

# EMPOWERING SUSTAINABILITY



## Management Discussion and Analysis (MD&A)

Q3/ 2023


**EXECUTIVE SUMMARY**

OPERATING HIGHLIGHT	Q3/22	Q3/23	Change +/-	9M/22	9M/23	Change +/-
Unit : THB Million			%YoY			%YoY
<b>Operating Revenue</b>	<b>243.8</b>	<b>229.2</b>	<b>(6.0%)</b>	<b>696.1</b>	<b>699.3</b>	<b>0.5%</b>
Gross Profit	75.2	72.5	(3.7%)	226.6	241.1	6.4%
EBITDA	97.6	122.9	26.0%	301.2	341.2	13.3%
<b>Net Profit</b>	<b>49.2</b>	<b>71.6</b>	<b>45.7%</b>	<b>156.5</b>	<b>193.2</b>	<b>23.4%</b>
Gross Profit Margin	30.9%	31.6%	0.8%	32.6%	34.5%	1.9%
EBITDA Margin	40.0%	53.6%	13.6%	43.3%	48.8%	5.5%
Net Profit Margin	20.2%	31.3%	11.1%	22.5%	27.6%	5.1%

For 9M/2023, the Group reported operating revenue of Baht 699.3 million, increased by Baht 3.2 million or 0.5%, and reported net profit of Baht 193.2 million, increased by Baht 36.7 million or 23.4% from the 9M/2022. The main factors are (i) an increase in revenue from electricity sales derived from higher sale volume of electricity from selling to industrial customer and an additional power purchase agreement for the TBP power plant of 6 MW, (ii) increases in Ft and FiT rates and (iii) income, net with related expenses, from insurance compensation of Baht 22.3 million incurred in Q3 of the current year. As a result, net profit from normal operation (excluded insurance claims transaction) was Baht 170.9 million, increased by Baht 28.6 million, or 20.1% compared with profit in 9M/2022.

In upcoming 2024, the Group expects to have approximate 90 MW installed capacity on hand, as well as entering into relating businesses that the Group has expertise and developing new technology to enhance the efficiency of power generation. The Company has entered the carbon credit market as a future trend in line with inclining of demand for carbon credits. In addition, the Company will continue exploring for partnership opportunities with both domestic and international business alliances.

**YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22**

- In Q3/2023, the Group reported operating revenue of Baht 229.2 million, decreased by Baht 14.6 million or 6% from Q3/2022, was mainly from a decrease in Revenue from cost of Construction under the Concession Agreement, amounting to Baht 12.3 million. An important condition of the revenue is that assets will be transferred to local government agencies upon the expiration of the Solid Waste Disposal Agreement (BOOT), where income is recorded equal to cost according to accounting standards. Besides, there was a slight change in core revenue from sale of electricity and steam compared with the corresponding period.
- For 9M/2023, the reported operating revenue of Baht 699.3 million increased from 9M/2022 by Baht 3.2 million, or 0.5%. The main factors were an increase in revenue from electricity sales derived from higher sale volume of electricity from selling to industrial customer and an additional power purchase agreement for the TBP power plant of 6 MW in addition to increases in Ft and FIT rates.
- In Q3/2023, the Group reported gross profit margin of 31.6%, slightly decreased from 32.5% in Q3/2022, mainly due to maintenance shutdown of TPG, a subsidiary, according to production plan. Whereas gross profit margin in 9M/2023 was 34.5%, increased from 33.2% in 9M/2022, that mainly due to growth of electricity sales that contributed higher margin than other type of revenues, the lower raw material costs and the capability to manage costs efficiently.
- In Q3/2023, the net profit of Baht 71.6 million increased by Baht 22.4 million or 45.7%, and in 9M/2023, the net profit of Baht 193.2 million increased by Baht 36.7 million or 23.4%. The main factors were the increase in electricity sale, the lower raw material costs and the insurance claims transaction in the net amount of Baht 22.3 million (one-off transaction) during Q3/2023 as mentioned above.

## SIGNIFICANT EVENTS in 2023



### Community Waste Power Plant TES SKW, TES CPN and TES RBR signed PPA with the Provincial Electricity Authority (PEA)

During April and May 2023, the group companies signed additional 3 Power Purchase Agreements (PPA) with PEA for operation in Community Waste Power Plant in Sa Kaeo, Chumphon, and Ratchaburi, with the selling capacity of 6 Megawatts (MW), 4 MW, and 6 MW, respectively. The further step is to start fieldwork and construction. The companies are currently in the EPC (engineering, procurement, and construction) procurement process along with working on design and process of construction license requirement. The construction phase will take approximate 20 months, which the companies believe that the construction will complete and being able to generate income in 2025.



### TBP obtained 'carbon credit' certification of 88,581 Tons

In June 2023, the biomass power plant Thachang Bio Power (TBP) Co., Ltd., subsidiary of TGE, was certified for voluntary greenhouse gases from Thailand Greenhouse Gas Management Organization (TGO) with the certified carbon credit of 88,581 Ton carbon dioxide equivalent (tCO<sub>2</sub>eq) for the carbon credit calculation period of the project from 1 January 2022 – 28 February 2023. The Group is considering an appropriate timing to sell the carbon credits through Carbon Markets Club.

The Group currently obtained carbon credit from 2 biomass power plants in the total amount of 122,545 tons carbon dioxide equivalent.

## Progress of the Community Waste Power Plant Project

### Municipal Waste Power Plant

There are 5 municipal waste projects with the total combined installed capacity of 39.9 MW selected by the Local Government Organization (LGO) that consist of:

- the TES SKW Community Waste Power Plant in Watthana Nakhon District, Sa Kaeo Province, the TES CPN Community Waste Power Plant in Mueang District, Chumphon Province, and the TES RBR Community Waste Power Plant in Mueang District, Ratchaburi Province, which already signed the Power Purchase Agreement (PPA) and in the process of designing and requesting for construction license, and
- the TES CNT Power Plant in Chai Nat Province is submitting for selling of electricity and entering into the Power Purchase Agreement (PPA)
- the TES TCN Power Plant in Samut Sakhon Province is preparing to enter into project management agreement.

### Auction of Municipal Waste Power Plant

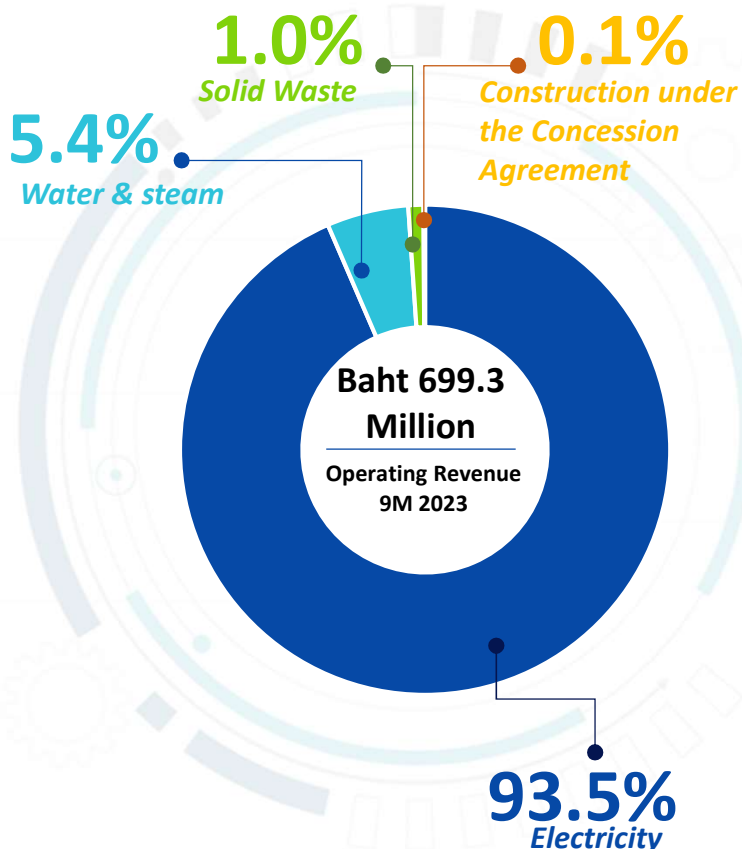
The Company is preparing to bid additional 2 municipal waste projects with the local government organization (LGO), which are the TES PRI power plant in Prachinburi province and the TES UBN power plant in Ubon Ratchathani province. If the projects are selected by the LGO, TGE group expects to have a total installed capacity of almost 90 MW (combined capacity of biomass power plants and municipal waste power plants) in the next three years and after the commercial operation of these two projects. The anticipated proportion of revenue from the municipal waste projects should be over 60% of total Group revenue.

In addition, the Company plans to expand investments in other types of potential renewable energy power plants, both domestically and internationally, such as solar energy, and biogas, aiming to achieve a long-term goal of installing over 200 MW of power capacity within the year 2032.

## OPERATING RESULT IN Q3/2023

OVERALL OPERATING RESULTS	Q3/22	Q3/23	Change +/-	9M/22	9M/23	Change +/-
Unit : THB Million			%YoY			%YoY
Operating Revenue	243.8	229.2	(6.0%)	696.1	699.3	5.0%
Cost of Sales	(168.6)	(156.7)	(7.1%)	(469.5)	(458.2)	(2.4%)
<b>Gross Profit</b>	<b>75.2</b>	<b>72.5</b>	<b>(3.7%)</b>	<b>226.6</b>	<b>241.1</b>	<b>6.4%</b>
Other Income	0.4	29.6	>100.0%	16.1	32.1	99.5%
Administrative Expenses	(12.5)	(16.1)	29.3%	(44.2)	(40.6)	(8.0%)
Finance Cost	(14.2)	(12.0)	(15.3%)	(39.8)	(35.5)	(11.0%)
<b>Profit before Income tax expense</b>	<b>47.9</b>	<b>73.5</b>	<b>53.5%</b>	<b>156.7</b>	<b>196.0</b>	<b>25.1%</b>
Tax income (expense)	1.3	(1.9)	>100.0%	(0.2)	(2.8)	>100.0%
<b>Net Profit</b>	<b>49.2</b>	<b>71.6</b>	<b>45.7%</b>	<b>156.5</b>	<b>193.2</b>	<b>23.4%</b>

## Operating Revenue Structure



### REVENUE FROM ELECTRICITY

**Energy from Biomass** consists of 3 projects: TGE, TPG, and TBP. The raw material used to produce electricity are Chopped Palm bunch, Palm Fibers, Roots, Chopped Palm Trees etc. There is total capacity of 29.7 MW, distributed to the PEA and other industry customers.

\*\*\***Community Waste Power Plant** consists of 3 projects that entered into PPA with PEA in Q2/2023 and expected to COD in the year 2025. In addition, there are other 4 projects in the business plan for expansion of installed capacity and electricity sale that expected to COD in approximate 2026.

### REVENUE FROM WATER AND STEAM

Revenue from the sale of reverse osmosis (RO) water and steam to private companies in industry group customer.

### REVENUE FROM SOLID WASTE MANAGEMENT

Revenue generated from the waste power plant in Sa Kaeo province, which is derived from waste disposal service for local authorities and related municipalities in the province. The power projects in Ratchaburi and Chumphon province will commence service once the power plants start their commercial operation.

### REVENUE FROM CONSTRUCTION UNDER CONCESSION AGREEMENT

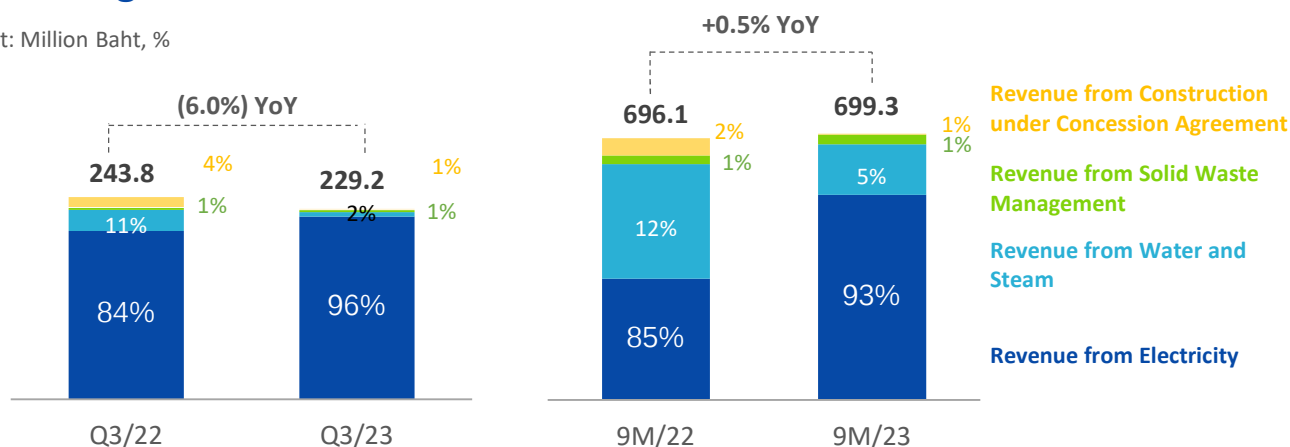
Revenue from construction of solid waste power plant, with an important condition that assets will be transferred to local government agencies upon the expiration of the Solid Waste Disposal Agreement (BOOT), where income is recorded equal to cost according to accounting standards.

## BUSINESS OVERVIEW BY CATEGORY

REVENUE BREAKDOWN	Q3/22	Q3/23	Change +/-	9M/22	9M/23	Change +/-
(Unit : THB Million)			%YoY			%YoY
Revenue from Electricity Sale	203.6	221.1	8.6%	590.8	653.6	10.6%
Revenue from Water and Steam Sale	25.8	5.4	(79.1%)	85.9	38.0	(55.8%)
Revenue from Solid Waste Management	2.3	2.6	11.3%	6.5	7.1	10.4%
<b>Total Revenue from sales and services</b>	<b>231.7</b>	<b>229.1</b>	<b>(1.2%)</b>	<b>683.2</b>	<b>698.7</b>	<b>2.3%</b>
Revenue from cost of Construction under the Concession Agreement	12.1	0.1	(99.2%)	12.9	0.6	(95.5%)
<b>Total Operating Revenue</b>	<b>243.8</b>	<b>229.2</b>	<b>(6.0%)</b>	<b>696.1</b>	<b>699.3</b>	<b>0.5%</b>
Other Income	0.4	29.6	>100.0%	16.0	32.1	99.5%
<b>Total Revenue</b>	<b>244.2</b>	<b>258.8</b>	<b>5.9%</b>	<b>712.1</b>	<b>731.4</b>	<b>2.7%</b>

### 1. Operating Revenue

Unit: Million Baht, %



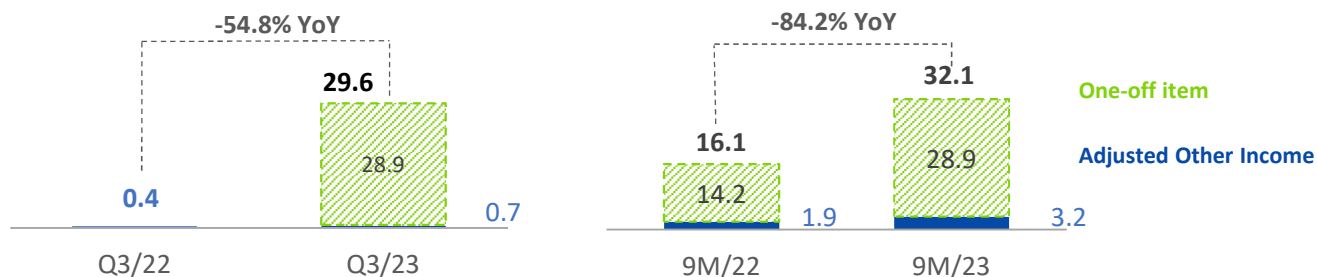
#### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

In Q3/2023, the Group reported operating revenue of Baht 229.2 million, decreased by Baht 14.6 million or 6.0% from Q3/2022, and in 9M/2023, the Group reported operating revenue of Baht 699.3 million that increased from 9M/2022 by Baht 3.2 million, or 0.5%. The increase were mainly due to the following factors:

- **Revenue from Electricity Sale** was Baht 221.1 million in Q3/2023, increased by Baht 17.5 million or 8.6%, whereas Baht 653.6 million of sale in 9M/2023 was increased by Baht 62.8 million or 10.6%. The increase was resulted from the inclining of FiT and ft rates as well as increase in the sales volume to industry group customers and the recognition of TBP power plant revenue from additional power purchase agreements with PEA, resulting in an increase in the total amount of electricity sales to both industry customers and PEA.
- **Revenue from Water and Steam Sale** was Baht 5.4 million in Q3/2023, decreased by Baht 20.4 million or 79.1%, whereas Baht 38.0 million of sale in 9M/2023 was decreased by Baht 47.9 million, or 55.8%. It was mainly due to a decrease in revenue from steam sale of TBP power plants to related companies since the related party purchased additional volume of steam during maintenance period of its own steam production equipment in 2022. However, the Group still fully utilized the production capacity by delivering higher sale volume of electricity to related party that compensated the said lower volume of the steam sales.
- **Revenue from Solid Waste Management** was Baht 2.6 million in Q3/2023, slightly increased by Baht 0.3 million or 11.3%, and Baht 7.1 million in 9M/2023, slightly increased by Baht 0.6 million or 10.4%.

## 2. Other Income

Unit: Million Baht, %

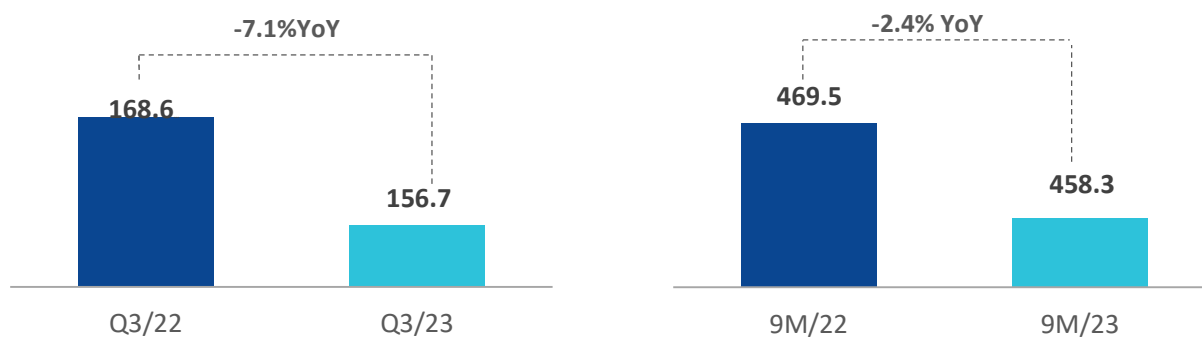


### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

In Q3/2023, the Group reported other income of Baht 29.6 million, increased by Baht 29.1 million from Q3/2022, whereas Baht 32.1 million of other income in the 9M/2023, increased by Baht 16.0 million from the 9M/2022. In Q3/2023, the Group received the latest payment of insurance compensation from the machinery fire accident of Baht 28.9 million, while in 9M/2022, insurance compensation received from the assets damaged in the same incident, worth of Baht 14.2 million. Other income excluded the one-off item was slightly increased due to bank deposit interest.

## 3. Operating Costs

Unit: Million Baht, %



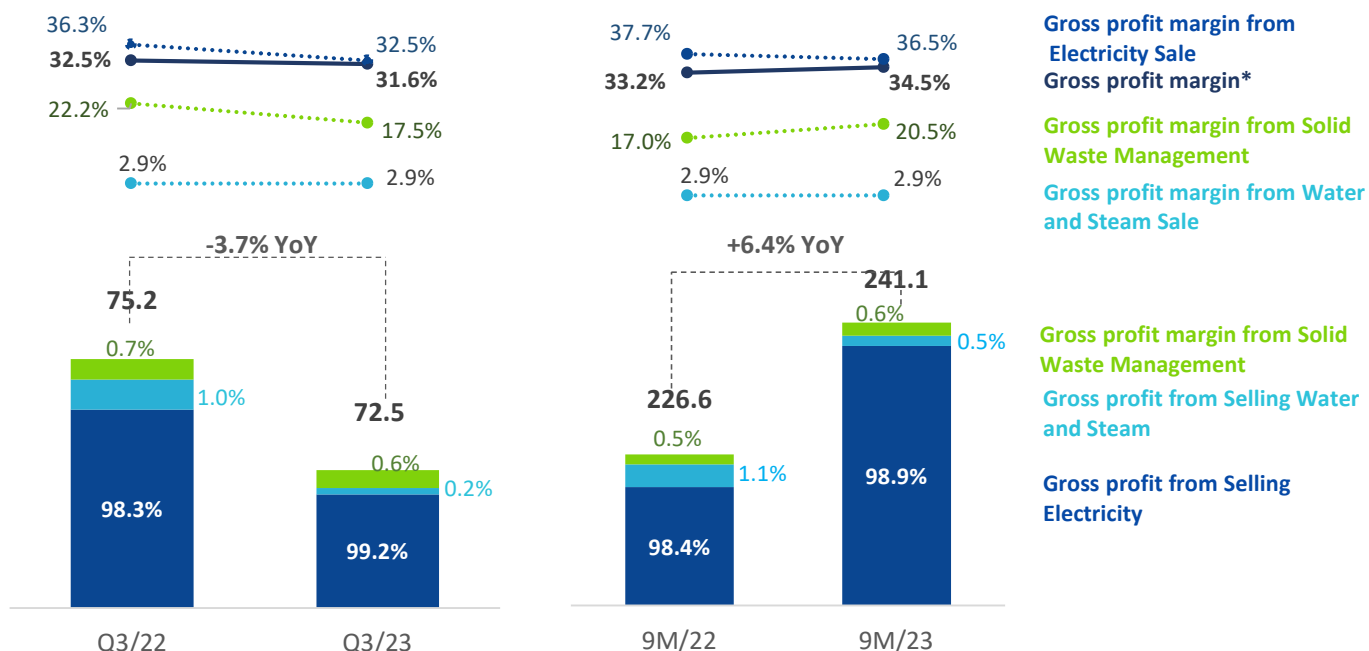
### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

In the Q3/2023, the Group reported operating costs of Baht 156.7 million, decreased by Baht 11.9 million, or 7.1%, mainly due to the cost from construction of solid waste power plant, with an important condition that assets will be transferred to local government agencies upon the expiration of the Solid Waste Disposal Agreement (BOOT), where income is recorded equal to cost according to accounting standards, amounting to Baht 12 million. The reported cost from sale and service is close to the amount in the corresponding period of previous year.

In 9M/2023, although the volume of electricity sales increased, the total costs slightly decreased. The Group reported cost of sales and services of Baht 458.3 million that slightly decreased from 9M/2022 by Baht 11.2 million or 2.4% as a result of lower material costs and the capability to manage costs efficiently.

## 4. Gross Profit and Gross Profit Margin

Unit: Million Baht, %



\* Note: Excluding revenue and cost from construction of solid waste power plant

YoY

Q3/23 vs Q3/22 and 9M/23 vs 9M/22

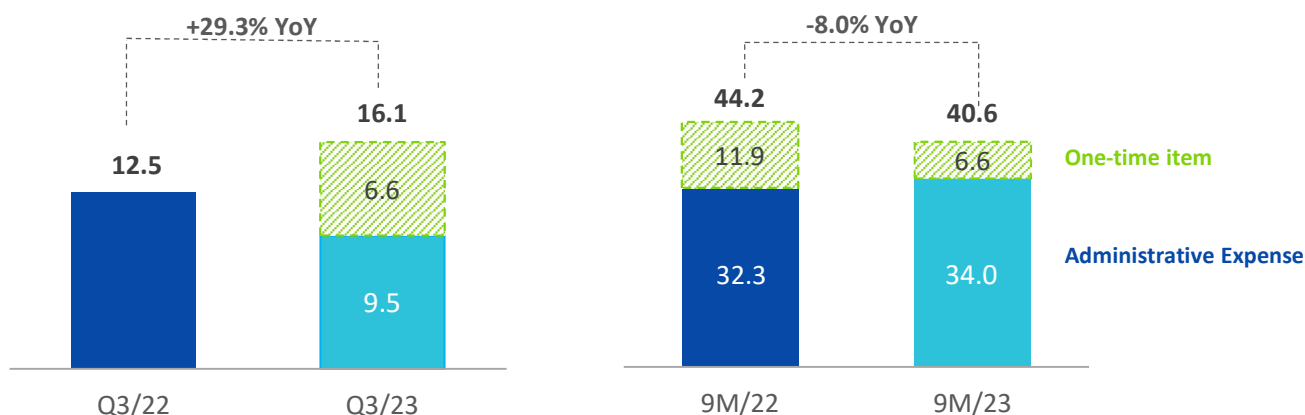
**Gross profit:** In Q3/2023, the Group reported gross profit of Baht 72.5 million, decreased by Baht 2.7 million or 3.7% from Q3/2022, and in 9M/2023, the Group reported the gross profit of Baht 241.1 million, increased from 9M/2022 by Baht 14.5 million or 6.4%, due to the following factors:

- **Gross profit from Electricity Sale:** In Q3/2023, gross profit of Baht 71.9 million decreased by Baht 2.1 million or 2.9%, mainly due to the maintenance shutdown of a subsidiary according to the production plan. In 9M/2023, the gross profit of Baht 238.5 million increased by Baht 15.5 million or 7.0% was mainly due to increase in sale volume of an industrial customer and additional power purchasing agreement of 6 MW of TBP with PEA, in addition to increase in selling price corresponding to higher FiT and ft rates.
- **Gross profit from Water and Steam Sale:** In Q3/2023, gross profit of Baht 0.2 million decreased by Baht 0.6 million, and Baht 1.1 million in 9M/2023 decreased by Baht 1.4 million in line with decrease in volume of steam sales of TBP power plant to related parties.
- **Gross profit from Solid Waste Management:** In Q3/2023, gross profit of Baht 0.4 million slightly decreased by Baht 0.1 million, and Baht 1.5 million in 9M/2023, slightly increased by Baht 0.4 million, was mainly due to the increase in waste quantity.

**Gross Profit Margin:** In Q3/2023, gross profit margin (excluding revenue and cost from construction of waste power plant) was 31.6%, slightly decreased from 32.5% in Q3/2022, was mainly from the maintenance shutdown of a subsidiary according to the production plan. The gross profit margin was 34.5% in 9M/2023, slightly increased from 33.2%, was mainly due to the growth of electricity sales that contributed higher margin than other type of revenues. The proportion of electricity sale per total revenue was 93.5% increased from 84.9% of corresponding period of previous year.

## 5. Administrative Expenses

Unit: Million Baht, %



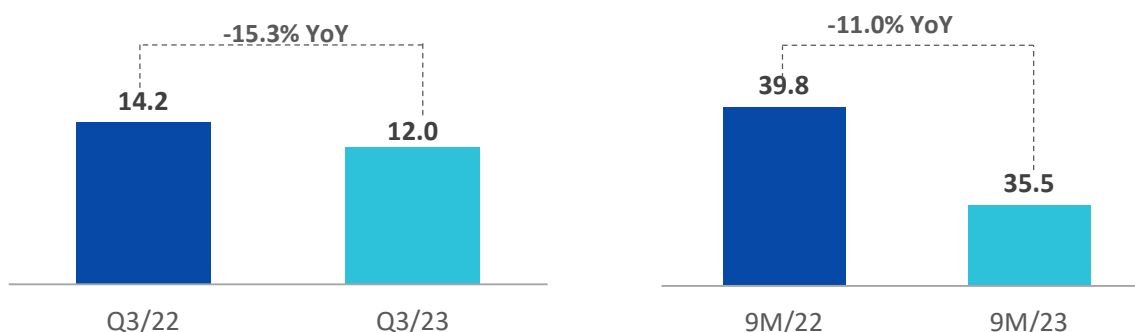
### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

In Q3/2023, the Group reported administrative expenses of Baht 16.1 million, increased from Q3/2022 by Baht 3.6 million or 29.3%, that mainly due to the loss from written-off of machinery parts from fire accident. However, the Company received the insurance compensation and recognized as revenue in the corresponding period.

In 9M/2023, the Group reported administrative expenses of Baht 40.6 million, decreased from 9M/2022 by Baht 3.6 million or 8.0%, that was mainly from write-off of the damaged assets in 9M/2022 in the amount of Baht 11.9 million (9M/2023: Baht 6.6 million), in which the Company recorded other income from insurance compensation in the corresponding period. Other than the insurance claim transaction, the Group reported a slightly increase of Baht 1.7 million of normal administrative expenses that mainly from the post-IPO expenses and increase in employee expenses to support business expansion.

## 6. Finance Cost

Unit: Million Baht, %



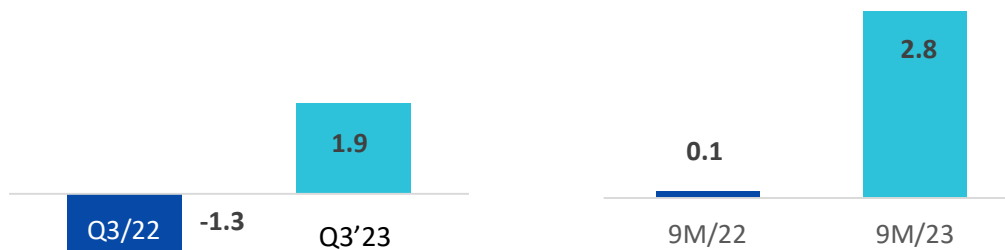
### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

In Q3/2023, the Group reported financial costs of Baht 12.0 million, decreased by Baht 2.2 million or 15.3% from Q3/2022, and Baht 35.5 million in 9M/2023, decreased by Baht 4.3 million or 11.0% from 9M/2022. The decrease was mainly due to the repayment of long-term loans.



## 7. Income Tax Expense (Income)

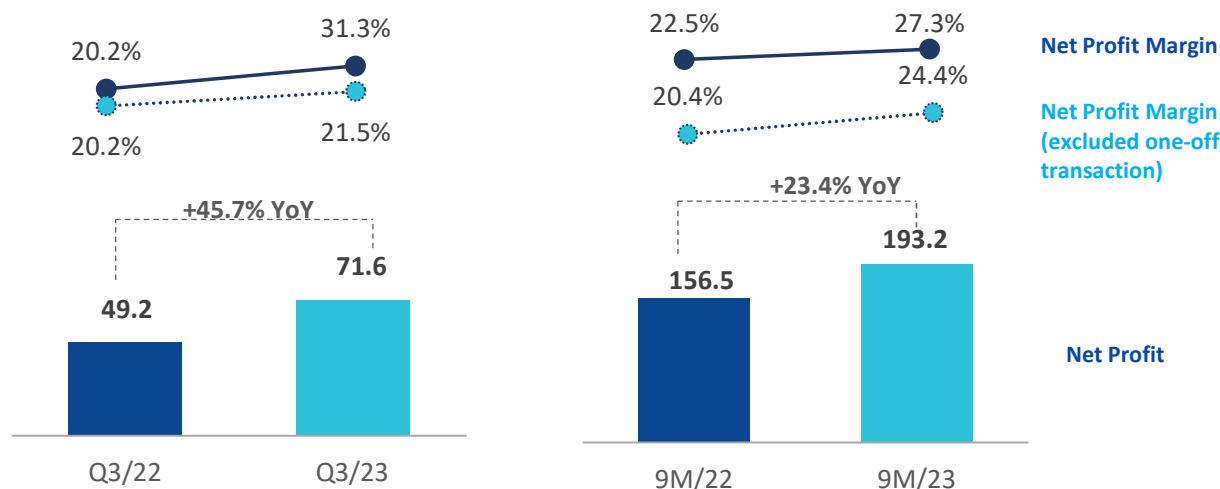
Unit: Million Baht, %



A change in tax expense (income) of the Group was mainly due to (i) difference between income/expenses per accounting base and income/expense per tax base, (ii) reduce in tax rate of TGE in Q2/2022, in which TGE's corporate income tax is exempted under privilege from the Board of Investments (BOI), from 0% corporate income tax rate to 10% corporate income tax rate, as a result, the company's income tax expenses in Q2/2023 and 9M/2023 were increased from the corresponding periods of previous year.

## 8. Net Profit and Net Profit Margin

Unit: Million Baht, %



### YoY Q3/23 vs Q3/22 and 9M/23 vs 9M/22

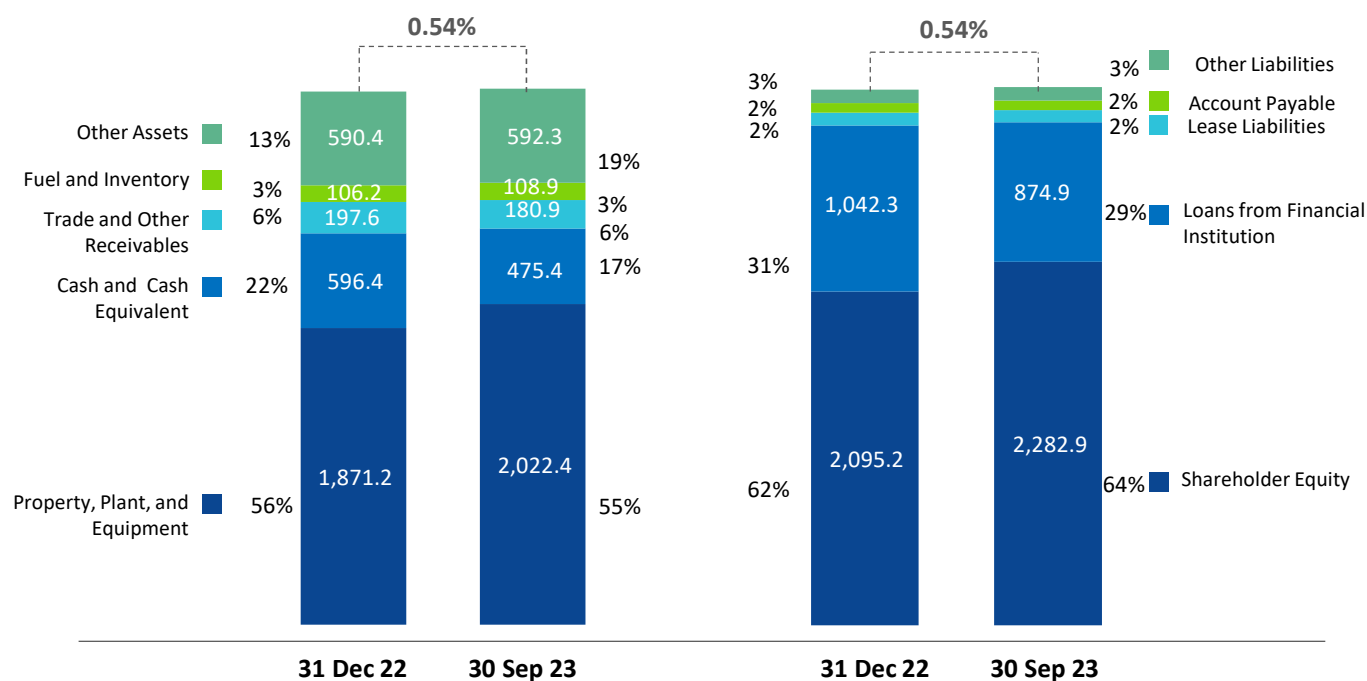
**Net Profit:** In Q3/2023, the Group reported net profit of Baht 71.6 million, increased by Baht 22.4 million or 45.7% from Q3/2022, and Baht 193.2 million in 9M/2023, increased by Baht 36.7 million or 23.4% from 9M/2022. It was mainly due to the increase in electricity sale, the decrease in raw material cost, enhancing efficiency of cost management and revenue from insurance compensation.

**Net Profit Margin:** Net profit margin was 31.3% in Q3/2023, increased from 20.2% in Q3/2022. Net profit margin was 27.3% in 9M/2023, increased from 22.5% in 9M/2022. It was mainly from the growth of electricity sales that contributed higher profit margin than other revenue types, a decrease in raw material cost, and revenue received from insurance compensation as described above.

By excluding the revenue from insurance compensation, the net profit margin in Q3/2023 was 21.5%, slightly increased from 20.2% in Q3/2022. For 9M/2023, the net profit margin was 24.4%, increased from 20.4% in 9M/2022, as described above.

## Statement of Financial Position

Unit: Million Baht



### Total Assets

As of 30 September 2023, the total assets of the Group was Baht 3,379.8 million, increased by Baht 18.0 million or 0.54% from 31 December 2022. The major changes are as follows:

- **Trade and other receivables:** decreased by Baht 16.7 million due to the decrease in revenue department receivable from utilization of input VAT amounting to Baht 5.9 million, and the decrease in receivable from related parties in line with decrease in steam sale.
- **Cash and cash equivalents:** decreased by Baht 121.0 million was mainly due to lands purchase for waste power plant in Samut Sakorn province.
- **Property, Plant and Equipment:** increased by Baht 151.2 million was mainly due to lands purchase for waste power plant in Samut Sakorn province.

### Total Liabilities

As of 30 September 2023, the total liabilities of the Group was Baht 1,096.9 million, decreased by Baht 169.7 million or 13.4% from 31 December 2022. The significant changes are as follows:

- **Lease Liabilities:** decreased by Baht 4.1 million due to the rent payment under the lease agreement.
- **Loans from Financial Institution:** decreased by Baht 167.4 million due to loan repayment according to the long-term loan agreements.

As of 30 September 2023, the Debt-to-Equity (D/E) ratio was 0.48, decreased from 0.60 as of 31 December 2022, and the Interest-bearing debt to equity (IBDE) ratio as of 30 September 2023 was 0.38, decreased from 0.53 as of 31 December 2022. This was from loan repayment to the financial institutions in the period, and the increase in equity portion from the profit during the period.

### Total Shareholders' Equity

As of 30 September 2023, the total shareholder's equity of the Group was Baht 2,282.9 million, increased by Baht 187.7 million or 9.0% from 31 December 2022. This was mainly due to the operating profit for the 9M/2023.

## Appendix

There are 2 segments of the Company's power plant business according to the fuels used in production, as listed in the tables below

### 1. Three (3) Operational commercial biomass powerplant projects, as listed in the following table

Powerplant / Location	Operated by	Type /Energy source	Installed Capacity (MW)	Amount of electricity offered for long-term (MW)	Amount of electricity offered for short-term (MW)	Date of commercial operation start
Biomass power plant project TGE (Thachang district, Surat Thani)	TGE	VSPP / Biomass	9.9	7.2	-	8 May 2014
Biomass power plant project TPG (Thachang district, Surat Thani)	TPG	VSPP / Biomass	9.9	9.7	-	7 Nov 2019
Biomass power plant project TBP (Thachang district, Surat Thani)	TBP	VSPP / Biomass	9.9	3.4	6.0	25 May 2021
<b>Total</b>			<b>29.7</b>	<b>20.3</b>	<b>6.0</b>	

### 2. Municipal waste projects

2.1 Five (5) projects are under the development, as listed in the table below:

Power plant / Location	Operated by	Type / Energy source	Installed Capacity (MW)	Amount of electricity offered (MW)	Commencing Date of commercial operation
Municipal waste power plant project TES SKW (Watthana Nakorn district, Sa Kaeo)	TES SKW	VSPP / Municipal waste	8.0	6.0	Within 2525
Municipal waste power plant project TES RBR (Mueang district, Ratchaburi)	TES RBR	VSPP / Municipal waste	8.0	6.0	Within 2525
Municipal waste power plant project TES CPN (Mueang district, Chumphon)	TES CPN	VSPP / Municipal waste	6.0	4.0	Within 2525
Municipal waste power plant project TES TCN (Samut Sakorn)	TES TCN	VSPP / Municipal waste	9.9	8.0	Within 2525
Municipal waste power plant project TES CNT (Chainat)	TES CNT	VSPP / Municipal waste	8.0	6.0	Within 2525
<b>Total</b>			<b>39.9</b>	<b>30.0</b>	

2.2 Two (2) projects in the bidding preparation with the Local Government Organizations, as listed in the table below:

Power plant/ location	Operated by	Type /Energy source
1. Municipal waste power plant TES PRI (Prachin Buri)	TES PRI	VSPP / Municipal waste
2. Municipal waste power plant TES UBN (Ubon Ratchathani)	TES UBN	VSPP / Municipal waste