



**SPCG**  
Public  
Company  
Limited

**SPCG Public Company Limited:** THE PIONEER OF SOLAR FARM AND  
SOLAR ROOF DEVELOPER IN THAILAND AND ASEAN COMMUNITY



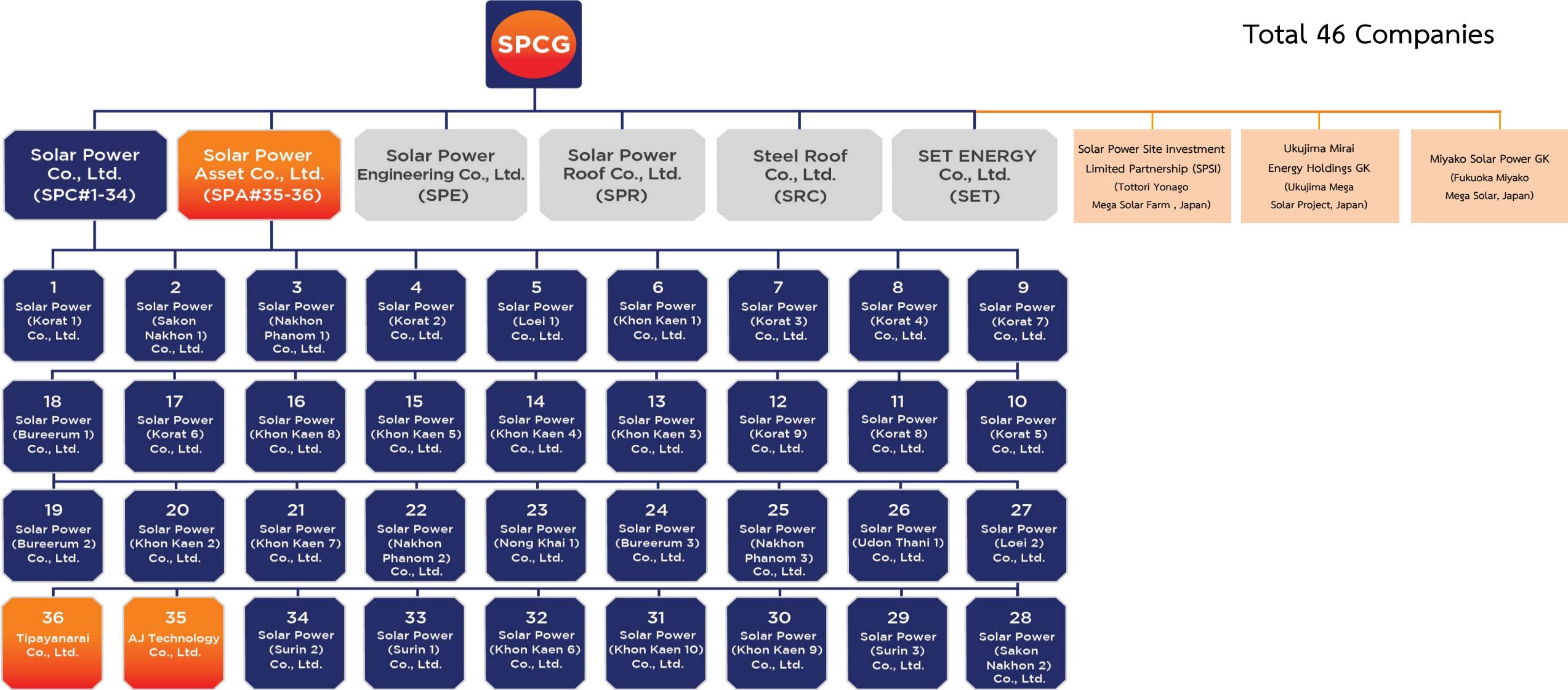
# Operating Result – Quarter 4/2021





# CORPORATE STRUCTURE





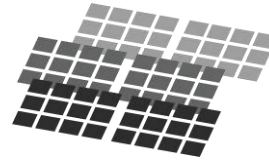
# SPCG Timeline



Acquiring  
36 PPAs,  
260 MW

Government  
of Thailand

SPCG listed in the  
Stock Exchange of  
Thailand  
(Backdoor listing)



SPCG Completed  
36 Solar farms  
260 MW

Expanded investment  
480 MW in Ukujima,  
Japan (≈2,600 MB)  
(1<sup>st</sup> & 2<sup>nd</sup> injection :  
1,268 MB)

SPCG targeted solar  
energy production in  
2050 not less than  
2,000 MW

2007 > 2009 > 2010 > 2011 > 2013 > 2014 > 2018 > 2020 > 2021 > 2050

Announced target of  
Solar PV 500 MW with  
Adder policy, first time  
in Thailand & ASEAN

Successfully  
developed first  
Solar Farm of  
6 MW in Thailand  
& ASEAN

Being pioneer of  
Solar Roof  
business in  
Thailand & ASEAN

Expanded  
investment 30  
MW in Tottori,  
Japan

Expanded investment  
500 MW in Eastern  
Economic Corridor  
Special Development  
Zone ("EEC")  
(≈23,000 MB)

Expanded investment  
67 MW in Fukuoka,  
Japan (≈ 95 MB)

# Business Overview

## Solar Farm



Investment and development of Solar Farm / Engineering, Procurement and Construction (EPC) / Operation, Maintenance and Monitoring (OM&M)

## Solar Roof



Full service in the design and installation of solar roof systems.

## Steel Roof



Steel Roof and Roof Structure with one-stop service

## SMA Sales & Service Authorized Partner



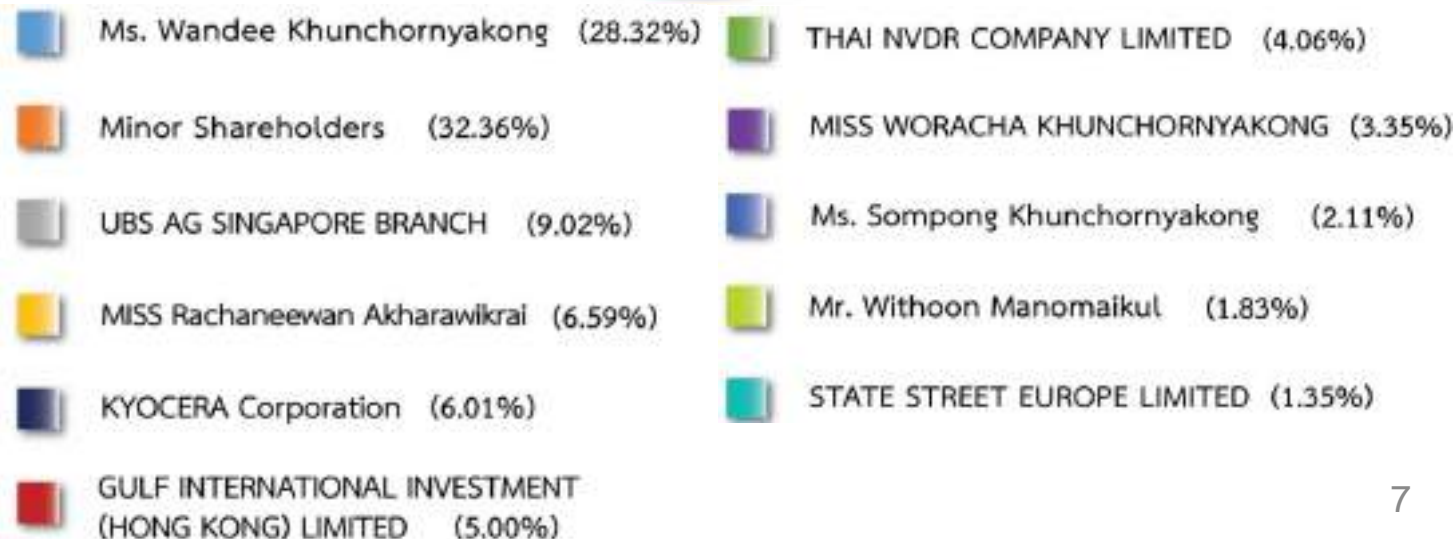
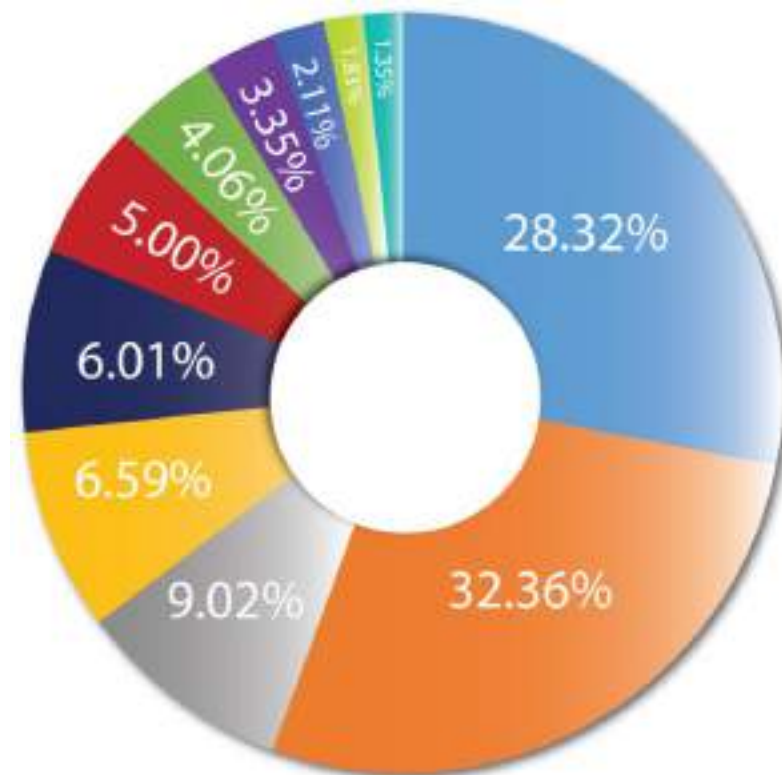
Authorized Sales and Service Partner of SMA Solar Technology AG (SMA), Germany



# STOCK INFORMATION



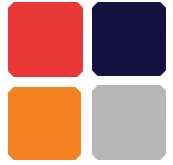
Stock	SPCG
Market	SET
Industry	Resources
Sector	Energy & Utilities
First Trade Date	December 20, 2005
Authorized Capital	1,153,189,000.00 Baht
Paid-up Capital	1,055,790,000.00 Baht
Major Shareholders	67.64 % (Record date on August 30, 2021)
Minor Shareholders	32.36 % (Record date on August 30, 2021)
Dividend Policy	Not less than 40 percent of net profit of the separate financial statement after legal reserve in compliance with the company regulations and laws (with additional conditions)





# SOLAR FARM BUSINESS





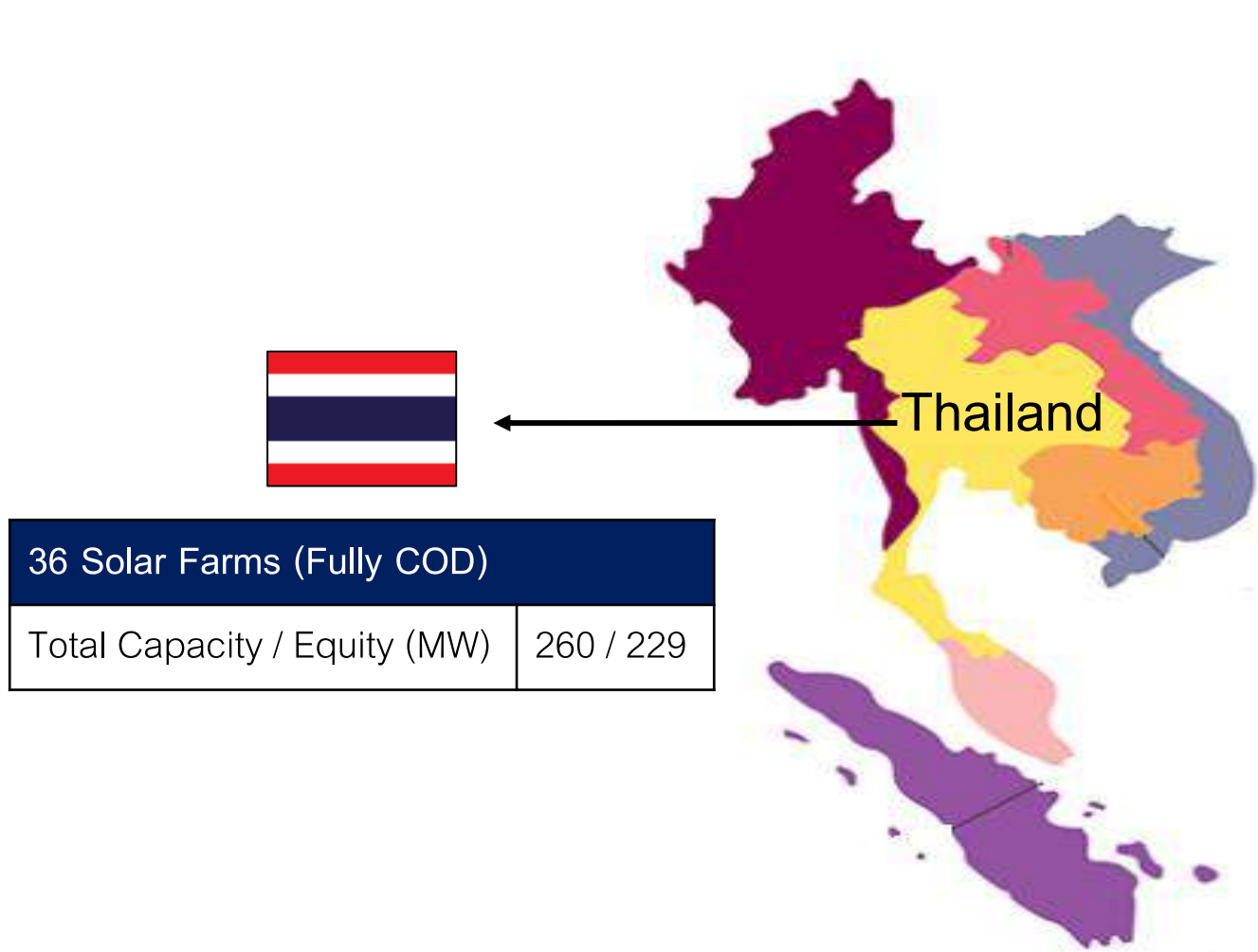
# Benefits

## Solar Farm Business

- Renewable resource and energy security.
- Reduces carbon dioxide emissions which is the cause of global warming.
- Low maintenance costs, highly efficient and sustainability of solar panels of Kyocera, Japan with 25 years warranty.
- All our solar farms are supported by government sector, **Adder rate**.



# Solar Farms - Total Capacity

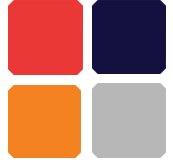


36 Solar Farms (Fully COD)	
Total Capacity / Equity (MW)	260 / 229



1. Tottori (Fully COD)	
Total Capacity / Equity (MW)	30 / -
2. Ukujima (Developing)	
Total Capacity / Equity (MW)	480 / 86
3. Fukuoka Miyako Mega Solar	
Total Capacity / Equity (MW)	67 / 6.7

Remarks:  
Tottori Project recognize income in the form of dividend from land leasing.



# Solar Farm in Thailand

- Pioneer and leading developer of the first solar farm project in Thailand and ASEAN community.
- 36 solar farms in Thailand, 260 MW
  - Commercial Operation Date (COD) to Provincial Electricity Authority (PEA) since mid 2014.
  - Adder rate at 8 THB/kWh for 10 years.
  - In 2020, 36 solar farms generated up to 385.8 Million units.

## Northeast Region

### 9 Provinces

- Nakhon Ratchasima
- SakonNakhon
- Nakhon Phano
- Khonkaen
- Buriram
- Surin
- Nongkhai
- Udonthani
- Loei

## Central Region

### 1 Province

- Lopburi



# 1<sup>st</sup> Solar Farm in Thailand and ASEAN (Korat 1,2)



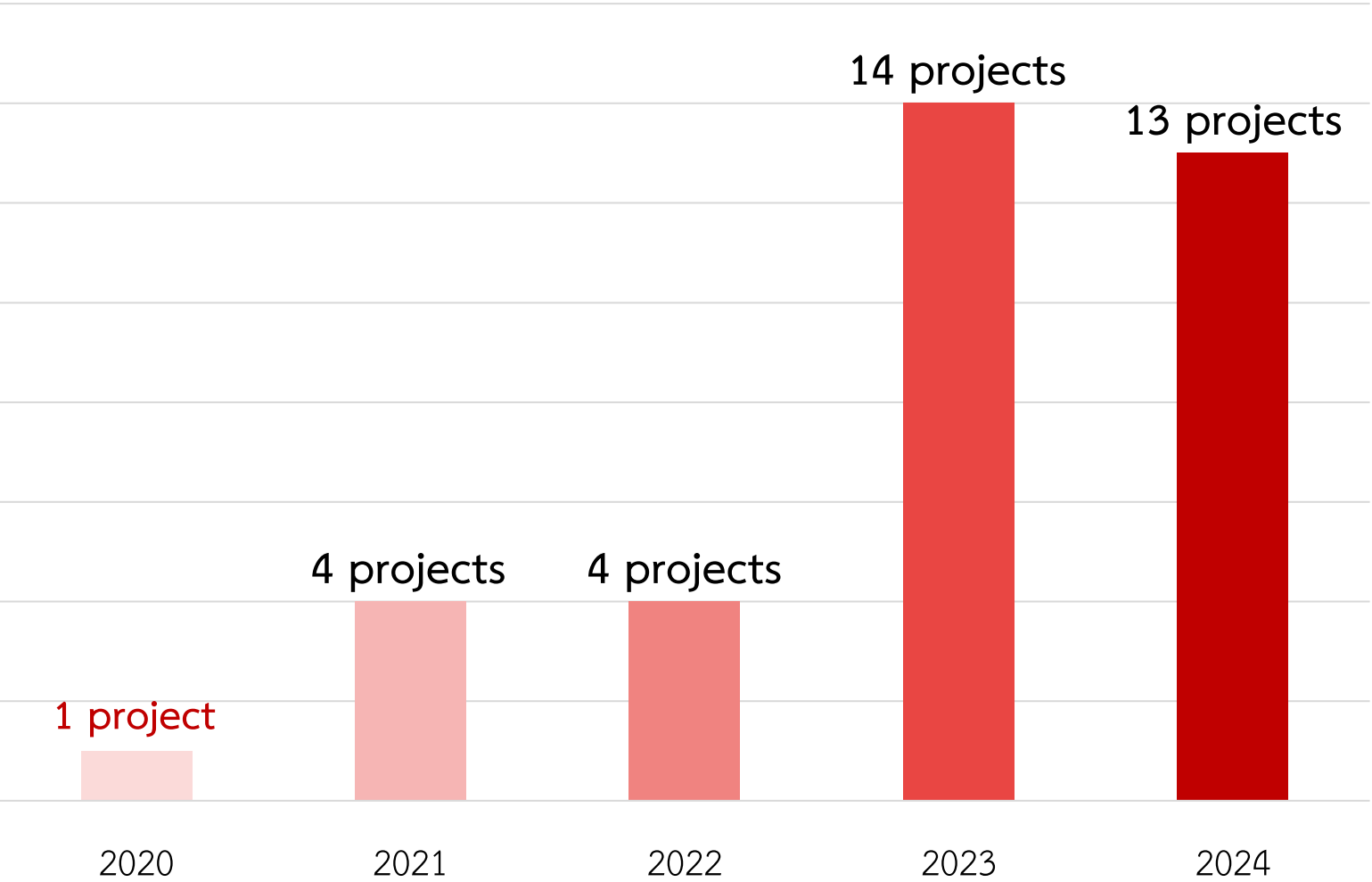
## Solar Farm (Korat 5,8)

# Monitoring Room





# Phase-Out of Adder

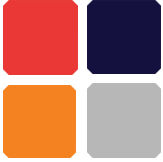


Remark: Total Capacity 260 MW



# SOLAR FARM PROJECTS IN JAPAN





# Solar Farms in Japan

**UKUJIMA (480 MW)**  
COD: July 2024  
Co<sub>2</sub> Reduction (25yrs):  
> 8,500,000 tCo<sub>2</sub>eq

**TOTTORI (30 MW)**  
COD: April 2018  
Co<sub>2</sub> Reduction (25yrs):  
> 500,000 tCo<sub>2</sub>eq

Developing

Operating

Developing

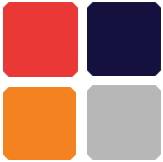
**MIYAKO (23 MW)**  
COD: North Phase - Jul 2021  
Co<sub>2</sub> Reduction (25yrs):  
> 400,000 tCo<sub>2</sub>eq

**MIYAKO (44 MW)**  
South Phase - Feb 2023  
Co<sub>2</sub> Reduction (25yrs):  
> 800,000 tCo<sub>2</sub>eq



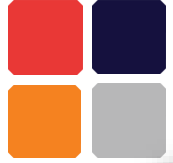
# TOTTORI YONAGO MEGA SOLAR FARM





# Tottori Yonago Mega Solar Farm

Total Capacity	30 MW
Construction Site	Tottori, Japan
Partners	<ul style="list-style-type: none"><li>• SPCG Public Company Limited <u>(79.10%)</u></li><li>• Kyocera Corporation, Japan</li><li>• Tokyo Century Leasing Corporation (TCL)</li></ul>
Power Purchase Rate	FiT 36 Yen / Unit
Contract Period	20 years
Purchaser of Electricity	Chugoku Electric Power Co., Ltd.
Commercial Operation Date (COD)	April 2018



# Tottori Yonago Mega Solar Farm



## Tottori Yonago Mega Solar Farm in Japan, 30 MW

- Commercial Operation Date (COD) to Chugoku Electric Power Co., Ltd. in April 2018
- Power purchase agreements at 36 yen/unit for 20 years
- Dividend yield
  - In 2018 : 1.6%      - In 2019 : 7.2%      - In 2020 : 6.1% - In 2021 : 7.8 %



# UKUJIMA MEGA SOLAR PROJECT

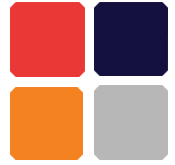




# Ukujima Mega Solar Project

Total Capacity	480 MW
Construction Site	Ukujima island, Sasebo city, Nagasaki prefecture (located at the west coast of Kyushu, Japan )
Partners	<ul style="list-style-type: none"><li>• SPCG Public Company Limited (17.92%)</li><li>• Kyocera Corporation</li><li>• Kyudenko Corporation</li><li>• Tokyo Century Corporation</li><li>• Furukawa Electric Company Limited</li><li>• Tsuboi Corporation</li><li>• Chiyoda-gumi</li><li>• Smart Energy</li><li>• Newstar Communications</li></ul>
Power Purchase Rate	FiT 40 Yen / Unit
Contract Period	17 years 3 months
Purchaser of Electricity	Kyushu Electric Power Co., Inc.

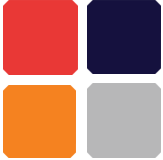




# Ukujima Mega Solar Project

Construction Period	2019 - 2024
Commercial Operation Date (COD)	July 2024
Total Project Cost	JPY 178,758 Million (Approx. THB 51,247 Million) (Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)
SPCG Investment Budget	JPY 9,000 Million (Approx. THB 2,580 Million) (Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)
D/E ratio	Debt 70 : Equity 30
Forecasted 2025 Revenue (Holding Company)	JPY 3,025 Million (Approx. THB 867 Million) (Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)
Forecasted 2025 Dividend (SPCG Proportion : 17.92%)	JPY 980 Million (Approx. THB 281 Million) (Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)





# 1. Injection Timeline

With the evidence of Confirmed Loan Almont and Loan Agreement only.



Around OCT 2022

Mar 2020

JPY 2,289 M.  
THB 686 M.

Paid

May 2020

JPY 1,924 M.  
THB 582 M.

Paid

JPY 4,759 M.  
THB 1,364 M.

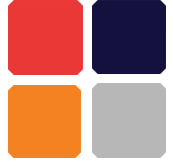
(Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)

Unpaid

JPY 4,213 M.  
THB 1,268 M.

Total JPY 9,000 M.  
Total THB 2,700 M.

1<sup>st</sup> Injection : exchange rate 29.9815 THB per 100 Yen as of March 26, 2020  
2<sup>nd</sup> Injection : exchange rate 30.2572 THB per 100 Yen as of May 18, 2020



## Ukujima: Accommodation for workers





# Construction Progress





# Construction Progress



An aerial photograph of Ukujima Island, showing a large area of land with numerous solar panels installed. The island is surrounded by clear blue water and has a small beach area. In the background, a larger island with a mountain is visible under a clear sky.

# Ukujima Mega Solar Project



# MIYAKO MEGA SOLAR PROJECT





# Fukuoka Miyako Mega Solar

Project name	Fukuoka Miyako Mega Solar
Project location	Miyako Town, Fukuoka (Kyushu Island)
Total installed capacity	67 MW Divided into: North Phase 23 MW - (Completed & Connected) South Phase 44 MW - (Under development)
Total Project Cost	JPY 23,493,000,000 (Approx. THB 6,735 Million) (Exchange rate 28.6687 THB per 100 Yen as of Mar 16th, 2022)
SPCG investment proportion <u>10%</u>	JPY 314,013,600 (Approx. THB 91 Million)
D/E ratio	Debt 86.7 : Equity 13.3
Power Purchase Rate	JPY 36/kWh (tax exclusive)
Power Purchase Period	North Phase - 18.7 Years South Phase - 17.8 Years
Off taker	Kyushu Electric Power Co., Inc.



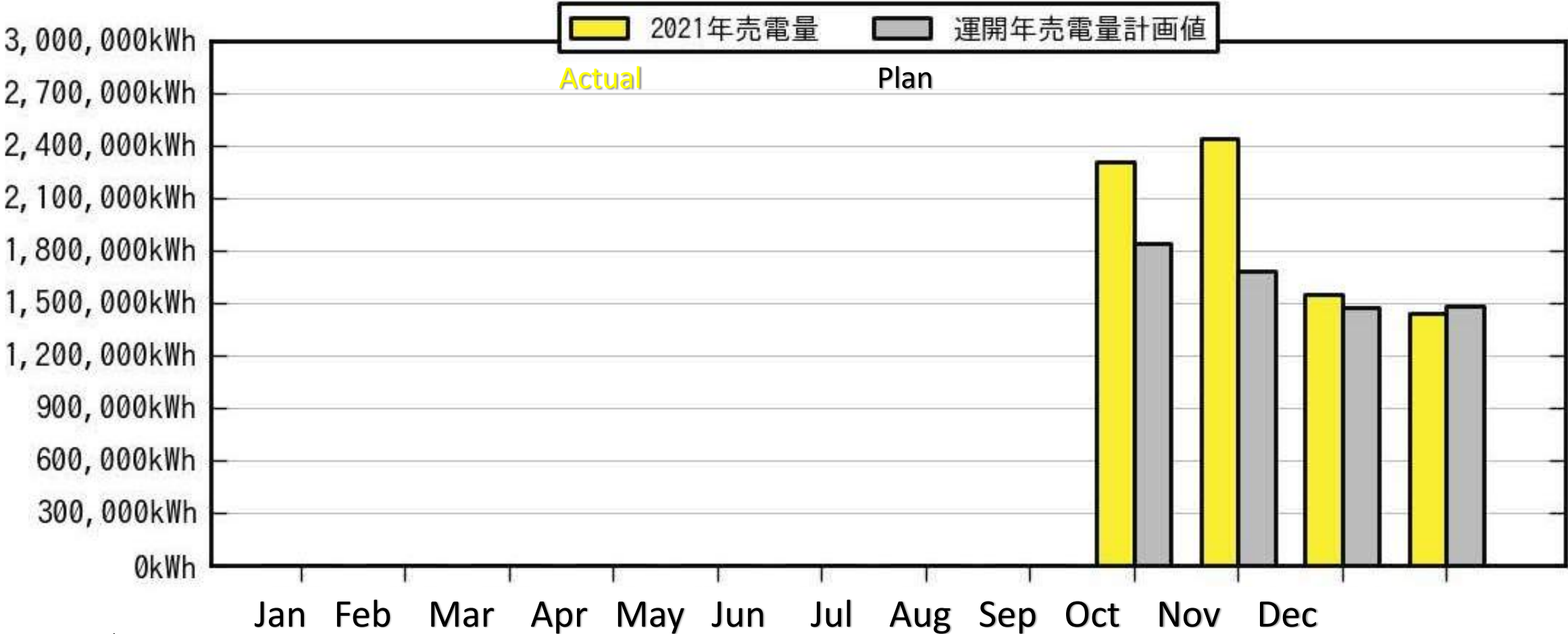
Conceptual AT COD in 2023





## 2. Overall production until Dec 2021

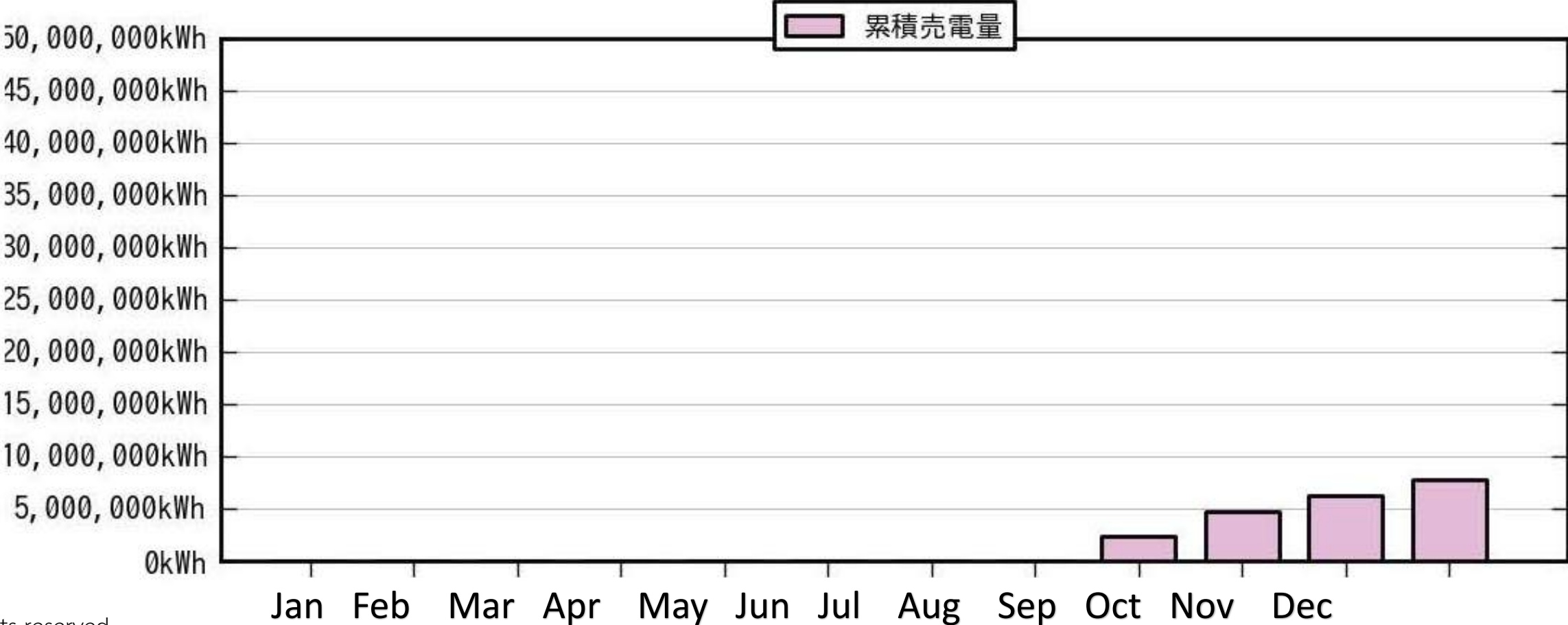
### Monthly Production





## 2. Overall production until Dec 2021

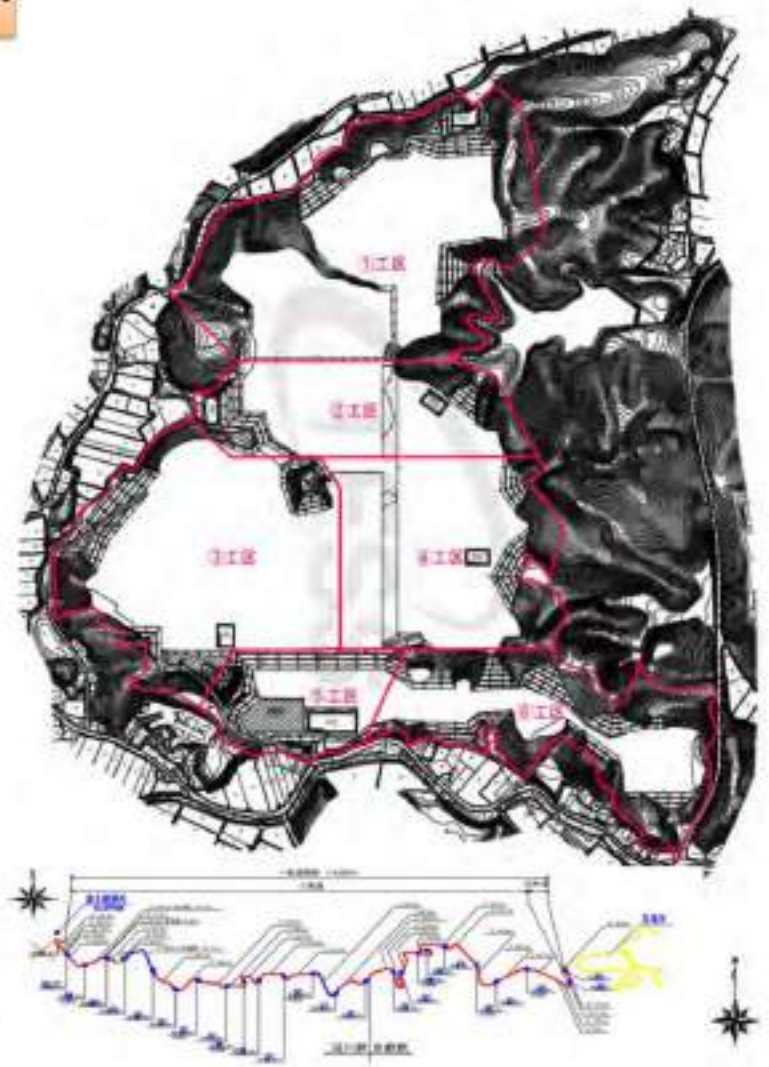
### Accumulated Production

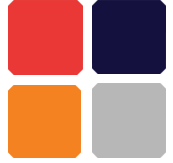




### 3. Construction Progress (2) Photo

福岡みやこメガソーラー発電所建設工事 2021年12月度工事写真  
Fukuoka MIYAKO MEGA Solar Construction Photos





### 3. Construction progress (3) Photo

福岡みやこメガソーラー発電所建設工事 空撮写真 Aerial Photo

③工区



④工区



⑤～⑥工区



⑥工区





ความคืบหน้าการลงทุนโครงการผลิตไฟฟ้าจากพลังงานแสงอาทิตย์  
สำหรับใช้ในพื้นที่เมืองใหม่ เขตพัฒนาพิเศษภาคตะวันออก (EEC)  
กำลังการผลิตติดตั้งรวมไม่น้อยกว่า 500 เมกะวัตต์





# สถานะการจัดซื้อที่ดินโครงการฯ





PHASE 1 จำนวน 23 โครงการ รวมกำลังการผลิตติดตั้ง 316 เมกะวัตต์ (61 จุดขาย) โดยมีรายละเอียดดังนี้

ลำดับ	จังหวัด	จำนวนโครงการ	จำนวน MW	จำนวนจุดขาย	เนื้อที่ (ไร่-งาน-ตร.ว.)	มูลค่าที่ดิน (บาท)	ราคาส่วนปรับปรุง (บาท)	รวมราคาที่ดินและส่วนปรับปรุง (บาท)	การจัดจ้างปรับหน้าดินและถมดิน	
									ปรับหน้าดิน	ถมดิน
1.	ฉะเชิงเทรา	9	125	23	1,141-2-36	768,280,250.00	395,687,334.00	1,163,967,584.00	8	8
2.	ชลบุรี	7	94	17	1,041-1-98	708,297,950.00	269,361,140.00	977,659,090.00	7	7
3.	ระยอง	7	97	21	929-2-22.3	616,588,483.00	266,616,734.00	883,205,217.00	7	6
รวมทั้งสิ้น		23	316	61	3,111-0-2.7	2,093,166,683.00	931,665,208.00	3,024,831,891.00	22	21

หมายเหตุ: ทั้ง 23 พื้นที่ ทำสัญญาซื้อขายและโอนกรรมสิทธิ์แล้ว



# SOLAR ROOF BUSINESS



# Solar Power Roof Company Limited (SPR)



**Solar Power Roof Company Limited (SPR)** is a subsidiary of SPCG and a pioneer in solar roof development to help reduce the electricity expenses and CO2 reduction. For residential, commercial and industrial systems in Thailand and the ASEAN community.

## **Best Value**

Solar Power Roof system by SPR reduces both energy bills and global-warming CO2 emissions instantly after installation.

## **Best Design**

Our professional team provides valued customers for full service regarding the surveys, system design, feasibility studies, and installation.

## **Best Output**

Solar Power Roof system by SPR has provided energy by using the highest quality of solar modules by Kyocera Corporation (Japan) along with the best balance of systems for 25 years sustainability.

## **Best Service**

With daily monitoring services, SPR provides a free record and report of energy production for up to 2 years, as well as maintenance (if any) in order to accommodate the best service.

# KYOCERA CORPORATION

KYOCERA has been a pioneer in developing innovative solar power solutions for over 40 years. During this time, Kyocera has set the standard for harnessing the Sun's energy with highly reliable and high quality, best-in-class technology — having produced an accumulated 8 gigawatts of solar power generating equipment to date.

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敬天愛人

THE NEW VALUE FRONTIER



“Respect the Divine and Love People”

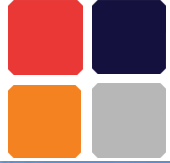
Preserve the spirit to work fairly and honorably,  
Respecting people, our work, our company and  
our global community.

# SMA Solar Technology AG, Germany



- SMA is global leader for solar inverters, a key component of all PV plants.
- Listed company in the Stock Exchange of Frankfurt and in the SDAX index.
- SMA market position is ranking “3” globally. (based on installed inverter capacity)
- SMA products are the best quality with comprehensive service due to SMA’s over 35 years of experience in the solar business.





# Solar Roof Business



RESIDENTIAL

$\approx 5$  MW

COMMERCIAL

$\approx 50$  MW

INDUSTRIAL

$> 100$  MW

# RESIDENTIAL



# COMMERCIAL



# COMMERCIAL



# INDUSTRIAL



# INDUSTRIAL



# INDUSTRIAL



# Monitoring System



## Solar PPA Business by Strong Collaboration Partners

### **MUL Group**

Mitsubishi UFJ Lease & Finance

Mitsubishi UFJ Lease and Finance, a member of MUFG Group, operates Worldwide as a total financial group, who also provide a stable financing.



SPCG, a listed company at SET, is a pioneer of solar industry in Thailand, who provides design, installation work, after-service.

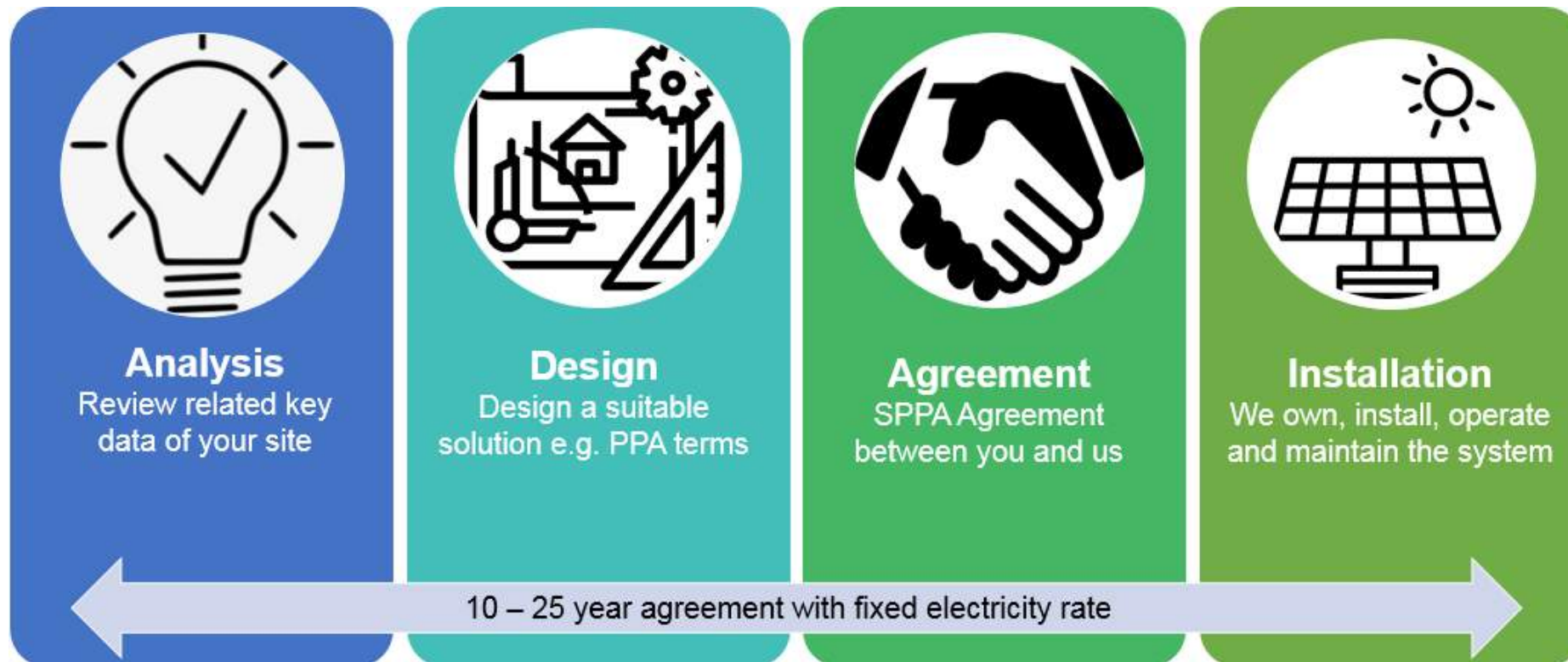


PEA ENCOM, 100% owned by PEA, provides infrastructure and network of electricity service, through Thailand.

**Let's go green with MSEK Power**

## What is a Solar Power Purchase Agreement

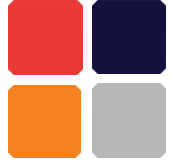
A Solar Power Purchase Agreement (SPPA) is an agreement in which a developer owns, operates, and maintains the photovoltaic (PV) system, and a customer agrees to site the system on its property and purchases the system's electric output from the solar services provider for a predetermined period.





# AUTHORIZED SALES & SERVICE PARTNER BUSINESS





# Authorized Sales & Service Partner Business



- The SMA Group is a global leader for solar inverters, a key component of all PV plants.
- SMA Solar Technology AG, is a listed company in the stock exchange of Frankfurt.

Since July 2018, SPCG appointed the subsidiary company which is **Solar Power Engineering Co., Ltd. (SPE)** as the authorized sales & service partner of SMA Solar Technology AG (SMA) in Thailand.

- Covering all SMA family products in the Indo-China region; Thailand, Vietnam, Laos, Cambodia, Myanmar  
Covering the need of customers on behalf of SMA.

- SPE will support the customer in their enquiry and contact, technical training on the product, together with SMA.



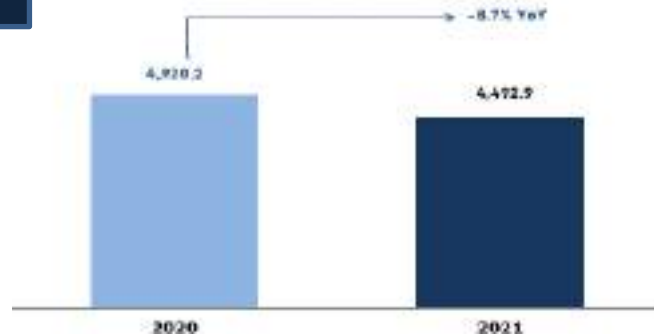
# FINANCIAL HIGHLIGHT



# Financial Performance

## Sales

UNT: MILLION BAHT



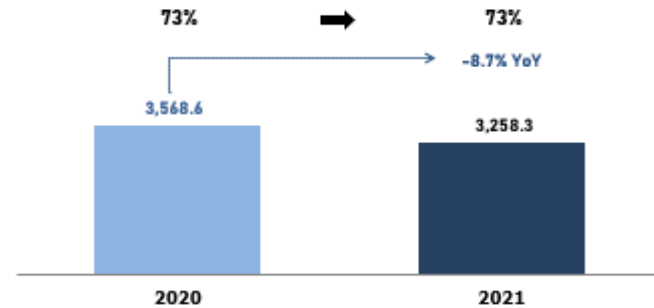
## Sales Drop in 2021

Sales decreased 427.3 MB, mainly resulted from

- Solar Roof Business 313.6 MB as a result of Covid-19 pandemic.
- Solar Farm Business 238.8 MB resulted from the revenue from subsidy of adders, 8 Baht per unit, of 5 solar farms had been over.

## GPM

UNT: MILLION BAHT

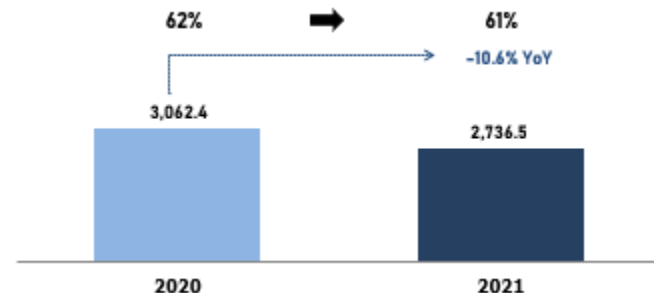


## GPM Stable in 2021

The main reasons was from Cost Saving Strategy resulting in cost of O&M (Operating & Maintenance) of solar farm business decreased in the amount of Baht 26.1 million per annum

## NPM

UNT: MILLION BAHT

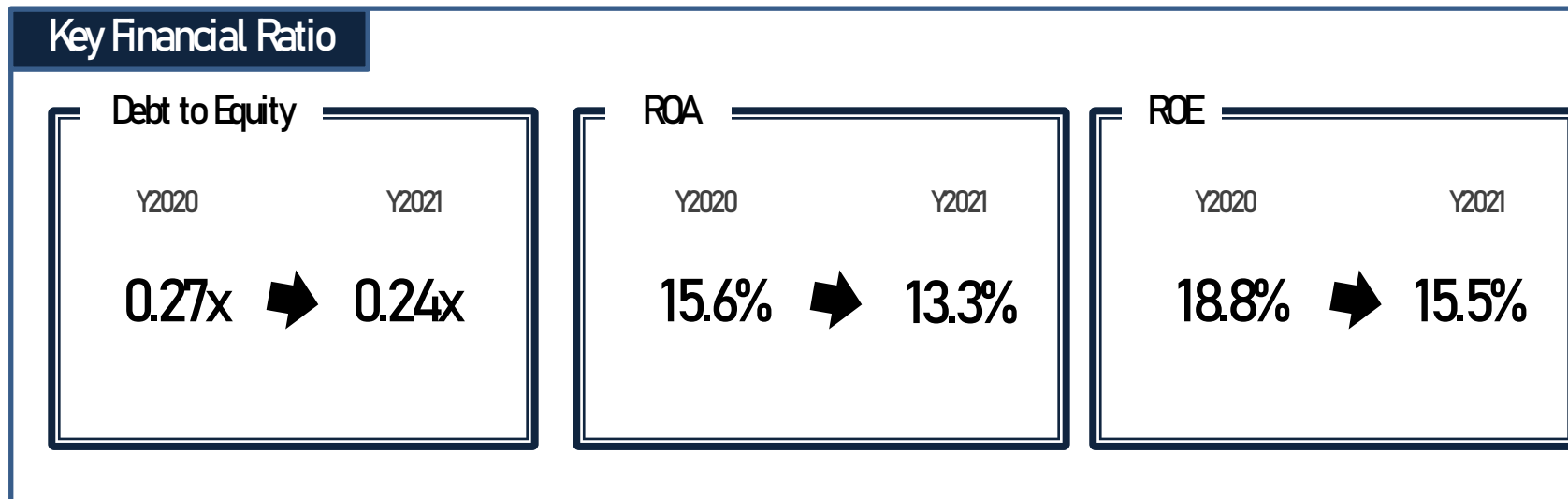
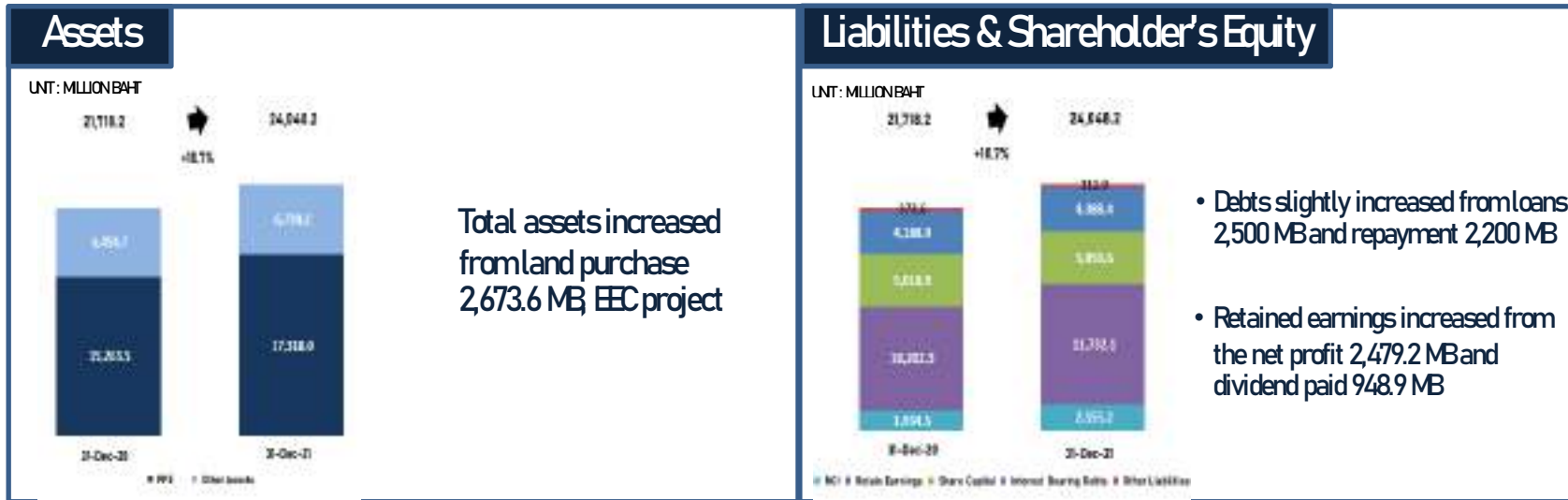


## NPM Stable in 2021

Net profit decreased 325.8 MB, mainly resulted from

- Finance cost decreased 52 MB from repayment on debentures.
- SG&A decreased 17 MB in line with sales of solar roof business.
- Loss on derivatives 45.7 MB
- Tax expenses increased 60 MB

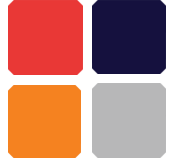
# Financial Performance





# SPCG 2022 TARGET





# SPCG 2022 Target

**Total revenue not less than 4,700 MB**

**To increase total production capacity of  
36 Solar Farms up to 388 million units**

**To expand new investment projects  
Domestically and Internationally**



# Thank you for your attention

- Best Value - Best Design - Best Output - Best Service -



info@spcg.co.th



02 011 8111



www.spcg.co.th