



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

2015 Results Presentation Opportunity Day

3rd March 2016



9.4% CAGR
committed growth 2016-2019



Bt 1.9 billion
Net profit increase 21% YoY



2015 Dividend 0.95 Bt
2015 dividend yield 4.28%



IRPC-CP COD in Nov 2015
NNEG 93% completion, SCOD by Jun 16



Company Overview



Financial Performance



Project Update



Business Plan 2016

Source of Energy (Input)



NATURAL GAS



WATER



SOLAR

Type of Power Plant

Single Cycle

The use of gas turbine to generate electricity. It can quickly achieve full generation capacity.

Combined Cycle

A use of both gas and steam turbines. The waste heat from gas turbine is routed to nearby steam turbine to generate extra power.

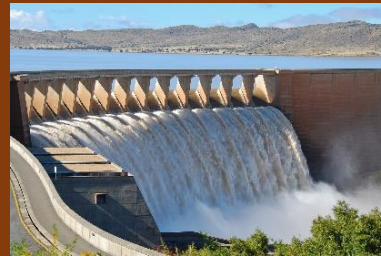
Cogeneration

The use of gas to produce electricity together with thermal energy (heat, gas, steam), resulting in high efficient usage and the stabilization of supply.



Hydroelectric

The water that is kept by a dam will be permitted to flow through a large pipe to driving a water turbine and a generator.



Renewable

Solar panel is a panel designed to absorb the sun's rays as a source of energy for generating electricity or heating.



Product (Output)

STEAM



INDUSTRIAL WATER



CHILLED WATER



ELECTRICITY

IPP

Independent Power Producer (IPP):

- A larger power producer who has electricity capacity more than 150 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 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) |

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

Base
Tariff



Ft



adder

Combined Cycle / Cogeneration

Sriracha Power Plant

100%

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



Rayong Power Plant

100%

CUP 1-3

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



CUP-4

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

IRPC Clean Power

51%

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



Phase 1 COD

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

Phase 2 under construction

Combined Heat and Power Producing

100%

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



Nava Nakorn Electricity Generation

30%

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



Bangpa-in Cogeneration

25%

Phase 1

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



Phase 2

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

Ratchaburi Power

15%

- Electricity: 1,400 MW



Renewable Energy

Thai Solar Renewable

40%

- Electricity: 80 MW



Ichinoseki Solar Power

99%

- Electricity: 20.8 MW



Hydroelectric

Xayaburi Power

25%

- Electricity: 1,285 MW



Nam Lik 1 Power

40%

- Electricity: 65 MW



Committed Capacity

ELECTRICITY

1,917 MW

(operate 1,338 MW)



STEAM

1,582 T/H

(operate 1,431.7 T/h)



INDUSTRIAL WATER

Operate 2,080 Cu.m./h



CHILLED WATER

Operate 12,000 RT



Project under construction

Other Businesses

Business Service Alliance

25%



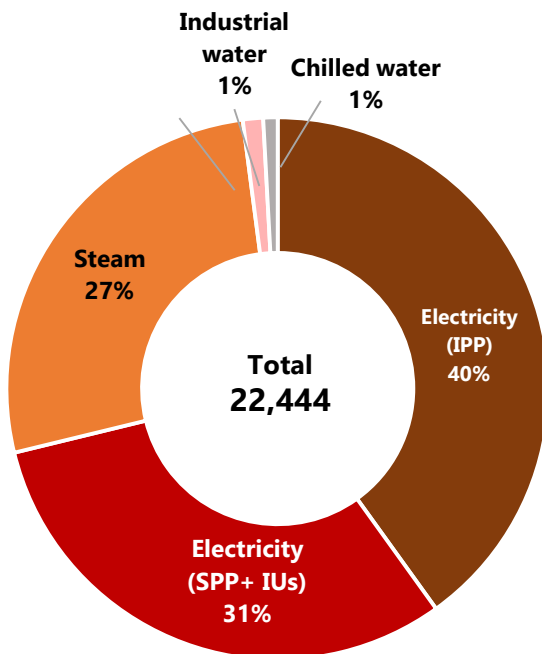
24M Technologies

17%



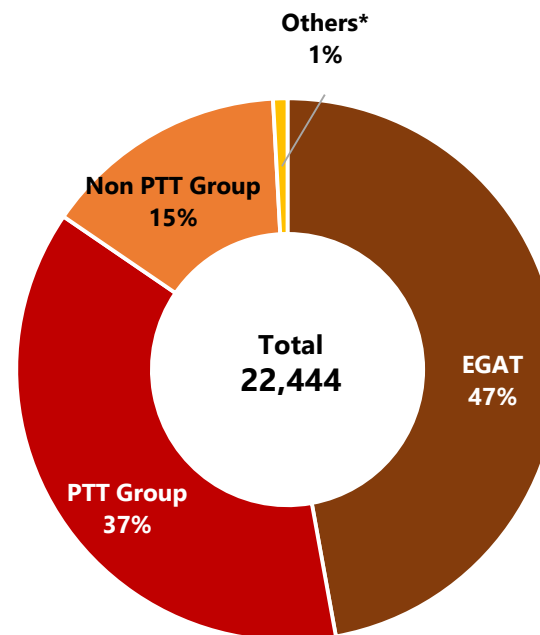
70% of GPSC's revenue is from electricity, EGAT is GPSC's largest power customer...

2015 Revenue by product
(THB million)



- Electricity and Steam are major source of GPSC's revenue, accounted for 95% of total revenue.

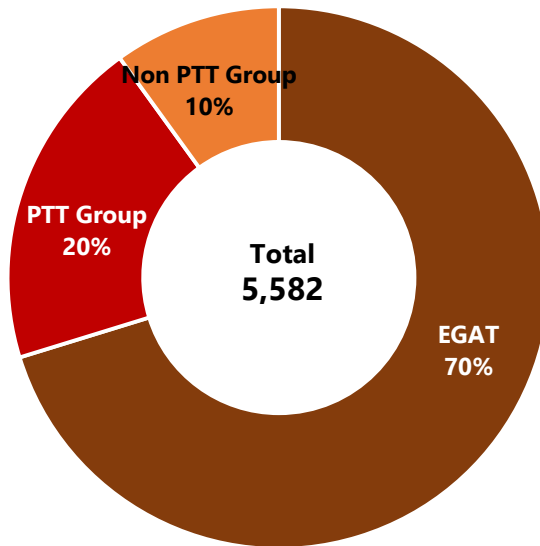
2015 Revenue by customer
(THB million)



- Accounted for almost 50% of total revenue, EGAT is the largest customer of GPSC

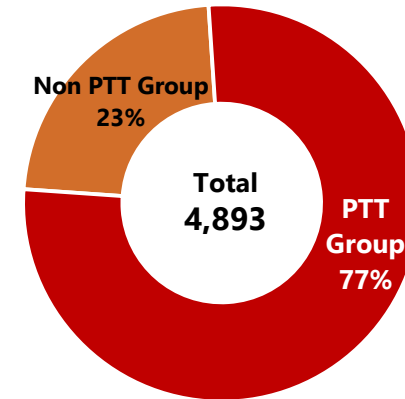
...while PTT Group is a major customer for steam and industrial water

2015 Electricity sales volume
(GWh)

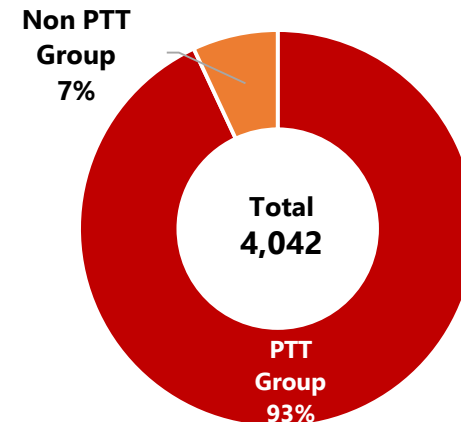


- EGAT is a major customer of Electricity, which accounted for 70% of total electricity sales volume
- PTT Group is a major customer for steam (77%) and industrial water (93%)

2015 Steam sales volume
(‘000 tons)



2015 Industrial water sales volume
(‘000 Cu.m.)





Company Overview



Financial Performance

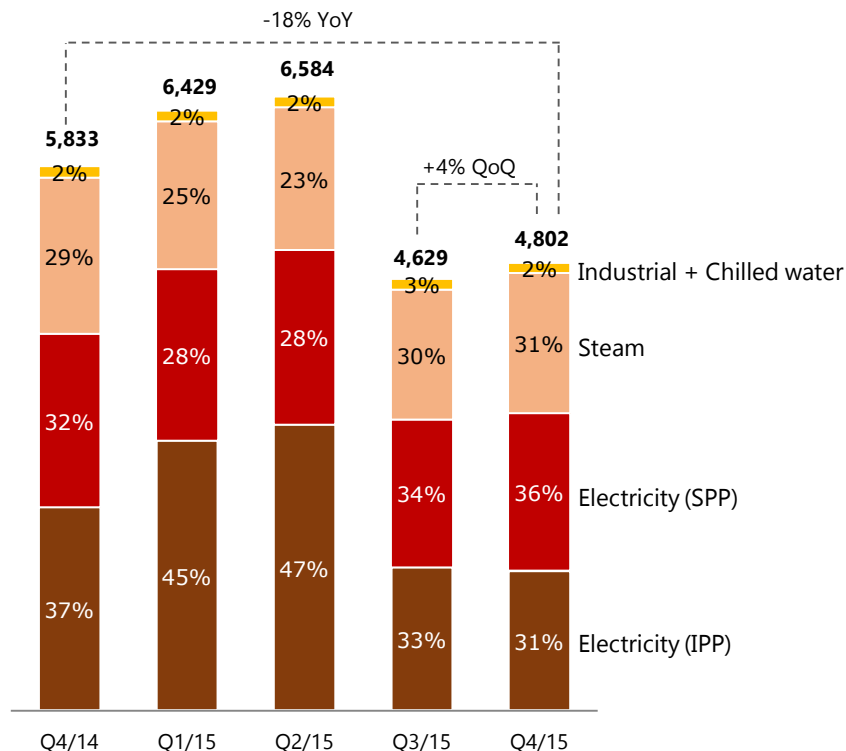


Project Update



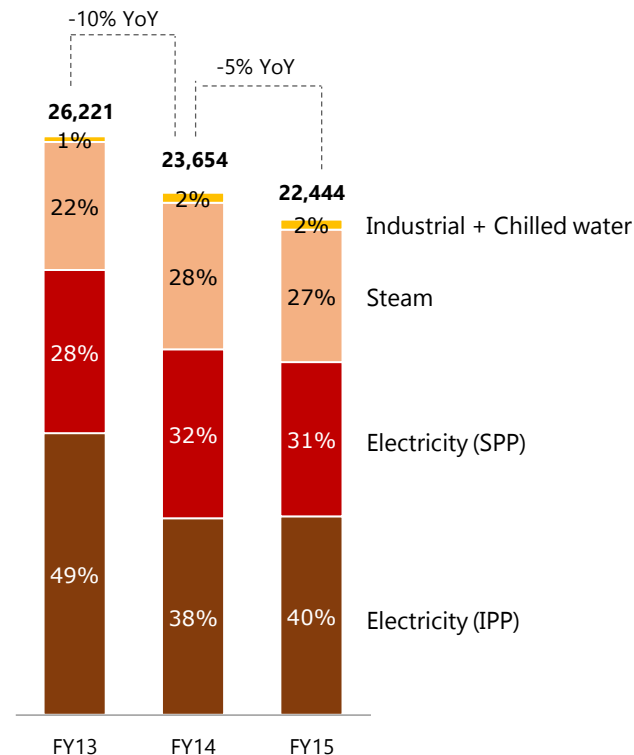
Business Plan 2016

Quarterly revenue (THB million)



■ Q4/15: Revenue increased by 4% QoQ mainly from additional income from IRPC-CP Phase 1 of 264 THB million (SPP-COD in November 2015)

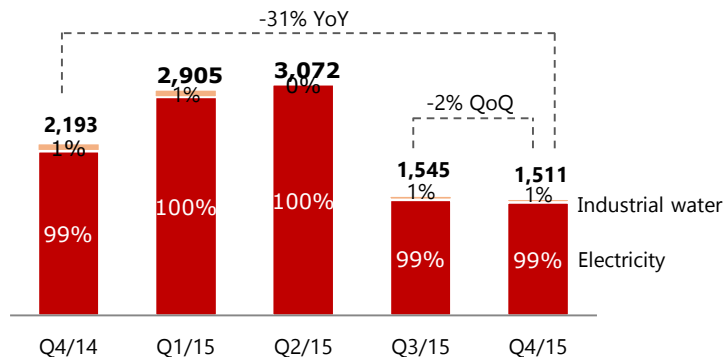
Annual revenue (THB million)



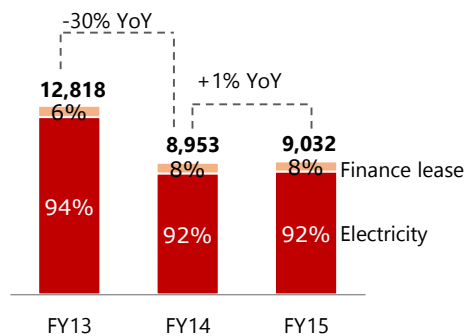
■ FY15: Revenue decreased by 5% YoY due to decrease in Rayong Plant revenue (SPP), caused by CUP-2's minor inspection and several customers' maintenance shutdown

IPP: Sriracha Power Plant

Quarterly revenue (THB million)



Annual revenue (THB million)

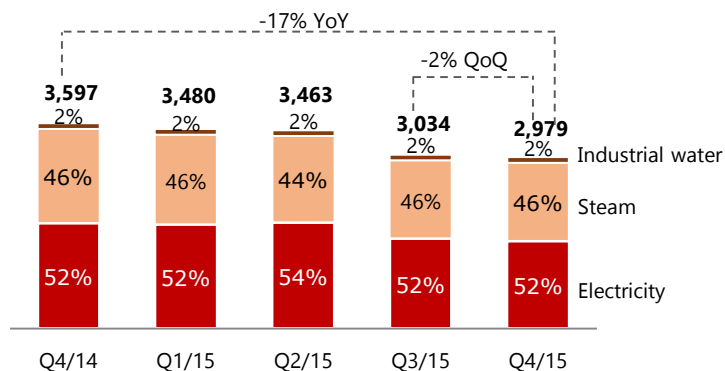


Q4/15: Revenue from IPP decreased by 2% QoQ mainly due to a lower demand for electricity consumption at the end of the year. In addition revenue decreased by 31% YoY mainly due to a half block dispatch from EGAT.

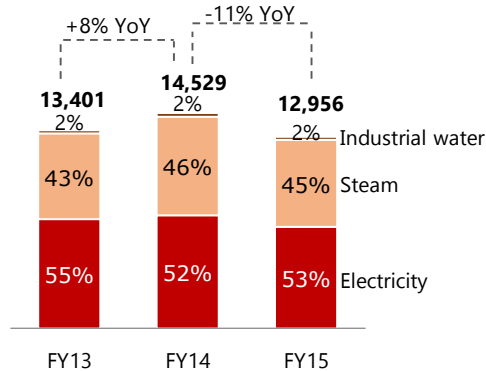
FY15: Revenue from IPP increased by 1% YoY thanks to an increase in revenue from AP.

SPP: Rayong Power Plant

Quarterly revenue (THB million)



Annual revenue (THB million)

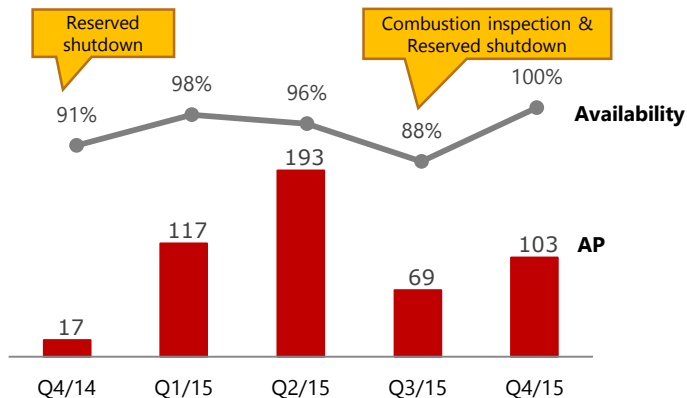


Q4/15: Revenue from SPP decreased by 2% QoQ mainly due to lower average sales price of electricity and steam. In addition revenue decreased by 17% YoY mainly from customers' maintenance and unplanned shutdown.

FY15: revenue from SPP decreased by 11% YoY as there was a CUP-2 minor inspection in Q1/15 and several customers had scheduled maintenance..

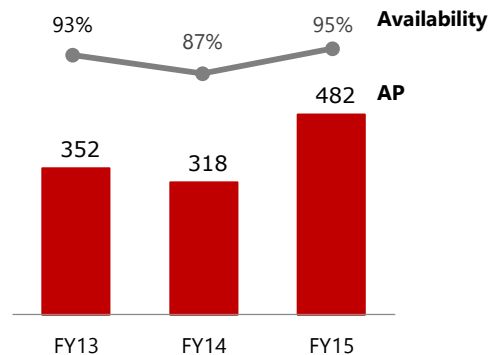
Quarterly Availability & AP

(%, THB million)



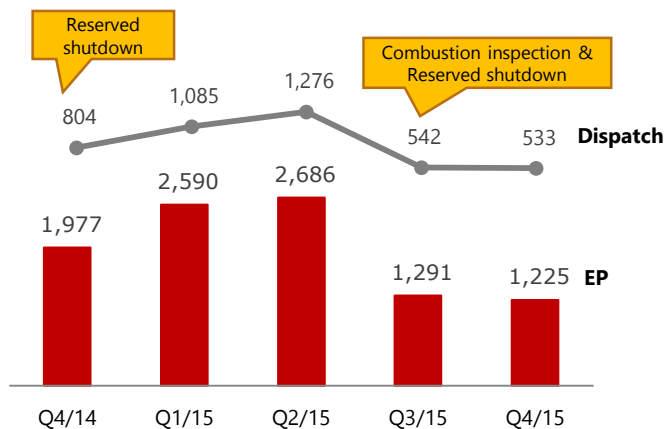
Annual Availability & AP

(%, THB million)



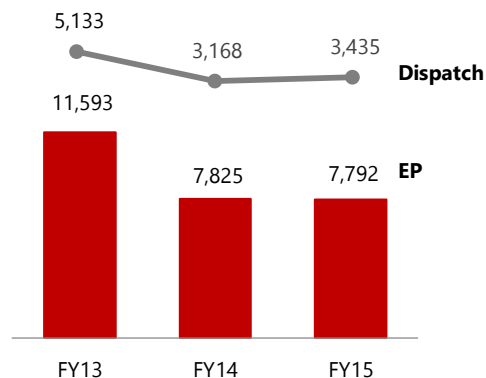
Quarterly Dispatch & EP

(GWh, THB million)



Annual Dispatch & EP

(GWh, THB million)



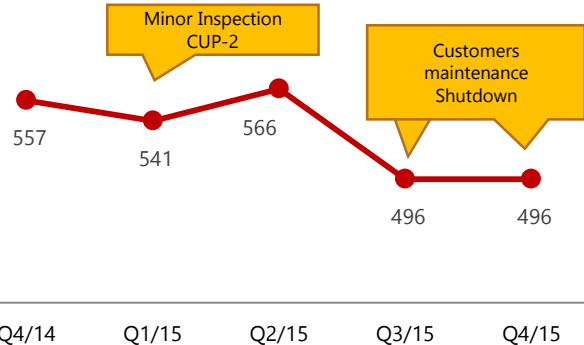
■ Q4/15: Revenue from AP increased by 49% QoQ thanks to a normal operation with 100% availability rate after a plant shutdown in Q3/15

■ FY15: Revenue from AP increased by 52% YoY from higher total Availability of 95%:
 - No hot gas path inspection in 2015
 - Baht depreciation against USD which is one of the factors for AP calculation

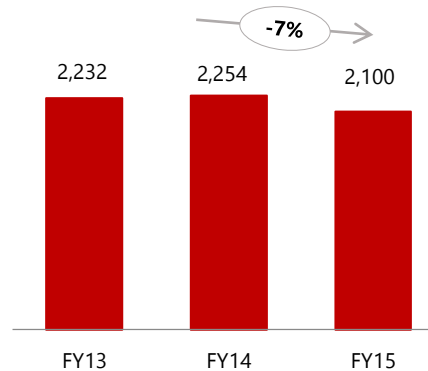
■ Q4/15: Revenue from EP decreased by 5% QoQ mainly due to lower electricity demand from seasonal consumption

■ FY15: Revenue from EP slightly decreased by 0.4% YoY while total dispatch increased mainly due to lower price of natural gas which is one of the factors for EP calculation

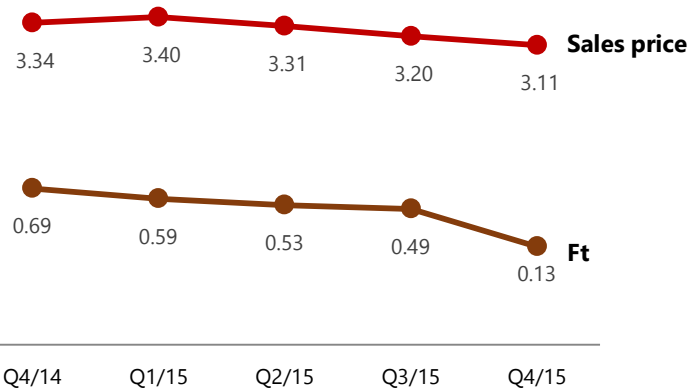
Quarterly Power Sales Volume (GWh)



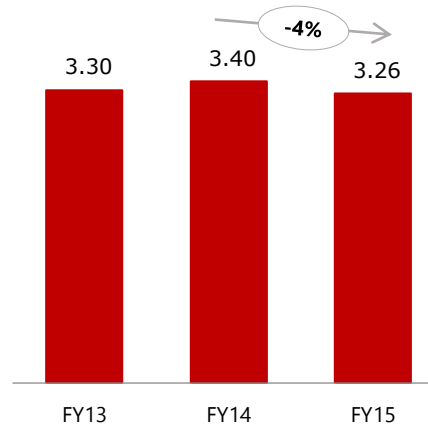
Annual Power Sales Volume (GWh)



Quarterly Average Sales Price & Average Ft price (THB/KWh)



Annual Average Sales Price (THB/KWh)

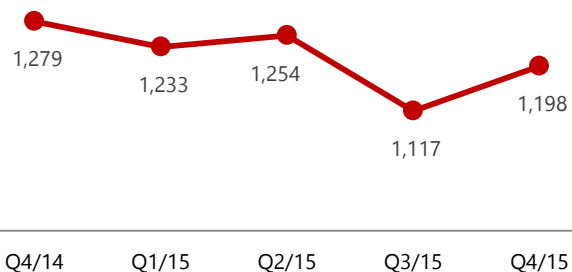


- Q4/15: Sales volume remained stable, compared with Q3 due to customer maintenance shutdown
- FY15: Sales volume decreased by 7% YoY mainly due to
 - CUP-2 minor inspection in Q1/15
 - Several customers' scheduled maintenance

- Q4/15: Average sales price decreased by 3% QoQ due to drop in sale price per unit which was in line with a sale price to EGAT, referred to the Power Purchase Rate announcement for SPP
- FY15: Average sales price decreased by 4% YoY which was in line with a downtrend of Ft price

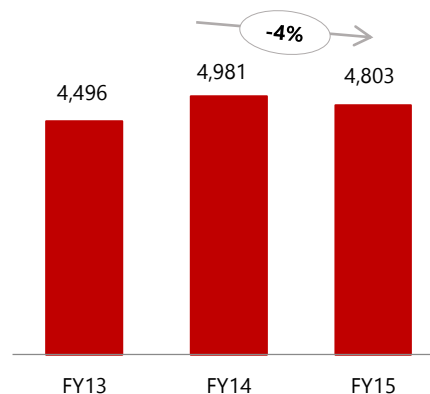
Quarterly Steam Sales Volume

('000 tons)



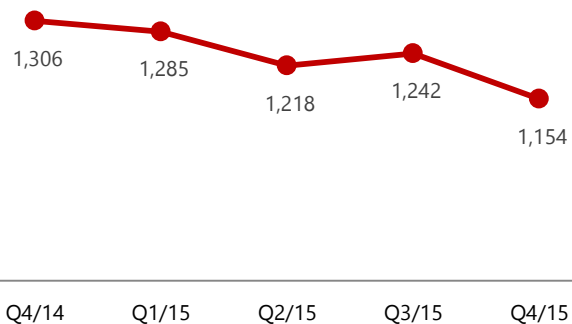
Annual Steam Sales Volume

('000 tons)



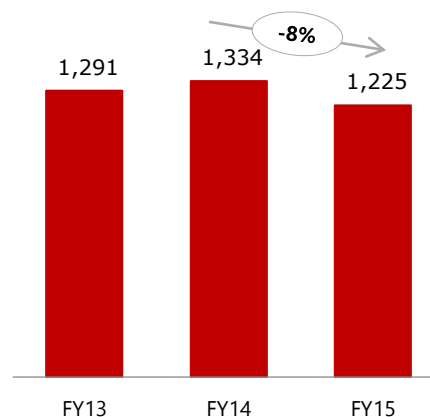
Quarterly Average Sales Price

(THB/ton)



Annual Average Sales Price

(THB/ton)



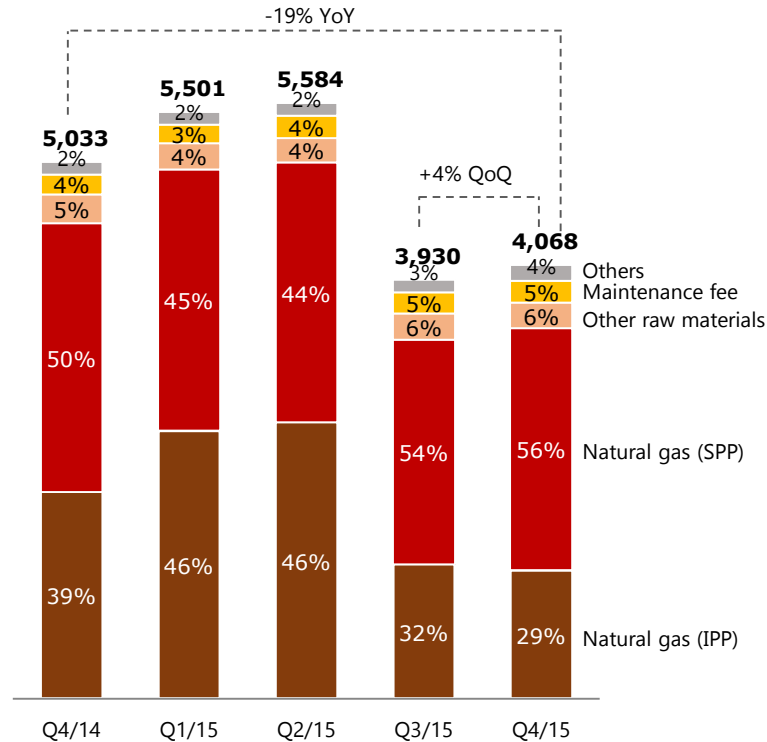
■ Q4/15: Sales volume increased by 7% QoQ as two customers that had scheduled maintenance in Q3 were back to buy steam product

■ FY15: Sales volume decreased by 4% YoY mainly due to
 - CUP-2 minor inspection in Q1/15
 - Several customers' scheduled maintenance

■ Q4/15: Average sales price decreased by 7% QoQ affected from lower price of natural gas

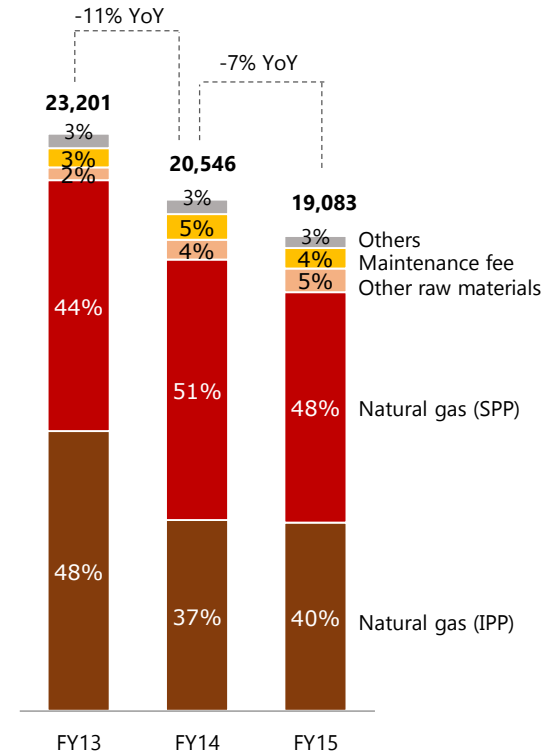
■ FY15: Average sales price decreased by 8% YoY which was in line with downtrend of natural gas price

Quarterly cost of sales and services (THB million)



■ Q4/15: Cost increased by 4% QoQ which was in line with operating income

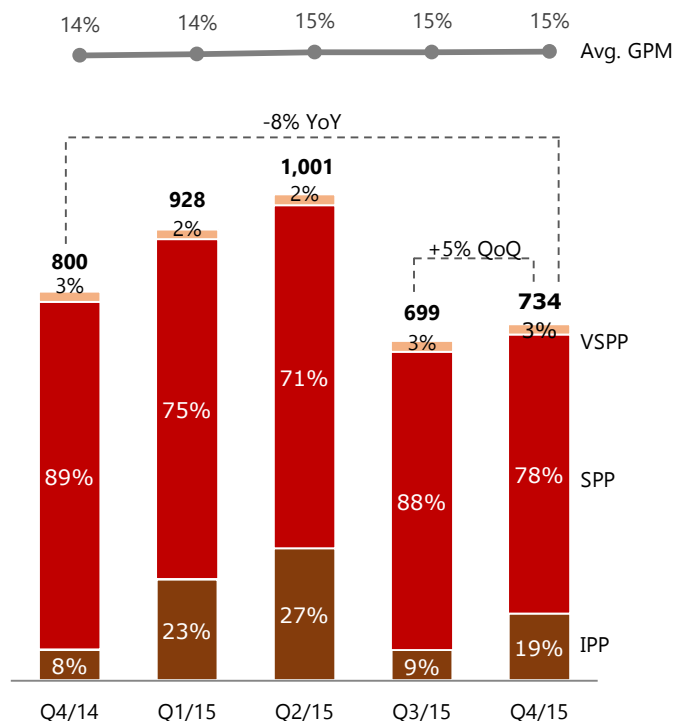
Annual cost of sales and services (THB million)



■ FY15: Cost decreased by 7% YoY from lower natural gas cost of SPP and lower maintenance expenses of Sriracha plant in 2015

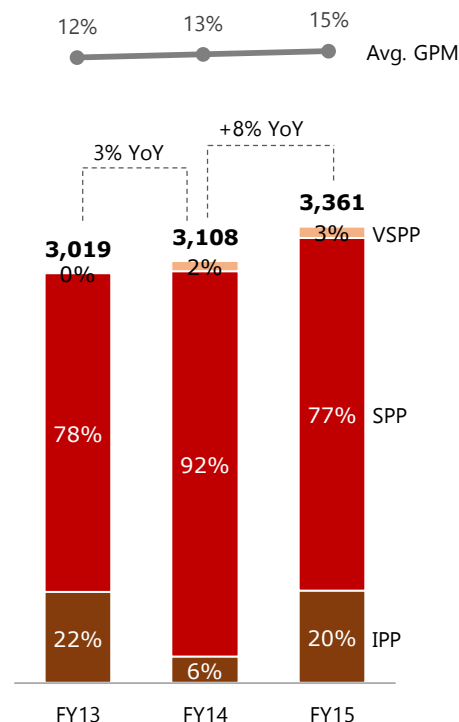
2015 Gross profit improved 8% YoY with average gross profit margin of 15%

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



■ Q4/15: Gross profit increased by 5% QoQ mainly due to lower cost of natural gas and lower maintenance expense of IPP

Annual gross profit and gross profit margin
(THB million, %)

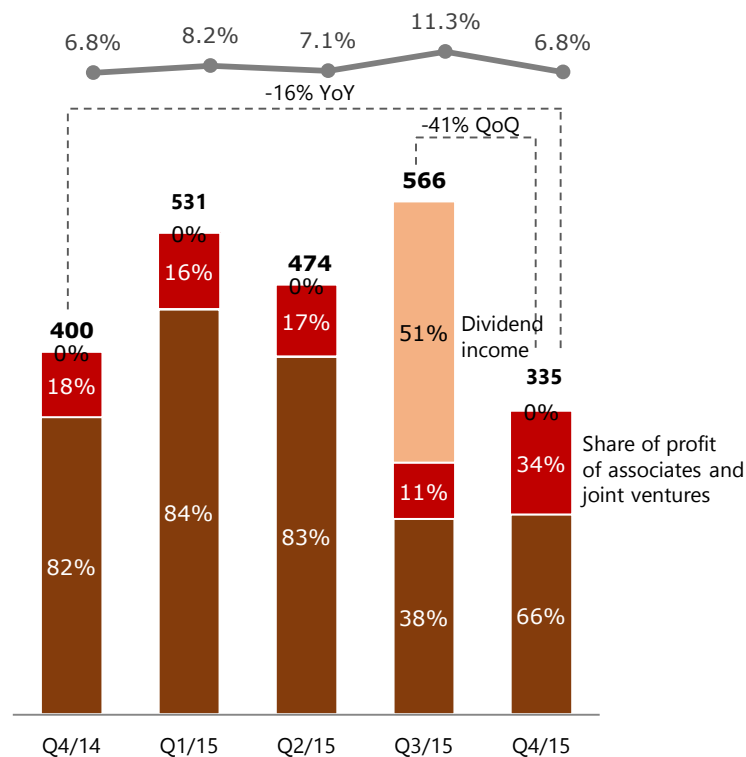


■ FY15: Gross profit increased by 8% YoY mainly from better performance of Sriracha IPP plant (lower cost of natural gas and lower maintenance expense)

2015 Net profit significantly increased 21% YoY, with 8.3% net profit margin

Quarterly net profit and net profit margin

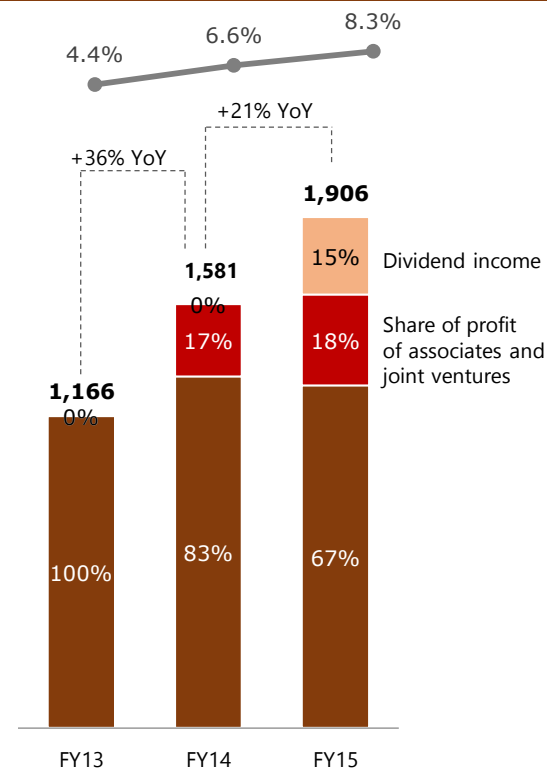
(THB million, %)



Q4/15: Net profit decreased by 41% QoQ as GPSC received dividend income from RPCL of 288 THB million in Q3/15; however net profit before recognizing dividend income increased by 20.5%

Annual net profit and net profit margin

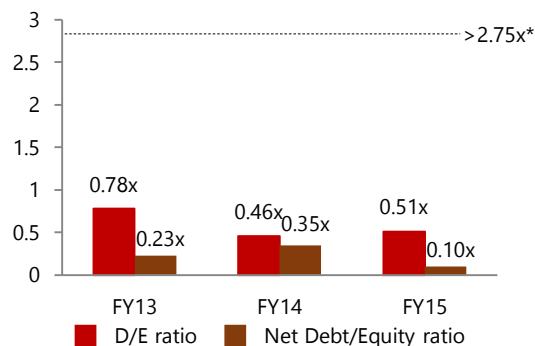
(THB million, %)



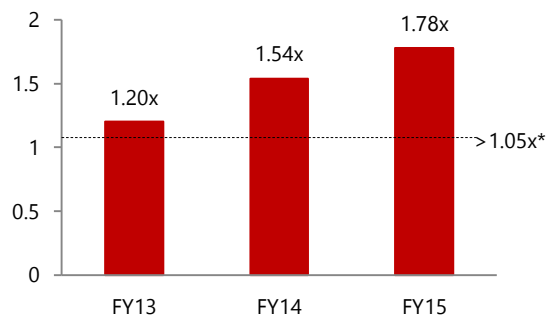
FY15: Net profit increased by 21% YoY thanks to

- Increase in IPP sale electricity as there was no minor maintenance (Hot Gas Path Inspection) in 2015
- Dividend income from RPCL in Q3/15
- Performance of IRPC-CP Phase 1 from COD in Q4/15

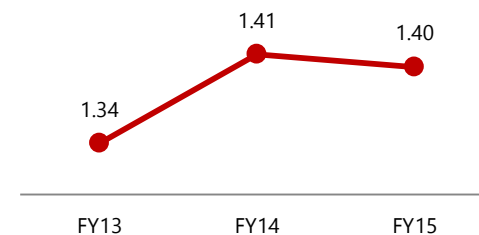
D/E and Net Debt/ Equity ratio (Times)



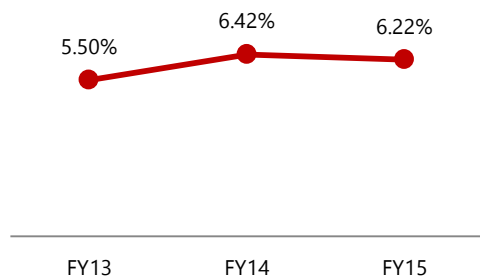
DSCR (Times)



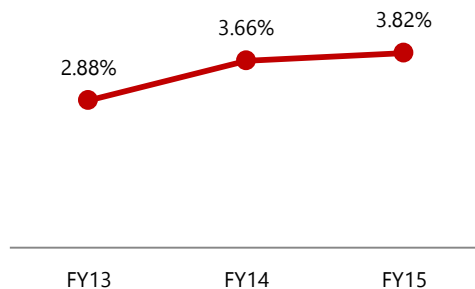
EPS (Baht/share)



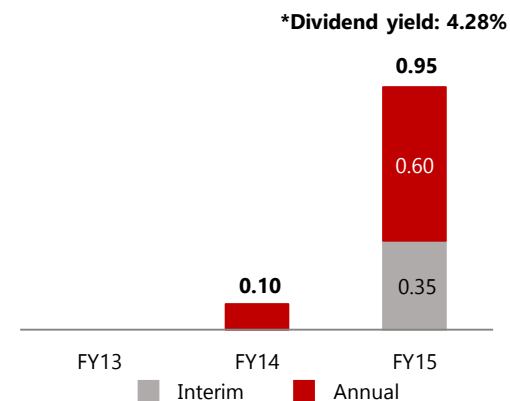
ROE (%)



ROA (%)



Dividend (Baht/Share)





Company Overview



Financial Performance



Project Update

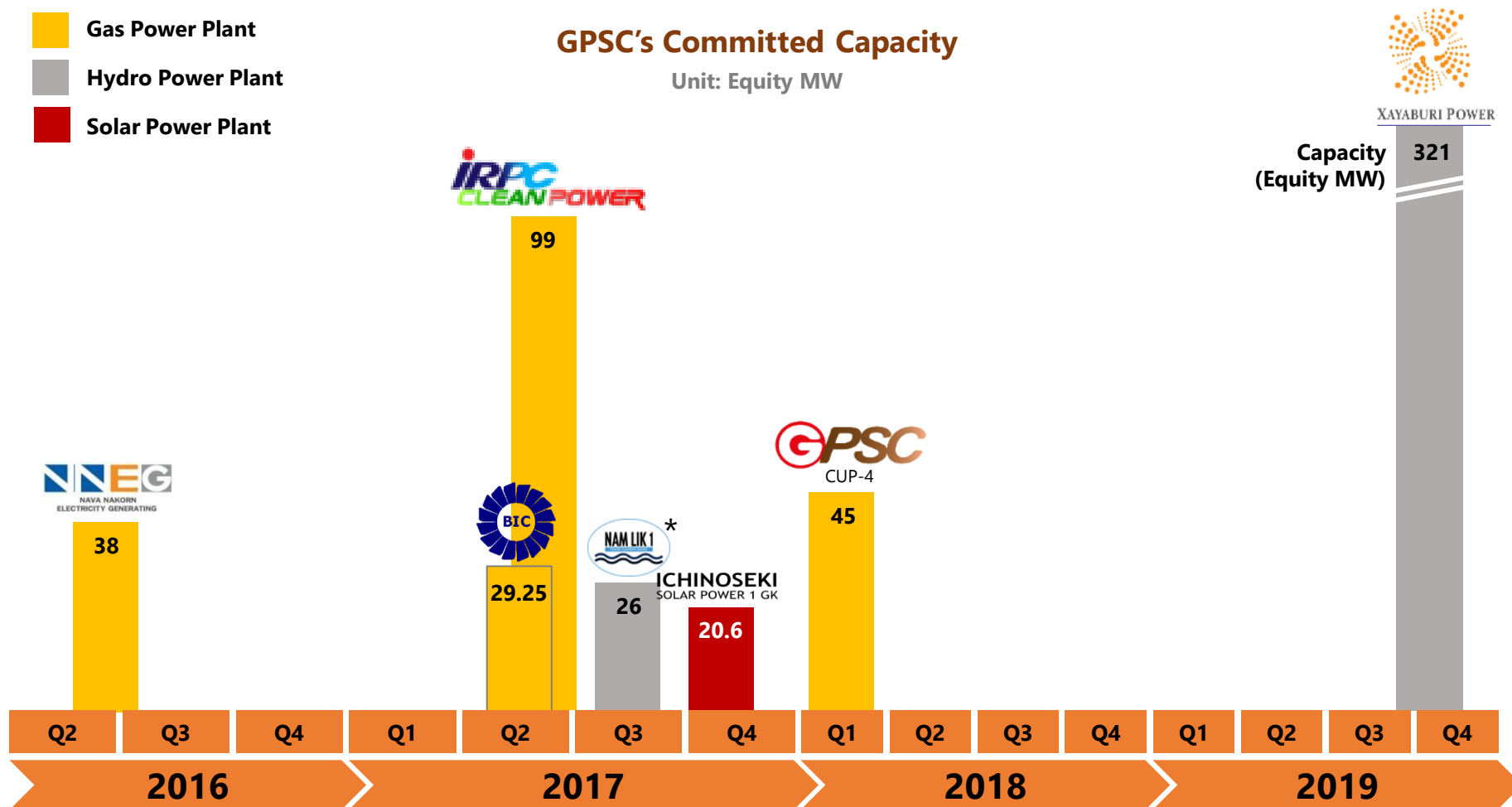


Business Plan 2016

- Gas Power Plant
- Hydro Power Plant
- Solar Power Plant

GPSC's Committed Capacity

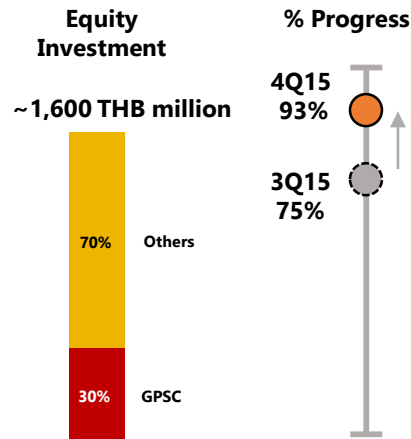
Unit: Equity MW





Nava Nakorn Electricity Generating Company Limited (NNEG)

Pathumthani Province

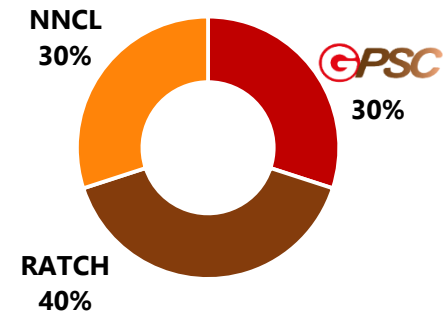


| | |
|------------------|---|
| Type | SPP Cogeneration |
| Capacity | <ul style="list-style-type: none"> Electricity: 125 MW Steam: 30 T/h |
| Customer | <ul style="list-style-type: none"> Electricity: EGAT 90 MW (25 years), IUs 35 MW Steam: IUs |
| SCOD | June, 2016 |
| Total Investment | ~6,400 THB million |
| D/E | 3:1 |

Progress update

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

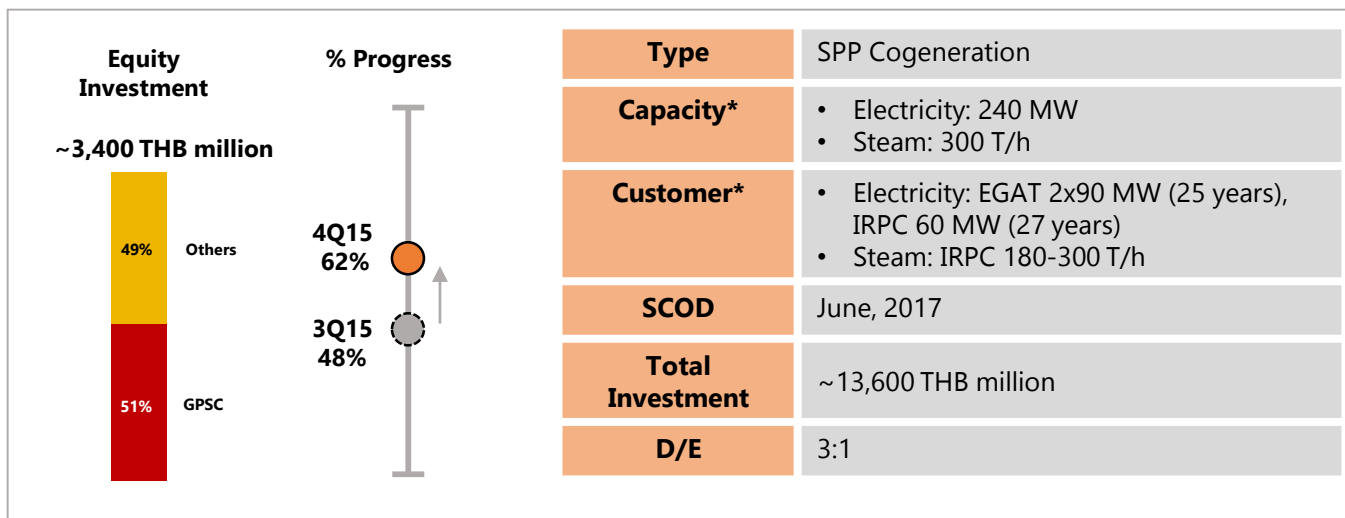
Shareholding





IRPC Clean Power Company Limited (IRPC-CP)

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

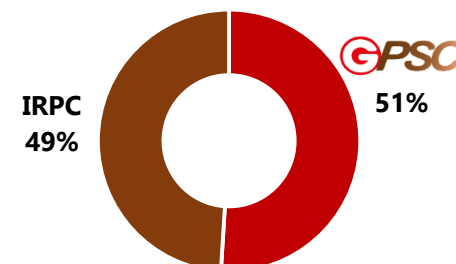


Progress update

Phase2 Under Construction

- Progress 62%

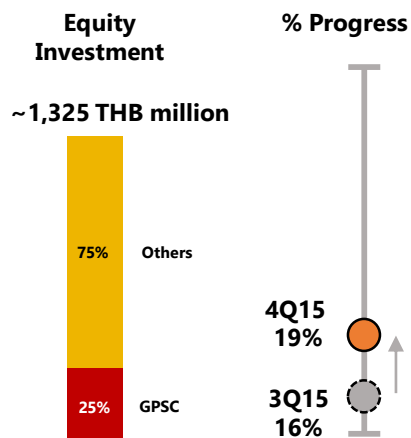
Shareholding





Bangpa-In Cogeneration Company Limited (Phase 2)

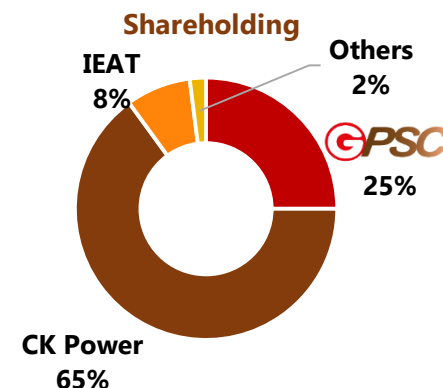
Ayutthaya Province



| | |
|------------------|--|
| Type | Gas-Fired Power Plant |
| Capacity | <ul style="list-style-type: none"> Electricity: 117 MW (gross) Steam: 20 T/h |
| Customer | <ul style="list-style-type: none"> Electricity: EGAT 90 MW (25 years), IUs 27 MW Steam: IUs 20 T/h |
| SCOD | June, 2017 |
| Total Investment | ~5,300 THB million |
| D/E | 3:1 |

Progress update

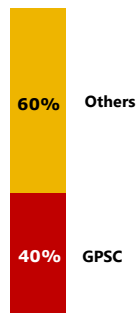
- EIA has been approved
- BOI has been approved
- Commenced construction in February 2015
- Power and steam sales is under negotiation with IUs within industrial estates



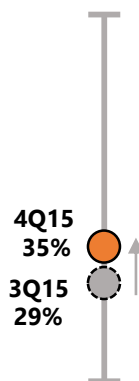


Nam Lik 1 Power Company Limited (NL1PC) Lao PDR

Equity Investment
~37.50 USD million



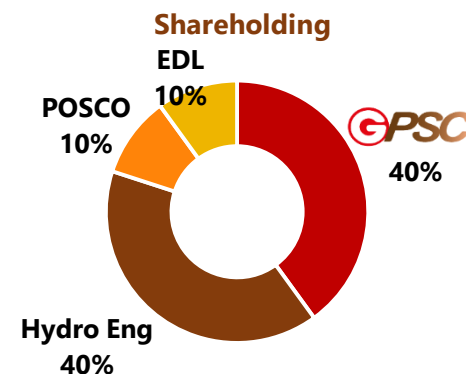
% Progress



| | |
|------------------|---|
| Type | Run-of-River Hydropower |
| Capacity | • Electricity: 65 MW |
| Customer | • Electricity: EDL 60 MW (26 years PPA) |
| SCOD | 3Q2017 |
| Total Investment | ~125 USD million |
| D/E | 7:3 |

Progress update

- The overall project progress until Dec15, was 35%
- The construction works for the period were related to dam excavation, diversion works, permanent access road and operator's village
- Construction Progress 9.4%





ICHINOSEKI
SOLAR POWER 1 GK

Ichinoseki Solar Power (ISP1)
Japan

Equity Investment
~2,000 YEN million



% Progress Site preparation

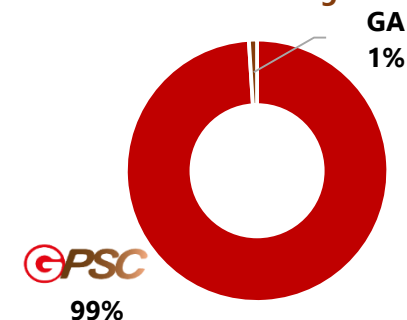


| Type | Solar |
|------------------|------------------------------------|
| Capacity | • Electricity: 20.8 MW |
| Customer | • Tohoku Electric Power (20 years) |
| SCOD | October, 2017 |
| Total Investment | ~10,000 YEN million |
| D/E | 4:1 |

Progress update

- Project received permission to expand power capacity to 20.8 MWAC
- Already received relevant licenses including Grid Connection Agreement
- PPA contract with Tohoku Electric Power Company is almost concluded.
- EPC contracts and Credit facility agreement are almost finished
- **Plan to start construction on Jan-March 2016**

Shareholding





Central Utility Plant Project 4 (CUP-4)

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



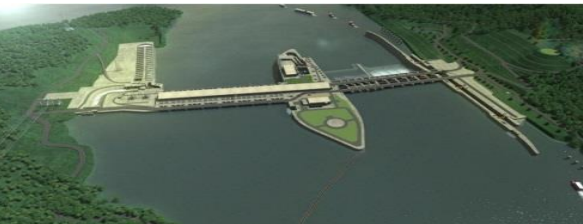
| | |
|-------------------------|--|
| Type | Gas-fired Cogeneration Power Plant/Utilities |
| Capacity | <ul style="list-style-type: none"> Electricity: 390 MW (Phase 1: 45 MW) Steam: 900 T/h (Phase 1: 70 T/h) |
| Customer | <ul style="list-style-type: none"> Electricity: IUs 35 MW Steam: IUs 120 T/h |
| SCOD | 1Q2018 |
| Total Investment | ~4,000 THB million |

Progress update

- EIA has been approved
- Under apply all permits/ licences
- Secure agreements with IUs 35 MW, 120T/H and waiting for another 20-mw non-firm SPP contract with EGAT
- Under negotiating on Land, new pipelines laydown with PTT
- Under evaluating OE for ITB-EPC
- GPSC BOD have approved on 13 Aug 2015
- PMC has been awarded
- Plan to award EPC in Mar-Apr 2016
- Plan to start construction in later Q1/2016
- SCOD: Later Q1/2018

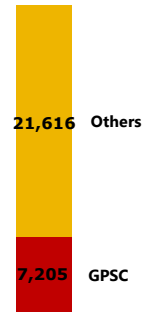
Shareholding



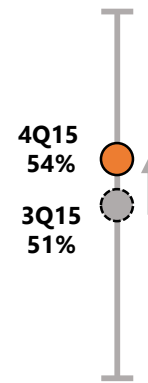


Xayaburi Power Company Limited (XPCL) Xayaburi, Lao PDR

Equity Investment
~28,750 THB million



% Progress

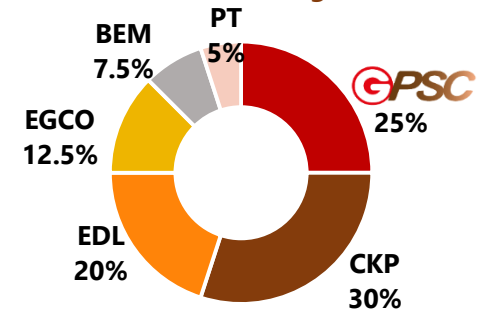


| | |
|------------------|---|
| Type | Run-of-River Hydropower |
| Capacity | • Electricity: 1,285 MW |
| Customer | • Electricity: EGAT 1,220 MW (29 years), EDL 60 MW (29 years) |
| SCOD | October, 2019 |
| Total Investment | ~115,000 THB million |
| D/E | 3:1 |

Progress update

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

Shareholding





Company Overview



Financial Performance

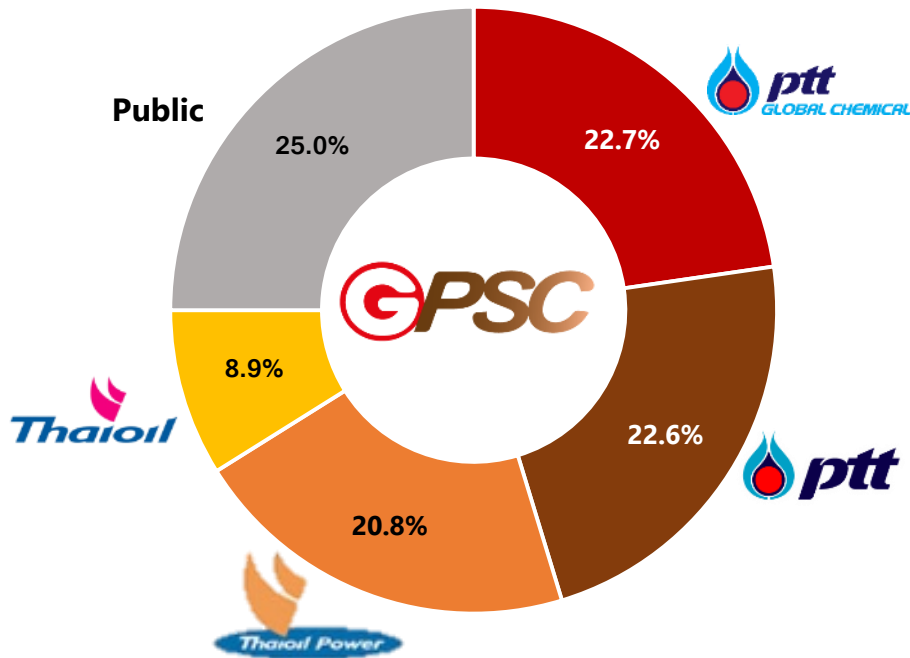


Project Update



Business Plan 2016

GPSC's Shareholding Structure*



Vision

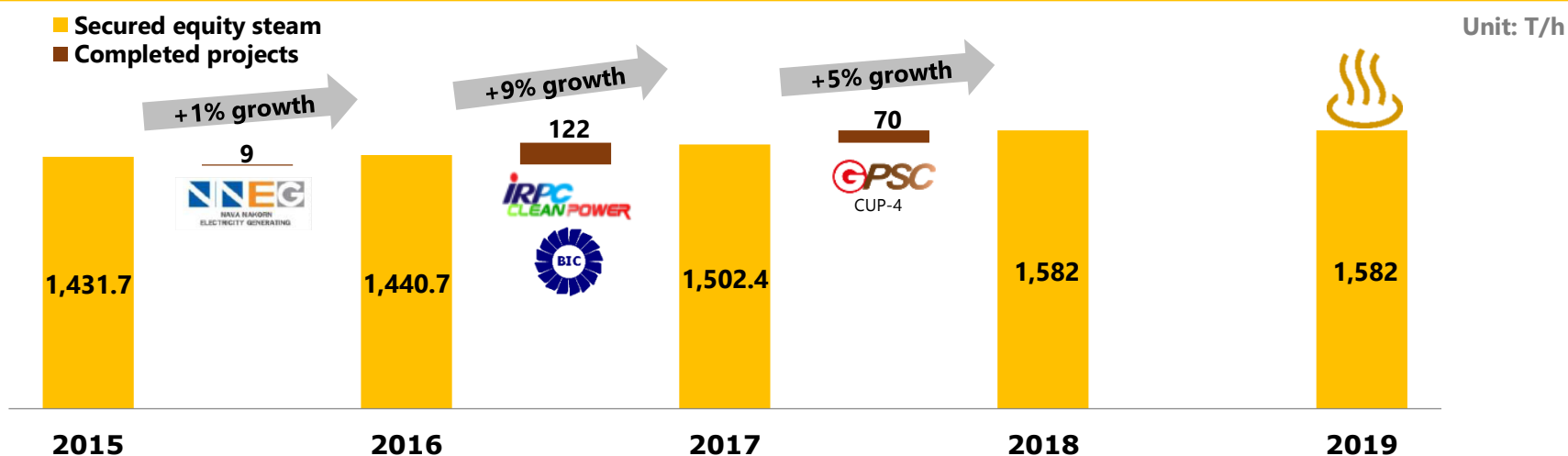
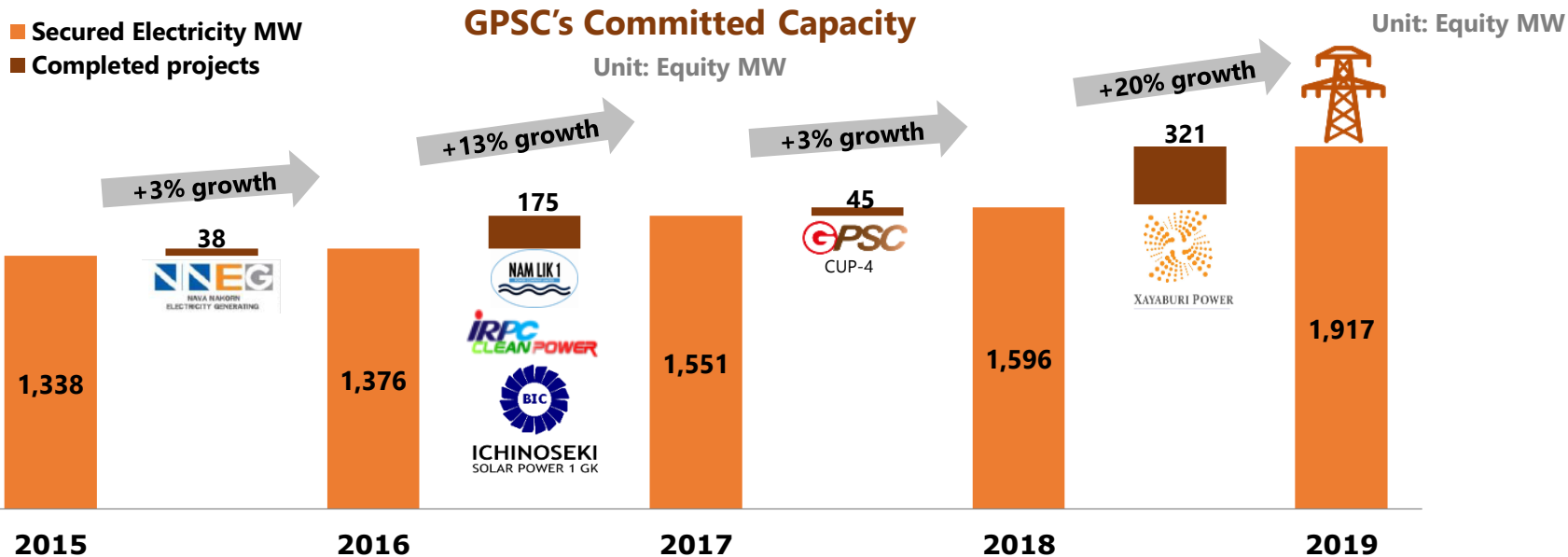
Global Best Practice in Power Business

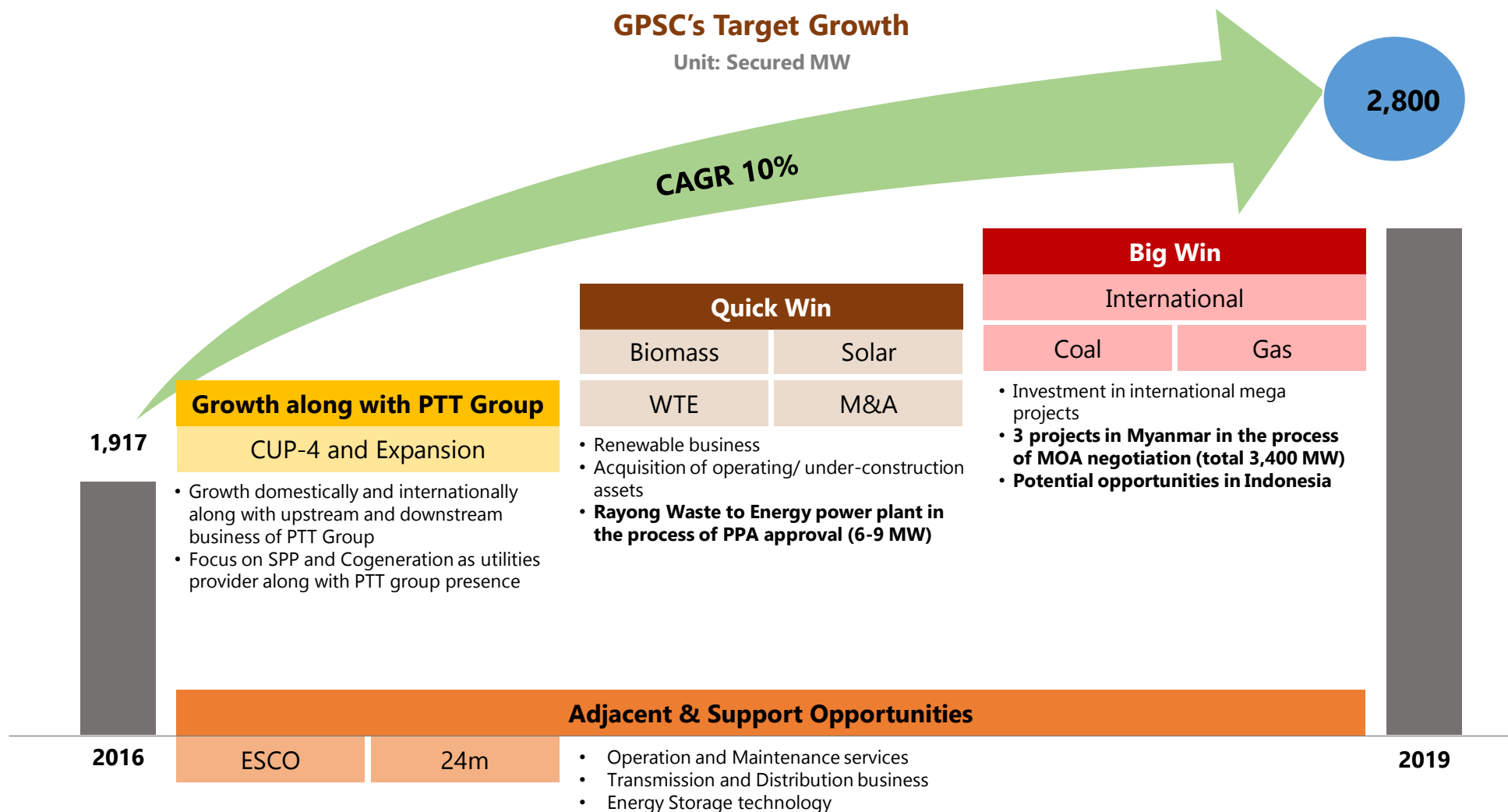
Mission

Being Power Flagship of PTT Group to Develop, Invest and Operate in Power Business Domestically and Internationally

Goal

- Aims to reach secured capacity of 2,800 MW in 2019
- At least 10% Renewable of GPSC's Portfolio
- At least 30% International Assets in Portfolio
- Attain Top Quartile Performance through OEMS

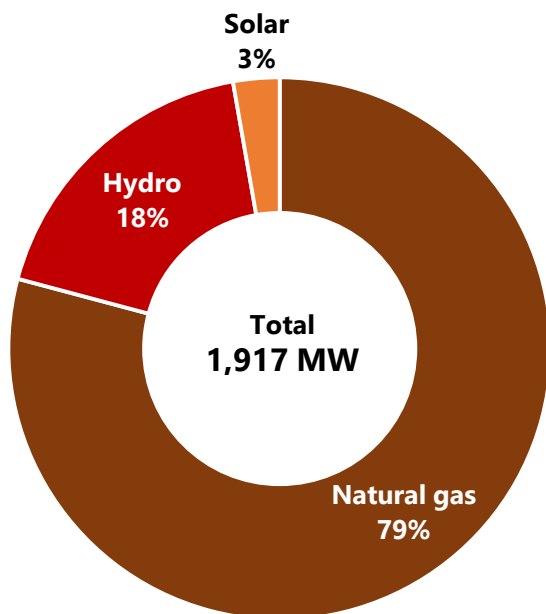




Target 10% of Renewable energy and 30% of International projects in 2019 GPSC's Portfolio

2015 Committed Portfolio

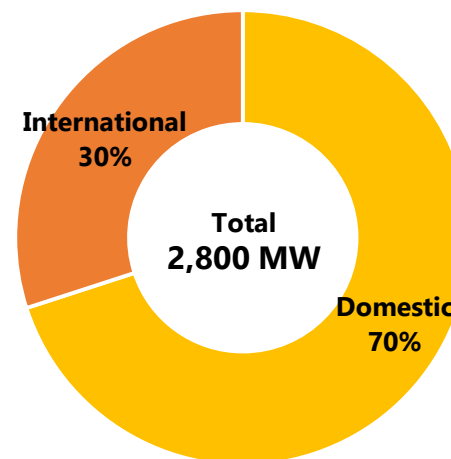
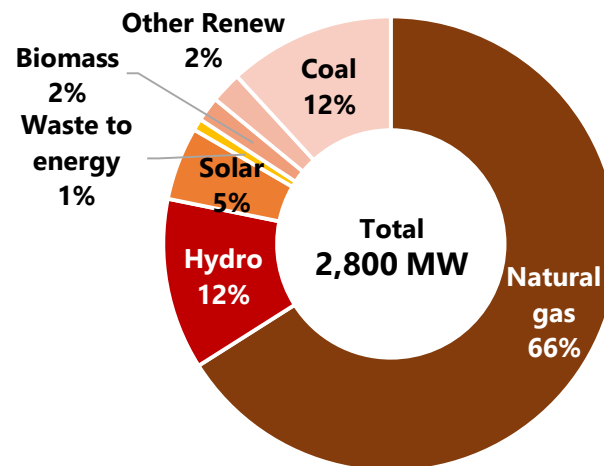
(MW)



- GPSC target's "Total Renewable capacity 10% of 2,800 MW" lead to investment plan in various type in Renewable projects approx. 200~300 MW in both domestic and international
- GPSC target's "International Portfolio 30% of 2,80 MW" lead to investment plan in various type in both Conventional and Renewable projects approx. 850 MW

2019 Committed Portfolio

(MW)





Appendix



Sriracha Power Plant

Chonburi Province (40 Rai leasehold land)



| | |
|---------------------|---|
| Type | Combined cycle |
| Capacity | <ul style="list-style-type: none"> Electricity: 700 MW Industrial water: 80 Cu.m/h |
| Customer | <ul style="list-style-type: none"> Electricity: EGAT 700 MW Industrial water: Thaioil Power 50 Cu.m/h |
| Supplier | <ul style="list-style-type: none"> Natural Gas – PTT Raw Water – EASTW Power Back up – EGAT and TP |
| Construction | 2005 - 2010 |
| COD | 2006 |
| Contract | <ul style="list-style-type: none"> 25 Years End: 2025 |

Shareholding



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



Rayong Power Plant
Rayong Province

CUP -1



CUP -2



CUP -3



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

Shareholding





Combined Heat and Power Producing Co., Ltd.
Bangkok Province

| | |
|-----------------|---|
| Type | Combined heat and power with district cooling (VSPP) |
| Capacity | <ul style="list-style-type: none"> Electricity: 5 MW Chilled water: 12,000 RT |
| Customer | <ul style="list-style-type: none"> DAD 8,700 RT |
| COD | <ul style="list-style-type: none"> 2008 Electric Chiller Jan 1, 2009 |
| Contract | <ul style="list-style-type: none"> 30 Years End: 2038 |



Shareholding

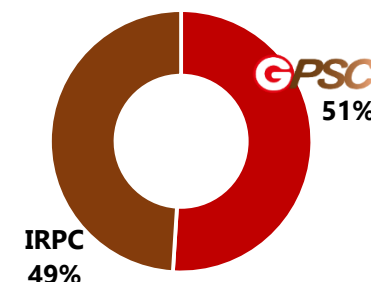


IRPC Clean Power Company Limited (IRPC-CP Phase 1)
Rayong Province (118 Rai)

| | |
|------------------|--|
| Type | Cogeneration (SPP) |
| Capacity* | <ul style="list-style-type: none"> Electricity: 240 MW Steam: 180-300 T/h |
| Customer* | <ul style="list-style-type: none"> Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years) Steam: IRPC 180-300 T/h |
| COD | 2015 |
| Contract | <ul style="list-style-type: none"> 25 Years End: 2030 |



Shareholding

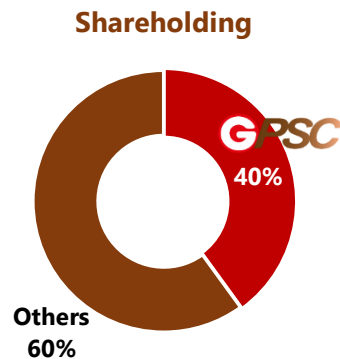


GPSC Current Operating Asset:



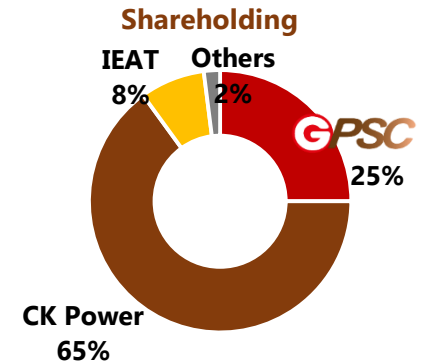
Thai Solar Renewable Company Limited
Kanchanaburi and Suphanburi Province

| | |
|-----------------|---|
| Type | Solar |
| Capacity | <ul style="list-style-type: none"> Electricity: 80 MW |
| Customer | <ul style="list-style-type: none"> PEA |
| COD | 2013-2014 |
| Contract | <ul style="list-style-type: none"> 10 Years End: 2023 |



Bangpa-in Cogeneration Company Limited
Ayutthaya Province

| | |
|-----------------|--|
| Type | Cogeneration (SPP) |
| Capacity | <ul style="list-style-type: none"> Electricity: 117 MW Steam: 5 T/h |
| Customer | <ul style="list-style-type: none"> Electricity: EGAT 90 MW, IUs 27 MW Steam: 5 T/h |
| COD | 28 Jun 2013 |
| Contract | <ul style="list-style-type: none"> 25 Years End: 2038 |

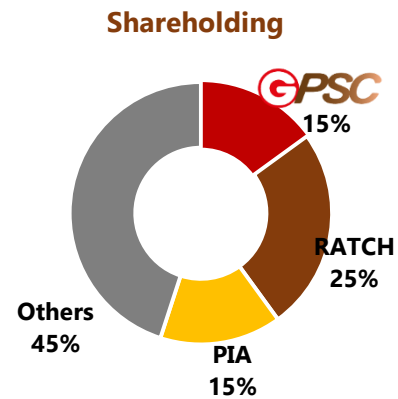




Ratchaburi Power Company Limited

Ratchaburi Province

| | |
|-----------------|---|
| Type | Combined Cycle (IPP) |
| Capacity | <ul style="list-style-type: none"> Electricity: 1,400 MW |
| Customer | <ul style="list-style-type: none"> EGAT |
| COD | Mar 2008 |
| Contract | <ul style="list-style-type: none"> 25 Years End: 2033 |



| Ratios | Formula |
|------------------------|--|
| D/E ratio | Total liabilities/ Total shareholder's equity |
| Net Debt/ Equity ratio | (Interest bearing debt – Cash and cash equivalent – Restricted account – Current investment)/ Total shareholder's equity |
| DSCR | EBITDA/ (Total debt obligations due within one year + Total interests due within one year) |
| ROE | Net profit/ Average total assets |
| ROA | Net profit/ Average total shareholder's equity |
| Dividend yield | Dividend per share)/ GPSC's share price (30 DEC 15) |

THANK YOU

Global Power Synergy Public Company Limited

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Vibhavadi Rangsit Rd. Chatuchak, Bangkok 10900

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