

**ACE**

ABSOLUTE CLEAN ENERGY  
PUBLIC COMPANY LIMITED



FTSE  
Russell

MSCI



# Absolute Clean Energy Public Company Limited

Opportunity Day : Q2'2023 Results

Ticker : ACE

# Disclaimer



The information contained in this presentation is strictly confidential and is provided by Absolute Clean Energy Public Company Limited (the "Company") to you solely for your information which is the same information as that contained in the recent filing and draft prospectus submitted to the Thai Securities and Exchange Commission. Neither this presentation nor any part hereof may be (i) used or relied upon by any other party or for any other purpose; (ii) copied, photocopied, duplicated or otherwise reproduced in any form or by any means; or (iii) redistributed, passed on or otherwise disseminated, to any other person either in your organization or elsewhere, without the prior written consent of the Company and its respective affiliates or advisors. By attending this presentation, participants agree not to remove this document, or any materials provided in connection herewith, from the conference room where such documents are provided without the prior express consent from the Company and its respective affiliates or advisors.

Although care has been taken to ensure that the information in this presentation is accurate, and that the opinions expressed are fair and reasonable, no representations or warranties, express or implied, are made as to, and no reliance should be placed on, the accuracy, fairness or completeness of the information presented or contained in this presentation. The information is subject to any change without notice whether before or after such change is made, its accuracy is not guaranteed, has not been independently verified and it may not contain all material information concerning the Company and its subsidiaries. None of the Company nor any of its respective affiliates or advisors nor any of its or their respective members, directors, officers, employees or affiliates assumes any responsibility or liability for, the accuracy or completeness of, or any errors or omissions in, any information contained herein. Accordingly, none of the above nor any other person accepts any liability (in negligence, or otherwise) for any loss arising from or in connection with any use of this presentation or its contents.

This presentation is for information purposes only and does not constitute or form whole or part of any offer, invitation or solicitation by or on behalf of the Company for sale or subscription of or solicitation or invitation of any offer to or recommendation to buy or subscribe for any securities of the Company, nor shall it or any part of it form the basis of or be relied on in connection with any contract, commitment or investment decision in relation thereto ("Securities") in Thailand, the United States or any other jurisdictions. Any recipient considering a purchase of Securities is hereby reminded that any such purchase should be made solely on the basis of the information contained in a final offering document (which may be different from the information contained in this presentation) and subject to the selling restrictions set out therein. No public offering of the Securities will be made in the United States or in any other jurisdiction outside of Thailand where such an offering is restricted or prohibited. This presentation should not be construed as legal, tax, investment or other advice. The information contained herein does not take into consideration the investment objectives, financial situation or particular needs of any particular investor, and should not be treated as giving investment advice.

In addition, this presentation contains certain financial information and results of operation, and may also contain certain projections, plans, strategies, and objectives of the Company, that are not statements of historical fact which would be treated as forward looking statements that reflect the Company's current views with respect to future events and financial performance. These views are based on a number of estimates and current assumptions which are subject to business, economic and competitive uncertainties and contingencies as well as various risks which are in many cases beyond the control of the Company, and which may change over time and may cause actual events and the Company's future results to be materially different than expected or indicated by such statements. No assurance can be given that future events will occur, that projections will be achieved, or that the Company's assumptions are correct. Such forward-looking statements are not guarantees of future performance and accordingly, the actual results, financial condition, performance or achievements of the Company may differ materially from those anticipated by the Company in the forward looking statements. The recipient is cautioned not to place undue reliance on these forward looking statements.

In providing this presentation, the Company does not undertake to provide any recipient with access to any additional information or to correct any inaccuracies herein which may become apparent.

# Table of Contents for Analyst Presentation



I	Business Updates
II	Operating Performance
III	Financial Highlights



"ABA" VSPP Thoen Project





***Convert Plants and Agri-residue  
to Energy***

***ACE The clean energy leader***



**Convert *Waste*  
to Energy**



**Convert *Sunlight*  
to Energy**

***ACE The clean energy leader***



### Key Events (1 of 2)

- **5 April 2023:** Won the government's bid to supply solar power to the grid in 18 different locations.
  - Power system: **Solar (farm)**
  - Total PPA capacity: **112.73 MW**
- **28 April 2023:** the 2023 AGM approved the suspension of dividend payments for the 2022 operating results because the company has to reserve cash for working capital and investments in upcoming projects
- **12 May 2023:** Power Purchase Agreement (PPA) signed with the Provincial Electricity Authority (PEA) for 2 MSW power plants projects.
  - Chiangwang MSW power plant project:
    - Installed capacity: 9.0 MW / PPA capacity: 7.75 MW
  - Chokchai MSW power plant project:
    - Installed capacity: 9.9 MW / PPA capacity: 8.0 MW
  - Total installed capacity: **18.9 MW**
  - Total PPA capacity: **15.75 MW**

### Key Events (2 of 2)

- **15 May 2023 – 5 June 2023:** Private Power Purchase Agreement (Private PPA) signed with private companies for 15 Solar Rooftop projects.
  - Power system: **Solar (rooftop)**
  - Total installed capacity: **2.846 MW**
  - Total PPA capacity: **2.846 MW**
- **2 August 2023:** TRIS Ratings Affirmed the Company Rating at “BBB+” with “Stable” Outlook





ABSOLUTE CLEAN ENERGY  
PUBLIC COMPANY LIMITED

## Krabi MSW Power Plant

“ALCP” VSPP Krabi Project



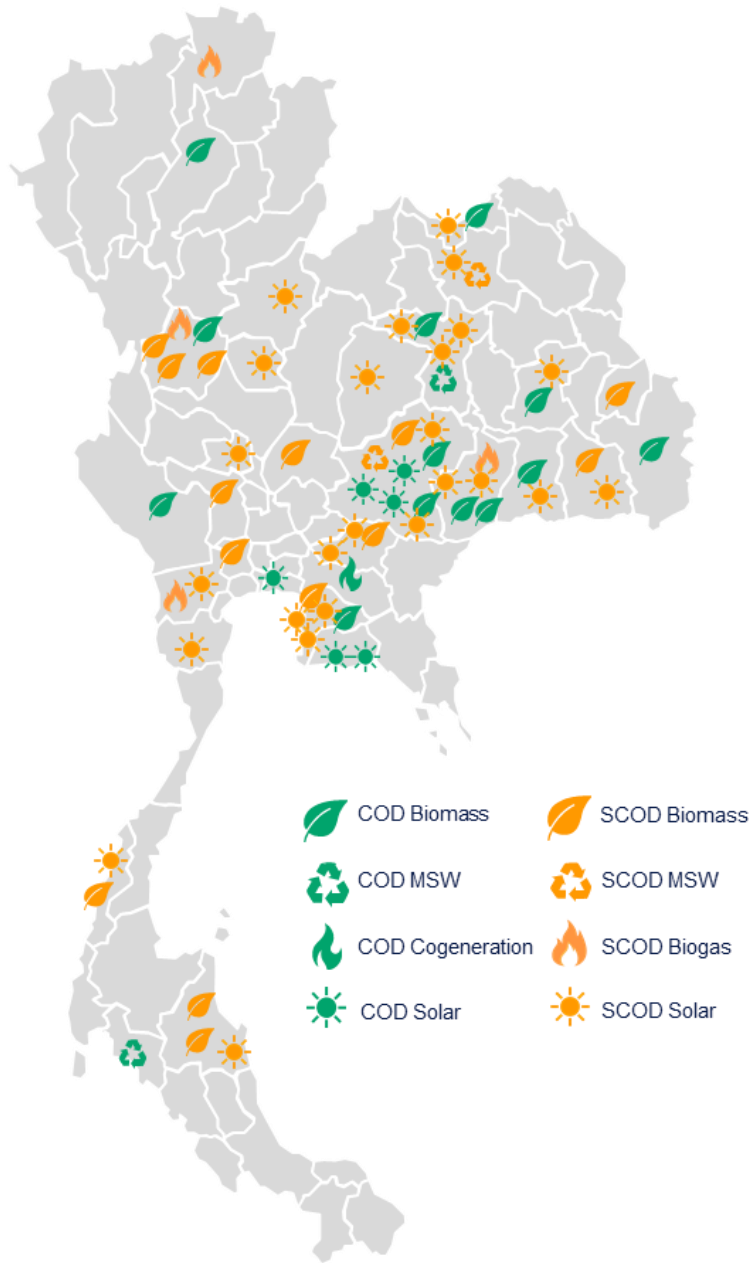
# Overview of ACE's Portfolio



## ACE Business Portfolio in Thailand : June 2023



# Well-Balanced Portfolio with Diversified Locations



		Type	Installed MW	PPA MW	Location	COD / SCOD Date	Status
Existing Projects (23 Projects)	1	VSPP - Biomass	9.9	8	Chonburi	24/4/2012	COD
	2	VSPP - Biomass	9.9	8	Khonkaen	2/5/2012	
	3	VSPP - Biomass	9.9	8	Surin	30/10/2012	
	4	VSPP - Biomass	9.9	8	Nakhon Ratchasima	16/1/2013	
	5	VSPP - Biomass	9.9	8	Roi-et	4/6/2013	
	6	VSPP - Biomass	9.9	8	Nongkhai	26/12/2013	
	7	VSPP - Biomass	9.9	8	Lampang	9/7/2014	
	8	VSPP - Biomass	9.9	8	Ubonratchathani	14/8/2015	
	9	VSPP - MSW	6	4.5	Khonkaen	29/11/2016	
	10	SPP - Cogen	114.35	90	Chachoengsao	10/2/2017	
	11	VSPP - Biomass	9.9	8	Kanchanaburi	16/8/2017	
	12	VSPP - Solar Rooftop	1	1	Chonburi	20/11/2018	
	13	VSPP - Solar Rooftop	0.73	0.73	Nakhon Ratchasima	22/2/2019	
	14	1 Solar Rooftop	1	1	Chonburi	27/9/2019	
	15	1 Solar Rooftop	0.83	0.83	Samut Sakhon	22/5/2020	
	16	VSPP - Biomass	7.5	6.5	Buriram (ACES)	24/1/2006	
	17	VSPP - Biomass	9.5	8	Buriram (ABE)	6/2/2008	
	18	VSPP - Biomass	9.9	8	Nakhon Ratchasima (AAE)	10/11/2011	
	19	VSPP - MSW	6	4.4	Krabi	28/12/2020	
	20	Waste Landfill	N/A	N/A	Udonthani	5/1/2021	
	21	1 Solar Rooftop	0.24	0.24	Nakhon Ratchasima	25/2/2021	
	22	Floating Solar	1.515	1.515	Nakhon Ratchasima	31/3/2021	
	23	VSPP - Biomass	9.9	8	Kampangphet	26/11/2021	
Under Development and pending for development (68 projects)	24	1 SPP - Hybrid	20	13.31	Kampangphet	Within 2023	PPA signed
	25,26	2 SPP - Hybrids	50	43	Nakhon Si Thammarat	TBD	PPA signed
	27	1 SPP - Hybrid	23	20	Ranong	TBD	EIA Approved
	28	VSPP - Biomass	9.9	8	Kampangphet	Within 2024	PPA to be signed
	29	VSPP - Biomass	9.9	8	Supanburi	Within 2024	
	30	VSPP - Biomass	9.9	8	Nakornpathom	Within 2024	
	31	VSPP - Biomass	9.9	8	Nakhon Ratchasima	Within 2024	
	32	VSPP - Biomass	9.9	8	Chonburi	Within 2024	
	33	VSPP - Biomass	9.9	8	Amnatcharoen	Within 2024	
	34	VSPP - Biomass	9.9	8	Lopburi	Within 2024	
	35	VSPP - Biomass	9.9	8	Pracheenburi	Within 2024	Under consideration of Administrative Court
	36	VSPP - Biomass	9.9	8	Srisaket	Within 2024	
	37	VSPP - Biomass <sup>1</sup>	9.9	8	Chonburi	Within 2024	PPA to be signed
	38	VSPP - MSW	9.0	7.75	Udonthani	Within 2024	PPA signed
	39	VSPP - MSW	9.9	8	Nakhon Ratchasima	Within 2024	PPA signed
	40-57	VSPP - Biogas	59	50	Chiangrai / Kampaengphet / Buriram / Ratchburi	Within 2026	PPA signed
	58	Private PPA - Solar Rooftop	9.59	9.59	Phetchaburi	Whitin Q2'2024	PPA signed
	59-63	Solar Farm	>35.40	35.40	Nakhon Si Thammarat, Phitsanulok, Phichit, Khon Kaen, Nong Khai, Ranong, Ratchaburi, Sisaket, Chainat	Within 2024	PPA to be signed
	64-73	Solar Farm	>57.33	57.33		Whitin 2025	PPA to be signed
	74-76	Solar Farm	>20.00	20.00		Whitin 2027	PPA to be signed
	77-90	Private PPA - Solar Rooftop	1.92	1.92	Chonburi, Khon Kaen, Nakhon Ratchasima, Surin, Roi Ed, Udonthani, Chaiyaphum, Pracheenburi, Buriram	Q4'2023-Q1'2024	PPA signed
	91	Private PPA - Solar Rooftop	0.93	0.93	Chonburi	Within Q2'2024	PPA signed
	<b>Total</b>	<b>91</b>	<b>&gt;652.64</b>	<b>553.95</b>			

**Source:** Company information as of June 2023

**Remark:** /1 Including APP's capacity MW of 9.9. Currently, APP's shareholders sent LOI for APP share purchase proposal to ACE





“ACP1” VSPP Banbueng Project



# ACE's Biomass power plant (27 power plants, 317.9 MW)<sup>1,2,3</sup>



ACP1 Ban Bueng



ALCP1 Si Chiang Mai



AAPP2 Chokchai



ACP2 Phonthong



ALCP2 Sirindhorn



AAP1 Nam Phong

**Remark:** /1 Including APP's capacity MW of 9.9, Currently, APP's shareholders sent LOI for APP share purchase proposal to ACE  
/2 Capacity MW  
/3 Including UA Wittaya plc biomass power plants of 26.9 MW

- COD 13 power plants = 125.9 MW
- Under development 14 power plants = 192.0 MW

# ACE's Biomass power plant (27 power plants, 317.9 MW)<sup>1,2,3</sup>



**ACP3 Bo Ploy**



**AAPP1 Tanee**



**ABA1 Thoen**



**AAE Muang Korat**



**ABE Don Mon**



**ACES Muang Burirum**



**ACP4 Khlong Khlung**

**Remark:** /1 Including APP's capacity MW of 9.9, Currently, APP's shareholders sent LOI for APP share purchase proposal to ACE  
/2 Capacity MW  
/3 Including UA Wittaya plc biomass power plants of 26.9 MW

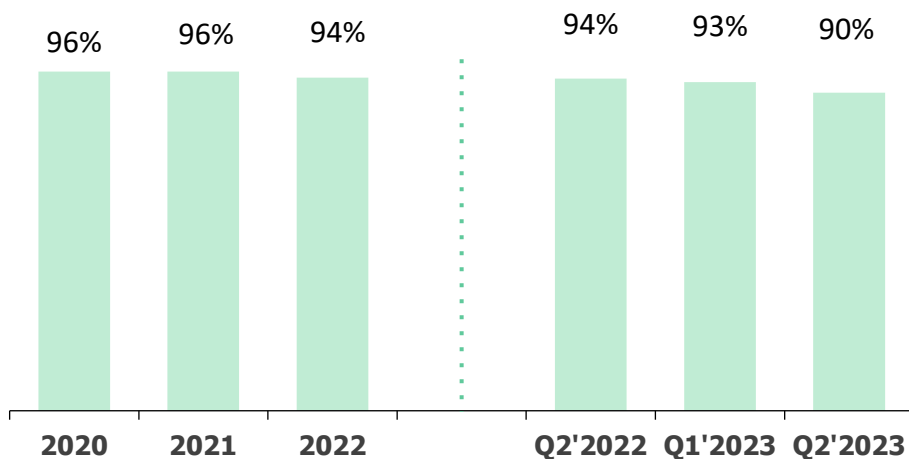
- **COD 13 power plants = 125.9 MW**
- **Under development 14 power plants = 192.0 MW**

# ACE's Biomass Operating Performance (10 Projects)

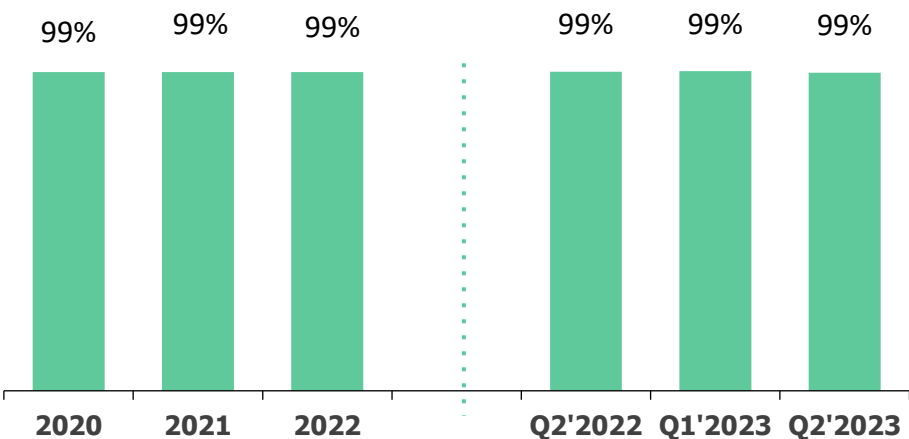


## Plant Performance (10 Projects)

### Availability Factor\*



### Capacity Factor\*\*



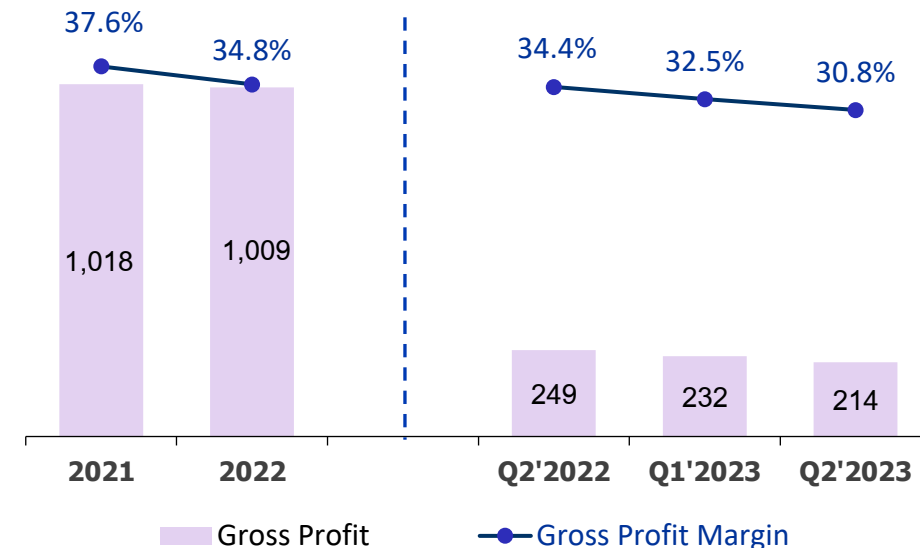
#### Remark:

\* Availability Factor = Total operating hours/(Days\*24 hours)

\*\* Capacity Factor = Electricity Unit sold /(Total operating hours\*Total selling Capacity)

## Gross Profit and Margin

Unit : THB mln



### Key Observation – Q2'2023

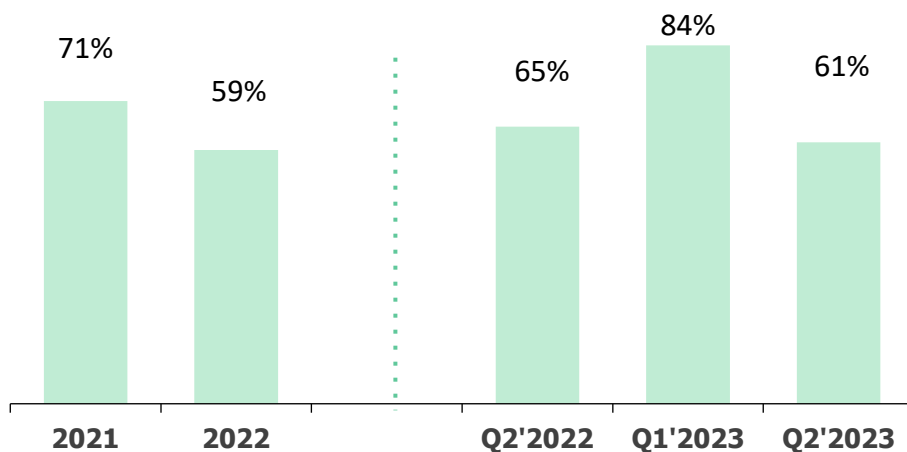
- **Gross Profit and Gross Profit Margin**
  - **QoQ : -7.8% in Gross Profit and -1.7% in Gross Profit Margin**
  - **YoY : -14.1% in Gross Profit and -3.6% in Gross Profit Margin**
- **Gross Profit** decreased QoQ, mainly from higher shutdown hours
- **Gross Profit** decreased YoY, mainly from
  - Higher shutdown hours
  - Higher cost of feedstocks due to the inflation
  - The expiration of FiT Premium period of Thoen biomass power plant (8 Jul 2022)

# ACE's Biomass Operating Performance (3 Acquired Projects)

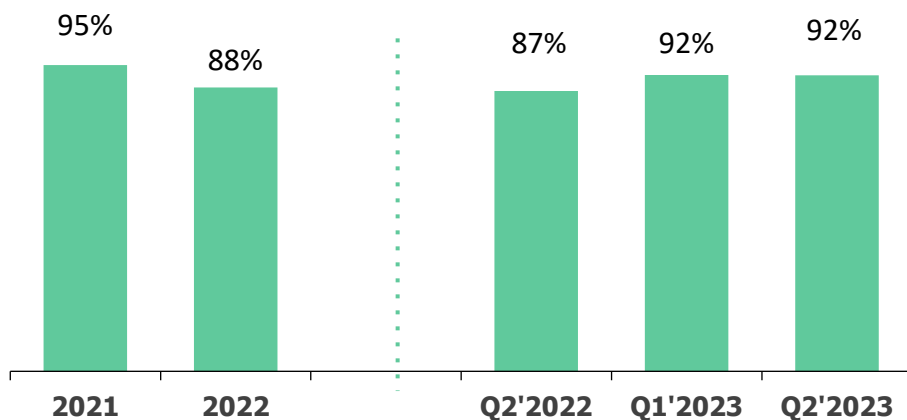


## Plant Performance (3 Acquired Projects)

### Availability Factor\*



### Capacity Factor\*\*



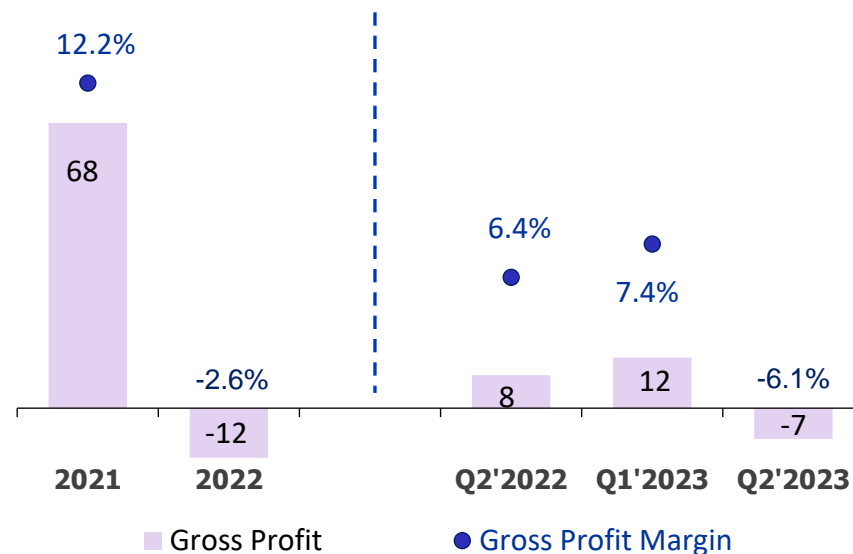
#### Remark:

\* Availability Factor = Total operating hours / (Days \* 24 hours)

\*\* Capacity Factor = Electricity Unit sold / (Total operating hours \* Total selling Capacity)

## Gross Profit and Margin

Unit : THB mln



### Key Observation – Q2'2023

- Q2'2023 : Gross Profit and Gross Profit Margin decreased QoQ and YoY due to higher shutdown hours





**MSW Khon Kaen**



**MSW Krabi**

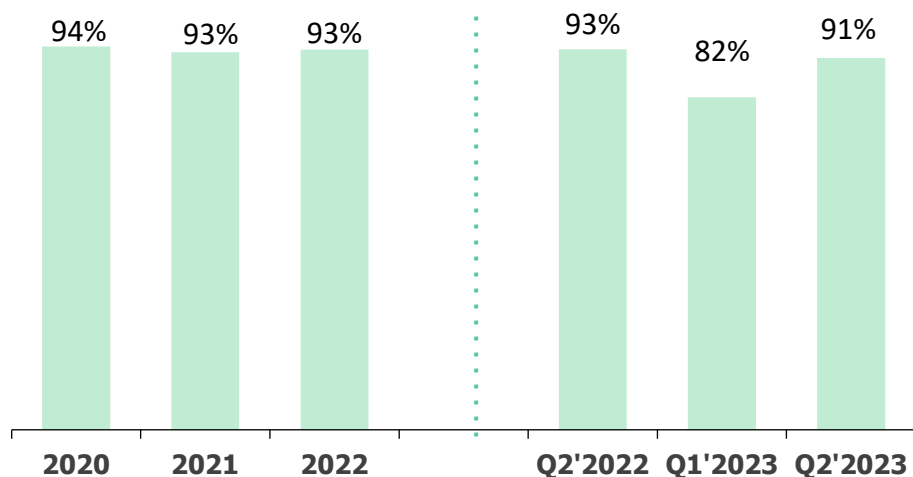
- *COD 2 power plants = 12 MW*
- *Under development 2 power plants = 19.8 MW*

# ACE's MSW Operating Performance

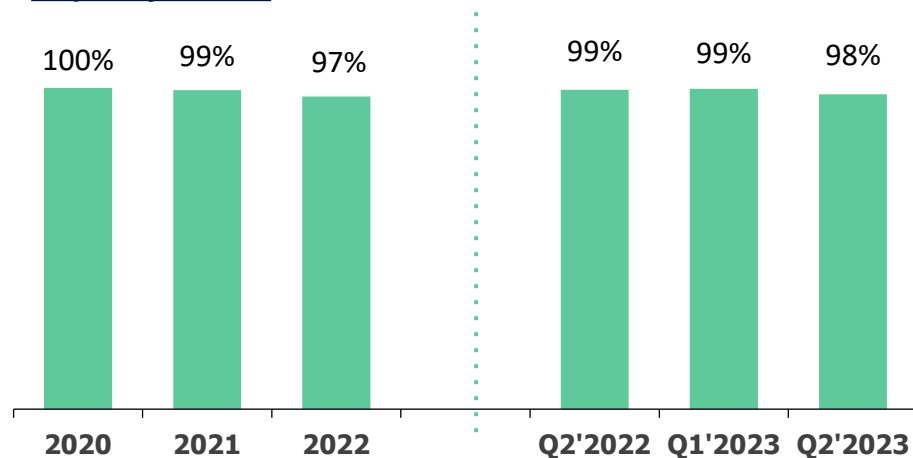


## Plant Performance (2 Projects)

### Availability Factor

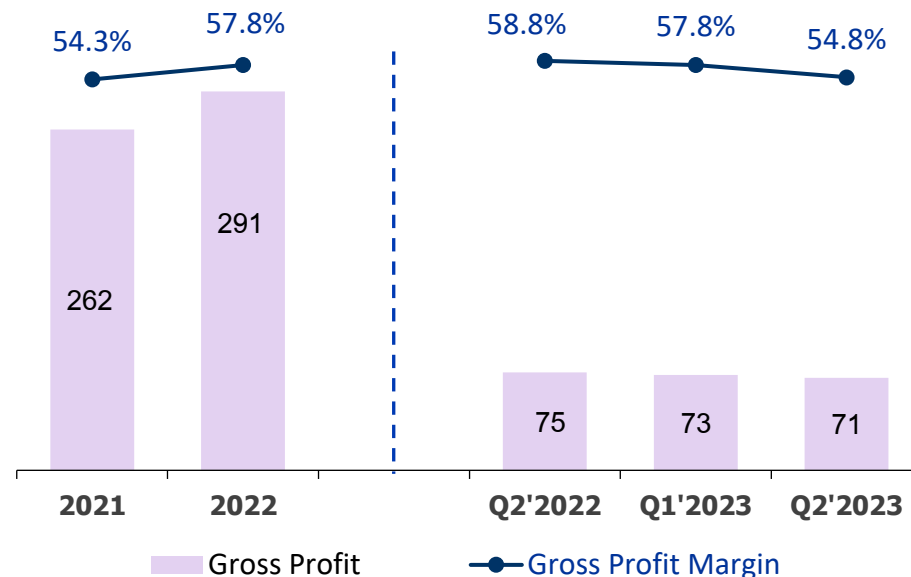


### Capacity Factor



## Gross Profit and Margin

Unit : THB mln



### Key Observation – Q2'2023

- Quarterly Gross Profit and Gross Profit Margin
  - QoQ : -2.7% in Gross Profit and -3.0% in Gross Profit Margin
  - YoY : -5.6% in Gross Profit and -4.0% in Gross Profit Margin
- Gross Profit
  - Decreased QoQ, mainly from shutdown of Khon Kaen MSW power plant, which has higher GPM from Adder Scheme
  - Decreased YoY, mainly from higher shutdown hours

## ACE's Co-generation Power Plant



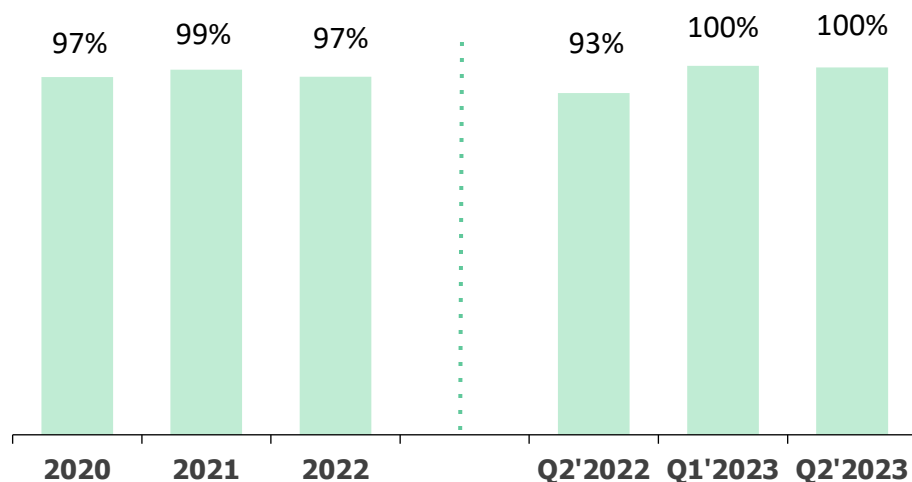
**AAA Chachoengsao**

# ACE's Co-Gen Operating Performance

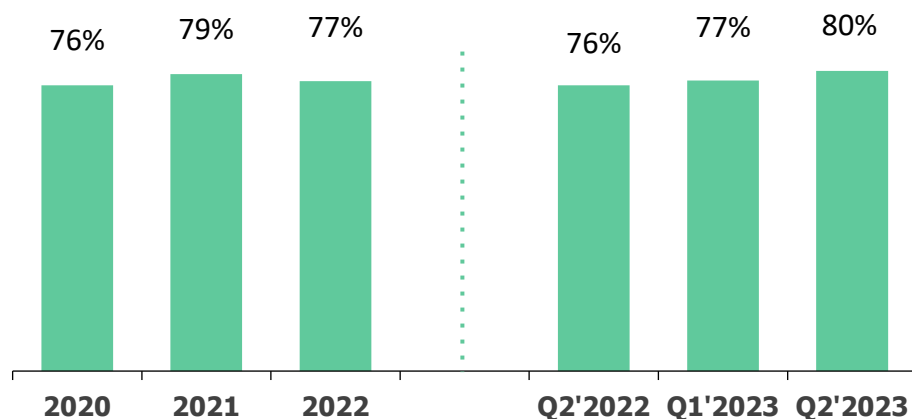


## Plant Performance (1 Project)

### Availability Factor

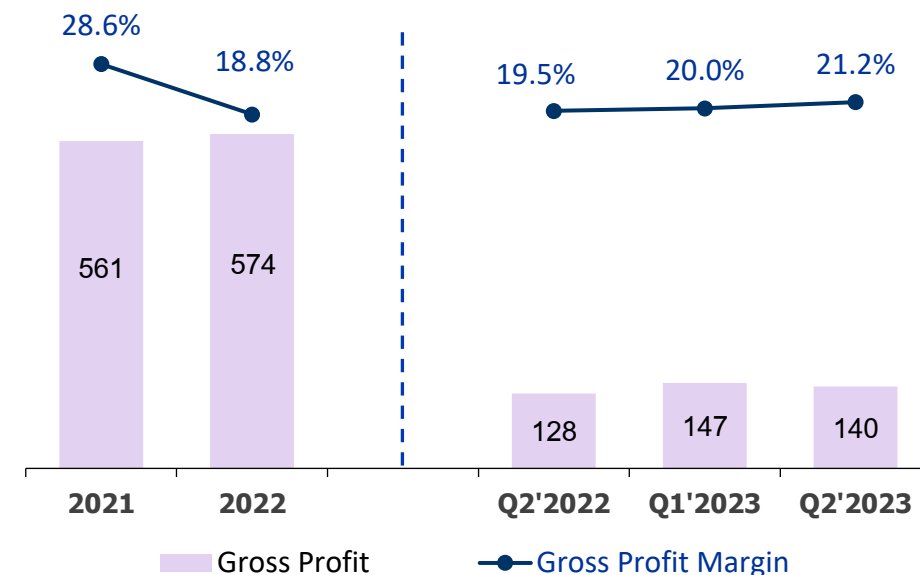


### Capacity Factor



## Gross Profit and Margin

Unit : THB mln



### Key Observation – Q2'2023

- Quarterly Gross Profit and Gross Profit Margin
  - QoQ : **-4.1% in Gross Profit** but **+1.2% in Gross Profit Margin**
  - YoY : **+9.5% in Gross Profit** and **+1.7% in Gross Profit Margin**
- Gross Profit** in Q2'2023 increased YoY, mainly from higher electricity units sold
- Gross Profit Margin** in Q2'2023 increased QoQ and YoY because of lower natural gas price and the improvement CF and AF
- Average Gas Price** in Q2'2023 decreased 16.3% QoQ and 4.8% YoY





ABSOLUTE CLEAN ENERGY  
PUBLIC COMPANY LIMITED

# Financial Highlights

---

“AAA1” SPP Koh Kanoon Project

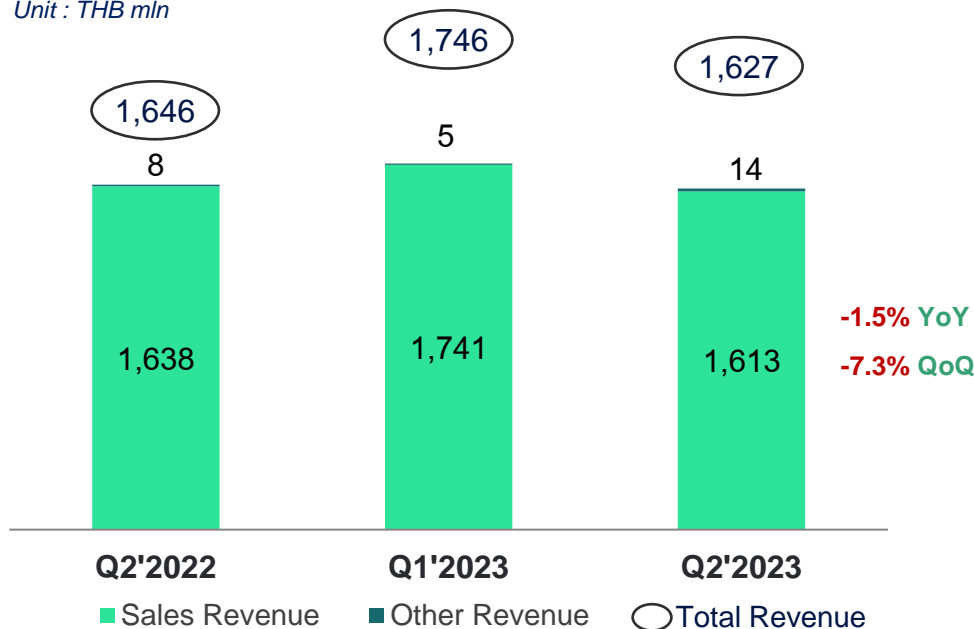


# Q2'2023 Financial Highlight : P&L



## Revenue

Unit : THB mln

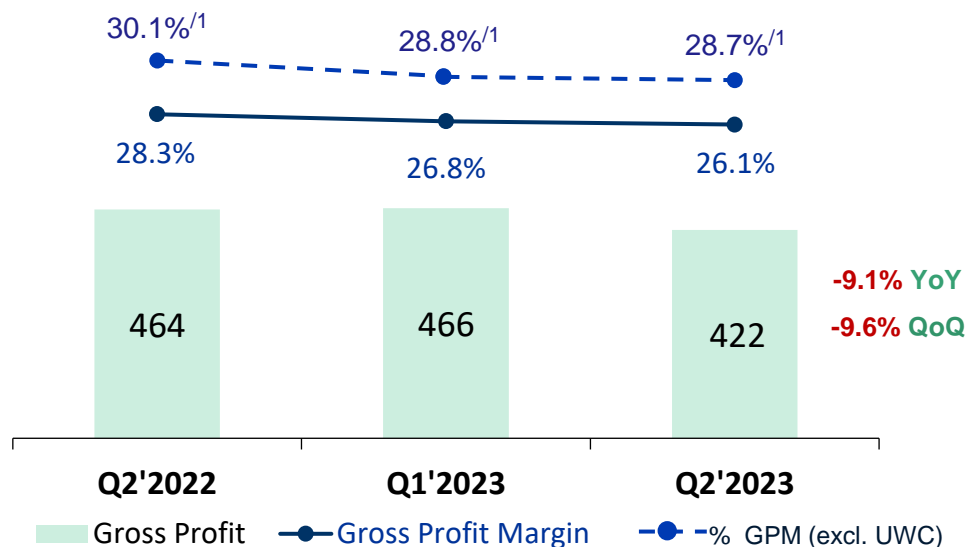


Sale Revenue in Q2'23 was **THB 1,613 mln**

- **QoQ : -7.3%** mainly from
  - the decrease of Co-Gen power plant revenues from the decrease in unit rate which was adjusted with the decrease in average natural gas price
  - the decrease of biomass power plant due to higher shutdown hours in Q2'23
- **YoY : -1.5%** results from
  - the decrease of biomass power plant due to higher shutdown hours in Q2'23

## Gross Profit and Margin

Unit : THB mln



Gross Profit in Q2'23 was **THB 422 mln**

- **QoQ : -9.6%** from GP of Biomass **decreased** by THB 36.8 mln  
GP of MSW **decreased** by THB 2.0 mln  
GP of Co-Gen **decreased** by THB 6.0 mln
- **YoY : -9.1%** from GP of Biomass **decreased** by THB 50.4 mln  
GP of MSW **decreased** by THB 4.2 mln  
GP of Co-Gen **increased** by THB 12.2 mln

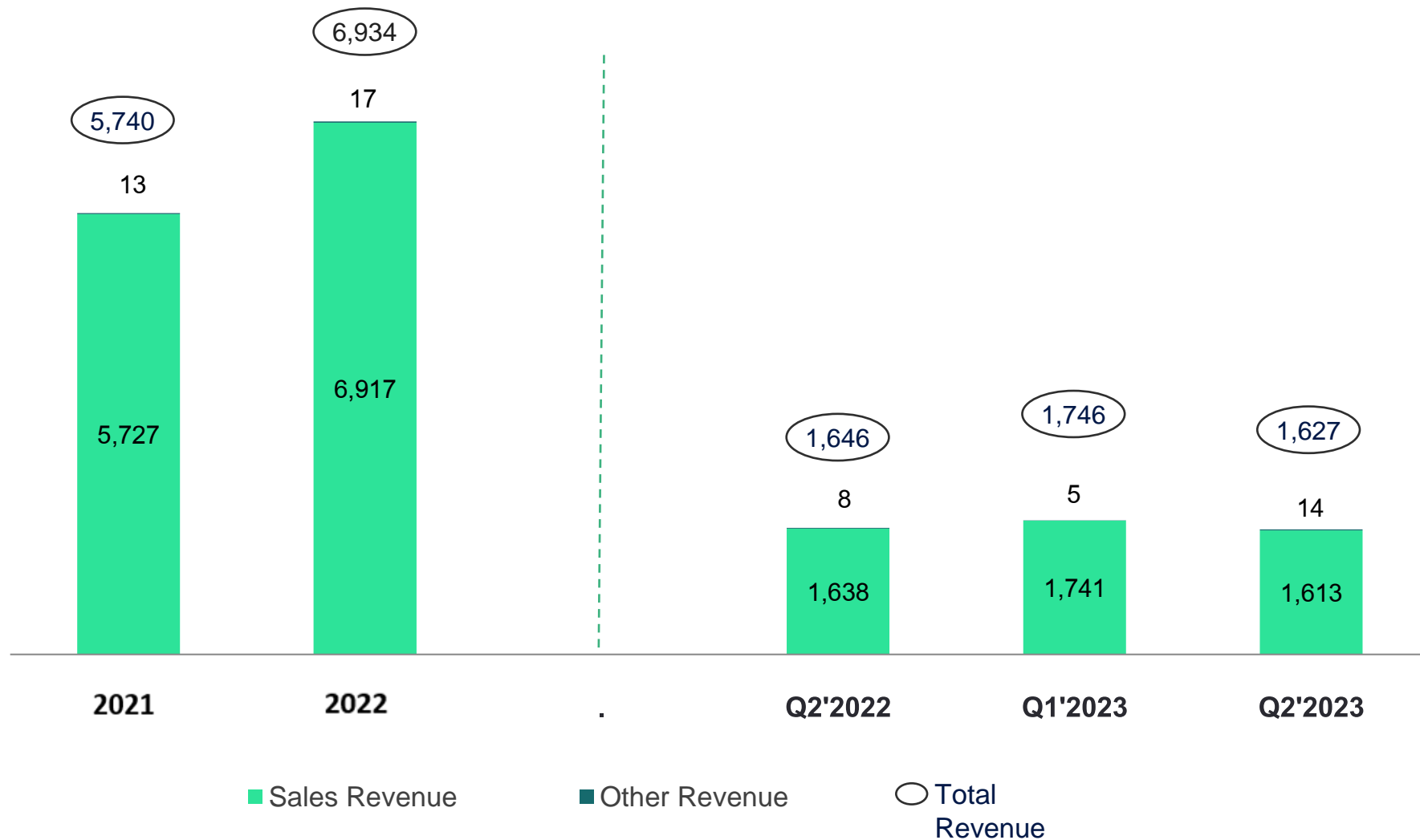
Gross Profit Margin in Q2'23 was **26.1%**

- **QoQ : -0.7%** mainly from higher shutdown hours and higher feedstocks cost of biomass power plants
- **YoY : -2.2%** mainly from
  - Higher shutdown hours of biomass power plants
  - Higher cost of biomass feedstocks
  - The expiration of FIT Premium period of Thoen biomass power plant

## Financial Highlight – Revenue



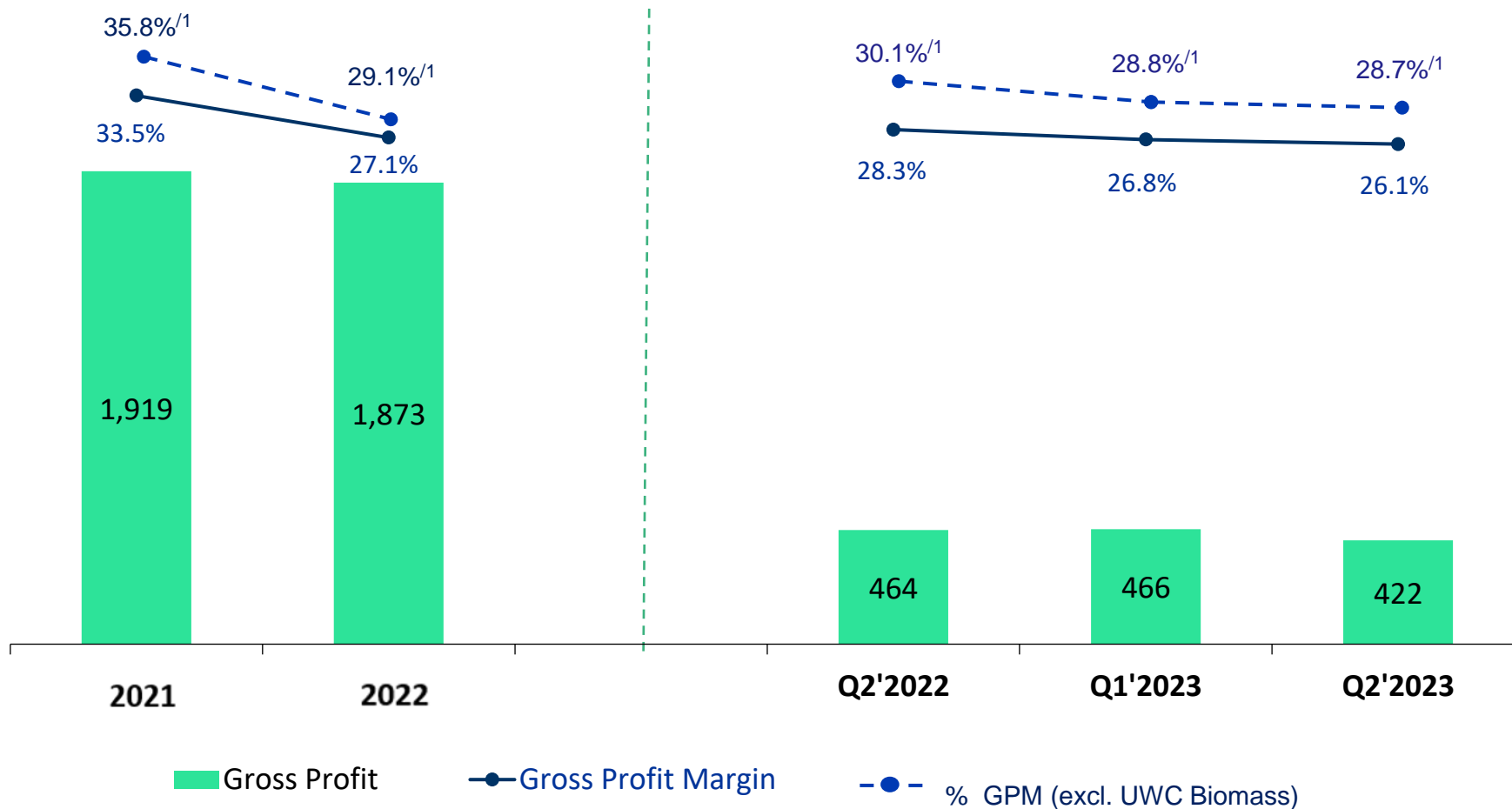
Unit : THB mln



## Financial Highlight – Gross Profit and Gross Profit Margin



Unit : THB mln



**Remark:** 1/ Exclude Gross Profit Margin from 3 UWC Biomass Power Plants.

Strictly Private & Confidential

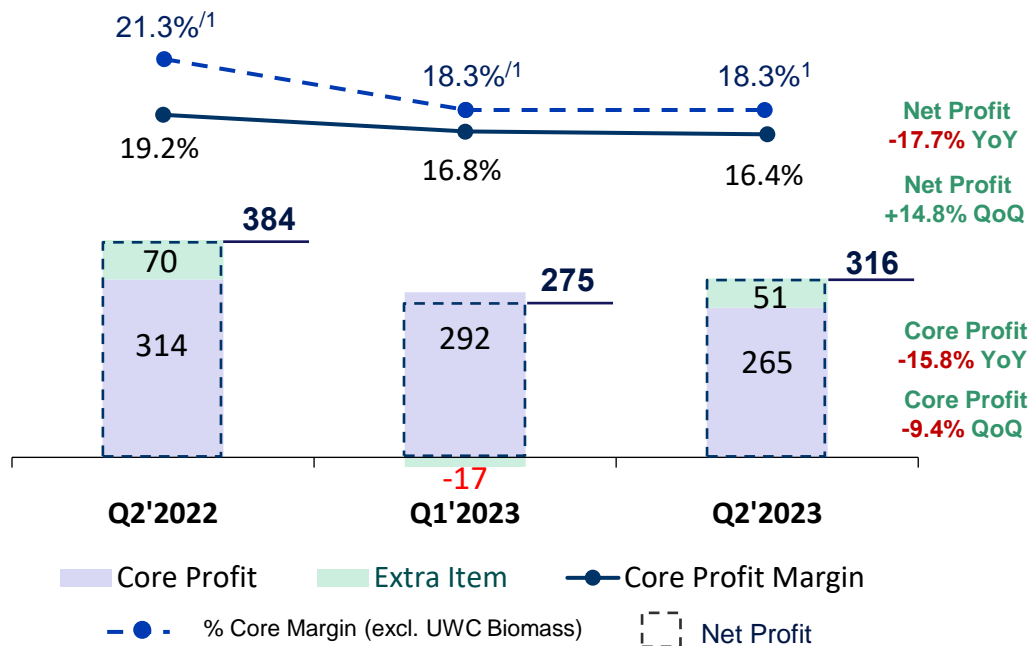


# Q2'2023 Financial Highlight : P&L



## Core Profit / Net Profit

Unit : THB mln



### Core Profit in Q2'23 was THB 265 mln

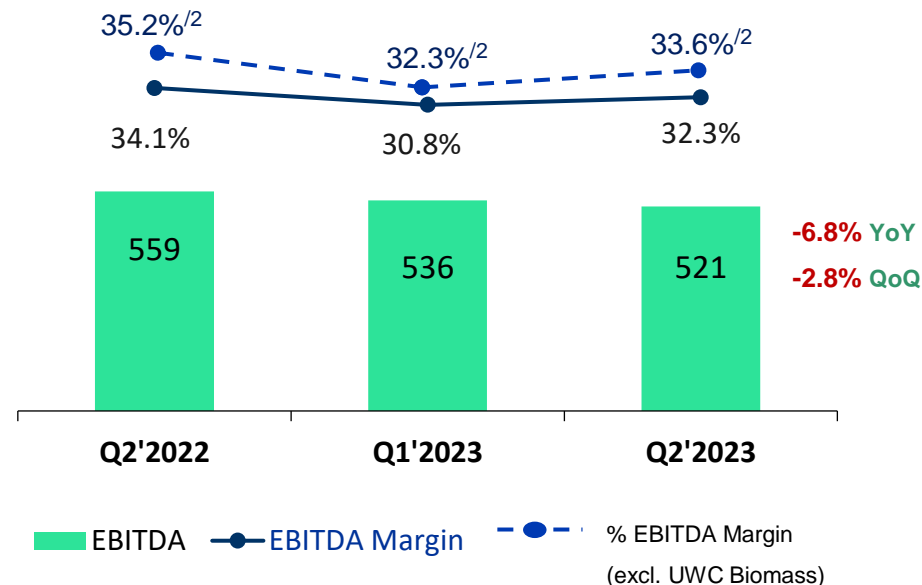
- **QoQ : -9.4%** mainly from higher shutdown hours in biomass power plants
- **YoY : -15.8%** results from:
  - Higher shutdown hours in biomass power plants
  - Higher SG&A from realizing expenses in bidding new projects
  - Higher interest expenses from higher interest rates
  - The expiration of FiT Premium period of Thoen biomass power plant

### Net Profit in Q2'23 was THB 316 mln

- **QoQ : +14.8%** from extraordinary items (mainly from gains on exchange rate)
- **YoY : -17.7%** mainly from the decrease in core profit

## EBITDA and EBITDA Margin

Unit : THB mln



### EBITDA in Q2'23 was THB 521 mln

- **QoQ : -2.8%, YoY : -6.8%** mainly from the decrease of gross profit

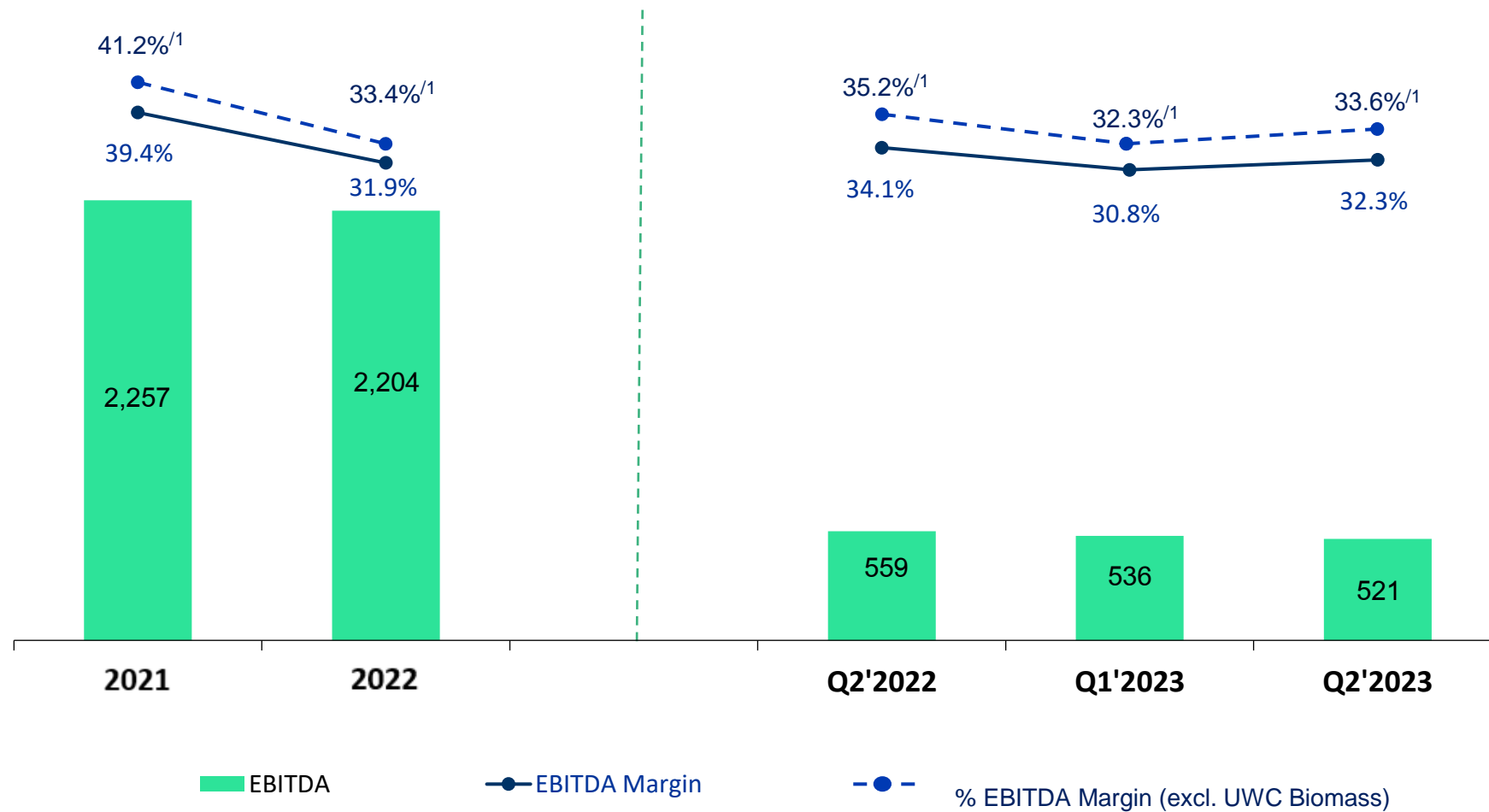
### EBITDA Margin in Q2'23 was 32.3%

- **QoQ : +1.5%**, mainly from the improvement of gross profit margin in Co-Gen power plant
- **YoY : -1.8%** mainly from
  - Higher shutdown hours in biomass power plants
  - Higher SG&A from realizing expenses in bidding new projects
  - The expiration of FiT Premium period of Thoen biomass power plant

## Financial Highlight – EBITDA



Unit : THB mln



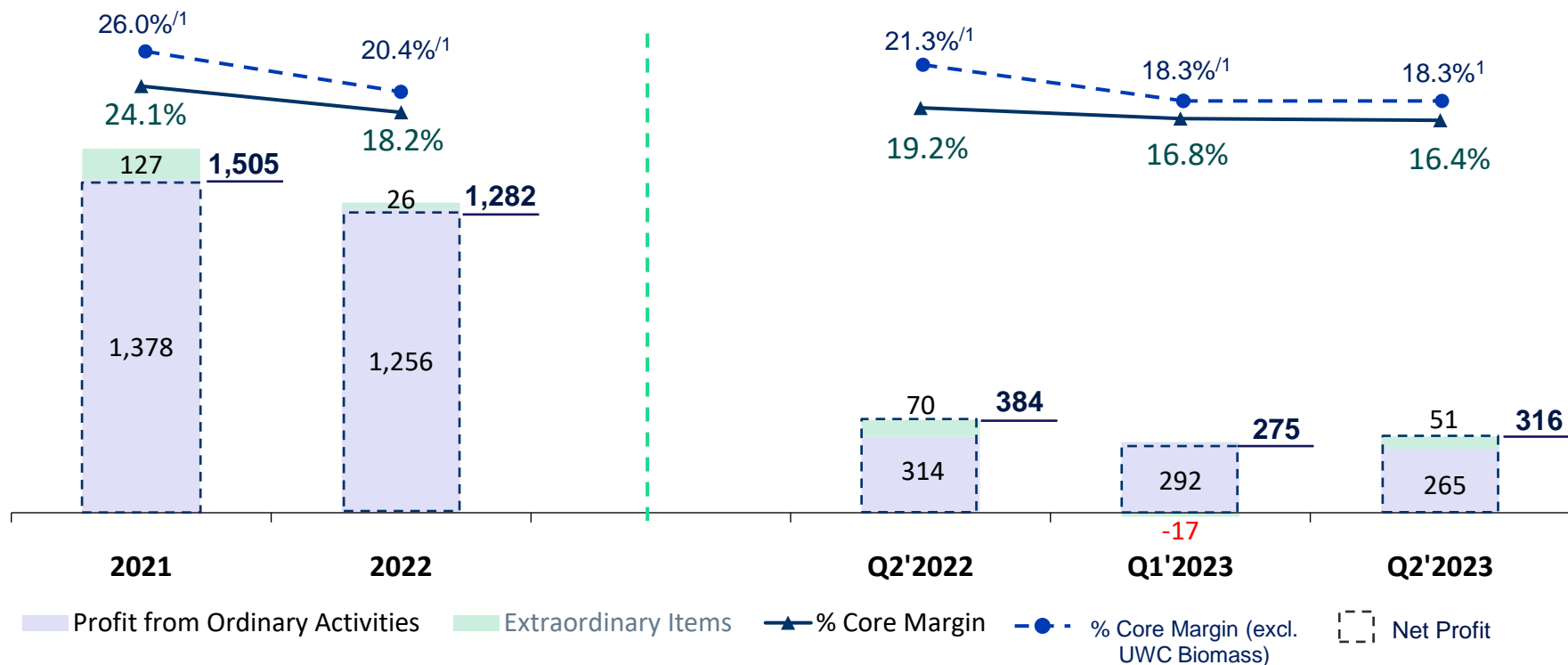
**Remark:** 1/ Exclude EBITDA Margin from 3 UWC Biomass Power Plants.

Strictly Private & Confidential

# Financial Highlight – Net Profit / Core Profit / Core Profit Margin



Unit : THB mln



	Q2-2022			Q1-2023			Q2-2023		
	Ordinary activities	Extraordinary items	Total	Ordinary activities	Extraordinary items	Total	Ordinary activities	Extraordinary items	Total
Profit before tax (EBT)	347	87	434	308	(21)	287	279	64	343
Tax income (expense)	(33)	(17)	(50)	(16)	4	(12)	(14)	(13)	(27)
<b>Net profit</b>	<b>314</b>	<b>70</b>	<b>384</b>	<b>292</b>	<b>(17)</b>	<b>275</b>	<b>265</b>	<b>51</b>	<b>316</b>

# ACE Capital Structure and Leverage Ratio

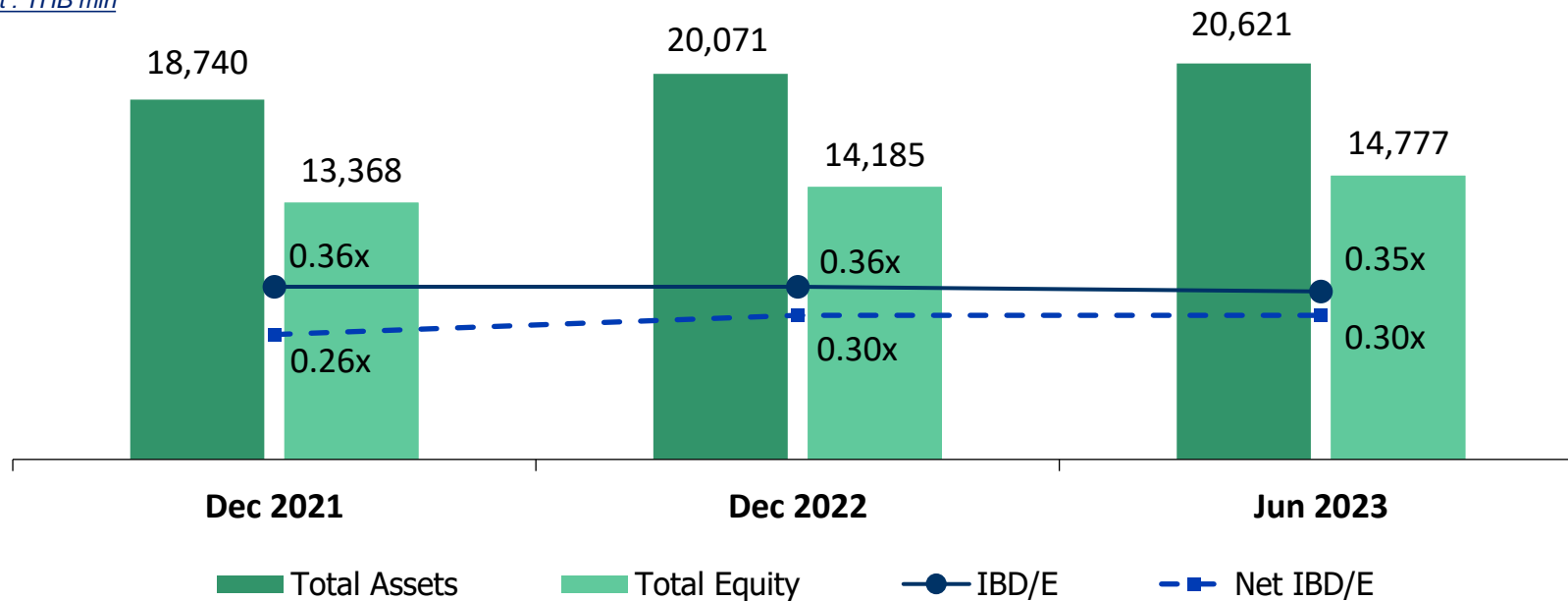


Unit: THB mln

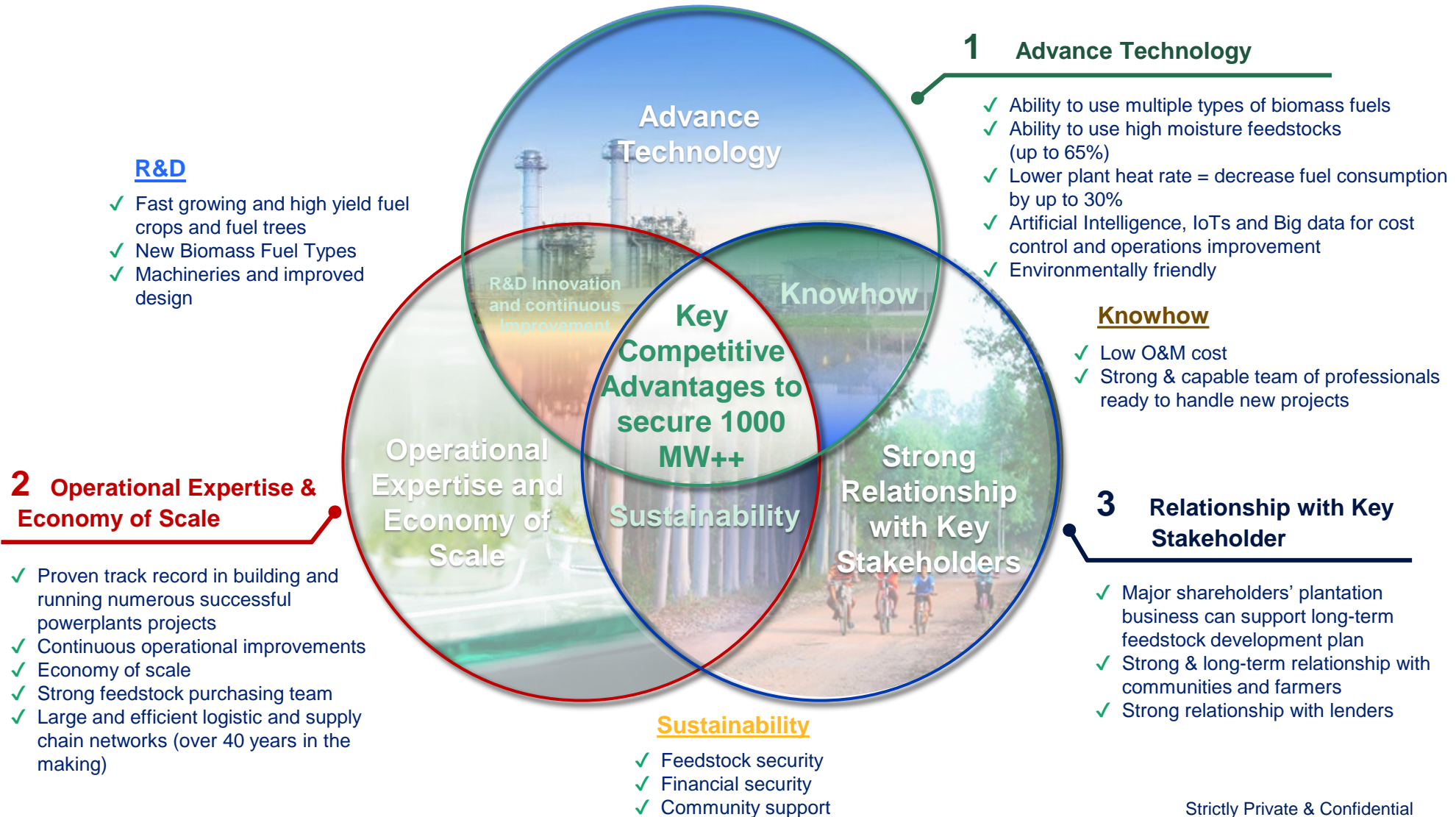
As of

	Dec 2021	Dec 2022	Jun 2023
<b>Total Assets</b>	<b>18,740</b>	<b>20,071</b>	<b>20,621</b>
<b>Total interest-bearing debt</b>	<b>4,780</b>	<b>5,075</b>	<b>5,125</b>
Cash equivalent and restricted cash	1,326	827	764
<b>Net Interest-bearing debt</b>	<b>3,454</b>	<b>4,248</b>	<b>4,361</b>
<b>Equity</b>	<b>13,368</b>	<b>14,185</b>	<b>14,777</b>

Unit : THB mln



# ACE's 3 Core Value Represent Competitive Advantage to Secure New PPAs **ACE**





# ACE's Key Strengths and Opportunities



1

## Thailand's Leading Integrated Power Producer with Highest Growth Potential

- Largest and fast-growing Biomass Power Producer supported by PPA with PEA in Thailand
- No. 1 Renewable Power Producer in Thailand in terms of Equity MW Growth

2

## World Megatrend

- "Electrification" Era
- Global & Thailand Commitment to Zero Carbon which implies the rise of renewable energy
- Biomass is one of the most reliable renewable energy that can replace the base load provided by conventional energy.
- ESG Business

3

## Continuous Growth from Projects in the Pipeline and Future

- Power Plant's PPA with exceptional tariff rate
- Better technology which leads to higher efficiency and less feedstock / kWh
- Economy of Scale resulting in lower CAPEX, OPEX, and SG&A
- 28% share in the latest biomass power plant bidding

4

## Efficient Operational Capabilities with Continuous Improvement

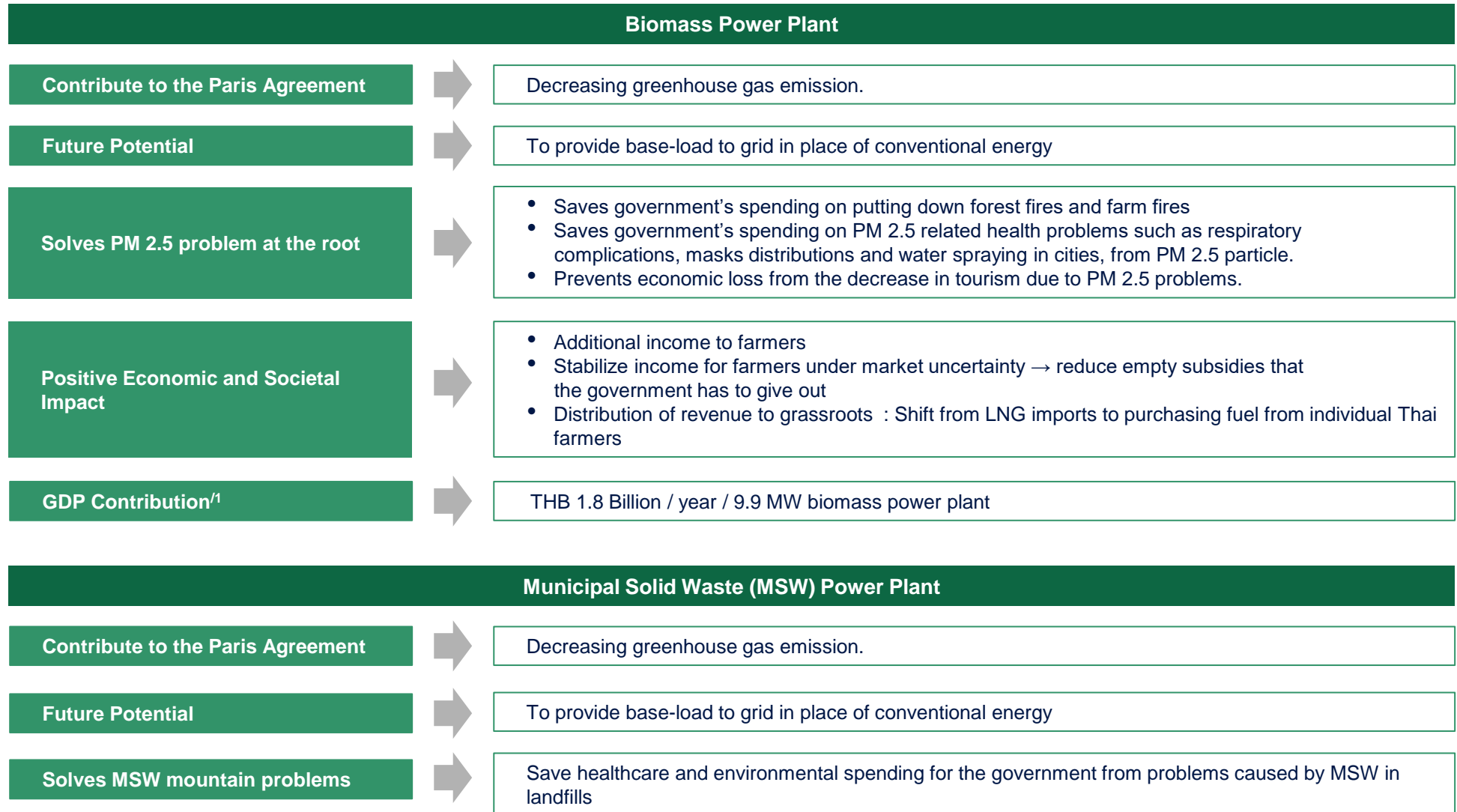
- Lower Feedstock and O&M cost which leads to higher margin
- Stronger creditworthiness which leads to lower financing cost
- Peer-to-Peer Electricity Trading which leads to additional electricity sales

5

## Low Downside Risk

- Secured Demand & Cashflow (Long term Power Purchase Agreement with the Government)
- Proven Operational Excellence & Feedstock Management
- Our business model commits to the greater good and has a positive Total Societal Impact (TSI)

# Total Societal Impact (TSI) and Environmental, Social & Governance (ESG) **ACE**





# Thank You

For further inquiry

[www.ace-energy.co.th](http://www.ace-energy.co.th)

Email : [ir@ace-energy.co.th](mailto:ir@ace-energy.co.th)