



Thai Solar Energy Public Company Limited



# OPPORTUNITY DAY

## Q2 2023

AUG 24, 2023



# DISCLAIMER

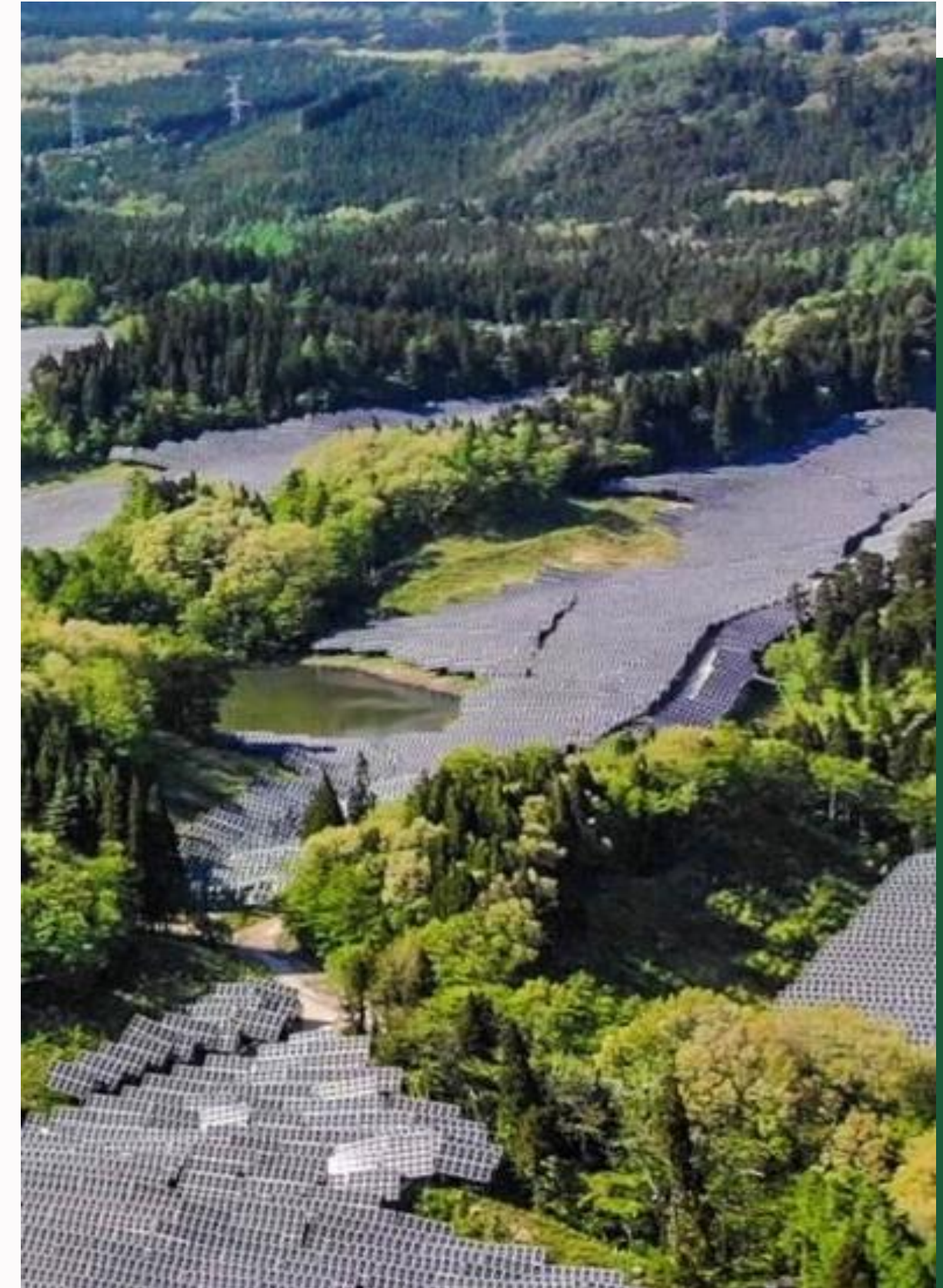
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# AGENDA

- 01 Company Overview
- 02 Financial Highlights of Q2 2023
- 03 Business Outlook




# COMPANY OVERVIEW

Summary of Corporate Information

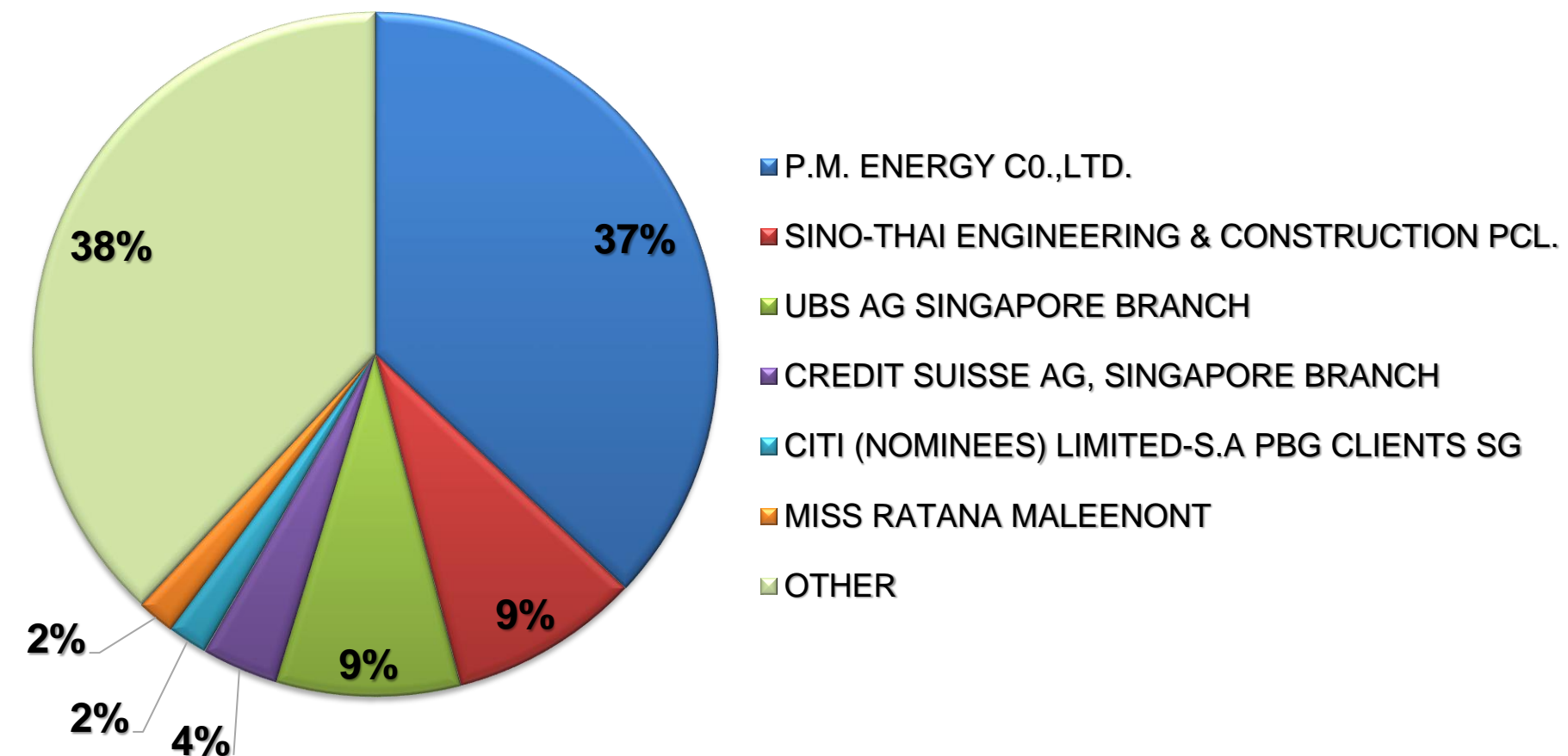
# COMPANY OVERVIEW

Thai Solar Energy Public Company Limited (“TSE”) was established in 2008 with a mission to establish a solid footprint in Thailand in the solar power industry and expand into other renewable energies as well as developing an international solar power business focusing in Asia and Oceania regions.

## Stock Information

<b>Company:</b>	Thai Solar Energy Public Company Limited
<b>SET Symbol:</b>	TSE
<b>Listed in:</b>	<b>MAI</b> on October 30, 2014 Moved to <b>SET</b> since May 14, 2019
<b>Paid up Capital:</b>	THB 2,117 million
<b>Sector:</b>	Energy & Utilities
<b>Industry:</b>	Resources
<b>CG Score:</b>	
<b>Credit Rating:</b>	BBB- stable

## Major Shareholders as of 25 May 2023



# VISION

To become a world-class regional leader in providing renewable energy through reliable technologies to serve both commercial and social societies.

To establish a solid footprint in Thailand in the solar power industry and expand into other renewable energies as well as developing an international solar power business focusing in Asia & Oceania regions.

# MISSION

# CORE BUSINESS

TSE and its subsidiaries (“the Group”) core businesses are generation and distribution of electricity from solar power and biomass to government and private company in Thailand and Japan.

## TOTAL CAPACITY OF 286.2 MWac

### SOLAR PV (264 MWac)



Solar PV Farms  
242 MWac



Solar PV Rooftops  
14 MWac



Floating Solar PV  
8 MWac

### BIOMASS (22.2 MWac)



Biomass  
22.2 MWac

# MILESTONES

## 2008 – 2014

### Solar Farms & Solar Rooftops (TH)

- 2008:** > Established TSE
- 2011:** > Majority owned by Dr. Cathleen Maleenont  
> COD a Solar Thermal (4.5 MW)
- 2013:** > COD 5 TH Solar PV projects (40 MW) / Partnership with GPSC (TSE 60%)
- 2014:** > **Listed in MAI on 30 OCT 2014**   
> COD 5 TH Solar PV projects (40 MW) / Partnership with GPSC (TSE 60%)  
> COD 5 Solar Rooftop projects (5 MW)



## 2015 – 2017

### Solar Farms (JP) & Biomass (TH)

- 2015:** > **Expanded TSE's business operation in Japan**   
> COD a Solar PV JP project (0.5 MW)  
> COD 9 Solar Rooftop projects (9 MW)
- 2016:** > COD a Solar PV "SLC" project (1 MW)  
> COD 4 JP Solar PV projects (6.5 MW)  
> **Invested in 3 Biomass projects**
- 2017:** > **Mega project in Japan "Onikoube" (147 MWp)**



## 2018 – 2019

### Merger & Acquisition

- 2018:** > COD Biomass 3 projects (22.2 MW)  
> COD a JP Solar PV project "Jyoso" (1.25 MW)  
> **Acquired a new project "INS" in Ang Thong province (2.0 MW) in Oct 2018**
- 2019:** > COD Solar PV JP: Hanamizuki (13.5 MW)  
> Fully Operate Biomass 3 projects (22.2 MW)  
> **Moved to SET on 14 May 2019**   
> Capital Increase to 2,117.7 MB. completely in Oct 2019.  
*Note: TSR 212 million shares Total 530 MB.*  
> **Acquired 3 new projects:**
  1. "BSS" in Ayutthaya province (5 MW) in Mar 2019
  2. "BSE" in Udonthani province (5 MW) in Aug 2019
  3. "SSP" in Ang Thong province (8 MW) in Nov 2019

## 2020 – 2021

### Private PPA

- 2020:** > Start mega project "Onikoube" Construction and receive project loan from BBL  
> **Invested in a Floating Solar PV farm project in Prachinburi province (8.0 MW) in Jun 2020**  
> Acquired: "EES" in Krabi province (5.0 MW) in Jul 2020  
> Disposed: "BSE" in Udonthani province (5.0 MW) in Sep 2020
- 2021:** > **COD Floating Solar PV project (8 MWp) since 25 May 2021**  
> Disposed investment in 6 small Solar Farms in Japan (totaling 8.24 MW) in Sep 2021



## 2022 – Onward

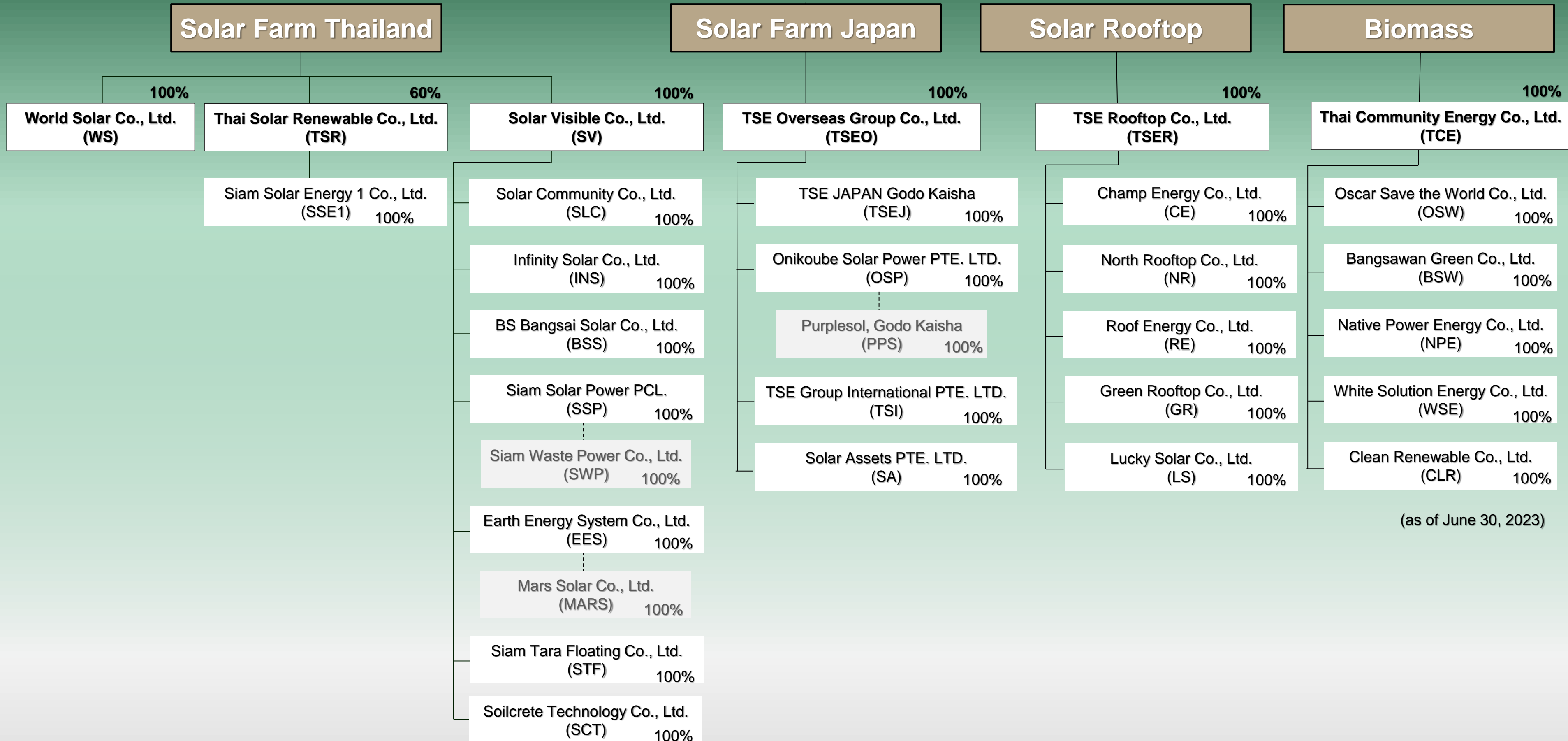
### Exploring Investment Opportunity overseas Expanding Private PPA

- 2022:** > Divested in a solar farm "Hanamizuki" 13.5 MW in Japan in Mar 2022  
> **Acquired a new project "SCT" Solar Tracking in Nakhonsawan province (8.0 MW) in Jun 2022.** The acquisition process was completed in Jul 2022
- 2023:** > Signed acceptance conditions of the Procurement of Electricity generated from Renewable Sources under the Feed-in Tariff (FiT) Scheme 2022 - 2030 for Power Plants with no Fuel Costs in 2022  
  
> **COD "Onikoube" project (147 MWp) since 10 May 2023**





# COMPANY STRUCTURE



(as of June 30, 2023)

# FINANCIAL HIGHLIGHTS OF Q2 2023

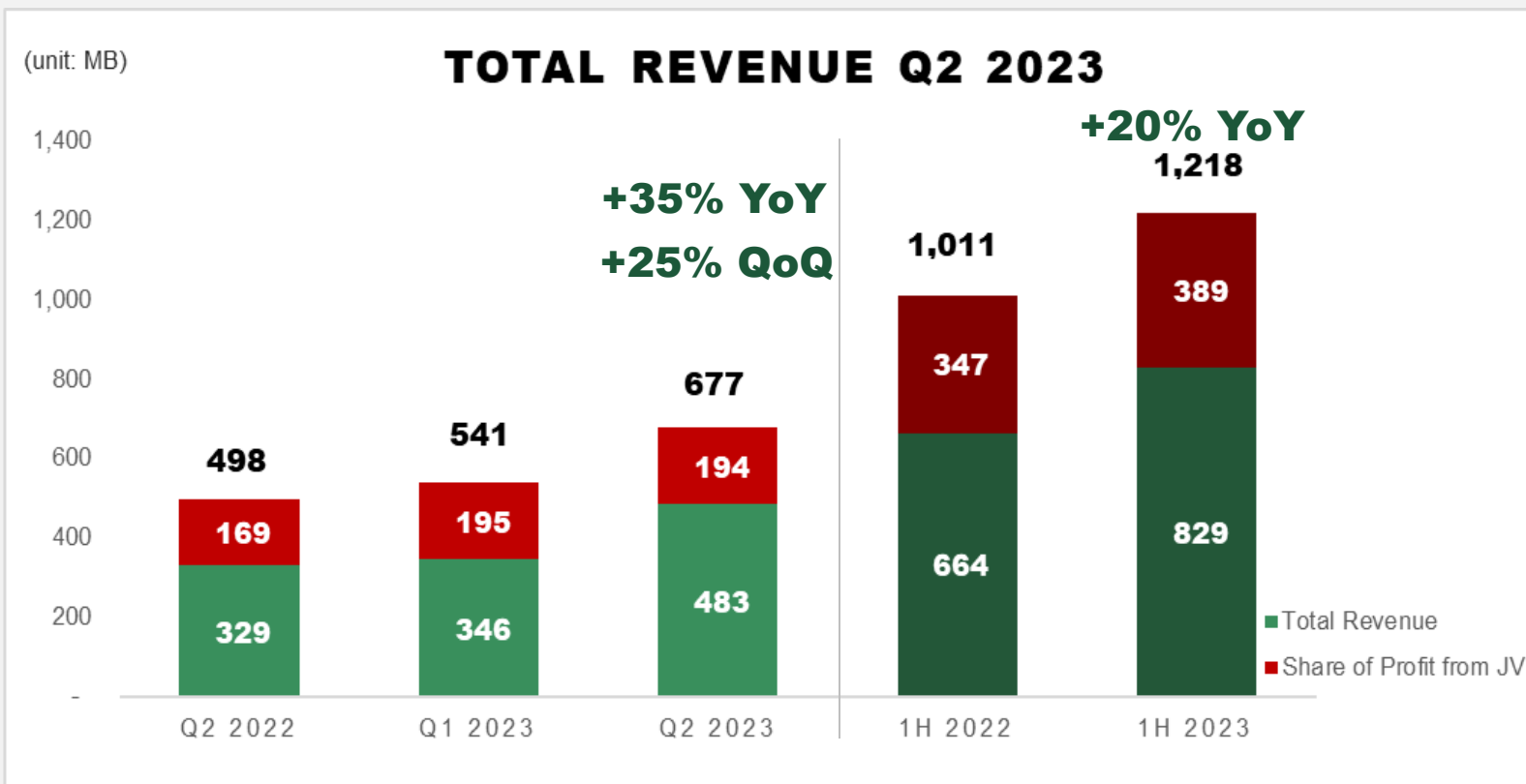
Summary of TSE's Financial Performance

# INCOME STATEMENT

Unit: Thousand Baht

TSE - Consolidated	Q2/2023	Q2/2022	%Change	1H/2023	1H/2022	%Change
<b>Revenue</b>						
Electricity sales	467,960	315,559	48%	799,200	638,268	25%
Management fee	15,215	13,443	13%	29,902	25,974	15%
<b>Total revenue</b>	<b>483,175</b>	<b>329,002</b>	<b>47%</b>	<b>829,102</b>	<b>664,242</b>	<b>25%</b>
COGS	(290,963)	(215,173)	35%	(505,486)	(446,688)	13%
<b>Gross Profit</b>	<b>192,212</b>	<b>113,829</b>	<b>69%</b>	<b>323,616</b>	<b>217,554</b>	<b>49%</b>
Other Income	22,754	1,216	1771%	42,613	3,086	1281%
Administrative Expense	(157,933)	(42,630)	270%	(214,908)	(120,407)	78%
Gain (loss) on Exchange Rate	22,542	5,257	329%	58,425	(14,037)	516%
Other gains (losses)	-	(0)	0%	-	234,437	-100%
<b>Profit (loss) before Interest and Income tax</b>	<b>79,575</b>	<b>77,671</b>	<b>2%</b>	<b>209,746</b>	<b>320,632</b>	<b>-35%</b>
Interest expenses	(112,002)	(73,737)	52%	(201,047)	(152,038)	-32%
<b>Profit (loss) before Income tax</b>	<b>(32,427)</b>	<b>3,934</b>	<b>-924%</b>	<b>8,699</b>	<b>168,594</b>	<b>-95%</b>
Share of Profit from Investment in Joint Venture	193,684	169,291	14%	388,731	346,726	12%
Income tax expenses	(9,058)	(2,560)	-254%	(11,955)	(5,713)	-109%
<b>Net Profit for the period</b>	<b>152,199</b>	<b>170,666</b>	<b>-11%</b>	<b>385,475</b>	<b>509,608</b>	<b>-24%</b>
Extra items	115,584	-	100%	115,584	(234,437)	149%
<b>Net Profit from Normal Operation for the period</b>	<b>267,783</b>	<b>170,666</b>	<b>▲ 57%</b>	<b>501,059</b>	<b>275,171</b>	<b>▲ 82%</b>

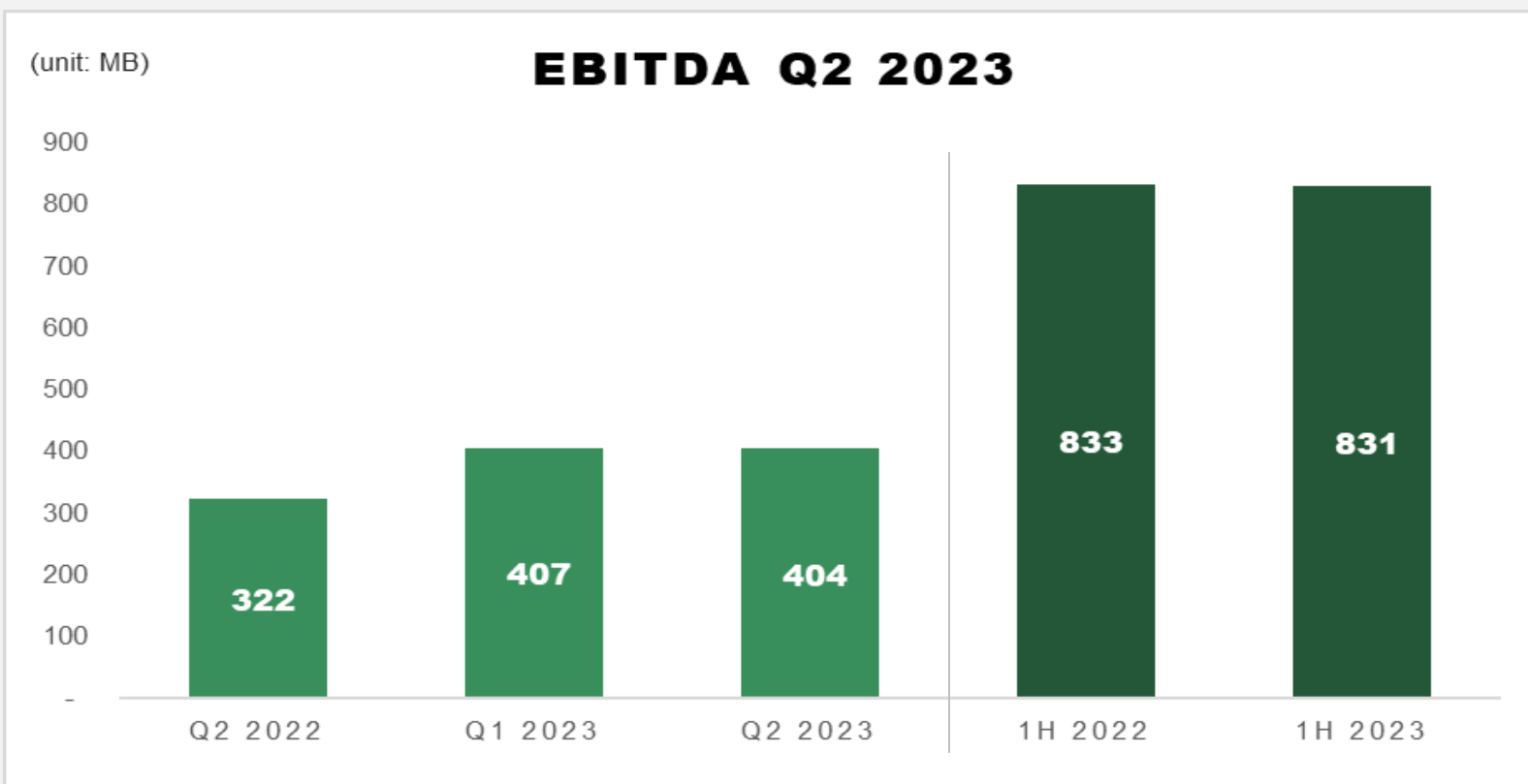
# TOTAL REVENUE AND EBITDA



## TOTAL REVENUE AND SHARE OF PROFIT FROM JV

Total revenue including share of profit from JV for 3-month period of Q2 2023 increased to 677 MB or +35% YoY and +25% QoQ. In the same time, our total revenue including share of profit from JV for 6-month period of Q2 2023 increased to 1,218 MB or +20% YoY.

Because a new COD solar farm in Japan, Onikoube that selling capacity 133 MW which start recognized revenue and profit since Q2 2023. In addition, the announcement of ERC to increase the Fuel Adjustment Charge (Ft).

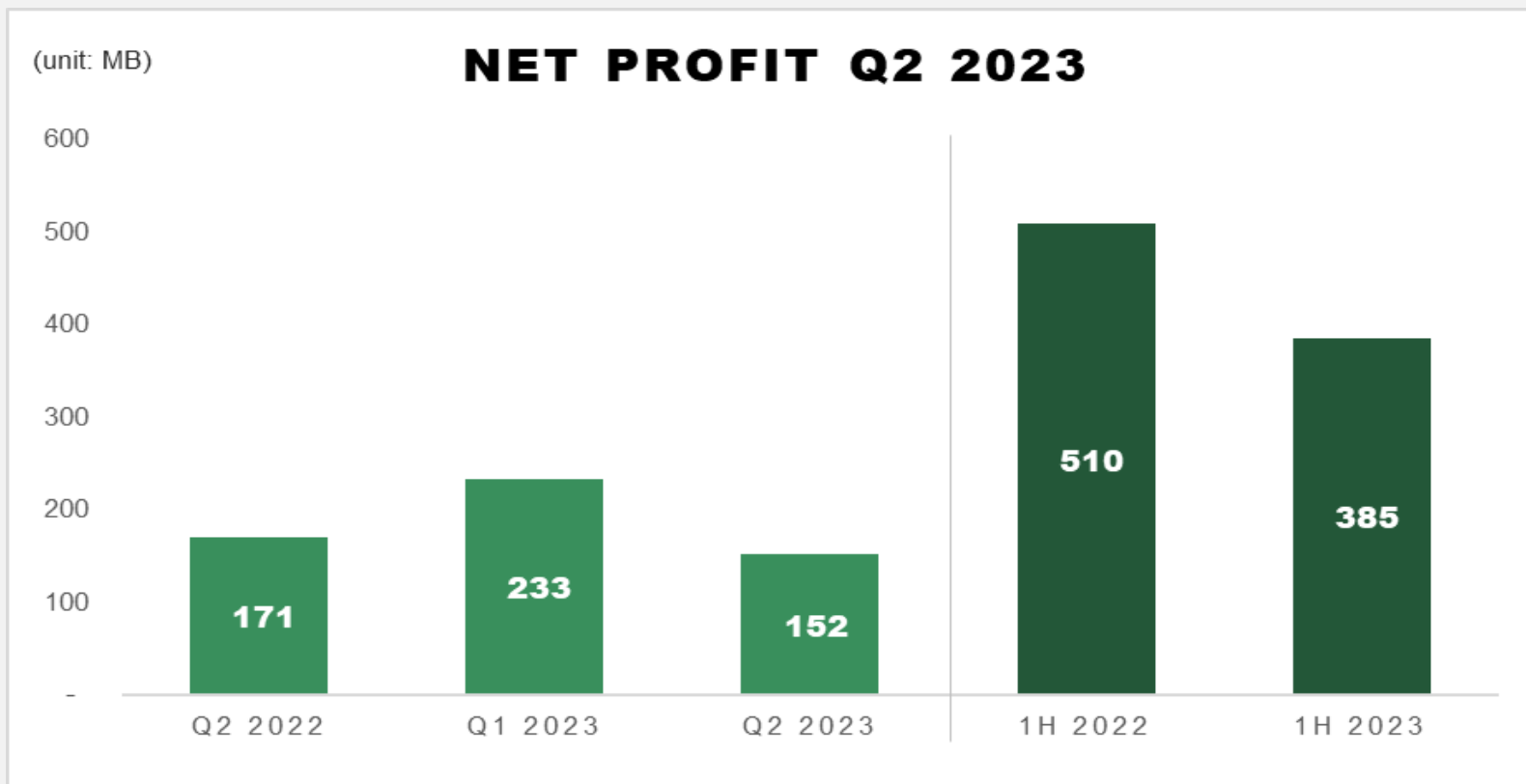


## EBITDA

EBITDA for 3-month period of Q2 2023 increased to 404 MB or +25% YoY but slightly decreased 0.6% QoQ. And EBITDA for 6-month period of Q2 2023 is 831 MB, slightly decreased 0.2% YoY.

Due to the increased revenue mainly from a revenue of the new COD solar farm in Japan, Onikoube and the increase of the Fuel Adjustment Charge (Ft). Besides, in Q1 2022 there was a recognition of extraordinary profit from divestment solar farm in Japan amounting to 234 MB.

# NET PROFIT AND EPS

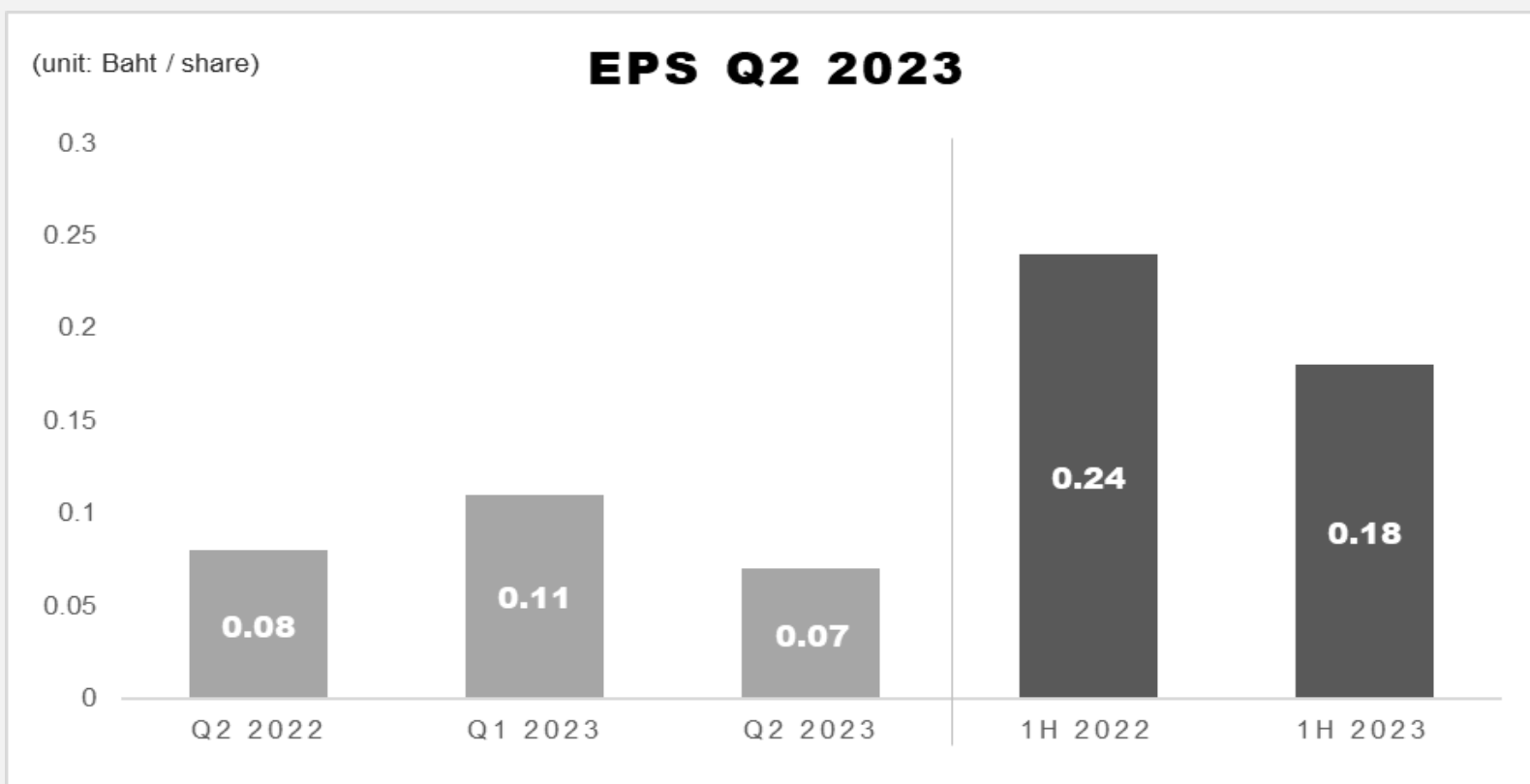


## NET PROFIT

Net profit for 3-month period of Q2 2023 decreased to 152 MB or -11% YoY and -34% QoQ. In the same time, our net profit for 6-month period of Q2 2023 decreased to 385 MB or -24% YoY.

Because the increased finance costs from the increased interest rate since YE2022 [In 2023, the Monetary Policy Committee (MPC) has raised the policy rate by 0.25 percent per year, a total of 3 times.], and there was a recognition of extraordinary profit from divestment solar farm in Japan amounting to 234 MB in Q1 2022. However, exclude the extraordinary profit from divestment, the group has net profit for 6-month of Q2 2022 amounting of 275 MB. As comparable with 6-month period of Q2 2023 that increasing by 110 MB or +40%.

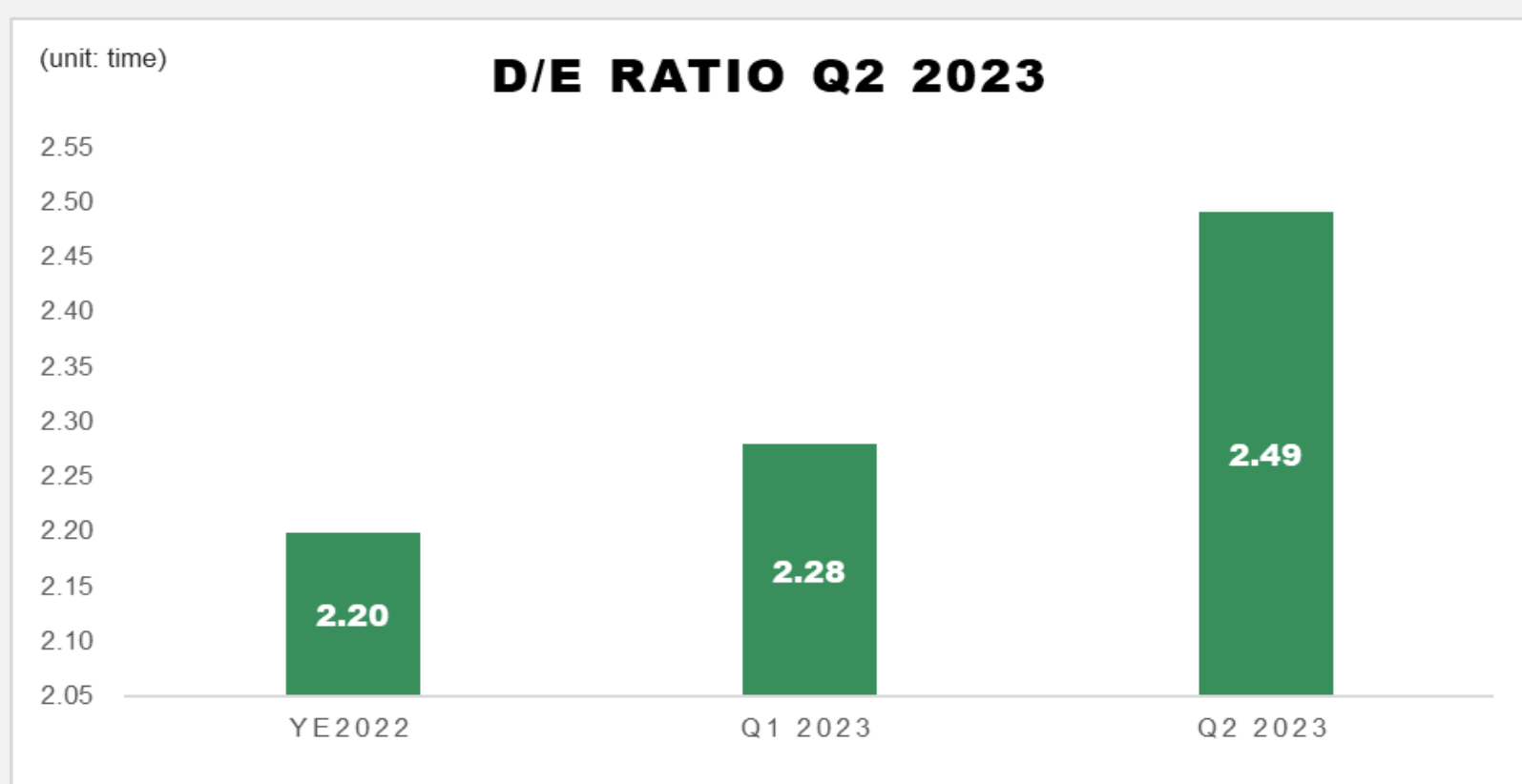
Furthermore, the increased profits mainly from the revenue recognition of the new COD solar farm in Japan and from the increased share of profit from JV and others that due to the announcement to increase the Fuel Adjustment Charge (Ft).



## EPS

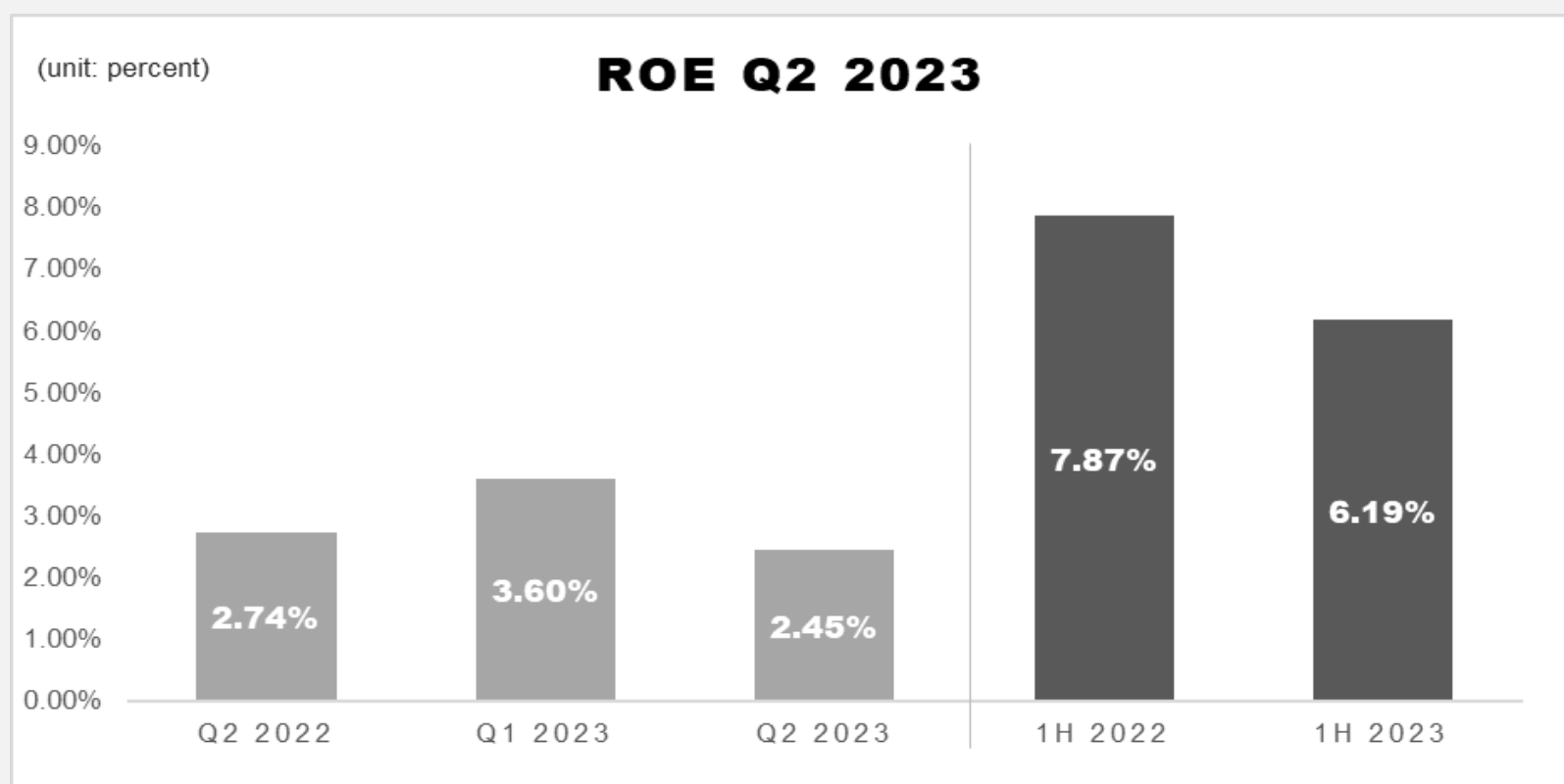
EPS for 3-month period and 6-month period of Q2 2023 amounting of 0.07 Baht / share and 0.18 Baht / share respectively which decreased from last year because of net profit reduction although the company's revenue and share of profit from JV was increased more than 20% but there was an increased finance costs from the increased interest rate and a recognition of extraordinary profit from divestment solar farm in Japan in Q1 2022.

# D/E RATIO AND ROE



## D/E RATIO

D/E ratio at the end of Q2 2023 slightly increased to 2.49 times or +9% as compared to the end of Q1 2023 of 2.28 times because there was a recognition of liabilities from the new COD solar farm in Japan, Onikoube and the company has paid dividends in Q1 2023.



## ROE

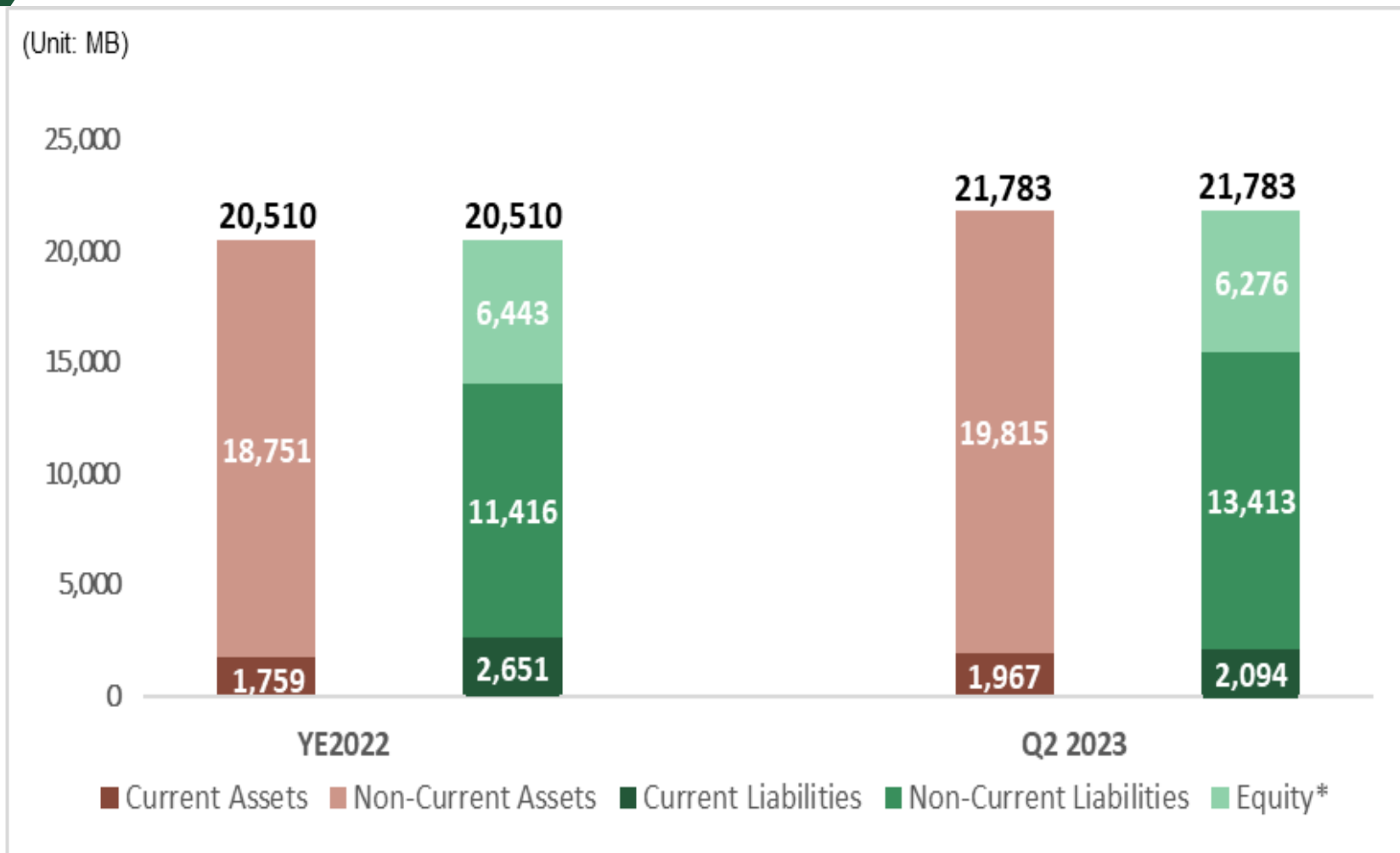
ROE in Q2 2023 decreased to 2.45% as compared to Q1 2023 and Q2 2022 because of net profit reduction. However, the company's revenue including share of profit from JV was increased about 35% YoY and 25% YoY

In the same time, our ROE in 1H 2023 decreased to 6.19% although our revenue including share of profit from JV was increased about 20% YoY

Because there was an increased finance costs from the increased interest rate since YE2022, a recognition of extraordinary profit from divestment solar farm in Japan in Q1 2022 and the company has paid dividends in Q1 2023.

Note: - Equity is average equity attributable to owners of the parent  
 - ROE is annualized ROE

# FINANCIAL POSITION Q2 2023



## TOTAL ASSETS +6.2%

Increasing from 20,510 MB. to 21,783 MB or +6.2%

## TOTAL LIABILITIES +10.2%

Increasing from 14,067 MB. to 15,507 MB or +10.2%

## EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT -2.6%

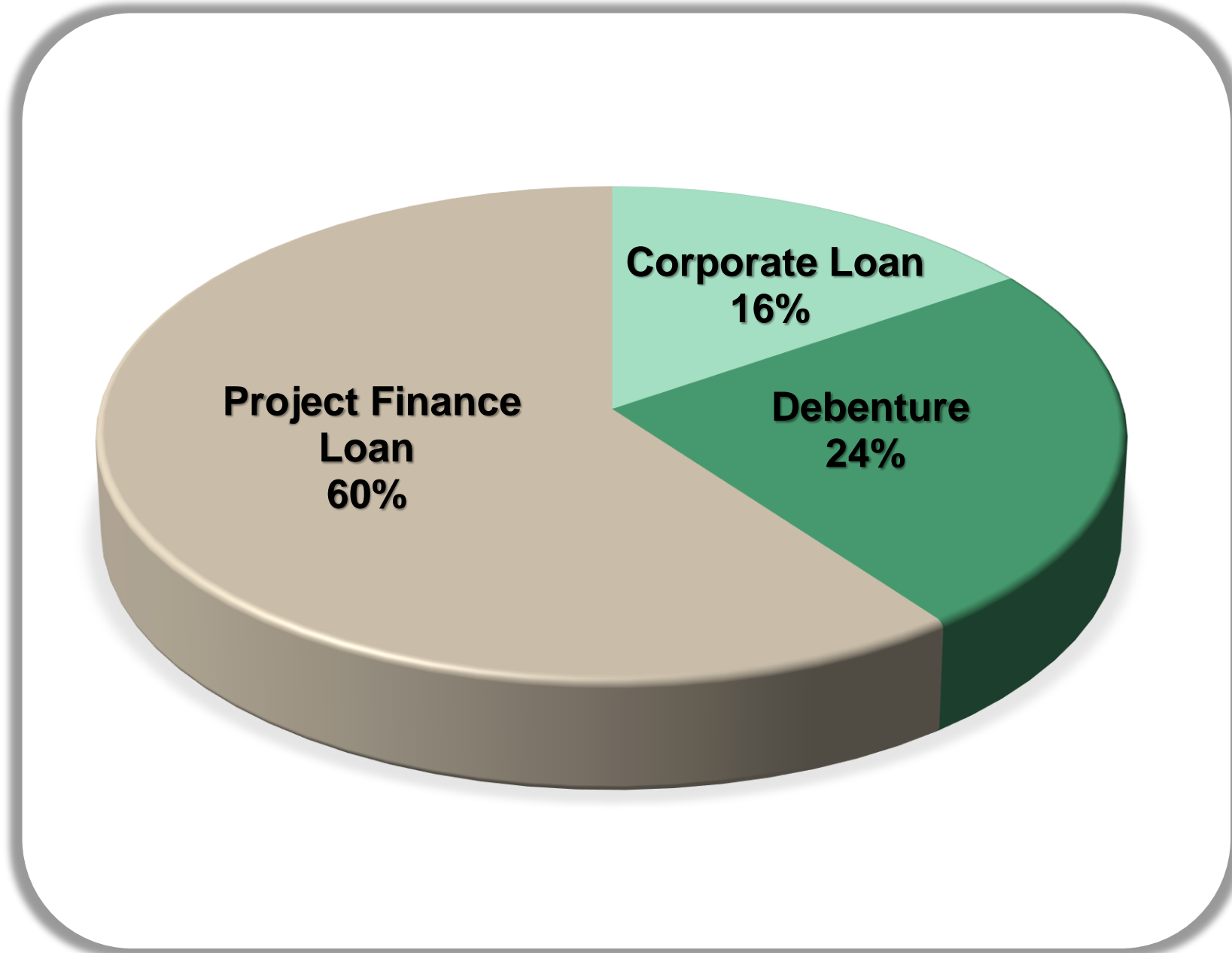
Decreasing from 6,443 MB. to 6,276 MB. or -2.6%

FINANCIAL POSITION	YE2022	Q2 2023	+/- (%)
Assets	20,510	21,783	6.2%
Liabilities	14,067	15,507	10.2%
Equities*	6,443	6,276	(2.6%)

Note: \*Average Equity attributable to owners of the parent

In Q2 2023, overall operating performance (exclude extraordinary profit) was increased as compared to Q2 2022 mainly due to increase in new project PV farm, Onikoube and the Fuel Adjustment Charge (Ft) resulting in grew up in revenue

# DEBT STRUCTURE



## PROJECT FINANCE LOAN 60%

Most of interest bearing debt from Project Finance Loan for 60%, increased from Onikoube Project Finance Loan drawdown.

15% of Project Finance Loan from COD projects decreased accordingly from schedule repayment.

## CORPORATE LOAN AND DEBENTURE 40%

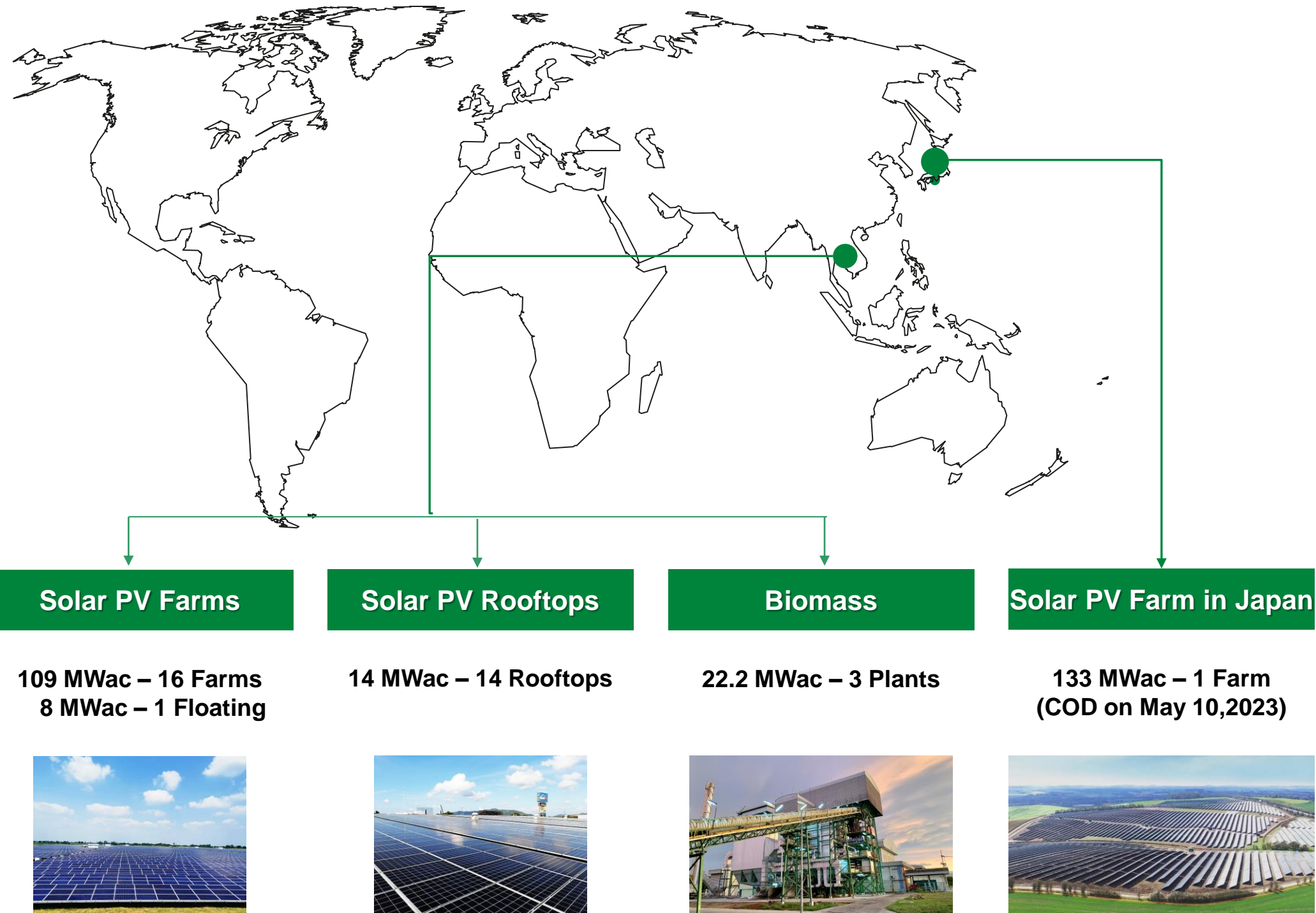
The remaining interest bearing debt from Corporate Loan and Debenture for 40% decreased from schedule repayment



# BUSINESS OUTLOOK

Summary of TSE's Business Outlook and Investment Plan

# TSE'S PROJECTS



**286.20 MWac**

**Total of Selling Capacity (MW PPA)**

**35 Projects**

**Total of TSE's Projects**

Note: \*101 MW (69 MWe) > 10 projects - Partnership with GPSC (TSE 60%)

\*\* 286.20 MW > 35 projects (286.20 MWac) are in operation.

# CAPACITY GROWTH

## THAILAND

- Acquiring New Solar Projects under PDP Plan
- Penetrating Private PPA in Solar PV Farms
- Acquiring Existing Solar Projects in Thailand
- Expanding into Waste to Energy

## OVERSEAS

- Exploring new opportunities in renewable energy projects (i.e. Wind and Solar Farms) overseas



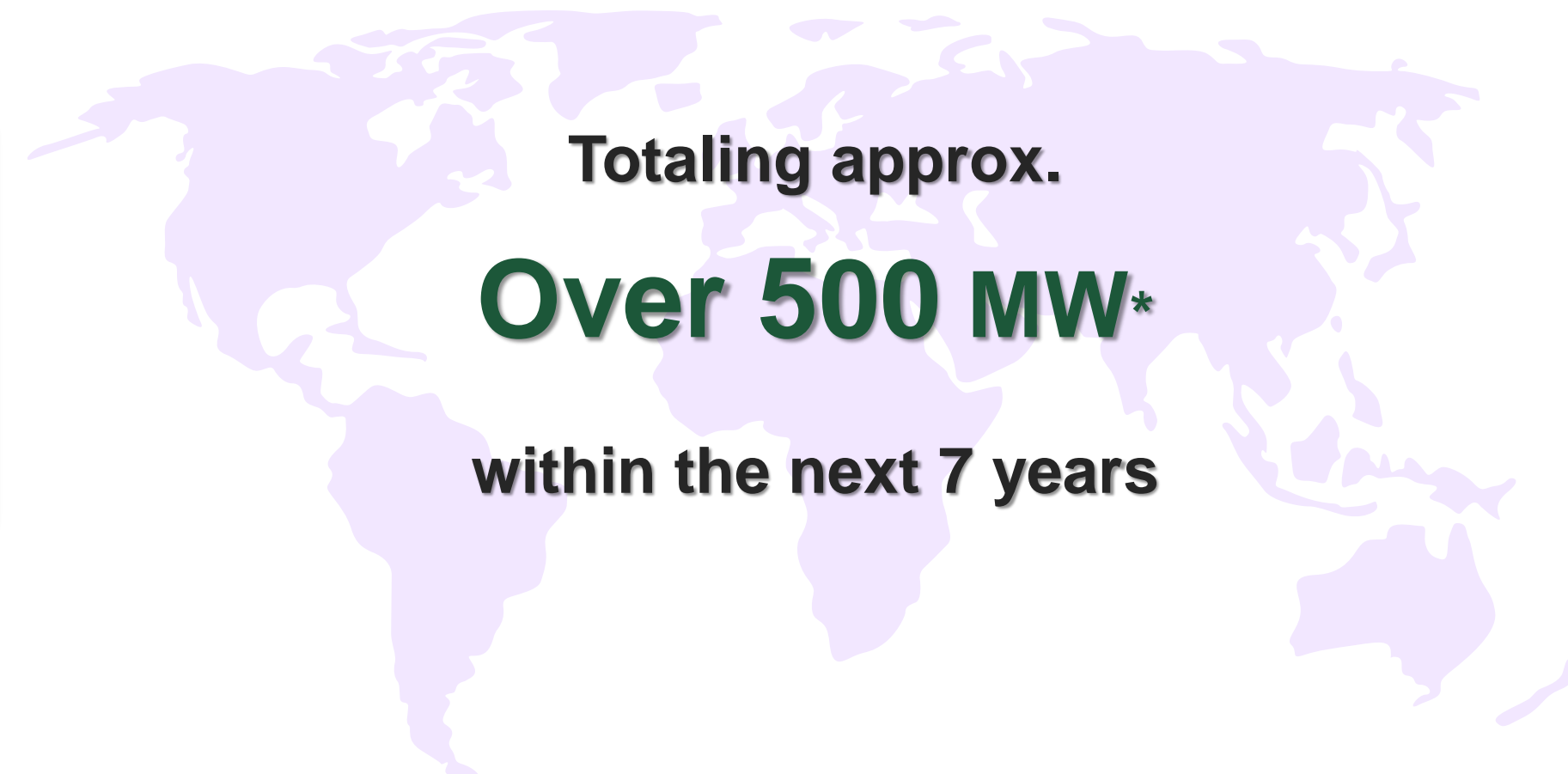
**Solar PV Farm**



**Waste to Energy**

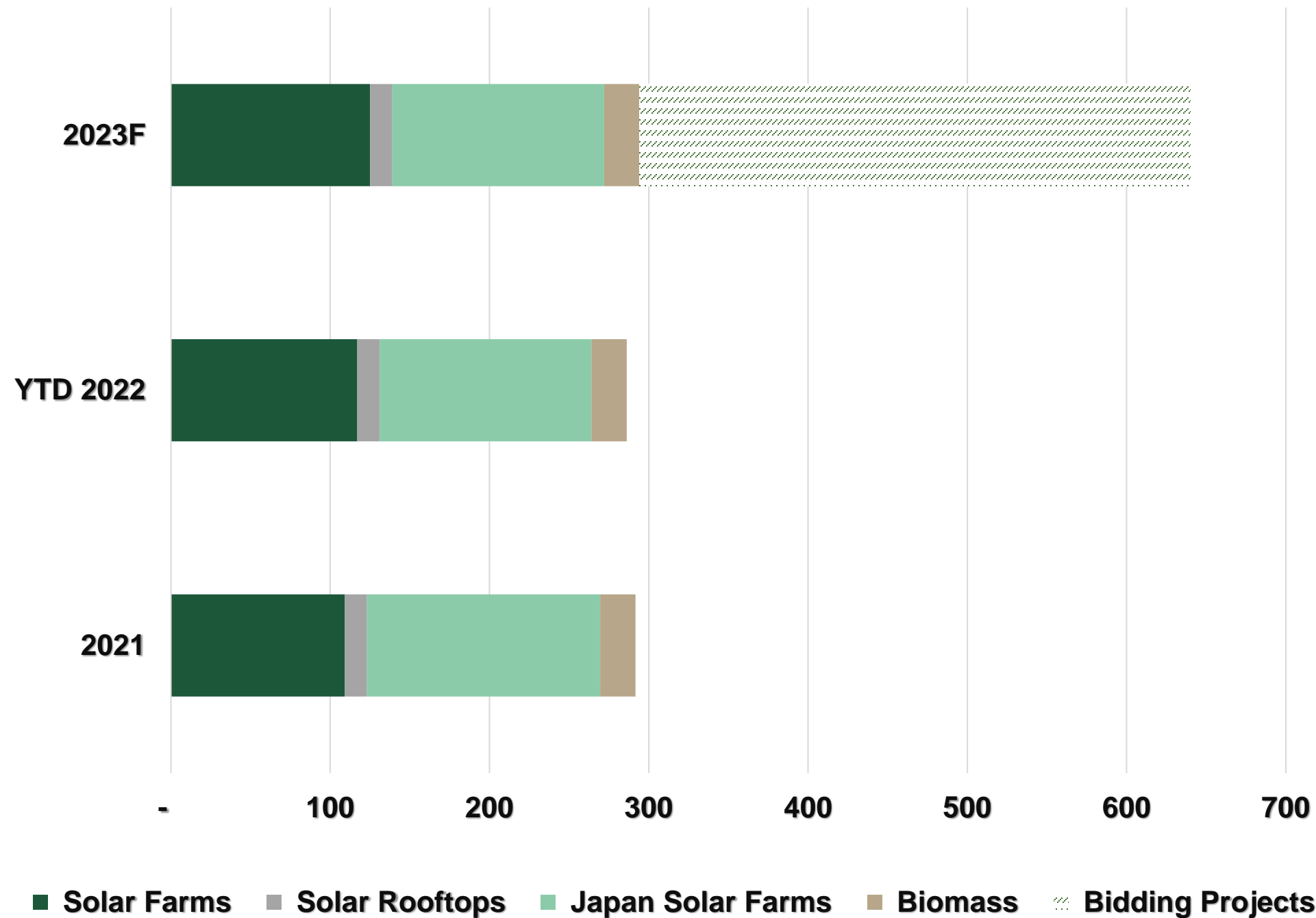


**Windfarm**



# CAPACITY GROWTH FORECAST

Growth from New Projects under PDP Plan Bidding



**Renewable Energy Projects  
under PDP Plan in FiT Format  
for the year 2024 – 2030F**

**SPP**

**Small Power Producer (10 – 90 MW)**

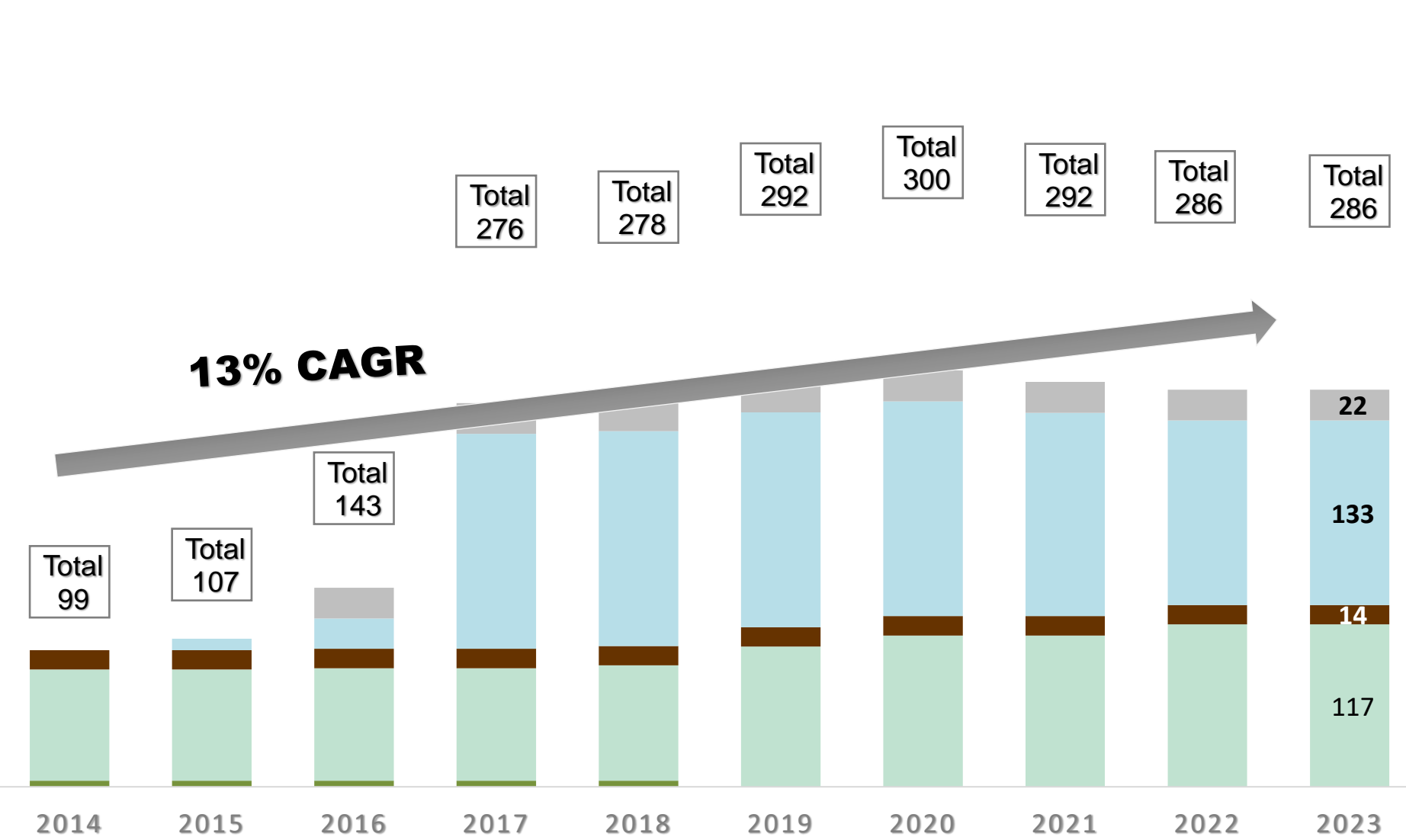
**VSPP**

**Very Small Power Producer (<10 MW)**

# CAPACITY GROWTH

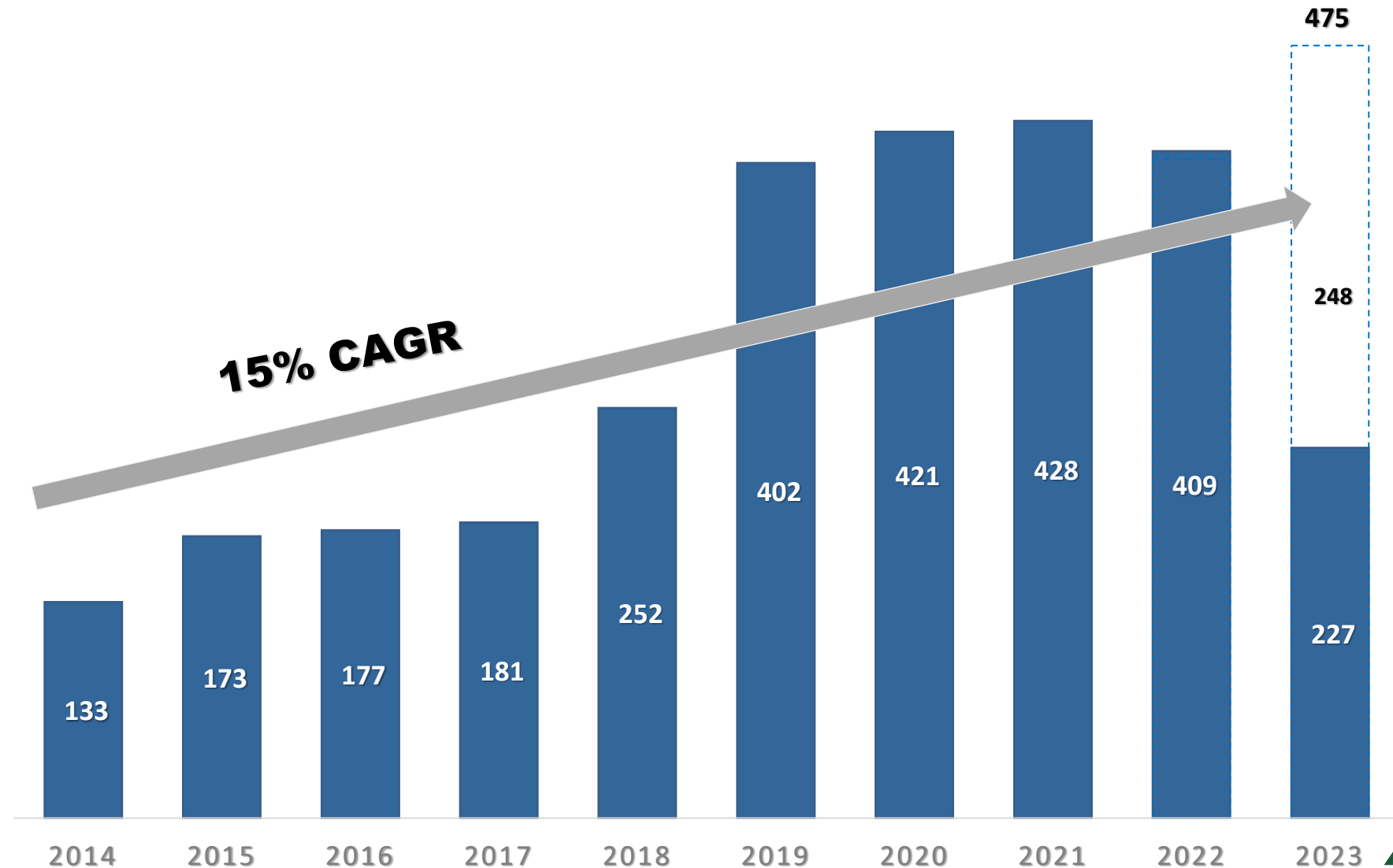
## ACQUIRE CAPACITY (MW PPA)

■ Thermal 
 ■ Solar Farms 
 ■ Solar Rooftops 
 ■ Japan Solar Farms 
 ■ Biomass 
 Total



## POWER OUTPUT PRODUCTION (MIL KWH)

■ Actual 
 □ Forecast



# THANK YOU

## Investor Relations

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