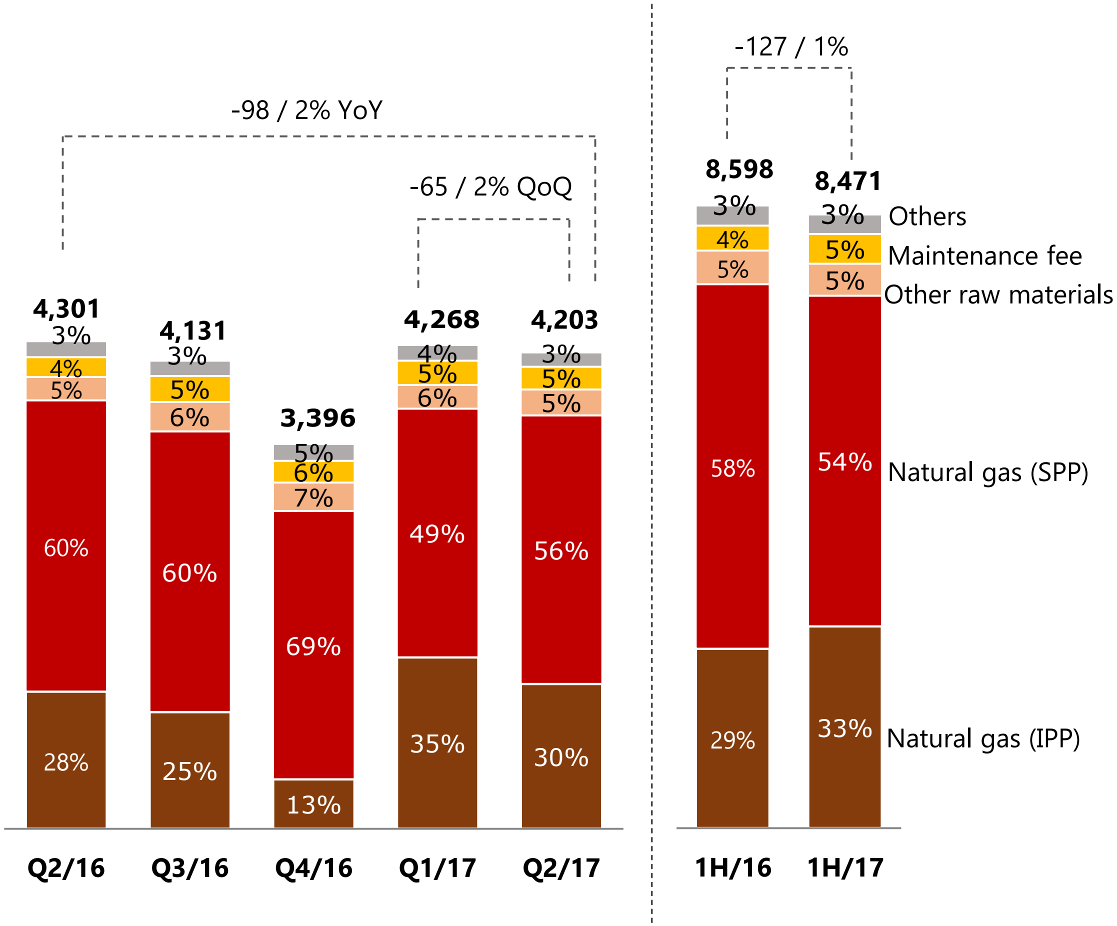
- Volume increased by 31 thousand tons or 14% **due to the increase in demand for steam with sales price increased following the natural gas price.**
- Price increased by 39 Baht per ton or 4% **due to the increase in natural gas price.**

1H/17 VS 1H/16

- Volume increased by 22 thousand tons or 5% from the increase in demand in steam from the customers.
- Price increased by 10 Baht per ton or 1% in line with sales volume.

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

Quarterly cost of sales and services*
(THB million)



Q2/17 VS Q1/17 (QoQ)

- Cost of sales and services in Q2/17 decreased by THB 65 million or 2%.
- The decreased was from cost of raw materials from lower dispatch to EGAT.

Q2/17 VS Q2/16 (YoY)

- When compared with Q2/16, cost of sales and services decreased by THB 98 million or 2%.
- The decrease was from lower natural gas price and lower sales volume of Rayong and IRPC-CP Ph1.

1H/17 VS 1H/16

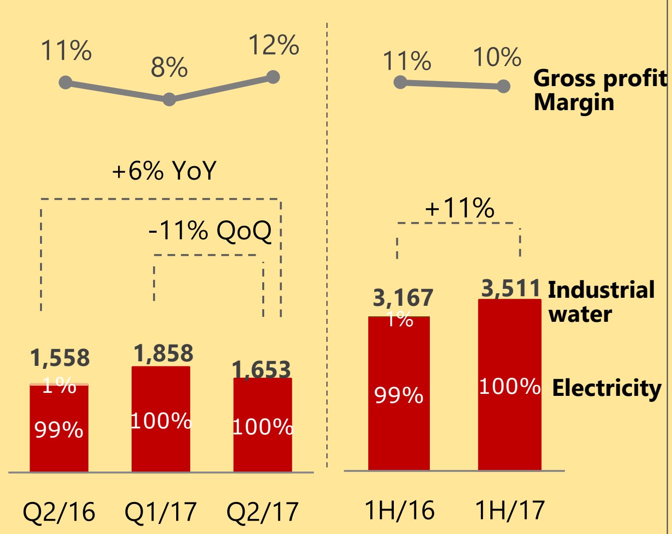
- Cost of sales and service in 1H/17 decreased by THB 127 million or 1%.
- The decreased was from lower natural gas price and lower sales volume of Rayong and IRPC-CP Ph1 due to customers shutdown.

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

Q2/17 Revenue and GPM by Major plant

Sriracha Plant (IPP)

Total revenue & GPM
(THB million, %)



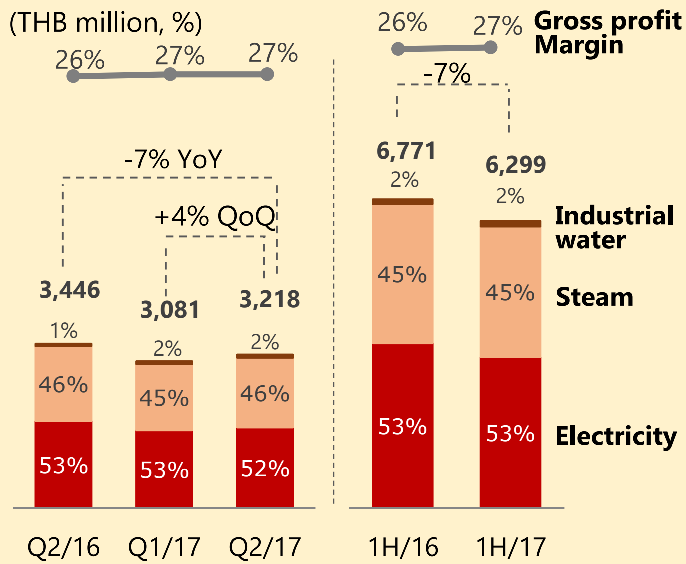
QoQ: Total revenue was lower by 11% mainly from a drop in dispatch volume causing the decrease in EP.

YoY: Total revenue increased by 6%, mainly due to higher electricity volume submitted to EGAT and a higher Weight factor.

HoH: Total revenue rose by 11% because of the increase in electricity sales volume submitted to EGAT by 22%.

Rayong Plant (SPP)

Total revenue & GPM
(THB million, %)



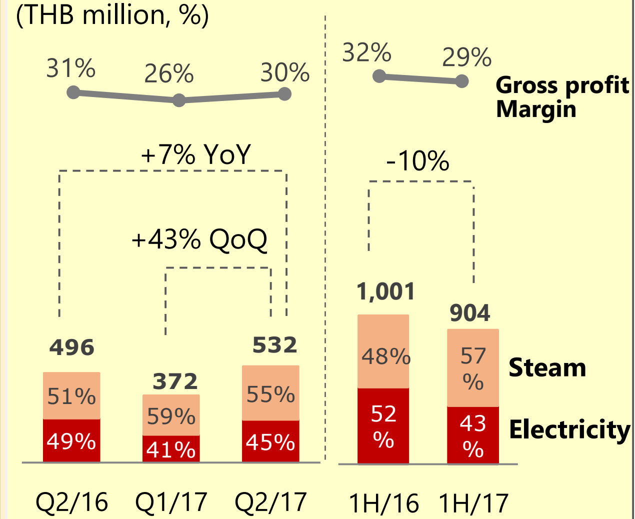
QoQ: Total revenue was higher by 4% due to a rise in electricity sales volumes resulted from the resume for normal operation of some customers.

YoY: Total revenue decreased by 7%, mainly from the drop in electricity sales volume caused by the more customer maintenance shutdowns than in last year.

HoH: Total revenue decreased by 7% because of the decrease in sales volumes of both electricity and steam due to the maintenance shutdown by major customers

IRPC-CP Phase 1 Plant (SPP)

Total revenue & GPM
(THB million, %)



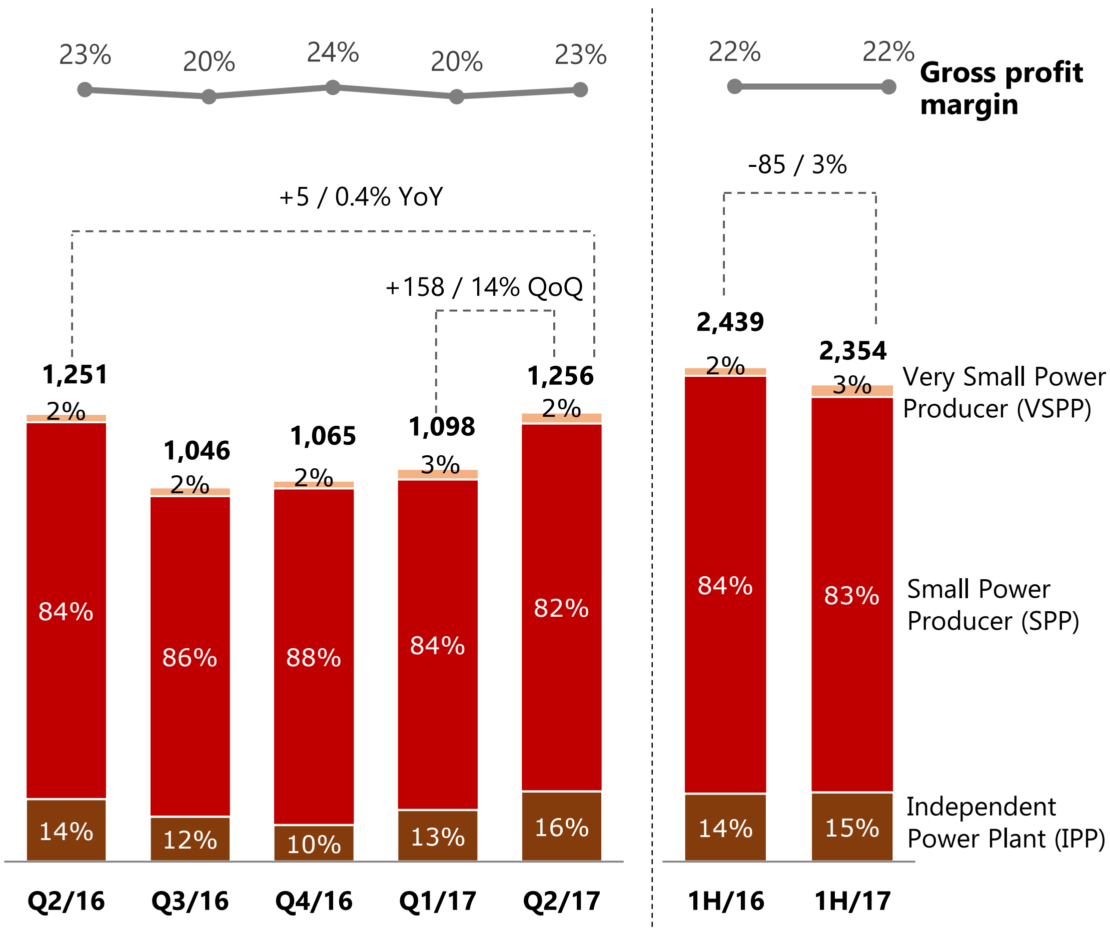
QoQ: Total revenue was higher by 43% mainly from the increase in sales volumes from major industrial user who came back to normal operation after shutdown for maintenance.

YoY: The revenue of IRPC-CP Phase 1 increased by 7% mainly because the higher steam volume due to increase in demand from existing and new customers.

HoH: The lower in revenue in 1H/17 was caused by the decrease in electricity sales volume and price.

Prospering gross profit

Quarterly gross profit and gross profit margin*
(THB million, %)



Q2/17 VS Q1/17 (QoQ)

- Gross profit in Q2/17 increased by THB 158 million or 14% compare to Q1/17 due to the better performance of power plants especially at IRPC-CP.

Q2/17 VS Q2/16 (YoY)

- Compare with Q2/16, gross profit increased by THB 5 million or 0.4% from the same reason as QoQ together with the increase in profit at Sriracha plant.

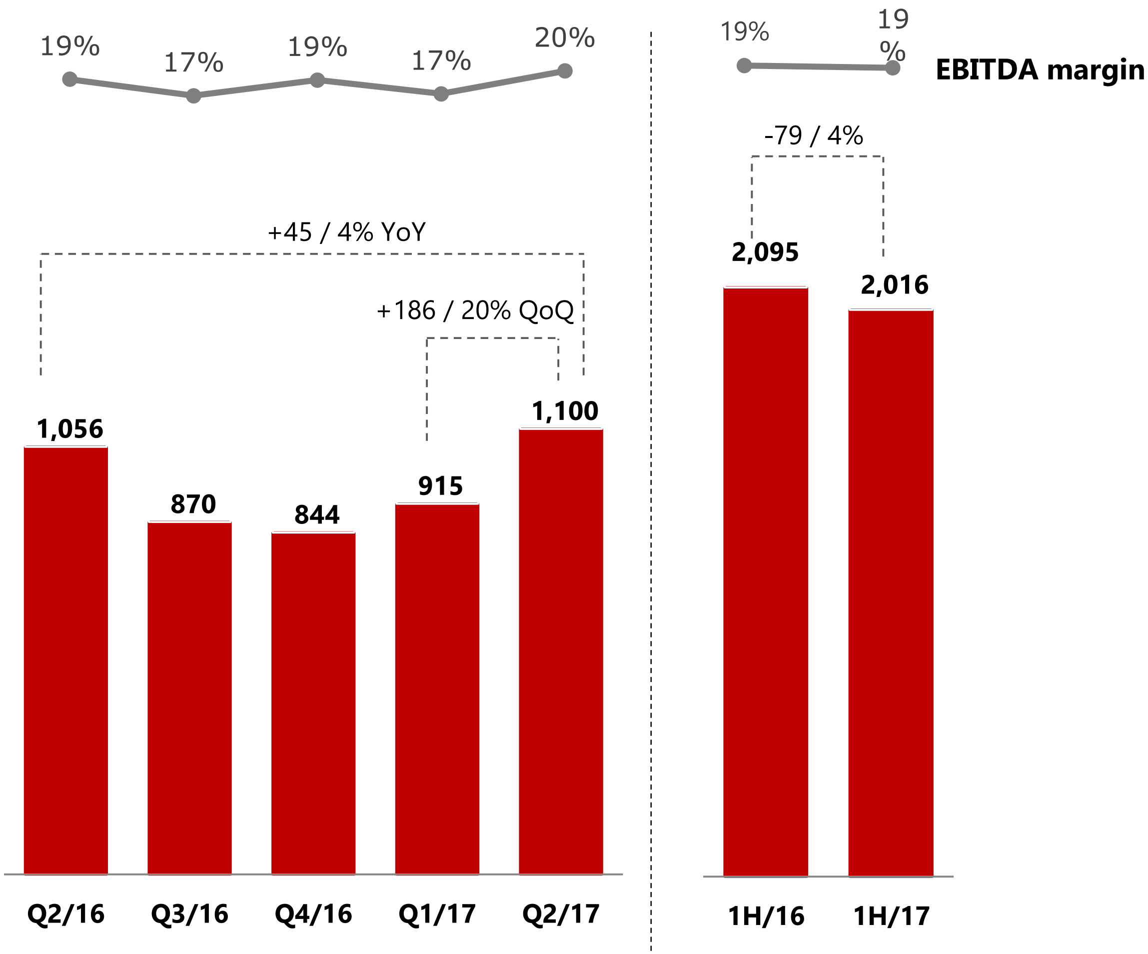
1H/17 VS 1H/16 (YoY)

- Gross profit in 1H/17 decreased by THB 85 million or 3% compare to 1H/16 mainly from the decrease in electricity sales volumes resulted from the scheduled maintenance of the customers.

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

EBITDA increased by 8% QoQ

Quarterly EBITDA and EBITDA margin
(THB million, %)



Q2/17 VS Q1/17 (QoQ)

- EBITDA in Q2/17 was THB 1,100 million increased by THB 185 million or 20% mainly from better performance of Rayong power plant and IRPC-CP after their customers resumed from shutdown in Q1/17.

Q2/17 VS Q2/16 (YoY)

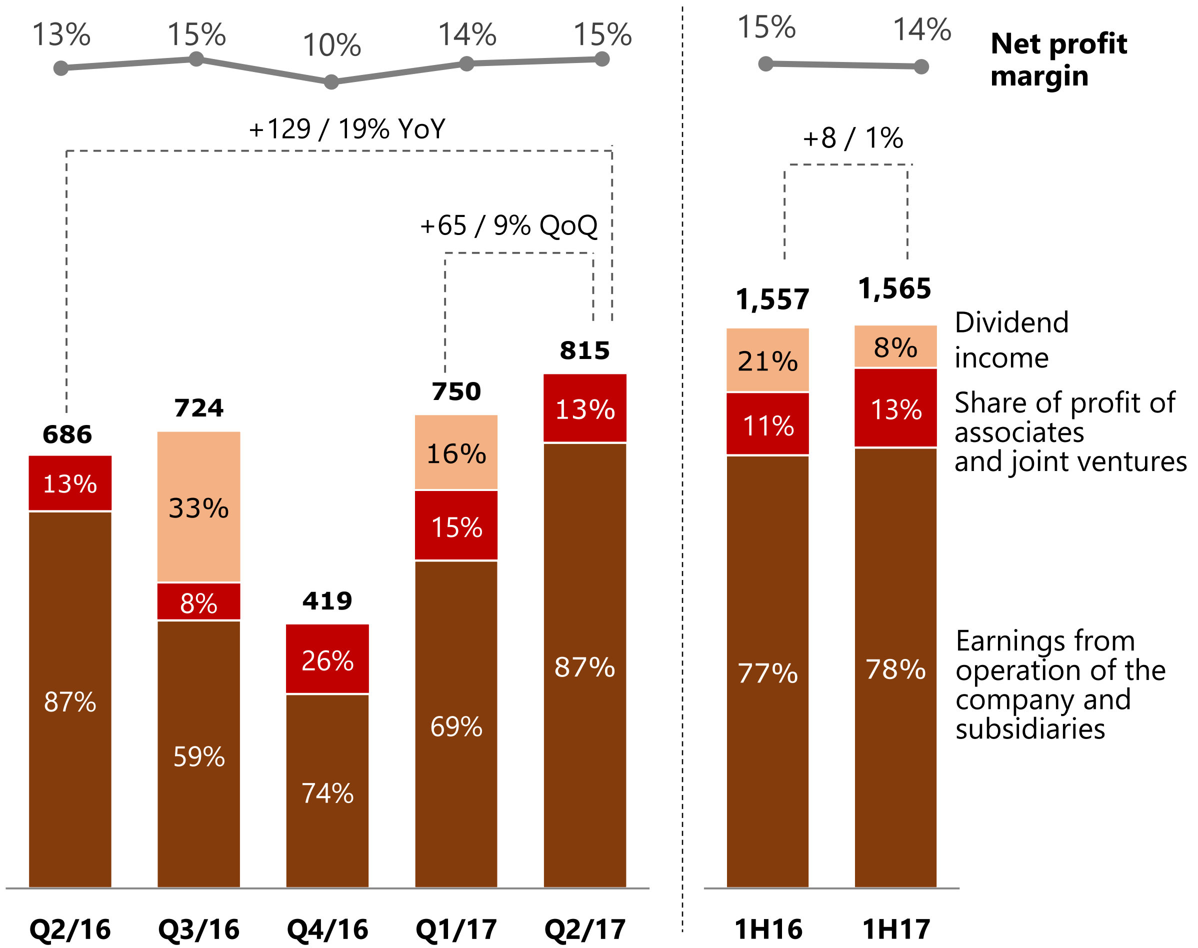
- Compare with Q2/16, EBITDA increased by THB 44 million or 4% mainly due to the reduction of SG&A.

1H/17 VS 1H/16

- EBITDA in 1H/17 decreased by THB 80 million or 4% when compare to 1H/16 mainly due to customers shutdown of Rayong and IRPC-CP during 1H/17.

Net profit grew 19% YoY from strong operating earnings and supported by returns from investments

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



Q2/17 VS Q1/16 (QoQ)

- The net profit increased by THB 65 million or 9% **from the better performance of the operating power plants** especially IRPC-CP whose main customer returned to operate after the maintenance shutdown in Q1/17.

Q2/17 VS Q2/16 (YoY)

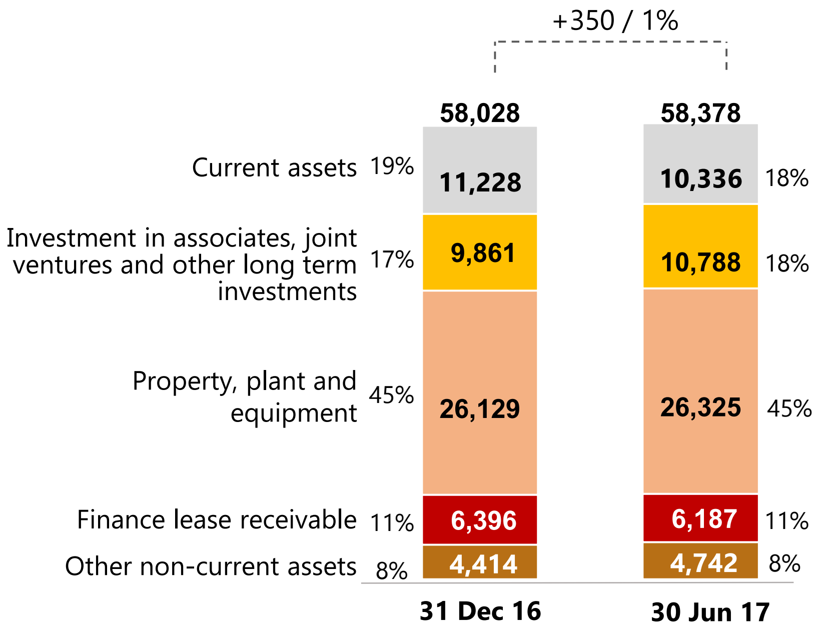
- Net profit increased by THB 129 million or 19% from the decrease in natural gas cost together with GPSC recognized compensation revenue for THB 66 million in Q2/17.

1H/17 VS 1H/16

- Net profit increased by THB 8 million or 1% due to the better performance of GPSC's power plants.

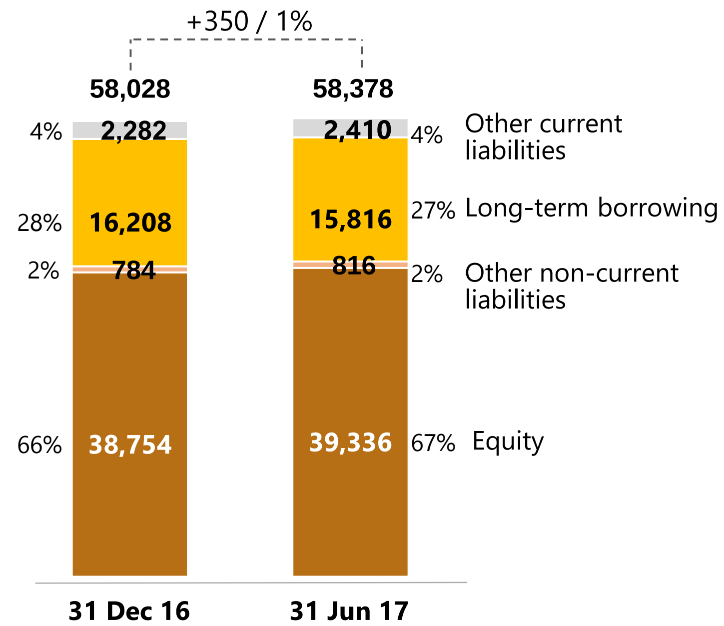
Summary of financial position of GPSC and its subsidiaries

Total Assets
(THB million)



- Total assets were THB 58,378 MM, increased by THB 350 million or 1% from THB 58,028 million.
- The increase was mainly from the increase in investment due to the capital raising of XPCL.

Total Liabilities & Shareholders equity
(THB million)

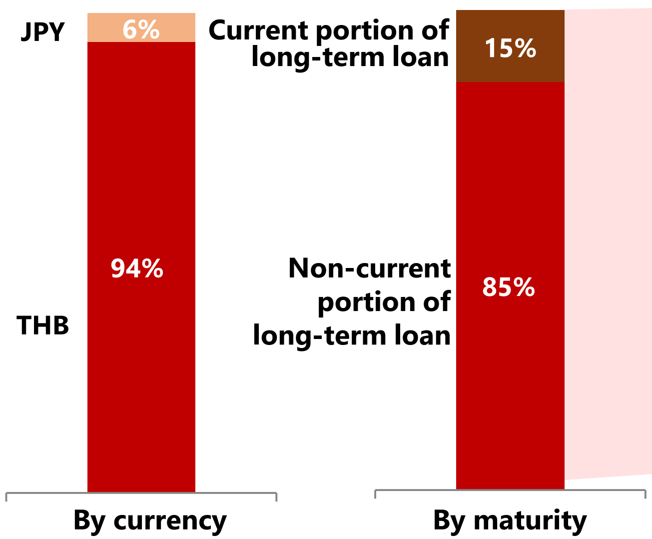


- Total liabilities were THB 19,043 MM decreased by THB 232 million or 1% mainly from repayment of long-term loan and account payable from construction.
- Equity were THB 39,336 million increased by THB 581 million or 2% mainly from an increase in the unappropriated retained earnings.

Well-managed debt profile and continuous deleveraging

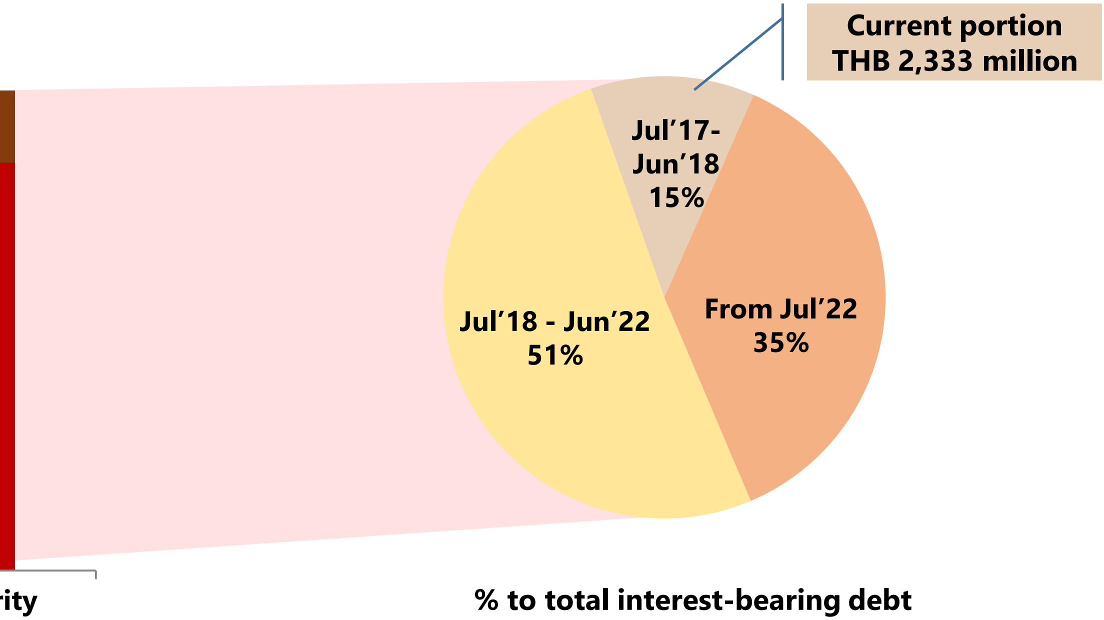
Debt profile

Total interest-bearing debt: THB 15,816 million



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

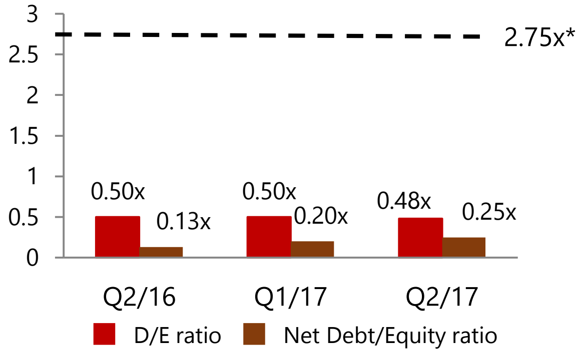
Debt repayment plan



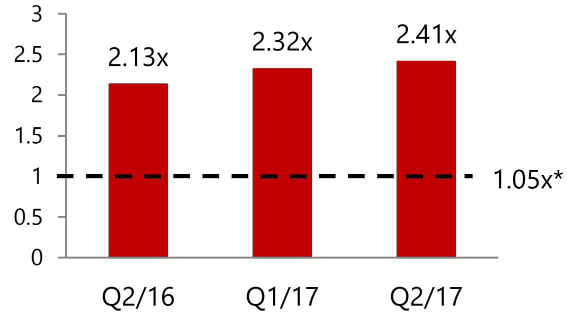
- Non-current portion of long-term debt equals to THB 13,483 million while current portion equals to THB 2,333 million.
- 51% of total interest-bearing debt will be repaid between July 2018 – June 2022.

Key financial ratios support GPSC's strong financial position

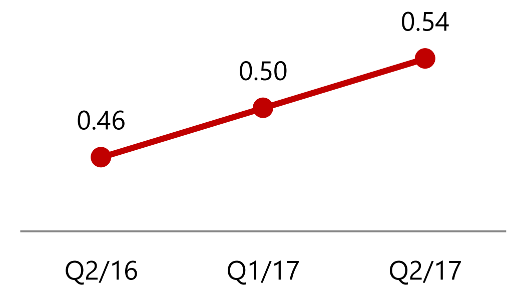
Total D/E and Net Debt/ Equity ratio (Times)



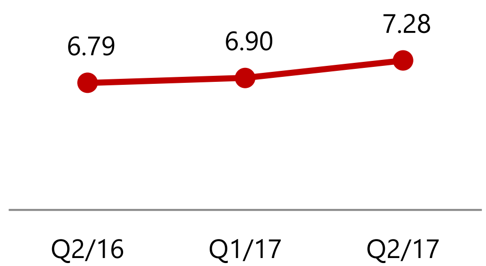
DSCR (Times)



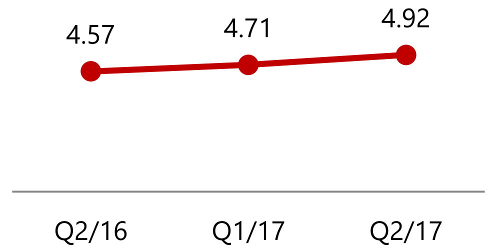
Earning per share (EPS) (Baht/share)



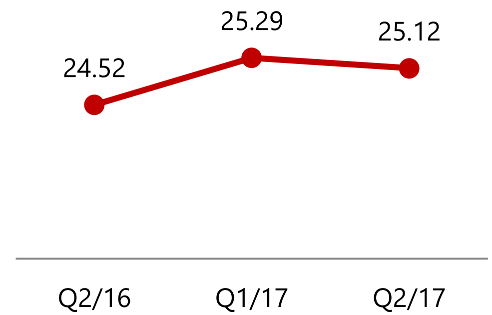
ROE (%)



ROA (%)



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



*Remark: *D/E ratio of 2.75x 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

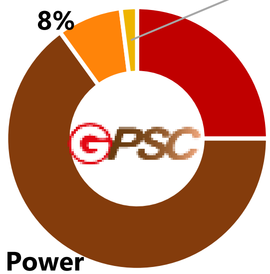
Investment in Affiliates

Bangpa-In Cogeneration Phase 2 (BIC-2)

Bangpa-In Cogeneration Company Limited (Phase 2)
Ayutthaya Province

Type	SPP Cogeneration
Capacity	• Electricity: 117 MW (gross) • Steam: 20 T/h
Customer	• Electricity: EGAT 90 MW (25 years), IUs 27 MW • Steam: IUs 20 T/h
SCOD	2017
Total Investment	5,340 THB Million
D/E	3:1

Shareholding

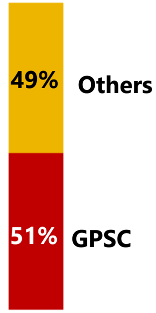


IRPC Clean Power Phase 2 (IRPC-CP Phase 2)

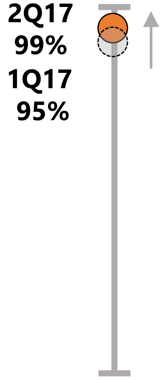
IRPC Clean Power Company Limited (IRPC-CP)
In IRPC Industrial Zone at Choeng Noen, Rayong Province (118 Rai)

Equity Investment

3,400 THB Million



% Progress



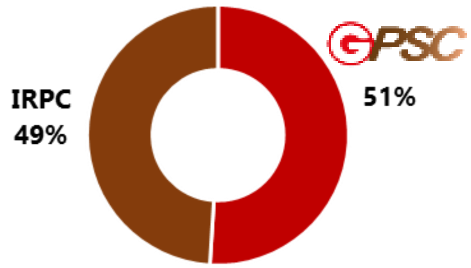
Type	SPP Cogeneration
Capacity*	• Electricity: 240 MW • Steam: 180-300 T/H
Customer*	• Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years) • Steam: IRPC 180-300 T/H
SCOD	2017
Total Investment	13,600 THB Million
D/E	3:1

Progress update

Phase 2 Under Construction

- The construction of 230 kV transmission line was completed and first synchronization process will be further proceeded.

Shareholding

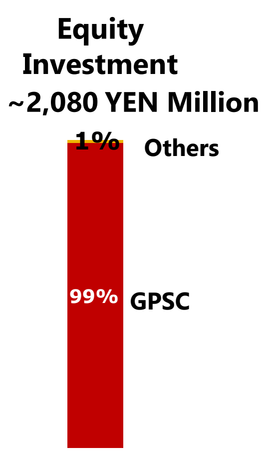


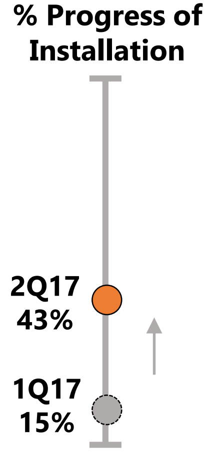
Remark: *Include all capacity and customers of phase 1 and 2

Ichinoseki Solar Power (ISP1)

ICHINOSEKI
SOLAR POWER 1 GK

Ichinoseki Solar Power (ISP1)
Ichinoseki City, Japan

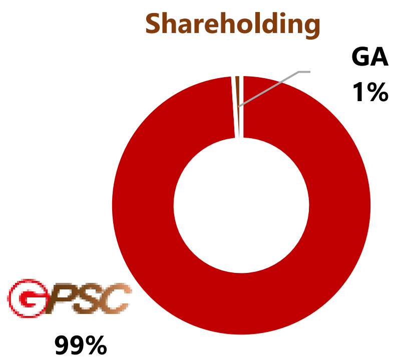




Type	Solar Farm
Capacity	• Electricity: 20.8 MWac
Customer	• Tohoku Electric Power (20 years)
SCOD	2017
Total Investment	~10,001 JPY million
D/E	4:1

Progress update

- Secure FiT at 40 JPY/kWh (exclude tax) for 20 years
- Construction contractor has started working in area B after the handover from site preparation contractor was completed.
- GPSC first international project to COD in 2017

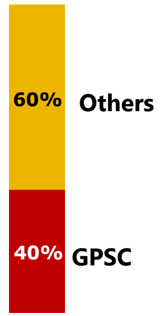


Nam Lik 1 Power Company Limited (NL1PC)

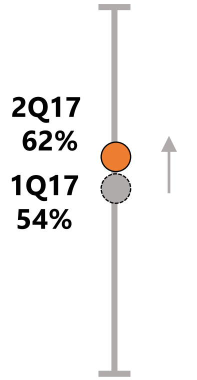
Nam Lik 1 Power Company Limited (NL1PC)
Lao PDR

Equity Investment

~37 USD Million



% Progress

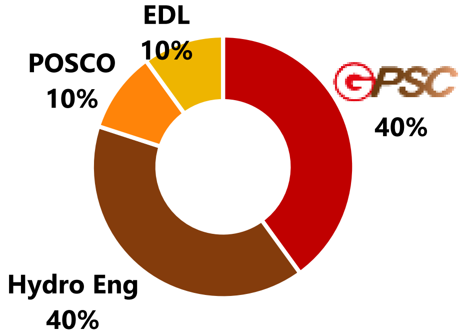


Type	Run-of-River Hydropower
Capacity	• Electricity: 65 MW
Customer	• Electricity: EDL 63.8 MW (30 years PPA)
SCOD	Q1 2019
D/E	7:3

Progress update

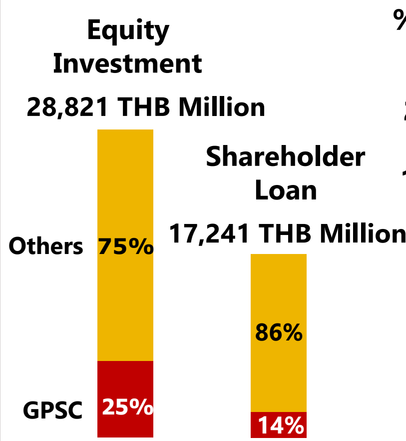
- Construction progress of the project was 62% appraised by technical advisor. The progress was continuing well as planned.

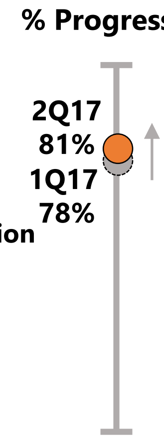
Shareholding



Xayaburi Power Company Limited (XPCL)

Xayaburi Power Company Limited (XPCL)
Xayaburi, Lao PDR

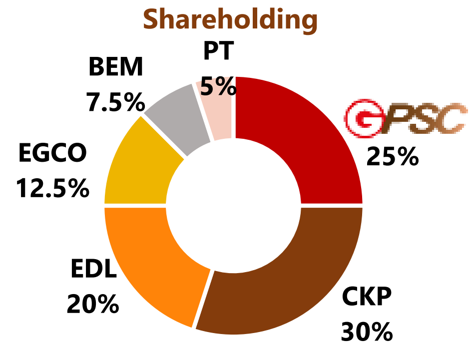




Type	Run-of-River Hydropower
Capacity	• Electricity: 1,285 MW
Customer	• Electricity: EGAT 1,220 MW (31 years), EDL 60 MW (31 years)
SCOD	2019
Total Investment	136,751 THB Million
D/E	3:1

Progress update

- Construction progress of the project continued as planned at 80.9% which appraised by the government of Lao PDR.
- Construction of power house, intermediate block and fish ladder 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

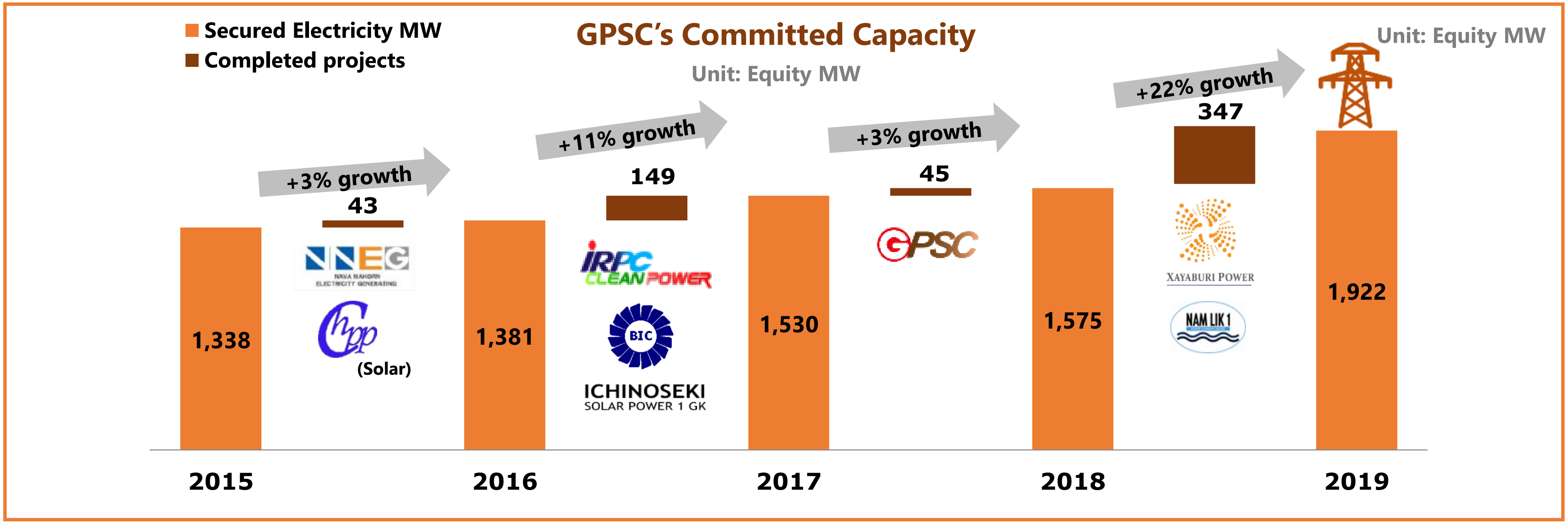
CUP -2

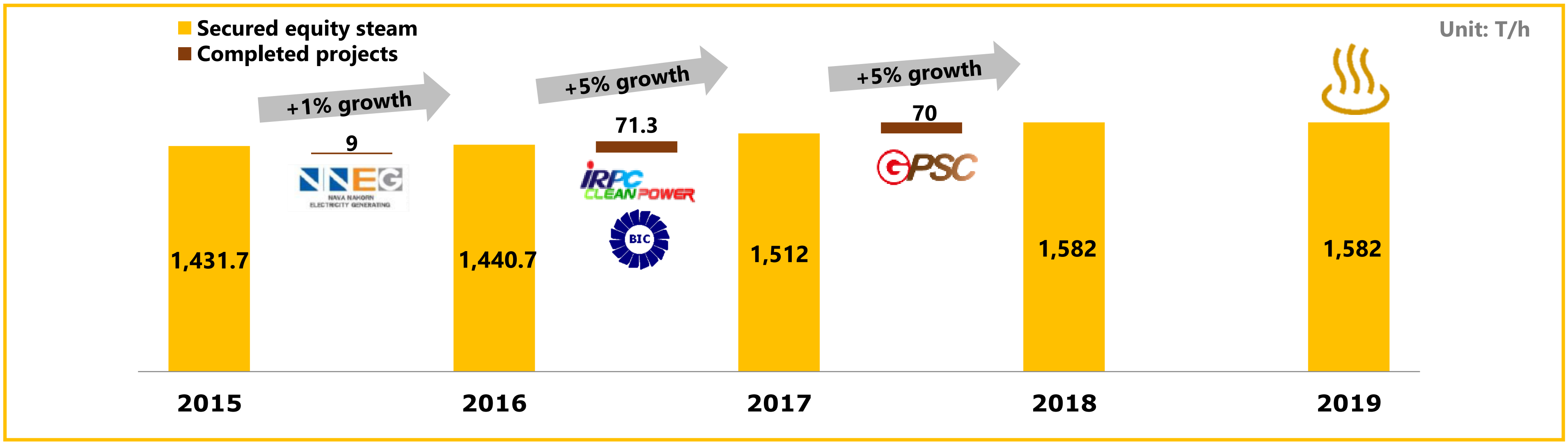
CUP -3

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

Shareholding

GPSC will deliver committed growth during 2017-2019





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

Utility provider for PTT Group

Petrochemical Complex

Refinery

Industrial Users

Gas To Power

ptt | ptt GLOBAL CHEMICAL | PTTEP | Thaioil | IRPC

Solar Roof Top Project on PTT Oil/Gas Station (~ 50 kw/Station)

GPSC ← ptt RM
GPSC ← ptt NGV
GPSC ← PTTOR

THANK YOU

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Global Power Synergy Public Company Limited
555/2 Energy Complex, Building B
Vibhavadi Rangsit Rd. Chatuchak, Bangkok 10900

Ratios	Formula
Gross profit margin	$\frac{\text{Gross profit}}{\text{Revenue from sales of goods and service + Revenue from finance lease}}$
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	$\frac{\text{Interest bearing debts – (Cash and cash equivalents + Restricted cash + Current investments)}}{\text{Total shareholder's equity}}$
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 1Y 12									
	N-13901 H-13702	GTG11 HRSG11		18 1Y 28										
	N-13902 H-13703	GTG12 HRSG12			30/3	HG 12/4 30/3 3Y 12/4								
	N-13903 H-13704	GTG13 HRSG13			24 PSV 27				1 1Y 11					
	N-13904 H-13705	GTG14 HRSG14		3 1Y 13	24 PSV 27									
	N-13961 H-13761	GTG15 HRSG15										15 1Y 25		
	N-13962 H-13762	GTG16 HRSG16	8 MI 29 8 3Y 29											
CUP-2	H-23701	Aux. Boiler.21						18 1Y 28						
	N-23901 H-23701	GTG21 HRSG21						17 1Y 27						
	N-23902 H-23702	GTG22 HRSG22					16-29/6 3Y: 16-29	1Y 3Y & Mod	HG 12-25/7 Mod: 12/6-25/7					
	N-23911	Steam Turbine21						17 MI 30						
CUP-3	H-33701	Aux. Boiler 31						18-30/7	3Y	3Y 1-13/8				
	H-33711	Aux. Boiler 32										1 3Y 13		
	H-33712	Aux. Boiler 33									15 3Y 27			
SRC	11MB 1-211-SG-101	GT11 HRSG#1											18/11-21/12 1Y	CI 1Y
	12MB 1-211-SG-201	GT12 HRSG#2											1Y	CI 1Y
	STG	Steam Turbine 10												MI

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

Notes	Sriracha Site	
CI	Combustion Inspection for Gas Turbine	9 days
1Y	One Year Inspection HRSG	8 days

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

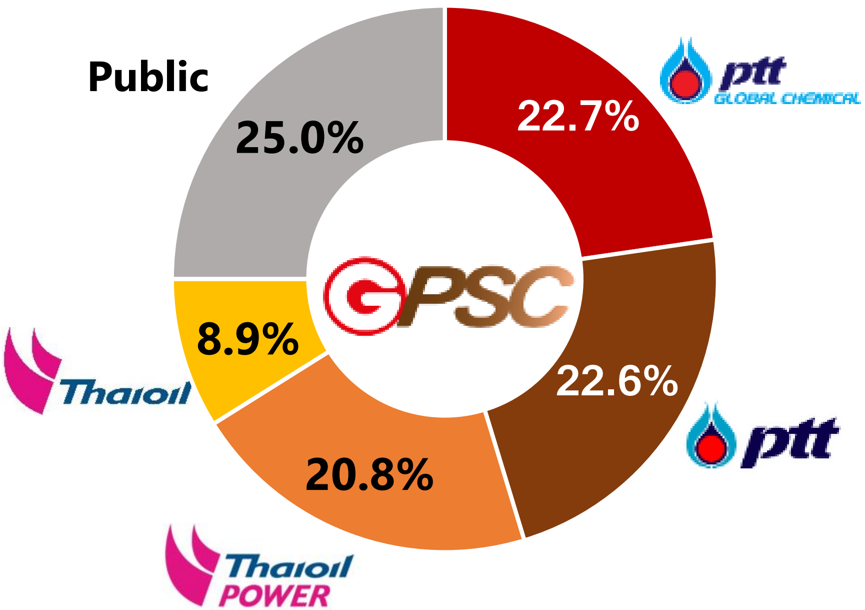
A	Level A inspection	5 days
YI	Yearly inspection	5 days

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

Vision & Mission

GPSC's Shareholding Structure



Vision

'The Global Leading innovative and sustainable power company'

Mission

- Create long term shareholders value with **profitable growth**.
- **Delivery reliable energy** through operation excellent to customer.
- Conduct business with **corporate governance, social and environmental responsibility**
- Seek for innovation in power and utility efficient management through **Energy Storage Technology/ Smart Grid/Smart City**

41

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

Availability Payment	+	Energy Payment
↓		↓
Availability % x Availability Payment Rate (APR)		Energy cost regarding % Dispatch 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

EGAT (Power)			
Firm	Capacity Payment	+	Energy Payment
Non-Firm	K factor (seasonal weight)	x	Energy Payment

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

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

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

Base Tariff	+	Ft	+	adder

Feed in Tariff

Pricing structure for each type of GPSC's power plant

GPSC's Business Portfolio	Pricing Structure
Sriracha: 700 MW; Rachaburi Power: 1,400 MW; Xayaburi Power: 1,285MW	**IPP/Import = Availability Payment + Energy Payment** Availability Payment: Investment cost (• Equity Return • Financing Cost) • Fix O&M Energy Payment: • Fuel Cost • Variable O&M
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	**SPP (firm) = Capacity Payment + Energy Payment** Capacity Payment: • Vary by type of fuel & Contract Period • FX adjustment Energy Payment: • Vary by type of fuel • Fuel adjustment
GPSC CUP 1-4: 384 MW, 1,410 T/h	**Cogen (SPP non-firm) = K factor(seasonal weight) x EP** **Cogen (Sell to IU) = Electricity + Steam** Electricity: • Base Tariff (PEA : TOU 4.2) + Ft Steam: • Cost Plus Basis
Chantaburi's Shrimp Farmer Cooperative: 5 MW; Thai Solar Renewable: 80 MW	**VSPP Renewable = Base tariff + Ft +Adder** **VSPP Renewable = FiT**
Japan : ISP1 20.8 MW ICHINOSEKI SOLAR POWER 1 GK	**Renewable = FiT**
Lao PDR : NL1PC 65 MW	**Renewable = Fixed Rate with escalation**

Details of GPSC Group's Power Plants

Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	COD	Tenor
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
CHPP (Solar)	VSPP	100%	5	5			2016	2041
Consolidate to Financial Statement				**1072**	**1427**	**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				**1,410**	**1,446**	**2,080**		
UNDER CONSTRUCTION								
Rayong Expansion	SPP	100%	45	45	70			-
ISP1	Solar	99%	20.8	20.6			2017	20/2037
IRPC-CP Phase 2	SPP	51%	195	99.4	66.3		2017	25-27/2044
NL1PC	Hydro	40%	65	26			2019	27/2044
XPCL	IPP	25%	1,285	321			2019	29/2048
Total under construction				**512**	**136.3**			
Total capacity				**1,922**	**1,582**	**2,080**		