



Banpu Power FY24 & 4Q24 results

Opportunity Day

6th March 2025



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01

Highlights 2024



2024. Highlights

Portfolio highlight

OPERATION

3,584 MW

Total capacity²

RMB 28 million

Record-high Carbon Emission Allowance (CEA) revenue

Company CREDIT RATING

A+

Awarded by Tris Ratings, with a stable outlook

AWARDS

AAA

Awarded by the SET ESG Rating 2024, for strong commitment to sustainable and responsible operations

Financial highlight

THB 25.8 bn

Revenue

Significant contribution from Temple I and II in the US

THB 7.4 bn

Consol. EBITDA¹

Strong contributions from thermal assets

THB 1.7 bn

NPAT

Operational resilience mitigating market impacts

0.49 x

Net D/E

Maintained net D/E at a low level

THB 0.6

Annual Dividend per share²

Consistent return to shareholder

Key achievements.

2024

Corporate achievements

1H24 BPP STRATEGIC PLANNING

Focused on strategic planning and deep knowledge – building of new industries, alongside internal cash flow forecasting, to formulate BPP's 2025–2030 roadmap

**GLOBAL BUSINESS OUTLOOK AWARDS
MOST SUSTAINABLE ENERGY
COMPANY – THAILAND 2024
JUL'24**

**SENATE COMMITTEE
Good People, Protect
the World Plaque
AUG'24**

**CEO ECONMASS AWARDS 2024
TOP SENIOR CEO
NOV'24**

Renewables+

 **COMMERCIAL OPERATIONS
BANPU NEXT & SVOLT
(THAILAND) BATTERY
PACK FACTORY**
2.0 GWh committed capacity

 **TRADING-AS-A-SERVICE
ENSPIRED INVESTMENT**
EUR 3 M

 **GROWTH: UTILITY SOLAR
AMP JAPAN**
\$145 M INVESTMENT

 **MARKET ENTRY
CRR TRADING IN ERCOT**

 **VALUE CHAIN EXPANSION
1ST US SOLAR FARM**
2.5 MW

 **MOU: SHANXI GOVT.
RENEWABLES DEV.**

 **GROWTH: BESS
2 NEW BESS PROJECTS**
AIZU (26 MW) & TSUNO (26 MW)

Thermal

**STRATEGIC OPERATIONAL EXCELLENCE ACROSS THE PORTFOLIO
IMPLEMENTATION OF OPERATIONAL IMPROVEMENTS & COST-SAVING MEASURES**

 **PORTFOLIO RATIONALIZATION
NAKOSO DIVESTMENT**
THB 1.2 bn proceed

Transition to low-carbon energy generation, capital recycling into high-growth areas, and long-term value creation for stakeholders

1Q24

2Q24

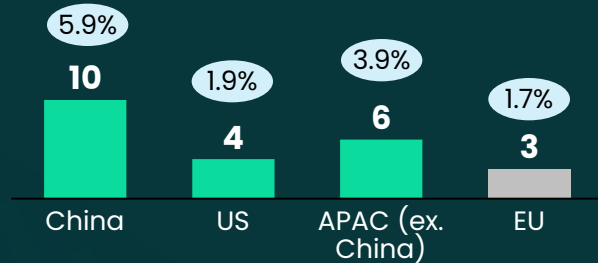
3Q24

4Q24

2025 outlook

2024 electricity demand

Unit: 000' TWh % 2025-2027 growth



BPP's portfolio is strategically positioned in key markets like China and US, the world's top electricity demand hubs, with strong growth potential in APAC.

Thailand

Power Tariff Reductions have no Impact to BPP

Plans to lower power tariffs as well as improve T&D system to reduce energy losses.

No impact of tariff adjustment on BPP assets
as HPC and BLCP both have secured PPA agreement and low-cost baseload energy assets.

Opportunity for additional revenue from outside-CAH¹
HPC and BLCP maintain high EAF² through efficient operations, with potential upside from outside-CAH

China

Carbon Emission Allowances:

290,000 tCO₂e Forecasted 2025 CEA gains

High revenue generation projected as trading volumes remain high under tighter industrial carbon caps

Renewable Energy Ambitions

Reliable generation from coal amidst strong renewable energy build out.

DeepSeek & Jevons Paradox

Emergence of AI with potentially greater efficiency and cost could lead to increase in power demand.

BPP can leverage upsides in China through CEA trading in the carbon market and expanding generation portfolio to capture growing demand for green energy

2025 outlook: growing US power market driven by data centers and AI

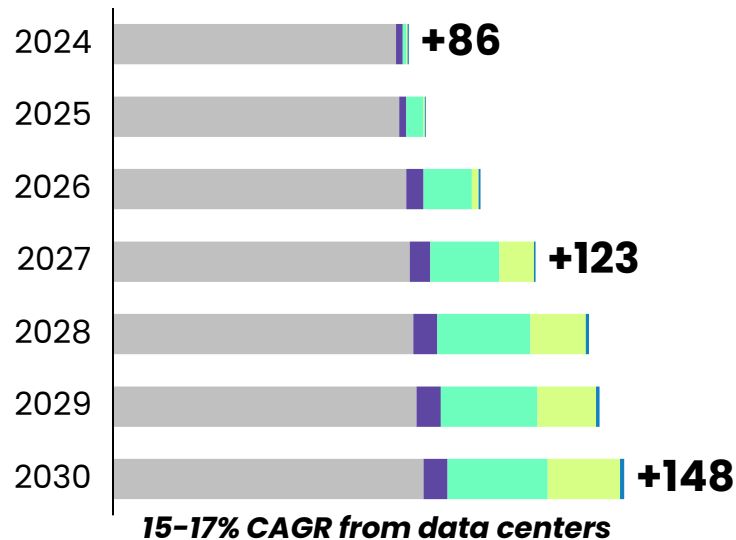
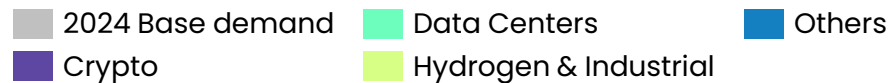


US

Generative AI, machine learning, and cryptocurrencies, through data centers, are becoming the new major electricity consumer

ERCOT Installed Load Growth (GW)

Energy transition and digitalization are driving load growth to 2030



Avg. ERCOT on peak¹ (\$/MWh)

32

2024

60

2025 forward

Continued growth of renewables in parallel to gas expected despite Trump's presidency

277 GW

Solar & Wind Capacity (2024)

+30 GW expected in 2025

34 GW

Contracted to data centers

490 GW

Gas Capacity (2024)

Core baseload accounting for 43% of current generation

Federal policies promoting relocation of offshore manufacturing and expansion of domestic production



13,000 GWh

Of annual electricity usage

Addition from >150 onshore manufacturing facilities² driven by new large industrial loads like semiconductor sector. with half expected to be operational by 2025.

Push for electrification across all sectors



Electric vehicle sales



Adoption of heat pumps



Energy storage integration

Banpu Power

a unique Pan-Pacific energy platform

Balanced and robust portfolio

A combination of flexible assets for upside potential and legacy assets for stable long-term cash flow through fixed contracts.

Unlocking value across the energy value chain

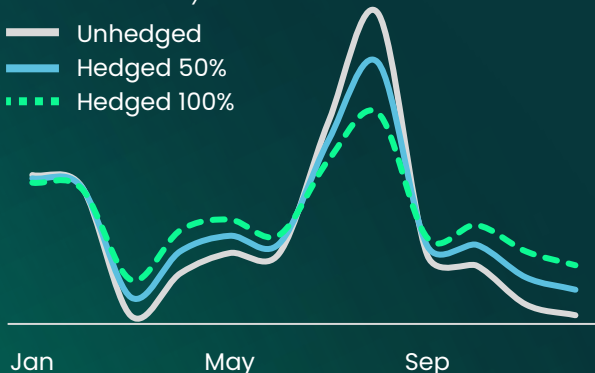
Geographically diversified assets across the energy value chain, from traditional base load energy to digital-driven clean energy and storage.

Temple I & II – Effective Hedging and Risk Management

Monthly gross profit comparison: Hedge vs. non-hedge

For illustration only

- Unhedged
- Hedged 50%
- ... Hedged 100%



Hedge Cash Flow Stability Vs. Seasonality

	2024	2025	2026 ¹
Hedging amount (MW)	700	700	200
Cash flow from hedging (\$ M)	102	146	38

- Enhancing financial stability with secured cash flow from 2025 hedging a 40% increase, while hedged capacity remained consistent with 2024.
- Covering the plants' fixed costs and financial expenses to safeguard against revenue fluctuations.

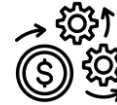
BKV-BPP JV:

a catalyst for growth in the US



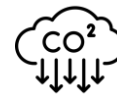
Well-positioned to capture growth and paradigm shifts in the ERCOT power market and beyond

Leverage experience to pursue BESS opportunities with optimized revenue stacking capabilities amidst growing power demand from data centers and AI.



On-the-ground team ready to drive growth and stability

With an experienced team and deep industry expertise, we are well-positioned to navigate challenges, optimize performance, and seize opportunities for sustainable growth.

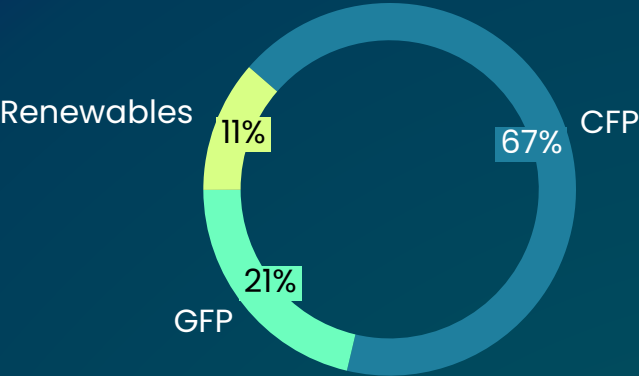


Early exposure to CCUS as a steppingstone for future power sector applications

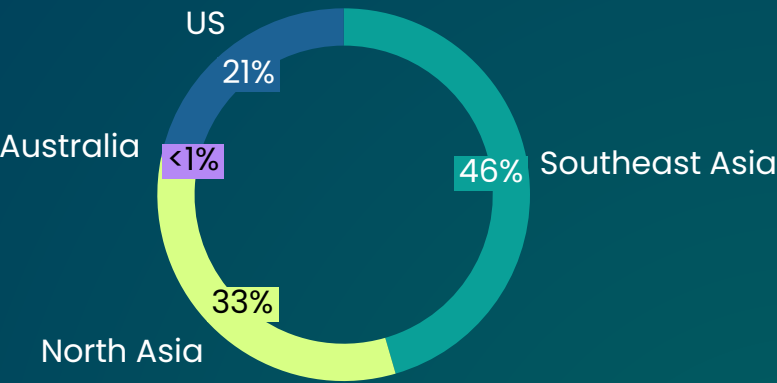
Leveraging the JV with BKV to align with the decarbonization trend by focusing on projects near substations, like Cotton Cove, with potential for power sector carbon reduction and utilization studies.

Banpu Power: balanced and robust

PORTFOLIO SPLIT BY GENERATION TYPE



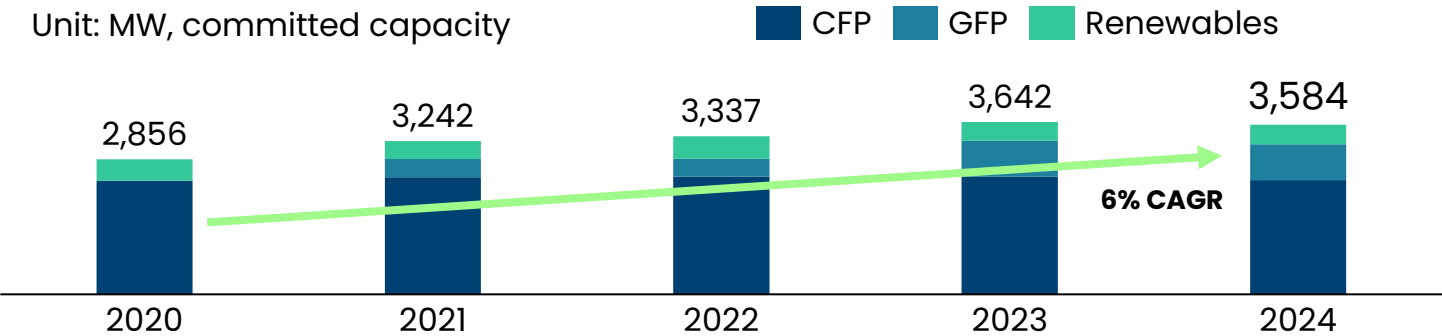
PORTFOLIO SPLIT BY GEOGRAPHY



Banpu Power's geographically diverse and balanced asset mix allows the portfolio to navigate uncertainties and capture upsides from opportunities

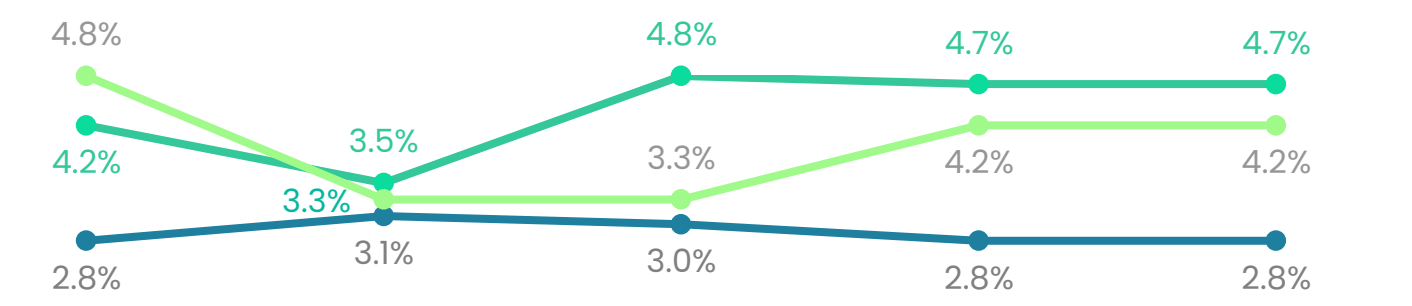
PORTFOLIO GROWTH: DRIVEN BY A JUST TRANSITION

Unit: MW, committed capacity



DIVIDEND YIELD: STRONG & CONSISTENT RETURNS TO SHAREHOLDERS

Unit: %



NET DEBT TO EQUITY: FINANCIAL DISCIPLINE & FLEXIBILITY

Unit: x

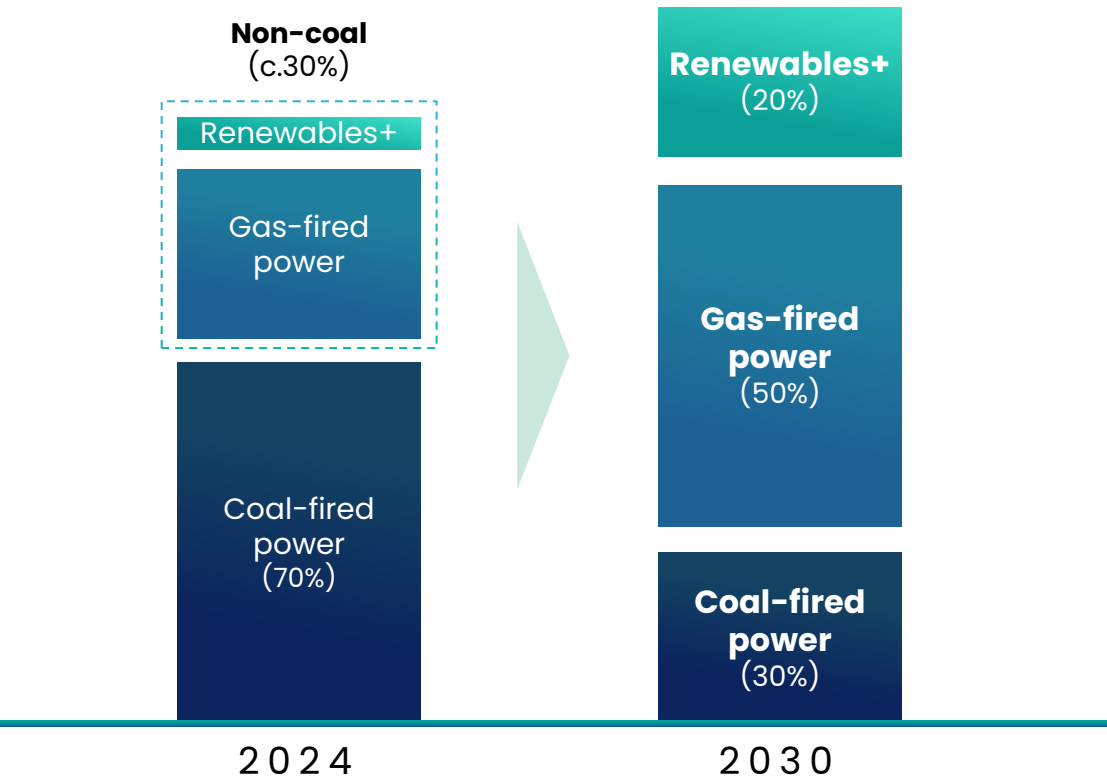


Banpu Power: ensuring resilient growth and financial flexibility

INDICATIVE EBITDA BREAKDOWN

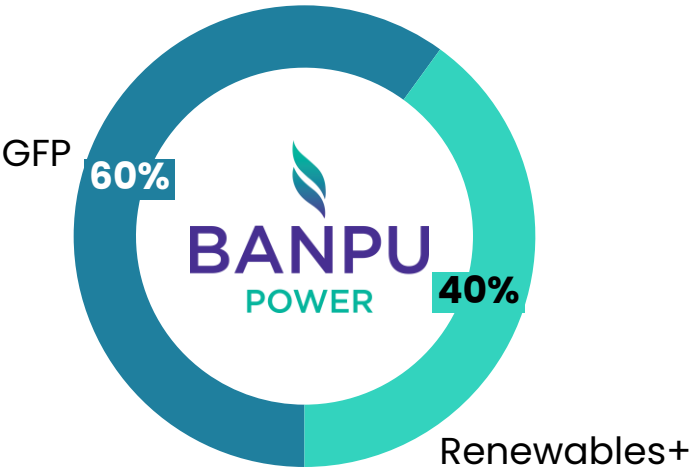
>65% EBITDA from Greener assets by 2030, with stable cash flows, facilitating a successful energy transition.

>1.8X EBITDA
GROWTH TARGET



INDICATIVE CAPEX BREAKDOWN

2025-2030



Banpu Power’s capital allocation focuses on building a resilient and sustainable portfolio, prioritizing financial strength and environmental responsibility, with the goal of maximizing shareholder value.

Banpu Power: 2025–30 strategy

the
portfolio •

THERMAL
BACKBONE ENERGY

RENEWABLES+
DIGITAL-DRIVEN SUSTAINABLE ENERGY

the
purpose •

Acquisition of Quality Megawatts
in both gas-fired power and renewable assets

Decarbonization and Growth
of next-gen technology

the
strategy •

**Unlocking Value
of legacy assets**

- Ensure operational excellence for reliable baseload power and stable cash flow.
- Optimize and decarbonize assets for responsible end-of-life management.
- Drive growth in gas-fired power as a transition fuel, with a target of +1,500 MW in the US and other growth geographies.

**Expanding Capacity
in cleaner generation**

- Scale up renewable capacity with high-efficiency assets.
- Optimize asset performance for sustainable value.
- Leverage digital and grid solutions for cleaner energy.

**Redefining Power
for the future**

- Expand BESS projects in key markets to maximize dynamic revenue generation, leveraging AI and predictive analytics for optimization.
- Integrate CCUS with thermal assets to enhance value while decarbonizing operations.
- Exploring opportunities in energy transition including energy infrastructure

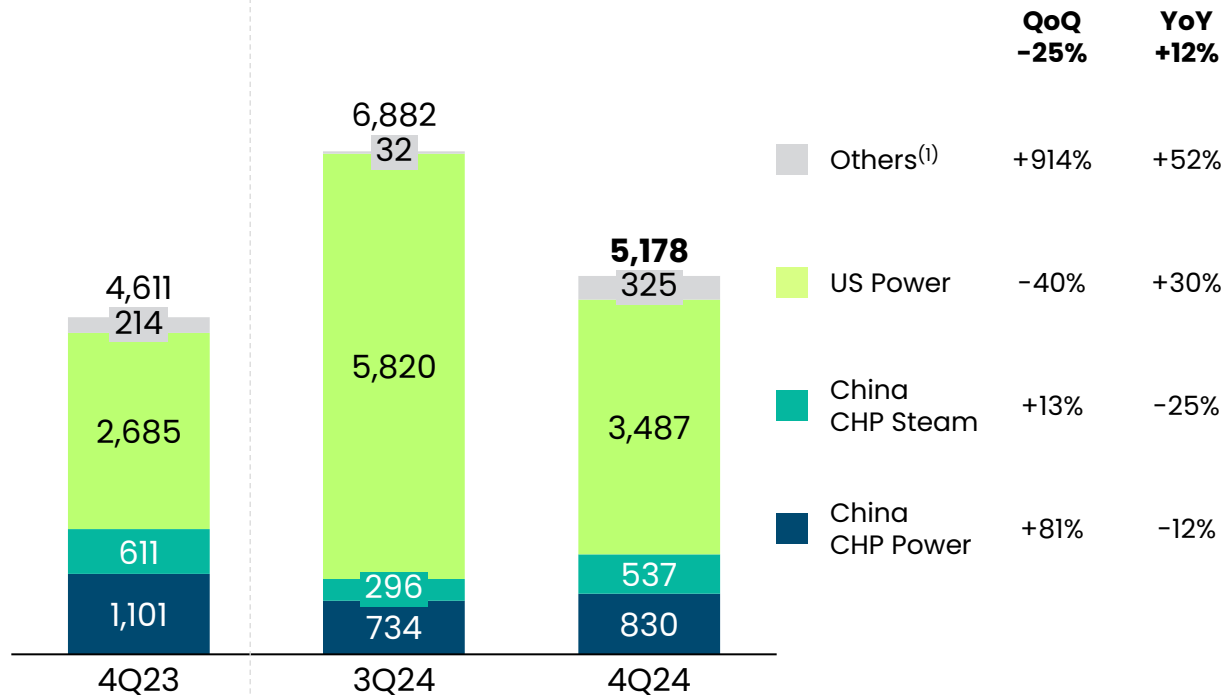
Financial performance

Financial performance:

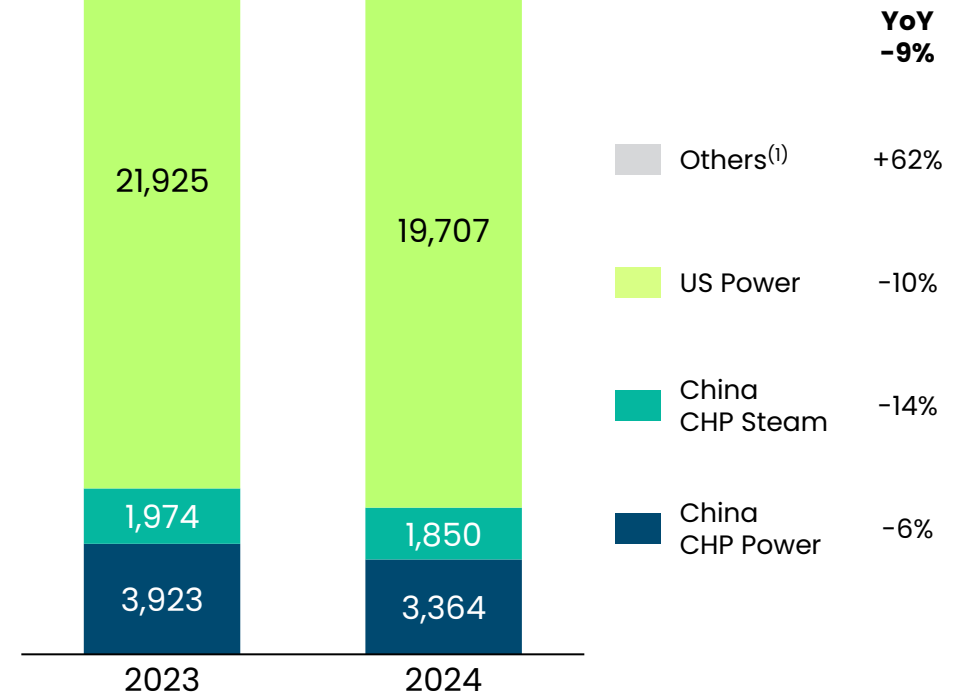
Consolidated Revenue – 4Q24 & FY24

Unit: THB M

Consolidated sales revenue, by quarter



Consolidated sales revenue, by year

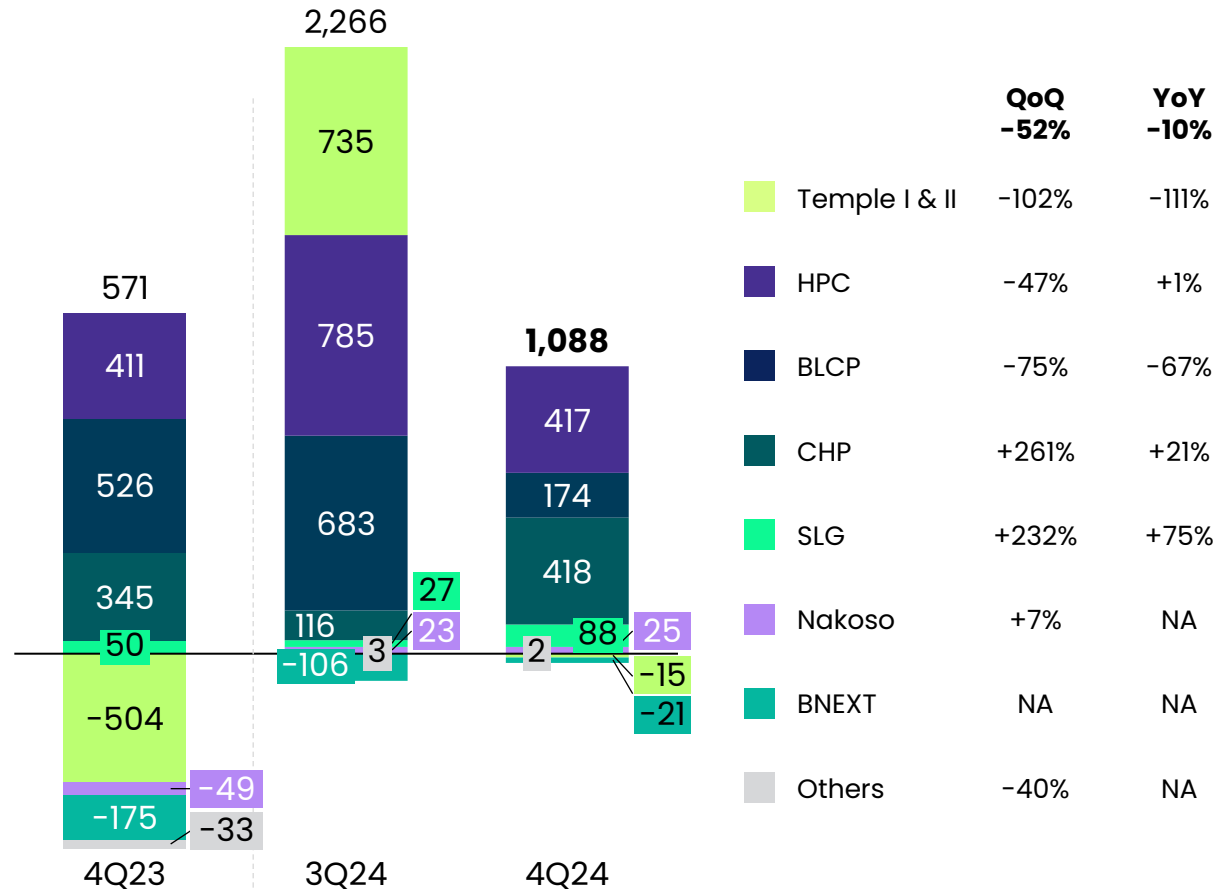


Financial performance:

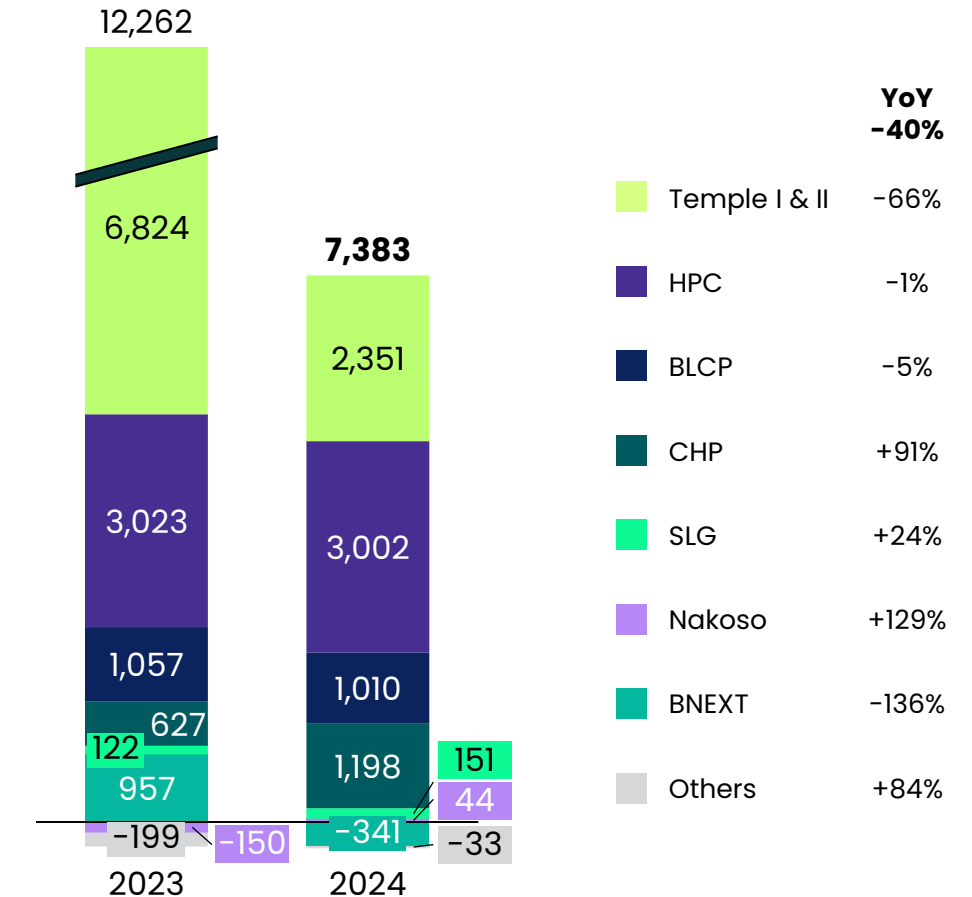
Consolidated Ebitda – 4Q24 & FY24

Unit: THB M

Consolidated Ebitda, by quarter



Consolidated Ebitda, by year

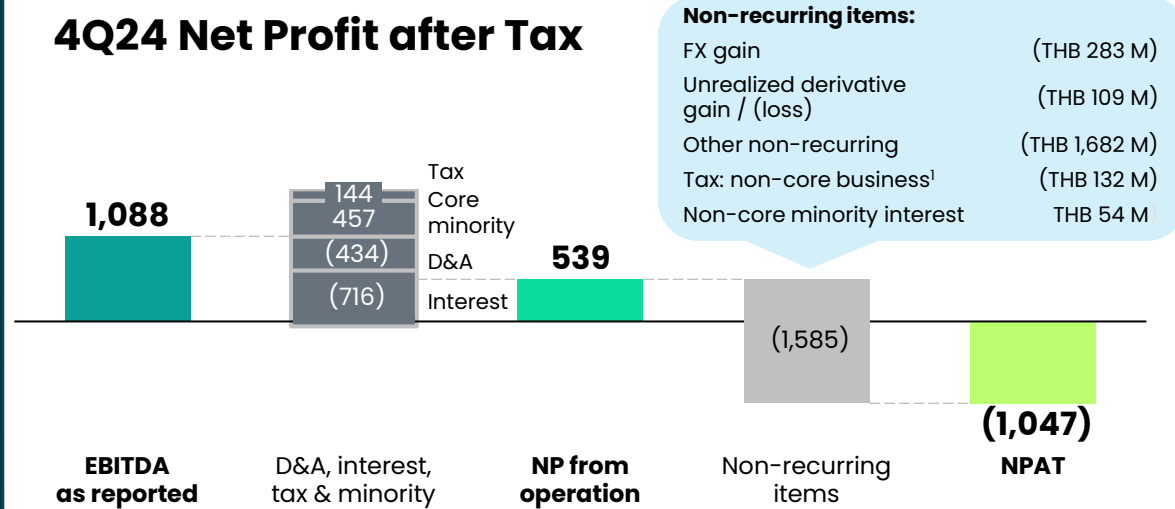


Financial performance:

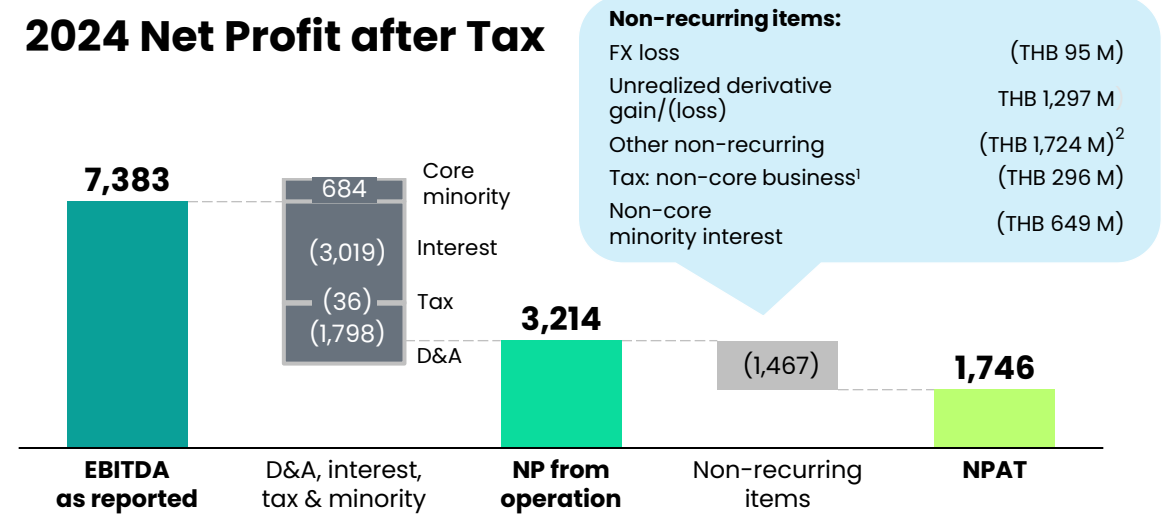
Consolidated NPAT – 4Q24 & FY24

Unit: THB M

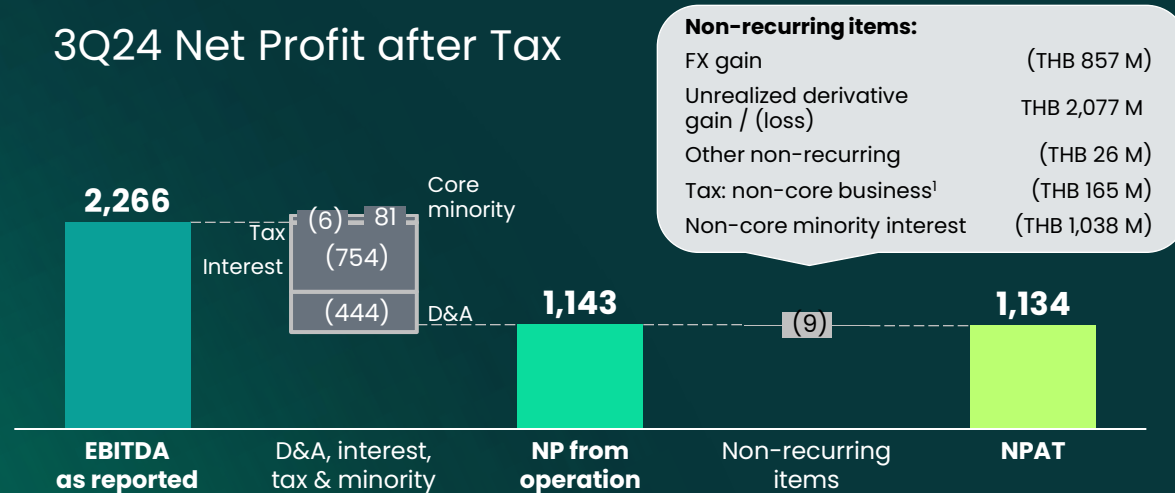
4Q24 Net Profit after Tax



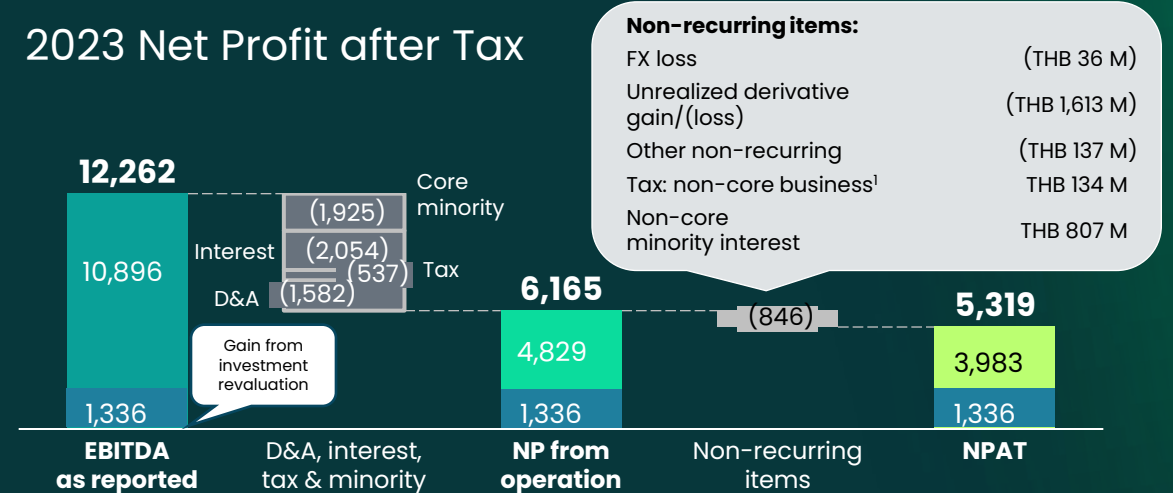
2024 Net Profit after Tax



3Q24 Net Profit after Tax



2023 Net Profit after Tax



Note: (1) Income + deferred tax

(2) Non-recurring in 2024 included impairment loss of THB 1,621 Million from Nakoso divestment.

(3) The group is within under the scope of the Pillar Two model rules, however, the Pillar Two legislation will come into effect on 1 January 2025. Since the Pillar Two legislation was not effective at the reporting date, there is no related current tax exposure as details shown in notes no. 17 of the financial statements 2024.

Financial performance:

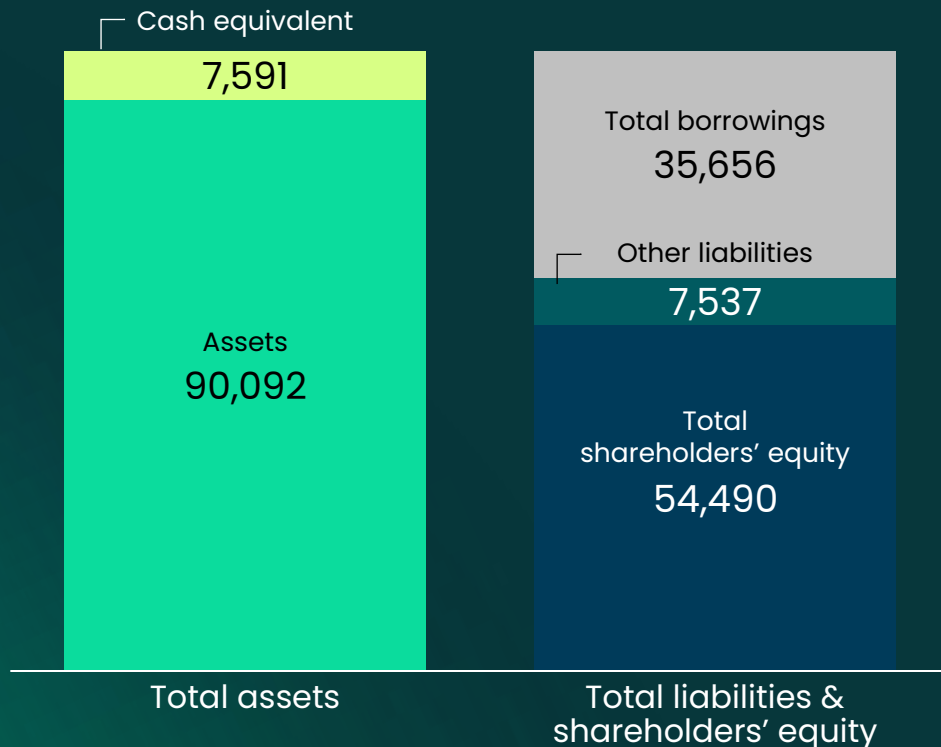
Consolidated financial position – FY24

Unit: THB M

2024 Consolidated Financial Position

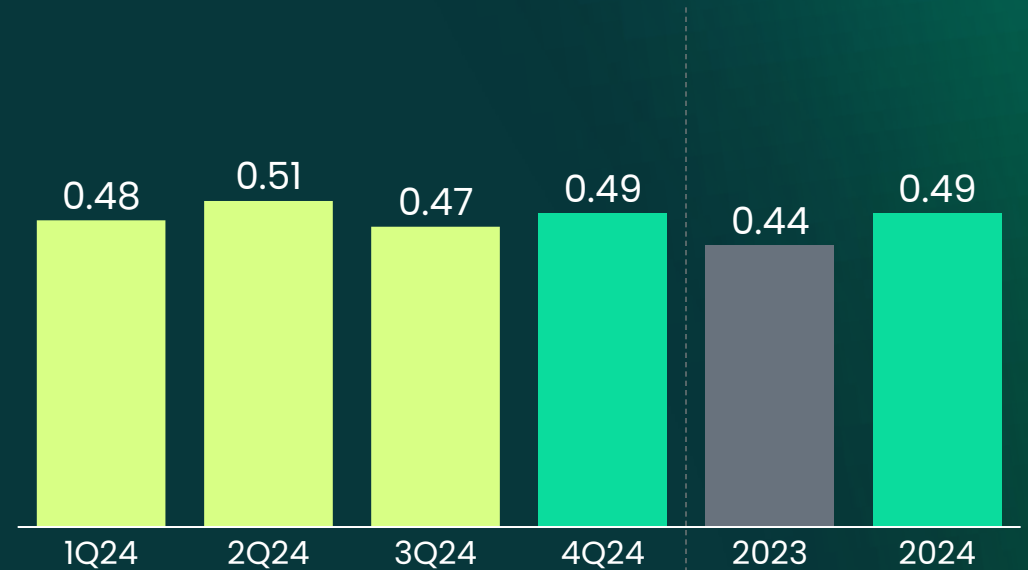
31 December 2024

In 2024, total assets were THB 97,683 M, a decrease of THB 1,220 M from 2023. The net D/E ratio increased from 0.44 to 0.49 contributed by higher debt.



Gearing Ratios

Net debt (Net Cash) / Equity¹ (x)



Note: (1) Net debt to book value of shareholders' equity

Thermal performance

Thermal asset: portfolio overview

MAP OF OPERATIONS

CHINA

CHINA CHP

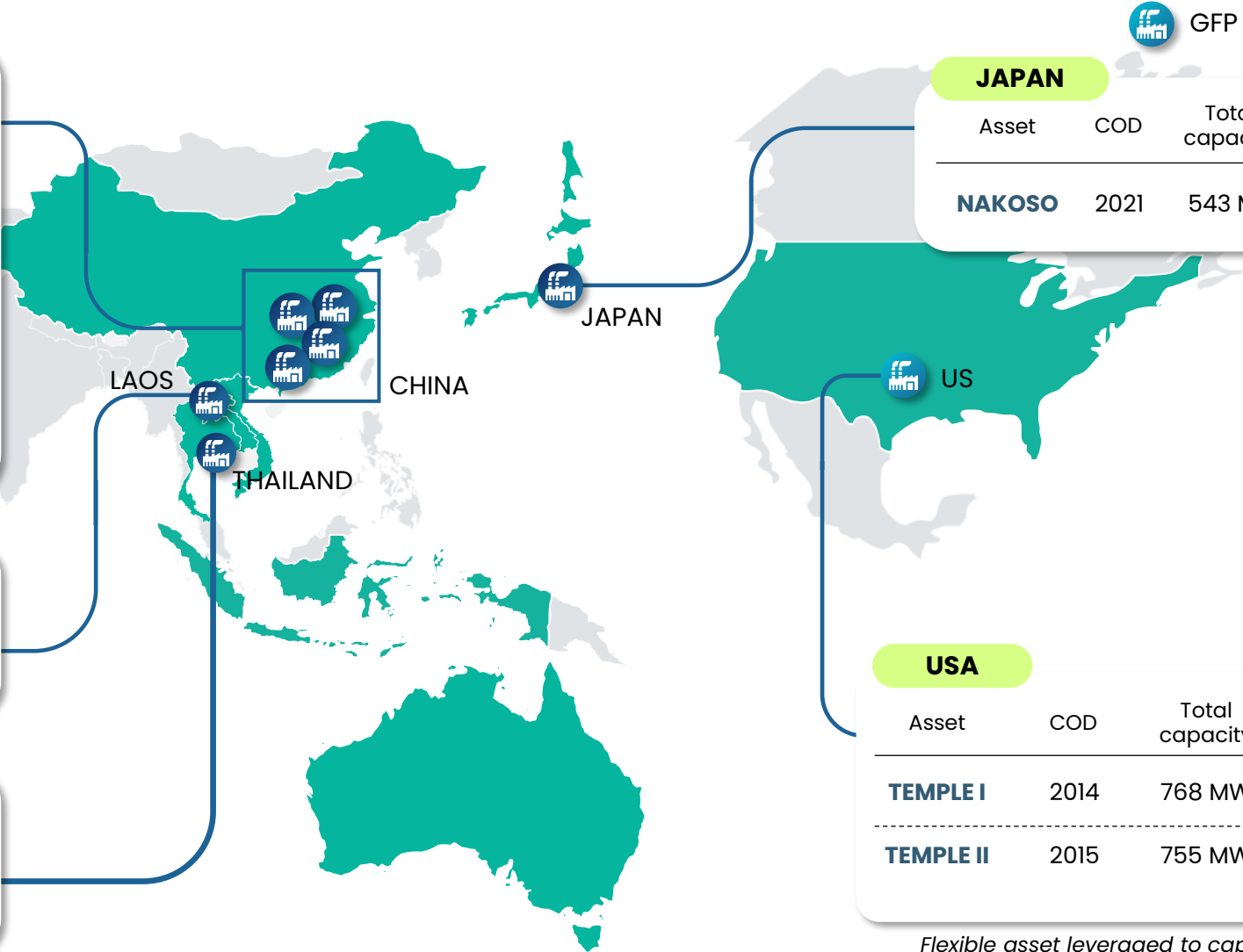
Asset	COD	Total capacity	Stake	Equity capacity
Zhending	2000-15	139 MWe	100%	139 MWe
Luannan	2001-19	246 MWe	100%	246 MWe
Zouping	2001-17	233 MWe	70%	163 MWe
SLG	2021	1,320 MW	30%	396 MW

LAOS

Asset	COD	Total capacity	Stake	Equity capacity
HPC	2015	1,878 MW	40%	751 MW

THAILAND

Asset	COD	Total capacity	Stake	Equity capacity
BLCP	2006	1,434 MW	50%	717 MW



JAPAN

Asset	COD	Total capacity	Stake	Equity capacity
NAKOSO	2021	543 MW	13.4%	73 MW

USA

Asset	COD	Total capacity	Stake	Equity capacity
TEMPLE I	2014	768 MW	50%	384 MW
TEMPLE II	2015	755 MW	50%	378 MW

Through JV with BKV

Flexible asset leveraged to capture market upside

China CHPs: operational performance.

Asset Information:

In 2006, Banpu Power Investment Co., Ltd. (BPIC) invested into 3 combined heat and power plants in China with total of 548 equity MWe at present.

Banpu Power Shareholding

- Luannan: BPIC 100%
- Zhengding: BPIC 100%
- Zouping: BPIC 70%; Xiwang Group 30%

Quarter update:

All plants operated normally with no disruptions. LN CHP completed coal yard expansion in September, totaling 200,000 tons in capacity.



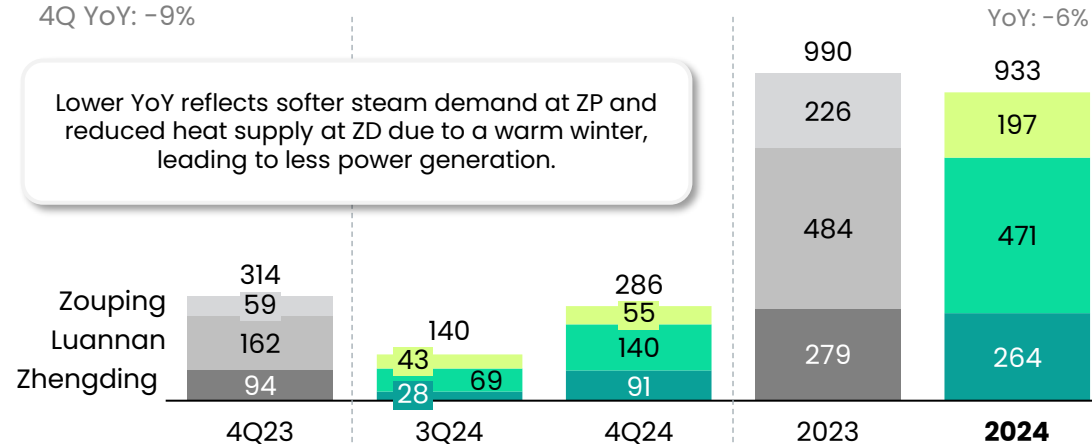
548 MW

Total Equity Capacity

Electricity sold (GWh)

QoQ: +104%
4Q YoY: -9%

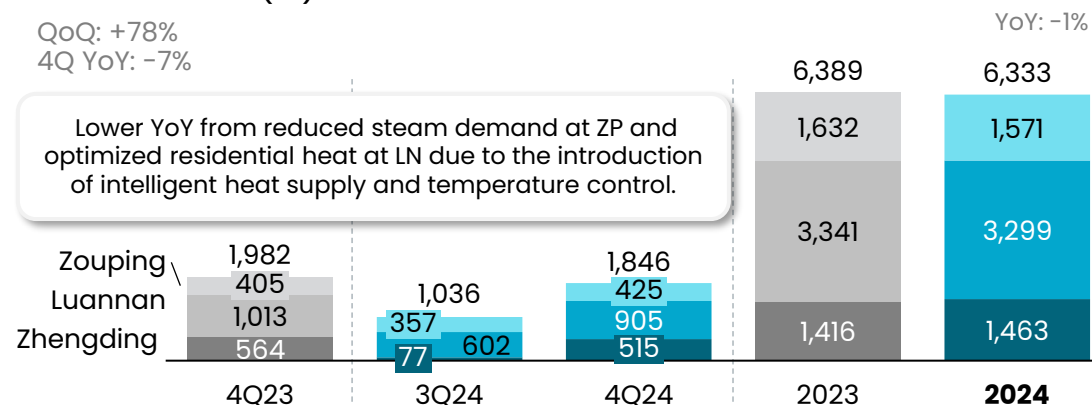
Lower YoY reflects softer steam demand at ZP and reduced heat supply at ZD due to a warm winter, leading to less power generation.



Steam sold (kt)

QoQ: +78%
4Q YoY: -7%

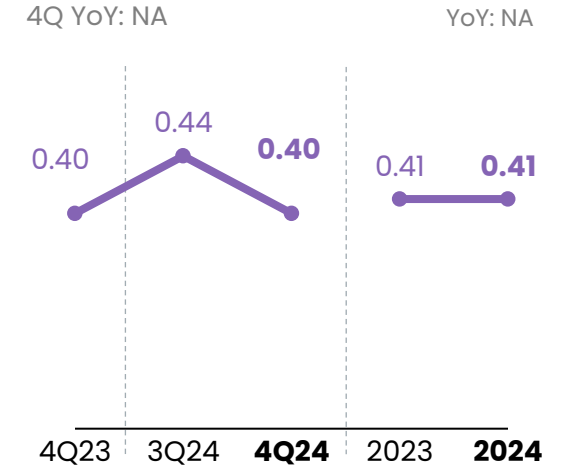
Lower YoY from reduced steam demand at ZP and optimized residential heat at LN due to the introduction of intelligent heat supply and temperature control.



Tariff (RMB/KWh)

QoQ: -9%
4Q YoY: NA

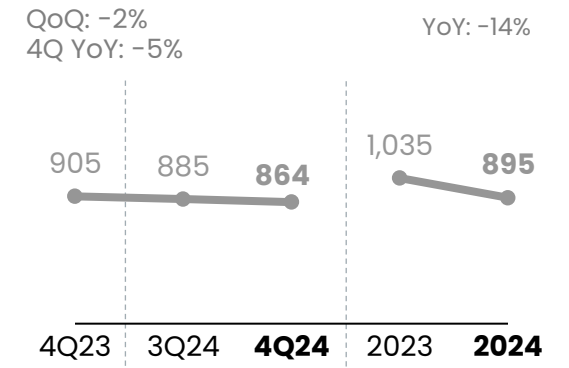
YoY: NA



Coal price (RMB/t)

QoQ: -2%
4Q YoY: -5%

YoY: -14%



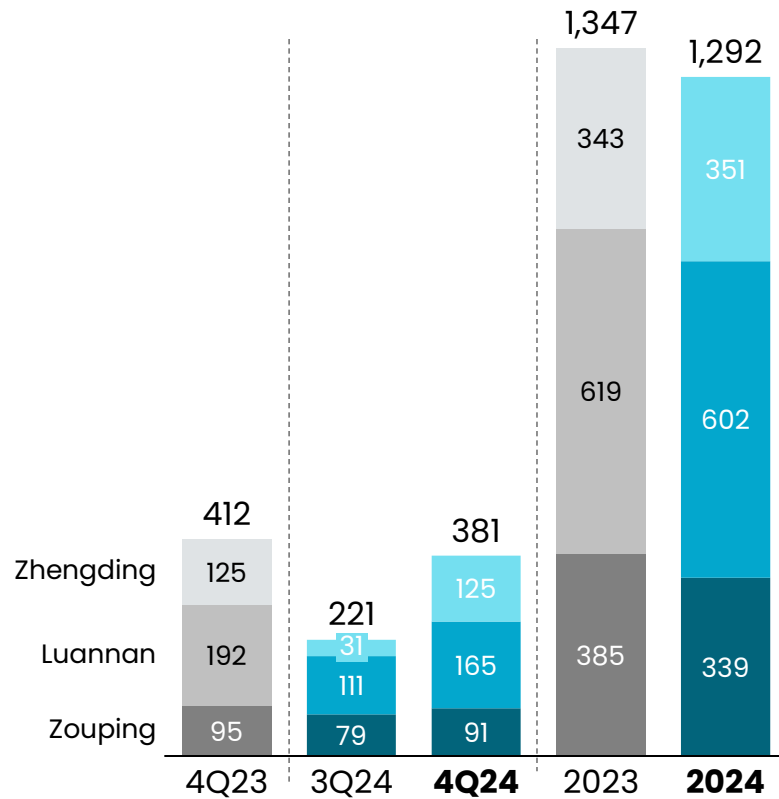
China CHPs: consolidated financial performance .

Unit: RMB M

Total Revenue

Based on 100% interest

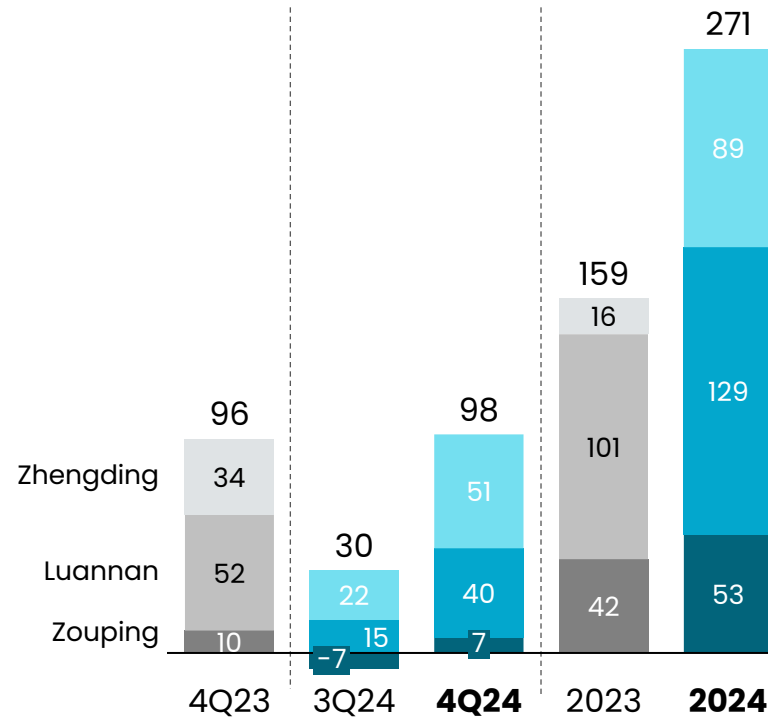
QoQ: +73%
4Q YoY: -7%
FY YoY: -4%



EBITDA

Based on 100% interest

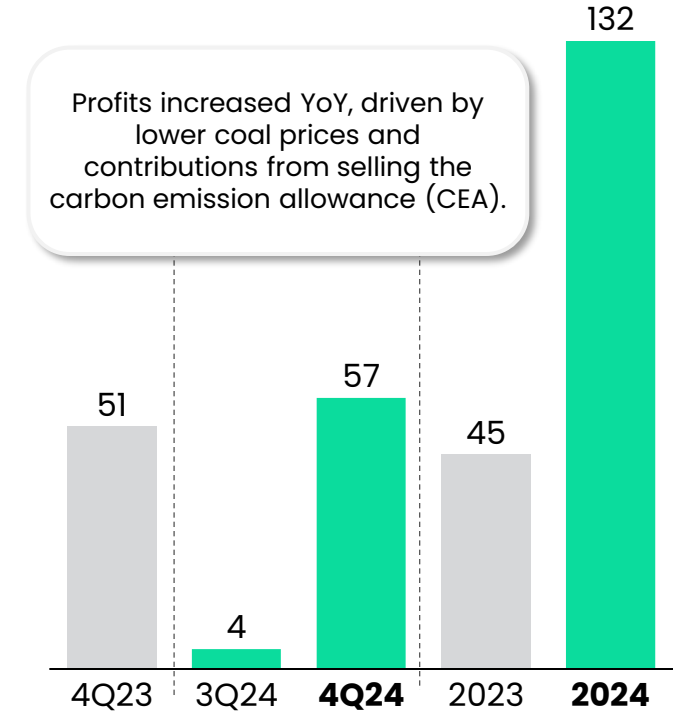
QoQ: +232%
4Q YoY: +3%
FY YoY: +70%



Profit Contribution to BPP

Based on Banpu Power's
100% interest for Luannan and
Zhengding, and 70% for Zouping

QoQ: +1257%
4Q YoY: +12%
FY YoY: +194%



SLG: operational & financial performance.

Asset Information:

Commissioned in 2021, SLG is a high efficiency coal-fired power plant that utilizes best of class technology to significantly lower emissions.

Banpu Power Shareholding

- BPIC (30%), Gemeng Intl Energy (35%), Anhui Province Wenergy (35%)

Quarter update: Unit #1 and Unit #2 underwent reserve shutdowns for 9 and 27 days, respectively, in Q4 due to lower power demand. Industrial steam supply continued, and residential heat supply began on Nov 1, 2024.

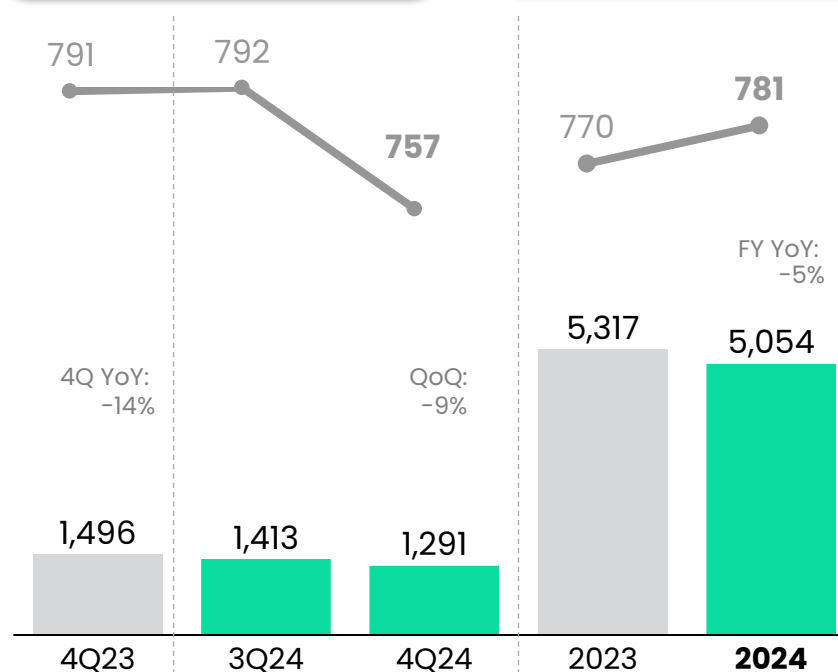
OPERATIONAL PERFORMANCE

Electricity generation (GWh)

— Coal price (RMB/t)

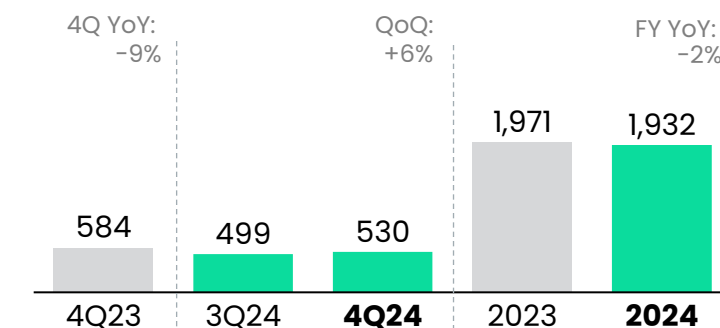
Higher prices in 2024 as a portion of coal was sourced from the market to cover the supply gap from guaranteed sources.

Lower power sales from reduced demand and addition of new capacity.

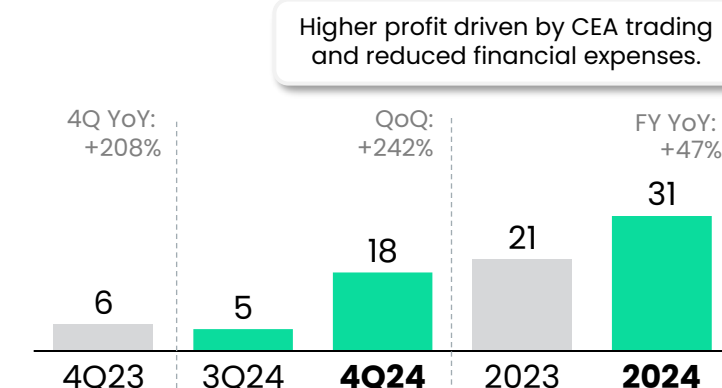


FINANCIAL PERFORMANCE

Total Revenue (RMB M)



Profit Contribution to BPP (RMB M)



Total Equity Capacity **396 MW**

HPC: operational performance.

Asset Information:

HPC is a lignite mine mouth power plant that commissioned between 2015 and 2016, making it Lao's largest power generating asset in terms of capacity.

- Banpu Power Shareholding
- BPP (40%), RATCH (40%), Lao Holding State Enterprise (20%)

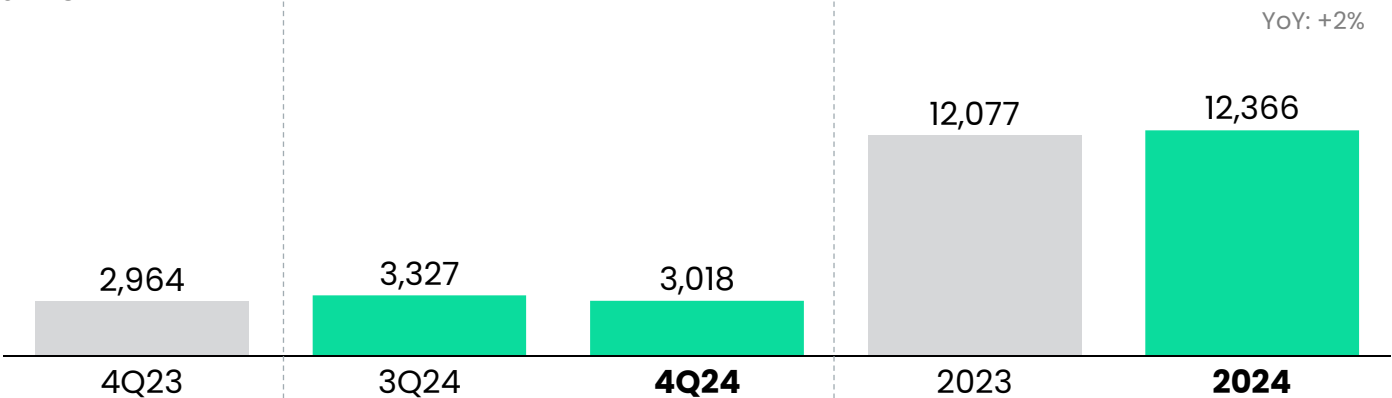
Quarter update: Performed annual maintenance on Unit #2 (3-24 Nov 2024) and Unit #1 (21 Dec 2024 - 10 Jan 2025), achieving CAH on 23 Dec and operating during OCAH through year-end.



Total Equity Capacity **751 MW**

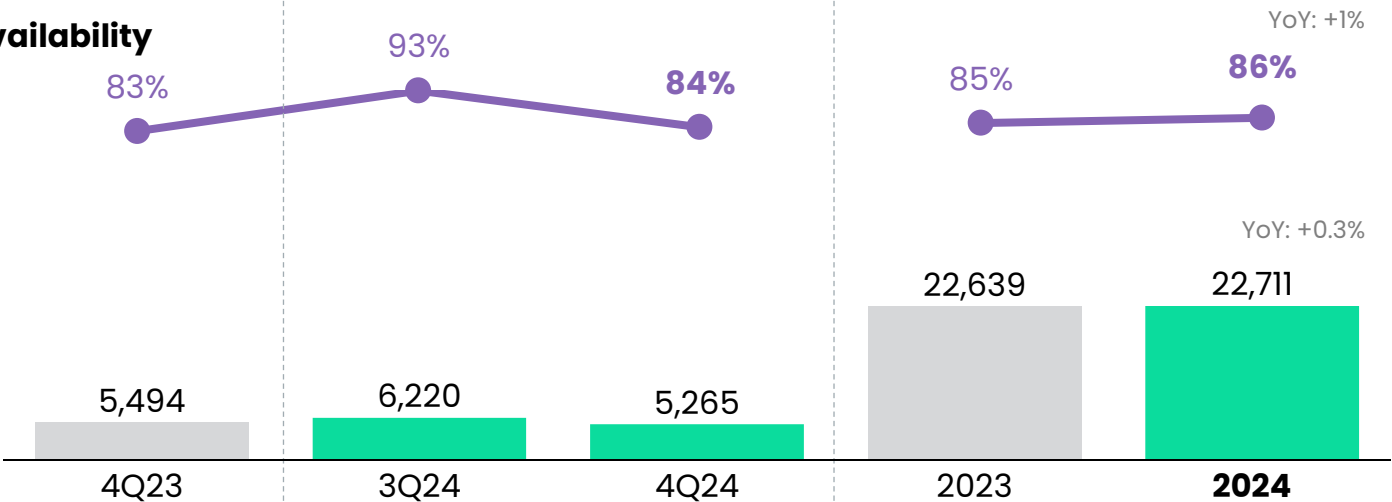
Net generation (GWh)

QoQ: -9%
4Q YoY: +2%



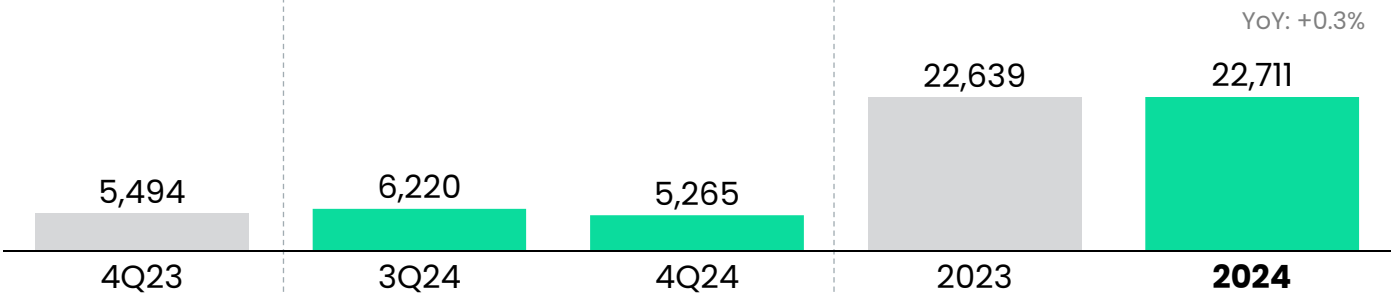
Equivalent availability factor (%)

QoQ: -10%
4Q YoY: +1%



Contracted Availability (hours)

QoQ: -15%
4Q YoY: -4%



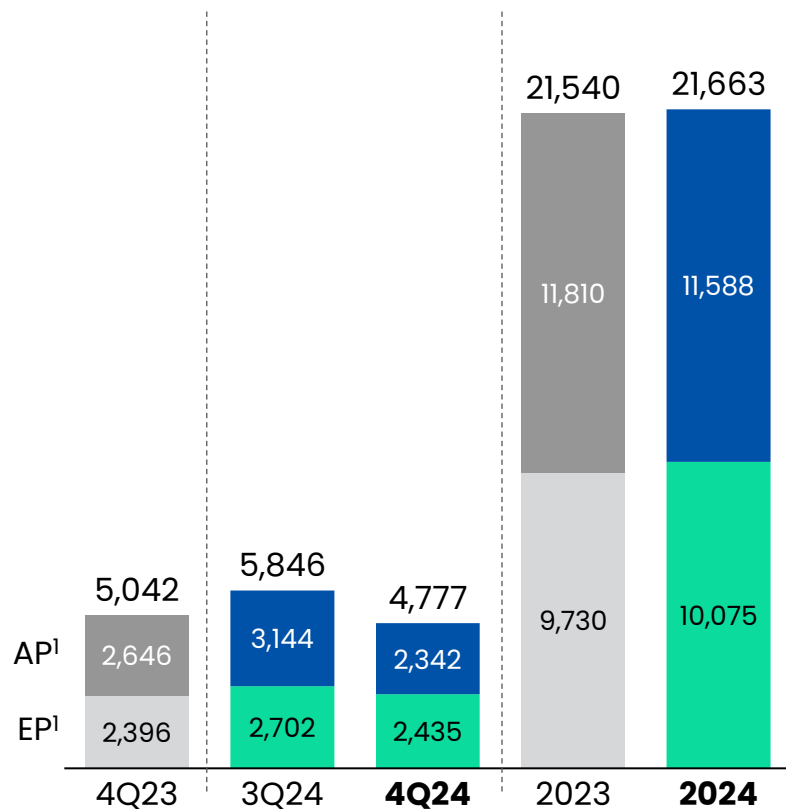
HPC: financial performance.

Unit: THB M

Total revenue

Based on 100% interest

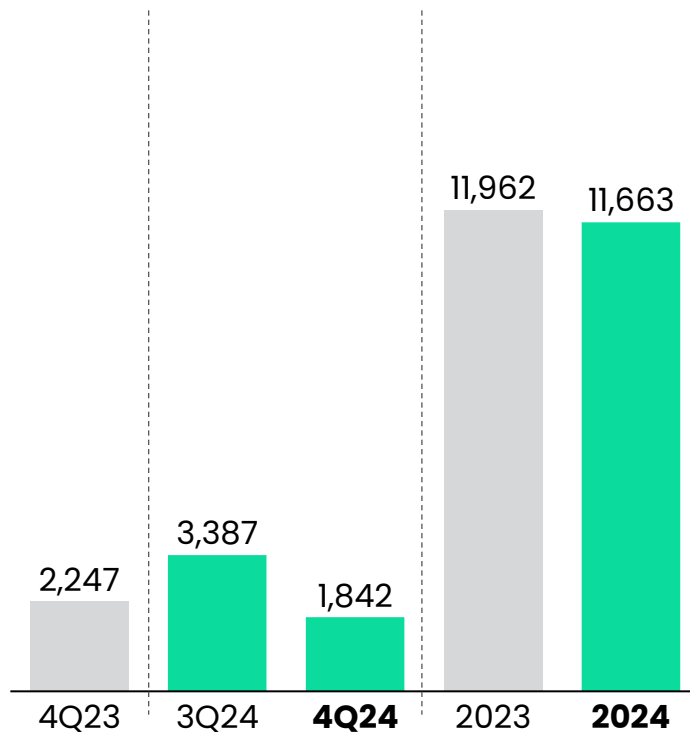
QoQ: -18%
4Q YoY: -5%
FY YoY: +1%



EBITDA

Based on 100% interest

QoQ: -46%
4Q YoY: -18%
FY YoY: -2%

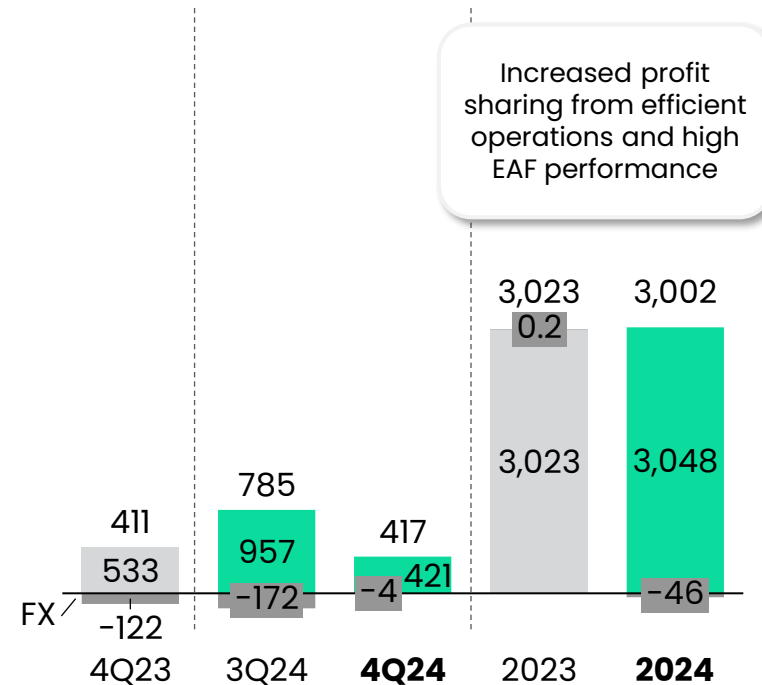


Profit contribution to BPP

Based on Banpu Power's 50% interest

QoQ: -47%
4Q YoY: +1%
FY YoY: -1%

■ FX gain (loss)



Note: (1) 100% basis for Availability Payment (AP) and Energy Payment (EP)

BLCP: operational performance.

Asset Information:

BLCP is a coal-fired power plant located in Map Ta Phut Industrial estate, Rayong with Unit 1 and 2 COD in 2006 and 2007, respectively.

Banpu Power Shareholding
▪ Banpu Coal Power (50%), EGCO (50%)

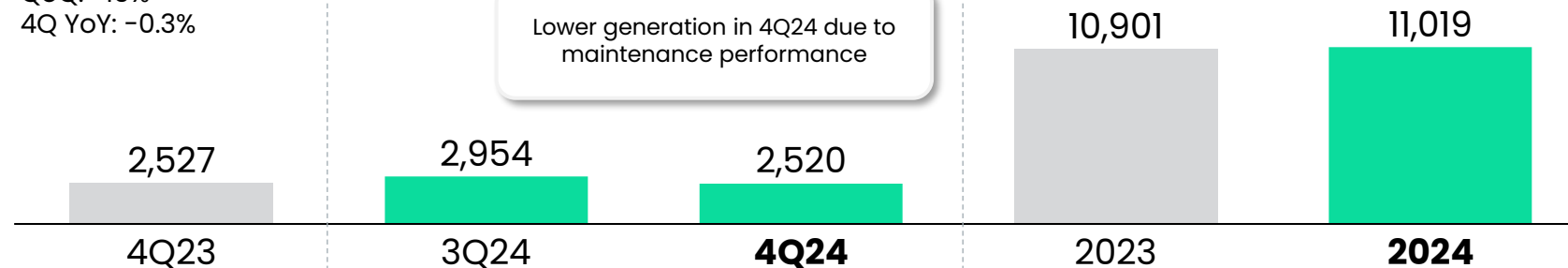
Quarter update: Operating smoothly as planned.

Total Equity Capacity
717 MW

Net generation (GWh)

QoQ: -15%
4Q YoY: -0.3%

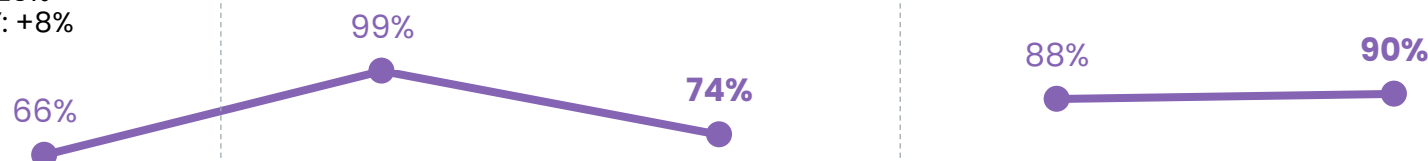
Lower generation in 4Q24 due to maintenance performance



Equivalent availability factor (%)

QoQ: -25%
4Q YoY: +8%

FY YoY: +2%

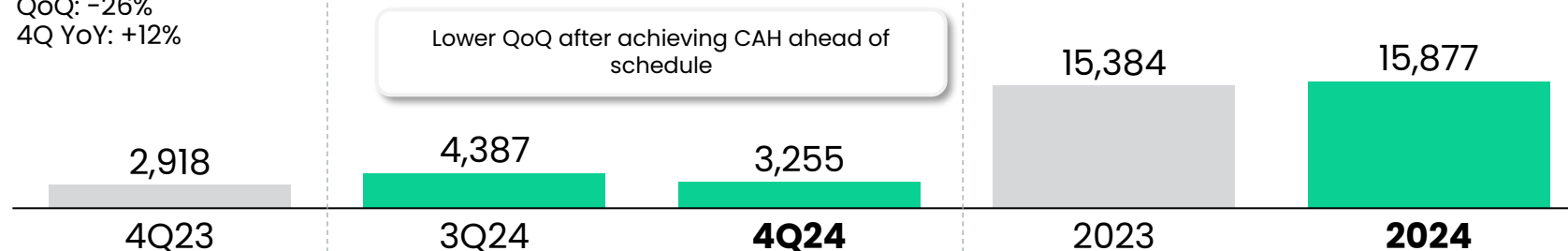


Contracted availability hours (hours)

QoQ: -26%
4Q YoY: +12%

Lower QoQ after achieving CAH ahead of schedule

FY YoY: +3%



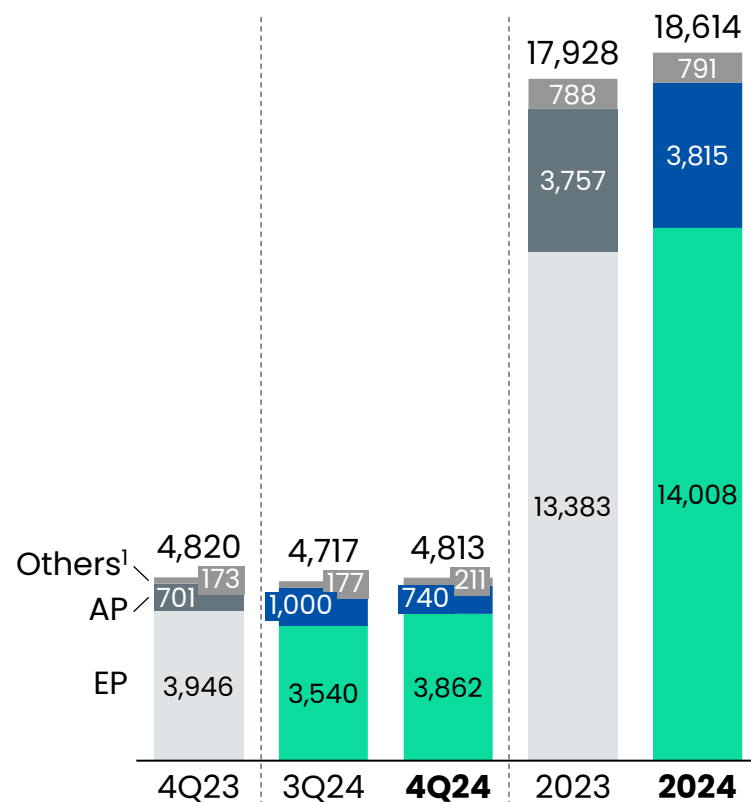
BLCP: financial performance.

Unit: THB M

Total revenue

Based on 100% interest

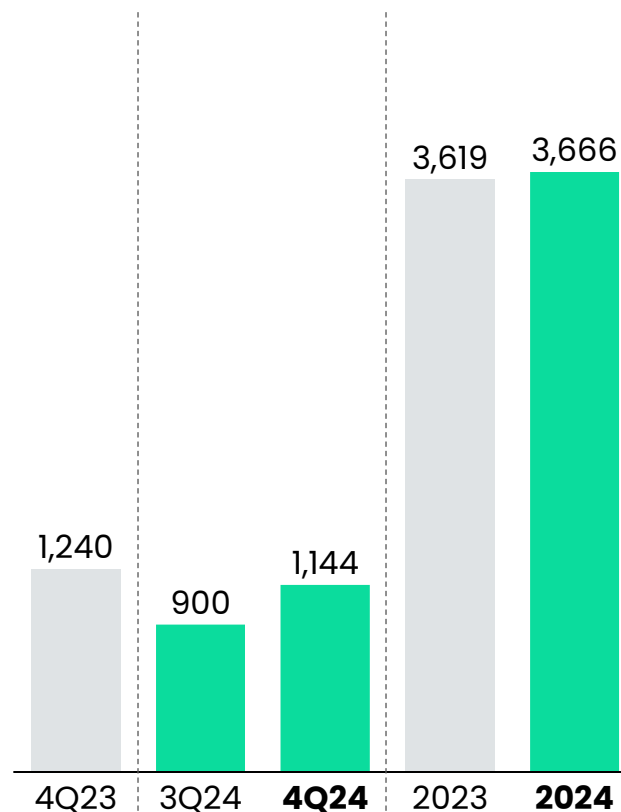
QoQ: +2%
4Q YoY: 0%
FY YoY: +4%



EBITDA

Based on 100% interest

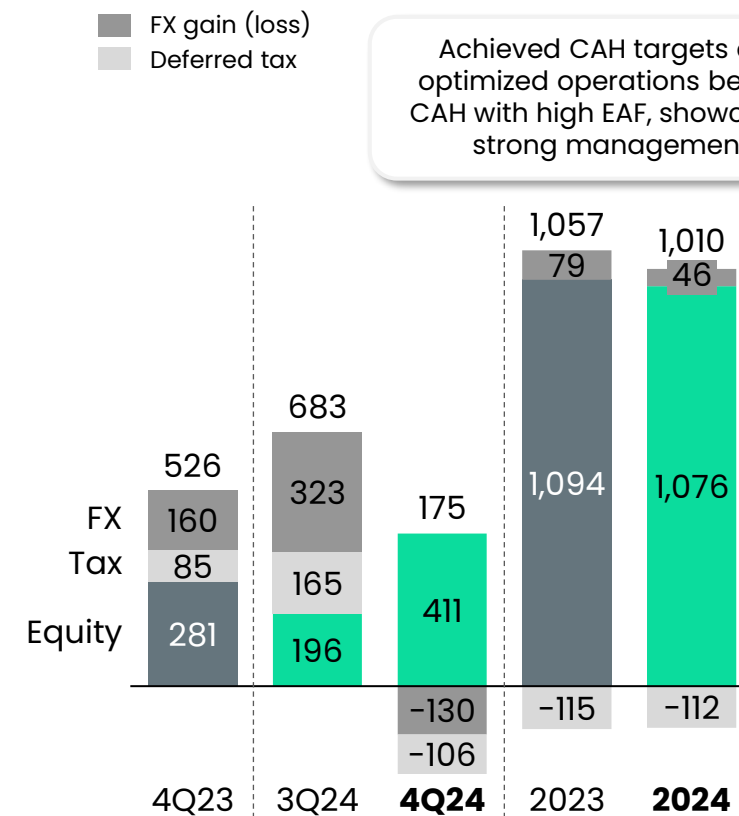
QoQ: +27%
4Q YoY: -8%
FY YoY: +1%



Profit contribution to BPP

Based on Banpu Power's 50% interest

QoQ: -67%
4Q YoY: -75%
FY YoY: -5%



Achieved CAH targets and optimized operations beyond CAH with high EAF, showcasing strong management.

Note: Financial performance provided are based on IFRS accounting standards
(1) 100% basis for Availability Payment (AP) and Energy Payment (EP)

Temple I & II: operational performance.

Asset Information:

Temple I & II are combined cycle gas-fired power plants supplying base load power to the ERCOT market

- Banpu Power Shareholding
- Banpu Power US (50%), BKV (50%)

Quarter update:

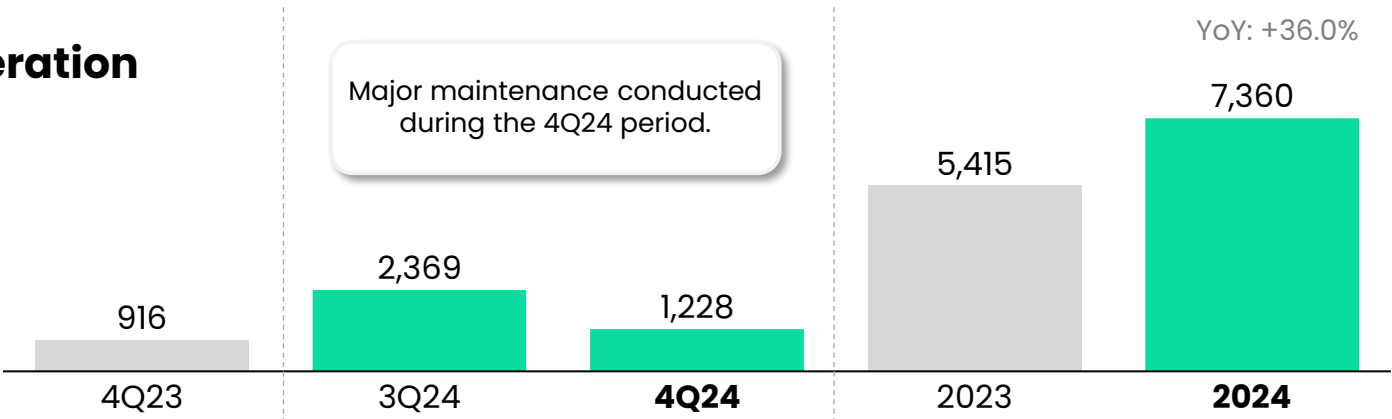
- Conducted fall outage as planned.
- Improvement in 4Q24 compared to same period last year



Total Equity Capacity **762 MW**

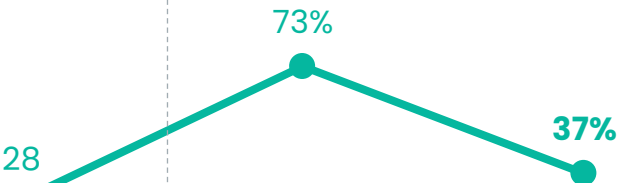
Net generation (GWh)

QoQ: -48%
YoY: +34%



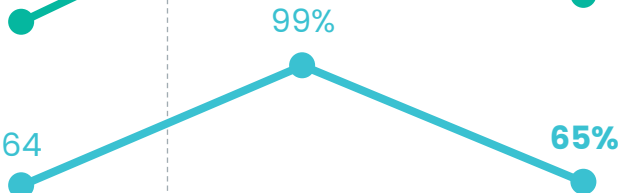
Capacity factor (%)

QoQ: -35%
4Q YoY: +9%



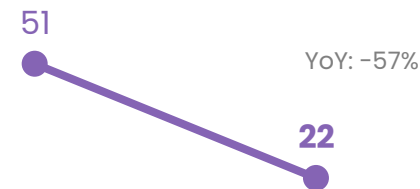
Equivalent availability factor (%)

QoQ: -35%
4Q YoY: +1%



Spark spread (US\$/MWh)

QoQ: -8%
4Q YoY: -35%



Temple I & II: financial performance.

Unit: US\$M

Total revenue

Based on 100% interest

QoQ: -41%
4Q YoY: +13%
FY YoY: -27%

EBITDA³

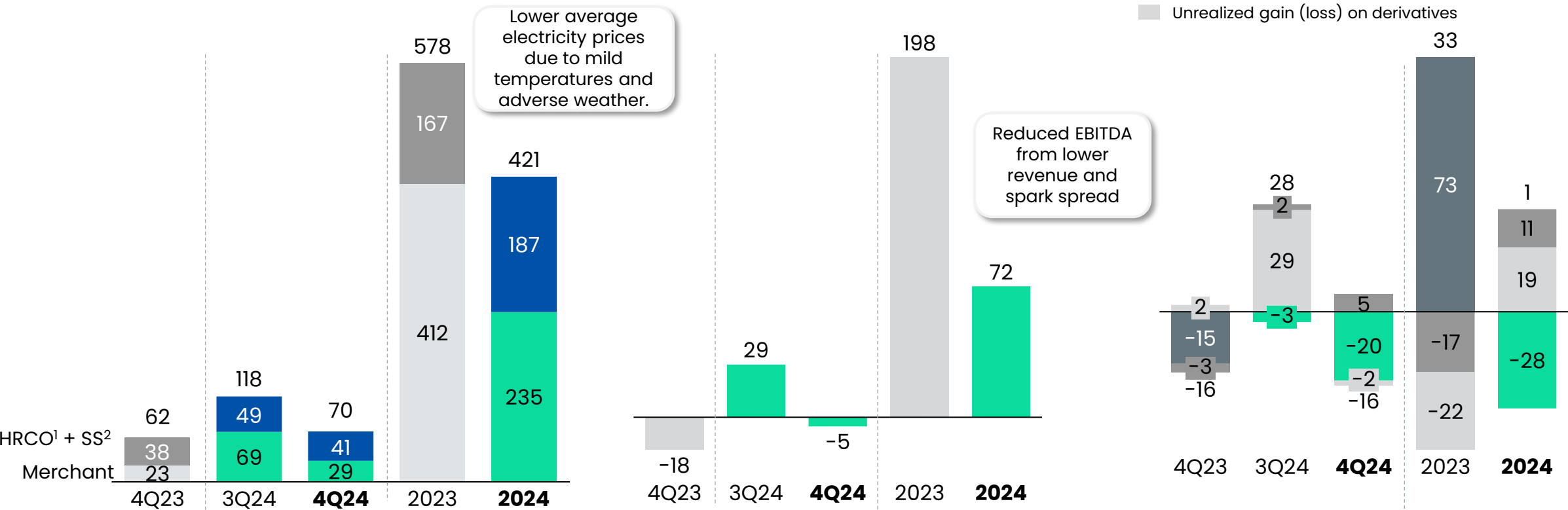
Based on 100% interest

QoQ: NA
4Q YoY: NA
FY YoY: -64%

Profit contribution to BPP

Based on Banpu Power's 50% interest

QoQ: NA
4Q YoY: NA
FY YoY: -96%



Note:

- (1) Heat Rate Call Option (HRCO) is a derivative used to secure monthly fixed revenue to ensure stable cash flow streams for both low and peak season.
- (2) Spark Spread Hedge (SS) is a derivative used to manage the spread between the market prices of electricity and the cost of natural gas, that help generators lock in a profitable margin (the "spark spread") by protecting against adverse movements in electricity and natural gas prices.
- (3) EBITDA includes realized gain / (loss) from derivative but excluded unrealized gain / (loss) from derivative.

Nakoso: operational & financial performance.

Asset Information:

Nakoso IGCC is an integrated gasification combined cycle power plant that generates power at higher efficiencies with lower emissions and fuel consumption.

Banpu Power Shareholding

- NIMCO (40%), Mitsubishi Corporation Power (66.5%)
- BPIC through NIMCO: (13.4%)

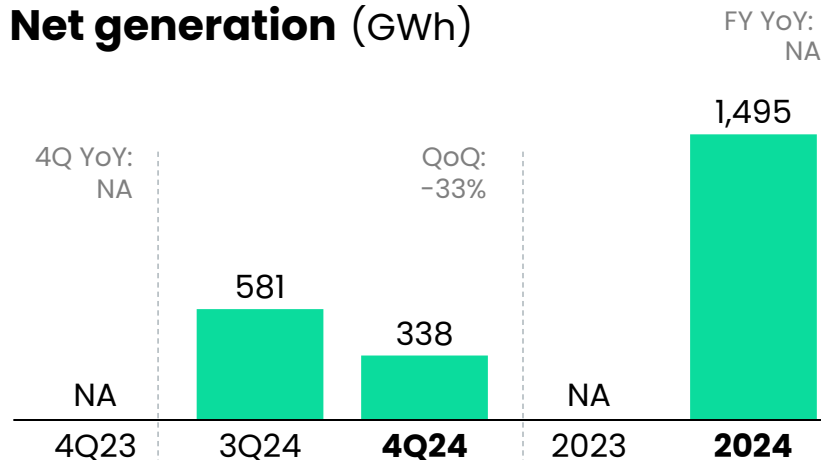
Quarter update: The divestment of Nakoso in December strategically supports BPP's ongoing portfolio optimization.

Total Equity Capacity

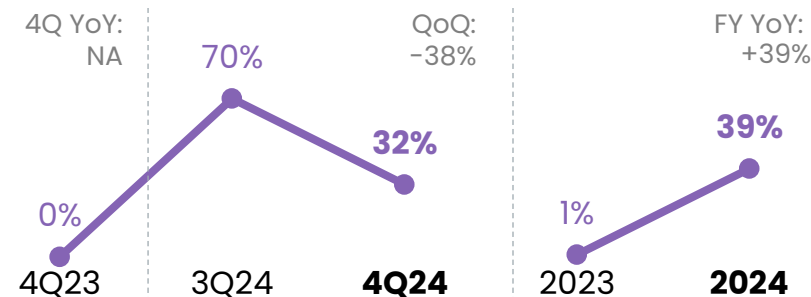
73 MW

OPERATIONAL PERFORMANCE

Net generation (GWh)



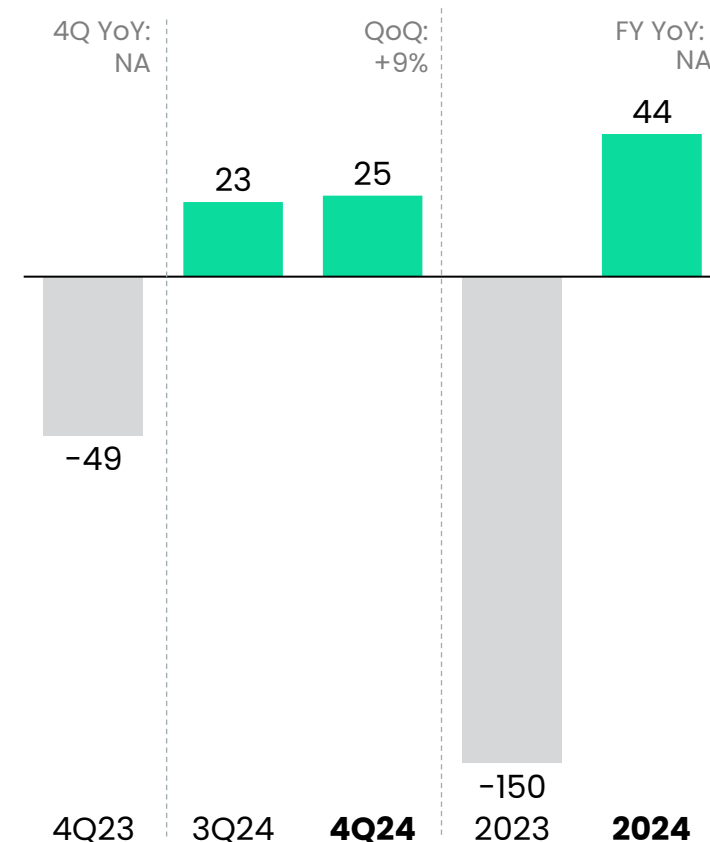
Equivalent availability factor (%)



FINANCIAL PERFORMANCE

Unit: THB M

Profit contribution to BPP





Renewables & Energy Technology performance

Renewables & Energy Technology: 2024 Portfolio

Integrated Clean Energy Ecosystem
2030 target



INFRA SERVICES

RENEWABLES



322 MW

Committed capacity

BATTERY ENERGY STORAGE SYSTEM (BESS)



266 MWh

Committed capacity

ENERGY TRADING



2,816 GWh

Electricity sales

ENERGY MGMT SERVICES

SOLAR: ROOFTOP & FLOATING



272 MW

Committed capacity

ENERGY EFFICIENCY



37 projects

Energy management, Smart infra, Total solution services, etc.

NEW BUSINESS & INVEST.

BATTERY MANUFACTURING



3.0 GWh

Production capacity

E-MOBILITY



1,198 MWh

Electricity sales (MuvMi battery & charger + fleet charger)



876 Units

EVs (Battery + 2-Wheeler)

Renewable Power & BESS: 2024 updates



China Solar

Lower power sold due to grid curtailment and lower irradiation.

214 GWh

Power sold
(-7% YoY)

RMB 43 M

Profit contribution
(-13% YoY)



Vietnam Solar

Nhon Hai Solar maintained a stable capacity factor and power sales.

54 GWh

Power sold
(+6% YoY)

US\$ 1.3 M

Share of profit
(+86% YoY)



Iwate Tono BESS

Construction is 99% complete, pending grid connection

58 MWh

Committed capacity

2Q25

Expected COD



Australia Solar

Lower power sold due to curtailment and unfavorable weather conditions.

197 GWh

Power sold
(-12% YoY)

(A\$ 1.0 M)

Share of loss ⁽¹⁾



Vietnam Wind

El Wind Mui Dinh

85 GWh

Power sold
(-13% YoY)

(US\$ 1.9 M)

Share of loss



Tsuno BESS

Utility scale BESS project with subsidy approval.

104 MWh

Committed capacity

2Q28

Expected COD



Japan Solar

Lower power sold due to unfavorable weather conditions.

214 GWh

Power sold
(-4% YoY)

JPY 1.4 bn

Cash distribution
(-22% YoY)

Vietnam Wind

Vin Chau project

- Completed construction and commissioning activities
- In the process of COD documentation with the relevant authorities



Aizu BESS

Utility scale BESS project with subsidy approval.

104 MWh

Committed capacity

1Q28

Expected COD

Energy technology:

4Q24 energy trading and energy storage updates.

Energy trading .

Electricity sales



IMPLEMENTED A MARKET-DRIVEN MARKETING & SALES STRATEGY, SECURING SUPPLY DEALS VIA TENDERS AND OPTIMIZING ARBITRAGE IN HIGHLY LIQUID PHYSICAL AND FINANCIAL MARKETS.

2,816 GWh

2024 total sales

1,696 clients

Increasing from 1,445 clients in 3Q24

9 utility areas

From both private and public sectors

45% of total sales are market-linked price products, while the remaining sales are fixed-price contracts secured through tendering and hedged to minimize potential risks.

Iwate Tono Project .

BESS



IWATE TONO PROJECT (UTILITY-SCALE BATTERY STORAGE)

58 MWh

Capacity

2Q25

Expected COD

99%

Construction progress

Project updates:

Construction is 99% complete, pending grid connection by Tohoku EPCO in May 2025, with the remaining 1% to be completed alongside Tohoku's work.

Energy technology: 4Q24 energy storage updates .

Miyazaki Tsuno Project .

BESS

Location:

Tsuno town,
Miyazaki, Japan

COD:

April 2028



MIYAZAKI TSUNO BESS PROJECT (UTILITY-SCALE BATTERY STORAGE)

Invested through a JV between Banpu Japan (70%), FUYO General Leasing (29%), and Global Engineering (1%)

26 MW / 104 MWh

Battery energy storage capacity connected to Kyushu EPCO

JPY 2,665 M

Investment or equivalent to 70% of the project cost after deducting METI subsidy of JPY 2,072 M



Fukushima Aizu Project .

BESS

Location:

Aizuwakamatsu,
Fukushima, Japan

COD:

January 2028



FUKUSHIMA AIZU BESS PROJECT (UTILITY-SCALE BATTERY STORAGE)

Banpu Japan holds 99.8% and Yamamoto Shouji 0.2% (Local landowner) utilizing the METI 2024 Subsidy program (Granted Dec. 2024)

26 MW / 104 MWh

Energy storage capacity connected to Tohoku EPCO

JPY 3,621 M

Investment or equivalent to c.65% of project cost after deducting METI subsidy of JPY 1,953 M



An aerial photograph of a wind farm. Several white wind turbines are visible, spaced out across a landscape of agricultural fields. The fields are in various shades of green and brown, indicating different crops or stages of growth. The perspective is from a high angle, looking down on the turbines and the surrounding land. The word "Appendix" is overlaid in large white text in the center-right of the image.

Appendix

ESG recognition



Prepared by SET, shortlists Thai companies with business and sustainability excellence

for SET-listed companies with market cap. between THB 30-100 bn



Commended Sustainability Award

For outstanding sustainability practices, inclusive corporate governance, and dedication to minimizing negative impacts, while creating positive ones for society and the environment

Outstanding Company Performance Award

For outstanding performance, good corporate governance and adherence to regulations of the SET

Outstanding CEO Award

Presented to CEOs with moral values, visionary leadership, and a commitment to prioritizing sustainability practices

Credit rating



As a strategic partner of S&P Global, Tris Rating has over 20-years of experience as a leading credit rating agency in Thailand



AAA
Rating

SET awarded for strong ESG disclosures, including environmental management practices and interactions with key stakeholders



5 stars
5 coins

for the CGR Checklist 2023 from the Thai Institute of Directors Association (IOD) and the AGM Checklist 2023 from the Thai Investors Association (TIA), respectively



5th
consecutive year

The THSI, prepared by SET, shortlists Thai companies following the highest ESG standards

A+

ratings with a '**stable**' outlook on the company, reflecting the company's stable cash flow, proven track record of strong operations and quality of power portfolio

Thermal Power: 2024 updates



HPC

Achieved contracted availability hours (CAH) and additional outside CAH through efficient operations and strong EAF performance, resulting in higher profit sharing.

86%	EAF ¹ (+1% YoY)
THB 21.7 bn	Revenue
THB 11.7 bn	EBITDA
THB 3.0 bn	share of profit (-1% YoY)



BLCP

Achieved CAH targets and optimized operations beyond CAH with high EAF, showcasing excellent operational management.

90%	EAF (+2% YoY)
THB 18.6 bn	Revenue
THB 3.7 bn	EBITDA
THB 1.0 bn	share of profit (-5% YoY)



SLG

Net profit increased, driven by CEA contributions and lower financial expenses, offsetting the impact of reduced power sales from softer demand and the addition of new energy capacity.

5,054 GWh	net power sold (-5% YoY)
RMB 31 M	share of profit (+47% YoY)



China CHP

Profits increased, driven by lower coal prices and CEA contributions, offsetting the impact of reduced electricity sales from weaker demand, particularly at Zouping.

RMB 1.3 bn	Revenue
RMB 271 M	EBITDA
RMB 132 M	share of profit (+194% YoY)



Temple I & II

Despite higher EAF and power sales, Temple I & II saw lower net profits due to weaker power prices and spark spreads from mild weather

88%	EAF (+5% YoY)
7,360 GWh	net generation
US\$ 421 M	Revenue
US\$ 1 M	share of profit ² (-96% YoY)



Nakoso IGCC

The divestment of Nakoso in December strategically supports BPP's ongoing portfolio optimization.

39%	EAF
1,495 GWh	net generation
THB 44 M	share of profit

Note: : (1)Equivalent Availability Factor (EAF) is a percentage of a given operating period in which a generating unit is available without any planned and unplanned shutdown or deratings
(2) Includes US\$ 29 M of gain on derivatives

Maintenance schedule for 2025

■ Major maintenance ■ Minor maintenance

POWER PLANT

BLCP

- Unit 1 on major inspection for 34 days
(24 Dec 2024 – 3 Feb 2025)
- Unit 2 on minor inspection for 15 days
(15-27 Jul 2025)

U1
40 days
(34 days in 2025)

U2
15 days

HPC

- Unit 1 on yearly maintenance for 22 days
(21 Dec 2024 – 10 Jan 2025)
- Unit 2 on extended major inspection for 70 days
(23 Oct – 31 Dec 2025)
- Unit 3 on yearly maintenance for 22 days
(09 Feb 2024 – 02 Mar 2025)

U1
22 days
(10 days in 2025)

U3
22 days

U2
70 days

TEMPLE I CCGT

- Major inspection for 38 days
(22 Feb – 31 Mar 2025)
- Fall outage for 11 days
(6 –16 Nov 2024)

38 days

11 days

TEMPLE II CCGT

- Spring outage for 11 days
(4-14 Apr 2025)
- Fall outage for 11 days
(15-25 Oct 2025)

11 days

11 days

Maintenance schedule for 2025

■ Major maintenance ■ Minor maintenance

POWER PLANT

SLG

- Unit 1 on c-class maintenance for 26 days in 3Q-4Q
- Unit 2 on B-class maintenance for 40 days in 2Q

CHP LUANNAN

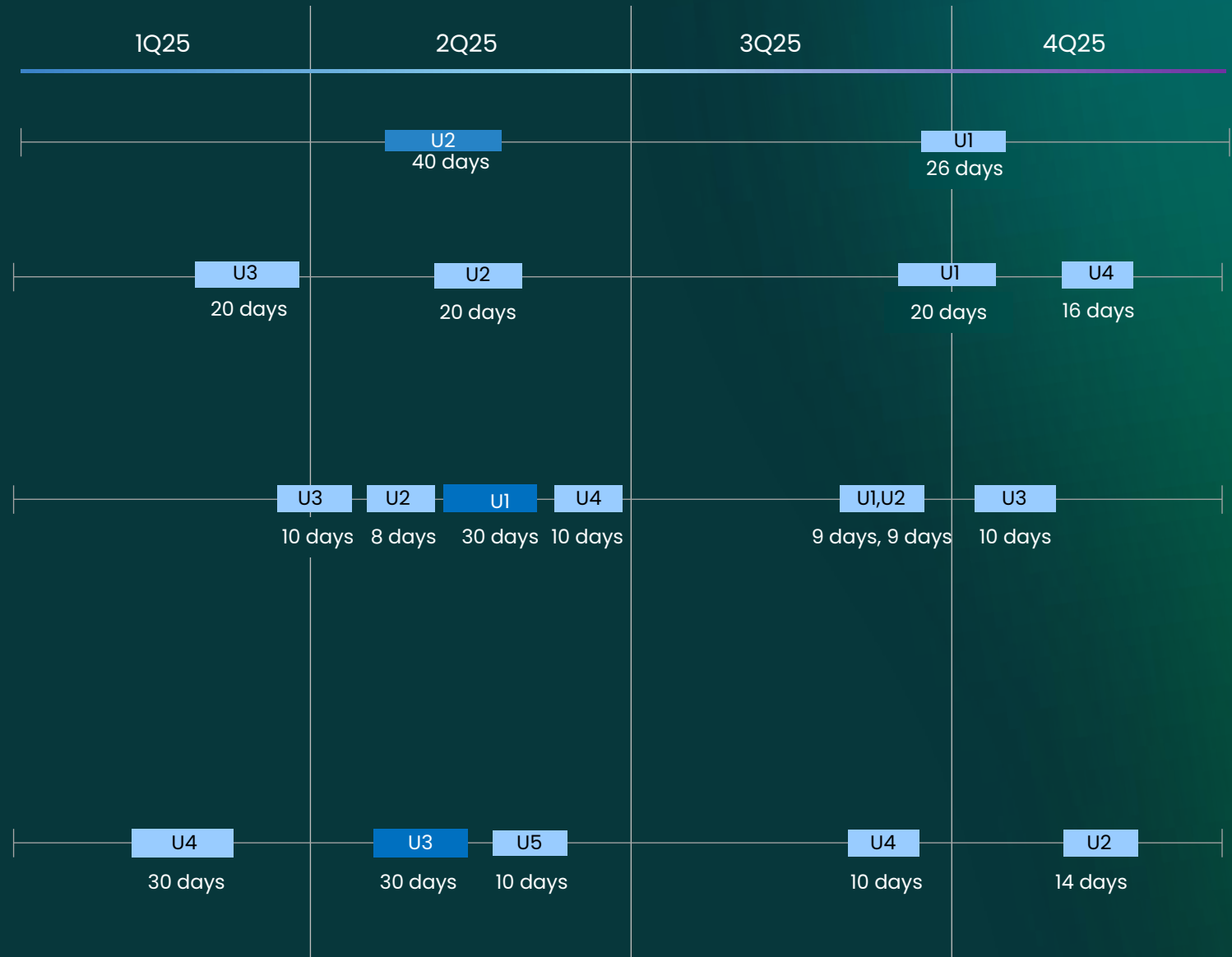
- Unit 3 on C-Class maintenance 20 days in 1Q
- Unit 2 on C-Class maintenance 20 days in 2Q
- Unit 1 on C-Class maintenance 20 days in 3Q-4Q
- Unit 4 on C-Class maintenance 16 days in 4Q

CHP ZHENDING

- Unit 1 on A-Class maintenance 30 days in 2Q, D-class maintenance 9 days in 3Q
- Unit 2 on D-class maintenance 8 days in 2Q, D-class maintenance 9 days in 3Q
- Unit 3 on D-class maintenance 10 days in 1Q-2Q, D-class maintenance 10 days in 4Q
- Unit 4 on D-class maintenance 10 days in 2Q

CHP ZOUPING

- Unit 4 on C-class maintenance for 30 days in 1Q, D-class maintenance for 10 days in 3Q
- Unit 3 on A-Class maintenance for 30 days in 2Q
- Unit 5 on D-Class maintenance for 10 days in 2Q
- Unit 2 on C-class maintenance for 14 days in 4Q



Banpu Power: income statement

THB million	2024	2023	YoY%
Sales revenue	25,827.0	28,379.6	-9%
Cost of sales	(23,811.4)	(20,121.7)	
Gross Profit	2,015.5	8,257.9	-76%
<i>GPM</i>	8%	29%	
Administrative and selling expenses	(1,874.8)	(2,192.0)	
Equity income	3,865.6	5,009.3	
Other income	830.6	783.1	
Realized gains (loss) on Derivatives	738.6	(1,178.2)	
EBIT	5,575.5	10,680.1	-48%
Interest expenses	(2,982.8)	(2,047.5)	
Financial expenses	(36.5)	(6.1)	
Income tax & deferred tax (core business)	(35.6)	(536.6)	
NCI / Minorities (core business)	688.5	(1,925.2)	
Net profit – Core business	3,209.1	6,164.7	-48%
Non-recurring items	(1,724.4)	(136.7)	
Income tax & deferred tax (non-core business)	(296.2)	134.1	
NCI / Minorities (non-core business)	(653.1)	806.6	
Gain (Loss) on Derivatives transactions	1,306.2	(1,613.3)	
FX translation	(95.3)	(36.3)	
Net Profit	1,746.3	5,319.2	-67%

Banpu Power: income statement

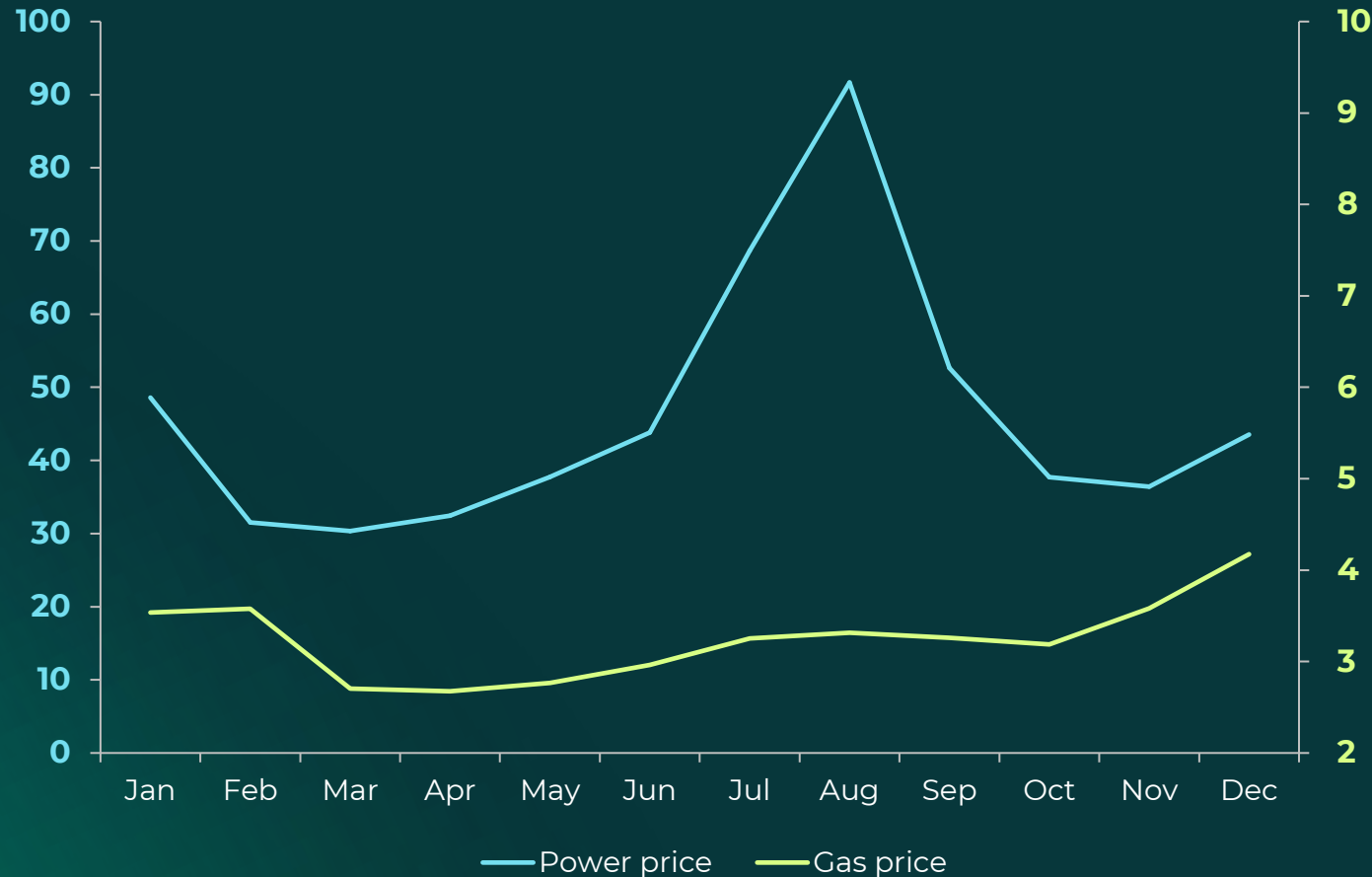
THB million	4Q24	3Q24	4Q23	QoQ%	YoY%
Sales revenue	5,178.3	6,881.6	4,611.0	-25%	+12%
Cost of sales	(5,424.7)	(6,263.0)	(4,845.9)		
Gross Profit	(246.4)	618.6	(234.9)	-140%	NA
GPM	(5%)	9%	(5%)		
Administrative and selling expenses	(483.5)	(470.1)	(654.1)		
Equity income	682.7	1,412.3	762.9		
Other income	343.5	145.5	314.3		
Realized gains (loss) on Derivatives	347.8	115.9	518.4		
EBIT	644.1	1,822.1	706.5	-65%	-9%
Interest expenses	(709.0)	(747.4)	(745.8)		
Financial expenses	(6.7)	(7.0)	(1.8)		
Income tax & deferred tax (core business)	143.9	(5.8)	159.0		
NCI / Minorities (core business)	462.0	81.4	503.6		
Net profit – Core business	534.3	1,143.3	621.5	-53%	-14%
Non-recurring items	(1,682.5)	(25.8)	(119.5)		
Income tax & deferred tax (non-core business)	(131.8)	(165.3)	(70.0)		
NCI / Minorities (non-core business)	49.9	(1,038.3)	274.5		
Unrealized gain (loss) on Derivatives	(99.8)	2,076.6	(549.0)		
FX translation	283.3	(856.6)	(388.9)		
Net Profit	(1,046.6)	1,134.0	(231.4)	-192%	NA

US power outlook: potential upside from weather volatility

Forecasted power and gas prices (2025)

Unit: US\$ / MWh

Unit: US\$ / Mmbtu



Source: ERCOT

Key takeaways

- ➔ The EIA is forecasting that average wholesale electricity prices in ERCOT will rise to \$45/MWh in 1H25 up 12% from \$40/MWh in 1H24.
- ➔ Henry hub spot prices are expected to average \$3.0 Mmbtu in 1H25 up from an average of \$2.3 Mmbtu in 1H24.
- ➔ Forward power prices could experience sudden spikes due to abrupt transitions from El Niño to La Niña weather patterns, driving volatility in both summer and winter months.

Thermal: Committed to sustainable and operational excellency

Temple I & II

Equipment Protection and Risk Mitigation



Combustion
Turbine Lube Oil
Fire Protection



3rd Air Compressor
Reliability
Improvement



Cooling Tower Motor
Shield Protector

CHINA CHP

10% Biomass Co-firing Implementation

TARGET

10% Biomass Co-firing

NEXT STEPS

- Successfully implemented 10% co-firing at Zhengding
- Implement at Luannan and Zouping with 10% biomass co-firing potential
- Potentially increase to 50% biomass co-firing of current coal consumption in the long-term



BLCP

Efficient Energy Conservation Program

**TARGET
BY 2032**

c. THB 1.8 bn
Total cost savings
Start from 2023

Bio-Carbon Capture by Algae Project

TARGET

2.5 Mt per year
GHG reduction



HPC

Operational Safety and Excellence



Advanced Leakage
Monitoring and
Alerting Software
Integration



Cooling tower
improvement
and upgrades



Conveyor break
technology to
improve energy
efficiency



Renewables+: accelerated progress

RENEWABLES

INVESTMENT IN AMP JAPAN PLATFORM 3Q24

Develops, acquires, constructs and operates renewable assets in Japan



Energy Transition infra platform:



Solar



Wind



BESS

> 1 GW

Committed Capacity

FIRST RENEWABLE ASSET IN THE US 2Q24

Solar farm through BKV-BPP JV in Texas that will generate Solar Renewable Energy Certificate (SRECs) for Scope 2 offsets

2.5 MW

Installed Capacity

6.4 GWh

Generation

COD: AUG 2024



Solar

BESS & ENERGY TRADING

INVESTMENT IN BESS PROJECTS IN JAPAN 4Q24

Banpu Japan invested into two BESS projects which were awarded in the METI subsidy program. This marks a big step forwards towards Banpu's BESS ambitions.

AIZU BESS PROJECT:

- Location: Aizuwakamatsu, Fukushima
- Ownership: 100% Banpu Japan (BJP)
- Development start: April 2025
- COD: 1Q28

104 MWh

Capacity

TSUNO BESS PROJECT:

- Location: Tsuno town, Miyazaki
- Ownership: 70% BJP, 29% FUYO, 1% Global Engineering
- Development start: April 2025
- COD: 2Q28

104 MWh

Capacity

RAMPING UP ENERGY TRADING

Growing competency in Japan with a record performance in 2024.

2.8 GWh

Electricity traded

Expanding capabilities to the US through Congestion Revenue Rights (CRR) trading to gain exposure to ERCOT market dynamics with first trade in 4Q24.

Banpu Power: Sustainable Development Goals

CLIMATE ACTION

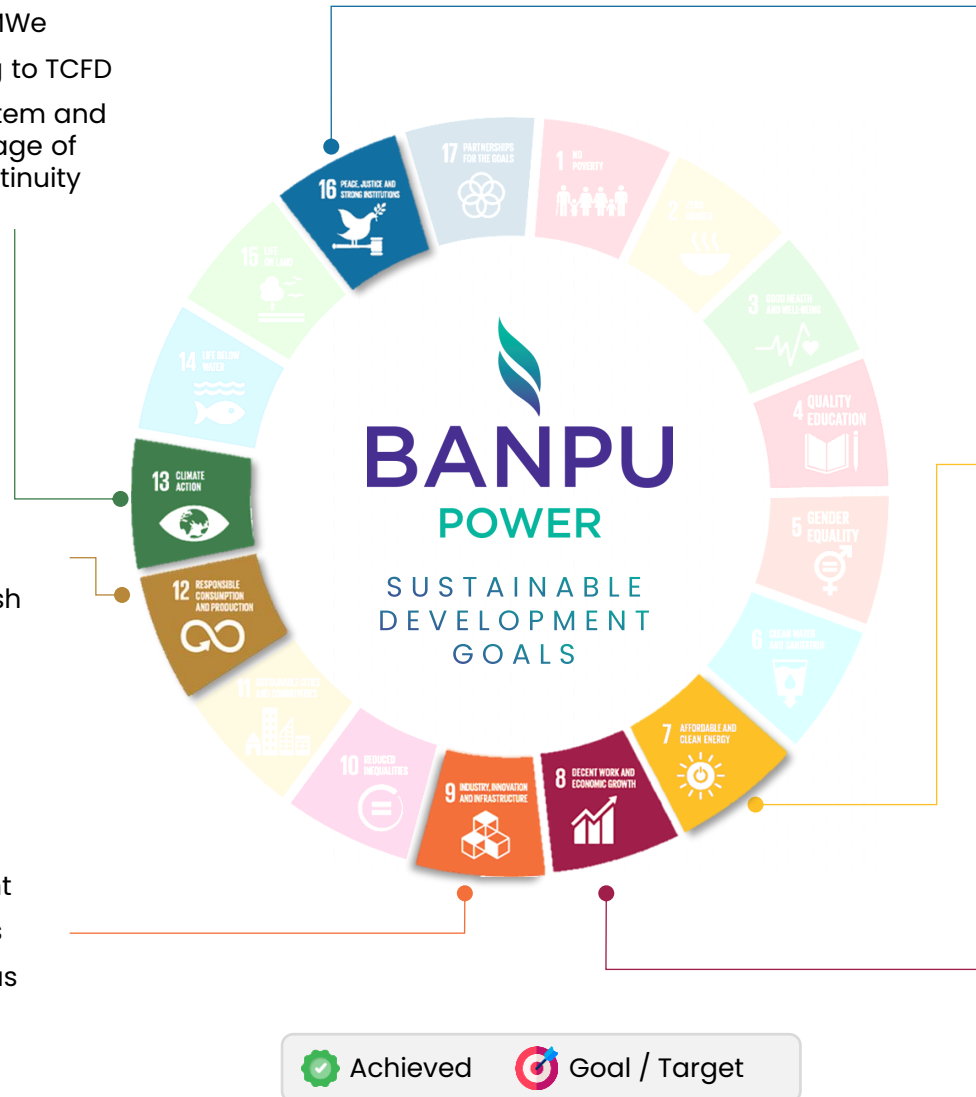
- ✓ GHG emissions intensity < 0.676 ton CO₂e/MWh
- 🎯 Renewable energy generation capacity > 800 MWe
- 🎯 Disclose climate change information according to TCFD
- 🎯 Establish business continuity management system and conduct drill at all operating assets 100% coverage of critical business function conduct business continuity plan drill

RESPONSIBLE CONSUMPTION AND PRODUCTION

- 🎯 Water consumption intensity
Target: < 0.868 m³/MWh
(Current: 0.958 m³/MWh)
- 🎯 Energy consumption intensity
Target: < 1.55 GJ/MWh (Current: 2.3 GJ/MWh)
- ✓ 100% re-used/recycled of fly ash and bottom ash
- ✓ All operational control assets assessed for potential biodiversity impact

INDUSTRY, INNOVATION AND INFRASTRUCTURE

- 🎯 Ultra-low emissions intensity
- ✓ No significant environmental and social incident
- ✓ No significant ESG complaint from communities
- ✓ All combined heat and power plant in China was certified ISO 14001.
- ✓ Cybersecurity and privacy maturity score > 2.5



PEACE JUSTICE AND STRONG INSTITUTIONS

- ✓ Achieve zero incidents involving non-compliance, corporate governance and corruption
- ✓ 100% of significant corporate governance complaints resolved through a dispute mechanism
- ✓ Be a member of the Thai Private Sector Collective Action Against Corruption (CAC)

AFFORDABLE AND CLEAN ENERGY

- 🎯 Power gen. capacity
Target: 5,300 MW | Current: 3,534 MWe
- ✓ Availability Factor (AF) > 90%
- ✓ Forced Outage Factor (FOF) < 5%
- 🎯 Key ESG issues are part of senior management's KPI

DECENT WORK AND ECONOMIC GROWTH

- ✓ No major incident and occupational illness in employees and contractors
- 🎯 Employee Engagement score:
[TH] Target: >70% (Current: 57%)
[CH] Target: >85% (Current: 91%)
- ✓ Banpu Heart Score: > 70% in TH and >90% in CH
- ✓ No significant human rights complaints
- ✓ No complaint about customer privacy and product use

BPP Resources.

Stay updated on our latest developments and strategic initiatives by visiting BPP's website.

For inquiries and discussions, please contact BPP's investor relations team at investor_relations@banpupower.co.th

BPP investor quick links

- [3Q24](#) investor presentation
- [2Q24](#) investor presentation
- [1Q24](#) investor presentation
- [4Q23](#) investor presentation
- [Annual reports](#)
- [Financial reports](#)
- [Sustainability reports](#)
- [Factsheets](#)

2025 analyst meeting schedule

- **1Q25**
May 2025
- **2Q25**
August 2025
- **3Q25**
November 2025
- **4Q25**
February 2026

BPP communications



