



TPI Polene Power Public Company Limited

Q3 2017 Opportunity Day

30 November 2017



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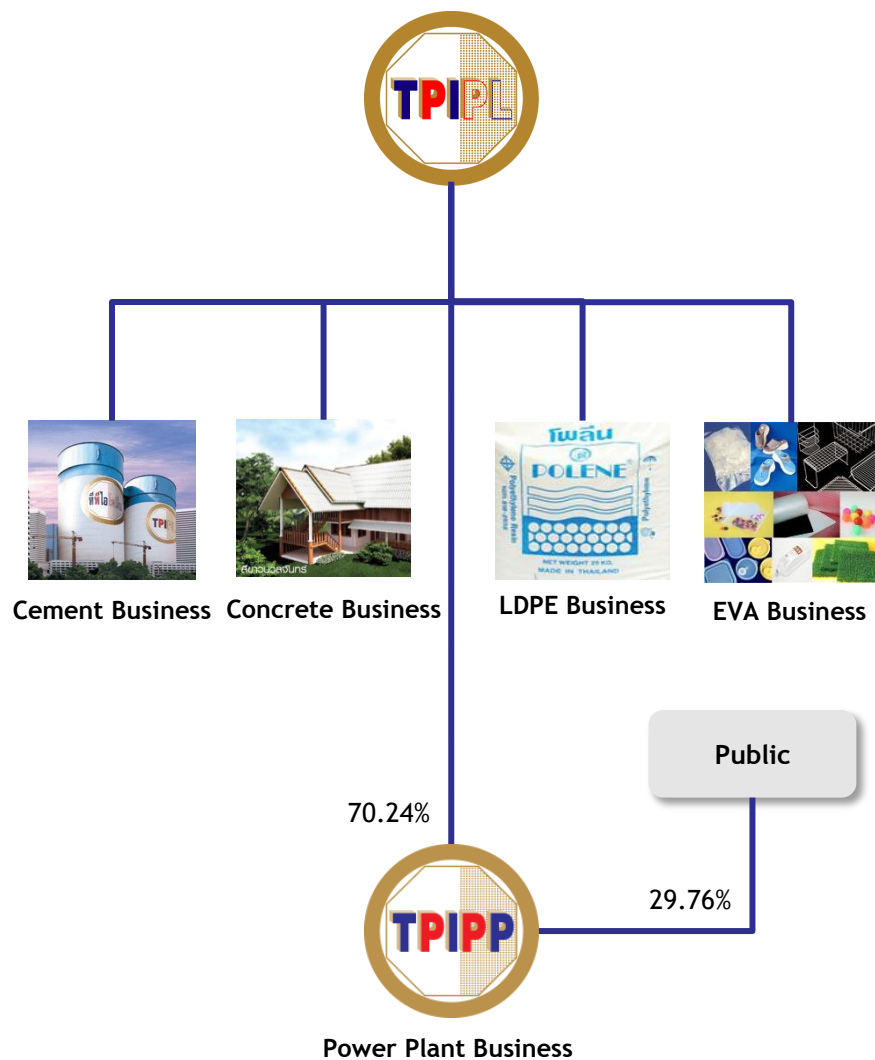
1. Company & Business Overview
2. Financial Highlights
3. Progress Update
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Company & Business Overview



TPIPP as TPIPL's Flagship for Power Business



Unit: THBmm

	TPIPP (9M 2017)
Main Business	Electricity generation from waste heat and refused derived fuel (RDF) power plants and operation in petrol and gas stations.
Total Asset	27,298
Total Liabilities	3,171
Registered and Paid-up Capital	8,400
Total Equity	24,127
Total Revenue	3,796
EBITDA (including net foreign exchange gain 157.2 THBmm)	2,297
Net Profit	1,998
Market Cap as of 29 September 2017	63,840

TIIPP at a Glance



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

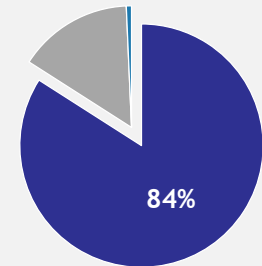
Key Business Segments

% of Q3 2017 Total Sales Revenue



Energy & Utilities

- Operates refuse derived fuel (“RDF”) fired & waste-heat recovery power plants with off-take arrangements with EGAT and TPIPL
 - 4 commercially operating power plants and 3 power plants under construction
 - Peripheral RDF production facilities to support its RDF-fired power plant operations

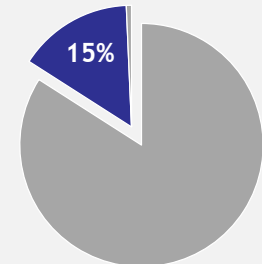


THB 960.8 mm



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

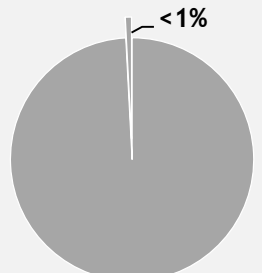


THB 174.4 mm



Others

- Primarily production of residual organic materials from TIIPP's RDF production facilities
 - Currently most of these materials are sold; with TIIPP's RDF-fired 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



THB 7.9 mm

Summary of TPIPP's Power Plant Operations



TPIPP's Power Plants (Operational & Under Construction)

Total capacity in operation **150 MW**

Total capacity under construction **290 MW**

Grand total capacity **440 MW**

Power Plant	COD	Installed Capacity	Expiry Date ⁽²⁾	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 ⁽¹⁾	Jan 2016	30 MW	Jul 2042	TPIPL
Under construction				
RDFPP-70MW ⁽¹⁾	Q4 2017	70 MW	Dec 2045 ⁽¹⁾	EGAT
Coal-PP-150MW	Q4 2017	150 MW	Jul 2042	TPIPL
Coal-RDF-PP-70MW	Q4 2017	70 MW	Jul 2042	TPIPL

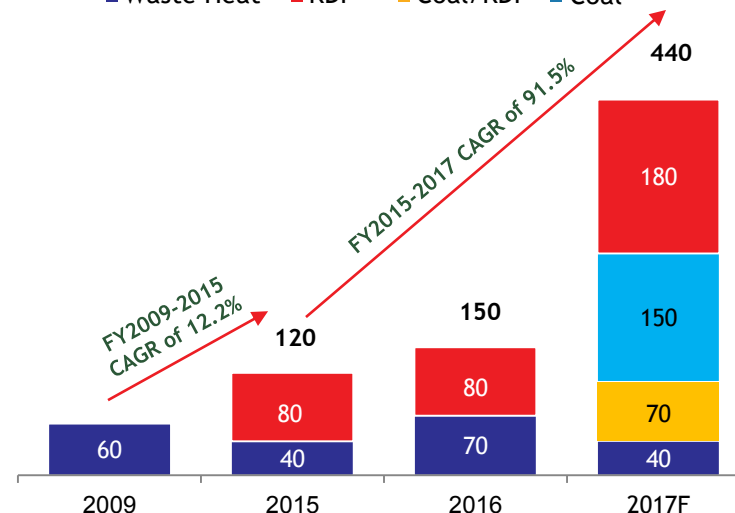
Notes:

- (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. Once RDFPP-70MW commences commercial operations, WHPP-30MW, together with RDFPP-70MW, will operate as a 100 MW RDF-fired power plant, RDFPP-100MW and sell power produced from such plant, using RDF and waste heat, to EGAT. A binding acceptance letter approving the sale of 90 MW of power to EGAT has been received
- (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

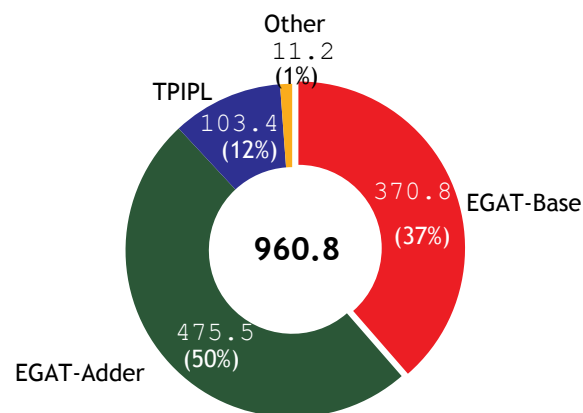
MW

■ Waste Heat ■ RDF⁽³⁾ ■ Coal/RDF ■ Coal



TPIPP's Q3 2017 Energy & Utilities Revenue Breakdown

THB mm



Thailand's Largest WTE Power Plant Operator

TPIPP's Annual Installed Capacity



	2009	2015	2016	2017F	
Power Plants with Electricity Sales to TPIPL	60 MW	40 MW	70 MW	260 MW	
	TG1 20 MW	TG1 20 MW	TG1 20 MW	TG1 20 MW	Note (1)
	TG2 20 MW	TG2 20 MW	TG2 20 MW	TG2 20 MW	
	TG3 20 MW		TG4 30 MW	TG7 70 MW ⁽²⁾	
				TG8 150 MW	
Power Plants with Electricity Sales to EGAT	-	80 MW (PPA 73 MW)	80 MW (PPA 73 MW)	180 MW (PPA 163 MW)	
		<u>Capacity</u> <u>PPA</u>	<u>Capacity</u> <u>PPA</u>	<u>Capacity</u> <u>PPA</u>	
		TG3 20 MW 18 MW	TG3 20 MW 18 MW	TG3 20 MW 18 MW	
		TG5 60 MW 55 MW	TG5 60 MW ⁽³⁾ 55 MW	TG5 60 MW 55 MW	
				TG4 30 MW 90MW	
				TG6 70 MW ⁽³⁾	
Total Power Capacity	60 MW	120 MW	150 MW	440 MW	
RDF Production Plant	-	RDF output capacity: 2,000 tons/day Input: 4,000 tons/day	RDF output capacity: 2,000 tons/day Input: 4,000 tons/day	RDF output capacity: 3,000 tons/day Input: 6,000 tons/day	

Notes:

- (1) TPIPP completed the installation of additional boilers at RDFPP-20MW and WHPP-40MW in December 2016 and January 2017, respectively
- (2) Can be a backup for sales to EGAT during maintenance period of TG5 and TG6
- (3) In September 2016, TPIPP entered into EPC agreements for two additional boilers at RDFPP-60MW and RDFPP-70MW, expected to be completed in 1Q 2018

WH	Coal
RDF/WH	Coal/RDF



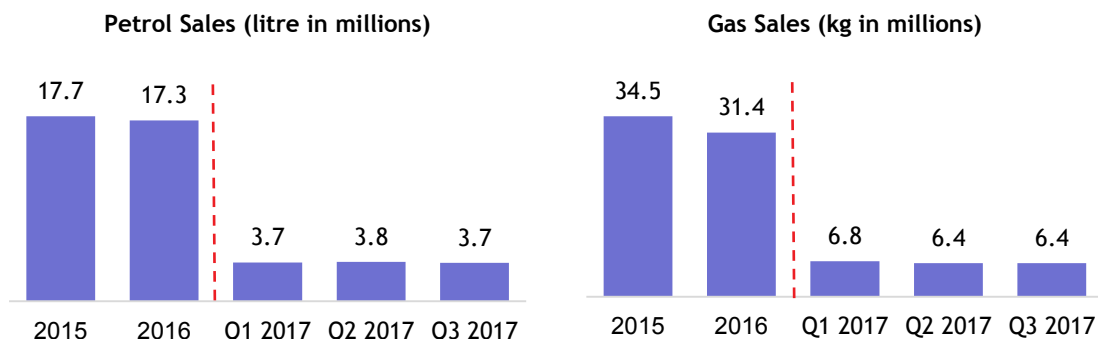
Summary of TPIPP's Petrol & Gas Station Operations

- 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

Key Milestones



1991

- Established as TPI Nylon Co., Ltd.

1996

- Renamed to TPI Polene Power

2007

- Expanded into petrol station business
- Entered into WHPP-40 MW PPA with TPIPL

2009 - 2013

- COD of WHPP-40 MW
- Expanded the installed capacity of WHPP-40MW to 60MW
- COD of RDF facilities (Capacity: 4,000 tons of MSW/day)
- Entered into RDFPP-60MW PPA with EGAT
- Expanded into the business of operating gas stations

2014 - 2015

- Entered in to RDFPP-20MW PPA with EGAT
- Received acceptance letter from EGAT for the sale of 90MW of power capacity from RDFPP-100MW
- COD of RDFPP-20MW and RDFPP-60MW
- Started construction of RDFPP-70MW
- Corporate reorganization

2016

- Entered into WHPP-30MW PPA with TPIPL and COD of WHPP-30MW
- Started expansion of RDF production facilities (Future capacity: 6,000 tons of MSW/day)
- Started construction of and entered into PPA with TPIPL for Coal-PP 150MW & Coal-RDF-TG 70MW

Incorporation



Emergence as a leading WTE producer



Expansion and diversification



Financial Highlights

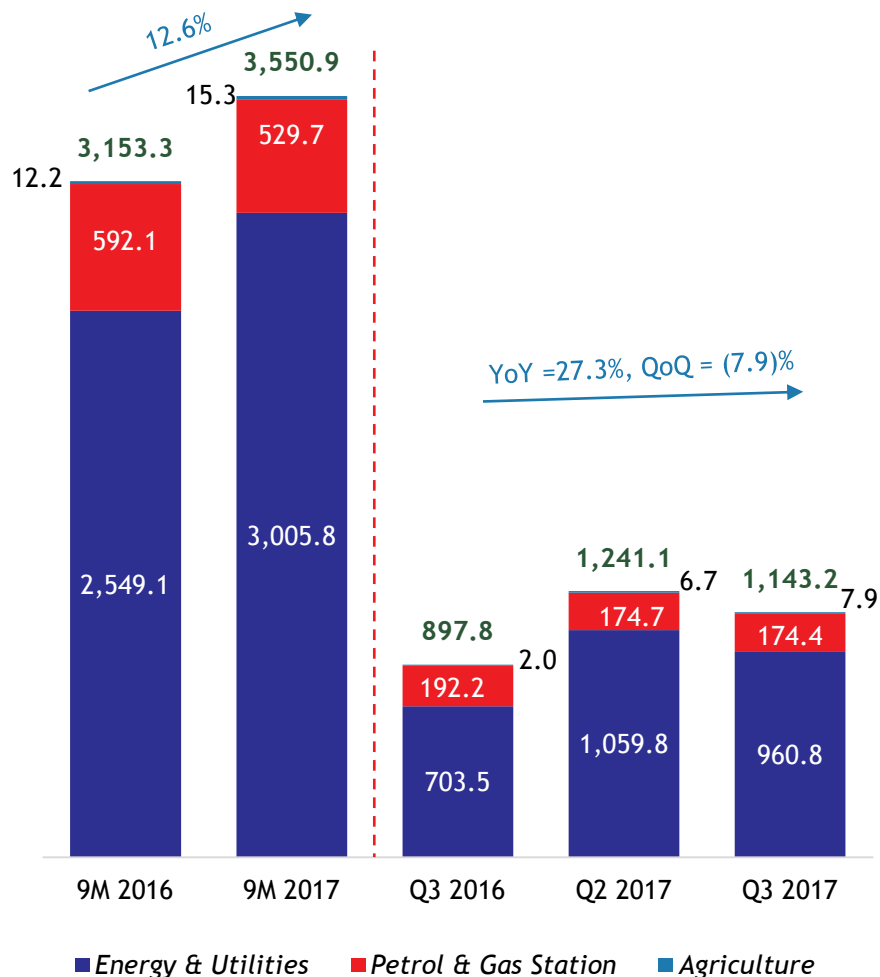


Revenue

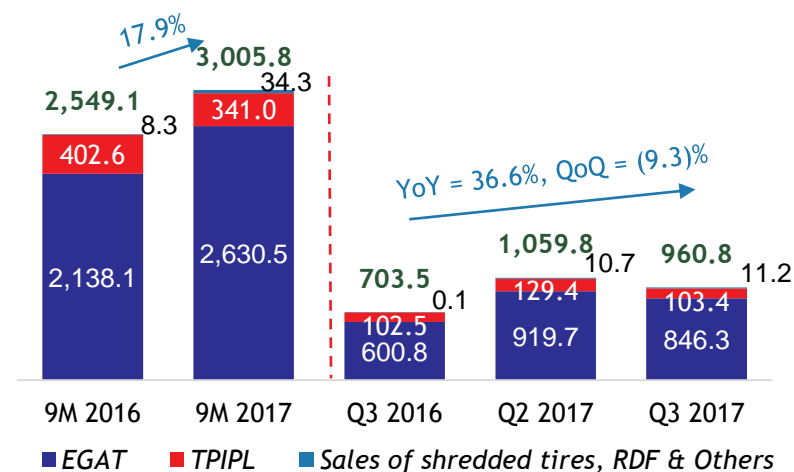
Diversified Revenue Streams Led by Growing Revenues from Energy & Utilities Division



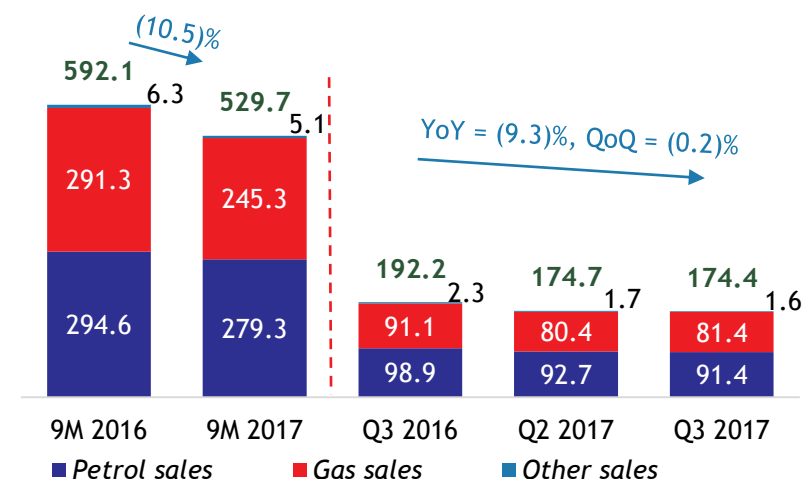
Total Revenue from Sales of Goods (THBmm)



Revenue from Energy & Utilities (THBmm)



Revenue from Petrol & Gas Station (THBmm)



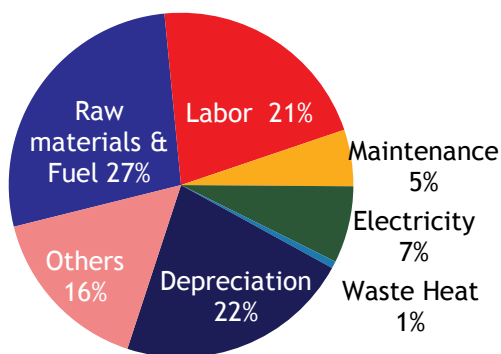
Cost of Sales & Gross Profit

High Gross Profit Margins in 9M 2017 Underpinned by Power Sales to EGAT



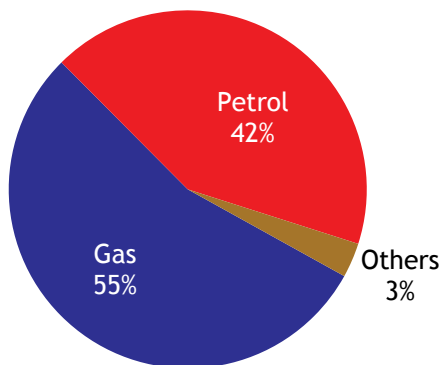
9M 2017 Cost of Sales Breakdown (THBmm)

Energy & Utilities:



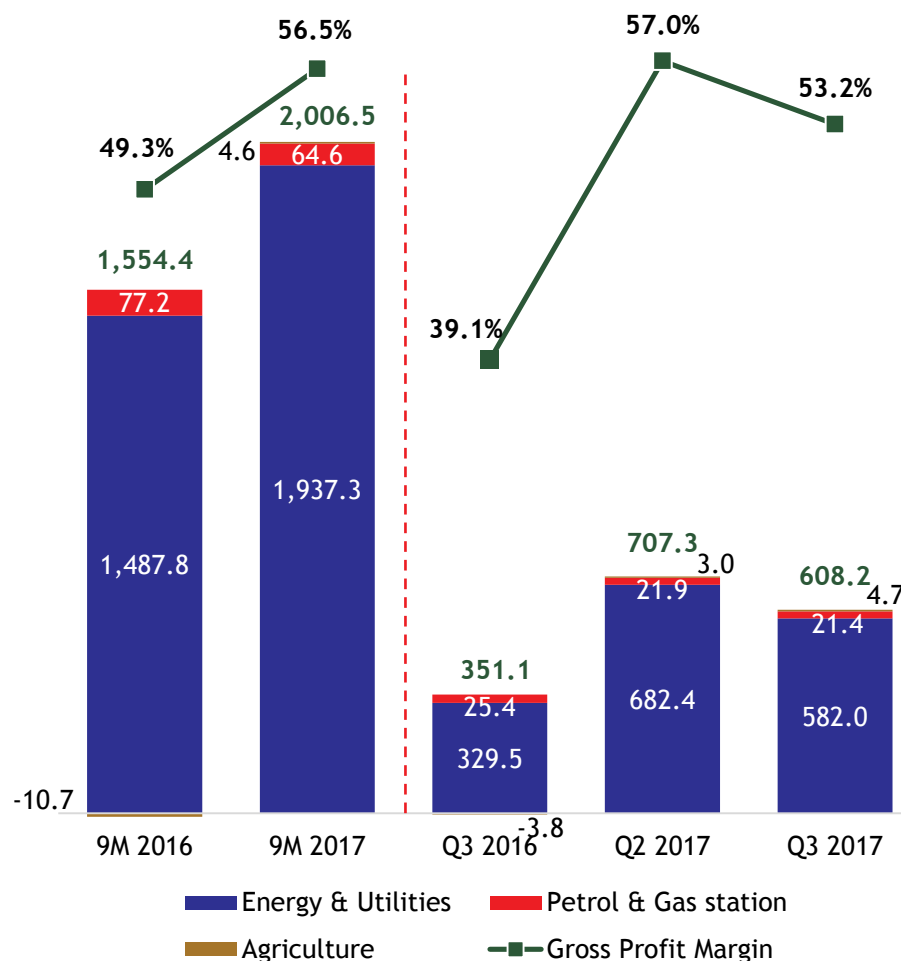
Total: THB 1,068.5 mm

Petrol & Gas Station:



Total: THB 475.9 mm

Gross Profit (THBmm) and Gross Profit Margin⁽¹⁾ (%)



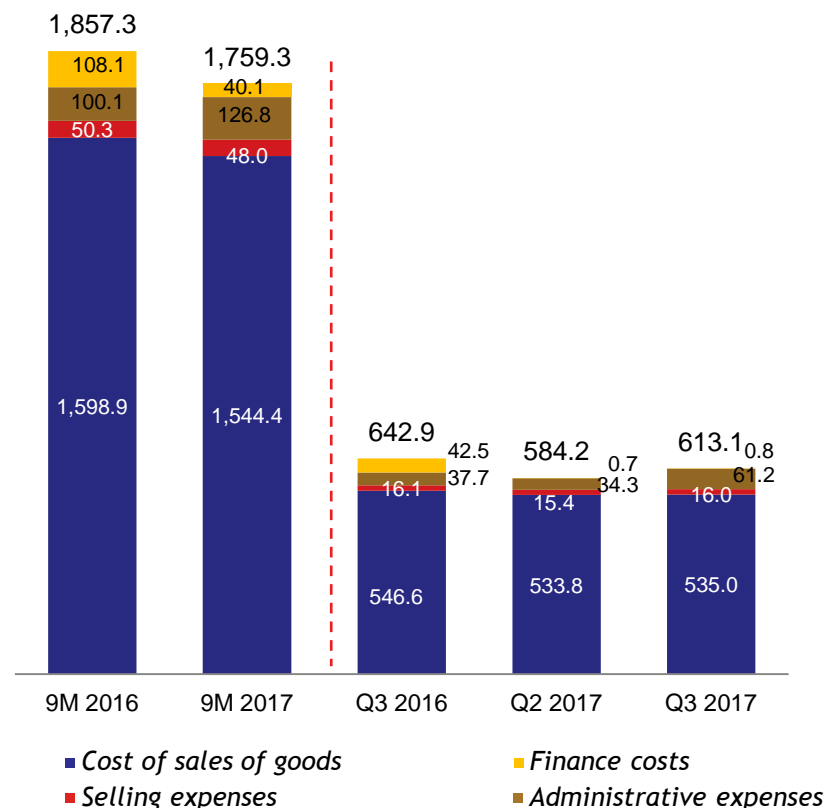
Note:

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

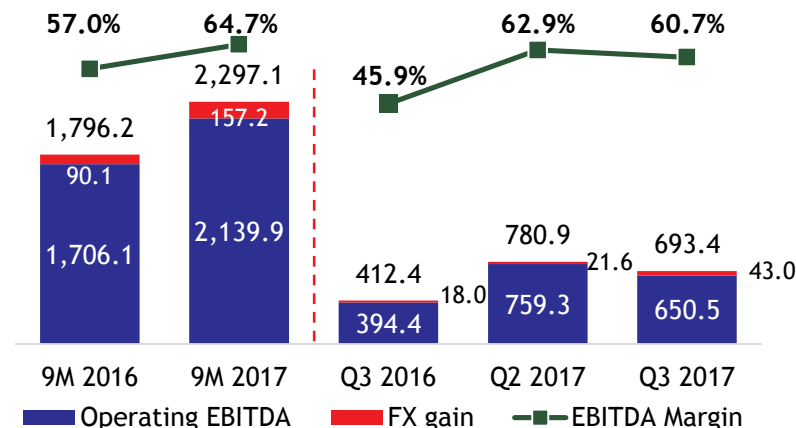
Strictly Private & Confidential

Cost & Expenses vs. EBITDA & NPAT

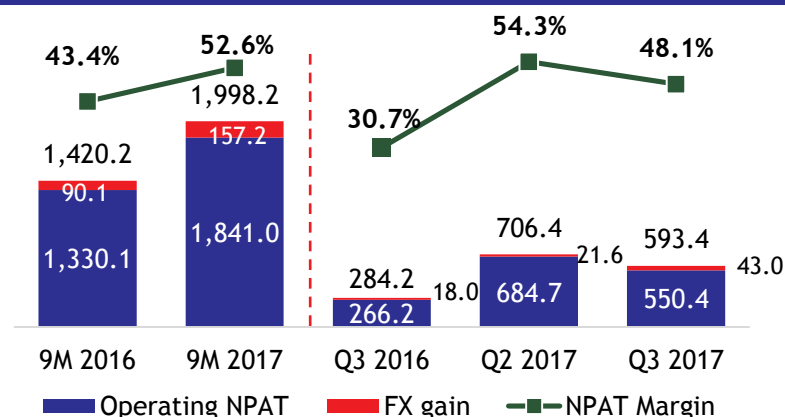
Cost & Expenses Items (THBmm)



EBITDA⁽¹⁾ (THBmm) and EBITDA margin⁽²⁾ (%)



NPAT (THBmm) and NPAT margin⁽³⁾ (%)



Notes:

- (1) EBITDA is calculated by adding net foreign exchange gain, other income and depreciation and amortization to, cost of sales of goods, selling expenses, administrative expenses and net foreign exchange loss from, 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.
- (2) EBITDA margin = EBITDA / Revenue from sales of goods and services x 100
- (3) Net profit margin = Profit (loss) for the year / Total Revenues x 100

Comparing Profit and Loss Statement - YoY and QoQ

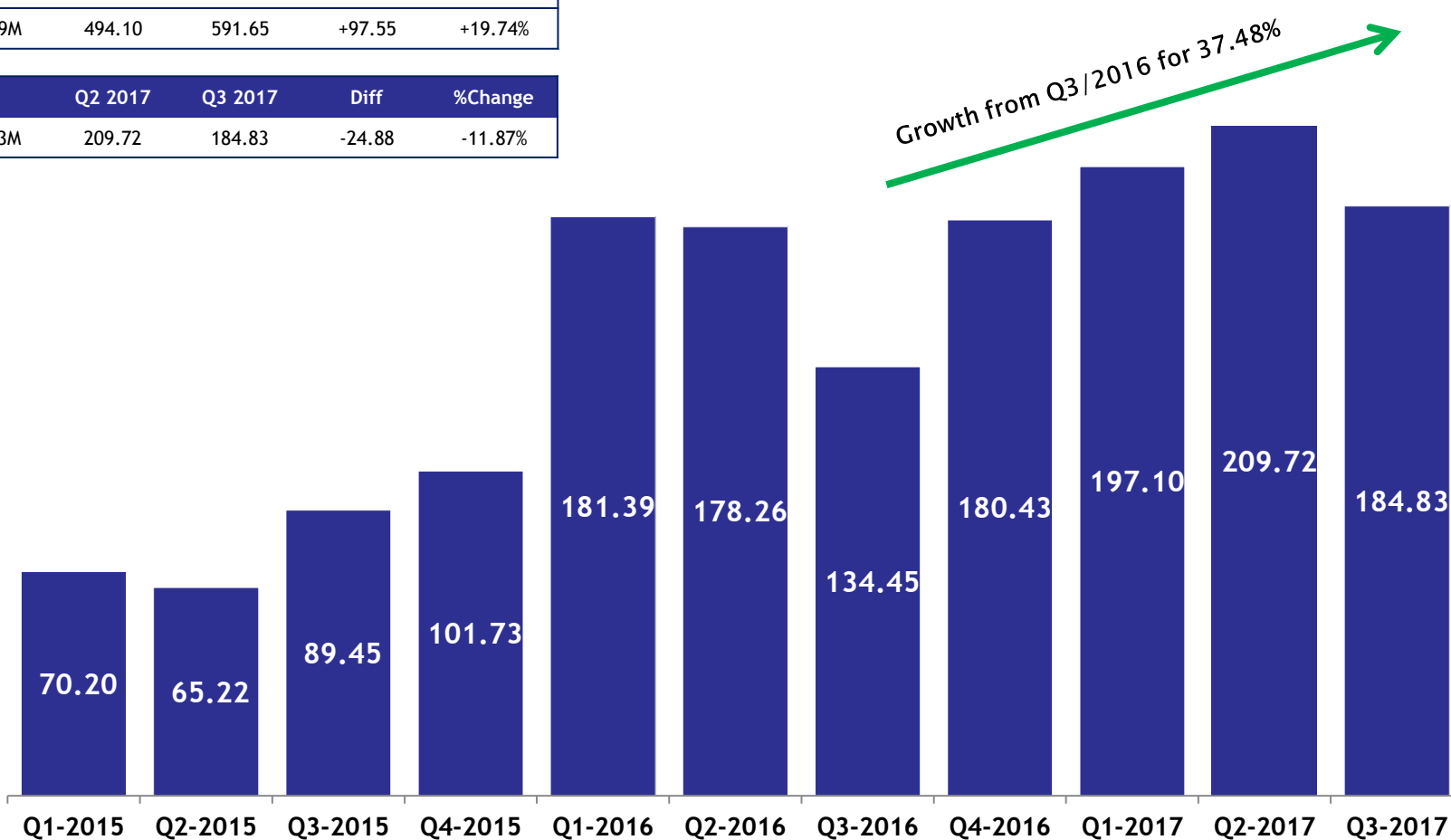
Unit : THBmm

	2016 9M	2017 9M	2016 Q3	2017 Q2	2017 Q3	Compare (%)		
						YoY (9M)	YoY (Q)	QoQ
Income								
Revenue from base tariff	1,345.4	1,474.3	363.7	523.5	474.2	9.6%	30.4%	-9.4%
Revenue from power adder	1,195.3	1,497.2	339.6	525.6	475.5	25.3%	40.0%	-9.5%
Other Sales Revenue	612.7	579.4	194.5	192.0	193.5	-5.4%	-0.5%	0.8%
Other income	24.5	36.6	7.7	10.4	23.7	49.6%	206.5%	128.3%
Investment Income	4.3	51.4	1.4	27.4	22.6	1,093.6%	1,539.8%	-17.4%
Total income	3,182.1	3,638.9	906.9	1,278.9	1,189.5	14.4%	31.2%	-7.0%
Expenses								
Cost of sales of goods	1,598.9	1,544.4	546.6	533.8	535.0	-3.4%	-2.1%	0.2%
Selling & administrative expenses	150.4	174.8	53.8	49.7	77.2	16.3%	43.6%	55.3%
Finance costs	108.1	40.1	42.5	0.7	0.8	-62.9%	-98.0%	27.1%
Total expenses	1,857.3	1,759.3	642.9	584.2	613.1	-5.3%	-4.6%	4.9%
Profit (loss) before income tax expense	1,324.8	1,879.6	264.0	694.7	576.4	41.9%	118.3%	-17.0%
Income tax - deferred tax	5.3	(38.6)	2.2	(9.9)	(26.0)	-823.8%	-1,305.9%	162.4%
Profit (loss) for the year (excluded FX)	1,330.1	1,841.0	266.2	684.7	550.4	38.4%	106.8%	-19.6%
Net foreign exchange gain	90.1	157.2	18.0	21.6	43.0	74.5%	138.4%	98.8%
Net Profit (loss) for the year	1,420.2	1,998.2	284.2	706.4	593.4	40.7%	108.8%	-16.0%

Generated Amount of Electricity (M.KWh)

	2016	2017	Diff	%Change
Q3	134.45	184.83	+50.39	+37.48%
9M	494.10	591.65	+97.55	+19.74%

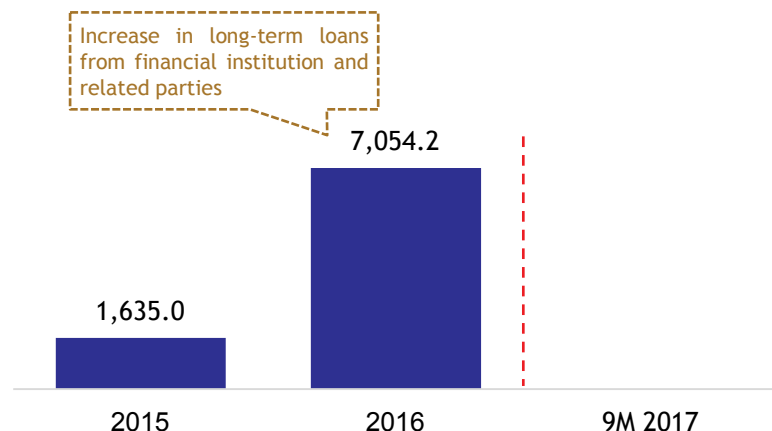
	Q2 2017	Q3 2017	Diff	%Change
3M	209.72	184.83	-24.88	-11.87%



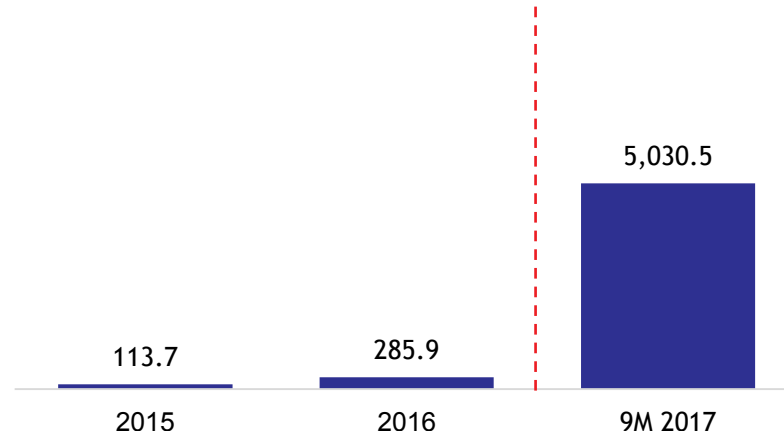
Debt Profile and Leverage Ratios



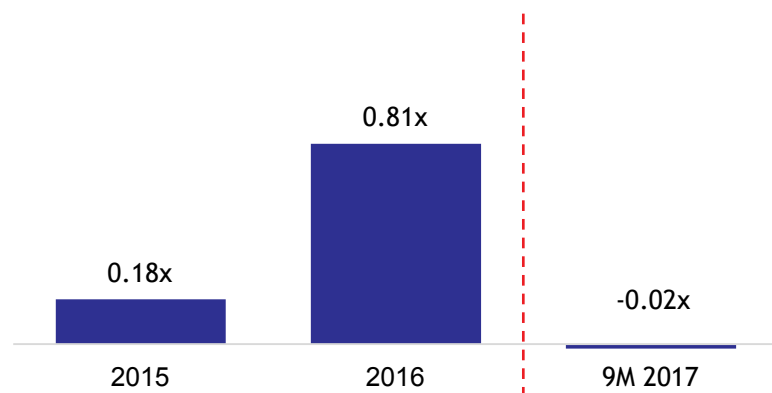
Interest Bearing Liabilities (THBmm)



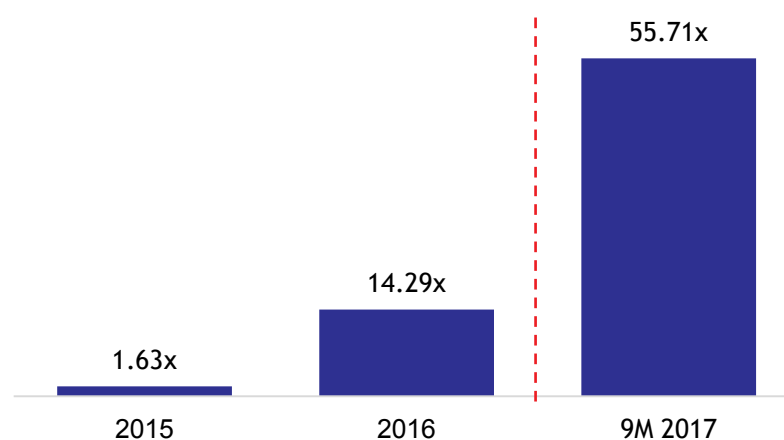
Cash / Cash Equivalents and Current Investment (THBmm)



Net Debt⁽¹⁾ to Equity (x)



Interest Coverage Ratio⁽²⁾ (x)



Notes:

(1) 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 financial institutions + Long-term loan from related parties - Cash and cash equivalents

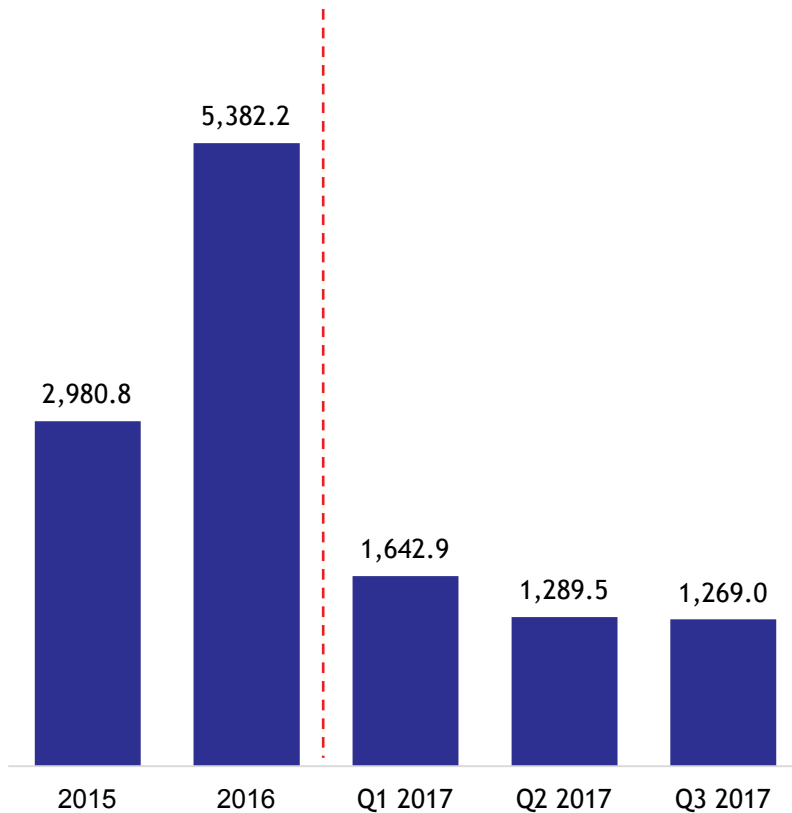
(2) Interest coverage ratio = Cash generated from operating activities / finance cost paid

Capital Expenditure

To Fund Growth Opportunities



Historical Capital Expenditure (THBmm)



- CAPEX from 2015 to 2016 principally related to power plant construction
- TPIPP expects to meet CAPEX requirements through cash in hand, cash from operations and/or financing activities



Progress Update



Historical and Planned EIA/EHIA Report Submission Process



Historical EIA Report Submission Process

TG	Type	1st Submit	1st Meeting	2nd Submit	2nd Meeting	Approved Date
TG 1-2	EIA	28-Jan-09	26-Mar-09	-	-	26-Mar-09
TG 3	EIA	7-Jul-10	26-Aug-10	15-Nov-10	9 Dec 10	9-Dec-10
TG 4	EIA	16-Nov-12	4-Feb-13	11-Mar-13	28-Mar-13	28-Mar-13
TG 5	EIA	16-Nov-12	4-Feb-13	11-Mar-13	28-Mar-13	28-Mar-13
TG 7	EIA	9-Dec-16	2-Feb-17	7-Apr-17	27-Apr-17	27-Apr-17
TG 6	EIA	9-Mar-17	27-Apr-17	12-Jun-17	25-Jul-17	25-Jul-17
TG 8	EHIA	9-Dec-16	2-Feb-17	28-Aug-17	28-Sep-17	28-Sep-17

Power Plant's Update Expansion Construction Progress



	Type	Update Construction Progress
TG 1-2	Boiler	<ul style="list-style-type: none"> COD additional boiler, produced more steam to turbine & generator
	Turbine & Generator	<ul style="list-style-type: none"> Scheduled maintenance shutdown
TG 4	AQC#4 Modification	<ul style="list-style-type: none"> Completed steam pipe replacement, expected to increase utilization rate to 85%
TG 6	Turbine & Generator	<ul style="list-style-type: none"> Completed . In process of 1st Synchronize generator to Grid and COD
TG7	Turbine & Generator	<ul style="list-style-type: none"> Completed Turbine & Generator installment Overall progress is 90%, target to COD within Q4 2017
TG8	Turbine & Generator	<ul style="list-style-type: none"> EHIA Approved .In process of License granting Overall progress is 90%, target to COD within Q1 2018
	RDF Plant	<ul style="list-style-type: none"> In process of construction 4 RDF plants, target to COD within Q4 2017



Conclusion



Conclusion

Key Attributes of TPIPP



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



Environmental & HSE Programme



Socially Responsible & Environmentally Friendly Enterprise



Plant Emissions Consistently & Materially Below Both Thai and International Guidelines, complemented by comprehensive & award winning environmental & HSE programme

Awards & Accolades

High Quality CDM Projects “Crown Standard”



Awarded to Energy Projects that contribute to environmental & social sustainability

ASEAN Energy Awards 2014



For adhering to best practices for energy efficiency & renewable energy

ASEAN Energy Awards 2017



The first runner-up ASEAN Energy Award 2017 for the Renewable Energy Project in the “On-Grid” Grid category from the 60MW Power plant from refused-derived fuel (RDF)

Thailand Energy Awards 2014-2015



2nd runner-up in the “off-grid–thermal” category for the Renewable Project Awards

Thailand Energy Awards 2017



The outstanding performance reward in the category of On-Grid Renewable Project for the Power generation of 60MW from Refused Derived Fuel (RDF) Project

Socially Responsible & Environmentally Friendly Enterprise



Awards & Accolades

Thailand Voluntary Emission Reduction Program : T-VER 2016-2017



TPI Polene Power Plc. received the certificate for reduced carbon dioxide gas from the processing of Refused-derived Fuel (RDF) plant from municipal solid waste under the project “Thailand Voluntary Emission Reduction Program : T-VER” from Thailand Greenhouse Gas Management Organization (“TGO”)

CSR-DIW Awards 2016-2017



Awarded in the category of “Standards for Corporate Social Responsibility”

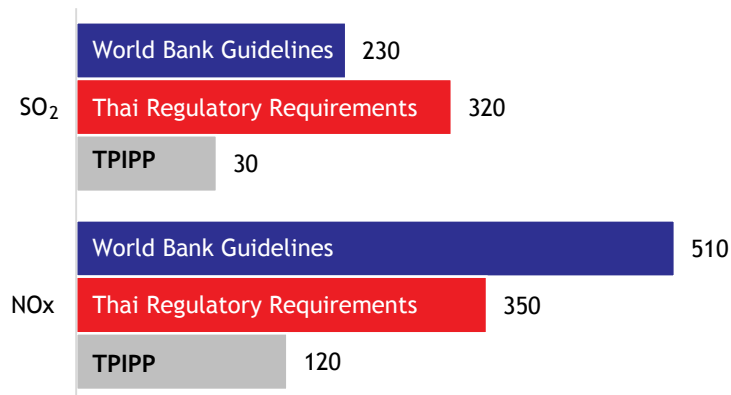
Socially Responsible & Environmentally Friendly Enterprise



Plant Emissions Consistently & Materially Below Both Thai and International Guidelines, complemented by comprehensive & award winning environmental & HSE programme

TPIPP's Regulated Emissions are below Stipulated Maximum Levels

- Level of emission of SO₂ & NO_x (mg / Nm³)



Comprehensive Environmental, Health & Safety Plan

- 1 "Zero" waste guidelines to fully utilize all resources used in production process
- 2 Chemicals selected for usage have minimal adverse impact on the environment and employee health
- 3 Implemented chemical leakage contingency plan
- 4 Implemented waste products classification & storage program
- 5 Contracted noise control specialists to monitor noise levels to ensure they are below stipulated levels
- 6 Prepares reports for government agencies on the company's disposal of hazardous and non-hazardous waste