



**TPI POLENE POWER**  
PUBLIC COMPANY LIMITED



# Table of Content

1



Company & Business Overview

2



Financial Highlights

3



New Projects

4



Mission to No Emission

1



## Company & Business Overview



# What We Stand For

## **T** **ECHNOLOGY**

Driving and expanding businesses using cutting edge technologies and the latest techniques

## **P** **RODUCT**

Produce the top, world-class products to satisfy the customer's needs in all areas of life

## **I** **NNOVATION**

Moving forward with the newest innovations through a top class R&D facilities



# TPIPP 'S Vision and Mission





# TPIPP as TPIPL'S Flagship for Power Business

Unit : THBmm

	TPIPP (Q1 2023)
Main Business	Electricity generation from waste heat and refused derived fuel (RDF) power plants and operation in petrol and gas stations.
Total Revenue	3,025
Operating EBITDA *	1,301
EBITDA	1,330
Net Profit	1,046
Total Assets	56,279
Total Liabilities	24,424
Registered and Paid-up Capital	8,400
Total Equity	31,855
Market Cap as of 31 Mar 2023	28,224

Remark :  
 1. Operating EBITDA of Q1 2023 excluded net foreign exchange gain 8.65 THBmm , investment income 19.86THBmm and share of profit of joint venture 0.73 THBmm.



Cement Business



Concrete Business



LDPE Business



EVA Business



Public

70.24%



Power Plant Business

29.76%



# Summary of TPIPP's Power Plant Operations

## Operates the Alternatives fuels and Electricity Energy

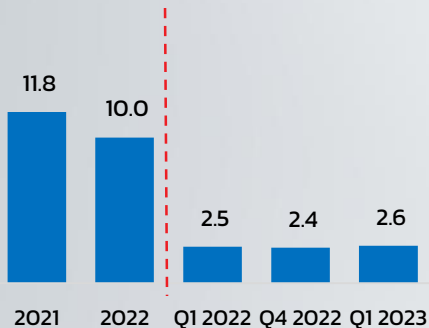
- Alternative Fuels MSW Plant
- Renewable Energy Power Producer SPP VSPP
- Power plant IPS ( Independent Power Supply )

## Operates petrol stations and gas stations

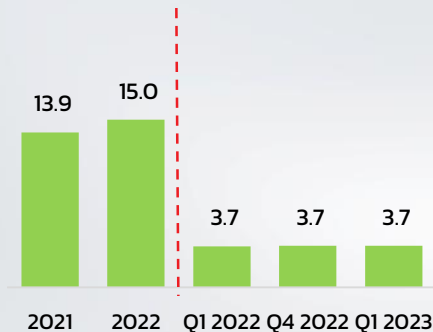
- Currently owns and operates 8 petrol stations, 1 gas station and 3 petrol and gas stations

### Historical Sales Volume

Petrol Sales (litre in millions)



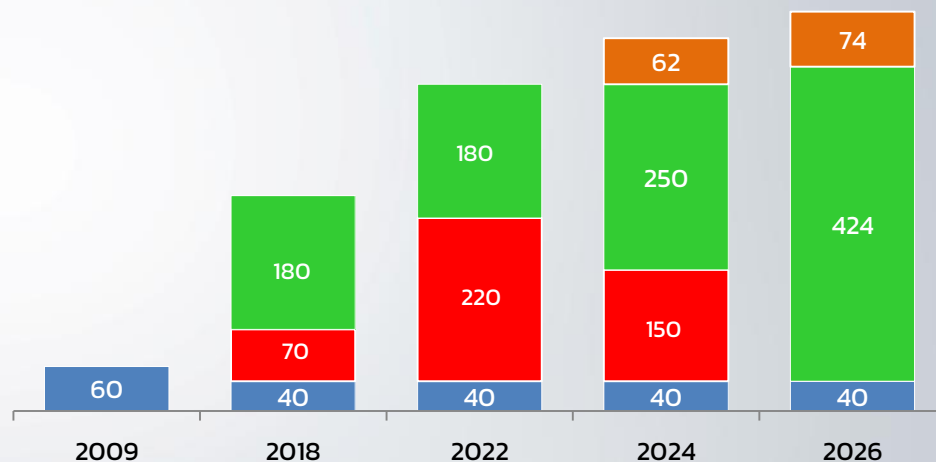
Gas Sales (kg. in millions)



### TPIPP's Installed Capacity Breakdown by Fuel

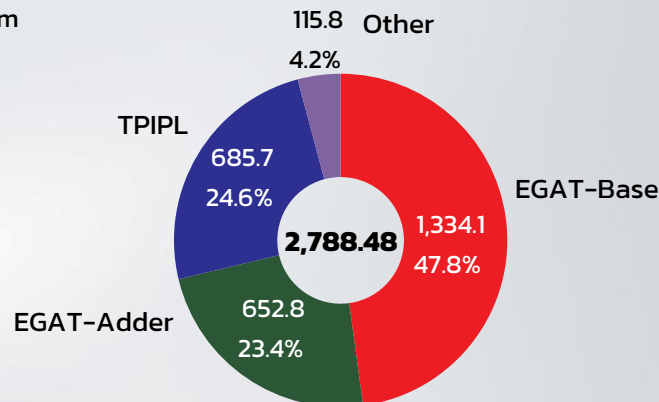
MW

■ WH ■ Coal ■ MSW ■ Others



### TPIPP's Q1 2023 Energy & Utilities Revenue Breakdown

THBmm



# 2



## Financial Highlights

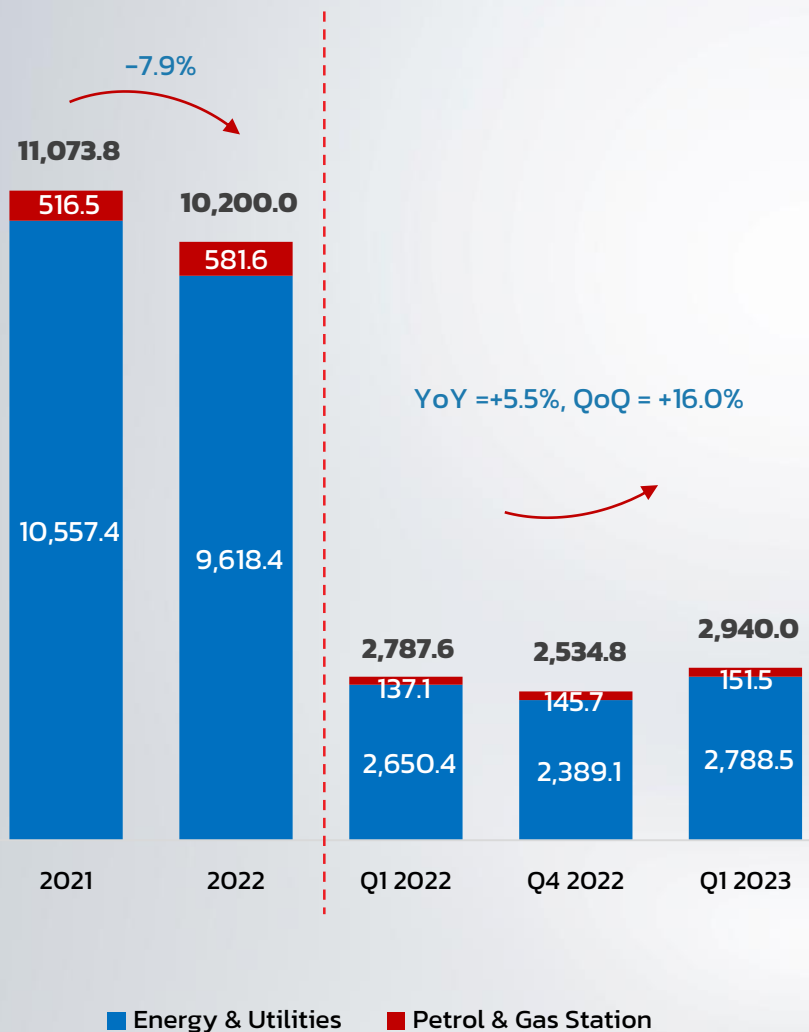




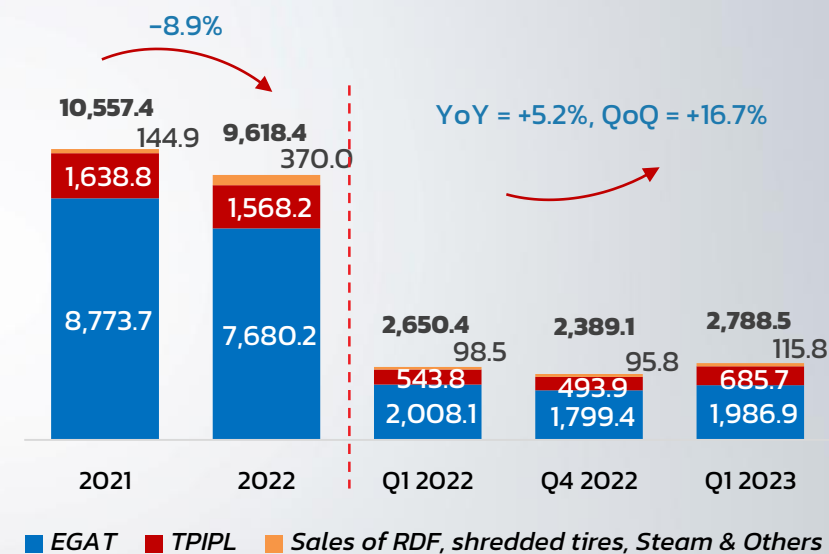
# Revenue

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

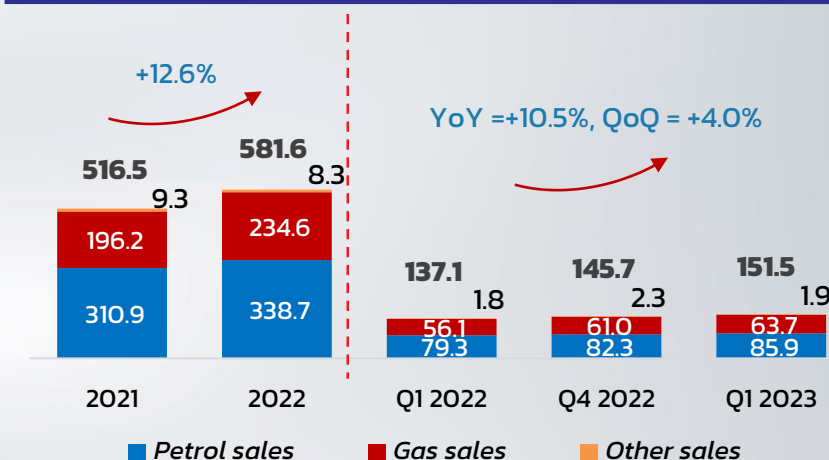
Total Revenue from Sales of Goods (THBmm)



Revenue from Energy & Utilities (THBmm)



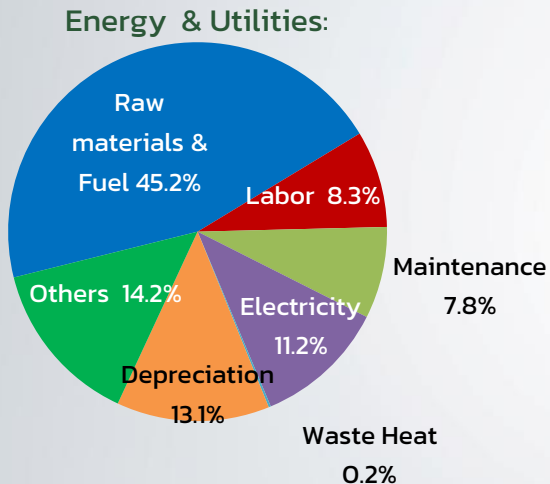
Revenue from Petrol & Gas Station (THBmm)





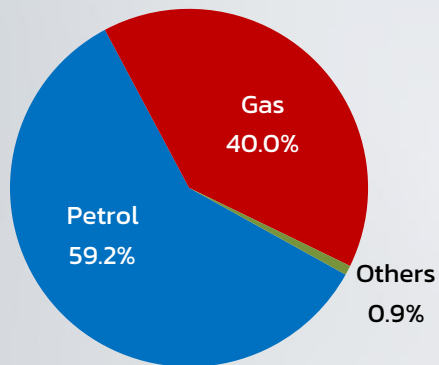
# Cost of Sales & Gross Profit

### Q1 Y2023 Cost of Sales Breakdown (THBmm)



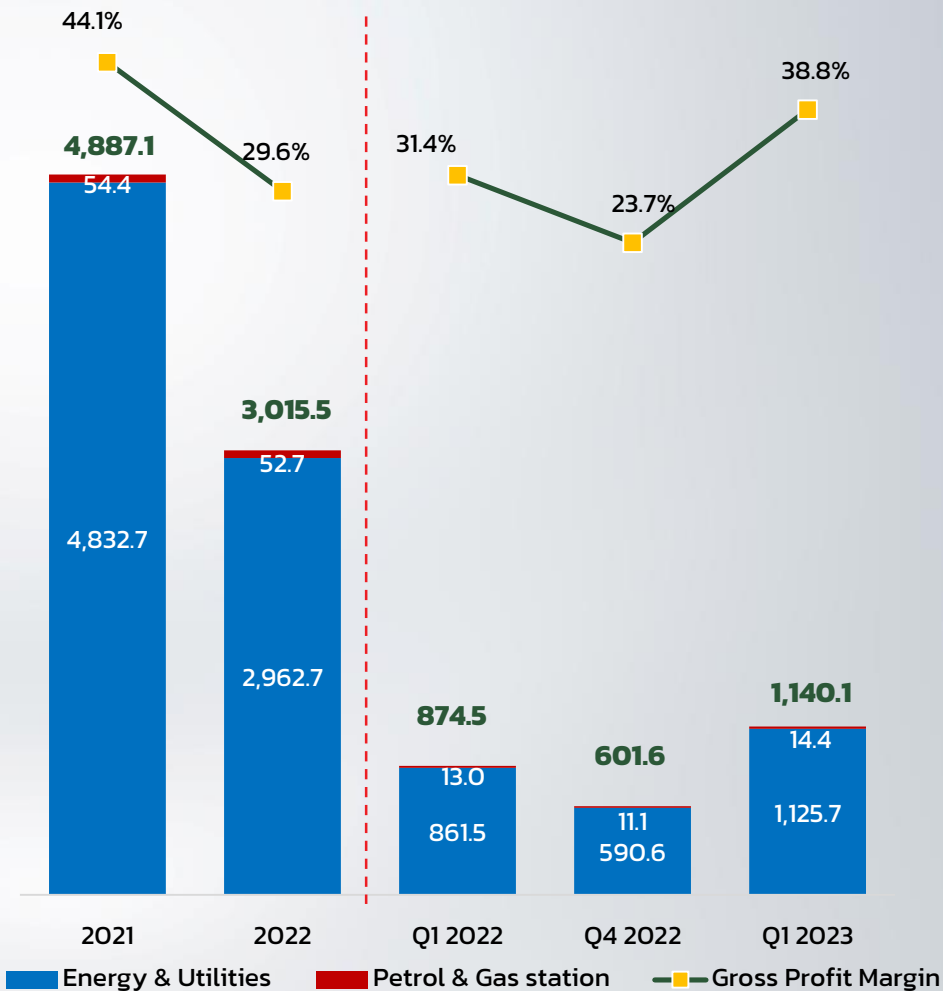
**Total: THB 1,662.8 mm**

### Petrol & Gas Station:



**Total: THB 137.1 mm**

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



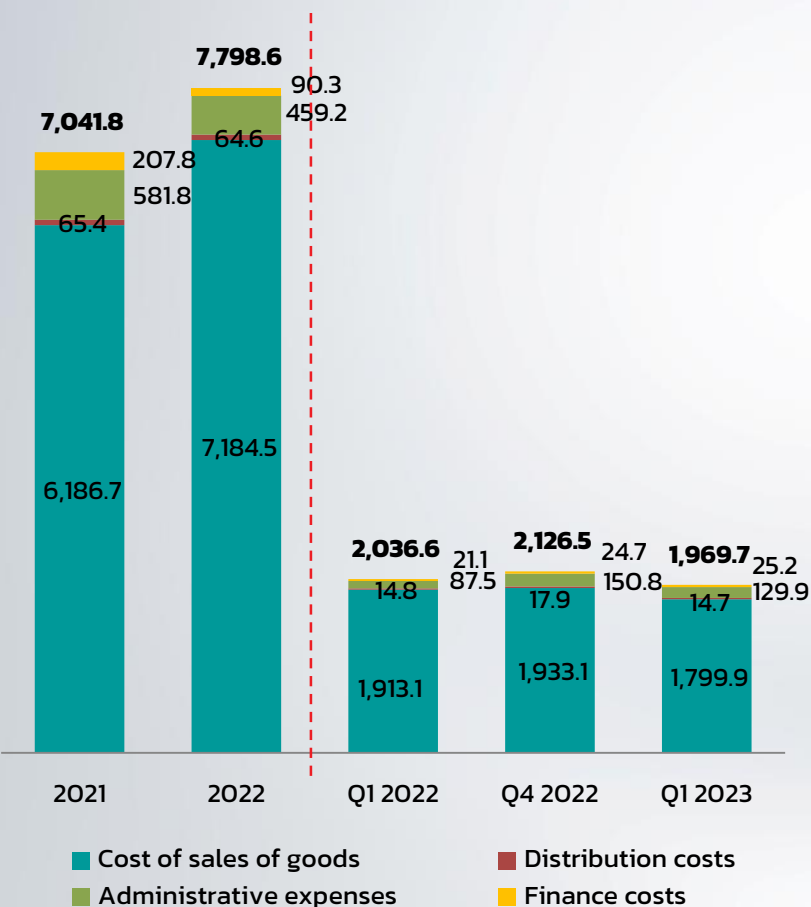
Note:

(1)  $Gross\ profit\ margin = \frac{Gross\ profit\ (loss)}{Revenue\ from\ sales\ of\ goods} \times 100$

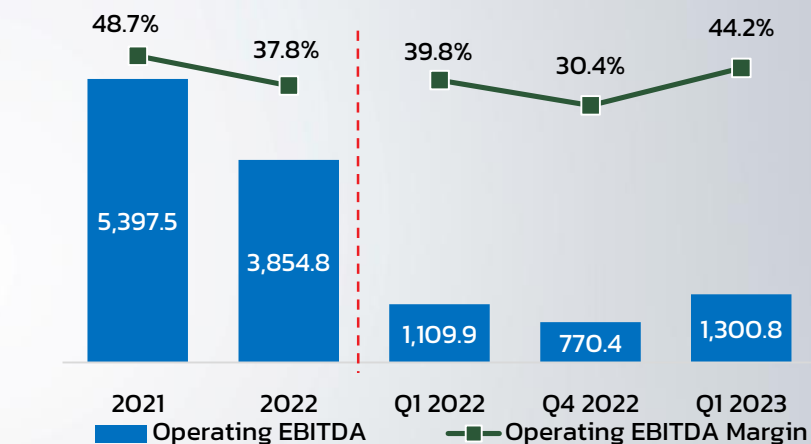


# Cost & Expenses vs. EBITDA & NPAT

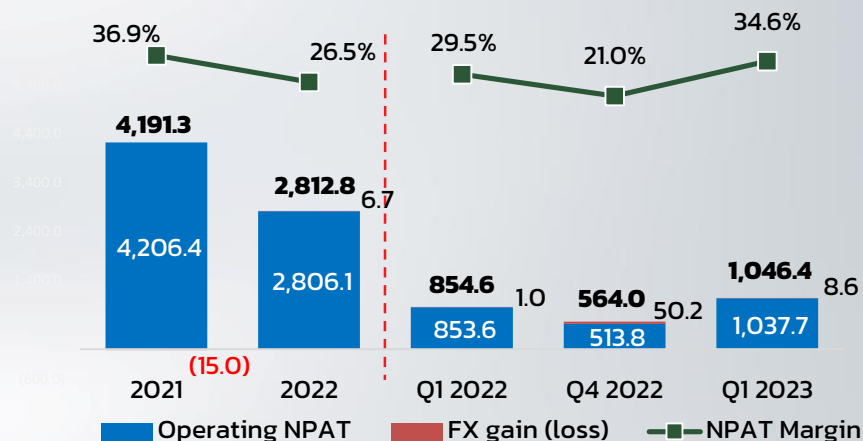
Cost & Expenses Items (THBmm)



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



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



Notes:

- (1) Operating EBITDA exclude net foreign exchange gain(loss), compensation from insurance claims and investment income and share of profit and loss of joint venture. 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) Operating EBITDA margin = Operating 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

	2021	2022	2022	2022	2023	Compare (%)		
	12M	12M	Q1	Q4	Q1	YoY (12M)	YoY (Q)	QoQ
<b>Income</b>								
Revenue from base tariff	5,443.3	5,636.5	1,500.0	1,604.0	<b>2,019.8</b>	3.5%	34.7%	25.9%
Revenue from power adder	4,969.1	3,611.9	1,052.0	689.3	<b>652.8</b>	-27.3%	-37.9%	-5.3%
Other Sales Revenue	661.4	951.5	235.7	241.5	<b>267.4</b>	43.9%	13.5%	10.7%
Other income	240.6	366.3	93.2	86.8	<b>56.0</b>	52.3%	-39.8%	-35.5%
<b>Operating Revenues</b>	<b>11,314.4</b>	<b>10,566.2</b>	<b>2,880.8</b>	<b>2,621.6</b>	<b>2,996.1</b>	<b>-6.6%</b>	<b>4.0%</b>	<b>14.3%</b>
<b>Expenses</b>								
Cost of sales of goods	6,186.7	7,184.5	1,913.1	1,933.1	<b>1,799.9</b>	16.1%	-5.9%	-6.9%
Distribution & administrative expenses	647.3	523.8	102.4	168.7	<b>144.6</b>	-19.1%	41.2%	-14.3%
<b>Operating expenses</b>	<b>6,834.0</b>	<b>7,708.3</b>	<b>2,015.5</b>	<b>2,101.8</b>	<b>1,944.5</b>	<b>12.8%</b>	<b>-3.5%</b>	<b>-7.5%</b>
<b>Operating EBIT</b>	<b>4,480.4</b>	<b>2,858.0</b>	<b>865.3</b>	<b>519.8</b>	<b>1,051.6</b>	<b>-36.2%</b>	<b>21.5%</b>	<b>102.3%</b>
Plus Depreciation & Amortization	917.1	996.8	244.7	250.6	<b>249.2</b>	8.7%	1.8%	-0.6%
<b>Operating EBITDA</b>	<b>5,397.5</b>	<b>3,854.8</b>	<b>1,109.9</b>	<b>770.4</b>	<b>1,300.8</b>	<b>-28.6%</b>	<b>17.2%</b>	<b>68.8%</b>
Compensation from insurance claims	0.0	0.2	0.0	0.0	<b>0.0</b>	545.0%	0.0%	0.0%
Net foreign exchange gain (loss)	(15.0)	6.7	1.0	50.2	<b>8.6</b>	144.8%	781.7%	-82.8%
Investment income	43.85	52.33	13.87	14.87	<b>19.86</b>	19.3%	43.2%	33.5%
Share of profit (loss) of joint venture accounted for using equity method	0.00	(0.11)	0.00	(0.11)	<b>0.73</b>	-100.0%	100.0%	787.7%
<b>Total EBITDA</b>	<b>5,426.3</b>	<b>3,914.0</b>	<b>1,124.8</b>	<b>835.4</b>	<b>1,330.0</b>	<b>-27.9%</b>	<b>18.2%</b>	<b>59.2%</b>
Finance costs	(207.8)	(90.3)	(21.1)	(24.7)	<b>(25.2)</b>	-56.5%	19.1%	1.8%
Income tax expense	(110.1)	(14.1)	(4.4)	4.0	<b>(9.2)</b>	-87.2%	109.9%	-333.6%
Depreciation & Amortization	(917.1)	(996.8)	(244.7)	(250.6)	<b>(249.2)</b>	8.7%	1.8%	-0.6%
<b>Net Profit (loss) for the year</b>	<b>4,191.3</b>	<b>2,812.8</b>	<b>854.6</b>	<b>564.0</b>	<b>1,046.4</b>	<b>-32.9%</b>	<b>22.4%</b>	<b>85.5%</b>

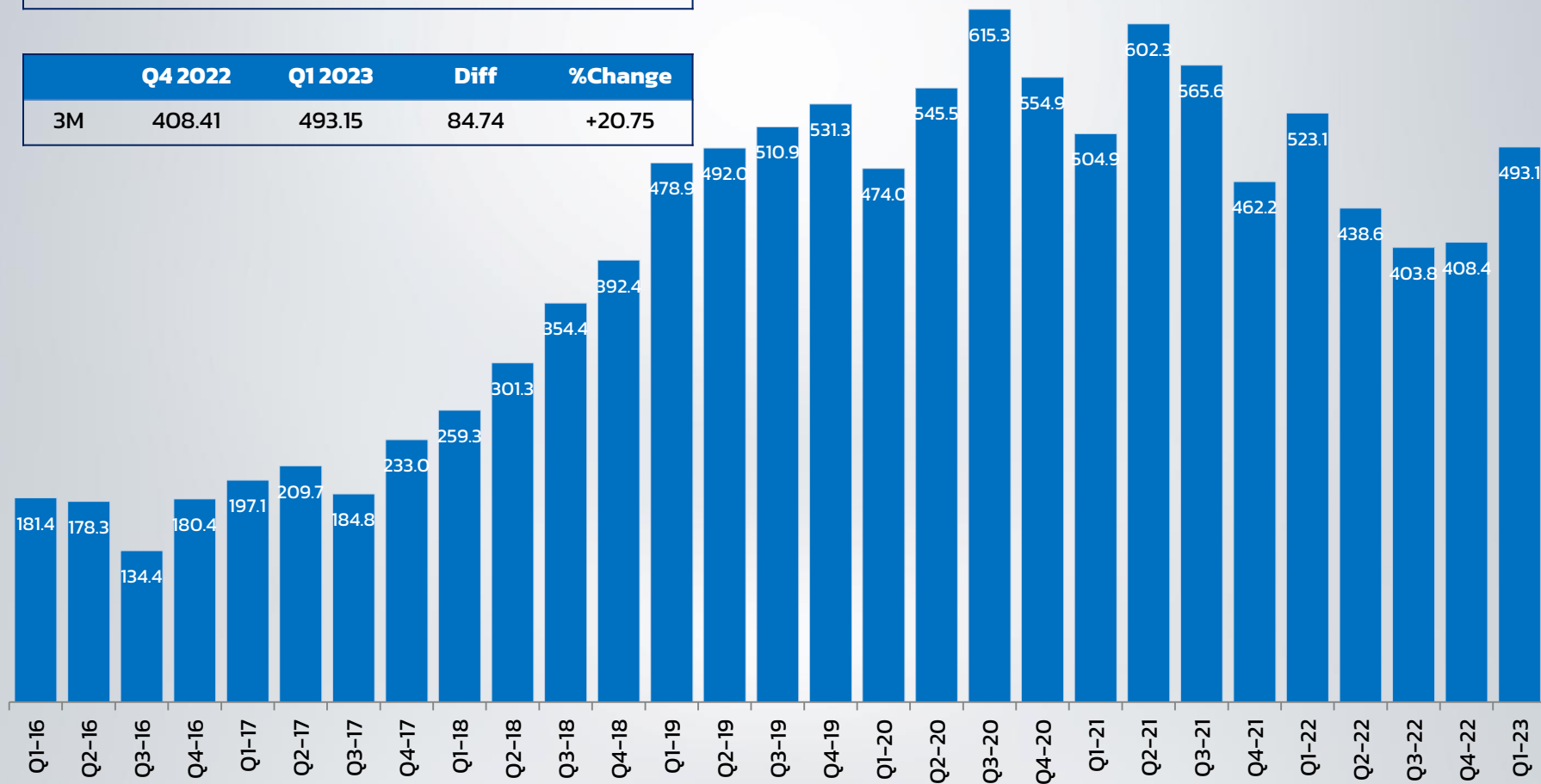


# Operating Statistic

## Generated Amount of Electricity (M.KWh) and Capacity (MW)

	2022	2023	Diff	%Change
Q1	523.10	493.15	-29.95	-5.73

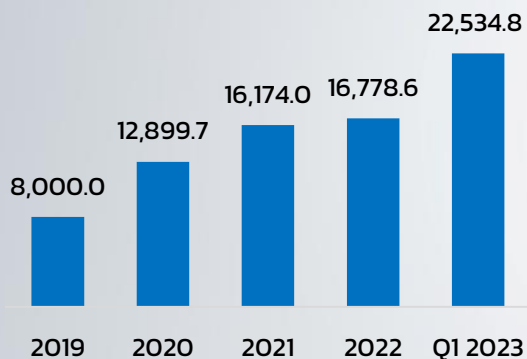
	Q4 2022	Q1 2023	Diff	%Change
3M	408.41	493.15	84.74	+20.75



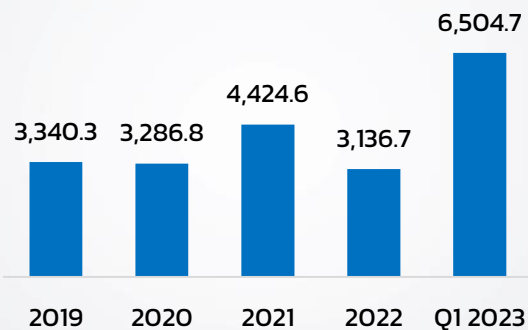


# Debt Profile and Leverage Ratios

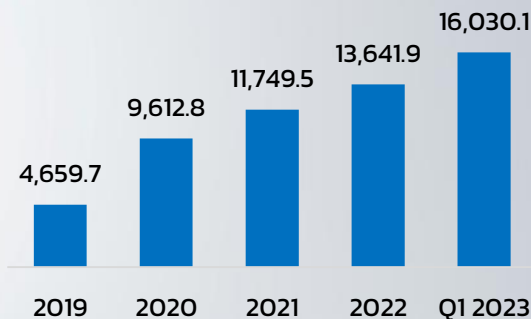
### Interest Bearing Liabilities (THBmm)



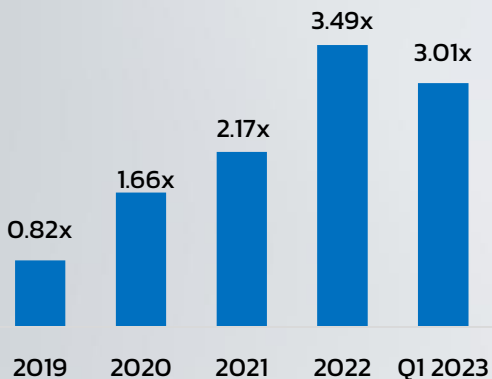
### Cash / Cash Equivalents & Other current financial assets (THBmm)



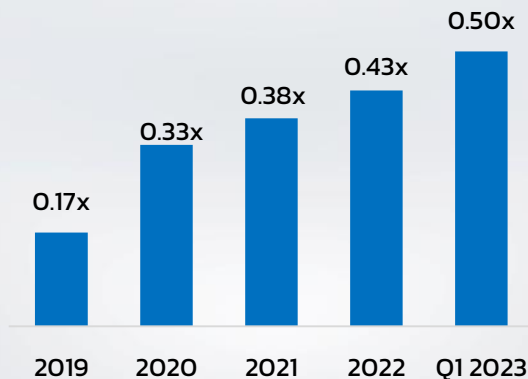
### Net Interest Bearing Liabilities (THBmm)



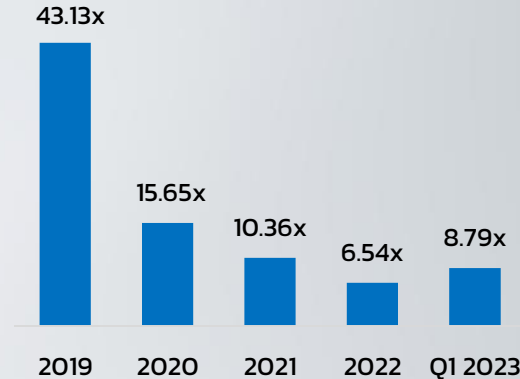
### Net IBD<sup>(1)</sup> to EBITDA (x)



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



### Interest Coverage Ratio<sup>(2)</sup> (x)



Notes:

(1) Net IBD = Interest Bearing Liabilities – Cash and cash equivalents & Other current financial assets

(2) Interest coverage ratio = EBITDA / Finance cost (cash flow statement basis)

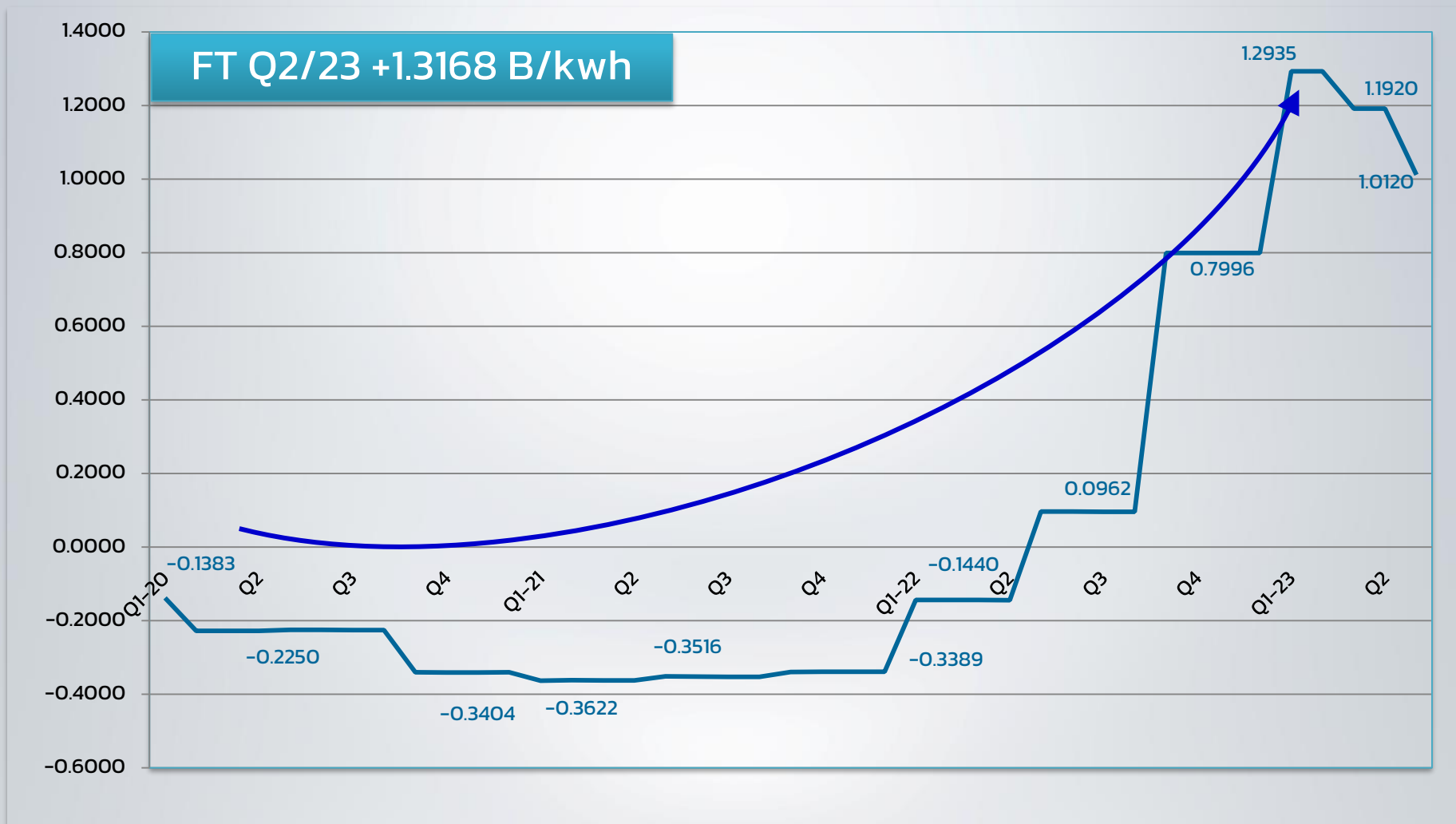


## COD and ADDER Schedule for each plant

SPP	PPA	TG	COD	ADDER	Expiration of ADDER
1	18 MW	TG3	16 JAN 2015	7 Y	JAN 2022
2	55 MW	TG5	6 Aug 2015	7 Y	AUG 2022
3	90 MW	TG4+TG6	18 APR 2018	7 Y	APR 2025



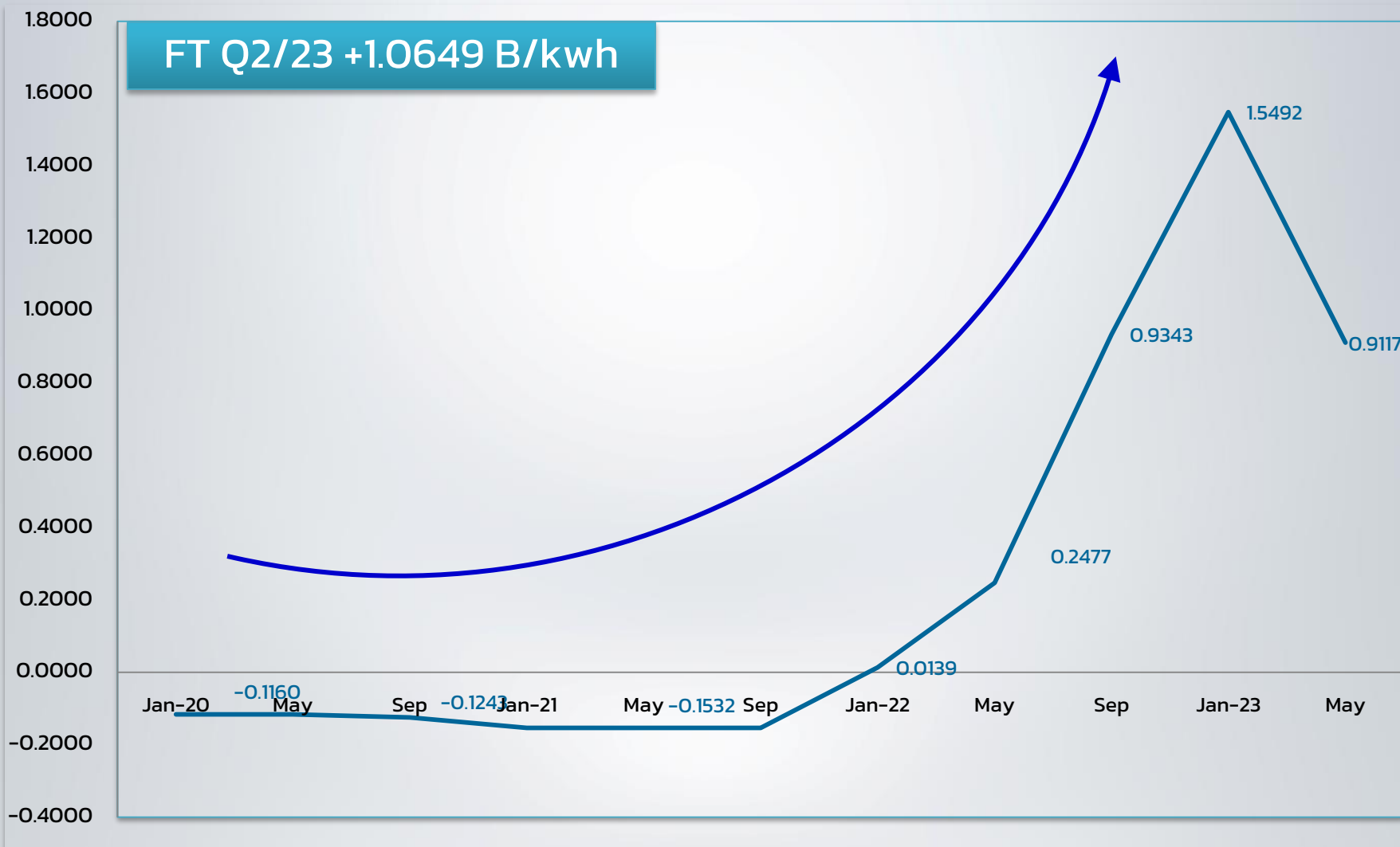
# Sell for SPP Trend of FT Adjustment







# Trend of FT Adjustment Sell for TPIPL

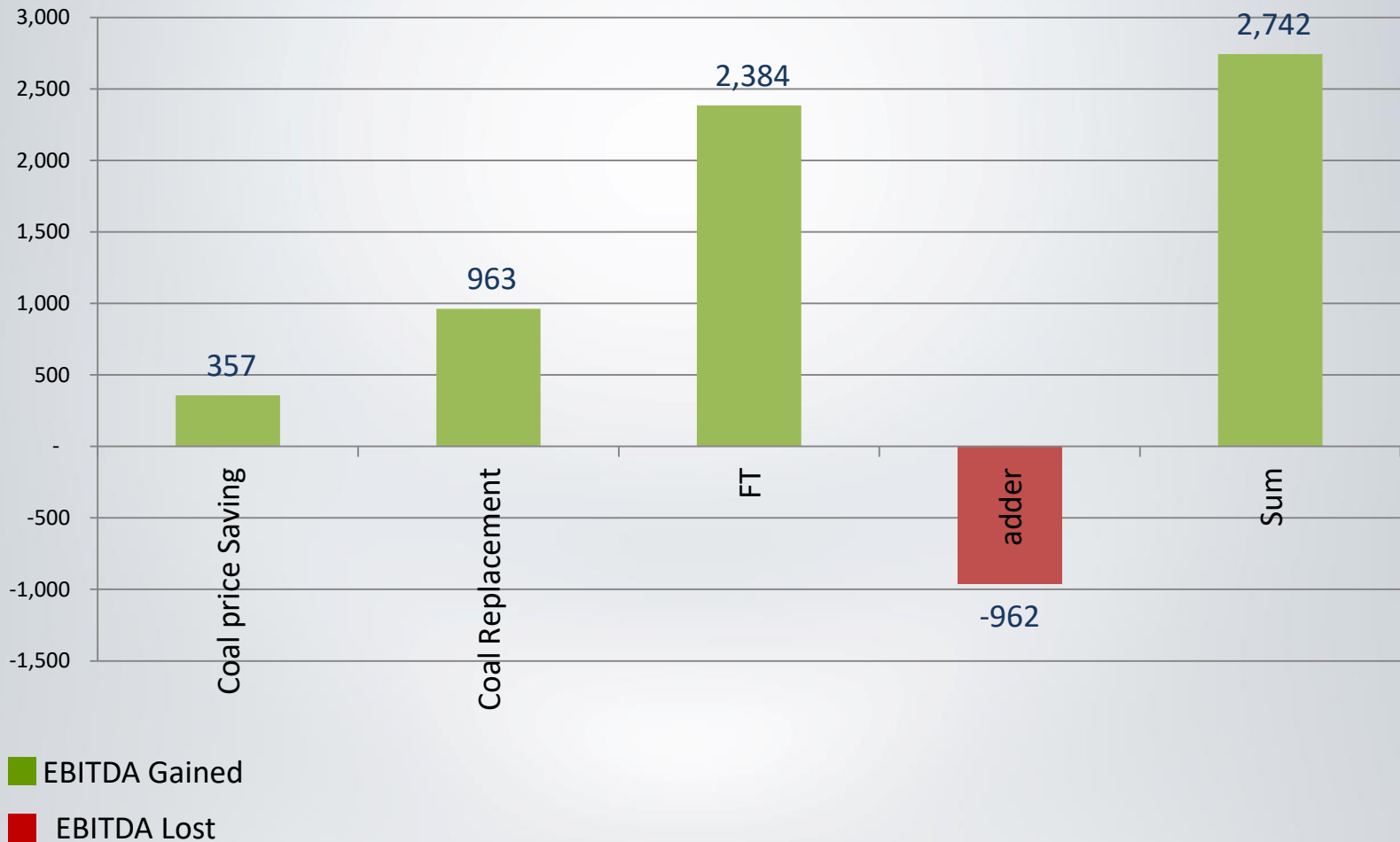




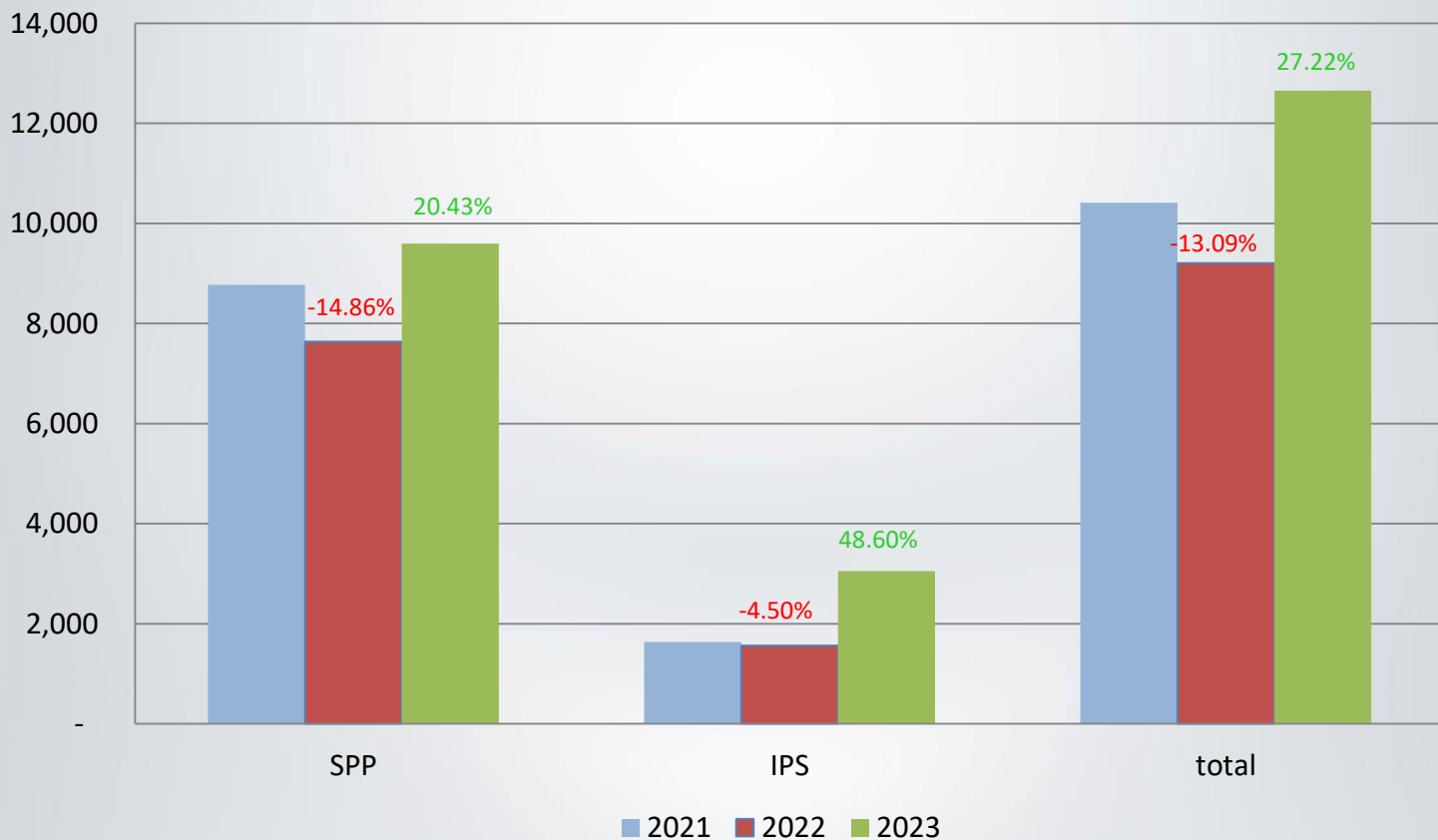
## Sale Price after ADDER Expired

	PPA	Adder Expired	2018 Lowest FT	2022 Low FT	2023 (Jan.-Apr.) High FT	2023 (May-Dec.) Medium FT
SPP	18 MW	JAN 2022	6.2482	3.3089	4.3817	4.1343
SPP	55 MW	AUG 2022	6.2387	5.6288	4.4093	4.1619
SPP	90 MW	APR 2025	6.2433	6.7011	7.9045	7.6571
	163 MW		6.2423	6.0691	6.5208	6.2734
IPS	220 MW		2.9734	3.7224	4.6989	4.1324

# EBITDA Effected Compare 2022-2023



# Revenue ( mil Baht )



3



New Projects



COAL REPLACEMENT

IPS to TPIPL – Solar and Wind

NEW Power Purchasing Agreement (PPA)



# COAL REPLACEMENT FOR POWER PLANT

## 1<sup>st</sup> Phase Project Coal Replacement

- Coal Replacement 15 %
- **COD DEC 2022**

## 2<sup>nd</sup> Phase Project Coal Replacement

- Coal Replacement 10 %
- **COD DEC 2022**



# COAL REPLACEMENT FOR POWER PLANT

## 3<sup>rd</sup> Phase Project Coal Replacement

- Coal Replacement 15%
- COD Apr 2023

## 4<sup>th</sup> – 6<sup>th</sup> Phase Coal Replacement

- Coal Replacement 60%
- COD 4<sup>th</sup> Phase AUG 2024, 5<sup>th</sup> Phase NOV 2024, 6<sup>th</sup> Phase APR 2025





# IPS to TPIPL - Solar and Wind

## Solar Farm and Solar Roof

Solar	MWp	MWac	COD
1	61.22	52.5	2024
2	11.99	9.6	2025
3	6.12	5.1	2024
Total	79.23	66.9	



## Wind Turbine

Solar	Install	PPA	COD
Wind	5.2	5	2024

## MSW Incinerator Power Plants

The Energy Regulator Commission (ERC) announced 34 MSW Power Plants in approved list (282.98 MW. total)

<b>Songkhla</b>	<b>7.92 MW.</b>
COP	Completed
Under PPA Process	
COD	2024
<b>Nakhon Ratchasima</b>	<b>9.9 MW.</b>
Under COP Process	
COD	2024
<b>Under Bidding</b>	<b>4 x 8 MW</b>





# NEW PROSPECTIVE PROJECTS

	Installation (MW)	PPA (MW)	COD
3 Solar	79.23	66.9	2024
Wind	5.2	5	2024
Songkla	10	7.92	2024
Korat	10	9.9	2025
Total	104.43	89.72	

4



## Mission to No Emissions



# CSR Activity- Covid-19 waste





# CSR Activity- Covid-19 waste

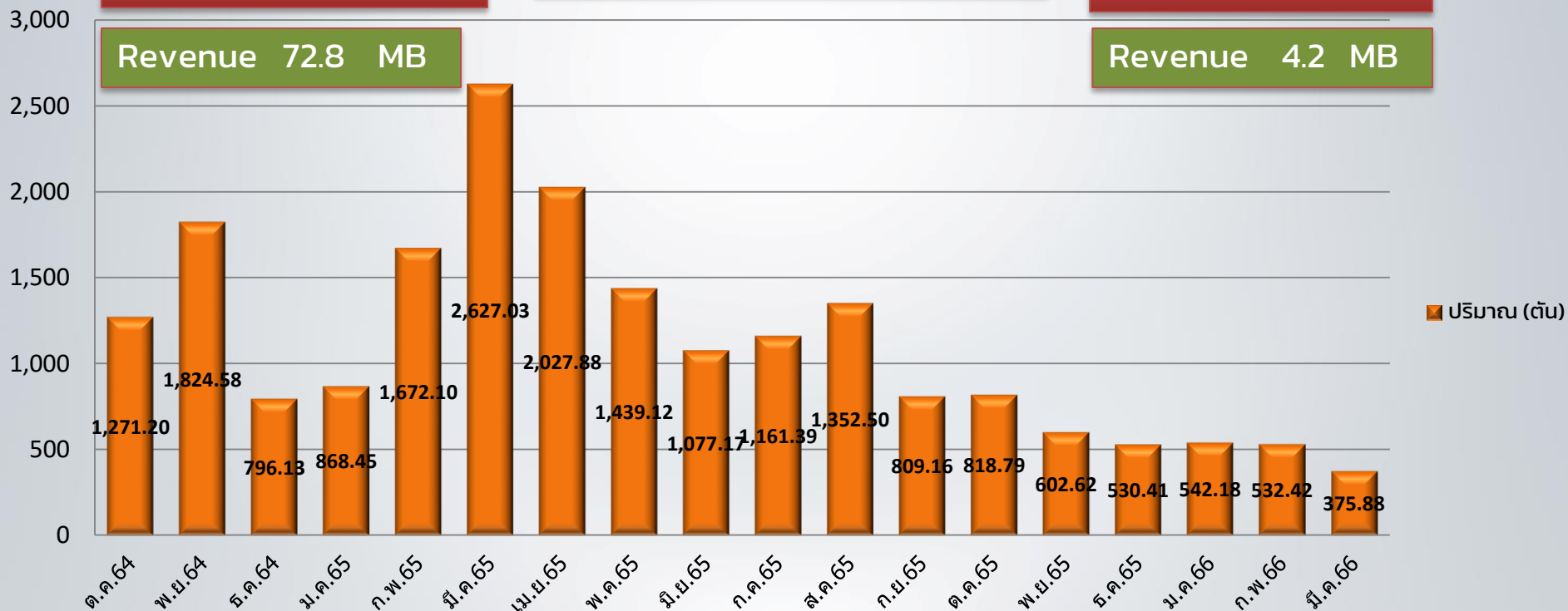
## ปริมาณขยะ COVID-19

3M-Y2022 18,879 ton

Y2023 1,081 ton

Revenue 72.8 MB

Revenue 4.2 MB





# Mission to No Emission

YEAR  
2020

220 / 440



50%  
Coal

YEAR  
2024

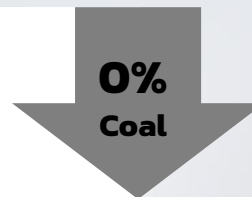
150 / 502



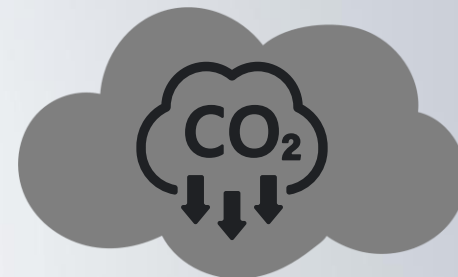
30%  
Coal

YEAR  
2026

0 / 538



0%  
Coal



## To be Fully Green Power Plant – Zero Carbon





# Mission to No Emission

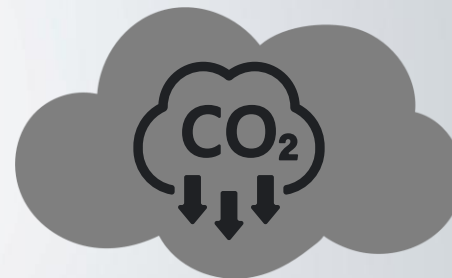
WTE



1 Ton MSW



2.32 Ton



## Reduce MSW to Land fill in Year 2022

8,500 Ton / Day

2.5 mil Ton / Year

5.8 mil Ton-CO<sub>2</sub>

## Reduce MSW to land fill in Year 2026

17,000 Ton / Day

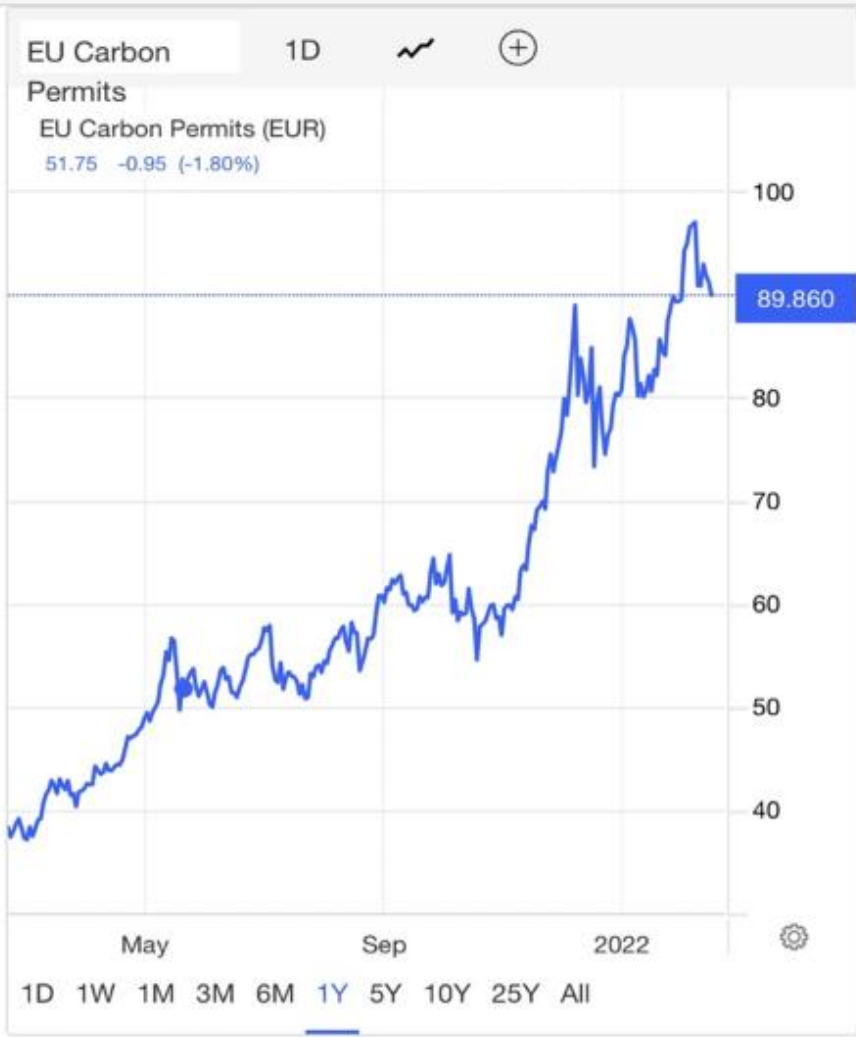
5.2 mil Ton / Year

12.0mil Ton-CO<sub>2</sub>



# Value of Carbon Market Update 2022

## EU Carbon Permits



13:55



CARBON CREDITS .com



**Voluntary Carbon Market:** Voluntary Carbon Markets enable carbon emitters to offset their unavoidable emissions by acquiring carbon credits generated by initiatives aimed at removing or decreasing GHG emissions from the environment. Companies can engage in the voluntary carbon market on their own or as part of an industry-wide program. Data below could be delayed by as much as 24hrs.

## Aviation Industry Carbon Offset





# Nakhon Ratchasima Landfilled in 2017 VS. 2022







กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม  
โดย

องค์การบริหารจัดการก๊าซเรือนกระจก (องค์การมหาชน)

ขอมอบใบประกาศเกียรติคุณนี้ให้แก่

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

เพื่อแสดงว่า

โครงการการผลิตเชื้อเพลิงขยะ (RDF) จากขยะมูลฝอยชุมชน (RDF Production from Municipal Solid Waste)

ได้รับการรับรองปริมาณก๊าซเรือนกระจก

ภายใต้โครงการลดก๊าซเรือนกระจกภาคสมัครใจตามมาตรฐานของประเทศไทย (T-VER)

๗/๑๗,๙๓๑ ตันคาร์บอนไดออกไซด์เทียบเท่า (tCO<sub>2</sub>e)

(๑ พ.ค. ๒๕๖๐ - ๓๑ ธ.ค. ๒๕๖๓)

ให้ไว้ ณ วันที่ ๒๔ พฤษภาคม ๒๕๖๕



นายเกียรติชาย ไมตรีวงษ์

ผู้อำนวยการองค์การบริหารจัดการก๊าซเรือนกระจก





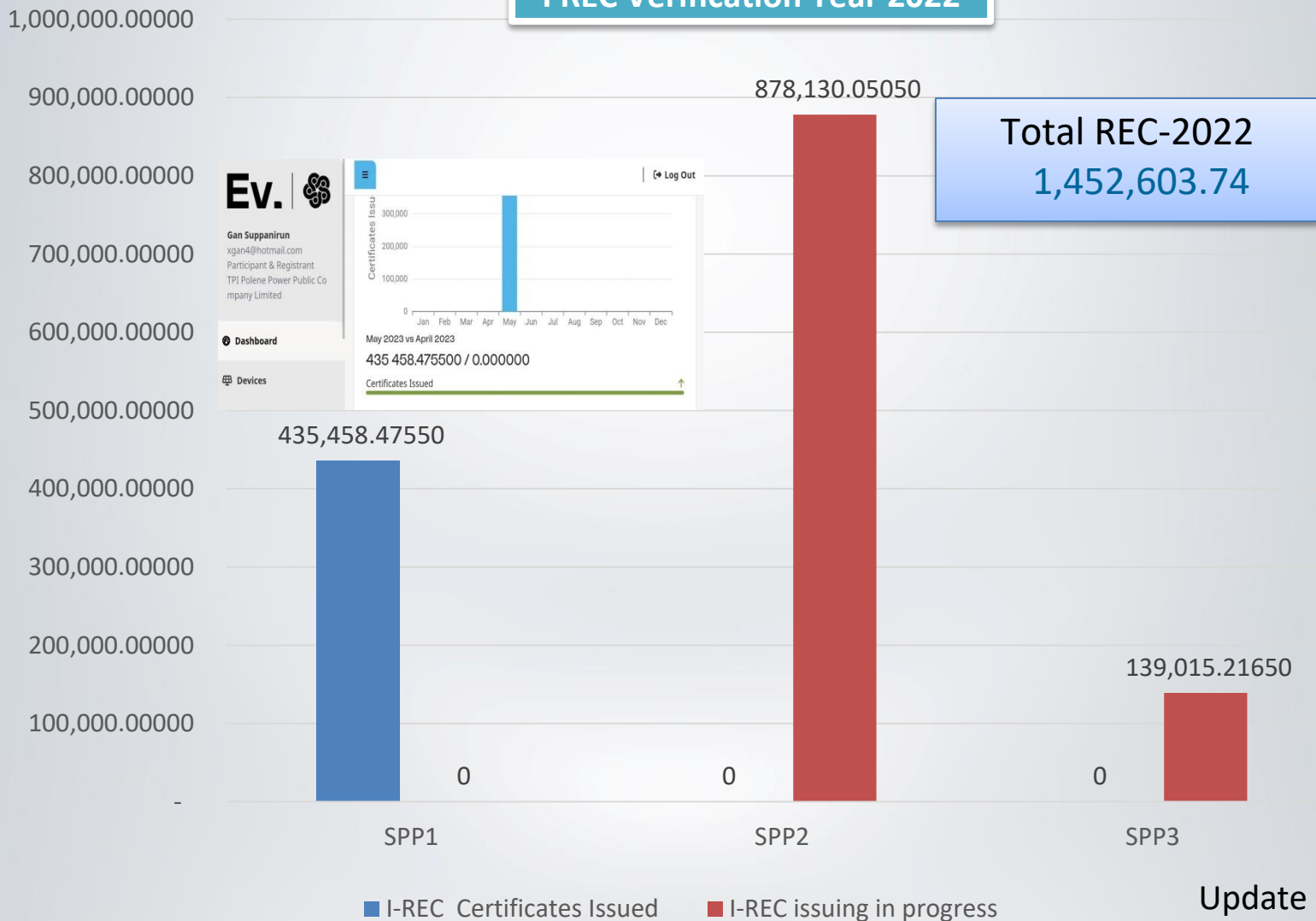
## Carbon Credit T-VERs Registered by TGO

### MSW Received

1. July 2015 – May 2016	13,483 tCO <sub>2</sub> eq
2. May 2016 – Apr 2017	<u>68,573</u> tCO <sub>2</sub> eq
	82,056 tCO <sub>2</sub> eq
3. Sold out to Zukunft des Konlentooffmarktes	- 39,197 tCO <sub>2</sub> eq
4. Remain	<u>42,859</u> tCO <sub>2</sub> eq
5. Approval Credit	<u>717,931</u> tCO <sub>2</sub> eq
6. Estimated Under Verification 2022	<u>460,000</u> tCO <sub>2</sub> eq

**Total Carbon Credit 2022**      **1,220,790 tCO<sub>2</sub>eq**

## I REC Verification Year 2022



Update 25/5/2023



# International Finance Awards

TIIPP received “Most Innovative Green Practices Towards ESG-Waste Management” for the year 2022 from International Finance Awards 2022 organized by Internal Finance Magazine from London, UK.







# The Global Economics Awards

TIIPP received “Best Product Innovation for Sustainable Development” from The Global Economics Awards 2022.

Organized by The Global Economics magazine, based in London, UK.





