



Thai Solar Energy Public Company Limited

# OPPORTUNITY DAY

## Q1 2025

6 June 2025

# AGENDA

- O1**    **COMPANY OVERVIEW**
- O2**    **HIGHLIGHTS OF Q1 2025**
- O3**    **BUSINESS OUTLOOK**
- O4**    **Q&A**



# COMPANY OVERVIEW

Summary of Company Information




Thai Solar Energy Public Company Limited

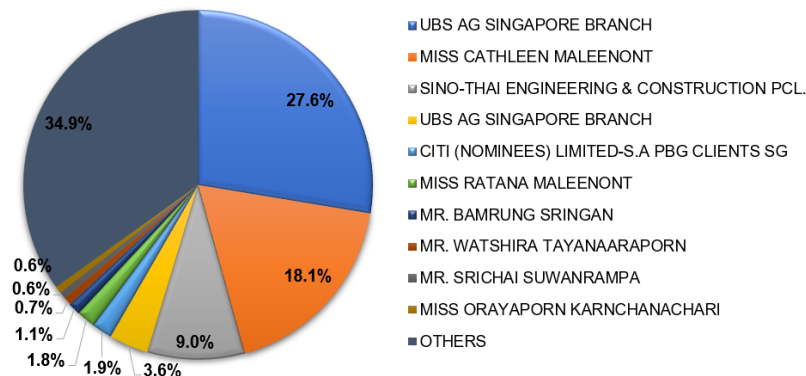
# COMPANY OVERVIEW

**Thai Solar Energy Public Company Limited (“TSE”)** was established in 2008 as a producer and supplier of renewable electricity from solar power and biomass to government and private companies. Our mission is to establish a strong presence in Thailand’s solar power industry, expand into other renewable energy sectors, and develop an international solar power business with a focus on the Asia and Oceania regions.

## Stock Information

Company:	Thai Solar Energy Public Company Limited
SET Symbol:	TSE
Listed in:	MAI on October 30, 2014 Moved to SET since May 14, 2019
Paid up Capital:	THB 2,117 million
Sector:	Energy & Utilities
Industry:	Resources
CG Score:	
Company Credit Rating (5 Mar 2025):	BBB “stable”

## Major Shareholders as of March 31, 2025



# TSE's Milestone



2008-2014

Solar Farms +  
Rooftops (TH)

- 2008: > Established TSE
- 2011: > Majority owned by Dr. Cathleen Maleenont
  - > COD Solar Thermal (4.5 MW)
- 2013: > COD 5 TH Solar PV Farms (40 MW) \*Partnership with GPSC (TSE 60%)
- 2014: > Listed in MAI on 31 OCT 2014 
  - > COD Solar PV TH 5 projects\* (40 MW)
  - \*Partnership with GPSC (TSE 60%)
  - > COD Solar Rooftop 5 Project (5 MW)

2015-2017

Solar Farms (JP) +  
Biomass (TH)

- 2015: > Expanded TSE's Business operation in Japan 
  - > COD a Solar PV JP (0.5 MW)
  - > COD 9 Solar Rooftop (9 MW)
- 2016: > COD a Solar PV "SLC" (1 MW)
  - > COD 4 Solar PV JP (6.5 MW)
- 2017: > Invested in 3 Biomass Projects 
  - > Invested in Mega Project in Japan "Onikoube"

2018-2019

Merger &  
Acquisition

- 2018: > COD Biomass 3 projects (22.2 MW)
  - > COD 2 JP Solar Farms (15 MW)
  - > Acquired new 4 TH Solar Farms (20 MW)
- 2019: > Move to SET on May 14, 2019 
  - > Capital Increase to 2,117.7 MB. completely in OCT 2019.

2020-2024

Private PPA

- 2020: > Acquire 2 TH Solar Farms (10 MW)
- 2021: > COD Floating Solar PV Project (8 MWp) since May 25, 2021
- 2023: > Awarded Solar Big Lot Phase 1 (7 Farms 92.96 MW)
- 2024: > Awarded Solar Big Lot Phase 2 (21 Farms 136.10 MW)
  - > Solar PV panel Replacement for Solar Farms and Rooftops

2025-Present

Expanding  
Investment

- 2025: > Bond repayment (debt restructuring) 1,200 MB.
  - > Divested SSE1 Solar Farms Project ( 80 MW)
  - > BSW acquired additional 0.6 MW with PEA (2 years)
  - > Acquired BIC, Expand in Health Business
  - > Expand to new Renewable Energy Business

# TSE'S PROJECTS

## TOTAL 62 PROJECTS AND CAPACITY 382.86 MWppa

### Solar PV Farms & Floating in TH

109 MWppa – 16 Farms  
8 MWppa – 1 Floating  
Total of 117 Mwppa- 17 Projects



### Solar PV Rooftops

14 MWppa – 14 Rooftops



### Biomass

22.80 MWppa – 3 Plants



*\*BSW acquired additional 0.6 MW contract with PEA (2 years)*

### Awarded New PPA Solar PV Farms in TH

229.06 MWppa – 28 Farms





# โครงการในประเทศไทย

## 109 MW โซลาร์ฟาร์ม



SSE-PV01 (8 MW)  
COD SEP 2013



SSE-PV02 (8MW)  
COD JUL 2013



SSE-PV03(8MW)  
COD OCT 2013



SSE-PV04(8MW)  
COD NOV 2013



SSE-PV05(8MW)  
COD NOV 2013



SSE-PV06(8MW)  
COD JUN 2014



SSE-PV07(8MW)  
COD MAR 2014



SSE-PV08(8MW)  
COD JUN 2014



SSE-PV09(8MW)  
COD APR 2014



SSE-PV10(8MW)  
COD MAY 2014



INS (2MW)  
COD DEC 2015



SSP (8MW)  
COD MAR 2013



SLC(1MW)  
COD DEC 2016



BSS (5MW)  
COD DEC 2016



Mars (5MW)  
COD DEC 2018



SCT (8MW)  
COD DEC 2015



# โครงการในประเทศไทย

## 8 MW โซลาร์ฟาร์มบนน้ำ (Private PPA)



### ข้อมูลโครงการ

ดำเนินการโดย : บริษัท สยาม ธารา โฟลตติ้ง จำกัด  
ที่ตั้งโครงการ: นิคมอุตสาหกรรมภินทรบุรี (KIZ)

กำลังไฟฟ้าเสนอขาย: 8 MW

COD: 25 พ.ค. 2021

รูปแบบสัญญา: Private PPA อายุสัญญา 25 ปี

คู่สัญญา: บริษัท อาร์เชลิก อิตาชี โอม แอปพลายแอนซ์ จำกัด





# โครงการในประเทศไทย

## 14 MW โซลาร์บนหลังคา



RT-01 Lopburi  
COD SEP 2014



RT-02 Phrae  
COD FEB 2015



RT-03 NakornSawan  
COD JUN 2015



RT-04 Chumporn  
COD SEP 2014



RT-05 SuratThani  
COD DEC 2014



RT-06 Nakhon Si Thammarat  
COD JUL 2015



RT-07 HatYai  
COD OCT 2015



RT-08 Ubon Ratchathane  
COD MAR 2015



RT-09 KhaoYai  
COD NOV 2014



RT-10 Ekamai-Ramindra  
COD FEB 2015



RT-11 Ratchapruk  
COD NOV 2014



RT-12 Thapra  
COD JUL 2015



RT-13 Bangkok  
COD JUL 2015



RT-14 Ngamwongwan  
COD AUG 2015



# โครงการในประเทศไทย

22.80 MW โรงไฟฟ้าพลังงานชีวมวล



**BSW (4.6+0.6 MW\*)**



**OSW1 (8.8 MW)**



**OSW2 (8.8 MW)**

รายละเอียด / โครงการ

**BSW**

**OSW Project #1 & 2**

ดำเนินการโดย: บริษัท บางสวรค์ กรีน จำกัด  
กำลังการผลิตติดตั้ง/เสนอขาย: 6.0 MWp/ 5.2 MWppa  
อายุสัญญา: 20 ปี  
ที่ตั้งโครงการ: สุราษฎร์ธานี  
COD: มีนาคม 2018

บริษัท ออสการ์ เซฟ เดอะ เวิร์ล จำกัด (โครงการ 1 & 2)  
19.8 MWp/ 17.6 MWppa  
15 ปี 4 เดือน  
นครศรีธรรมราช  
OSW1 - สิงหาคม 2018  
OSW2 - ตุลาคม 2018

# HIGHLIGHTS OF Q1 2025



Thai Solar Energy Public Company Limited

# KEY ACTIVITIES IN Q12025

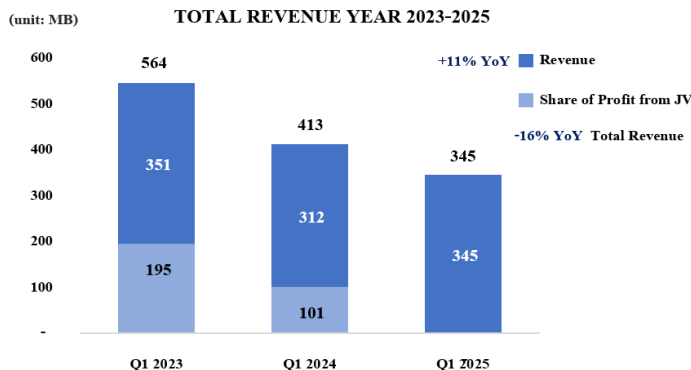


# INCOME STATEMENT

## Q1 2025

TSE - Consolidated	Q12025	Q12024	Change
			Δ YoY (%)
Revenue from sales and service	312	282	11%
Subsidy for FiT Premium	14	13	5%
Management service fee income	20	17	16%
<b>Total revenue</b>	<b>345</b>	<b>312</b>	<b>11%</b>
COGS	(225)	(203)	11%
<b>Gross profit</b>	<b>120</b>	<b>109</b>	<b>10%</b>
SG&A	(30)	(34)	-12%
<b>Operating profit</b>	<b>90</b>	<b>74</b>	<b>21%</b>
Other income	4	2	55%
Other gains (losses)	17	(6)	381%
<b>EBIT</b>	<b>111</b>	<b>71</b>	<b>57%</b>
Finance cost	(56)	(75)	-25%
Share of profit from investment in joint ventures	-	101	-100%
<b>Profit before income tax</b>	<b>55</b>	<b>97</b>	<b>-44%</b>
Income tax revenue	11	1	1846%
<b>Profit for the period</b>	<b>65</b>	<b>97</b>	<b>-33%</b>
Depreciation & Amortization	(76)	(80)	-4%
<b>Normalized EBITDA</b>	<b>187</b>	<b>150</b>	<b>24%</b>

# TOTAL REVENUE AND EBITDA OF Q1 2025

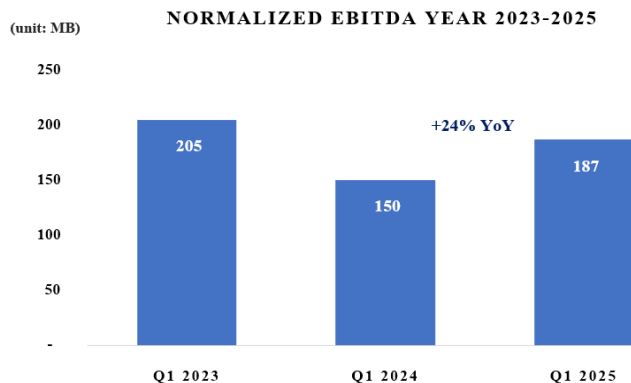


## TOTAL REVENUE AND SHARE OF PROFIT FROM JV

The Group's revenue for YE2025 was THB 345 million, an increase of THB 33 million or 11% THB 312 million in the previous year, driven by strong performance of solar and biomass power plants, solar module replacement, and new revenue from the healthcare business.

However, there was no share of profit in 2025, compared to THB 101 million in Q1 2024, due to the divestment of the SSE1 project, which aligns with the Group's strategic portfolio optimization.

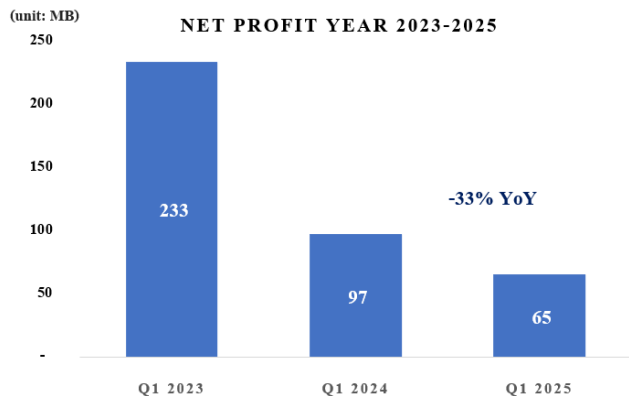
Therefore, the Group's total revenue in Q1 2025 was THB 345 million, representing a decrease of THB 68 million or 16% compared to THB 413 million in Q1 2024. Looking ahead in 2025, the Group is actively bidding for new projects to generate income and enhance profitability.



## NORMALIZED EBITDA

The Group reported EBITDA from normal operations of THB 187 million, an increase of THB 37 million or 24% from THB 150 million in the same period of the prior year, driven by higher sales, service income, and other income.

# NET PROFIT & EPS OF Q1 2025

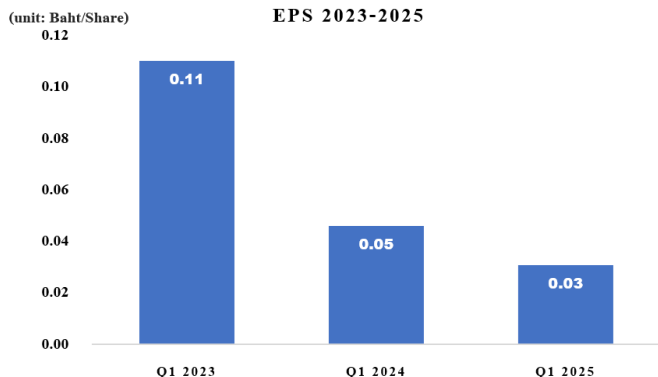


## NET PROFIT OF Y2023 - Y2025

The group's net profit of Q1 2025 was 65 MB., a decrease of 32 MB. or 33% from the same period last year.

However, excluding the share of profit from joint ventures in Q1/2024 amounting to THB 101 million, the Company's operating profit improved significantly.

It shifted from a loss of THB 4 million in the previous year to a profit of THB 65 million in Q1/2025, reflecting a 17% increase from core operations attributable solely to the Company.



## EPS OF Y2023 - Y2025

The Group's EPS for Q1 was 0.03 THB per share, a slightly decrease from 0.05 THB per share in Q1 2024.

The primary reason for this decline was the reduction in the share of profit from joint ventures.

# D/E RATIO AND ROE OF Q1 2025

## D/E RATIO

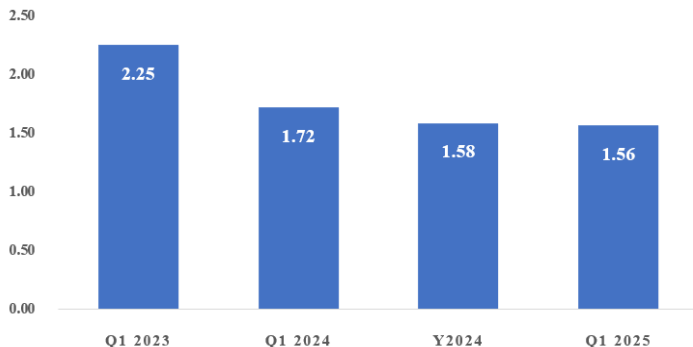
The D/E ratio of Q1 2025 decreased to 1.56 times, a reduction of 0.02 times from 1.58 times at from YE 2024.

This reduction in the D/E ratio is due to the successful early redemption of debentures and long-term loans from financial institutions. With this improved financial position, the Group is well-positioned to secure funding from financial institutions.

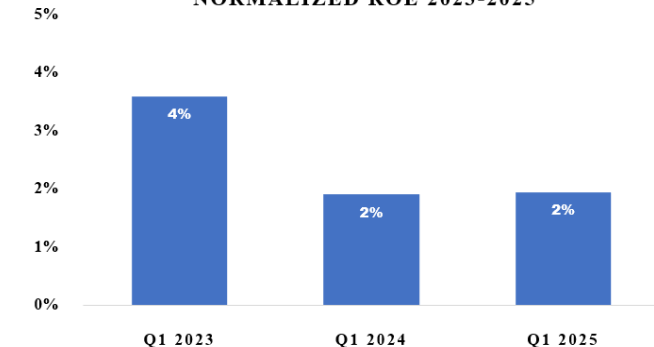
## NORMALIZED ROE

Normalized ROE in Q1 2025 slightly decreased to 2 % from 3% in Q1 2024 due to a decline in normalized net profit. The calculation excludes one-time transactions.

(unit: time) **D/E RATIO YEAR 2023-2025**



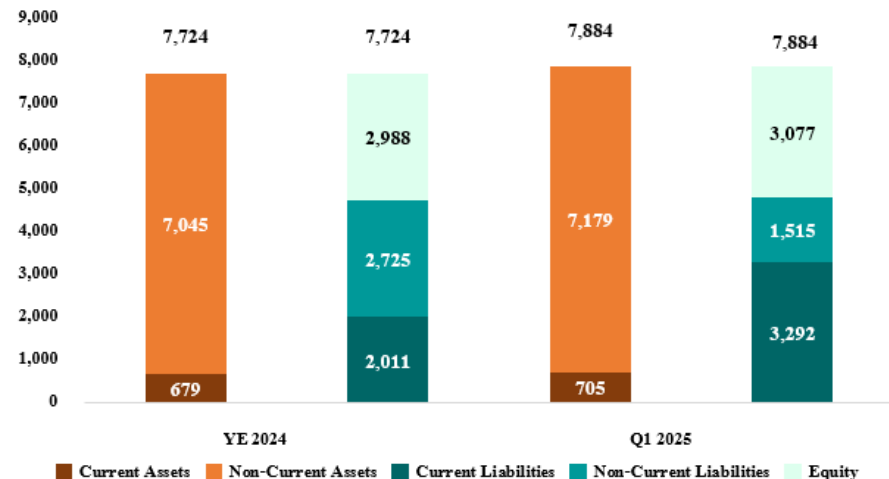
(unit: percent) **NORMALIZED ROE 2023-2025**



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

# FINANCIAL POSITION OF Q1 2025

unit : MB.



## TOTAL ASSETS +2%

As of March 31, 2025, the Group's total assets were THB 7,884 million, an increase of THB 160 million or 2% from THB 7,724 million as of December 31, 2024. The primary reasons were the increase in assets resulting from the acquisition of a subsidiary in the healthcare business, and the reversal of impairment losses on land, buildings, and equipment, following the reinstatement of these assets for use in the selected Solar Big lot project.

## TOTAL LIABILITIES +2%

As of March 31, 2025, the Group recorded total liabilities of THB 4,807 million, an increase of THB 72 million or 2% from THB 4,736 million as of December 31, 2024. The increase was primarily due to the acquisition of a subsidiary in the healthcare business and the rise in short-term borrowings from financial institutions.

## EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT +3%

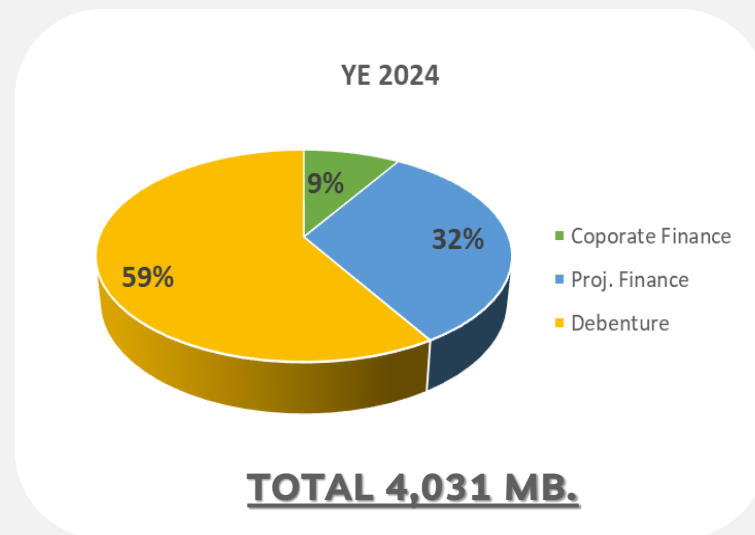
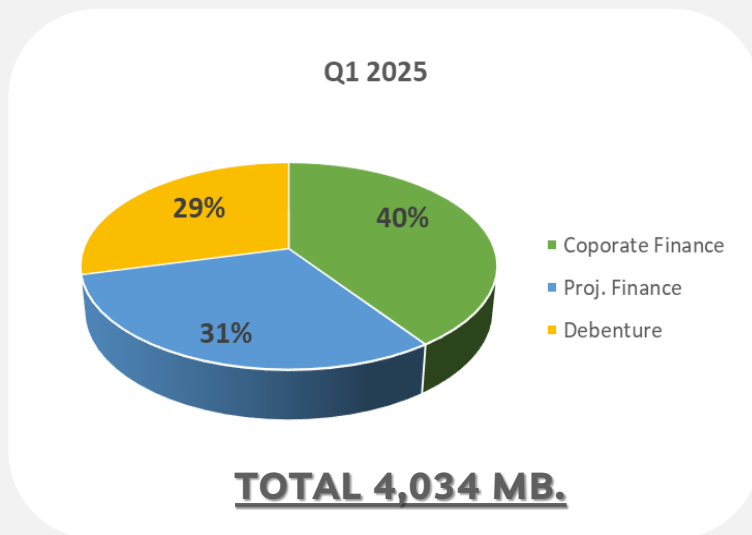
As of March 31, 2025, the Group's total shareholders' equity amounted to THB 3,077 million, an increase of THB 89 million or 3% from THB 2,988 million as of December 31, 2024. This was attributable to the acquisition of a subsidiary in the healthcare business and the increase in retained earnings.

## FINANCIAL POSITION

	Q1 2025	YE2024	+/- (%)
Assets	7,884	7,724	2%
Liabilities	4,807	4,736	2%
Equities*	3,077	2,988	3%

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

# INTEREST BEARING DEBT OF Q12025 & YE2024



## INTEREST BEARING DEBT

Most of the Group's Interest bearing debt (IBD) was from **Corporate Finances**, with the proportion of debenture to IBD in Q1 2025 **increasing by 31%** from 9% in YE2024 to 40%, due to the increasing of short-term borrowings from financial institutions.

The remaining of interest bearing debt was from **Project Finances** and **Debentures** was 91% in YE2024 to 60% in Q12015, which **decreasing by 31%**, due to an increase in corporate finances.

The ratio of interest-bearing debt to equity was 1.31 times in Q1 2025, **decrease** from 1.35 times at year-end 2024, reflecting **an increase in company's equity**.

# BUSINESS OUTLOOK

Summary of TSE's Business Plan



Thai Solar Energy Public Company Limited

The background of the slide is a photograph of a large-scale solar farm. Rows of blue photovoltaic solar panels are mounted on metal frames in a grassy field. In the distance, there are rolling green hills under a clear, bright blue sky. A small white building is visible among the solar panels on the right side.

# **TRENDS & OPPORTUNITIES**

# ปริมาณการจำหน่ายไฟฟ้าพลังงานหมุนเวียนมีแนวโน้มเติบโตในปี 2568

ความต้องการไฟฟ้าหมุนเวียนจากภาครัฐคาดว่าจะขยายตัวราว 2% ขณะที่ภาคเอกชนเพิ่มขึ้นมากถึง 15% (รูปที่ 2 และ 3)

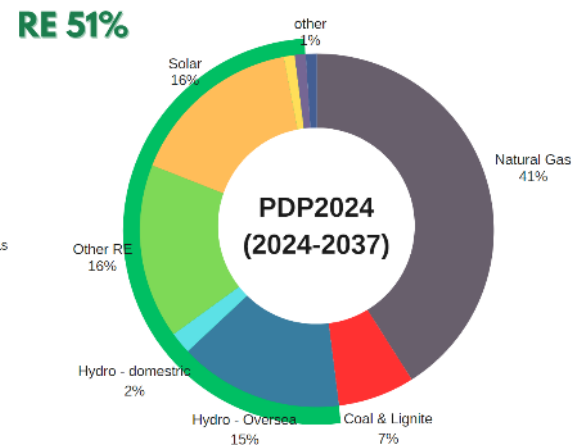
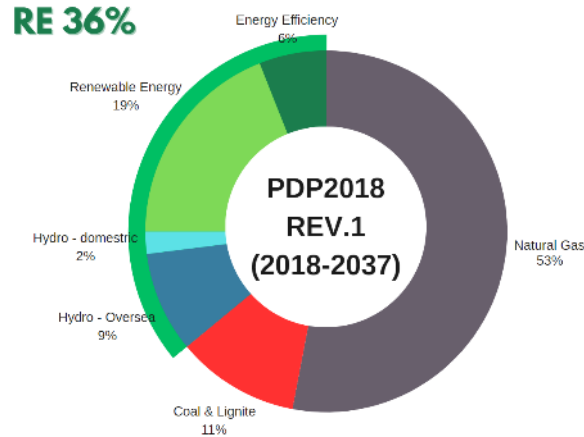
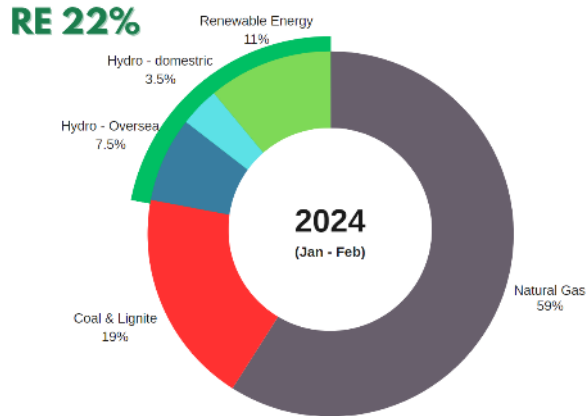


ในปี 2568 ปริมาณไฟฟ้าพลังงานหมุนเวียนที่ขายให้ภาครัฐ คาดว่าจะอยู่ที่ 23,555 GWh (รูปที่ 2) เพิ่มขึ้นจากการส่งเสริมทางด้านนโยบายภาครัฐ โดยจะมีโรงไฟฟ้าพลังงานหมุนเวียนที่เริ่มจ่ายไฟฟ้าเข้าสู่ระบบเพิ่มเติมรวมเป็นจำนวน 226.9 MW จากปริมาณขายตามสัญญา ประกอบด้วยโรงไฟฟ้าพลังงานแสงอาทิตย์ 8 แห่ง และโรงไฟฟ้าพลังงานขยะ 3 แห่ง

# TRENDS & OPPORTUNITIES OF RENEWABLE ENERGY IN THAILAND

## Pathway to Thailand's new PDP2024

The Energy Policy and Planning Office (EPPO) of the Ministry of Energy has announced a public hearing for PDP2024 and AEDP2024, scheduled from June 19 to 23, 2024. According to the draft PDP2024, the plan aims to increase the proportion of renewable and alternative energy to 50% by 2037, up from the 30% target set in PDP2018 Rev.1.



Note 1) Ref. Draft PDP2024 by The Energy Policy and Planning Office (EPPO) of the Ministry of Energy

# TRENDS & OPPORTUNITIES OF RENEWABLE ENERGY IN THAILAND

## The Promotion of Renewable Energy under AEDP2018 – Electricity Sector

In 2022-2023, ERC had released regulation to procure Electricity from Renewable Energy using Feed-in-Tariff (FiT) Scheme for 2024-2030. The total capacity is equal to 8,871 MW, which split into 2 phases as following:

Phase 1 - SCOD	2024	2025	2026	2027	2028	2029	2030	Total
<b>Solar Energy</b>								
Solar Farm	190	290	258	440	490	310	390	2,368
Solar Farm + BESS	100	100	100	100	200	200	200	1,000
<b>Wind Energy</b>		250	250	250	250	250	250	1,500
<b>Biogas Energy</b>			75	75	75	70	40	335
<b>Grand Total</b>	<b>290</b>	<b>640</b>	<b>683</b>	<b>865</b>	<b>1,015</b>	<b>830</b>	<b>880</b>	<b>5,203</b>

**Phase 1: 5,203 MW**

Status: **Completed**

**TSE acquired 88 MWppa under New FiT Scheme (Phase 1)**

Phase 2 - SCOD	2024	2025	2026	2027	2028	2029	2030	Total
<b>Solar Energy</b>								
Solar Farm			232	200	600	800	800	2,632
Wind Energy					200	400	400	1,000
<b>Biogas Energy</b>			7					7
<b>Industrial Waste</b>			30					30
<b>Grand Total</b>			<b>269</b>	<b>200</b>	<b>800</b>	<b>1,200</b>	<b>1,200</b>	<b>3,669</b>

**Phase 2: 3,669 MW**

Status: **To be updated**

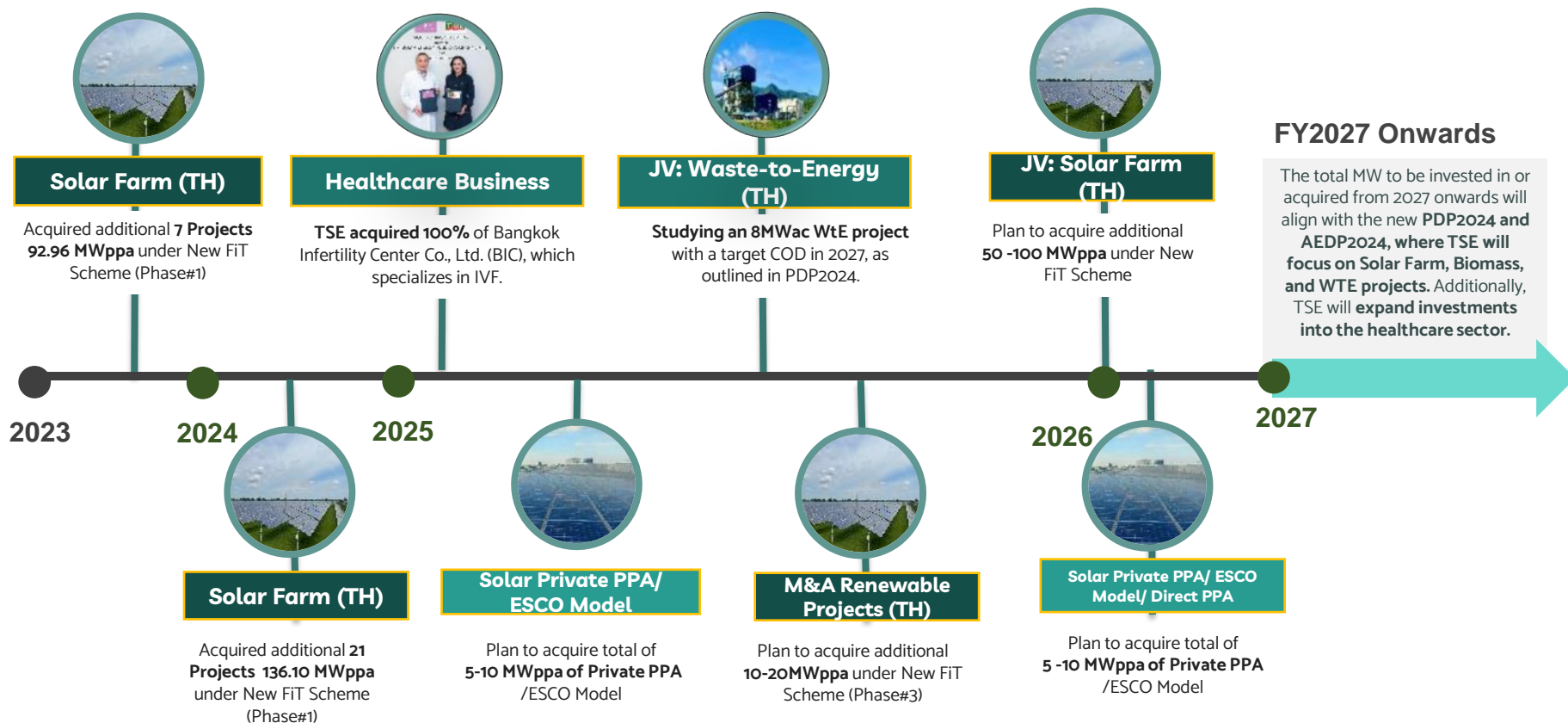
**TSE awarded additional 136.10 MWppa under Phase 2**  
Commercial electricity sales for these projects are scheduled between 2027 and 2030.

Note:

- To be updated PPA status by the 2<sup>nd</sup> quarter of 2025

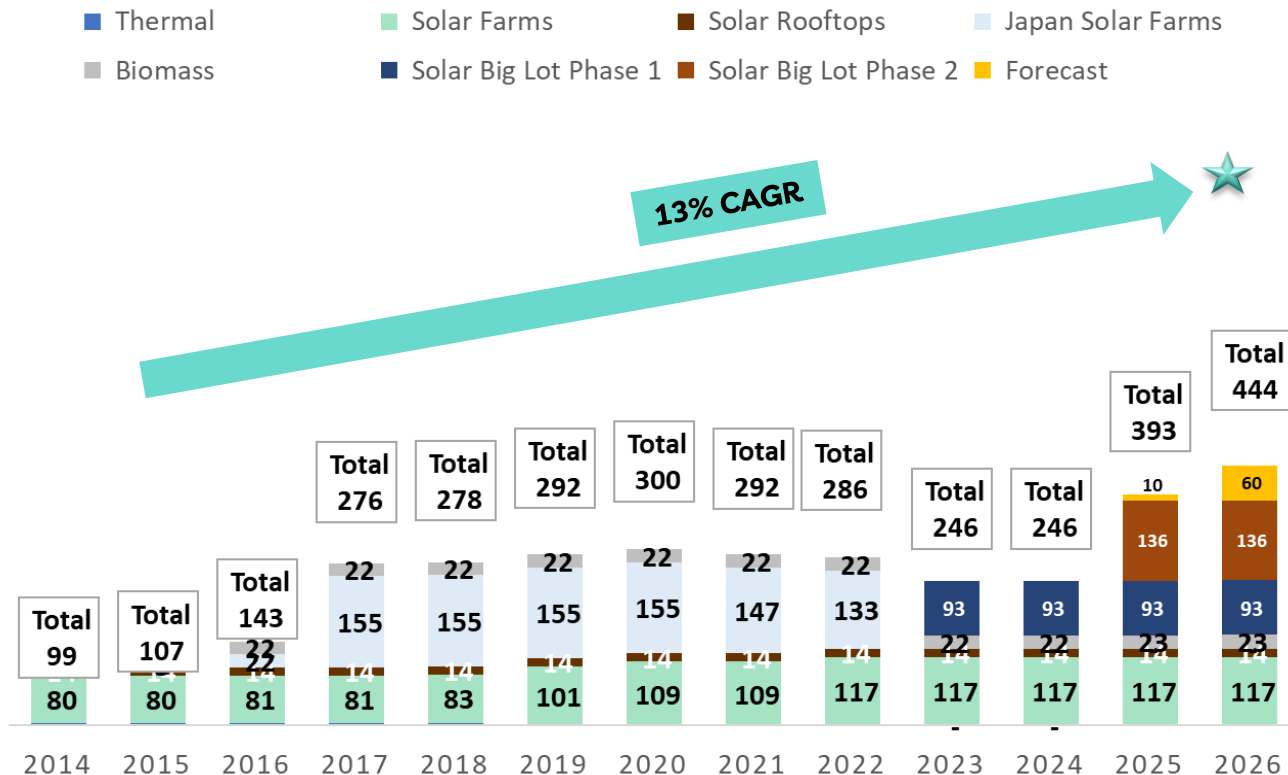
# BUSINESS PLAN : GROWTH & INVESTMENT

## 3 YEARS INVESTMENT PLAN (FY2025-2027)



## CAPACITY GROWTH

### ACQUIRE CAPACITY (MW PPA)



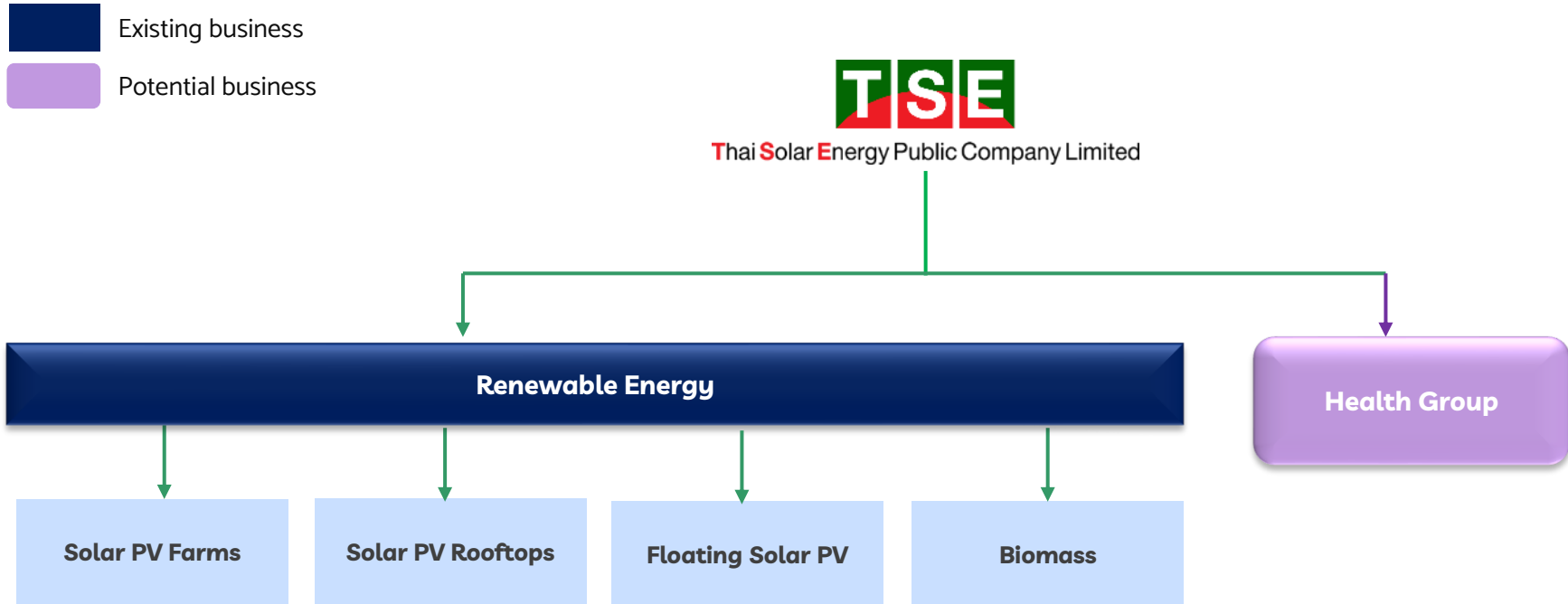
# BUSINESS PLAN : GROWTH & INVESTMENT



## HEALTH & WELLNESS – BUSINESS DIVERSIFICATION

### *TSE's Strategic Direction*

The acquisition serves as preliminary step towards TSE's new strategic direction to become a sustainability business





MOU SIGNING CEREMONY  
Between  
SOLAR ENERGY PUBLIC COMPANY LIMITED  
And  
VIWAT CHINPILAS, M.D.

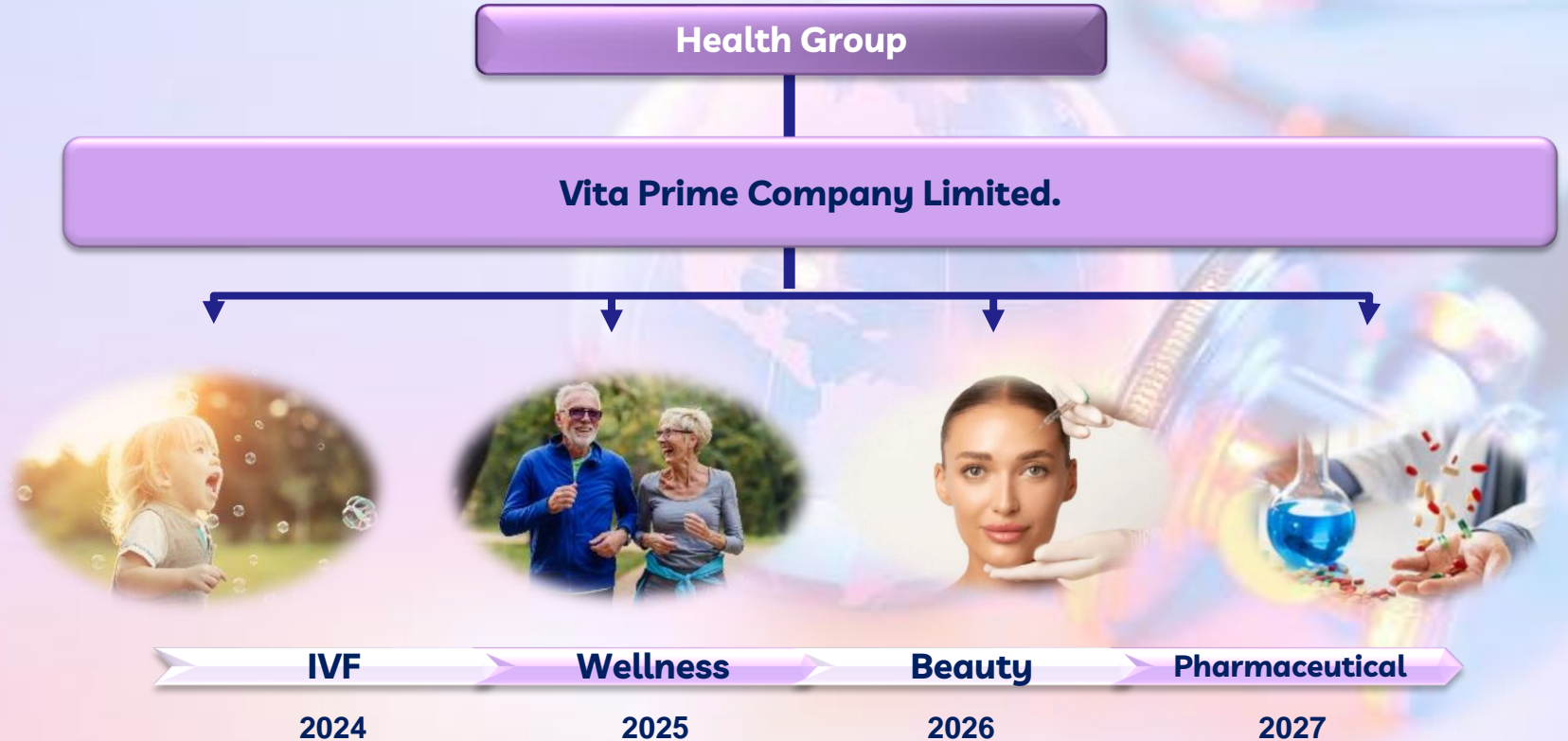


# Healthcare Business

- On 3 January 2025, TSE completed the acquisition of 100% of **Bangkok Infertility Center Co., Ltd. (BIC)**, which specializes in obstetrics, gynecology, and infertility treatment (Bangkok IVF Center Clinic), and subsequently changed the company name to **Vita Prime Company Limited**.
- Revenue recognition begins in Q1 2025.
- Company also plans to grow into the **beauty, wellness, and pharmaceutical sectors**, aiming to step forward in these industries in the near future.

# HEALTH & WELLNESS – GROWTH PLAN

*Health Group Area Opportunity*



# KEY SUCCESS FACTOR AND PARTNERSHIP WITH EXTERNAL EXPERT

Well Established Achievement with Existing Footprint in Thailand

Well Accumulated Experience & Expertise Team  
of Renewable Energy Business in Various Countries



Strong Relationship with Partners & Suppliers



Strong Relationship with Leading Financial Institutions



High Credibility as a Listed Company on the Stock Exchange of Thailand.



# Q&A





Thai Solar Energy Public Company Limited

# THANK YOU

## Investor Relations

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