Corporate Presentation

THE INNOVATIVE POWER FLAGSHIP OF PTT GROUP

THAILAND INVESTMENT CONFERENCE 2019

APRIL 3th, 2019

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Industry Overview

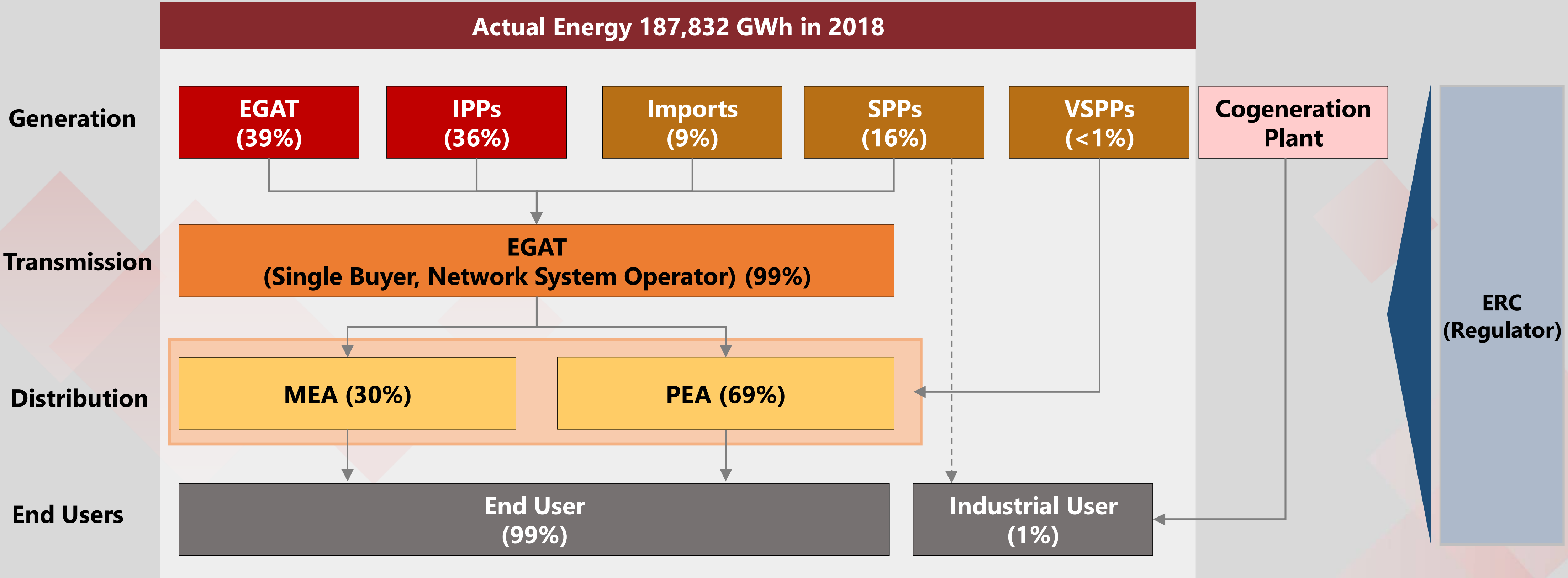
Company Overview

Investment in Affiliates

Financial Performance

Current Power Industry Structure in Thailand

- **EGAT and IPPs dominate electricity generation market**, with the combined market share 75%.
- EGAT is the sole purchaser for almost all of the electricity generated, while VSPPs sell electricity directly to the MEA and PEA
- SPPs sell electricity to both EGAT and directly to industrial users



Definition

EGAT	Electricity Generating Authority of Thailand (State-owned entity)
IPP	Independent Power Producers
SPP	Small Power Producers
VSPP	Very Small Power Producers
MEA	Metropolitan Electricity Authority (State-owned entity)
PEA	Provincial Electricity Authority (State-owned entity)
ERC	Energy Regulatory Commission

Source: EGAT and GPSC

Summary of Power Development Plan (PDP) 2018

Reliability

- **Consider the whole country electric system** including generation, transmission and distribution
- **Give priority to renewable energy, import power and gas-fired generation** especially LNG
- **Increase system balance in regional level**
- **Maintain generation level of major power plants** for satiability to support increasing renewable energy
- **Increase grid flexibility**

Economic

- **Electricity tariff from PDP 2018 will not be higher than current tariff**
- **Promote competitive cost generation**
- **Promote investment and stimulate regional economic** by expanding investment in power plant to regional level

Social & Environment

- **Maintain generation from renewable energy** to comply with COP21
- **Promote waste to energy**
- **Promote residential solar**

Source: Ministry of Energy

Thailand Power Development Plan : Power Generation by Fuel Source

(Unit: %)

Source of Fuel	PDP 2015 (in 2036)	New PDP 2018 (in 2037)
Natural Gas	**37**	**53**
Coal / Lignite	**23**	**12**
Hydro Power	**15**	**9**
Renewable	**20**	**20**
Nuclear	**5**	**-**
Others	**0.1**	**0.06**
Energy efficiency	**-**	**6**

Source: Ministry of Energy

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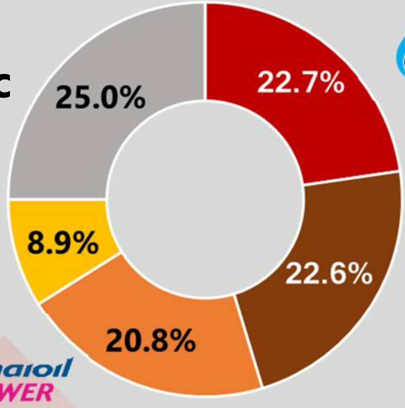
GPSC Innovative Power Company at a Glance

Shareholding Structure



Thai Oil Power is 73.99% held by Thai Oil and 24.01% by PTT
As of March 2019

Company Information

Head Office	555/2 Energy Complex Building B, 5th Floor, Vibhvadi-Rangsit Road, Chatuchak, Bangkok, Thailand
Business Type	Energy & Utilities
Registered Capital (Fully Paid)	THB 14,983 million
Market Cap (As of 1 April 2019)	THB 87,276.02 million

In 2019, Total Committed Equity Capacity* Electricity 3,870 MWe, Steam 2,356 T/H

COMBINED CYCLE / COGENERATION

Electricity 3,390 MW
Steam 2,356 T/H
Chilled Water 14,350 RT
Industrial Water 5,737 Cu.m./H

RENEWABLE ENERGY

Electricity 62 MW

HYDROELECTRIC

Electricity 418 MW

OTHER BUSINESSES

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

*Remark: *Equity capacity includes 69.11% stake in GLOW*
On process to achieve 5,026 MWe within 2019

GPSC Customers’ Profile

LONG TERM OFF TAKE CONTRACTS

✓Guaranteed market and source of revenue

✓Guarantee a minimum level of profit in regards to their investment

✓Price adjustment formula, varying with fuel price

53% PTT Group

38% EGAT

9% Industrial Users

*2018 Revenue by Customers

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 Payment: Availability % x Availability Payment Rate (APR)

Energy Payment: Energy cost regarding % Dispatch to EGAT

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)

Base Tariff + **Ft** + **adder**

Feed in Tariff

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

Type	Power Plant	Direct Stake	Installed Capacity (MW)	Steam (T/H)	Industrial Water (Cu.m./H)	Chilled Water (RT)	GPSC Equity Capacity (GLOW 69.11%) (MWe)	GPSC Equity Capacity (GLOW 100%) (MWe)
Thermal/ Combined Cycle/ Cogen	Sriracha Power Plant	100%	700	-	80	-	700	
	Ratchaburi Power	15%	1,400	-	-	-	210	
	IRPC Clean Power	51%	240	300	-	-	122	
	Nava Nakorn Electricity Generation	30%	185	40	-	-	56	
	Bangpa-in Cogeneration Phase 1-2	25%	234	40	-	-	59	
	Rayong Power Plant (CUP1-3)	100%	354	1,340	2,000	-	354	
	Rayong Power Plant (CUP4)	100%	45	70	-	-	45	
	Combined Heat and Power Producing	100%	5	-	-	12,000	5	
	Glow IPP	95%	713	-	-	-	468	677
	GHECO-One	65%	660	-	-	-	296	429
	Cogeneration Business of GLOW	100%	1,556	1,116	5,292	3,400	1,075	1,556
	Total Combined Cycle/Cogen		**6,092**	**2,906**	**7,372**	**15,400**	**3,391**	**4,213**
Renew	CHPP Solar Cooperatives	100%	5	-	-	-	5	
	Thai Solar Renewable	40%	80	-	-	-	32	
	Ichinoseki Solar Power	99%	20.8	-	-	-	20	
	Glow Energy Solar	100%	1.55	-	-	-	1	1.55
	C&I Rooftop Solar	100%	1.86	-	-	-	1	1.86
	Chonburi Clean Energy	33.33%	8.3	-	-	-	2	2.77
	Total Renew		**117.51**	-	-	-	**61**	**64**
Hydro	Xayaburi Power	25%	1,285	-	-	-	321	
	Nam Lik 1 Power	40%	65	-	-	-	26	
	Huay Ho	67%	152	-	-	-	70	102
	Total Hydro		**1,502**	-	-	-	**418**	**449**
	Total		**7,712**	**2,906**	**7,372**	**15,400**	**3,870**	**4,726**
	• Projects on Process to Complete •							
Cogen	Energy Recovery Unit (ERU)	100%	250	175	-	-	39.5	
Renew	Global Renewable Power (GRP)	100%	39.5	-	-	-	250	
	Rayong Waste to Energy	100%	9.8	-	-	-	9.8	
	Total		**8,011**	**3,081**	**7,372**	**15,400**	**5,026**	

Remark: Power plants in blue color are assets of GLOW

Q4/2018 Highlights

G P S C

GROWTH

- GLOW shares' acquisition (2,771 MW)
- Solar power plants shares' acquisition (39.5 MW)
- Energy Recovery Unit project (250 MW)
- Rayong Waste to Energy (9.8 MW)

PROFIT

2018 EBITDA Increased 30% and NI Increased 6% from 2017

◊ The increase in electricity sales from the full operation of IRPC-CP Phase 2 and ISP1 since Q4/2017

SUSTAINABILITY

- 2018 dividend payment of Baht 1.25 per share
  - ◊ The interim dividend of Baht 0.45 per share was paid, the remaining dividend for 2H/2018 of Baht 0.80 per share will be paid after receiving approval from AGM 2019
- AWARDS in Q4/2018
  - ◊ CFO of the year excellence in technology & Treasury management transformation
  - ◊ TOP 50 ASEAN PLCs and Excellence Sustainability Report Award 2018

CONTROL

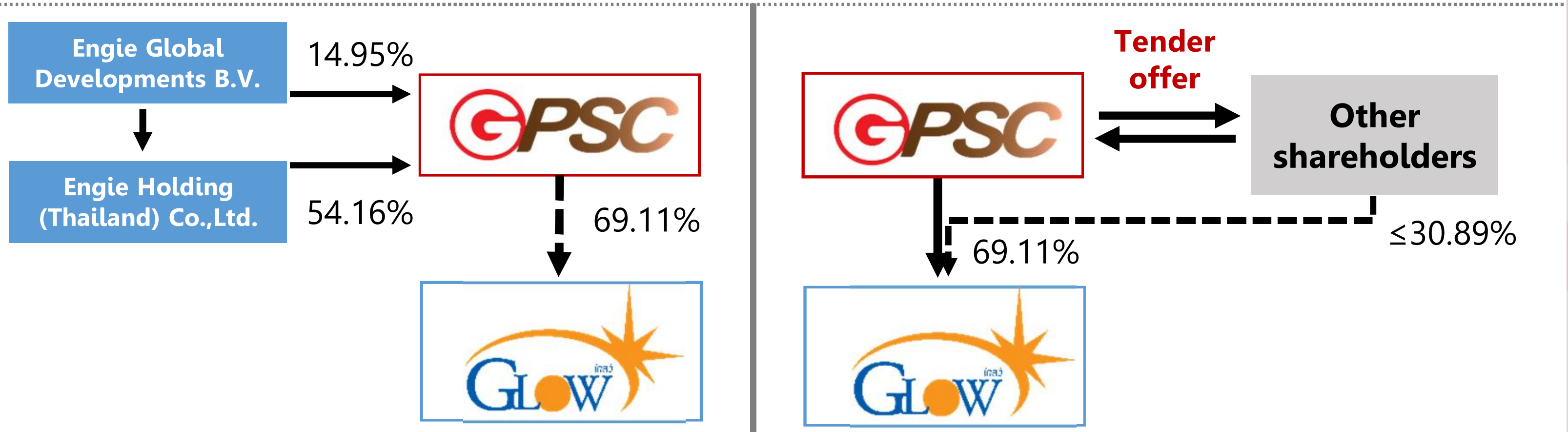
4 Projects to start COD in 2019-2020 as timeline

Nam Lik1 | Xayaburi | CUP-4 | NNEG Expansion

GLOW Energy PLC. Acquisition

Transaction	• Acquire 69.11% of GLOW's shares (directly and indirectly) from Engie Global Developments B.V. • Mandatory offer for 30.89% of shares through Tender Offer
Transaction Amount	• Less than THB 140 Billion
Condition Precedent	• GLOW divests SPP1 to third party
Funding	• Short-term bridge financing (35,000 shareholder loan & syndicated banks) • Long-term take out plan with capital structure of 52% equity offering and 48% Debt
Deal Closing	• Q1/2019

Share Purchase Transaction from Engie Group /Tender Offering



Tender Offer for the Securities of GLOW Energy PCL.

Listed company subject to tender offer	• Glow Energy Public Company Limited (GLOW)
Offeror	• Global Power Synergy Public Company Limited (GPSC)
Tender offer period	• From 25-Mar-2019 to 17-May-2019
Offer price (After GLOW's dividend)	• 90.8136 Baht/Share
Net price (After deducting brokerage fee and VAT)	• 90.57067362 Baht/Share
Date of securities payment settlement	• 23-May-2019
Tender Offer Agent	• Phatra Securities Public Company Limited

Tender Offer Timeline

25 Mar 19
Beginning of T/O period

3 May 19
GLOW's record date

7 May 19
T/O agent starts accepting and transferring GLOW's shares

17 May 19
- End of T/O period
- GLOW's dividend payment date

23 May 19
T/O payment settlement

T/O Period
35 business days

Offer price
91.9906 Baht/share

GLOW's 2H18 dividend
1.177 Baht/share

- Offer price (after dividend)
  90.8136 Baht/share
- Net price (after deducting brokerage fee and VAT)
  90.57067362 Baht/share

Remark: Tender Offer Agent (Phatra Securities Public Company Limited) will accept and transfer the shares of GLOW to their account as from 7 May 2019 to 17 May 2019, during office hours from 9:00 a.m. to 4:00 p.m.

Energy Recovery Unit Project

Project Description	• As a power and steam supporting unit of CFP Near Laem Chabang Port • The CFP project will improve effectiveness in the production process and transform fuel oil and bitumen into jet fuel and diesel
Investment Cost	• Approximately USD 757 mm
Condition Precedent	• Approval from AGM 2019
Construction Period	• 4 years
SCOD	• Q3 / 2023
Electricity Demand	• 200 MW (Installed Capacity 250 MW)
Steam Demand	• 175 T/H

Strategic Position & Payment Term

Thaioil

- Reduce overall CAPEX of CFP Project
- Reduce D/EBITDA ratio and increase liquidity to future investment
- Benefit from higher IRR for CFP Project after carve out
- Maintain Competitiveness in Reliability, Safety, Efficiency & Plant Optimization

GPSC

- Expert and skillful in power business
- Understands the operation of oil refinery petrochemical business
- Familiarity with the company's staff ensures smooth and efficient communications
- Strong and stable financial position ensures capability to support large investment

Milestone Payment

Initial Payment
20%
of Initial Purchase Price
USD 138 mm

Final Purchase Price
< USD 757 mm

SCOD Q3/2023

2019	2020	2021	2022	2023
2%	8%	4%	6%	80%

Global Renewable Power Company Limited Transaction Overview

Transaction Structure	• GPSC has entered into SPA to acquire 100% shares from Brookfield Renewable Partners - The operating solar power plant of 3 companies (NPS Star Group Co., Ltd., World X Change Asia Co., Ltd., and PP Solar Ltd.) together with long term PPA with off-taker PEA, total capacity of 39.5 MW - Terra Form Operating (Thailand) Co., Ltd., that provide operation and maintenance service for solar power plants.
Transaction size	• Total value of the transaction is 3,070 MTHB which divided into the share purchasing for 2,325 MTHB and the loan from the original shareholders for 745 MTHB.
Condition Precedent	• ERC approval
Acquisition Funding	• 70% bridge and shareholder loans
Tentative timeline	Dec' 18 Signed SPA Q2/19 Expected Completion

Global Renewable Power Portfolio

	NP Star	World Exchange Asia	PP Solar	TerraForm Operating
Capacity (MW)	18 (6*3)	17.9 (5.96*3)	3.6 (1.2*3)	N/A (Service Company)
Off-taker	PEA	PEA	PEA	
Remaining PPA Tenor (Years)	22	22	22	
Tariff Scheme	FiT at 5.66 THB/kWh	FiT at 5.66 THB/kWh	Adder at 8 THB/kWh (adder 6-7 years)	
COD	Dec 2015	Dec 2015	Mar 2014/Mar 2015	
Location	Pichit, Suphanburi and Lopburi	Pichit	Khon Kaen	
Registered Capital	293.7	293.7	82	3
D/E	3:1	3:1	3:1	3:1

GPSC Electricity Growth Pipeline

Equity Capacity (MWe)

3,443 → +427 → **3,870** → +1,156 → **5,026**

Current Capacity*

Electricity 3,443 MW

- GPSC 1,530 MW
- GLOW 1,913 MW

Steam 2,283 T/H

Industrial Water 5,737 Cu.m./H

Chilled Water 14,350 RT

Under Construction

COD in 2019

- CUP-3 expansion (Steam Turbine Generator): 15 MW
- XPCL Hydro Power Plant: 321 MW
- NL1PC Hydro Power Plant: 26 MW
- Rayong Power Plant Expansion (CUP-4) : 45 MW + 70 T/h
- GLOW's Chonburi Clean Energy : 1.9 MW*

COD in 2020

- NNEG Expansion: 18 MW + 3 T/h

Projects on Progress

Glow Energy PLC. (30.89%)

- 856 MW

Operating Solar Project

- 39.5 MW

ERU Project

- 250 MW + 175 T/h

Rayong Waste to Energy

- 9.8 MW
- Pending for PPA

Future Growth

Growth along with PTT

- Business expansion along with PTT Group

International Power Project

- Myanmar: GTP projects
- New opportunities in others countries

Renewable Projects

- Explore new opportunities of renewable business
- Explore more in international opportunities

Battery and System Integrator

- Samples testing to Industrial Users
- Expand ESS business to Non-PTT Group

*Remark: *Base on 69.11% stake in GLOW*

Strategic Direction and Growth Strategy

Strategic Direction

The global leading innovative and sustainable power company

Operational Excellence
- Maximize Core Business
- Manage Invested companies

3 Growth Engines
- Growth along with PTT Group
- International market
- Renewable

New S-curve
- Battery
- Energy Storage System Integrator
- Energy Management Solution Provider

Digitalization

Sustainability

Finance Support

Human Resource & Corporate Value

Industry Overview

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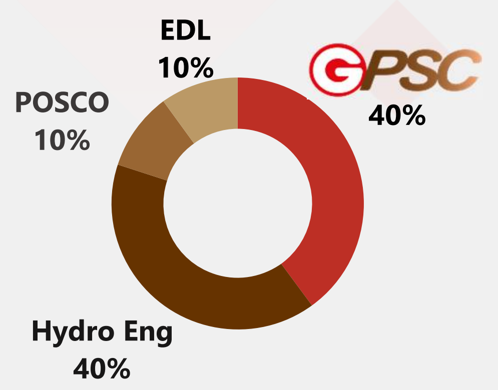
Financial Performance

Nam Lik 1 Power Company Limited (Lao PDR)

Type:	Run-of-River Hydropower
Electricity:	64.5 MW
Customer:	EDL (25 years PPA)

Shareholding:



Progress update:

- As of Q4/2018, the construction progress of NL1PC as appraised by technical advisor was at 96.5%.
- The main activities such as start pre-commissioning phase of Turbine Unit 2, The tie-in of 115 kV transmission line to Hin Heup substation has been executed.

Xayaburi Power Company Limited (Lao PDR)

Start:
Q1/2012

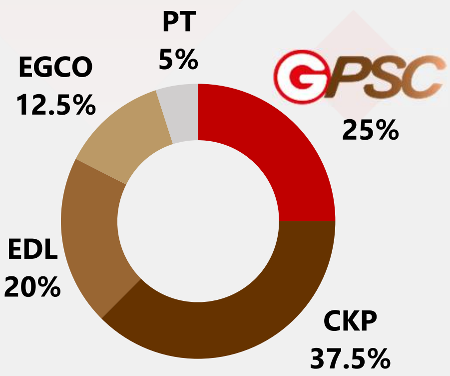
Q4/2018
97.5%

Q3/2018
96%

SCOD: OCT/2019

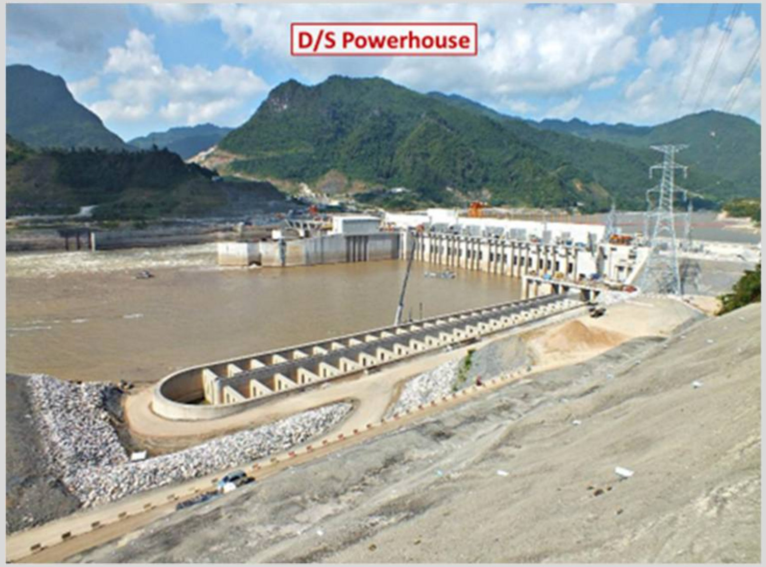
Type:	Run-of-River Hydropower
Electricity:	1,285 MW
Customer:	EGAT 1,220 MW, EDL 60 MW

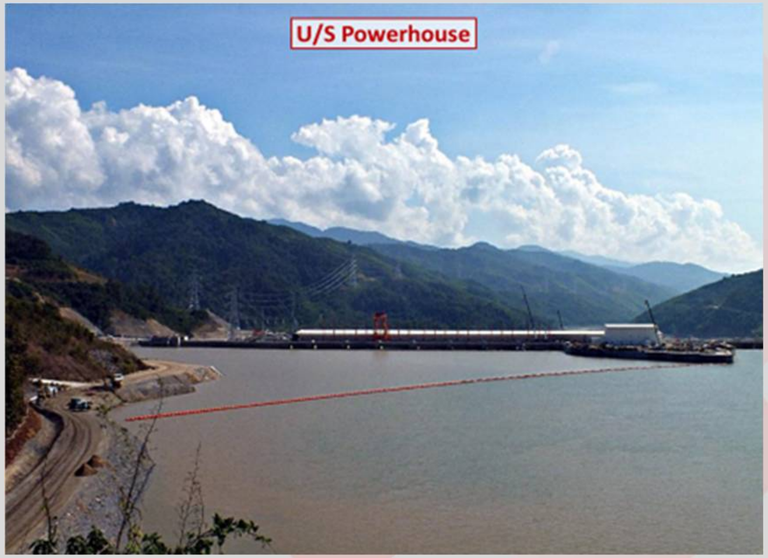
Shareholding:



Progress update:

- The main construction tasks such as power house, intermediate block, fish ladder and 500 kV transmission line were mostly completed.
- The commissioning of Generator Unit 1 has started since December 2018 as scheduled.





Central Utility Plant 4 : CUP4 (Thailand)

Start: **Q4/2017**

Q3/2018 39.7%

Q4/2018 **60.3%**

SCOD: Q3/2019

Type:	Gas-fired Cogeneration
Electricity:	45 MW
Steam:	70 T/h
Customer:	• PTT Group • Non-PTT Group • EGAT

Shareholding:

GPSC 100%

Progress update:

- As of Q4/2018, the progress of site construction was over 33%.
- The construction of control building and high voltage substation have been started.
- All of main power plant equipment have been procured. The first module will arrive in the beginning of 2019.

Nava Nakorn Electricity Generation (NNEG) Expansion Project

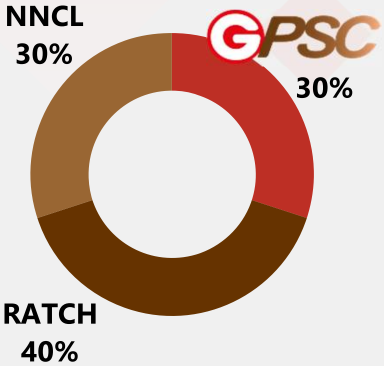
Start: **Q3/2018**

Q4/2018 **12%**

SCOD: Q3/2020

Type:	Gas-fired cogeneration
Electricity:	60 MW
Steam:	10 T/h
Customer:	• Non-PTT Group

Shareholding:



Progress update:

- As of Q4/2018, the project progress has reached 12%.
- Main tasks such as site preparation and procurement for main machines and equipment were executed as planned.

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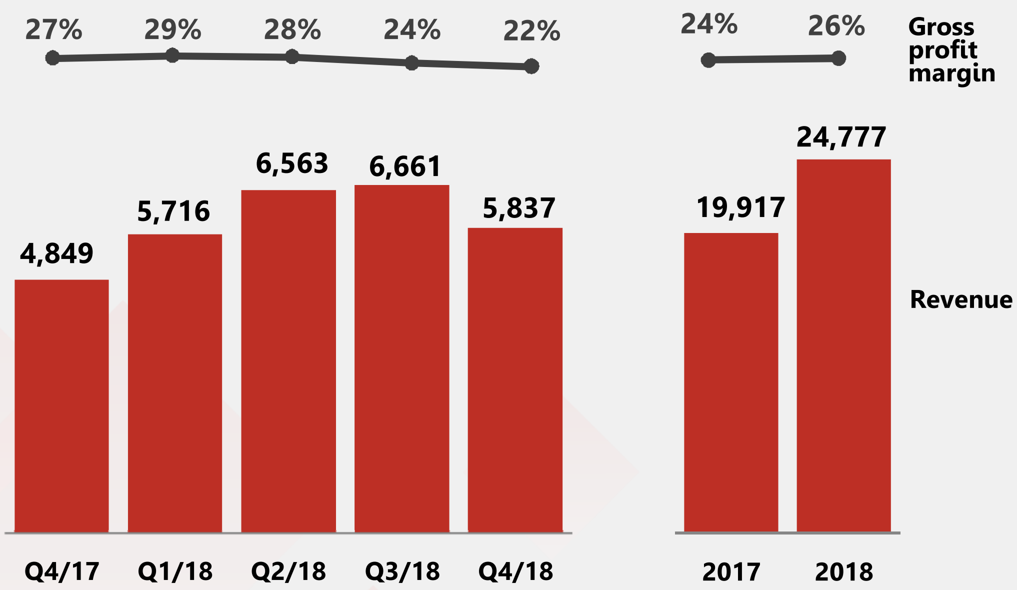
Q4/2018 Financial Performance Summary (1/2)

Revenue & Gross Profit Margin (THB Million,%)



Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ Rev. +988 /+20%	▼ Rev. -824 / -12%	▲ Rev. +4,860 / +24%
▼ GPM -5%	▼ GPM -2%	▲ GPM +2%

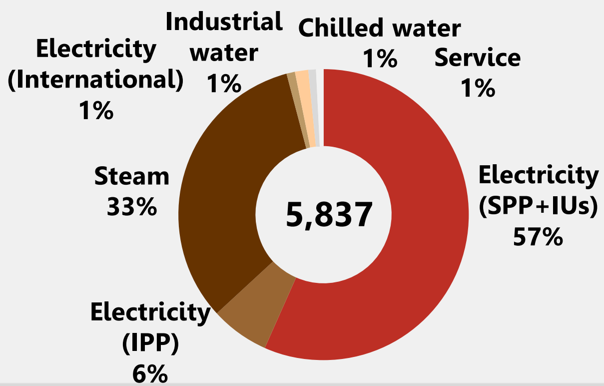
Revenue:

- **YoY, 12M:** Higher revenue from an increase sales from the COD of IRPC-CP Phase 2 and ISP1 since Q4/2017 and solar rooftops EPC service of CHPP
- **QoQ:** The decrease was from major overhaul of Sriracha plant and planned maintenance shutdown of IRPC-CP in Q4/2018

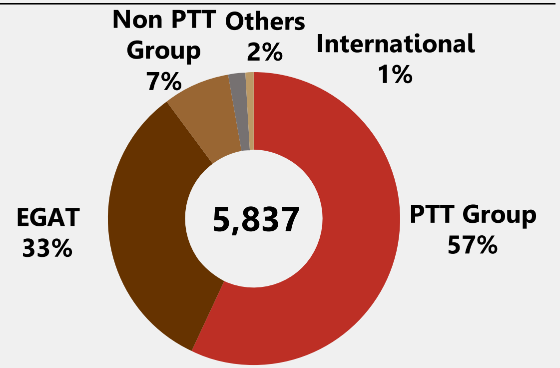
Gross Profit Margin:

- **YoY, QoQ :** Gross Profit Margin decreased due to a rise in natural gas prices while Ft rate remained unchanged
- **12M:** Gross Profit Margin slightly increased from full operation of IRPC-CP and ISP1

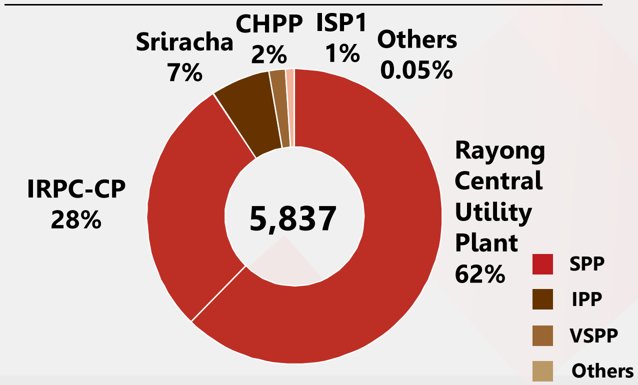
Q4/18 Revenue by product (THB Million)



Q4/18 Revenue by customer (THB Million)

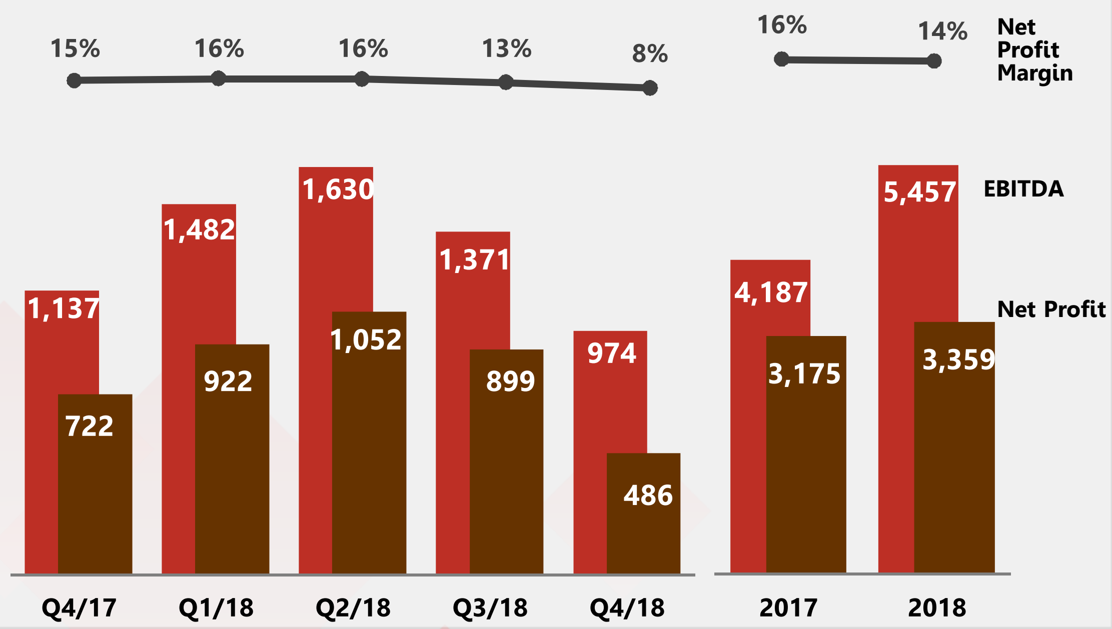


Q4/18 Revenue by plant (THB Million)



Q4/2018 Financial Performance Summary (2/2)

EBITDA, Net Profit* and Net Profit Margin (THB Million,%)



Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ NPM -7%	▼ NPM -5%	▼ NPM -2%
▼ EBITDA -163 / -14%	▼ EBITDA -397 / -29%	▲ EBITDA +1,270 / +30%
▼ NP -236 / -33%	▼ NP -413 / -46%	▲ NP +184/ +6%

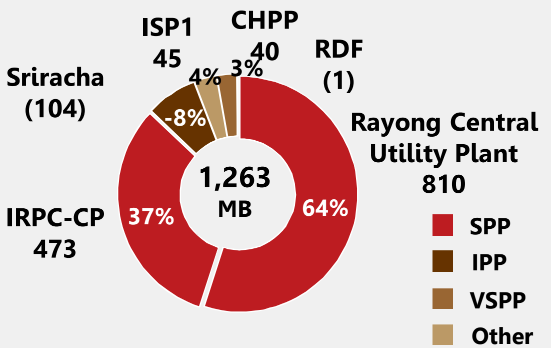
EBITDA & Net Profit:

- **YoY, QoQ:** EBITDA & Net Profit decreased due to higher natural gas prices while Ft remained unchanged, major overhaul of Sriracha plant and planned maintenance shutdown of IRPC-CP
- **12M:** EBITDA & Net Profit increased due to the rise in electricity sales from the COD of IRPC-CP Phase 2 and ISP1 since Q4/2017 and higher share of profits from BIC & NL1PC

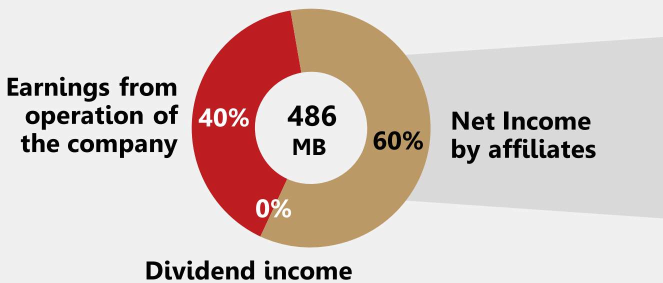
Net Profit Margin:

- **12M:** Net profit margin decreased from the drop in dividend income from RPCL and the increase in depreciation of IRPC-CP Phase 2 and ISP1
- **YoY, QoQ:** Net profit margin decreased due to significant rise in natural gas prices and major overhaul of Sriracha plant

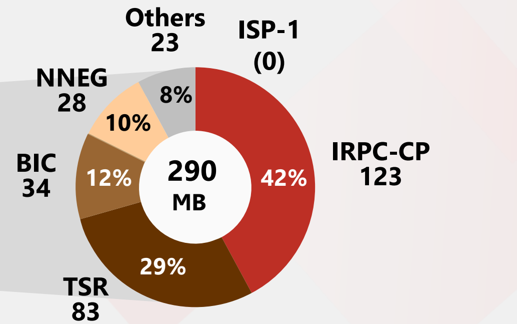
Q4/18 Gross Profit by plant (THB Million)



Q4/18 Net Profit by source (THB Million)



Q4/18 Net Profit by Affiliates (THB Million)

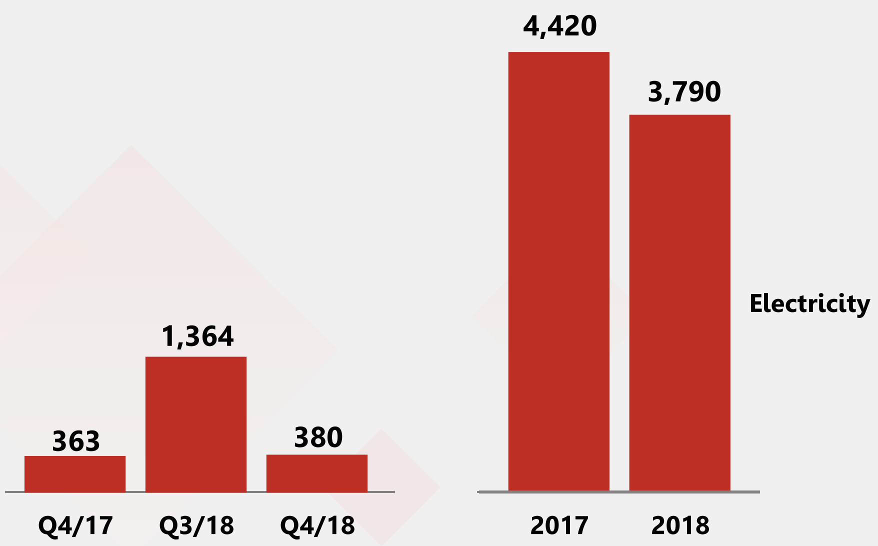


Remark: *Net profit-Owners of the company

Sriracha Power Plant : Revenue & Gross Profit

Revenue
(THB Million, %)

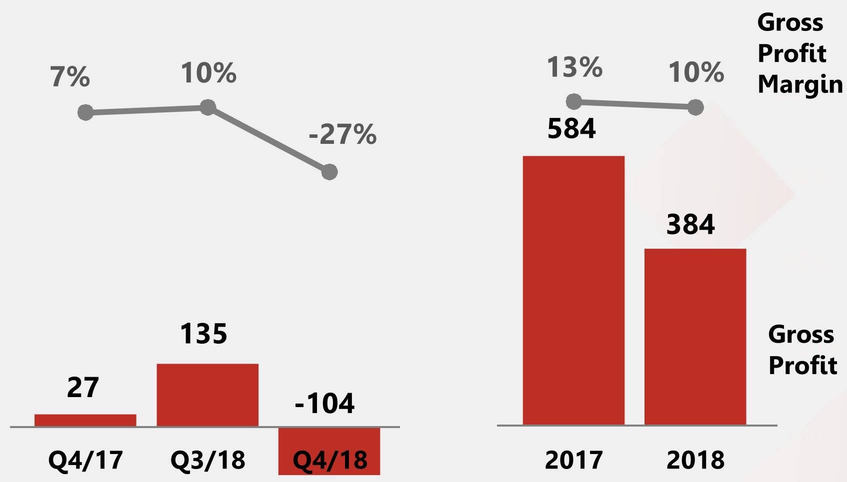
Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ Rev. +17 / +5%	▼ Rev. -984 / -72%	▼ Rev. -630 / -14%



- **QoQ, 12M : Total revenue decreased** due to major overhaul and the adjustment of finance lease receivable according to TFRIC4
- **YoY: Total revenue increased** from reserved shutdown in Q4/2017

Gross Profit & Gross Profit Margin
(THB Million, %)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ GP -131 / -484%	▼ GP -239 / -177%	▼ GP -200 / -34%
▼ GPM -34%	▼ GPM -37%	▼ GPM -3%



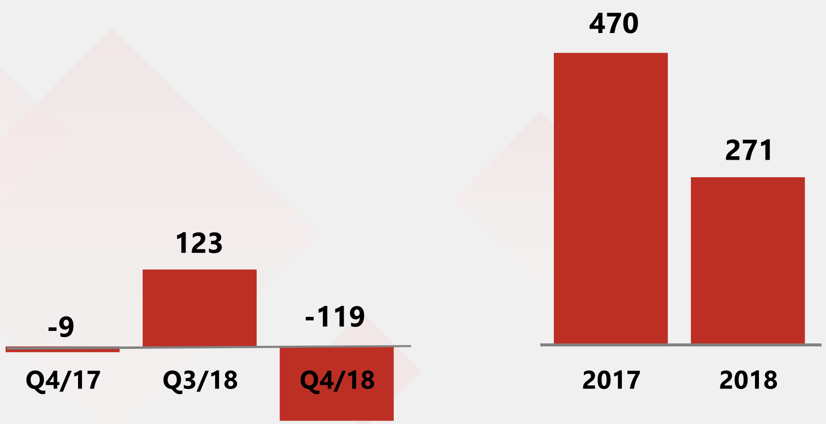
- **QoQ: Gross profit decreased** due to the drop in revenue from Availability Payment (AP) from major overhaul and lower Weight factor in Q4/2018
- **YoY, 12M: Gross profit decreased** due to major overhaul and the adjustment of finance lease receivable according to TFRIC4

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

Sriracha Power Plant : Availability Payment (AP)

Revenue from AP (THB million)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ AP -110 / -1,222%	▼ AP -242 / -197%	▼ AP -199 / -42%



Revenue from AP

- **QoQ: AP decreased** from major overhaul and lower Weight factor
- **YoY, 12M: AP decreased** due to major overhaul and the adjustment of finance lease receivable according to TFRIC4

Availability Rate(%)

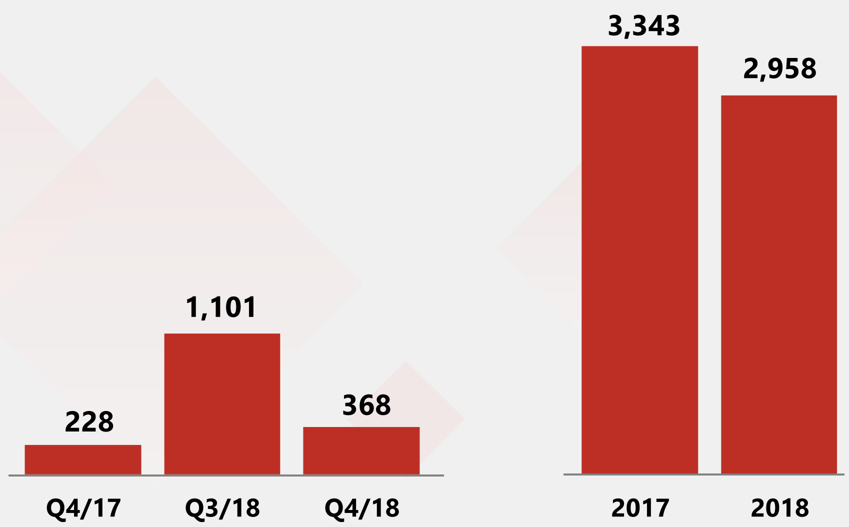
Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ AR -24%	▼ AR -60%	▼ AR -6%

- **QoQ, YoY, 12M: Availability rate decreased** from major overhaul in Q4/2018

Sriracha Power Plant : Energy Payment (EP)

Revenue from EP (THB million)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ EP +140 / +61%	▼ EP -733/ -67%	▼ EP -385 / -12%

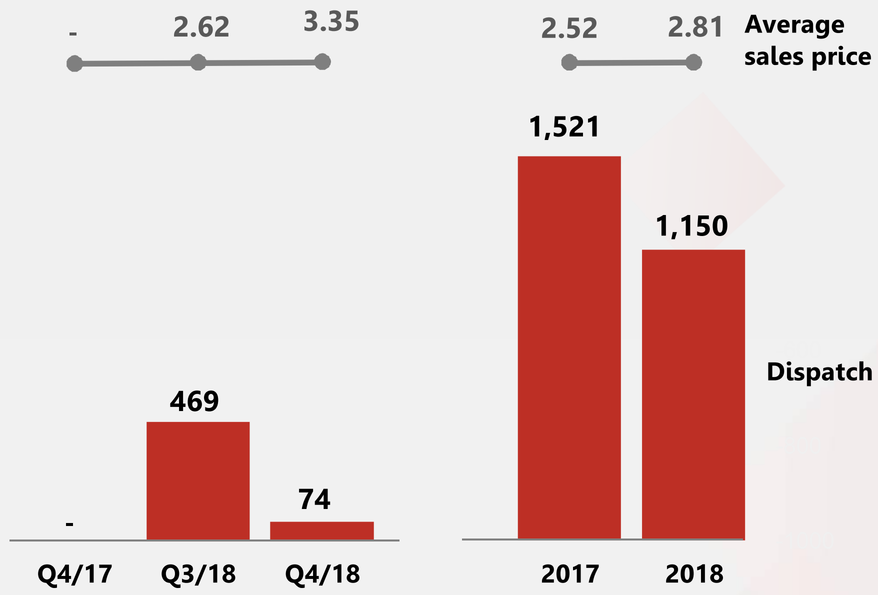


Revenue from EP

- **YoY: EP increased** due to maintenance shutdown and reserved shutdown in Q4/2017
- **QoQ, 12M: EP decreased** due to major overhaul in Q4/2018

Average sales price & dispatch

(Baht/kWh, GWh)

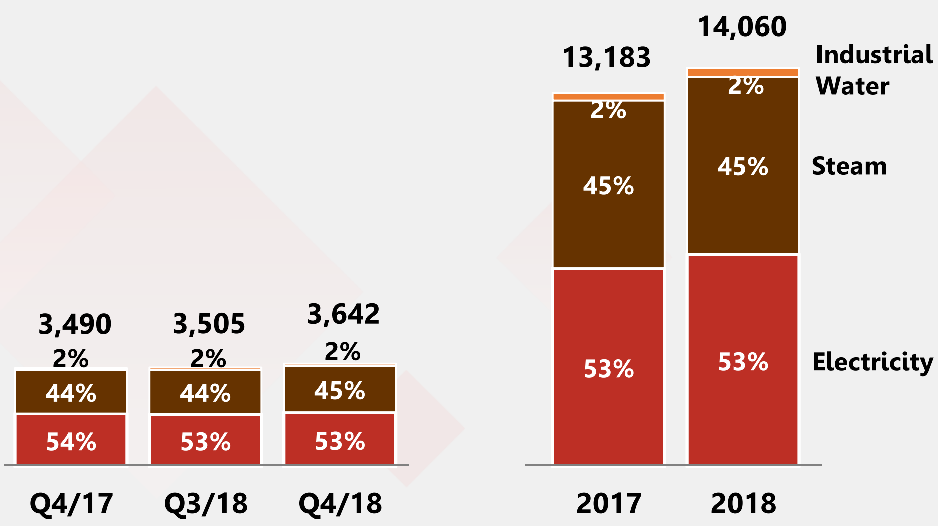


- **QoQ, 12M: Average sales price increased** due to the decrease in dispatched volume to EGAT as instructed
- **Dispatched volume: increased YoY but decreased QoQ and 12M** according to EGAT's dispatch instruction and major overhaul

Rayong Power Plant (Cogeneration) : Revenue & Gross Profit

Revenue
(THB Million, %)

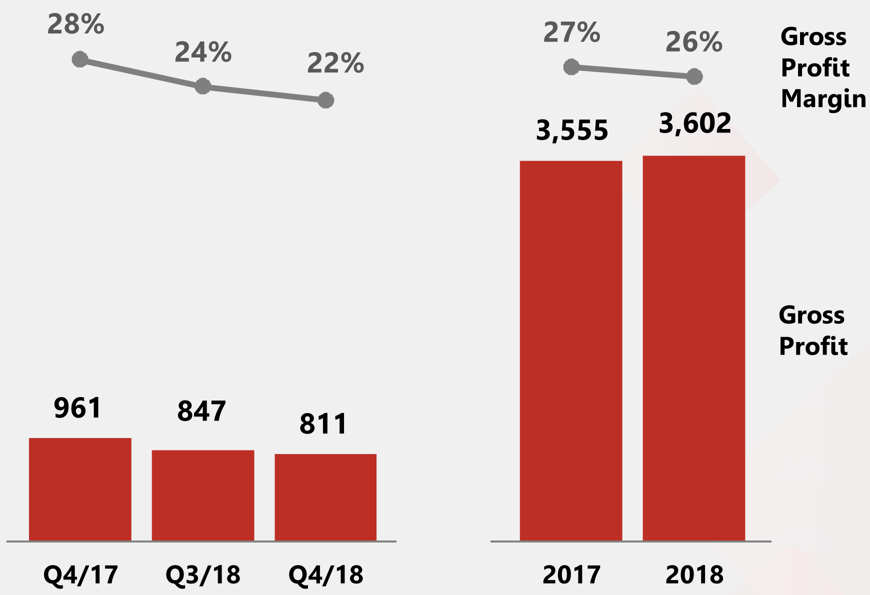
Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ Rev. +152 / +4%	▲ Rev. 137 / 4%	▲ Rev. +877 / +7%



- **QoQ, 12M: Total revenue increased** from higher sales volume due to maintenance shutdown of gas turbines, and higher sales prices in line with higher natural gas prices
- **YoY: Total revenue increased** from higher sales prices in line with higher natural gas prices

Gross Profit & Gross Profit Margin
(THB Million, %)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ GP -150 / -16%	▼ GP -36 / -4%	▲ GP +47 / +1%
▼ GPM -6%	▼ GPM -2%	▼ GPM -1%

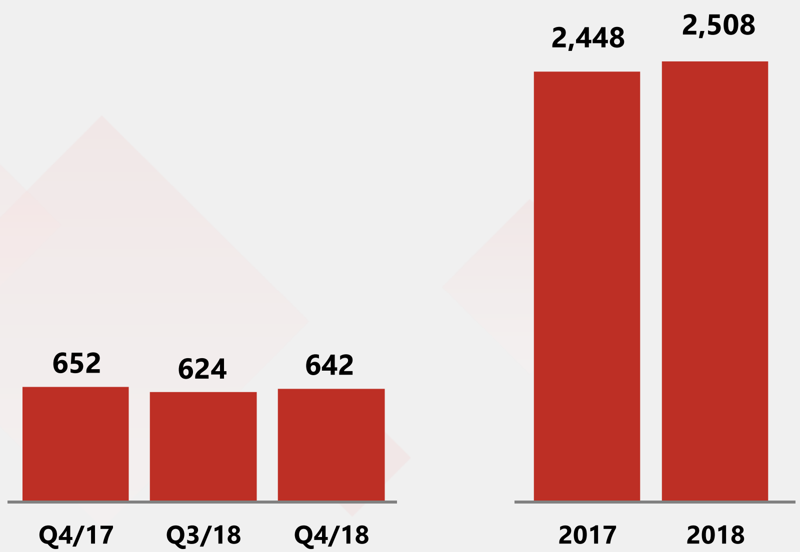


- **YoY, QoQ: Gross profit decreased** due to the increase in natural gas prices while Ft rate remained unchanged
- **12M: Gross profit slightly increased** because sales volume increased but the increase in natural gas prices was more than Ft rate, thus small increase in gross profit was observed

Rayong Power Plant (Cogeneration) : Power Sales

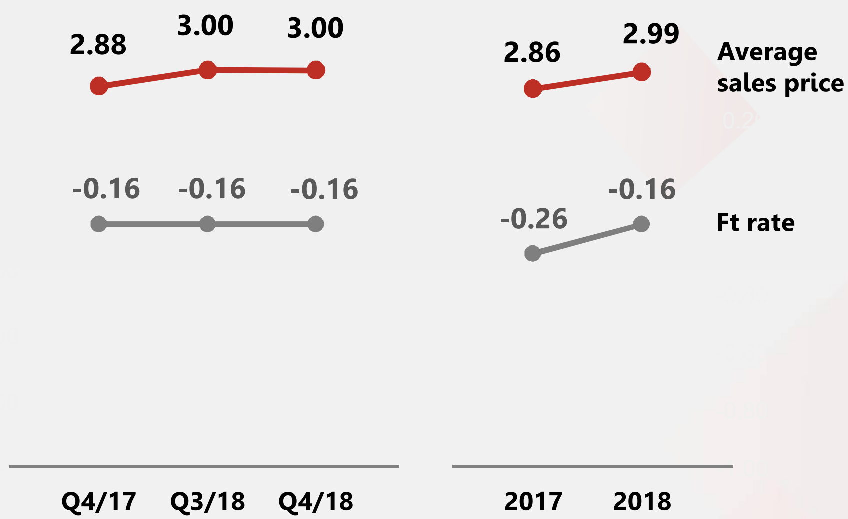
Power sales volume
(GWh)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ Sales -10 / -2%	▲ Sales +18 / +3%	▲ Sales +60 / +2%



- **QoQ, 12M: Power sales volume slightly increased** from the expansion of industrial users and gas turbine maintenance shutdown in Q3/2018
- **YoY: Power sales volume slightly decreased** due to maintenance shutdown of industrial users in Q4/2018

Average sales price & Ft rate
(THB/kWh, THB)

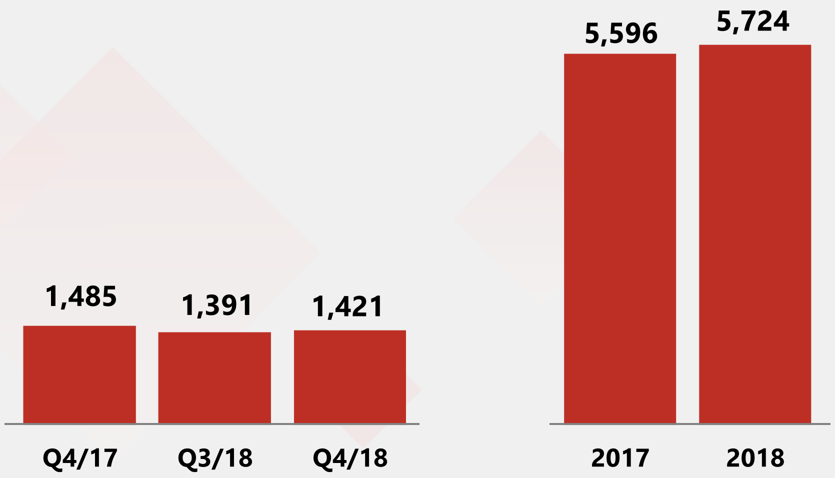


- **YoY, 12M: Average sales price increased** in line with the increasing trend of Ft rate and natural gas prices
- **QoQ: Average sales price was stable**

Rayong Power Plant (Cogeneration) : Steam Sales

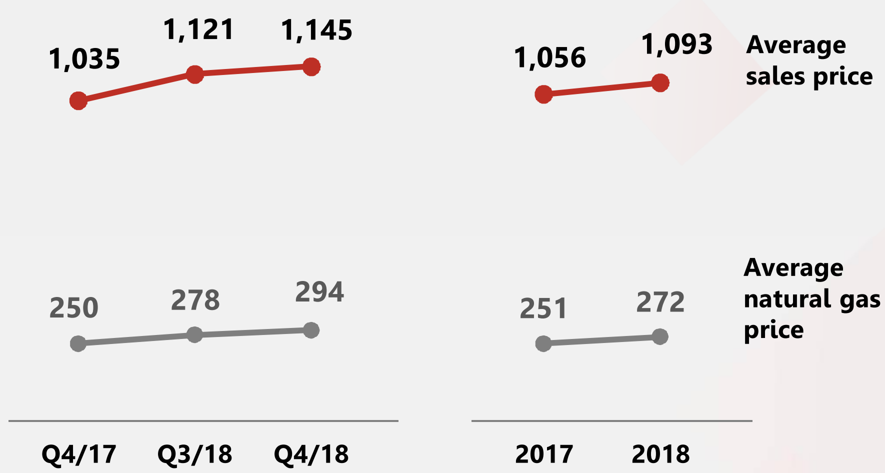
Steam sales volume
('000 tons)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ -64 / -4%	▲ +30 / +2%	▲ +128 / +2%



- **QoQ, 12M: Steam sales volume increased** due to maintenance shutdown of customers in 2017
- **YoY: Steam sales volume slightly decreased** in line with the variation of demand from industrial users

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

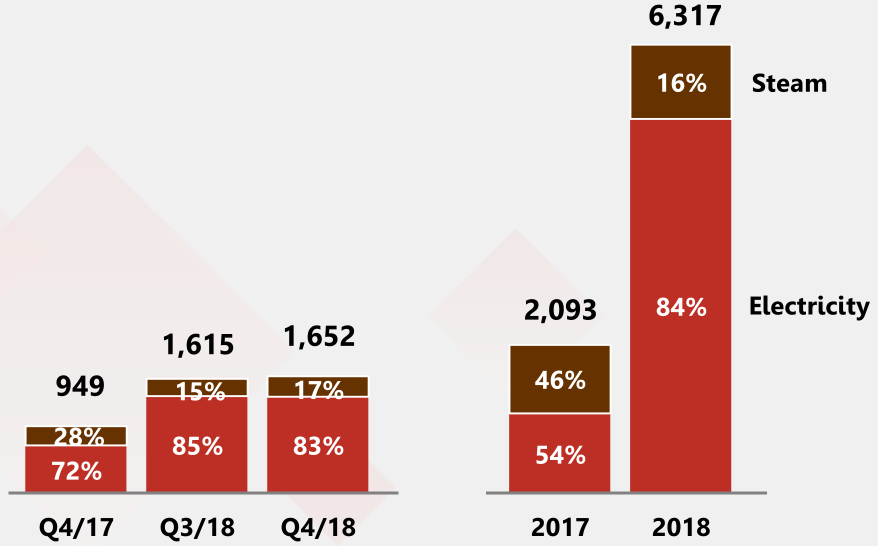


- **YoY, QoQ, 12M: Average sales price increased** in line with the upward trend of natural gas prices

IRPC-CP Power Plant (SPP) : Revenue & Gross Profit

Revenue
(THB Million, %)

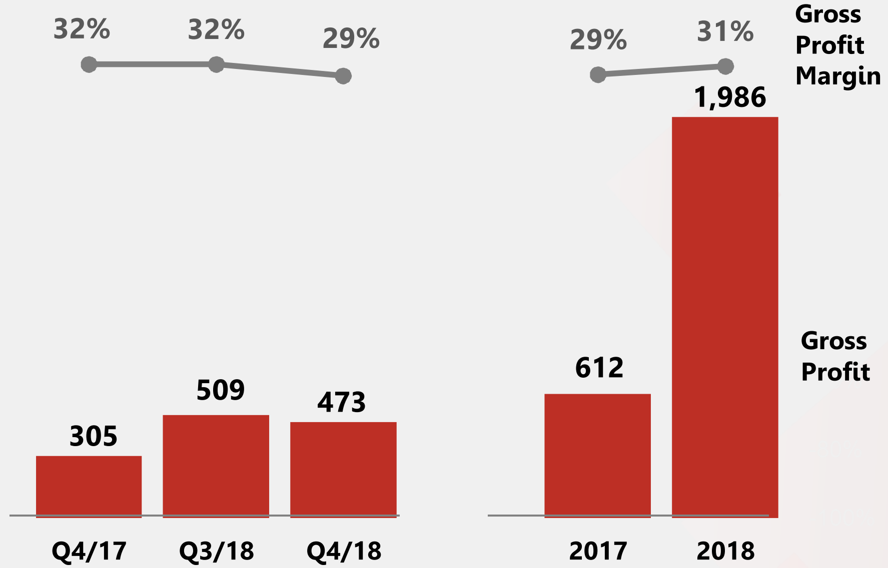
Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ Rev. +703 / +74%	▲ Rev. +37 / +2%	▲ Rev.+4,224 / +202%



- **YoY, 12M: Total revenue increased** from the COD of both phases in November 2017 and higher sales price in line with the increase in natural gas prices
- **QoQ: Total revenue slightly increased** despite planned maintenance shutdown in Q4/2018, higher steam sales from auxiliary boiler helped increased in revenue

Gross Profit & Gross Profit Margin
(THB Million, %)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ GP +168 / +55% ▼ GPM -3%	▼ GP -36 / -7% ▼ GPM -3%	▲ GP +1,374 / +225% ▲ GPM +2%

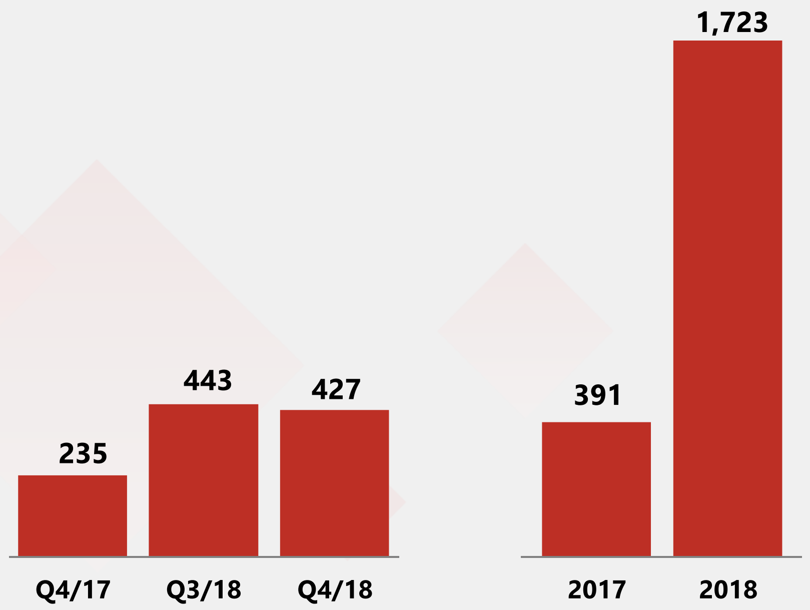


- **YoY, 12M: Gross profit increased** from higher electricity sales due to the COD of both phases since November 2017
- **QoQ: Gross profit decreased** from the increase in natural gas prices while Ft rate remained unchanged

IRPC-CP Power Plant (SPP) : Power Sales

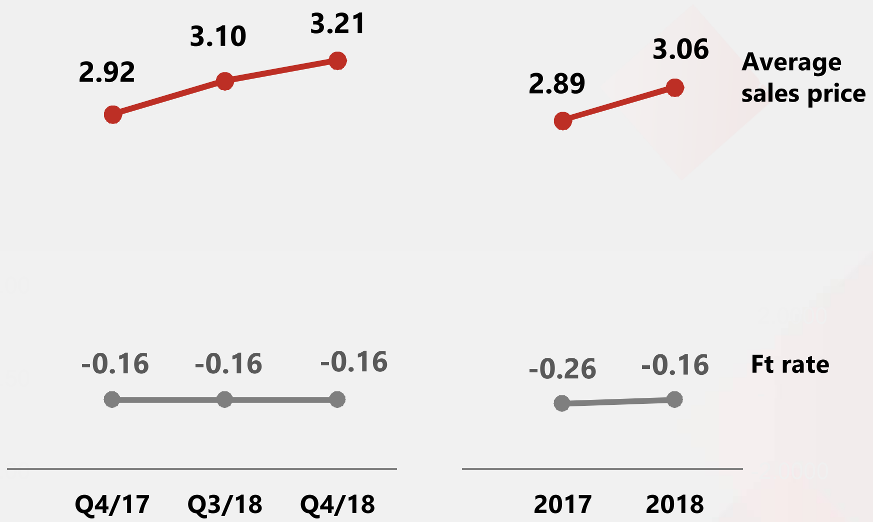
Power sales volume
(GWh)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▲ +192 / +82%	▼ -16% / -4%	▲ +1,332 / +341%



- **YoY, 12M: Power sales volume** increased from the COD of both phases since November 2017
- **QoQ: Power sales volume slightly decreased** from planned maintenance shutdown in Q4/2018

Average sales price & Ft rate
(THB/kWh, THB)

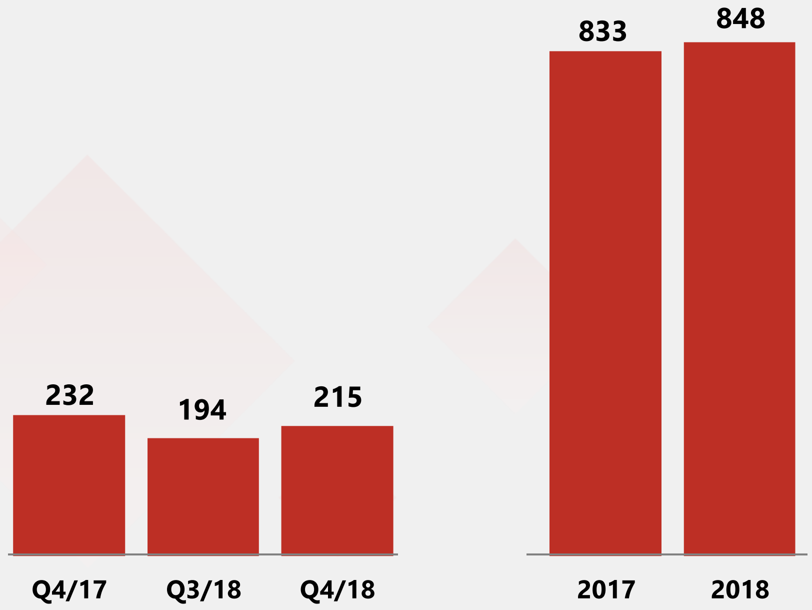


- **YoY, QoQ, 12M: Average sales price** increased in line with the increasing trend of natural gas prices

IRPC-CP Power Plant (SPP) : Steam Sales

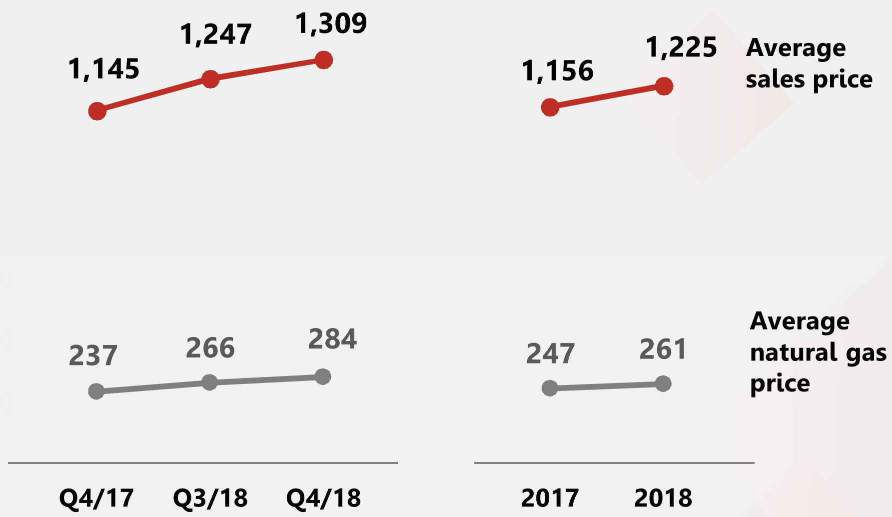
Steam sales volume
(‘000 tons)

Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
▼ -17 / -7%	▲ +21 / +11%	▲ +15 / +2%



- **YoY: Steam sales volume decreased** from planned maintenance shutdown in Q4/18
- **QoQ: Steam sales volume increased** in line with the variation of demand of industrial users
- **12M: Steam sales volume increased** from the COD of both phases since November 2017

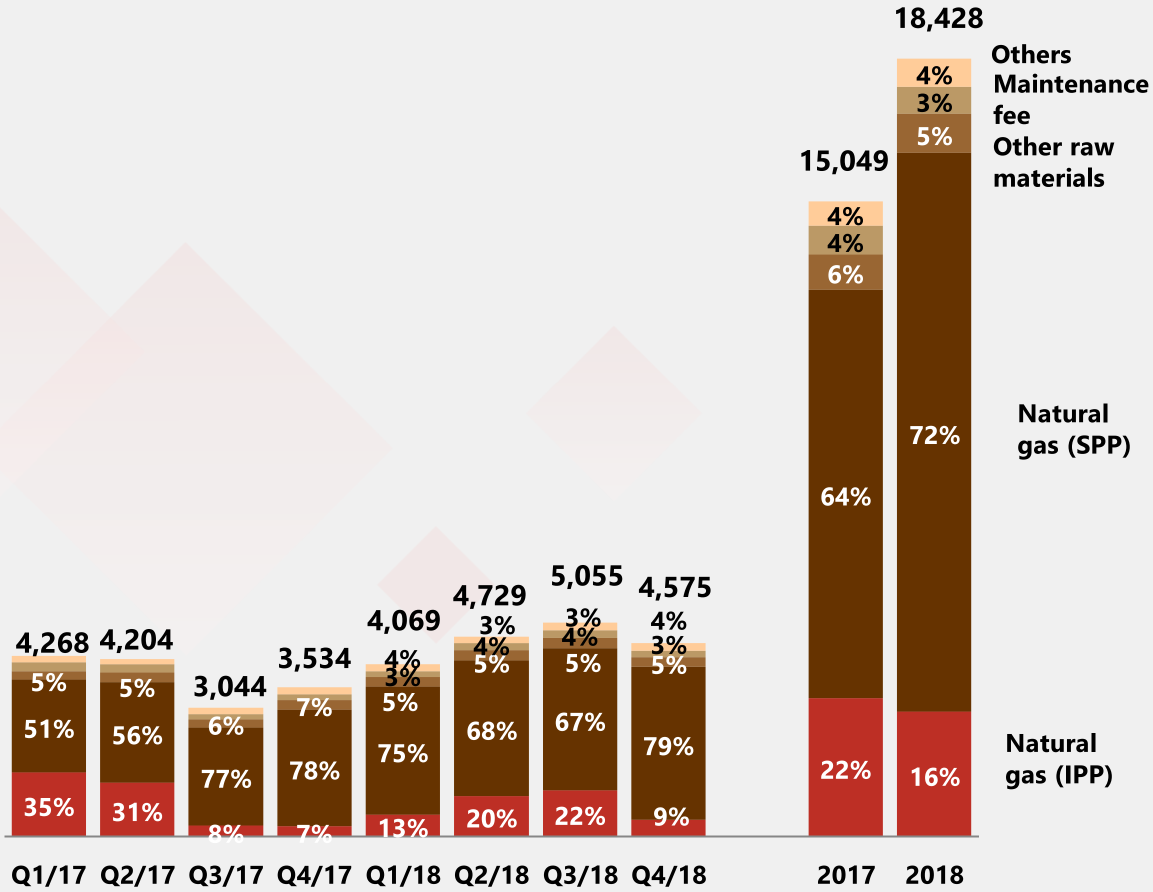
Average sales price & Average natural gas price
(THB/ton, THB/MMBTU)



- **QoQ, YoY, 12M: Average sales price** increased in line with the upward trend of natural gas prices

Cost of Sales and Services

Cost of sales and services* (THB Million)

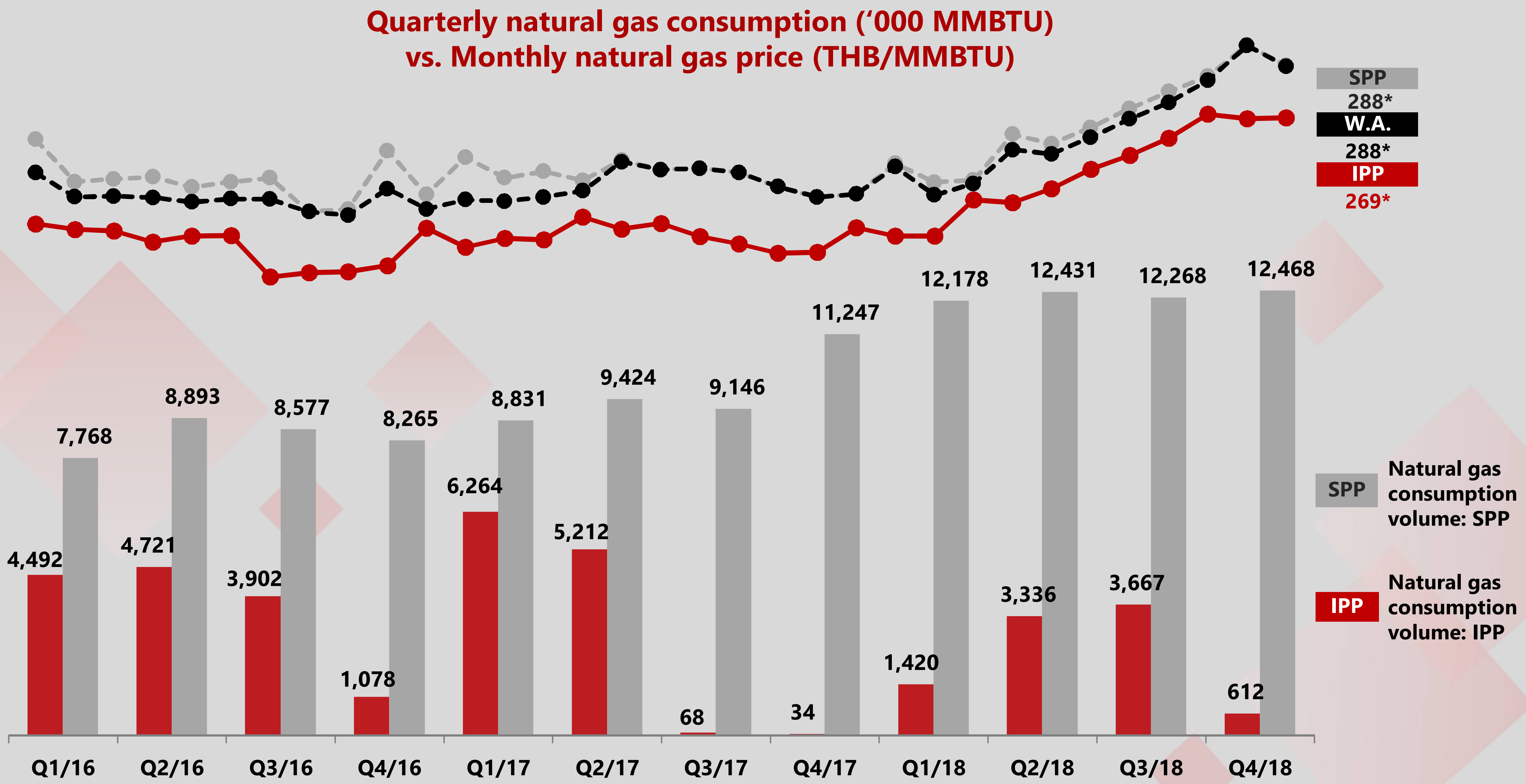


Q4/18 vs Q4/17 YoY	Q4/18 vs Q3/18 QoQ	2018 vs 2017 12M
+1,041 /+29%	-480 / -9%	+3,379 / +22%

- **YoY, 12M: Cost of sales and service increased** due to higher SPP natural gas consumption from full operation of IRPC-CP and higher natural gas prices
- **QoQ: Cost of sales and service decreased** due to lower natural gas consumption from Sriracha Power Plant which had a planned maintenance shutdown almost the whole of Q4/2018.

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

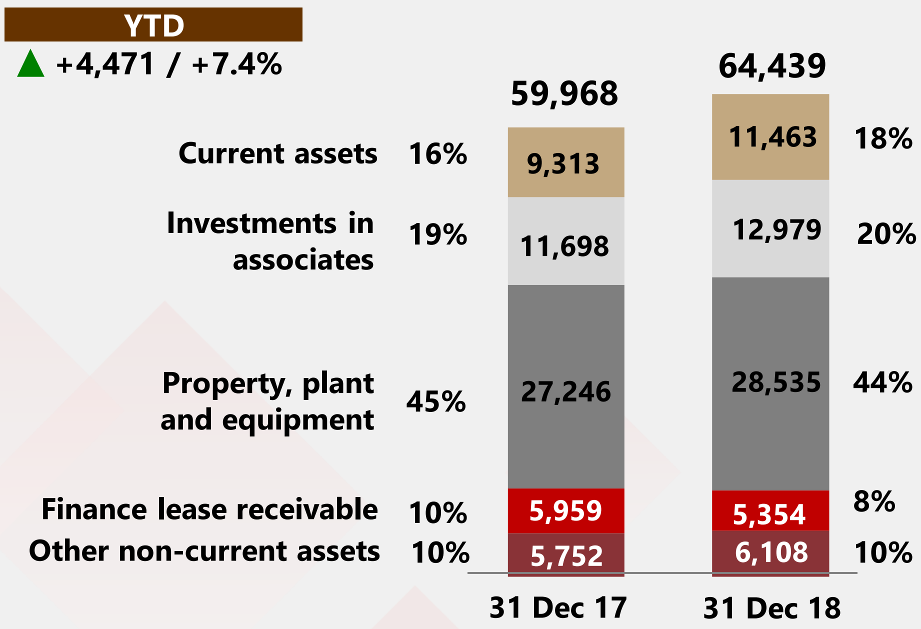
Natural Gas Consumption vs Price Trend



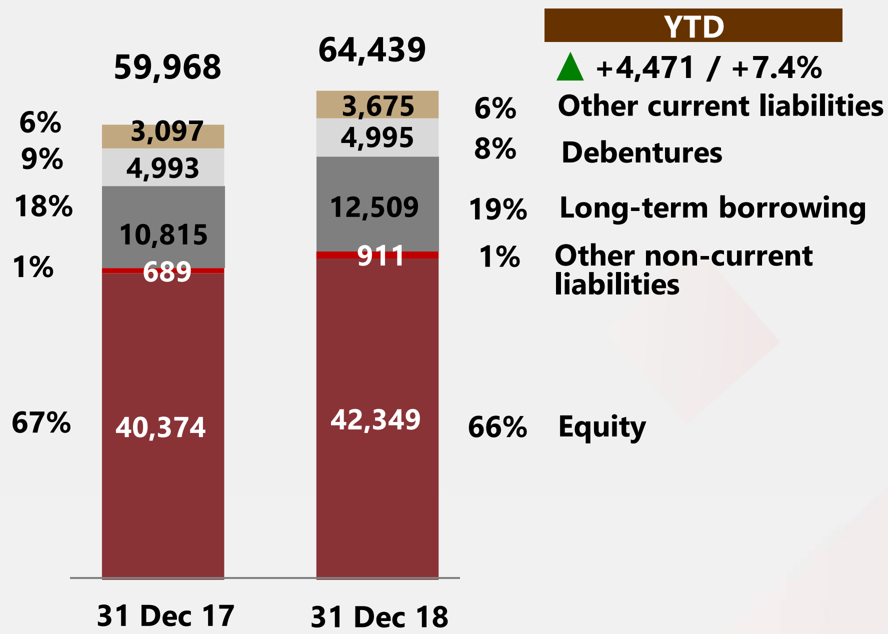
Remark: *Latest prices as of 31 December 2018

Financial Position of GPSC and Affiliates

Total Assets
(THB Million)



Total Liabilities & Shareholders Equity
(THB Million)



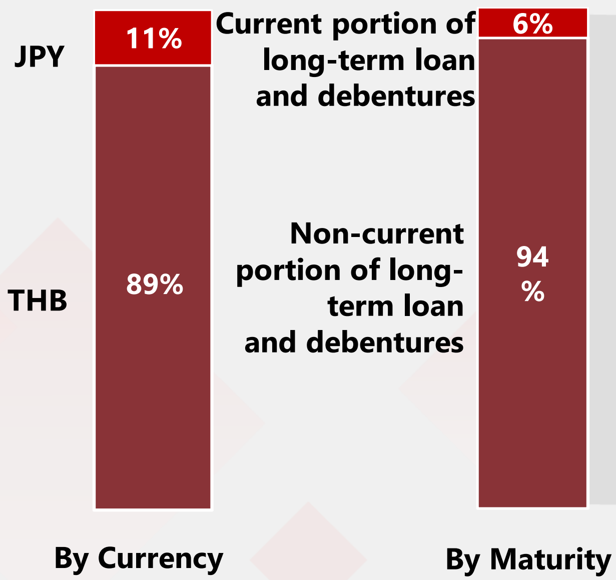
- **Total assets** were Baht 64,439 million, increased by Baht 4,471 million or 7% from 31 December 2017.
- The main increase resulted from the increase in cash & cash equivalent from operation, account receivable from power sales, investment in associates from paid-up capital request (XPCL, NNEG, NL1PC) and PPE from land & asset under construction for CUP-4.

- **Total liabilities** were Baht 22,090 million, increased by Baht 2,495 million or 13% from 31 December 2017 mainly due to long-term loan for IRPCCP and CUP-4.
- Equity were was Baht 42,349 million, increased by Baht 1,975 million or 5% from 31 December 2017, mainly from increase in the unappropriated retained earnings.

Well-managed debt profile and continuous deleveraging

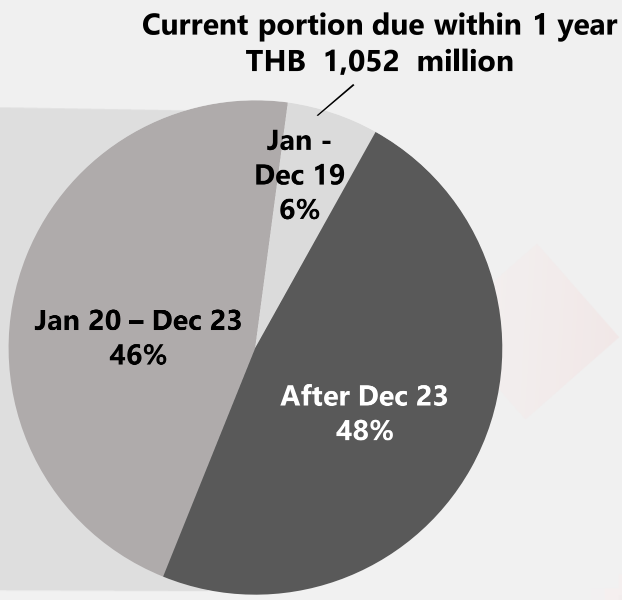
Debt Profile

Total interest-bearing debt : THB 17,504 million



- As of 31 December 2018, total debt at was in THB and JPY currency.
- The interest-bearing debt is comprised of long-term loan and debentures which includes 6% of current portion.

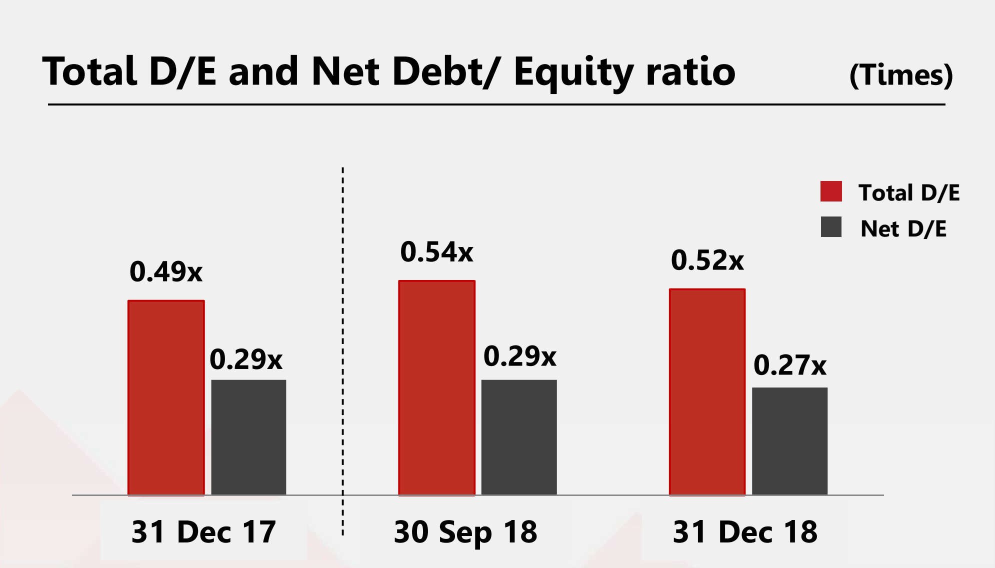
Debt Repayment Plan

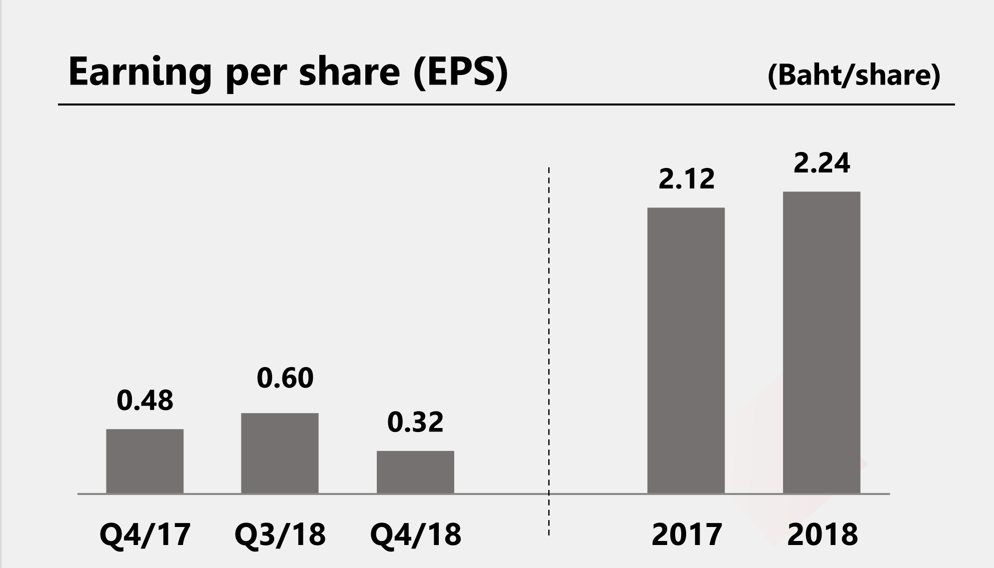


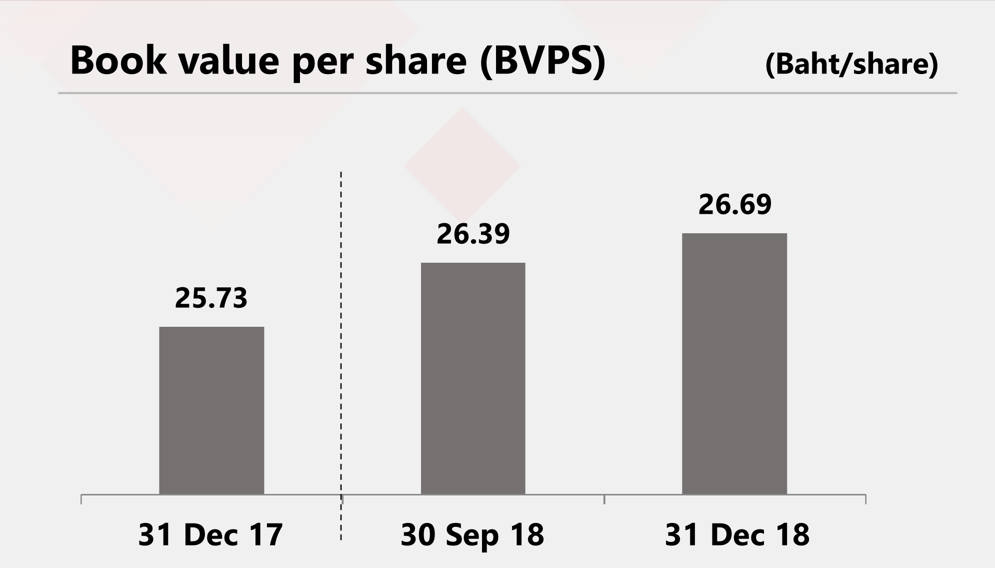
% of total interest-bearing debt

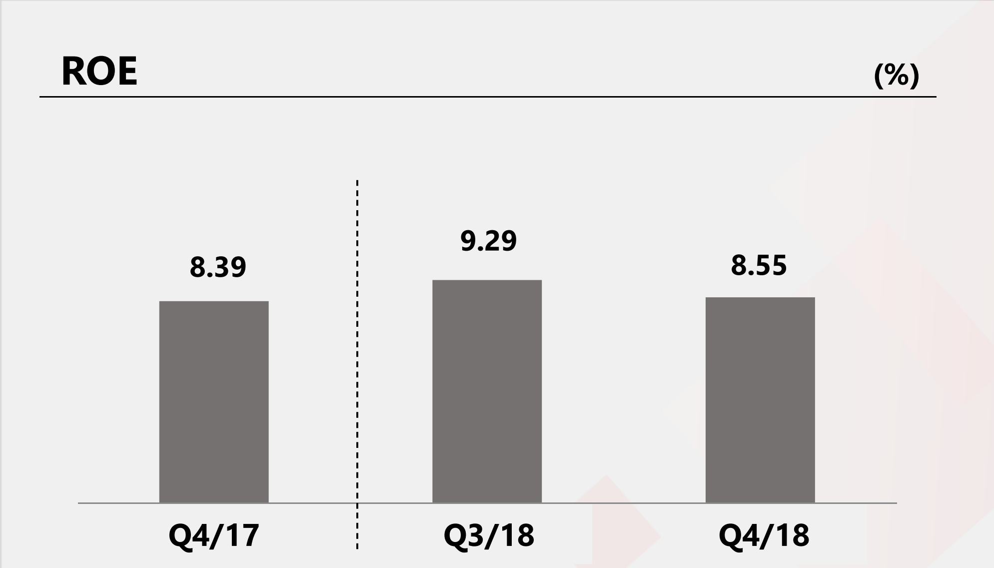
- Non-current portion of interest-bearing debt equals to THB 16,452 million while current portion equals to THB 1,052 million.
- 46% of total interest-bearing debt will be repaid between January 2020 – December 2023.

Key Financial Ratios









THANK YOU

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APPENDIX

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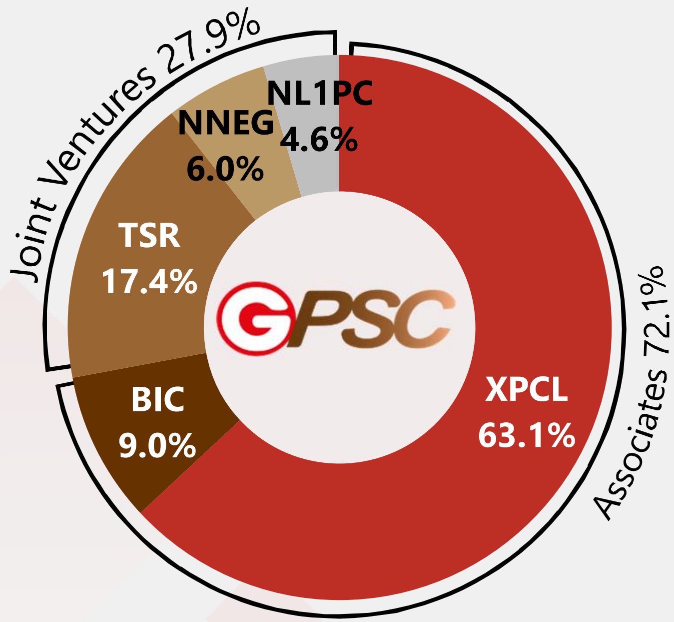
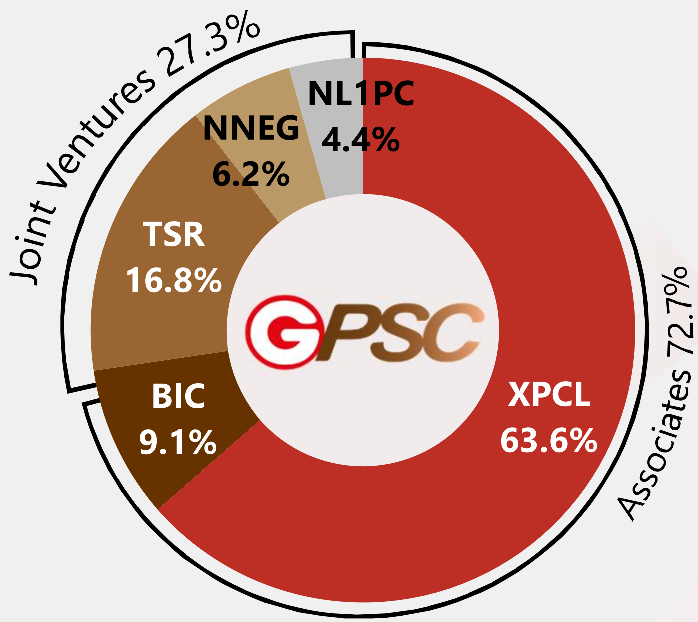
Investment in Associates and joint ventures

Proportion of GPSC's investment in associates and joint ventures at Q3/18 and Q4/18 (THB Million, %)



<u>Q3/2018</u>: Total of THB 9,472 million



<u>Q4/2018</u>: Total of THB 9,730 million

- GPSC's investment in associates and joint ventures increased from THB 9,472 million at Q3/18 to THB 9,730 million at Q4/18 or **approximately THB 258 million or 2.72% increase.**
- The **increase in investment in Q3/18 was mainly from the investment in XPCL which increased by THB 206 million** while the share of profit from associates and joint ventures in Q4/18 contributed to an increase in the investments for THB 131 million.

2019 Maintenance schedule: Sriracha and Rayong plants

Plant	Tag no.	Description	Q1 Jan	Q1 Feb	Q1 Mar	Q2 Apr	Q2 May	Q2 Jun	Q3 Jul	Q3 Aug	Q3 Sep	Q4 Oct	Q4 Nov	Q4 Dec
CUP-1	H-13701	Aux. Boiler.11			15 3Y 28									
	N-13901	GTG11		12 MI 5										
	H-13702	HRSG11		12 3Y 5										
	N-13902	GTG12				07 1Y 17								
	H-13703	HRSG12				07 1Y 17								
	N-13903	GTG13							12 1Y 22					
	H-13704	HRSG13							12 1Y 22					
	N-13904	GTG14	17 HG 30											
	H-13705	HRSG14	17 3Y 30											
	N-13961	GTG15										16 HG 29		
	H-13761	HRSG15										16 3Y 29		
	N-13962	GTG16	3 1Y 13											
	H-13762	HRSG16	3 1Y 13											
CUP-2	H-23701	Aux. Boiler.21							1 3Y 13					
	N-23901	GTG21			9 1Y 19									
	H-23701	HRSG21			9 1Y 19									
	N-23902	GTG22						12 1Y 22						
	H-23702	HRSG22						12 1Y 22						
	N-23911	Steam Turbine21												
CUP-3	H-33701	Aux. Boiler 31								4 1Y 14				
	H-33711	Aux. Boiler 32									26 1Y 06			
	H-33712	Aux. Boiler 33										14 1Y 24		
SRC	11MB	GT11											15 CI 28	
	1-211-SG-101	HRSG#1											15 1Y 28	
	12MB	GT12											15 CI 28	
	1-211-SG-201	HRSG#2											15 1Y 28	
	STG	Steam Turbine 10												

Notes Rayong Site

GTG
HG Hot Gas Path Inspection for Gas Turbine 14 days
MI Major Inspection for Gas Turbine 22 days

STG
Minor Minor Inspection for Steam Turbine 15 days
1MO 2nd Major Overhaul for Steam Turbine 23 days
2MO 2nd Major Overhaul for Steam Turbine 27 days

AB
1Y One Year Inspection Aux. Boiler 11 days
3Y Three Year Inspection Aux. Boiler 13 days

HRSG
1Y One Year Inspection HRSG 11 days
3Y Three Year Inspection HRSG 14 days

Other
1Y One Year Inspection NG Station Test Online
5Y Five Year Inspection NG Station (NDT) Online
FO Forced Outage Depending on physical damage

Notes Sriracha Site

GTG
CI Combustion Inspection for Gas Turbine 8 days
HGPI Hot Gas Path Inspection for Gas Turbine 26 days
MO Major Overhaul for Gas Turbine 33 days
RCIE Rotor and Casting Inspection Evaluation 49 days

HRSG
1Y One Year Inspection HRSG 8 days
3Y Three Year Inspection HRSG 33 days

Other
1Y One Year Inspection NG Station Test Online
5Y Five Year Inspection NG Station (NDT) Online
FO Forced Outage Depending on physical damage

2018-2019 Maintenance schedule: IRPC-CP

Plant	Unit	2018				2019			
		Q1 (A)	Q2 (A)	Q3 (A)	Q4 (A)	Q1 (F)	Q2 (F)	Q3 (F)	Q4 (F)
IRPC-CP	**Block 1**								
	CTG 21	E			A	1	1	1	1
	HRSG 21	E			A	1	1	1	1
	CTG 22	E			A	1	1	1	1
	HRSG 22	E			A	1	1	1	1
	STG 23								
	Block 2								
	CTG 31	E			A	1	1	1	1
	HRSG 31	E			A	1	1	1	1
	CTG 32	B				1	1	6	1
	HRSG 32	B				1	1	6	1
	STG 33							3	
	Aux. Boiler		YI				7		

Notes

YI	Yearly Inspection	5 days
YI	Yearly Inspection Aux Boiler	15 days
A	CTG Inspection Level A	5 days
B	CTG Inspection Level B	20 days
C	CTG Inspection Level C	24 days
E	EPC Inspection End of Warranty	3 days

* For 2019: numbers on the table are number of maintenance days