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

Innovative Power Company

Corporate Presentation

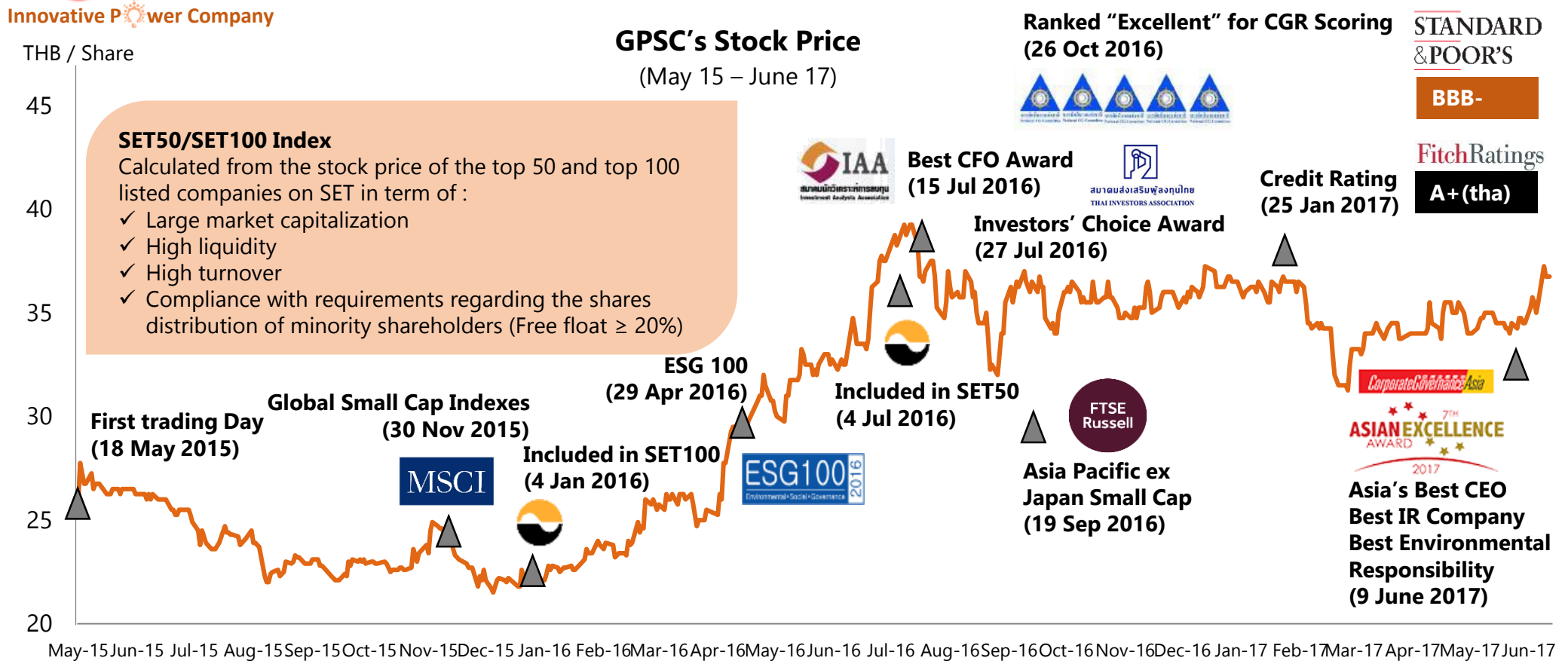
SET – Krungsri Securities Conference in Japan

3rd July 2017

STANDARD &POOR'S BBB-

FitchRatings A+(tha)

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 standards, namely **MSCI Index** and then in September 2016, GPSC was 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.**
- 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. Also, GPSC's IR team 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**.
- Recently in June 2017, President & CEO of the company received **Asia's Best CEO** while the company received **Best IR Company** and **Best Environmental Responsibility** from Corporate Governance Asia. **These are the results of confidence on GPSC performance from all stakeholders.**

Innovative Power Company

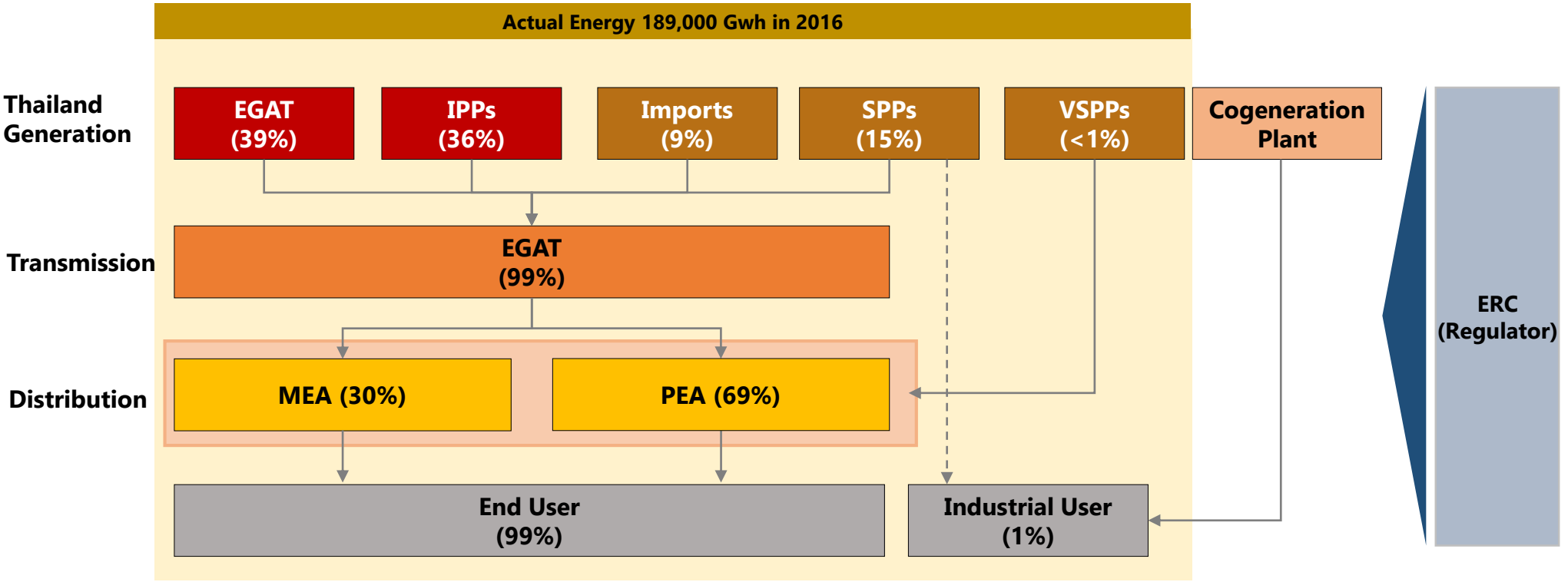
Thailand Power Industry Overview

Company Overview

1Q 2017 Financial Performance

Current Power Industry Structure in Thailand

- **EGAT and IPPs dominate electricity generation market**, with the combined market share 72%.
- 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
IPP	Independent Power Producers
SPP	Small Power Producers
VSPP	Very Small Power Producers
MEA	Metropolitan Electricity Authority
PEA	Provincial Electricity Authority

Source: EGAT, Company

Power Plant Definition and Revenue Structure

IPP

Independent Power Producer (IPP):

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

SPP

Small Power Producer (SPP):

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

SPP Type

Firm : Contract Term > 5 Years
Non-Firm : Contract Term <= 5 Years

- SPPs can sell their electricity and steam to industrial customers located next to the SPP plant

VSPP

Very Small Power Producer (VSPP):

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

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

EGAT (Power)		
Firm	Capacity Payment +	Energy Payment
Non-Firm	K factor (seasonal weight) ×	Energy Payment
Industrial Customers		
Electricity	PEA tariff TOU Rate 4.2*	
Steam	Steam Base Cost x (Gas index + CPI index)	

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

Base Tariff	+ Ft +	adder
Feed in Tariff		

Pricing structure for each type of GPSC's power plant

GPSC's Business Portfolio

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

Japan : ISP1 20.8 MW ICHINOSEKI SOLAR POWER 1 GK

Lao PDR : NL1PC 65 MW

Pricing Structure

IPP/Import = Availability Payment + Energy Payment

Availability Payment	Energy Payment
Investment cost • Equity Return • Financing Cost • Fix O&M	• Fuel Cost • Variable O&M

SPP (firm) = Capacity Payment + Energy Payment

Capacity Payment	Energy Payment
• Vary by type of fuel & Contract Period • FX adjustment	• Vary by type of fuel • Fuel adjustment

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

Cogen (Sell to IU) = Electricity + Steam

Electricity	Steam
• Base Tariff (PEA : TOU 4.2) + Ft	• Cost Plus Basis

VSPP Renewable = Base tariff + Ft +Adder

VSPP Renewable = FiT

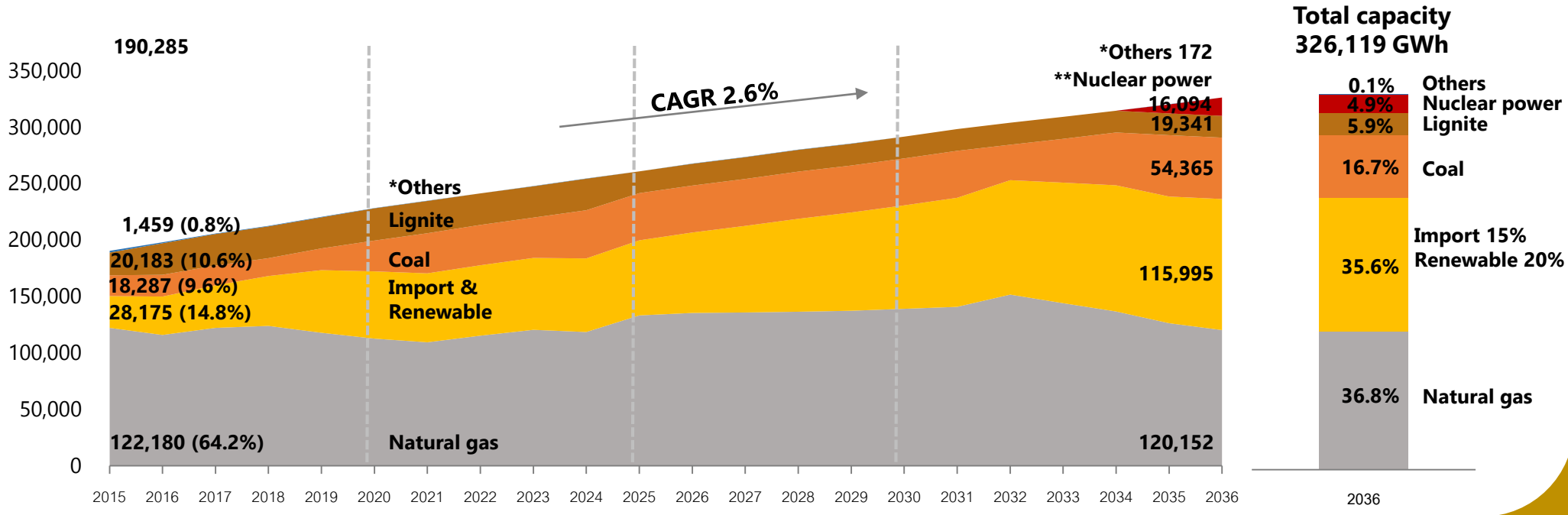
Renewable = FiT

Renewable = Fixed Rate with escalation

Natural gas and Renewable will be major sources of fuel in Thailand in 2036, together accounted for over 70%

- According to Thailand's Power Development Plan 2015 (PDP - by Energy Policy and Planning Office (EPPO), Ministry of Energy), power plant capacity in **Thailand will generate 326,119 GWh of electrical energy by the end of 2036, which accounted for 2.6% CAGR**
- Natural gas will still be a major source of fuel, accounted for 36.8% of total energy production
- The reserve margin from 2016 – 2031 is higher than EGAT's suitable reserve margin of 15%; implying that in the next 15 years the demand of electricity will significantly increase
- Thus, electricity generating need to be prepared to ensure an appropriate level of country's electricity demand and supply

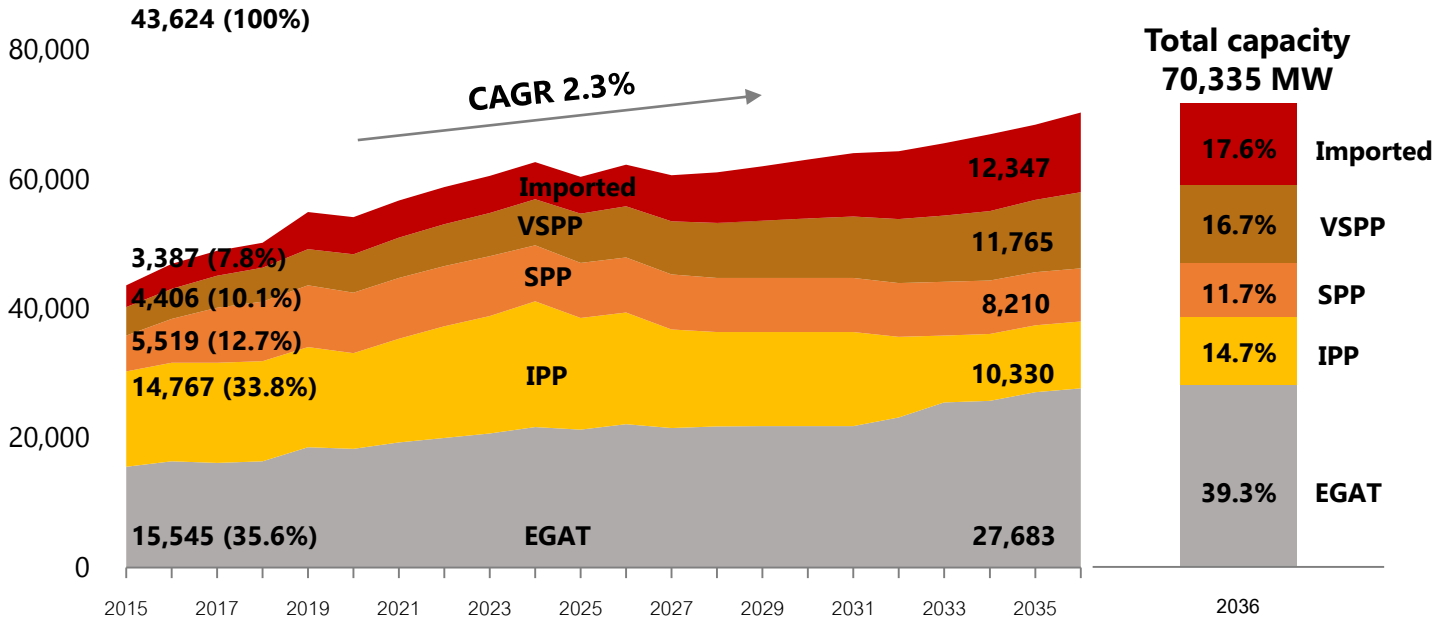
Projected Electricity Generating by source of fuel (GWh)



*Remark: *Others are Fuel oil, Diesel, Thai-Malaysian gas pipeline which account for less than 1% of total capacity, **New clear power is added into plan in 2035 with projected capacity of 8,024 GWh*
Source: Power Development Plant 2015 - Energy Policy and Planning Office (EPPO), Ministry of Energy)

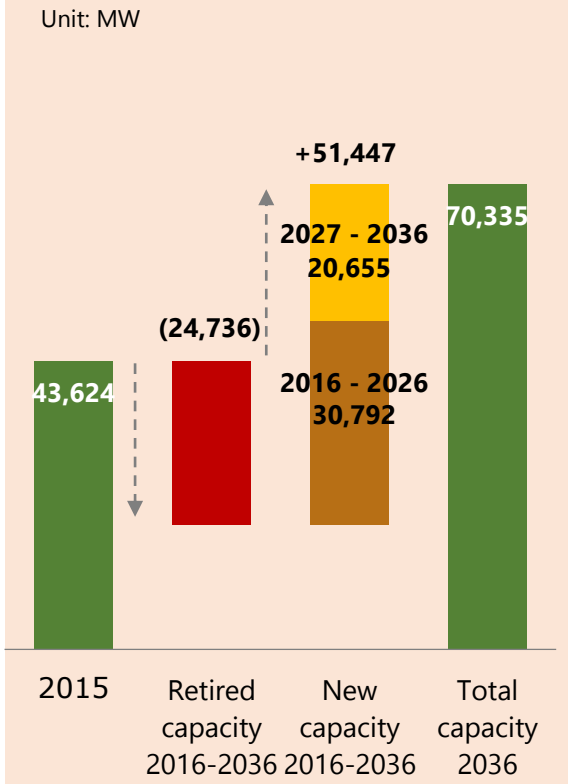
Large opportunity for GPSC to tap in those expected capacity

Projected Power Plant Capacity by producer type
(MW)



- **2.3% CAGR** of the power generating capacity by producer type is expected in PDP 2015
- **By 2036, Imported & VSPP will increase its portion to 34.3%** of the total generating capacity which is nearly to EGAT's at 39.3%
- During 2027 – 2036 there is a large amount of **new contract capacity at 20,655 MW for GPSC to tap in**
- **Peak demand in 2016 occurred at night** because more than 1,200 MW of electricity produced from solar power plants in day time that distributed to MEA and PEA replaces production from EGAT IPP which this portion of electricity is not recorded by EGAT to accumulate the peak demand causing peak demand to shift from day to night time.

Thailand's power contract capacity during 2016-2036 (new and retired)



Source: Power Development Plant 2015 - Energy Policy and Planning Office (EPPO), Ministry of Energy, as of June 20, 2015

Thai government policy advocates growth of energy and electricity sectors

- **Ensure consistency and security of electricity and energy** supply by seeking energy from neighboring countries

- **Improve electricity and energy infrastructure** to enhance competitiveness especially in transmission line in regional areas

- **Diversify sources of energy**, esp. the alternative energy such as clean coal, to maintain self-sufficiency

- **Ensure price affordability** to stabilize the energy sector and help end-consumers

- **Energy policies is more environmental-concerned,** supported by the use of clean-coal energy and other non-fuel sources

- **Promote research and development in energy sector,** especially exploration of new energy sources and technologies

Source:: Policy Announcement of Government and News, PYI Analysis


Thailand Power Industry Overview
Company Overview
1Q 2017 Financial Performance

Petroleum Authority of Thailand PCL (PTT), GPSC's parent company, is the largest energy conglomerate in Thailand

PTT-Operated Business

Gas Business Unit
- The entire chain of natural gas from exploration and production, procurement, transportation to gas separation and marketing of natural gas

Oil Business Unit
- Engaging in marketing and distribution of refined fuels, LPG and lubricating products

International Trading Business Unit
- A fully international trading business covering procurement, international trading of crude oil, condensate, petroleum, petrochemical products as well as other specialty substances

Infrastructure Business Unit
- Engaging in maximizing efficiency of infrastructural asset management and promote proficiency in professional project management such as land development businesses, standards and operating systems for sustainability, engineering and maintenance services etc.

Business invested through PTT Group companies

Petroleum exploration and production (E&P)
- PTT conducts the exploration and production business (domestic and international) through PTT Exploration and Production PCL (PTTEP)

Power Business
- PTT engages in the power business through Global Power Synergy PCL (GPSC)
- As PTT's power-business flagship, GPSC produces public utilities (electricity, steam, demineralized water, chilled water) for industrial users and Electricity Generating Authority of Thailand (EGAT)

Coal Business
- PTT invests in the coal business and coal mining business in Indonesia for sale to China, Korea, Japan, and Taiwan through PTT Energy Resources Co., Ltd (PTTER)

Petrochemical & Refining Business
- PTT invests through 10 subsidiaries in doing Petrochemical & Refining Business
- The scope is from fuel processing, production and sales of upstream, intermediate, and downstream petrochemicals, together with various polymers, worldwide marketing business, and integrated logistical services

Source: PTT 's Nature of Business, PTT's Annual Report 2015

Introduction to GPSC, a "PTT Group's Power Flagship"

GPSC has been founded to be the power flagship of PTT Group. In 2013-2014, PTT Group were restructured and transferred Power Assets to GPSC. The integration results in a total generating capacity of 1,851 MW of electricity; thereafter GPSC has acquired more to have 1,922 MW of committed electricity, 1,582 tons per hour of steam, 2,080 cubic meters per hour of industrial water and 12,000 refrigeration tons of chilled water.

KEY MILESTONES

1997 — Established Sriracha Power Plant (700 MW, IPP)

2004 — Established Rayong Power Plant (339 MW, SPP)

2013 — Consolidated all PTT's power asset under GPSC

2014 — Transferred 8 of PTT's power assets to GPSC

2015 — **PTT Group's Power Flagship**, Listed on Stock Exchange of Thailand

MSCI Global Small Cap Indexes

2016 — FTSE Russell Asia Pacific ex Japan; SET50 Index; ESG100 2016

Market Cap* **USD 1.56 BN** or 0.3% of SET

2019 — Complete COD of total electricity capacity of 1,922

Independent Power (Thailand)

Thaioil POWER 56% | Thaioil 24% | ptt 20% → IPT

PTT Utility

ptt GLOBAL CHEMICAL 60% | ptt 40% → ptt UTILITY

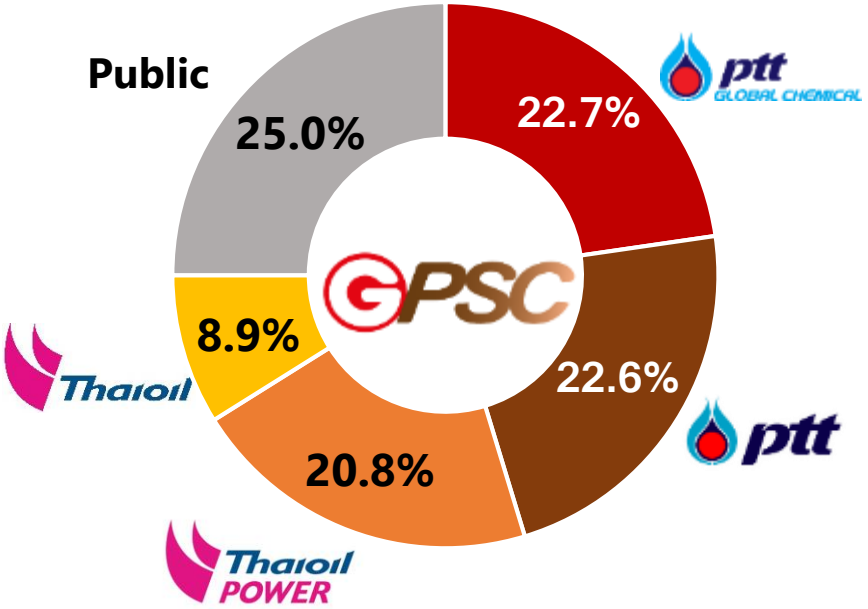
GPSC's Pre-listed Shareholding

ptt 30% | ptt GLOBAL CHEMICAL 30% | Thaioil POWER 28% | Thaioil 12% → GPSC

* Dated 30 June 2017 at USD/THB 34

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**

GPSC's facilities produce electricity of 1,922 Equity MW
(2,318 Equity MW equivalent ; electricity 1,922 Equity MW , steam 1,582 T/H)

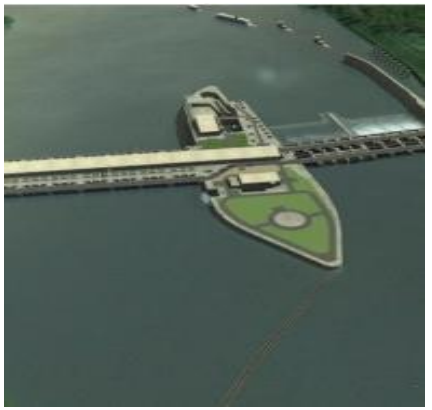
BUSINESS PORTFOLIO

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

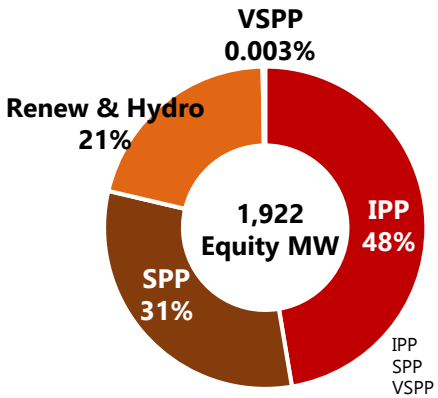
ELECTRICITY
1,922 MW (operate 1,410 MW, under constriction 541 MW)

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

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
- 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

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**		

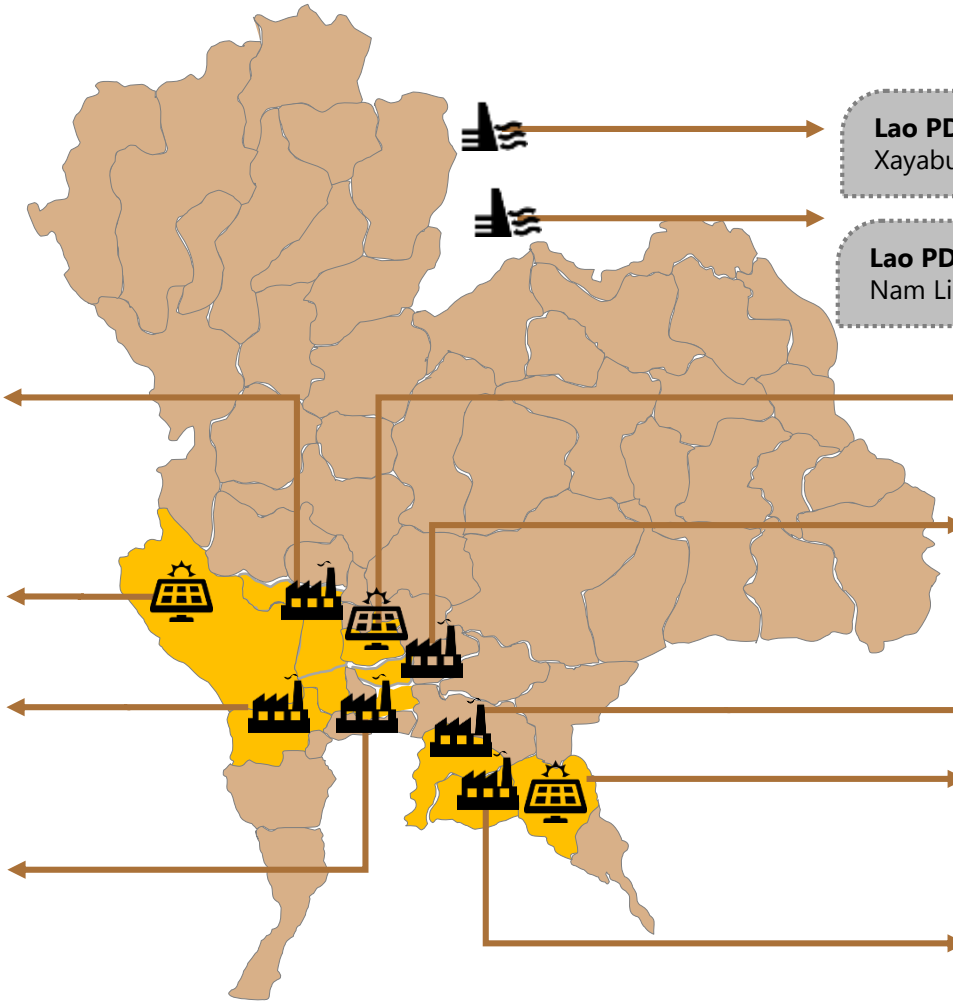
Presently, GPSC's business portfolio is located in Thailand, Lao PDR and Japan

Project under construction

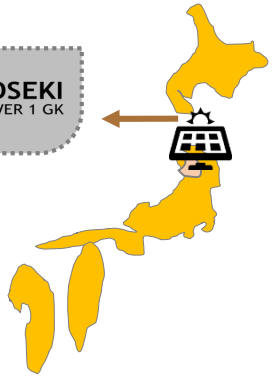
Gas Power Plant

Hydro Power Plant

Solar Power Plant



Japan
Ichinoseki
ICHINOSEKI SOLAR POWER 1 GK



Lao PDR
Xayaburi

Lao PDR
Nam Lik 1

Ayutthaya
BIC-1
BIC-2

Karnchanaburi
TSR

Ratchaburi
RPCL

Bangkok
CHPP

Suphanburi
TSR

Pathumthani
NNEG

Chonburi
Sriracha

Chanthaburi
CHPP (Solar)

Rayong
IRPC-CP Phase 1
CUP-1, 2, 3

IRPC-CP Phase 2*
Rayong Expansion*

1Q 2017 Highlights

Growing Profit with Sustainability and Control

Explore new opportunity through 3 growth engines

Within 2019, GPSC will have 1,922 MW in power portfolio with CAGR at 11.6% by leveraging competitiveness and 3 growth engines:

(1) Grow with PTT & Domestic,
(2) International business expansion, and
(3) Future Energy development.

Growth

1Q17 Net profit delivered as planned

Profit

GPSC's **net profit in Q1/17 increased by THB 331 million** from Q4/16 thanks to continuously efficient cost management of Rayong Plants. For Sriracha Power Plant, revenue from availability payment increased. However, net profit decreased YoY by Baht 121 million or 14% because dividend incomes from RPCL decreased by Baht 60 million and operating profit of IRPC-CP Phase 1 decreased due to a turnaround of main customer.

Energy Storage System gearing up toward sustainability

Sustainability

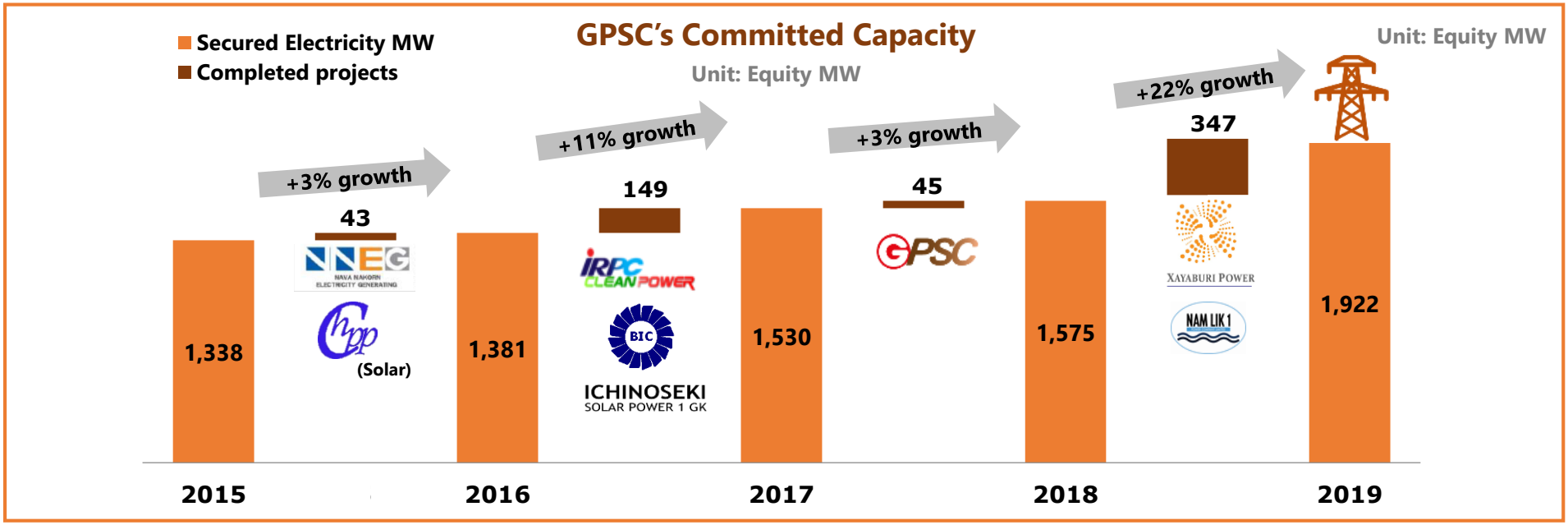
As market moves toward energy storage technology, **GPSC reached cooperation deal with 24M in using the technology to produce and distribute Lithium-Ion batteries in ASEAN.** With innovative technology, there will be varieties of electricity generating platforms supporting to GPSC's sustainable growth.

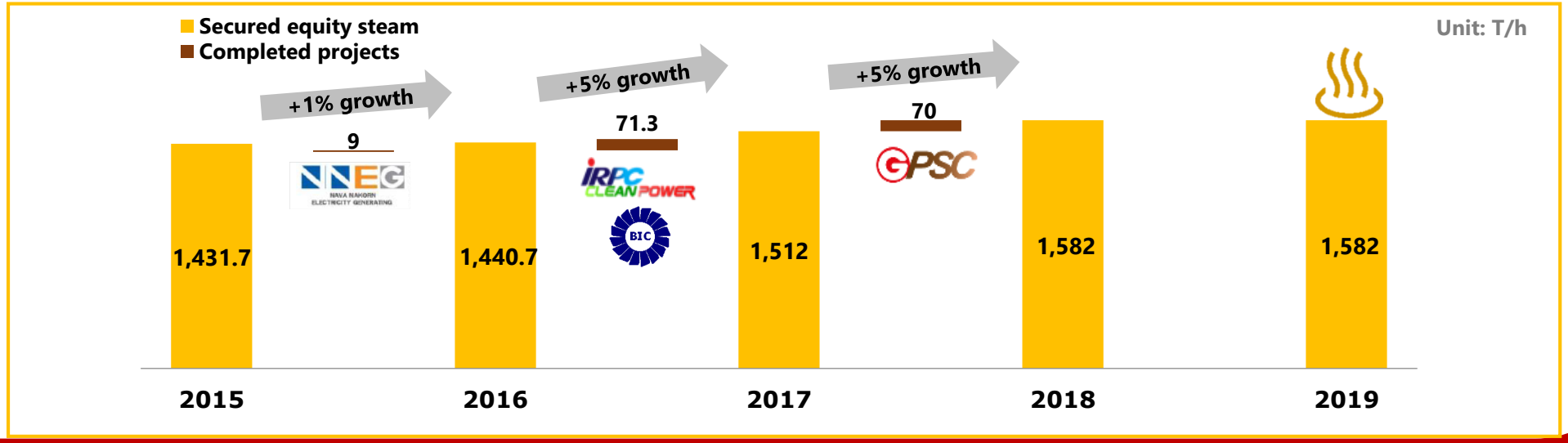
Control

6 projects in progress meet milestones as planned

Three power plants are expected to COD by 2017 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.

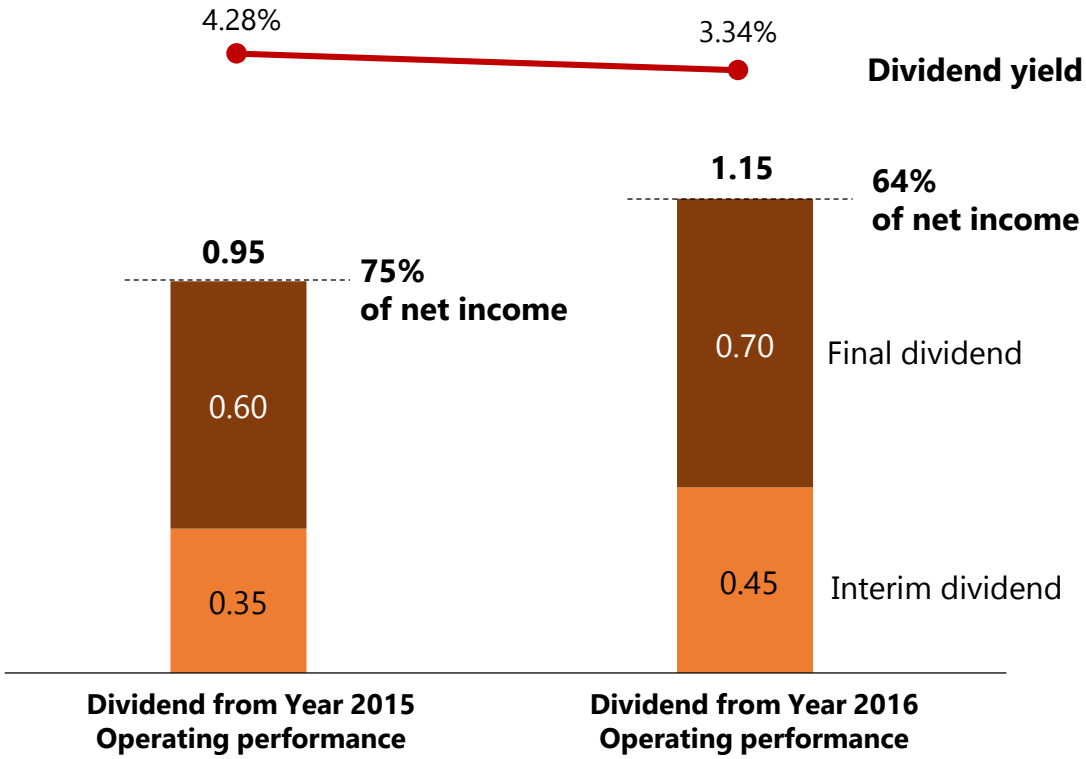
GPSC will deliver outstanding growth during 2017-2019





Dividend payout ratio consistently exceeds policy

Final & interim dividend payout and Dividend yield
(THB per share, %)



- **Dividend Policy : Minimum of 30% of net income** according to a financial statement, after deductions of tax, reserve capital requirement (with additional conditions)

- **On 3 April 2017, BOD passed** a resolution for the payment of dividend for 2016 at **THB 1.15 per share** which is higher than 2015 dividend, resulting from the growth in operating earnings.
- The **dividend per share for 2H/16 is THB 0.70 which was paid on 11 April 2017.**
- **The Record Date was on 24 February 2017** for the right to receive the dividend.

- The final dividend was paid from the tax exemption profit portion wherein **individual shareholders shall not include as taxable income** and not be entitled to a dividend tax credit at the rate of **THB 0.52 per share,** and from profit with 30% Corporate Income Tax wherein individual shareholders are entitled to a tax credit at the rate of **THB 0.18 per share**

Growth Strategies

Maximize — Optimize and Manage cost on existing operating asset

Manage — Project Management / Portfolio Management

Move

3 Growth Engines

Grow with PTT & Domestic

- Be PTT Group's power supplier of choice
- New customers in Thailand
- Positioned for new Energy Policy

International Business

- Focus countries
- Enhance country knowledge and relationship
- Strategic partners

Future Energy

Energy Storage System

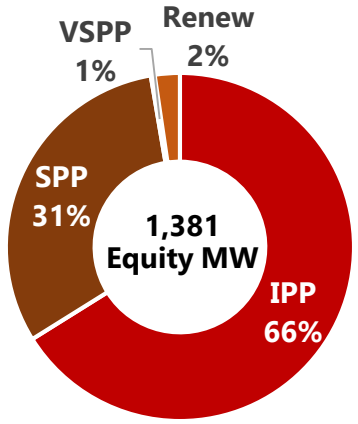
- power grid generation
- Smart grids for smart cities

New Organization / Process to support the model

Innovative Power Company

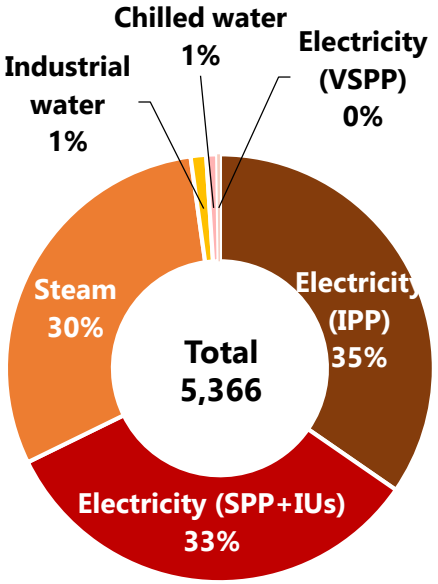
Majority of GPSC's revenue is from electricity, PTT Group is GPSC's major customer

ELECTRICITY CAPACITY BREAKDOWN
(Unit: Equity Megawatt)



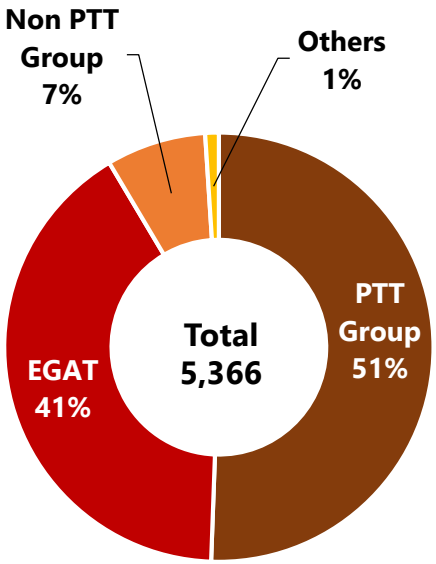
Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	Steam (T/H)
IN OPERATION					
Sriracha	IPP	100%	700	700	
CUP-1	SPP	100%	226	226	890
CUP-2	SPP	100%	113	113	170
CUP-3	SPP	100%	-		280
CHPP	VSPP	100%	5	5	
IRPC-CP Phase 1	SPP	51%	45	23	86.7
CHPP (Solar)	VSPP	100%	5	5	
Consolidate to Financial Statement				**1,072**	**1,427**
TSR	Renew	40%	80	32	
NNEG	SPP	30%	125	38	9
BIC-1	SPP	25%	117	29.25	5
RPCL	IPP	15%	1,400	210	
Share of Profit / Dividend Income				**309**	**14**
Total operating				**1,381**	**1,441**

Q1/2017 Revenue by product
(THB million)



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

Q1/2017 Revenue by customer
(THB million)

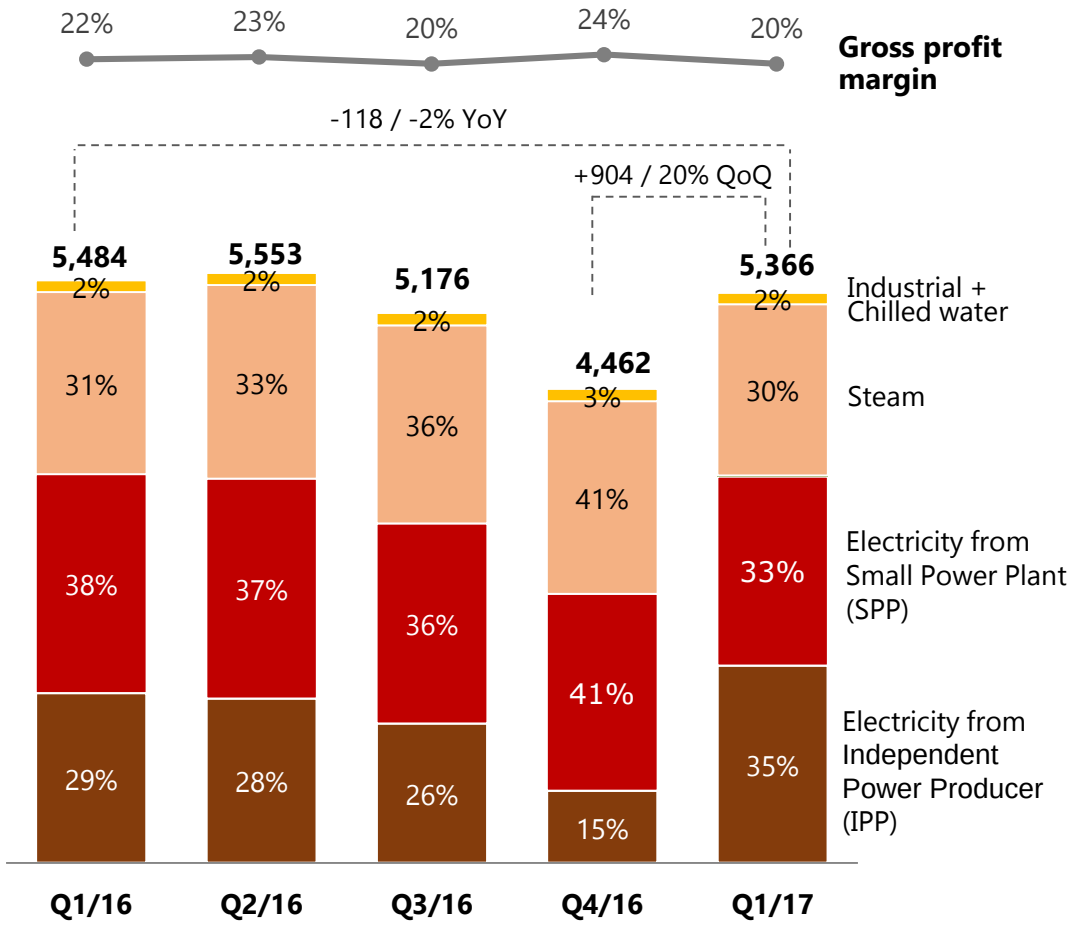


- Accounted for more than 50% of total revenue, PTT Group is consistently the largest customer of GPSC in Q1/17.

IUs : Industrial Users

Revenue increased THB 904 million or 20% QoQ mainly from SRC

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



Q1/17 VS Q4/16 (QoQ)

- Operating revenue in Q1/17 increased by THB 904 million or 20% compare to Q4/16. The increase was due to the higher revenue from Energy Payment (EP) resulted from the **higher dispatch volume of Sriracha plant**, which is an IPP, per EGAT's instruction.

Q1/17 VS Q1/16 (YoY)

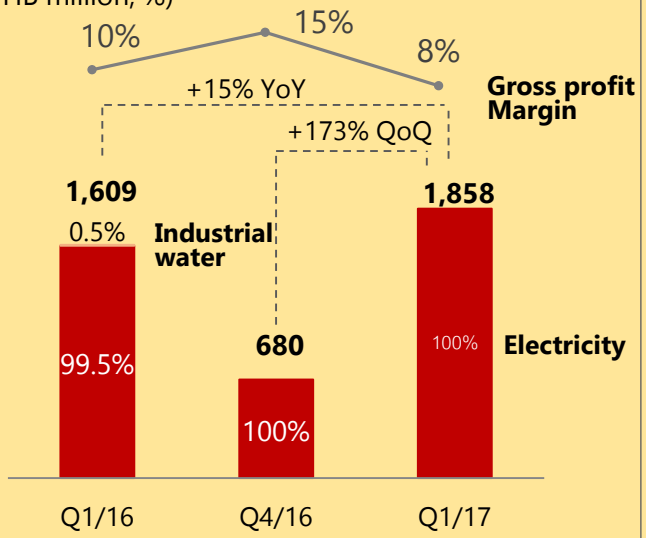
- Operating revenue in Q1/17 decreased by THB 118 million or 2% due to **lower sales volume of IRPC-CP Phase 1.**
- CUP and IRPC-CP, which are SPPs, had **maintenance shutdowns of some customers** in Q1/17 causing the drop in revenue.

*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*

Q1/17 Revenue and GPM by Major plant

Sriracha Plant (IPP)

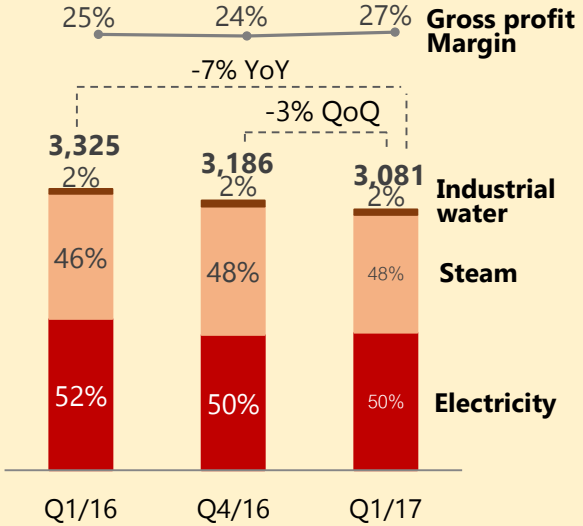
Total revenue & GPM
(THB million, %)



- **QoQ**: Total revenue was higher by THB 1,178 million mainly from an increase in the dispatch volume while the GPM decreased because of the increase in EP which is the revenue that mainly passes through cost in energy production than generating profit.
- **YoY**: Total revenue increased by THB 249 million, mainly due to the higher sales volume of electricity submitted to EGAT but GPM decreased from the increase in revenue from EP as well.

Rayong Plant (SPP)

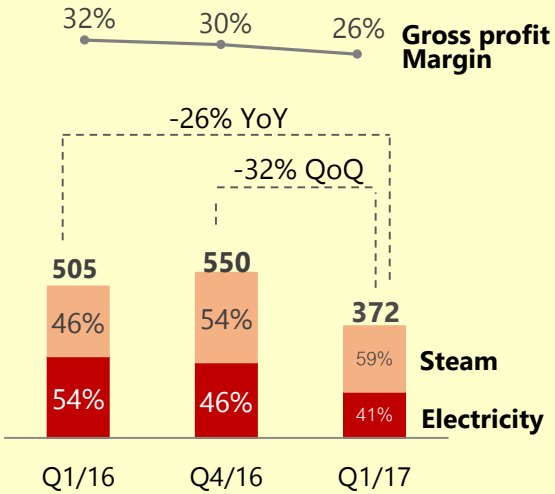
Total revenue & GPM
(THB million, %)



- **QoQ**: Total revenue was lower by THB 105 million due to the volumes of electricity and steam decreased by 1% and 11%, respectively. This is because many customers had maintenance shutdowns in Q1/17.
- **YoY**: Total revenue decreased by THB 244 million, mainly from the average selling price of electricity and steam decreased by 10% and 4%, respectively from decrease in gas price.

IRPC-CP Phase 1 Plant (SPP)

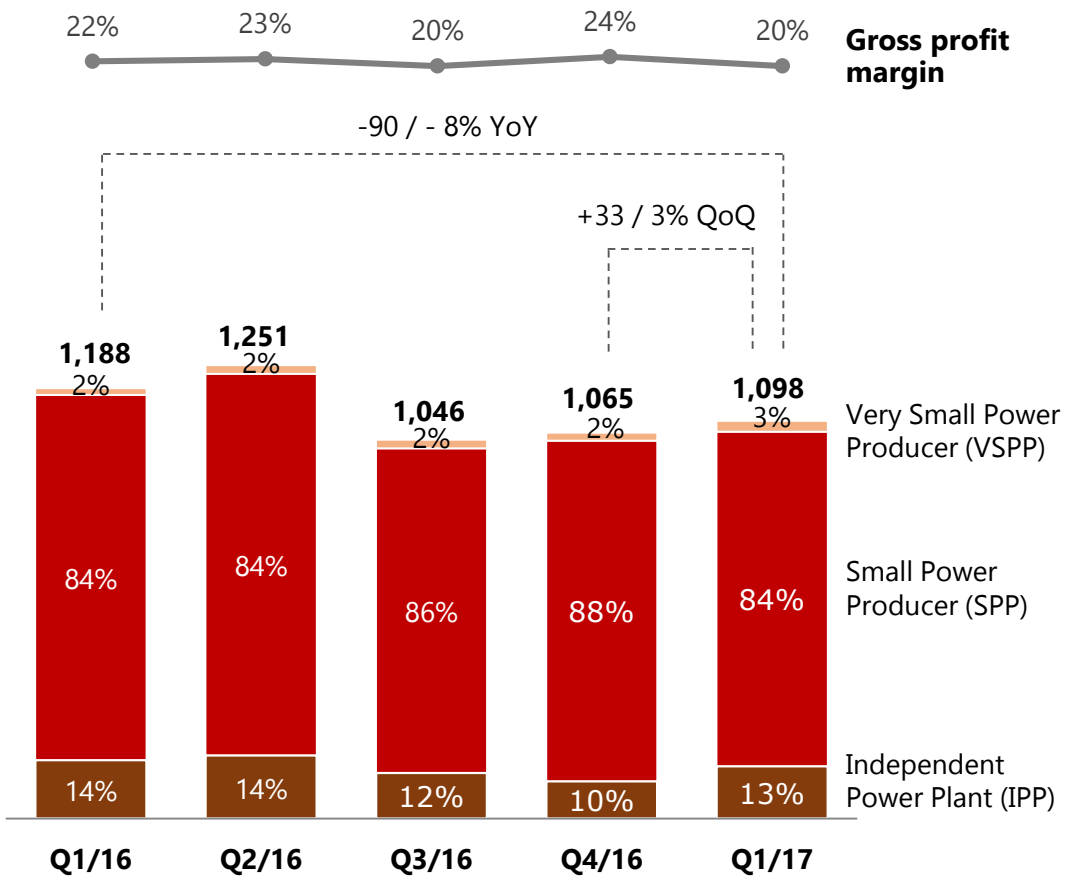
Total revenue & GPM
(THB million, %)



- **QoQ**: Total revenue was lower by THB 178 million mainly from the maintenance shutdown from the main customer for a month.
- **YoY**: The revenue of IRPC-CP Phase 1 in Q1/17 decreased from Q1/16 mainly because the one of the main customer had a maintenance shutdown for 1 month. Also, the GPM decreased from lower electricity and steam selling prices.

SPP is GPSC's main and prospering profit generator

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



Q1/17 VS Q4/16 (QoQ)

- Gross profit in Q1/17 increased by THB 33 million or 3% due to the **increase in availability rate of Sriracha.**
- Also, the **lower maintenance cost of CUP** brought about the increase in quarterly gross profit.
- However, **GPM slightly declined** from the **increase in the Energy Payment revenue**, which is the revenue that passes through the cost to EGAT, of Sriracha plant.

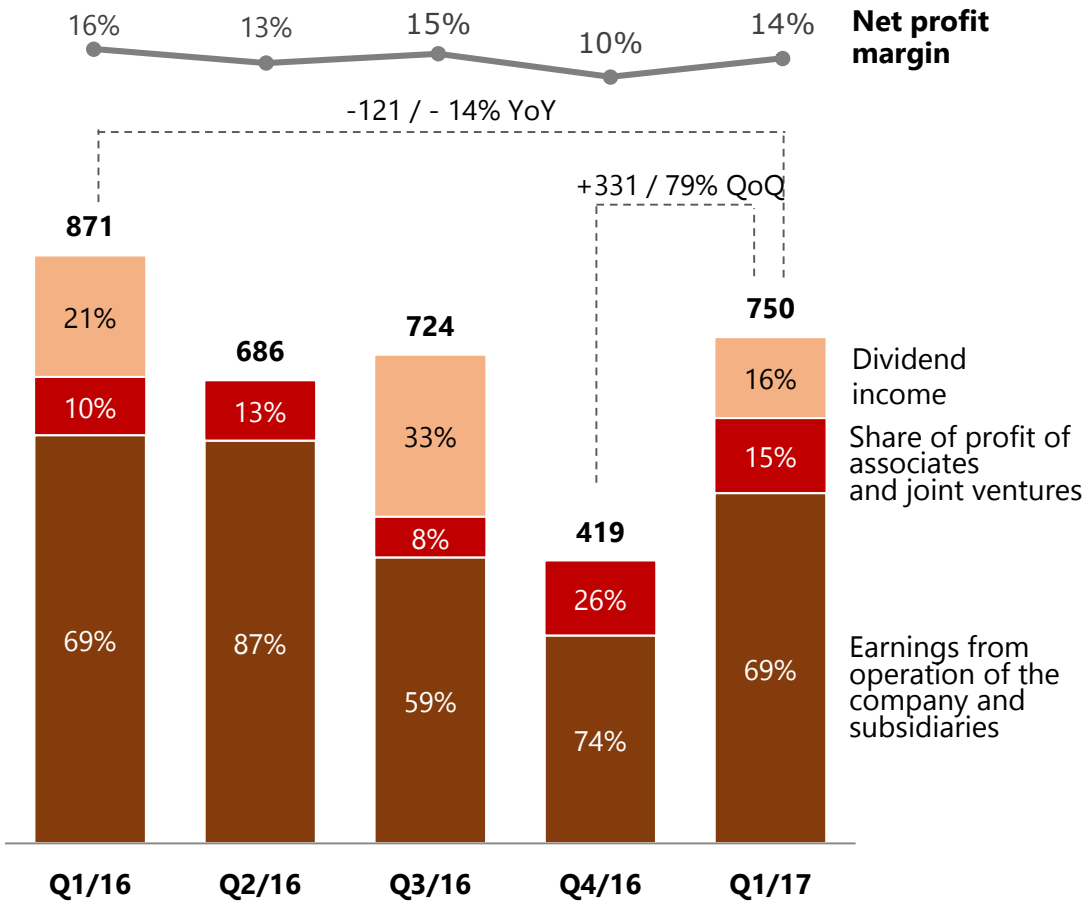
Q1/17 VS Q1/16 (YoY)

- Compare with Q1/16, gross profit decreased by THB 90 million or 8%. The decrease was mainly from **the drop in the profit of IRPC-CP because a major customer had maintenance shutdown** in Q1/17.

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

Net profit grew 79% QoQ from strong operating earnings and supported by returns from investments

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



Q1/17 VS Q4/16 (QoQ)

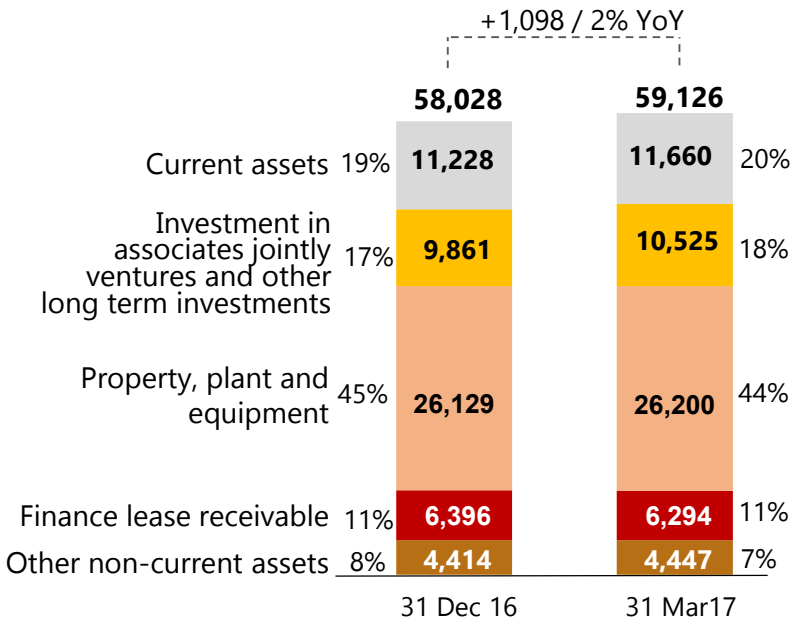
- The net profit increased by THB 331 million or 79% from **the continuously efficient cost management** and **the decrease in maintenance cost of Rayong CUP**.
- Furthermore, **the increase in the availability rate at Sriracha plant** contributed to higher profit.
- Also, GPSC **received dividend income from RPCL for THB 120 million.**

Q1/17 VS Q1/16 (YoY)

- Net profit decreased by THB 121 million or 14% due to the **dividend income from RPCL was lower than in Q1/16 by THB 60 million.**
- Moreover, the **drop in profits from IRPC-CP and Rayong CUP caused by the customers' maintenance shutdowns** decreased GPSC's overall net profit in Q1/17.

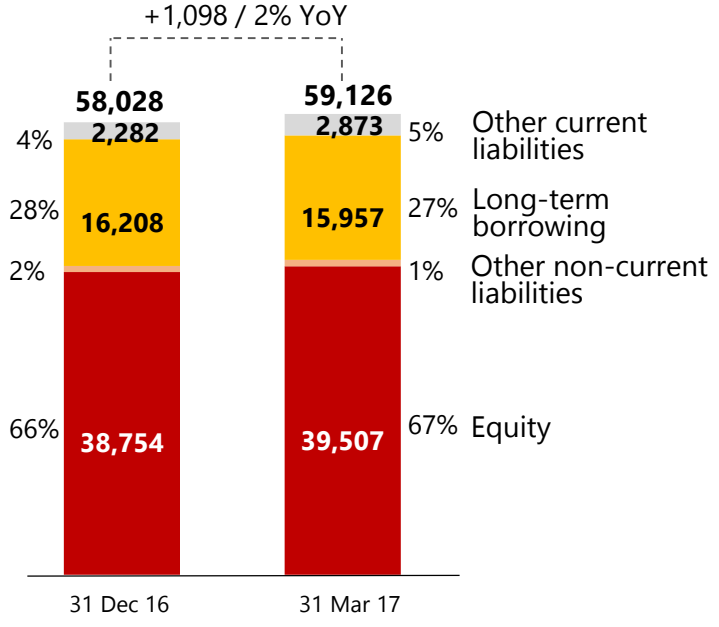
Summary of financial position of GPSC and its subsidiaries

Total Assets
(THB Million)



- **Total assets** increased by THB 1,098 million or 2% from THB 58,028 million to THB 59,126 million in Q1/17.
- The increase was mainly from the **increase in investment in XPCL for THB 645 million**, GPSC hold 25% of shares, and the **increase in fixed assets** of the power plant during Q1/17.

Total Liabilities & Shareholders equity
(THB million)

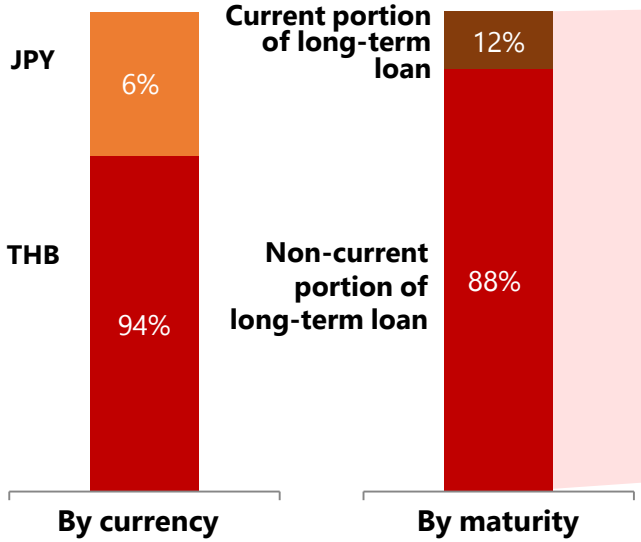


- **Total liabilities** increased by THB 345 million or 2% to THB 19,619 million due to the increase in the payable balance resulted from higher natural gas consumption from Sriracha plant.
- **Equity** increased by THB 753 million or 2% to THB 39,507 million from an increase in retained earnings thanks to the growths of from operating performance.

Well-managed debt profile and continuous deleveraging

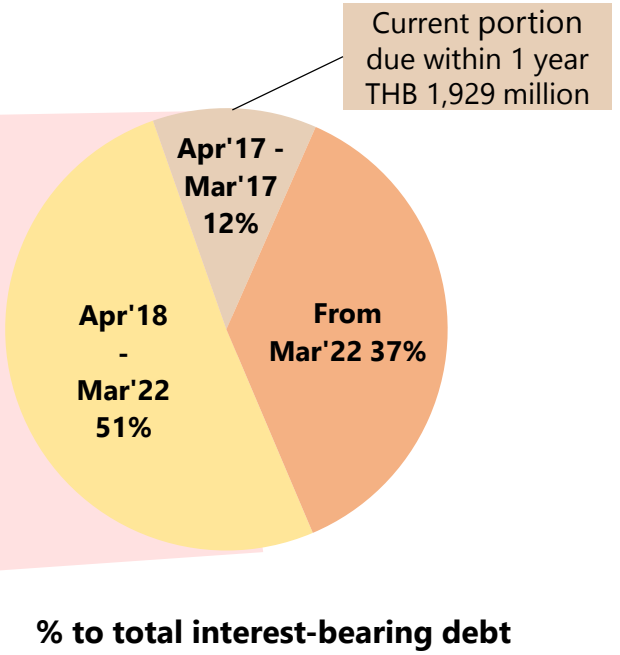
Debt profile

Total interest-bearing debt: THB 15,957 Million



- All debt balance as at 31 March 2017 is in **THB and JPY currency.**
- 100% of total interest-bearing debt is long-term loan which includes **12% of current portion.**

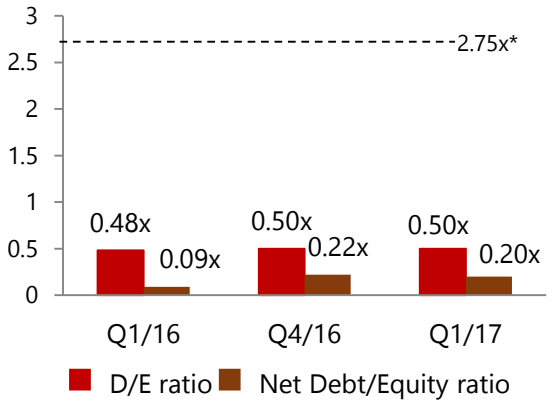
Debt repayment plan



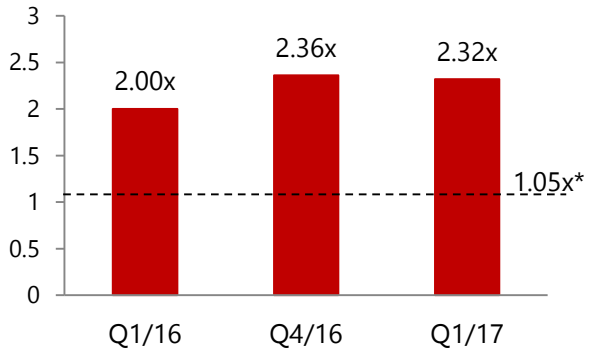
- **Non-current portion** of long-term debt equals to THB 14,028 million while **current portion** equals to THB 1,929 million.
- 51% of total interest-bearing debt will be repaid between April 2018 – March 2022.

Key financial ratio support GPSC's strong financial position

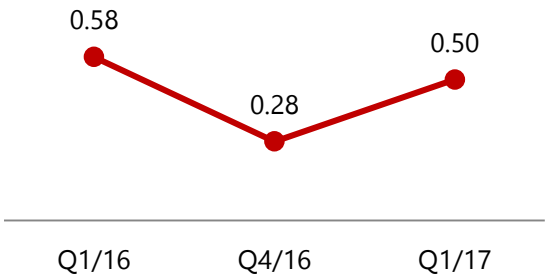
Total D/E and Net Debt/ Equity ratio
(Times)



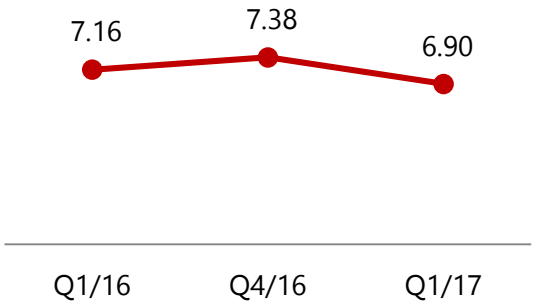
DSCR
(Times)



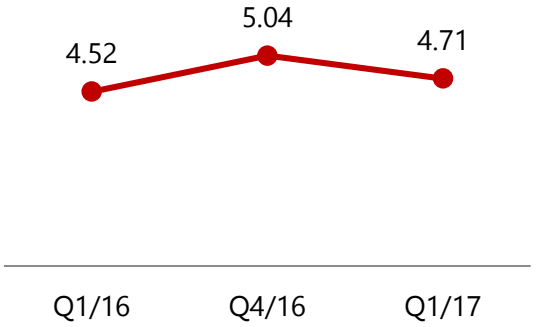
Earning per share (EPS)
(Baht/share)



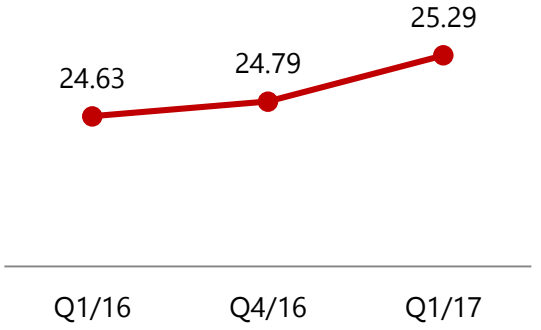
ROE
(%)



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*

Innovative Power Company

THANK YOU

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Appendix

- Thailand Power Industry Overview
  - **Government Policy & Key Power Authorities**
- GPSC's Overview

Roles and Authorities in Energy Sector in Thailand

Ministry of Energy

The most significant government energy authority in Thailand. MOE is responsible for energy policy-making as well as overseeing the government agents under related to energy and power industries

Energy Policy and Planning Office (EPPO)

Energy policy think-tank:
- Draft the PDP plan and other energy policies for the MOE

Electricity Generating Authority of Thailand (EGAT)

Single buyer of electricity:
- Responsible for electric power generation and transmission
- Purchase electricity and distribute to consumers

Energy Regulatory Commission (ERC) (Independent body)

Regulator of energy sector:
- Oversee the regulations about electricity systems of generation, transmission, distribution, and their system operator

Metropolitan Electricity Authority (MEA)

Metropolitan agent of EGAT:
- Purchase electricity and distribute to consumers in the Bangkok metropolitan areas

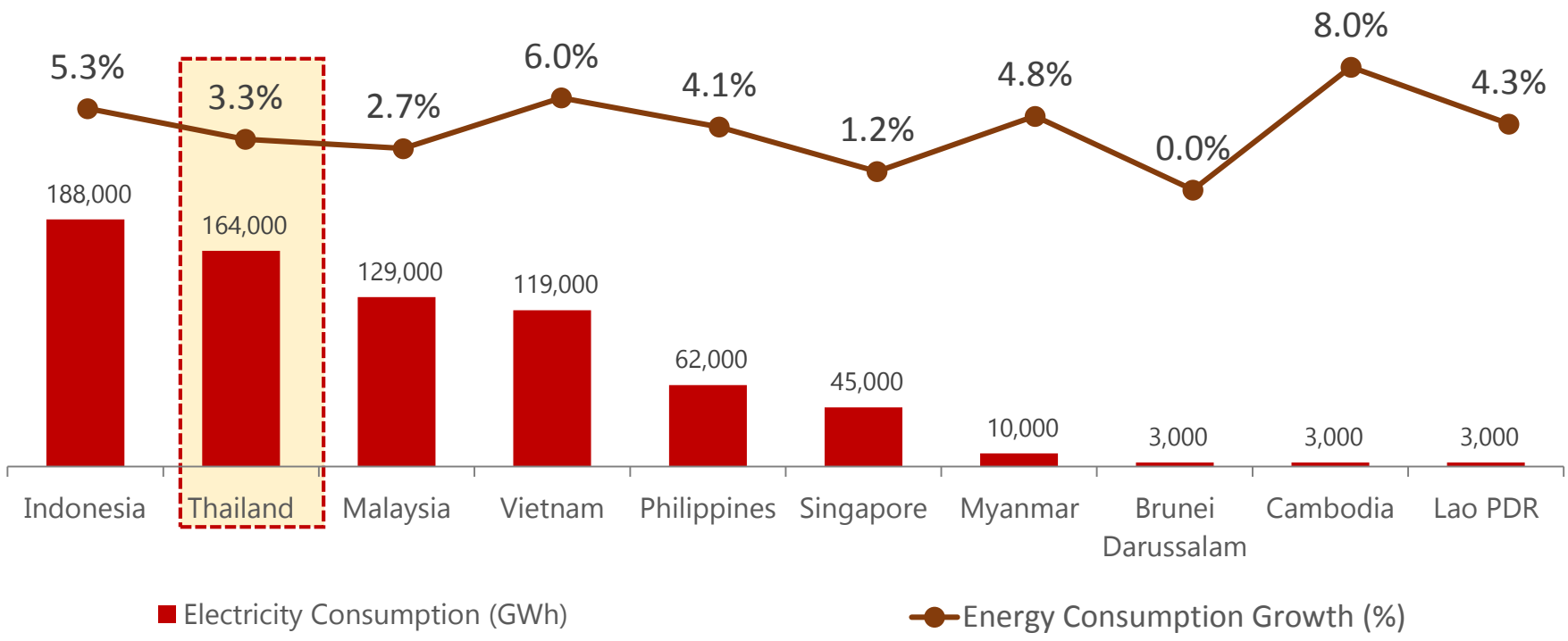
Provincial Electricity Authority (PEA)

Provincial agents of EGAT:
- Purchase electricity and distribute to consumers in each regions of Thailand

Thailand is the second largest electricity consumer in ASEAN, with energy consumption growth of 3.3% CAGR in next 20 years

- **Thailand is the second largest consumer of electricity in ASEAN**, second only to Indonesia.
- Considering GPSC profile, whose portfolio is mainly in Thailand, Laos PDR, and potential projects in Myanmar; the company is located in one of the current largest consumers (Thailand) as well as in the emerging and potential consumers of the region (Myanmar and Laos PDR)

Electricity Consumption & Forecasted Energy Consumption Growth (CAGR 2015-2035) (GWh)

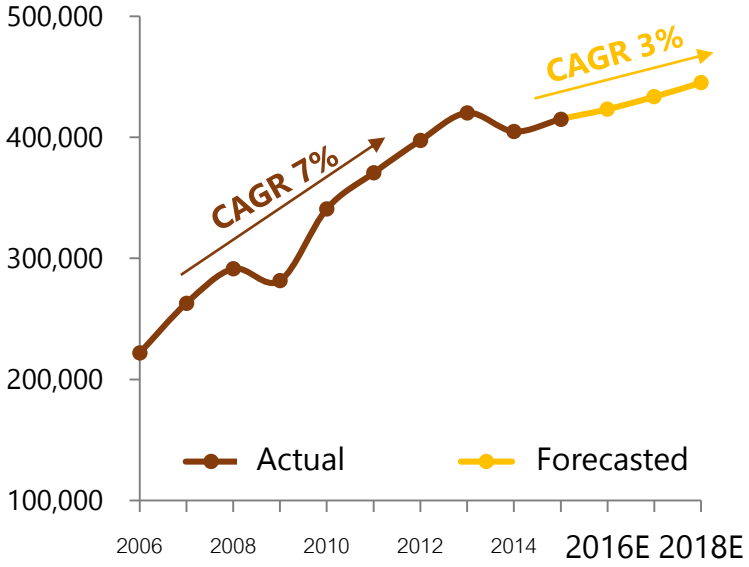


Source: Electricity Consumption: South-East Asia Energy Data 2014, Enerdata Intelligence
Energy Consumption Growth: Energy Outlook of Asia and the Pacific Report 2013, Asian Development Bank

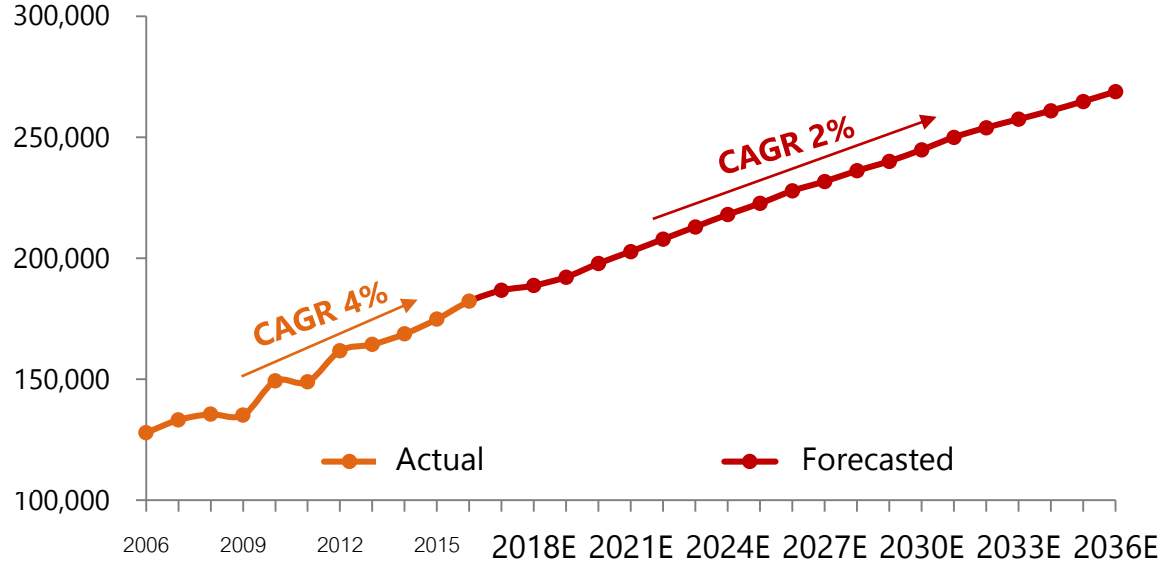
Thailand's electricity consumption grows in tandem with economic growth

- Historically, Thailand's electricity power consumption has been driven by economic growth
- Thailand's GDP and Energy Consumption has expanded in tandem**, it is forecasted that GDP will grow at 3% CAGR (2016 onwards) and Electricity Power Consumption will grow at 2% CAGR (2016-2036)**.
- Given higher economic growth in the future, there will be higher demand for electricity in Thailand

Thailand's historical and forecasted GDP (USD million)

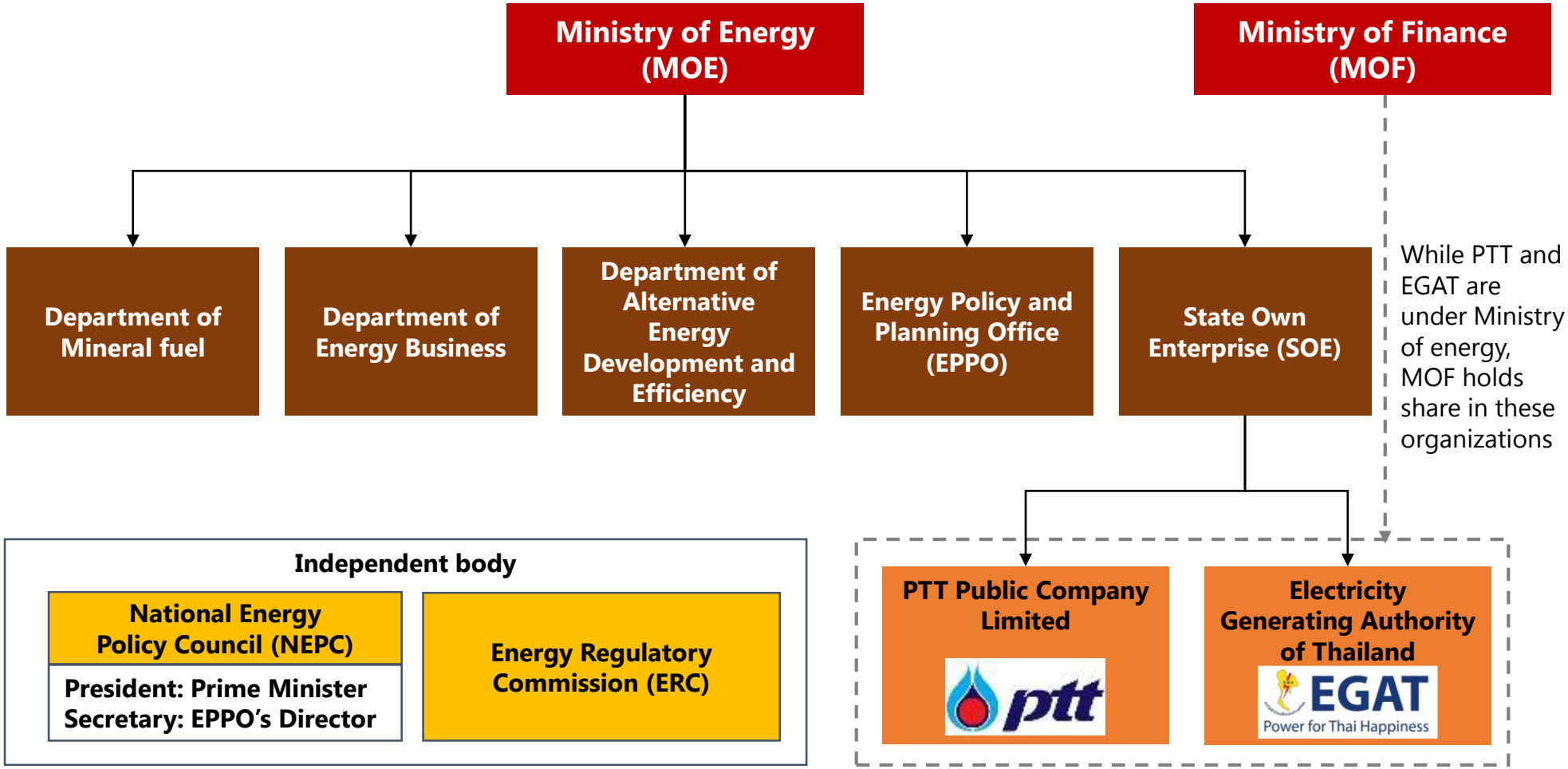


Thailand's Electricity Power Consumption (GWh)

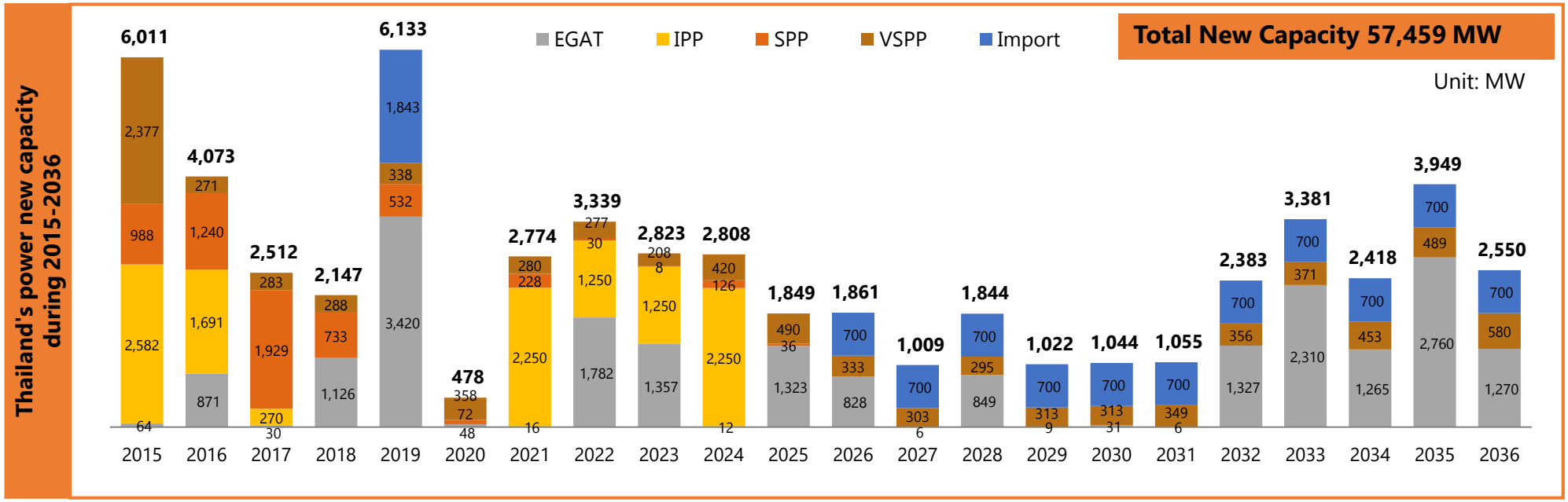


Source: Thailand's GDP and forecasted of GDP, World Bank; Thailand's electricity power consumption 2006-2015, Energy Policy and Planning Office (EPPO), Ministry of Energy); Forecasted of Electricity Consumption 2016-2036 - Power Development Plan, EPPO

Relationship among Energy Authorities



Most of total new and retired power capacity during 2015-2036 are from EGAT and IPP, respectively



Source: Power Development Plant 2015 - Energy Policy and Planning Office (EPPO), Ministry of Energy, as of June 20, 2015

Appendix

- Thailand Power Industry Overview
  - Government Policy & Key Power Authorities
- **GPSC's Overview**

Current Operating Asset (IPP): Sriracha

Sriracha Power Plant
Chonburi Province (40 Rai leasehold land)

Type	Combined cycle
Capacity	• Electricity: 700 MW • Industrial water: 80 Cu.m/h
Customer	• Electricity: EGAT 700 MW • Industrial water: Thaioil Power 50 Cu.m/h
Supplier	• Natural Gas – PTT • Raw Water – EASTW • Power Back up – EGAT and TP
COD	2000
Contract	• 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	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

Current Operating Asset:

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

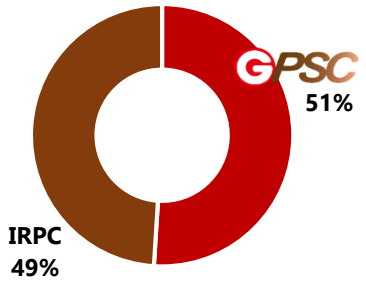
Type	Combined heat and power with district cooling (VSPP)
Capacity	• Electricity: 5 MW • Chilled water: 12,000 RT
Customer	• DAD 8,700 RT
COD	• 2008 • Electric Chiller Jan 1, 2009
Contract	• 30 Years • End: 2038

Shareholding

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

Type	Cogeneration (SPP)
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
COD	2015
Contract	• 25 Years • End: 2040

Shareholding



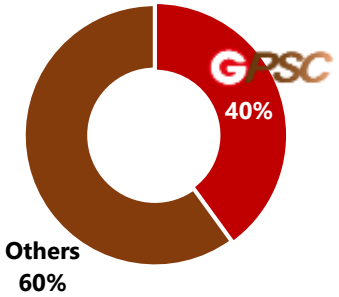
*Remark: *Include all capacity and customer of Phase 1 and 2*

Current Operating Asset:

Thai Solar Renewable Company Limited
Kanchanaburi and Suphanburi Province

Type	Solar
Capacity	• Electricity: 80 MW
Customer	• PEA
COD	2013-2014
Contract	• 10 Years • End: 2023

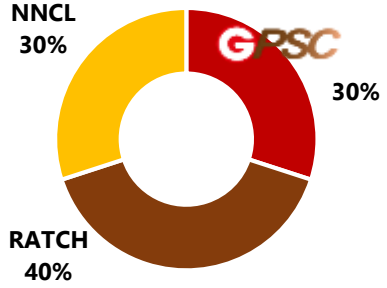
Shareholding



Nava Nakorn Elecricity Generating Company Limited (NNEG)
Pathumthani Province

Type	SPP Cogeneration
Capacity	• Electricity: 125 MW • Steam: 30 T/h
Customer	• Electricity: EGAT 90 MW (25 years), IUs 35 MW • Steam: IUs
COD	June, 2016
Contract	• 25 Years • End: 2041

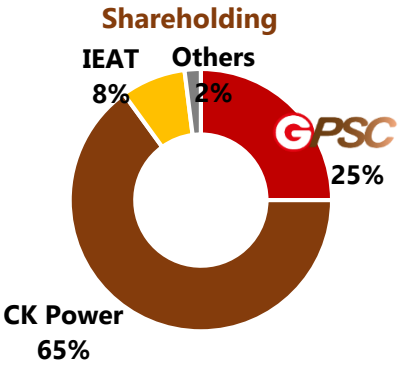
Shareholding



Current Operating Asset:

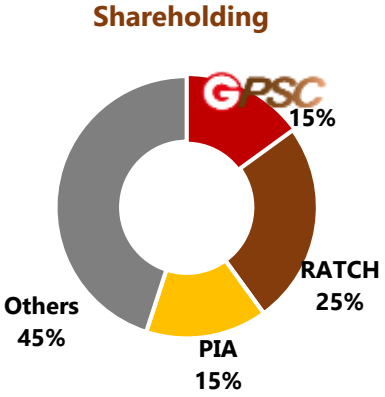
Bangpa-in Cogeneration Company Limited
Ayutthaya Province

Type	Cogeneration (SPP)
Capacity	• Electricity: 117 MW • Steam: 5 T/h
Customer	• Electricity: EGAT 90 MW, IUs 27 MW • Steam: 5 T/h
COD	28 Jun 2013
Contract	• 25 Years • End: 2038



Ratchaburi Power Company Limited
Ratchaburi Province

Type	Combined Cycle (IPP)
Capacity	• Electricity: 1,400 MW
Customer	• EGAT
COD	Mar 2008
Contract	• 25 Years • End: 2033



CHPP Solar Cooperatives has started COD as planned with the first full quarter to realize revenue in Q1 2017

CHPP Solar Cooperatives
Chanthaburi Province

- ✓ CHPP Solar Cooperatives starts **COD on 30 December 2016 as planned** with operating capacity of 5 MW
- ✓ Securing **Feed-in-Tariff (FiT) at 5.66 THB per unit** along 25 years of contract with Provincial Electricity Authority (PEA)
- ✓ Q1 2017 will be the first full quarter that performance of CHPP Solar Cooperatives will be consolidated to GPSC

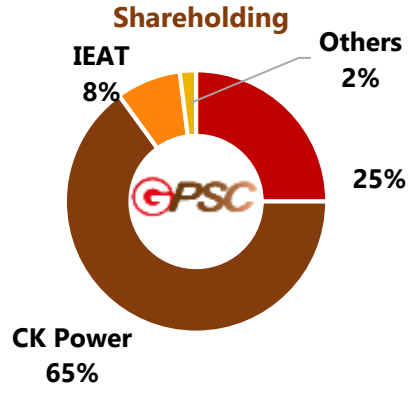
Shareholding

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

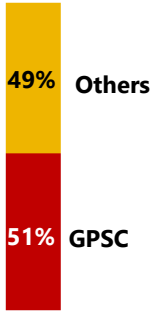


IRPC Clean Power Phase 2 (IRPC-CP Phase 2)

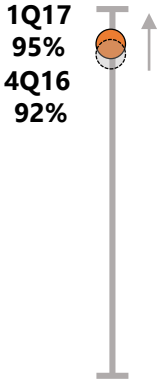
IRPC Clean Power Company Limited (IRPC-CP)
In IRPC Industrial Zone at Choeng Noen, Rayong Province (118 Rai)

Equity Investment

3,400 THB Million



% Progress



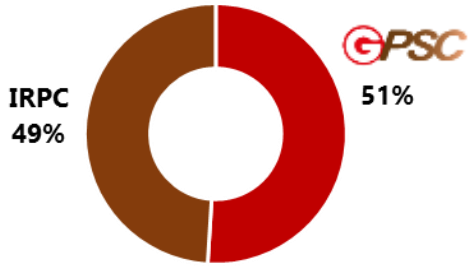
Type	SPP Cogeneration
Capacity*	• Electricity: 240 MW • Steam: 180-300 T/H
Customer*	• Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years) • Steam: IRPC 180-300 T/H
SCOD	2017
Total Investment	13,600 THB Million
D/E	3:1

Progress update

Phase 2 Under Construction

- Construction progress of the project was 95%.
- Under construction of 230 kV transmission line.

Shareholding



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

Ichinoseki Solar Power (ISP1)

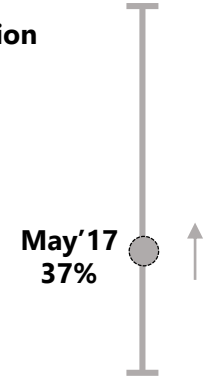
ICHINOSEKI SOLAR POWER 1 GK

Ichinoseki Solar Power (ISP1)

Ichinoseki City, Japan

Equity Investment
~2,080 YEN Million

% Progress of Installation

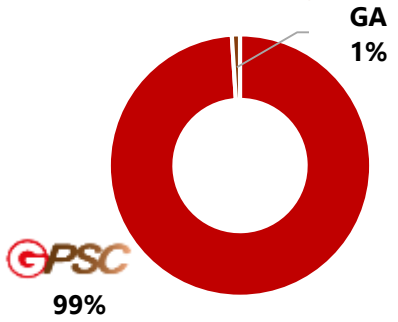


Type	Solar Farm
Capacity	• Electricity: 20.8 MWac
Customer	• Tohoku Electric Power (20 years)
SCOD	2017
Total Investment	~10,001 JPY million
D/E	4:1

Progress update

- Secure FiT at 40 JPY/kWh (exclude tax) for 20 years
- Foundation work and solar panel installation have already started in some area.
- GPSC first international project to COD in 2017

Shareholding

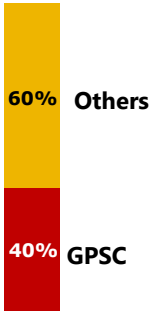


Nam Lik 1 Power Company Limited (NL1PC)

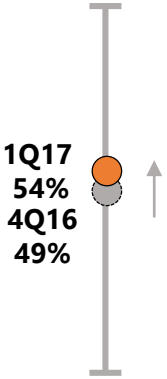
Nam Lik 1 Power Company Limited (NL1PC)
Lao PDR

Equity Investment

~37 USD Million



% Progress

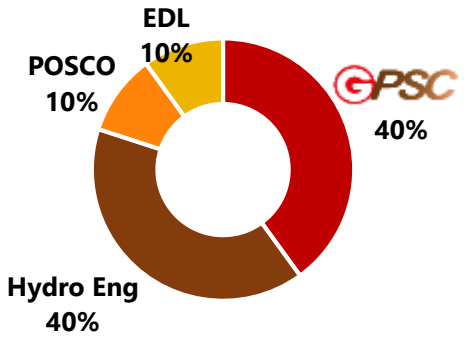


Type	Run-of-River Hydropower
Capacity	• Electricity: 65 MW
Customer	• Electricity: EDL 63.8 MW (30 years PPA)
SCOD	Q1 2019
D/E	7:3

Progress update

- Construction progress of the project was 54%. NL1PC suggests EPC contractor to engage experience sub-contractor to be responsible for civil work.

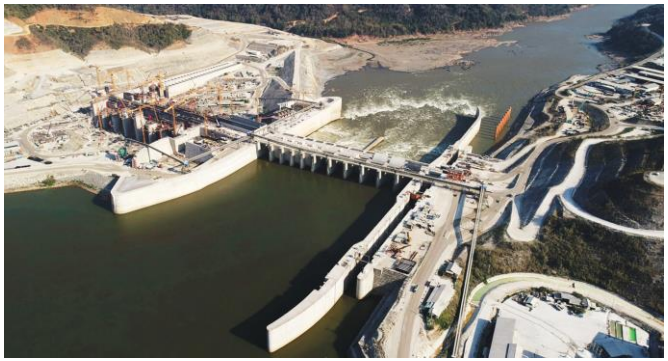
Shareholding

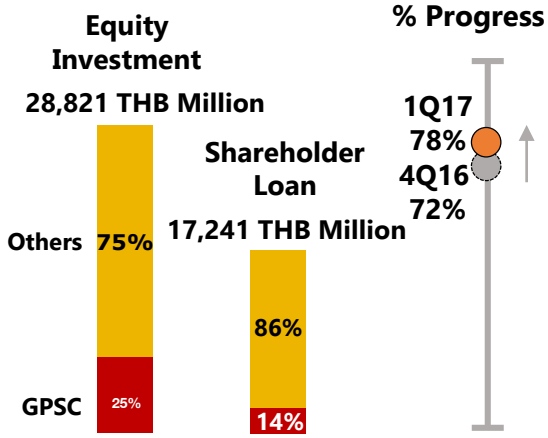


Xayaburi Power Company Limited (XPCL)

Xayaburi Power Company Limited (XPCL)

Xayaburi, Lao PDR

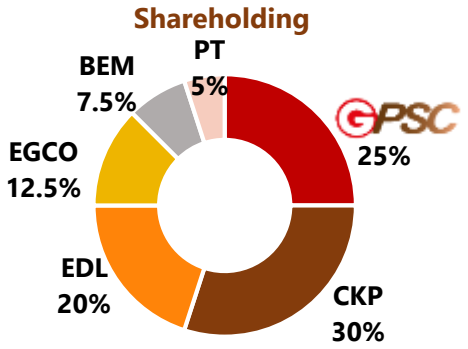




Type	Run-of-River Hydropower
Capacity	• Electricity: 1,285 MW
Customer	• Electricity: EGAT 1,220 MW (31 years), EDL 60 MW (31 years)
SCOD	2019
Total Investment	136,751 THB Million
D/E	3:1

Progress update

- Construction progress of the project was 78% evaluated by GOL's technical advisor, which concluded that the project is on schedule.
- The permanent structure such as powerhouse, intermediate block, fish passing facilities are progressing well.



XPCL Project improvement according to environmental concerns

Fish passing facilities

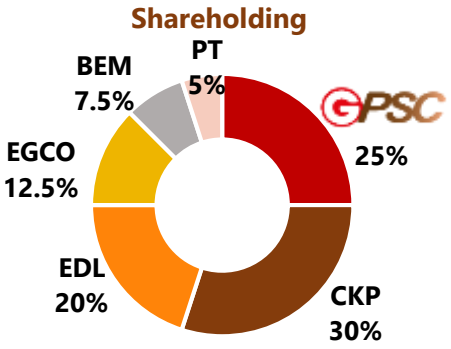
Powerhouse concrete work

Xayaburi Power Company Limited (XPCL)

Xayaburi, Lao PDR

The additional requirements from Lao PDR's Government upon an environmental concerns in constructing XPCL power plant has caused an incremental construction costs . Therefore, the Government granted XPCL the compensations which are:

- ✓ **Decrease of corporate income tax**
- ✓ **Decrease of royalty fee**
- ✓ **Extend concession period for another 2 years** (after COD date); Total 31 years



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

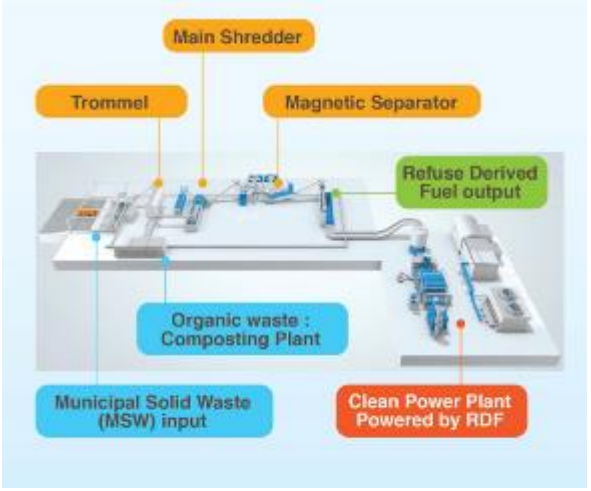
CUP -3

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

Waste to Energy Project

Waste Management Project
Rayong Province



Type	RDF	Waste to energy Power Plant (Future Development)
Capacity	Treat MSW at least 500 ton/day	Electricity 8 MW
Customer	RDF Power Plant/ Cement Plant	PEA
Contract	Waste Management Contract between GPSC & Rayong PAO (Secured feedstock)	PPA under Feed-in-tariff scheme

Progress update

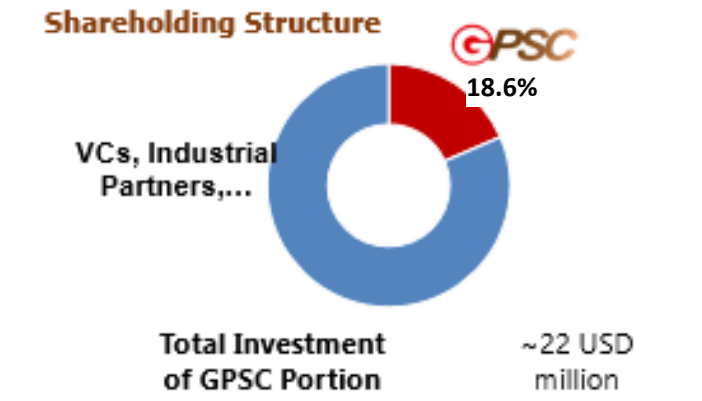
- Under the Public and Private Partnership (PPP), the Waste Management Contract is being proved by the Attorney General Thailand
- During process of apply PPA under Feed-in-tariff scheme
- ESA/CoP has been finished
- Completed Basic Engineering Design Package (BED)
- **December 28, 2016, GPSC already signed the Rayong Integrated Waste Management by Private Operator Contract (by converting to RDF) with Rayong Provincial Administration Organization for 22 years**

Shareholding

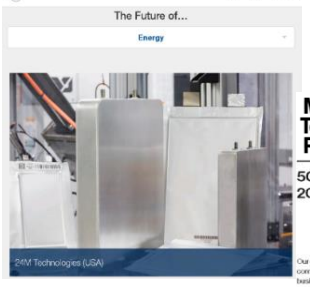
24M at A Glance

24M Technologies, Inc. is a Boston-based "startup company" in the field of Lithium-ion battery (LiB) technology. Founded and led by some of the battery industry's foremost inventors, scientists and entrepreneurs.

24M's Innovation	24M's semisolid lithium-ion battery cell design and begets an advanced manufacturing process, when fully implemented, will reduce the cost of today's lithium-ion batteries by 50% and improve the performance of lithium-ion batteries.
Founded	2010 by 3 Founders – *Dr. Yet-Ming Chiang :* Dr. Chiang is a professor of Material Science and Engineering at MIT and one of the top battery researchers in the world. – *Dr. W. Craig Carter :* Dr. Carter is a Professor in the Materials Science and Engineering department at MIT. – *Throop M. Wilder :* Mr. Wilder is a veteran entrepreneur with roots in communications and networking technologies.
Headquarters	Cambridge, Massachusetts (MA), USA
Recent Development	▪ **Industry Recognitions :** - Bloomberg New Energy Finance : ***2016 Energy Innovation Pioneers*** - IHS Energy CERAWEEK : ***2016 New Energy Pioneers*** - MIT Technology Review : ***50 Smartest Companies 2016*** - World Economic Forum : ***Technology Pioneers 2016*** ▪ **Goverment Grant & Funding :** The United States Advanced Battery Consortium (USABC) Awards $7 Million Contract to 24M to Develop lower cost EV batteries manufacturing process. The competitively bid contract award is 50 percent cost share-funded by the U.S. Department of Energy (DOE).



Recognitions:



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24M Technologies, Inc. (24M)

24M Technologies, Inc. (24M)

Cambridge, Massachusetts (MA), USA

Business	Lithium-Ion Battery technology
Application	•Energy Storage System (ESS)

2010
24M was established

2011
Developed 5x thicker electrodes than previously possible

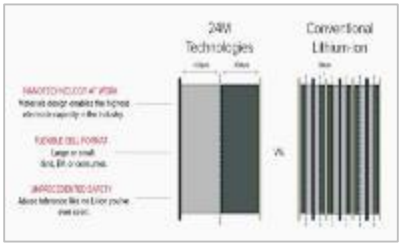
2012
Developed end to end cell production

2013
Automated line eliminates coating, drying etc.

2014
funded > $50
9000th Experiment and Sample Cells has been made

2015
Proven key high volume unit operation

2016 - 2017
Leverage existing investment



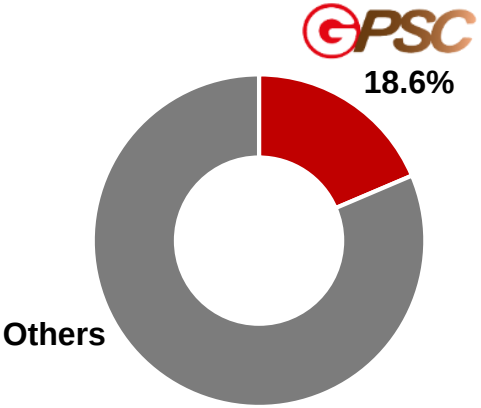
Progress update

- On October'16, 24M Delivers Initial Quantity of Production-size Semisolid Lithium-ion Cells to NEC Energy Solutions (NECES) for Testing and Validation.
  - Currently, 24M is working on the **developing of High Volume Manufacturing production line.**

Awards & Recognition

- Throughout 2016, 24M has received many awards and recognition.
  For example :
  - **2016 Energy Innovation Pioneers: CERAWEEK,** HIS Energy
  - **2016 New Energy Pioneers: Future of Energy Summit,** BENF
  - Listed in **"50 Smartest Companies 2016":** MIT Technology Review
  - **2016 Platts Global Energy Awards finalists :**
    Breakthrough Solution of the Year
  - **2016 Zayed Future Energy Prize finalists**

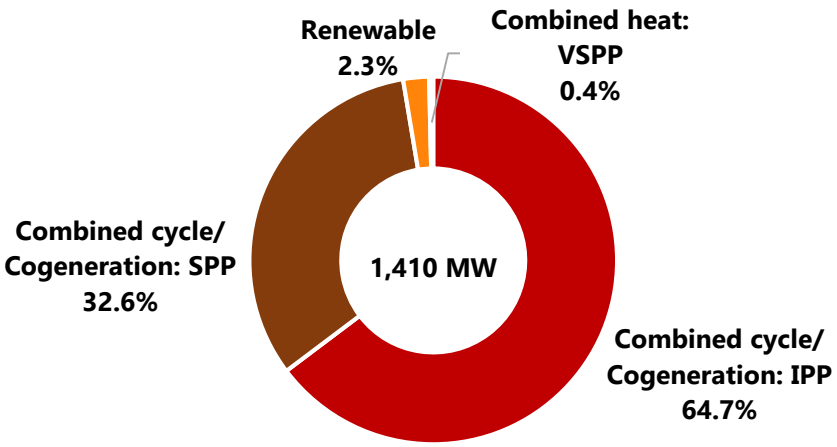
Shareholding Structure



Total Investment of GPSC Portion ~22 USD million

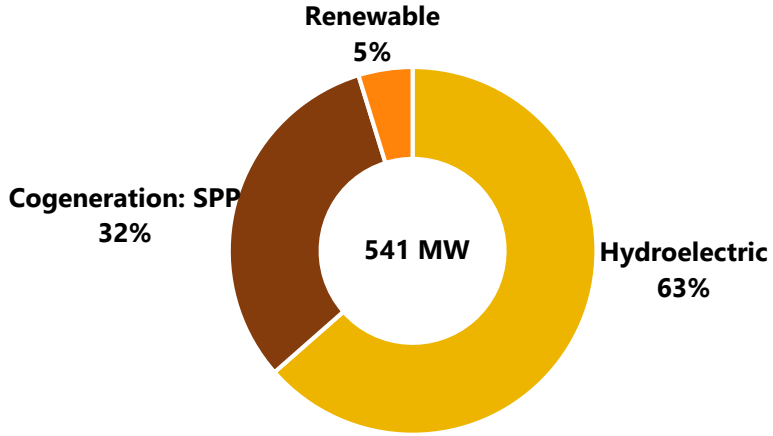
Electricity: Operating capacity of 1,410 MW, with another 512 MW in pipeline

Operating MW



Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)
Sriracha	IPP	100%	700	700
CUP-1	SPP	100%	226	226
CUP-2	SPP	100%	113	113
CHPP	VSPP	100%	5	5
CHPP (Solar)	Solar	100%	5	5
IRPC-CP Phase 1	SPP	51%	240	122 (Phase 1: 23 MW)
NNEG	SPP	30%	125	38
TSR	Solar	40%	80	32
BIC-1	SPP	25%	117	29.25
BIC-2	SPP	25%	117	29.25
RPCL	IPP	15%	1,400	210
			Total	**1,410**

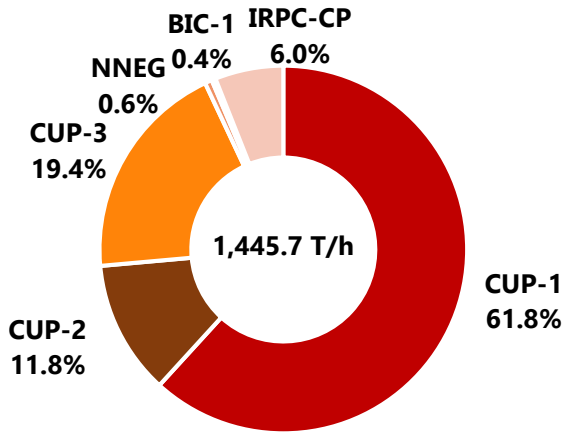
Under Construction MW



Name	Type	GPSC's share %	Total capacity (MW)	Equity capacity (MW)	SCOD
CUP-4	SPP	100%	45	45	2018
ISP-1	Solar	99%	20.8	20.6	2017
IRPC-CP Phase 2	SPP	51%	240	122 (Phase 2: 99 MW)	2017
NL1PC	Hydro	40%	65	26	2017
XPCL	Hydro	25%	1,285	321	2019
			Total	**541**	

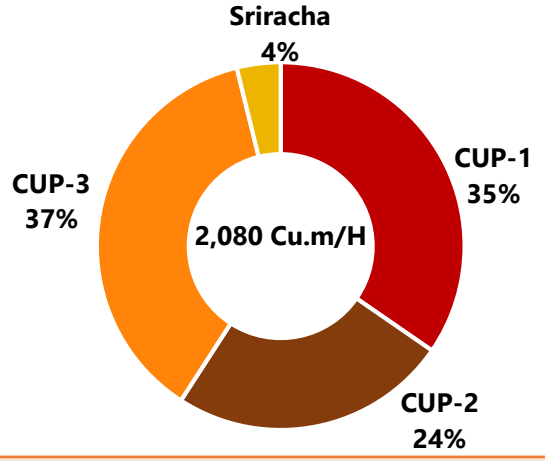
Operate 1,445.7 T/h of Steam and 2,080 Cu.m./h of Industrial Water

Steam



Name	Operating capacity (T/h)	Under construction Capacity (T/h)
CUP-1	890	
CUP-2	170	
CUP-3	280	
NNEG	9	
BIC-1	5	
IRPC-CP Phase 1	86.7	
CUP-4		70
IRPC-CP Phase 2		66.3
BIC-2	5	5
Total	**1,445.7**	**136.3**

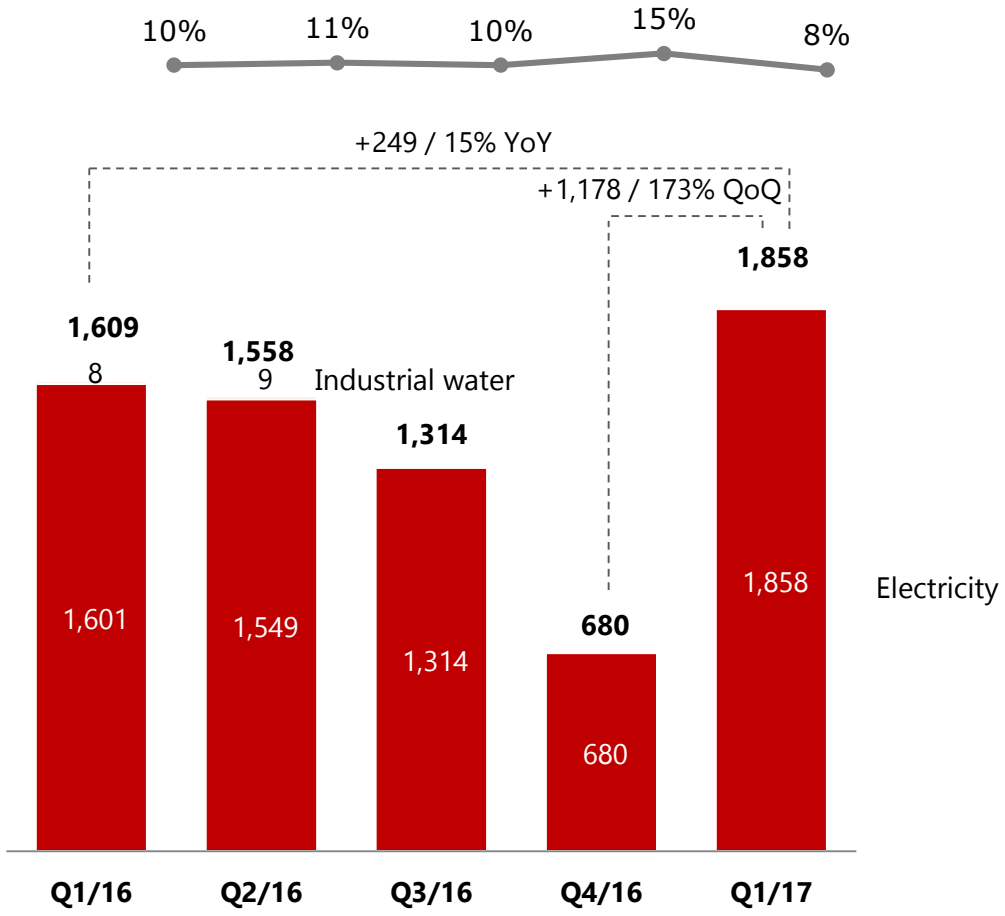
Industrial Water



Name	Operating capacity (Cu.m/h)
Sriracha	80
CUP-1	720
CUP-2	510
CUP-3	770
Total	**2,080**

Sriracha Power Plant: Revenue & GPM (1/3)

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



Q1/17 VS Q4/16 (QoQ)

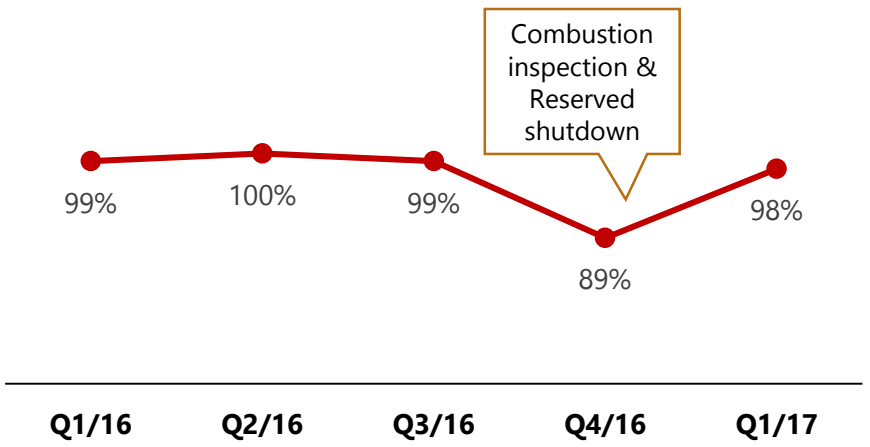
- Total revenue in Q1/17 increased by THB 1,178 million or 173% mainly from **an increase in the dispatch volume.**
- While the GPM decreased because of **the increase in EP** which is the revenue that mainly passes through cost in energy production than generating profit.

Q1/17 VS Q1/16 (YoY)

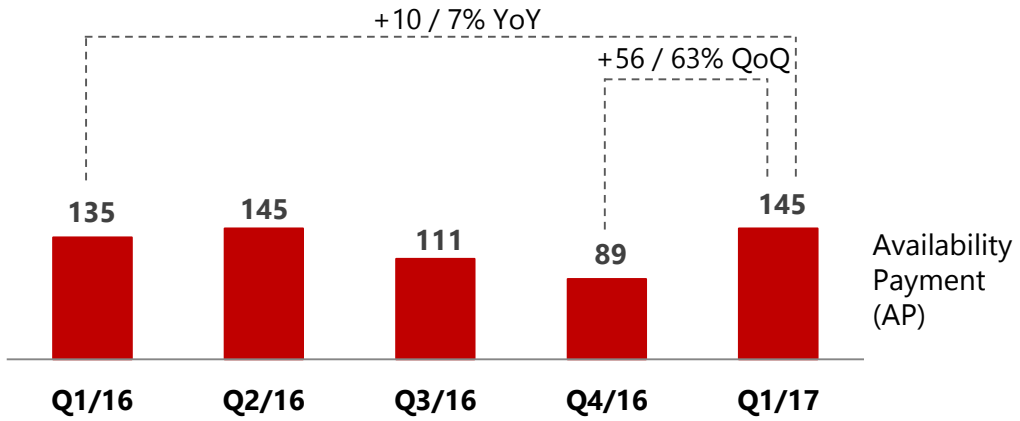
- Total revenue in Q1/17 increased by THB 249 million or 15% mainly **due to the higher sales volume of electricity submitted to EGAT**
- But GPM decreased from the increase in revenue from EP as well.

Sriracha Power Plant (IPP): Power (2/3)

Quarterly Availability Payment Rate
(%)



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



Q1/17 VS Q4/16 (QoQ)

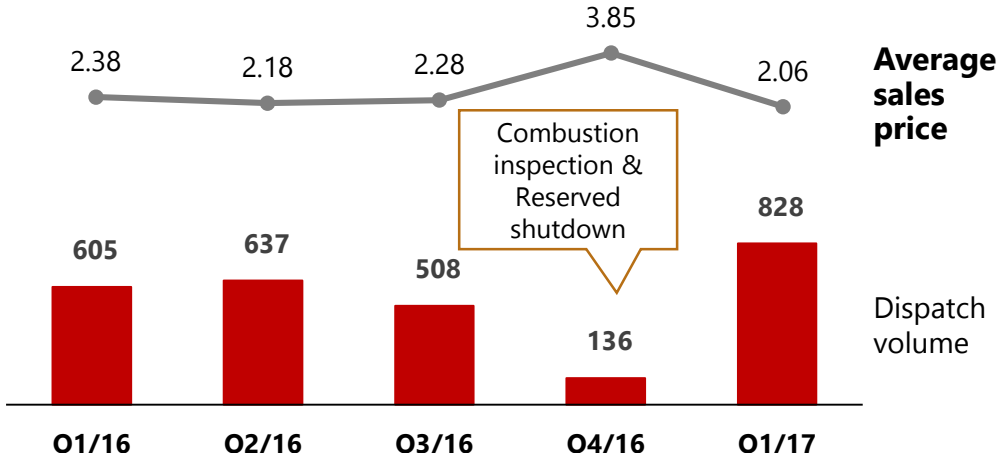
- Availability rate in Q1/17 increased from 89% to 98% **due to the annual maintenance in Q4/16.**
- Revenue from Availability Payment (AP) in Q1/17 also increased by THB 56 million or 63% **from the improve in Availability Rate** caused by the fact that there was no power plant maintenance in Q1/17 as in Q4/16.

Q1/17 VS Q1/16 (YoY)

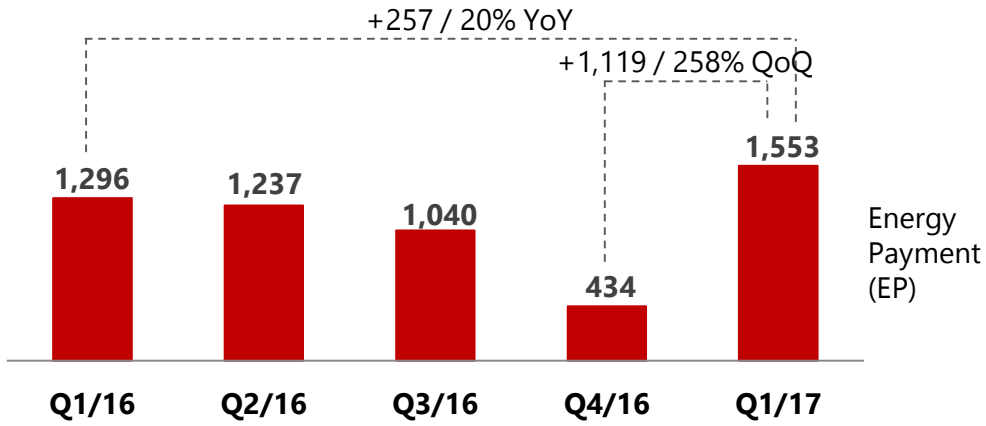
- Revenue from Availability Payment in Q1/17 increased by THB 10 million or 7% **from TFRIC#4 adjustment.**

Sriracha Power Plant (IPP): Power (3/3)

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



Quarterly revenue from Energy Payment (EP)
(THB Million)



Q1/17 VS Q4/16 (QoQ)

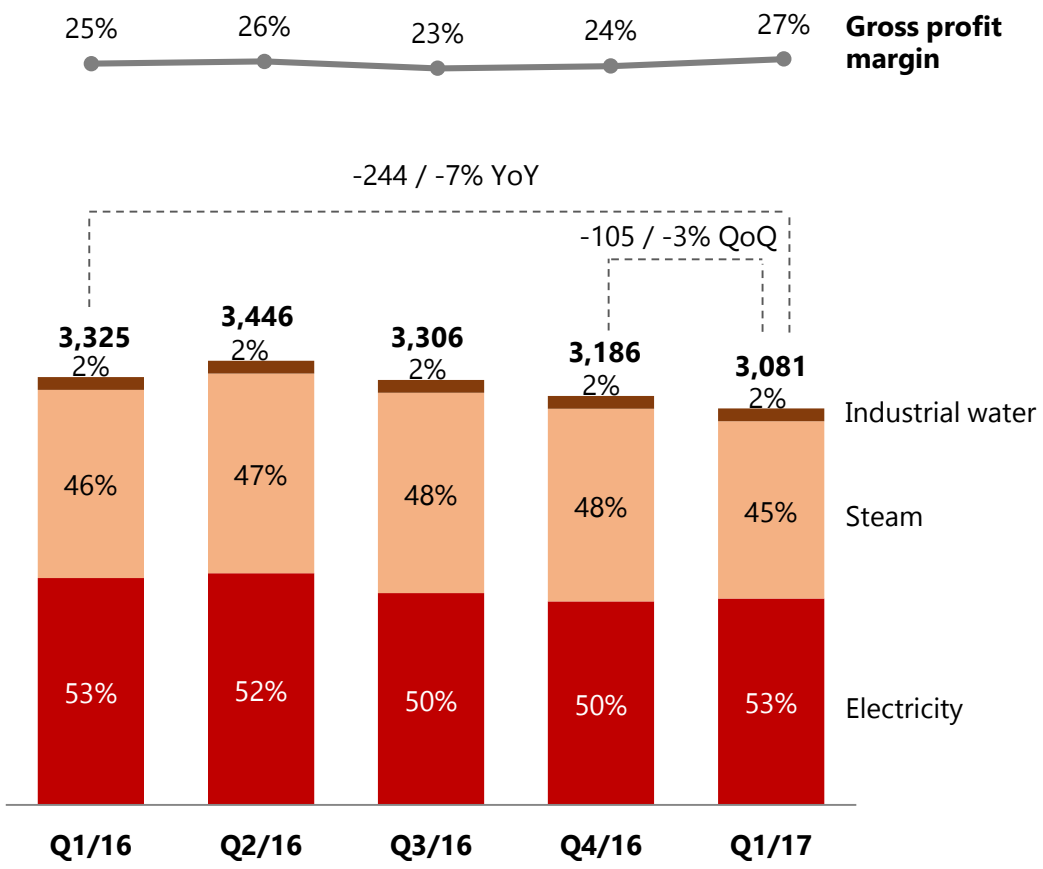
- Average sales price in Q1/17 decreased by 1.79 Baht per kWh **due to the lower natural gas price.**
- Revenue from Energy Payment (EP) increased by THB 1,119 million or 258% as **a result of higher dispatch volume per EGAT's instruction** partly caused by the maintenance of Myanmar gas field in Q1/17.

Q1/17 VS Q1/16 (YoY)

- Average sales price decreased by 0.32 Baht per kWh **due to the lower natural gas price.**
- Revenue from EP increased by THB 257 million **due to the increase in dispatch volume.**

Rayong Power Plant (SPP): Revenue & GPM (1/3)

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



Q1/17 VS Q4/16 (QoQ)

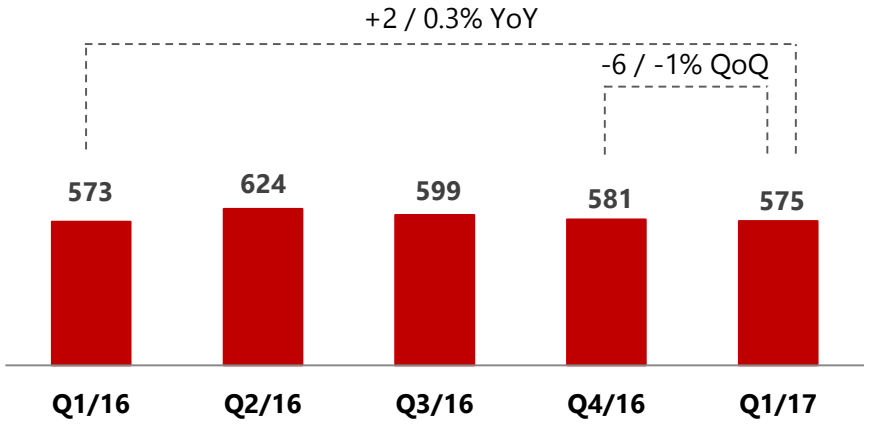
- Total revenue was lower by THB 105 million or 3% due to **the volumes of electricity and steam sold decreased** by 1% and 11%, respectively. This is because many **customers had maintenance shutdowns in Q1/17.**
- Gross profit margin increased by 3%. This was mainly from **the drop in cost of maintenance** as there was no maintenance for the machines at CUP-1 and 2 plants in this quarter.

Q1/17 VS Q1/16 (YoY)

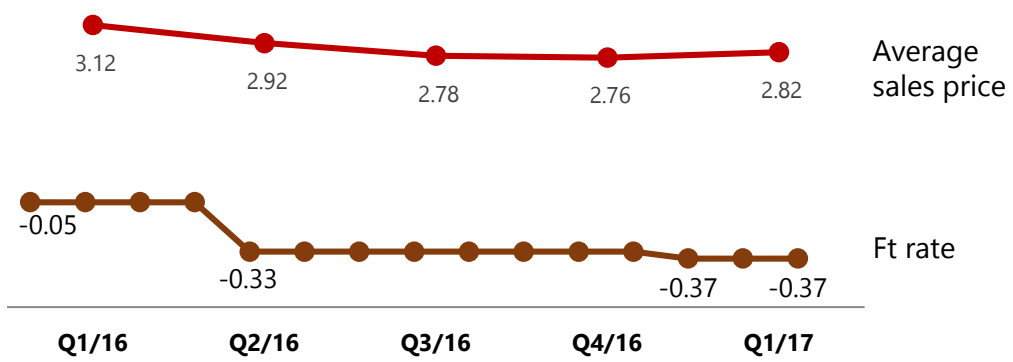
- Total revenue decreased by THB 244 million or 7%, mainly from **the average selling price of electricity and steam decreased** by 10% and 4%, respectively from decrease in gas price.
- Gross profit margin improved by 2% as the **natural gas price was much lower** than in Q1/16 for approximately 10%.

Rayong Power Plant (SPP): Power (2/3)

Quarterly power sales volume
(GWh)



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



Q1/17 VS Q4/16 (QoQ)

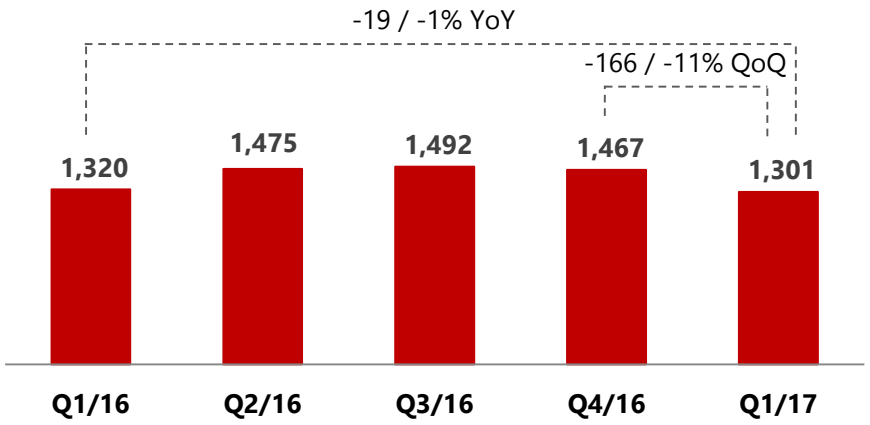
- Volume decreased by 6 GWh from **customer's unplanned shutdown.**
- Price increased by 0.06 Baht per kWh or 2% due to **the increase in natural gas price.**

Q1/17 VS Q1/16 (YoY)

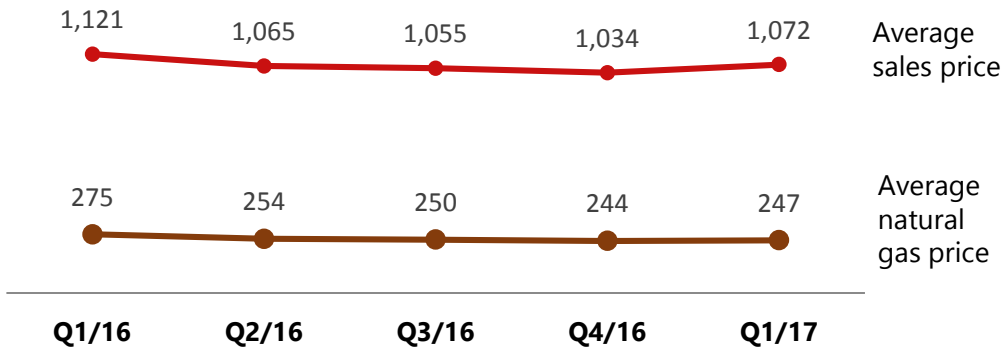
- Volume slightly increased by 2 GWh from the **higher demands from customers** during Q1/17 compare to Q1/16.
- Price decreased by 0.30 Baht per kWh or 10% due to **the decrease in Ft rate.**

Rayong Power Plant (SPP): Steam (3/3)

Quarterly steam sales volume
('000 tons)



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



Q1/17 VS Q4/16 (QoQ)

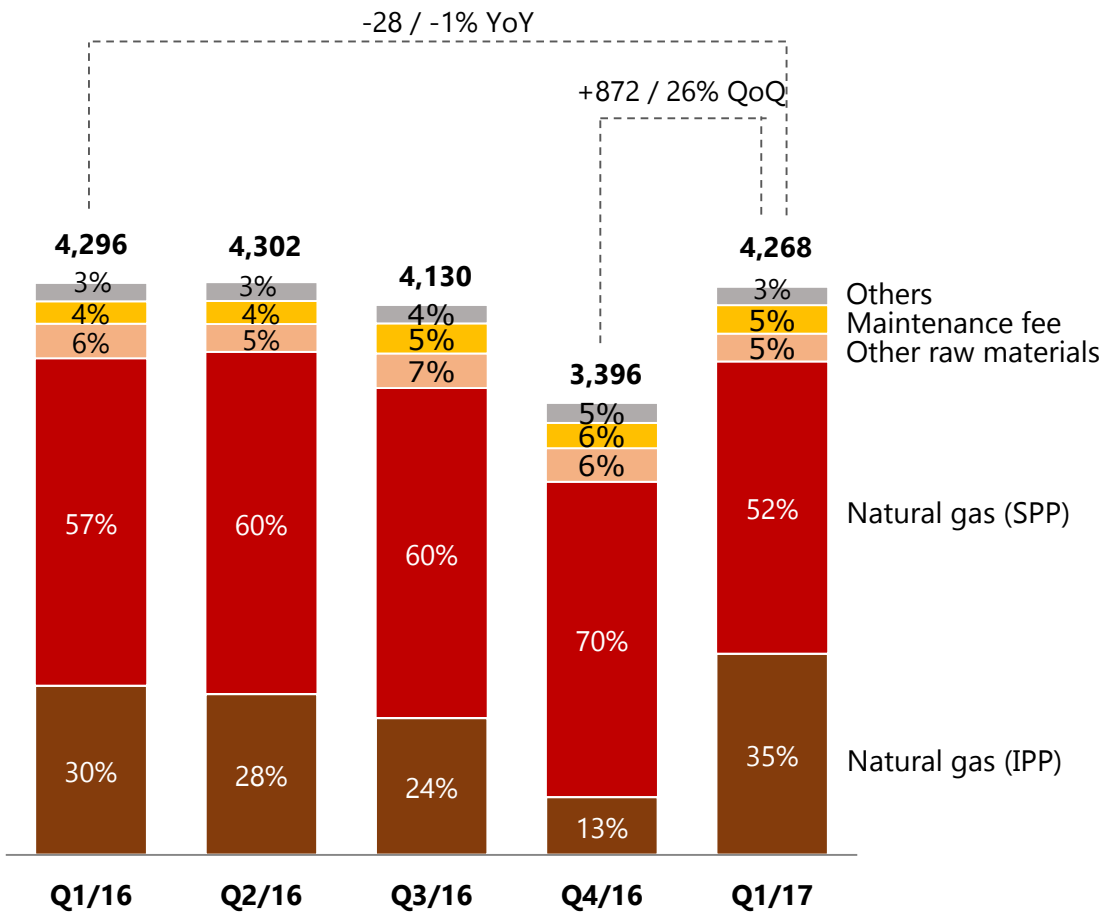
- Volume decreased by 166 thousand tons or 11% in Q1/17 because some **customers had maintenance shutdown in Q1/17.**
- Price increased by 38 Baht per ton or 4% in Q1/17 **due to the increase in natural gas price.**

Q1/17 VS Q1/16 (YoY)

- Volume decreased by 19 thousand tons or 1% **due to customer shutdown in Q1/17.**
- Price decreased by 49 Baht per ton or 4% **due to the decrease in natural gas price.**

Natural gas is main operating cost, increased 26%QoQ

Quarterly cost of sales and services*
(THB Million, %)



Q1/17 VS Q4/16 (QoQ)

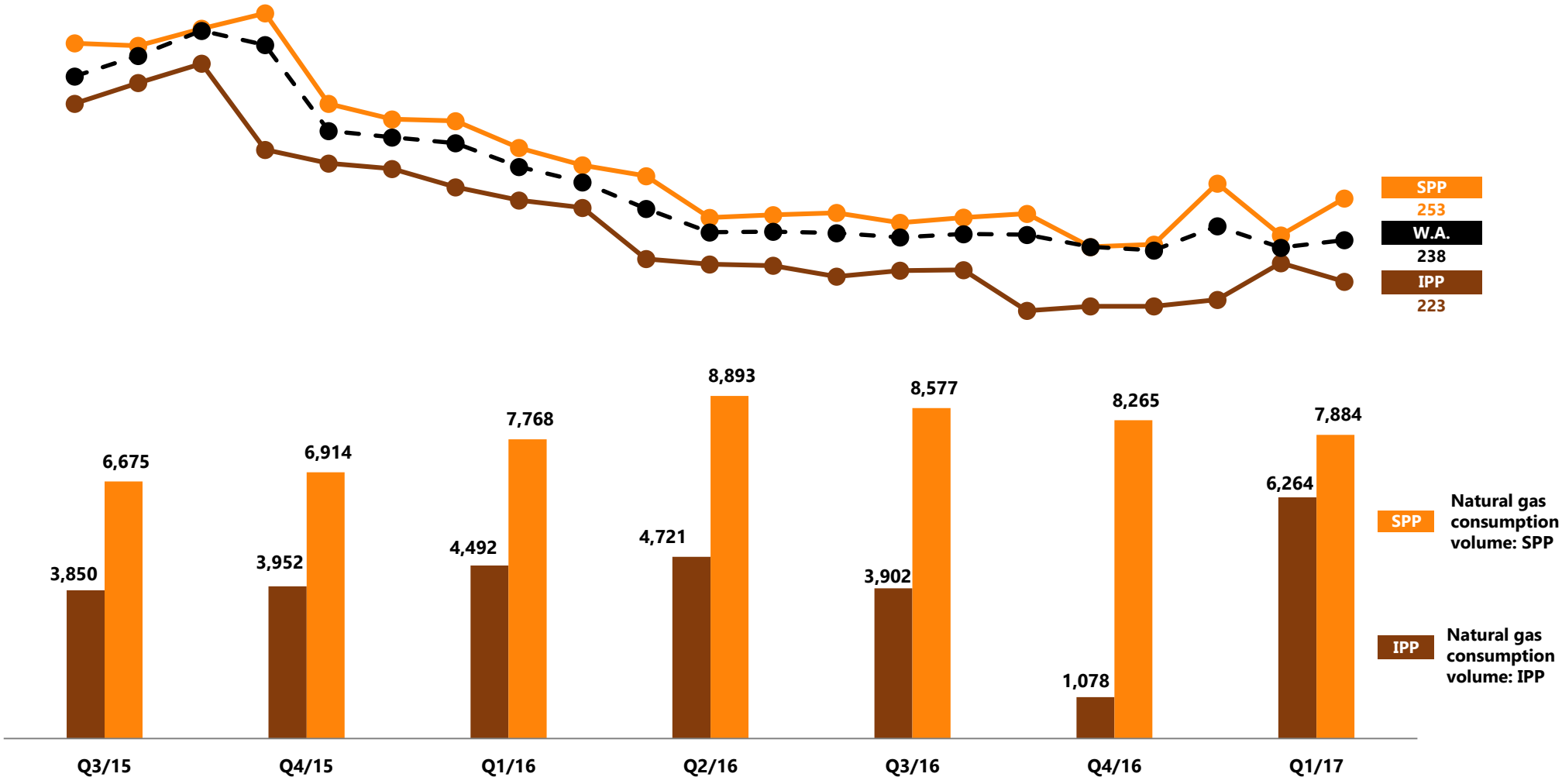
- Cost of sales and services in Q1/17 increased by THB 872 million or 26% due to the **higher cost of raw materials, mainly natural gas (IPP),** in relation to **higher dispatch volume of Sriracha plant.**

Q1/17 VS Q1/16 (YoY)

- Cost of sales and services decreased by THB 28 million or 1% due to **lower cost of natural gas resulted from the decrease in sales volume of IRPC-CP** from a main customer's maintenance shutdown.
- Also, the cost decreased from **the price of natural gas which drop YoY** following the trend of an oil price.

Natural gas price and consumption

Quarterly natural gas consumption ('000 MMBTU) vs. Monthly natural gas price (THB/MMBTU)



Ratio Formula

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			1Y 2-12/3									
	N-13901 H-13702	GTG11 HRSG11		1Y 18-28/2										
	N-13902 H-13703	GTG12 HRSG12		18-31/4 HG	HG 30/3-12/4 3Y 30/3-12/4									
	N-13903 H-13704	GTG13 HRSG13		13-26/3 PSV	24-27/3		10-20/6 1Y		1Y 15-25/7					
	N-13904 H-13705	GTG14 HRSG14		13-26/3 PSV 1Y 3-13/2	24-27/3									
	N-13961 H-13761	GTG15 HRSG15										1Y 15-25/10		
	N-13962 H-13762	GTG16 HRSG16	8 MI 29 8 3Y 29											
CUP-2	H-23701	Aux. Boiler.21					18-28/6 1Y		1Y 1-11/7					
	N-23901 H-23701	GTG21 HRSG21					16-26/6 1Y							11-21/12 1Y
	N-23902 H-23702	GTG22 HRSG22					3Y: 16-29/6	3Y & Mod	HG 12-25/7 Mod: 12/6-25/7				HG 1-14/11 3Y 1-14/11	
	N-23911	Steam Turbine21					16-29/6 MI						MI 16-30/11	
CUP-3	H-33701	Aux. Boiler 31							3Y 1-13/7					
	H-33711	Aux. Boiler 32										3Y 1-13/10		
	H-33712	Aux. Boiler 33									3Y 15-27/9			
SRC	11MB 1-211-SG-101	GT11 HRSG#1											1Y 18-21/12	
	12MB 1-211-SG-201	GT12 HRSG#2											1Y 18-21/12	

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 4Q16

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	1st Synchronization/Commissioning			16/09		
	HRSG2B	12/02 IRPC Turnaround		13/03			27/06	1st Synchronization/Commissioning			16/09		
	Aux. Boiler	7/02 IRPC Turnaround		7/03			26 SD 30						