

# TPI Polene Power Public Company Limited

Q1 2018 Opportunity Day

12 June 2018



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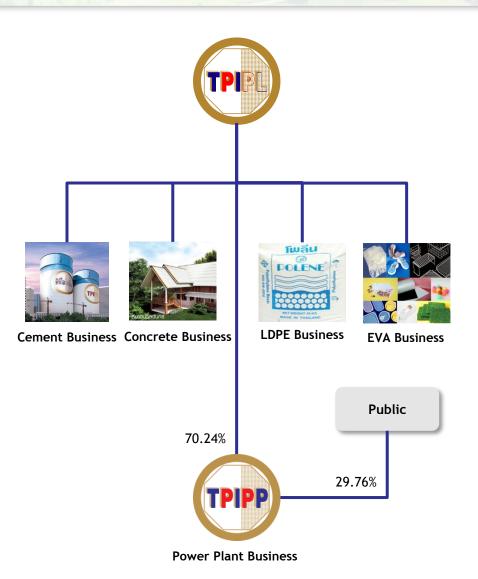
# TPIPP Company & Business Overview



# TPIPP as TPIPL's Flagship for Power Business



Unit: THBmm



	TPIPP (Q1 2018)
Main Business	Electricity generation from waste heat and refused derived fuel (RDF) power plants and operation in petrol and gas stations.
Total Asset	27,640
Total Liabilities	2,672
Registered and Paid-up Capital	8,400
Total Equity	24,968
Total Revenue	1,547
EBITDA *	890
Net Profit	754
Market Cap as of 30 March 2018	57,120

 $\underline{\text{Remark}}$ : EBITDA including net foreign exchange gain 120 THBmm and compensation from insurance claims of 45 THBmm.

# TPIPP at a Glance



TPIPP is the largest operator of waste-to-energy ("WTE") power plants in Thailand in terms of installed power generation capacity

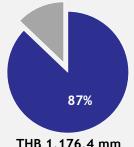
**Key Business Segments** 

% of O1 2018 Total Sales Revenue



Energy & Utilities

- Operates refuse derived fuel ("RDF") fired & waste-heat recovery power plants with off-take arrangements with EGAT and TPIPL
  - > 6 commercially operating power plants TG1-TG6-220MW.
  - > 2 power plants construction completed, TG7-70MW and TG8-150MW, target to COD in Q2/2018 and Q2-Q3/2018, respectively.
  - > Peripheral RDF production facilities to support its RDF-fired power plant operations

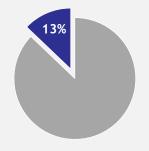


THB 1,176.4 mm



Petrol & Gas Stations

- Operates petrol stations and gas stations in Bangkok and other provinces in Thailand
  - > Currently owns and operates 8 petrol stations, 1 gas station and 3 petrol and gas stations
  - > Revenue derived from the sale of petrol, gas and convenience store goods

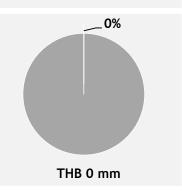


THB 173.9 mm



- Primarily production of residual organic materials from TPIPP's RDF production facilities
  - Currently most of these materials are sold; with TPIPP's RDFfired power plants coming on stream, the amount of residual organic materials produced will be reduced as more RDF produced will be needed as fuel for the generation of power

Remark: Reclassify agriculture revenue as other income since Y 2017



# Summary of TPIPP's Power Plant Operations



### TPIPP's Power Plants (Operational & Under Construction)

Total capacity in operation 220 MW

Total capacity of **70 MW**, construction completed, target to COD in Q2/2018

Total capacity of **150 MW**, construction completed, target to COD in Q2-Q3/2018

Grand total capacity 440 MW

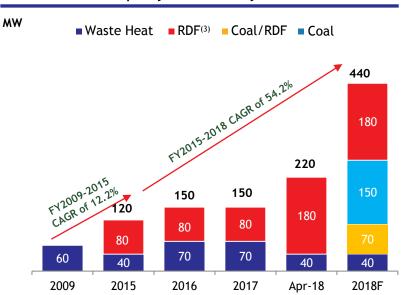
Power Plant	COD	Installed Capacity	Expiry Date <sup>(2)</sup>	Off taker
In operation				
WHPP-40MW	Jun 2009	40 MW	Jul 2044	TPIPL
RDFPP-20MW	Jan 2015	20 MW	Jul 2044	EGAT
RDFPP-60MW	Aug 2015	60 MW	Jul 2042	EGAT
WHPP-30MW <sup>(1)</sup>	Jan 2016/Apr 2018	30 MW	Jul 2042	TPIPL/EGAT
RDFPP-70MW <sup>(1)</sup>	Apr 2018	70 MW	Dec 2045	EGAT
Coal-RDF-PP-70MW	Q2 2018 *	70 MW	Jul 2042	TPIPL
Coal-PP-150MW	Q2-Q3 2018 *	150 MW	Jul 2042	TPIPL



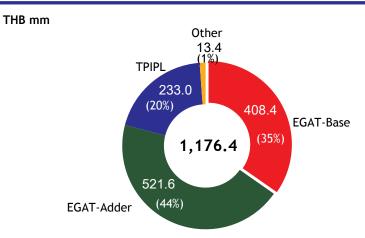
#### Notes:

- (1) After commencing commercial operations in January 2016, WHPP-30MW initially sold power to TPIPL to be used in TPIPL's cement production process until RDFPP-70MW commences commercial operations. Since RDFPP-70MW commenced commercial operations in April 2018, WHPP-30MW, together with RDFPP-70MW, operated as a 100 MW RDF-fired power plant (RDFPP-100MW) and sold power produced from such plant, using RDF and waste heat, to EGAT.
- (2) PPAs between the Company and EGAT has a term of five years beginning from COD and will be automatically extended for additional five-year terms, subject to at least 30 days' prior written notice from the Company to EGAT. RDFPP-20MW and RDFPP-60MW are situated on properties leased from TPIPL for a 30-year period, which expire in July 2044 and July 2042, respectively. The Company intends to extend the lease agreements.
- (3) Generates power by burning RDF and partially utilizing waste heat

#### TPIPP's Installed Capacity Breakdown by Fuel



## TPIPP's Q1 2018 Energy & Utilities Revenue Breakdown



# Summary of TPIPP's Petrol & Gas Station Operations

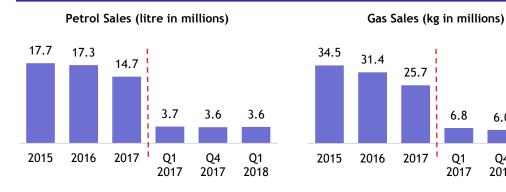


- TPIPP primarily sells petrol and gas to retail customers under the "TPIPL" brand
- The Company was granted the license to use the trademark of TPIPL in accordance with a 10-year trademark licensing agreement dated March 7, 2016 between the Company and TPIPL (the "TPIPL Trademark Agreement") in connection with the Company's sales of certain petrol and gas products

#### Breakdown of TPIPP's Petrol & Gas Stations by Type and Location

Location	Number of petrol stations	Number of gas stations	Number of petrol and gas stations	Total
Bangkok	2	-	1	3
Saraburi province	4	1	1	6
Nakornsawan province	1	-	-	1
Ubonrajthani province	-	-	1	1
Samutprakan province	1	-	-	1
Total	8	1	3	12

#### **Historical Sales Volume**



#### Supply of Petrol and Gas

#### Procurement of Petrol

- From oil companies at market price on a spot basis

### Procurement of Petrol for Petrol Stations in the Saraburi province

- Also purchases from TPIPL at cost. TPIPL regularly purchases petrol at large volumes and at discounted prices in the open market

#### Procurement of Gas

- Agrees to purchase a minimum amount of gas from PTT Public Company Limited every month, ranging from 700,000 kilograms to 1,200,000 kilograms per month

#### **Board of Investment Privileges**

- One of the gas stations has been granted promotion certificates from BOI, which entitles it to a number of benefits including tax exemptions from certain taxes
  - Expiration of Full Income Tax Exemption:
    - July 2017
  - Expiration of 50% Income Tax Reduction:
    - July 2022

6.8

Q1

2017

2017

Q1

2018

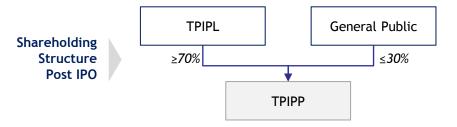
# Mutually Beneficial Support Framework with TPIPL



## Complementary Sale & Purchase Relationship with TPIPL Supports Continuing Development of Both Companies

#### Backing and Continuing Support from Recognized Shareholder, TPIPL

- One of the leading cement manufacturers in the country founded in 1987 and is listed on the Stock Exchange of Thailand since 1990
- Primarily engages in the business of manufacturing and selling cement & low-density polyethylene/ethylene vinyl acetate plastic resin as well as selling construction materials



-40MW

-RDF

-70MW

-PP

-150MW

Waste Heat Supply & Power Sales Arrangements with TPIPL

#### TPIPL sells waste heat to TPIPP TPIPP sells power to TPIPL Pursuant to the respective PPAs<sup>(1)</sup> Sell waste heat TPIPP Utilizes Waste Heat Emitted from Installed Power Generation Capacity (MW) **TPIPL's Cement Production Process** with TPIPL as Offtaker Pursuant to the TPIPL **TPIPF** Plan COD Framework Q2-Q3 2018 Agreement Kangkhov, Plan COD As the power and Saraburi Province Q2 2018 cement plants are Sell power generated located in the same vicinity, waste heat 40 can be obtained with minimal heat loss WH Coal Coal

<sup>(1)</sup> PPAs do not specify a contracted power generation capacity





# **Key Investment Highlights**



# Summary of Key Investment Highlights



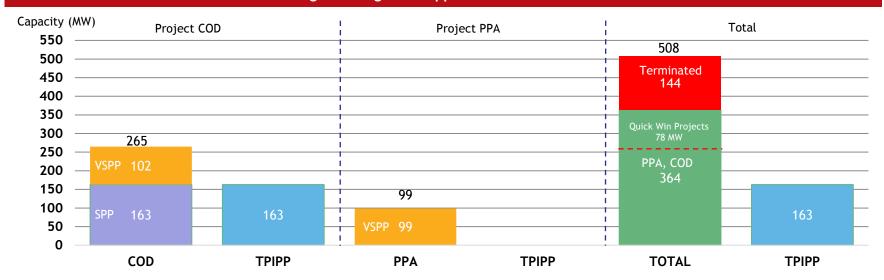
- Thailand's Largest WTE Power Plant Operator
- 2 Expertise in Waste Management & WTE Renewable Technologies
- Strong Relationships with Key Players in the Upstream & Downstream Industry Value Chain
- Supportive Government Policies for Renewable Energy ("RE") Power Generation in Thailand
- Positive Macroeconomic Outlook with Strong GDP Growth & Increasing Power Demand in Thailand
- Experienced Management Supported by Dedicated Operating & Technical Staff



# Thailand's Largest WTE Power Plant Operator



Thai government's policies to promote power generation from renewable fuel sources remain favorable, which provides significant growth opportunities for TPIPP



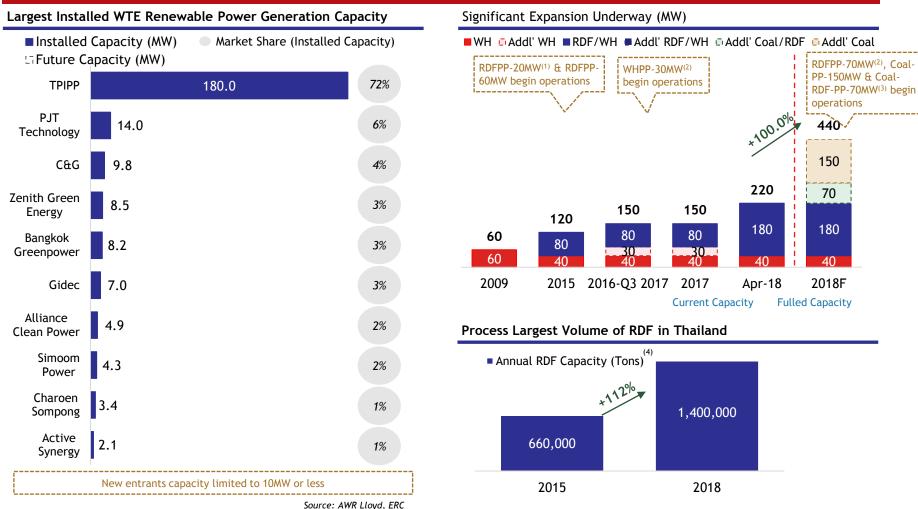
		SPP		VSPP				Total		
Status	No.	Install Capacity	PPA (MW)	Ma	Install Capacity	PPA (MW)	M.	Install Capacity	PPA (MW)	
		(MW)		No.	(MW)		No.	(MW)		
1. COD	3	180	163	30	111	102	33	291	265	
2. PPA	0	0	0	16	116	99	16	116	99	
3. Agreement	1	20	20	0	0	0	1	20	20	
4. Terminated Contract	0	0	0	28	144	121	28	144	121	
5. Terminated Agreement	0	0	0	6	3	3	6	3	3	
total	4	200	183	80	374	325	84	574	508	

# 1

# Thailand's Largest WTE Power Plant Operator



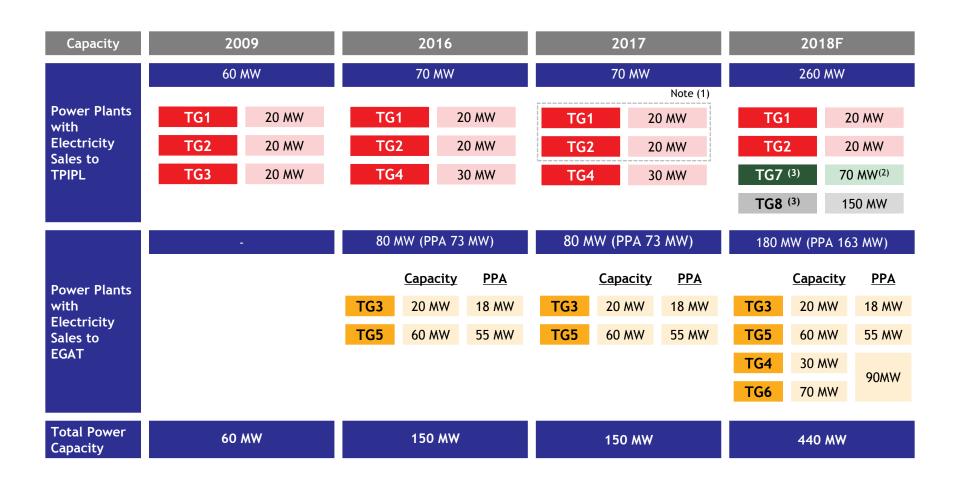
## Thailand's Dominant WTE Player by Installed Capacity with Significant Future Capacity Growth in Progress



- (1) In 2015, company transferred one of the three 20MW power generation unit from its waste heat recovery plant to RDFPP-20MW as it becomes commercially operational selling power to EGAT (2) Once RDFPP-70MW commences commercial operations, WHPP-30MW, together with RDFPP-70MW, will operate as a 100 MW RDF-fired power plant
- (3) Coal-RDF-PP-70MW is designed and constructed to enhance the Company's operational flexibility Coal-RDF-PP-70MW can be used as a backup power plant for the RDF-fired power plants
- (4) The annual RDF production capacity is calculated based on 330 working days per year

# Expertise in Waste management & WTE Renewable Technologies







<sup>(1)</sup> TPIPP completed the installation of additional boilers at RDFPP-20MW and WHPP-40MW in December 2016 and January 2017, respectively

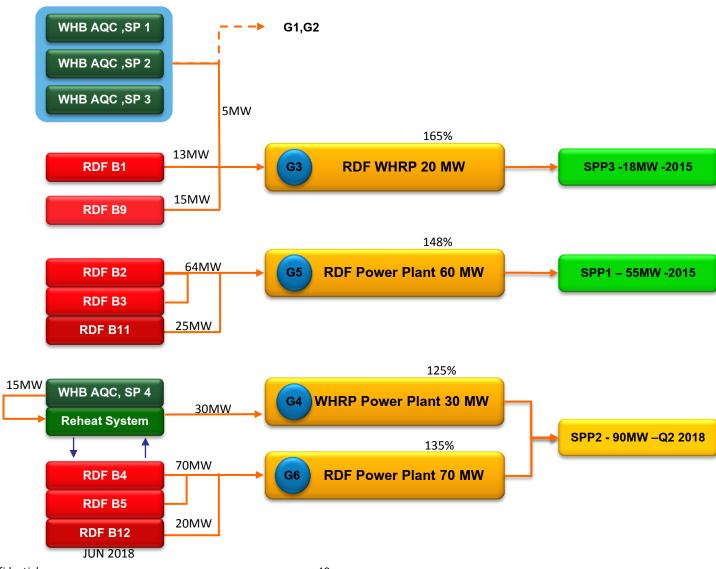
<sup>(2)</sup> Can be a backup for sales to EGAT during maintenance period of TG5 and TG6

<sup>(3)</sup> TG7 and TG8 are targeted to COD in Q2 and Q2-Q3 / 2018, respectively.

# Expertise in Waste management & WTE Renewable Technologies



# Overview of Power Plants (with PPA with EGAT)

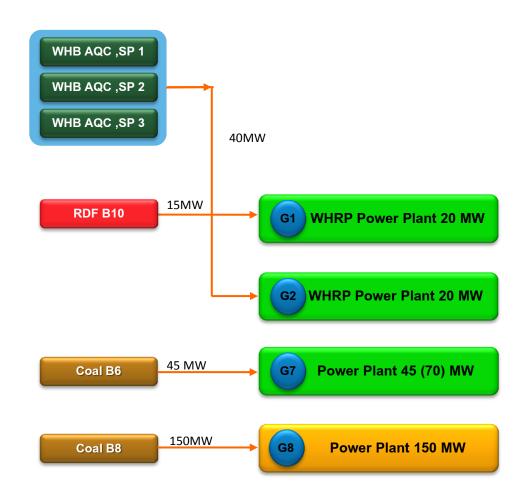




# Expertise in Waste management & WTE Renewable Technologies



# Overview of Power Plants (with PPA with TPIPL)



# 3 Strong Relationships with Key Players in the Upstream & **Downstream Industry Value Chain**



Extensive network of waste suppliers provides TPIPP with a steady supply of waste for the operation of its WTE power plants while good relationship with EGAT creates revenue visibility

#### Extensive Network of Suppliers for Waste delivered to Saraburi Plant

<ul> <li>MSW deposit and Un-sorted Land fill waste purchase</li> </ul>	municipal governments and Waste companies	Provinces	Contracted Ton per Day
agreements	110	6	2,000
✓ Pre-Sorted Land Filled	<i>53</i>	10	2,500

## Plants are invested by TPIPP

	In Operation	Under Installation	Capacity ton per day
✓ RDF Plant	4	-	800
√ Semi Mobile	Na Dee-Samut Sakhon Ban Bueng-Chonburi Bang Sai-Ayutthaya Rayong <b>5</b>	_	1,000
Presorting Plant	Nakhon Ratchasima (2) Rayong Ayutthaya Kanchanaburi		



# Supportive Government Policies for Renewable Energy ("RE") Power Generation in Thailand



Thai government's policies to promote power generation from renewable fuel sources remain favorable, which provides significant growth opportunities for TPIPP

Thai WTE Industry Outlook from Potential Waste Processing

Based on Thailand's capability to improve MSW processing, potential WTE capacity could reach 850-2,000 MW in the next 20 years

Parameter	Short-term Scenario (1-5 years)	Long-term Scenario (20 years)
MSW Generation	25 million tonnes/year	35-40 million tonnes/year
MSW used for WTE	25-35%	35-50%
Average LHV	1,793 kcal/kg	1,972 - 2,151 kcal/kg
Potential WTE Capacity	400 - 800 MW	850 - 2,000 MW
Load Factor	65-75%	70-75%
Potential Generation	2,600 - 4,560 GWh	5,600 - 12,500 GWh

Source: AWR Lloyd

## Government Provide Significant Tariff Adders to TPIPP's RDF Power Plants

Tariff = Energy Payment
+
THB3.5/kWh
Adder

In selling WTE power to EGAT, TPIPP is entitled to an adder<sup>(1)</sup> of THB3.5/kWh, payable in addition to the base price of power under the PPAs

TPIPP power plants currently receiving Tariff Adders:



RDFPP-20MW
Commenced operations



RDFPP-60MW
Commenced operations



RDFPP-100MW
Commenced operations

<sup>(1)</sup> Thai government is in the process of replacing the adder payment structure with a feed-in tariff scheme after the current adder payments expire. In this regard, the Thai government is currently in discussions with power producers who will be affected by such transition, including the Company





# Financial Highlights



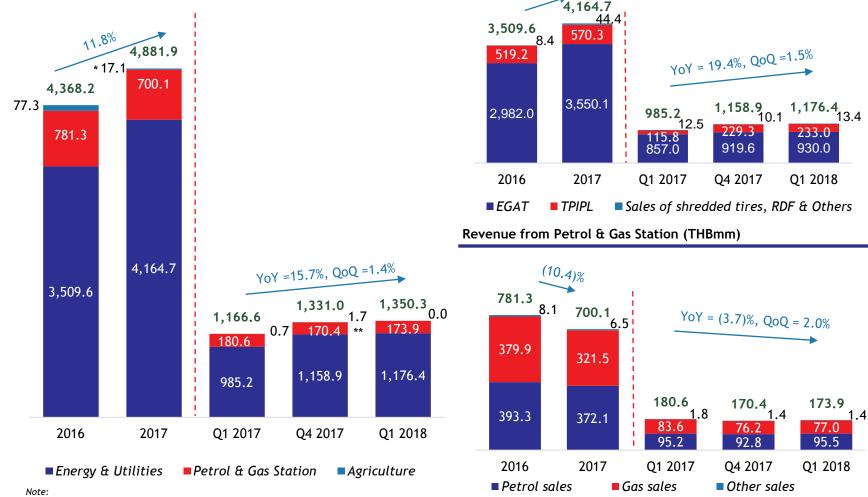
## Revenue

# Diversified Revenue Streams Led by Growing Revenues from Energy & Utilities Division



#### Total Revenue from Sales of Goods<sup>(1)</sup> (THBmm)

#### Revenue from Energy & Utilities (THBmm)



<sup>(1)</sup> Reclassify agriculture revenue as other income since Y 2017

<sup>(2)</sup> Revenue from sales from Agriculture sector of baht 1.723 M and baht 17.064 M in Q4/2017 and in year 2017 respectively has been reclassified and recorded in Other income account, whereas in Q1-Q3 it was recorded in revenue from sales account.

# Cost of Sales & Gross Profit

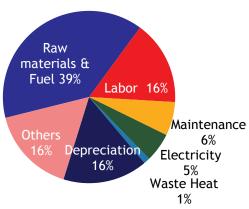
# High Gross Profit Margins in Y 2017 Underpinned by Power Sales to EGAT



#### Q1 Y2018 Cost of Sales Breakdown (THBmm)

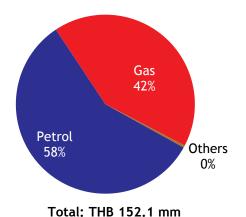
#### Gross Profit (THBmm) and Gross Profit Margin<sup>(1)</sup> (%)

### Energy & Utilities:

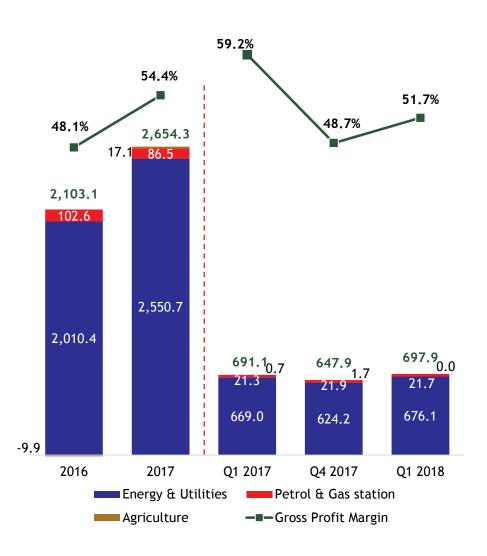


Total: THB 500.3 mm

#### Petrol & Gas Station:



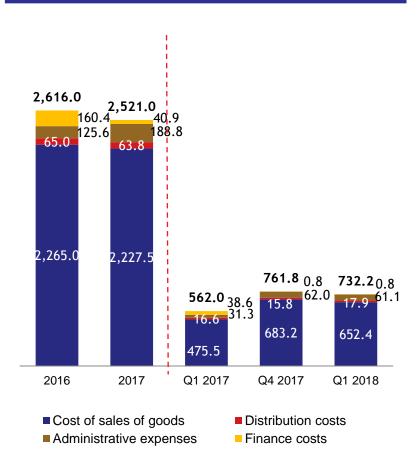
Note:
(1) Gross profit margin = Gross profit (loss) / Revenue from sales of goods x 100



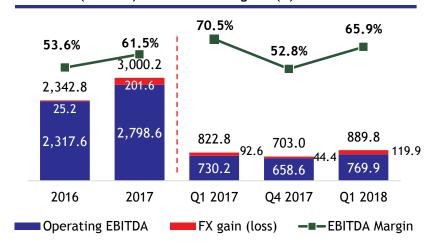
# Cost & Expenses vs. EBITDA & NPAT



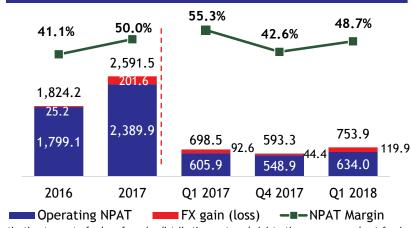
### Cost & Expenses Items (THBmm)



#### EBITDA<sup>(1)</sup> (THBmm) and EBITDA margin<sup>(2)</sup> (%)



### NPAT (THBmm) and NPAT margin<sup>(3)</sup> (%)



<sup>(1)</sup> EBITDA is calculated by adding net foreign exchange gain, other income and depreciation and amortization to, cost of sales of goods, distribution costs, administrative expenses and net foreign exchange loss, revenue from sales of goods. The Company considers EBITDA to be an important performance measure and the Company believes that EBITDA is used by many industries and investors as one measure of cash flow from operations. EBITDA should not be considered by an investor as an alternative to actual cash flow from operations as determined in accordance with TFRS, and is not a standard measure under TFRS. The Company's calculation of EBITDA may differ from similarly titled computations of other companies.

<sup>(2)</sup> EBITDA margin = EBITDA / Revenue from sales of goods and services x 100

<sup>(3)</sup> Net profit margin = Profit (loss) for the year / Total Revenues x 100

# Comparing Profit and Loss Statement - YoY and QoQ



Unit:THBmm

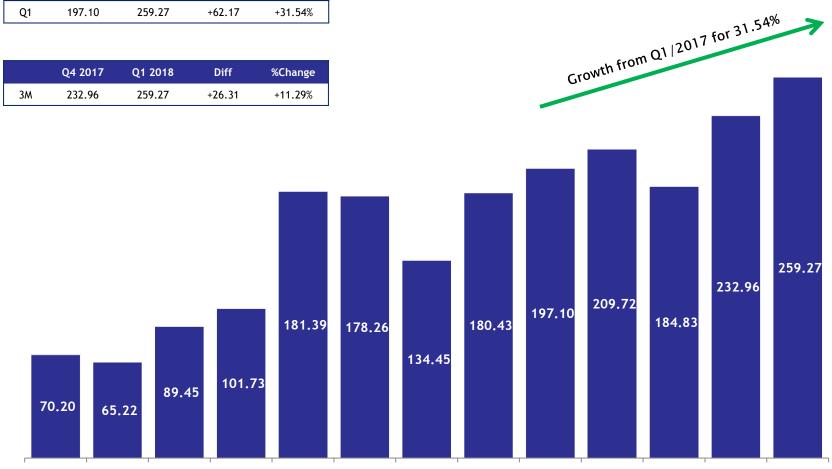
	2016	2017	2017	2017	2018		Compare (%)	
	12M	12M	Q1	Q4	Q1	YoY (12M)	YoY (Q)	QoQ
Income								
Revenue from base tariff	1,823.6	2,109.2	476.7	634.8	641.3	15.7%	34.5%	1.0%
Revenue from power adder	1,677.5	2,011.2	496.1	514.0	521.6	19.9%	5.1%	1.5%
Other Sales Revenue	867.0	744.4	193.8	180.4	187.3	-14.1%	-3.3%	3.8%
Reclassify Agriculture Sales as Other Income	0.0	0.0	0.0	(15.3)	0.0	0.0%	0.0%	100.0%
Other income	34.0	49.4	2.5	12.8	59.6	45.5%	2,237.9%	365.2%
Investment Income	6.0	72.3	1.4	20.9	17.4	1,097.8%	1,154.7%	-17.0%
Total income	4,408.2	4,986.5	1,170.5	1,347.7	1,427.2	13.1%	21.9%	5.9%
Expenses		 						
Cost of sales of goods	2,265.0	2,227.5	475.5	683.2	652.4	-1.7%	37.2%	-4.5%
Selling & administrative expenses	190.6	252.6	47.9	77.8	79.0	32.5%	64.9%	1.6%
Finance costs	160.4	40.9	38.6	0.8	8.0	-74.5%	-97.8%	-0.6%
Total expenses	2,616.0	2,521.0	562.0	761.8	732.2	-3.6%	30.3%	-3.9%
Profit (loss) before income tax expense	1,792.2	2,465.5	608.5	585.9	695.0	37.6%	14.2%	18.6%
Income tax - deferred tax	6.9	(75.6)	(2.6)	(37.0)	(61.0)	-1,194.6%	2,232.3%	64.9%
Profit (loss) for the year (excluded FX)	1,799.1	2,389.9	605.9	548.9	634.0	32.8%	4.6%	15.5%
Net foreign exchange gain	25.2	201.6	92.6	44.4	119.9	701.4%	29.5%	169.8%
Net Profit (loss) for the year	1,824.2	2,591.5	698.5	593.3	753.9	42.1%	7.9%	27.1%

# **Operating Statistic**



# **Generated Amount of Electricity (M.KWh)**

	2017	2018	Diff	%Change
Q1	197.10	259.27	+62.17	+31.54%



Q1-2015 Q2-2015 Q3-2015 Q4-2015 Q1-2016 Q2-2016 Q3-2016 Q4-2016 Q1-2017 Q2-2017 Q3-2017 Q4-2017 Q1-2018

# **Debt Profile and Leverage Ratios**



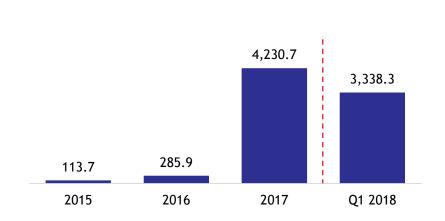


2017

Q1 2018

2016

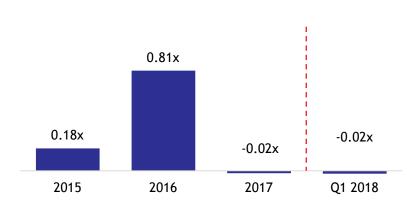
#### Cash / Cash Equivalents and Current Investment (THBmm)

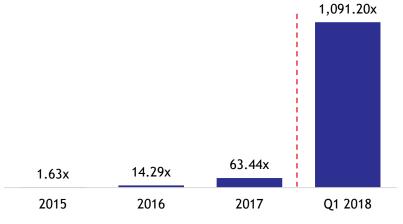


## Net Debt<sup>(1)</sup> to Equity (x)

2015







<sup>(1)</sup> Net debt = Short-term loan from financial institutions + Short-term loan from related parties + Current portion of long-term loan from financial institutions + Long-term loan from related parties - Cash and cash equivalents

<sup>(2)</sup> Interest coverage ratio = Cash generated from operating activities / finance cost paid



Q & A