

**TRANSFORMING  
TOMORROW**

▶ Pathway to net zero



# SET DIGITAL ROADSHOW

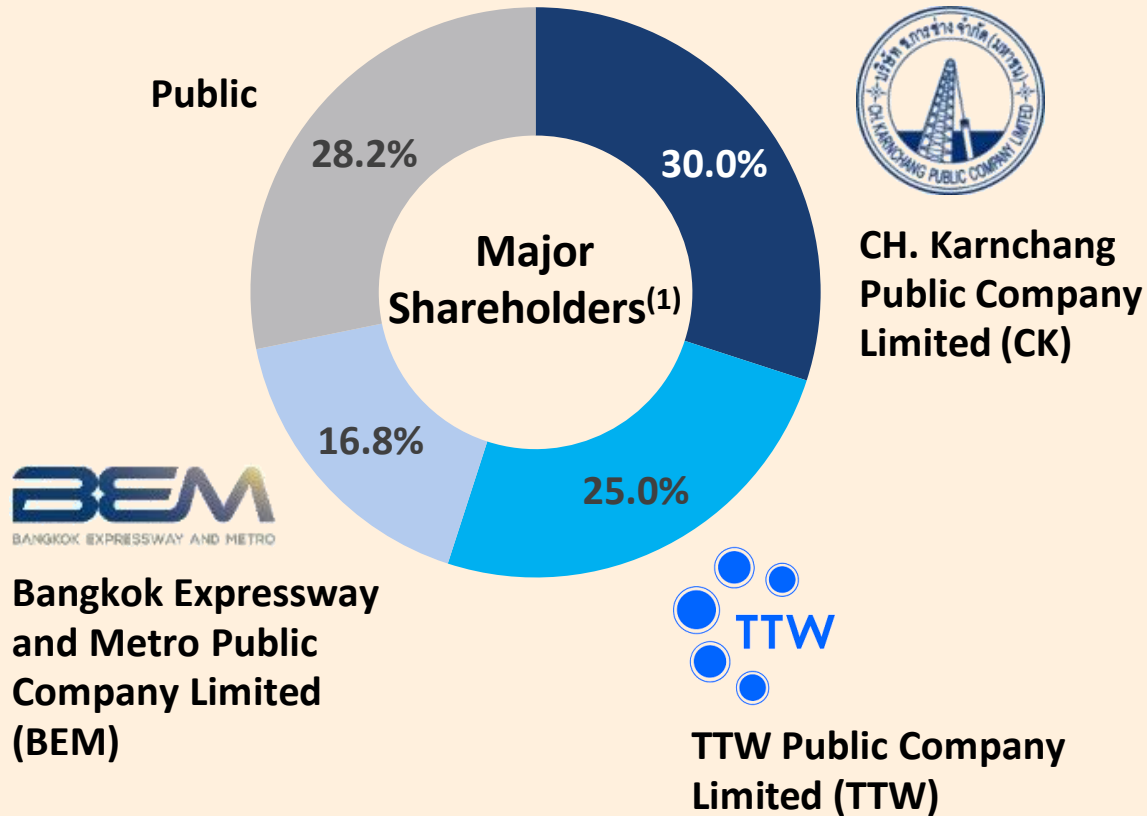
27 NOVEMBER 2023





- 1. Corporate Overview and Portfolio**
- 2. Growth and Sustainability Strategies**
- 3. Key Developments during 9M 2023**
- 4. 9M 2023 Financial Performance**
- 5. Q&A**

## The Power Investment Arm of CH. Karnchang Group



## General Information

<b>Symbol</b>	: CKP
<b>Established Date</b>	: 8 June 2011
<b>Listed Date</b>	: 18 July 2013
<b>Paid-up Shares</b>	: 8,129,382,729 shares
<b>Par</b>	: Bt 1.00 per share
<b>Registered Capital</b>	: Bt 8,129 mn
<b>Market Cap</b>	: Bt 25,526 mn <sup>(2)</sup>
<b>Indices</b>	: SET 100 SET ESG SET CLMV
<b>Sector</b>	: Energy
<b>TRIS Rating</b>	: A / Stable
<b>CG Score</b>	:

(1) As of 29 September 2023, (2) As of 10 November 2023

## Hydro



### 1. Nam Ngum 2

Subsidiary



COD: Jan 2013  
 Concession: 25 years  
 Ownership: 46.0%  
 Capacity MW: 615  
 Equity MW: 283



### 2. Xayaburi

Associate



COD: Oct 2019  
 Concession: 31 years  
 Ownership: 42.5%  
 Capacity MW: 1,285  
 Equity MW: 482



### 3. Luang Prabang

Associate



SCOD: Early 2030  
 Concession: 35 years  
 Ownership: 50.0%  
 Capacity MW: 1,460  
 Equity MW: 730

## Cogeneration



### 4. Bangpa-In Cogeneration

Subsidiary



	BIC1	BIC2
COD:	Jun 2013	Jun 2017
Periods:	25 years	25 years
Ownership:	65.0%	65.0%
Capacity MW:	118	120
Equity MW:	77	78

Total Installed MW Capacity: 3,627 MW

Total Equity MW Capacity: 1,733 MW

## Solar



### Bangkhenchai

Subsidiary

Ownership: 100.0%



Total Capacity 15 MW	Since
5. Bangkhenchai (8.00)	Aug 2012
6. Phachi (0.89)	Feb 2019
7. Banglen (0.97)	May 2019
8. Phutthamonthon Sai 5 (0.97)	Jun 2019
9. Mahachai (0.72)	Jun 2019
10. Krathum Ban (0.51)	Jul 2019
11. Khlong Preng (2.67)	Sep 2020

### 12. Nakhon Ratchasima Solar

Associate

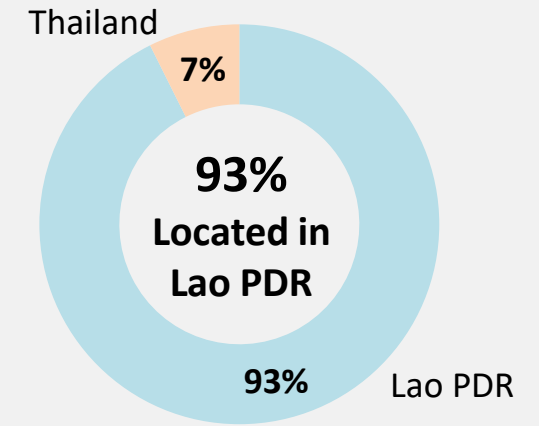
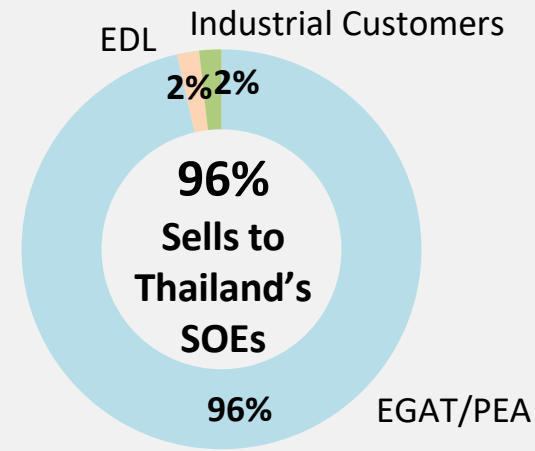
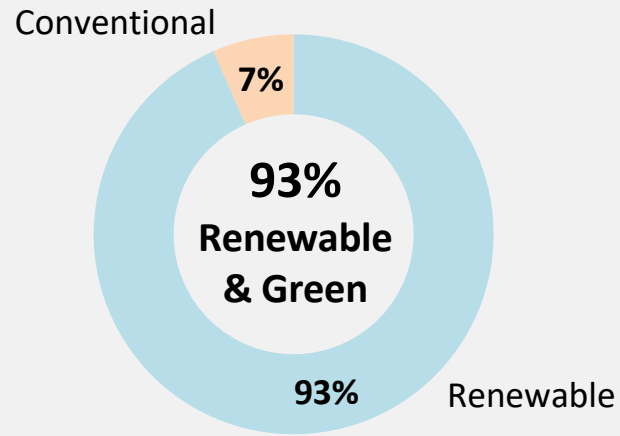
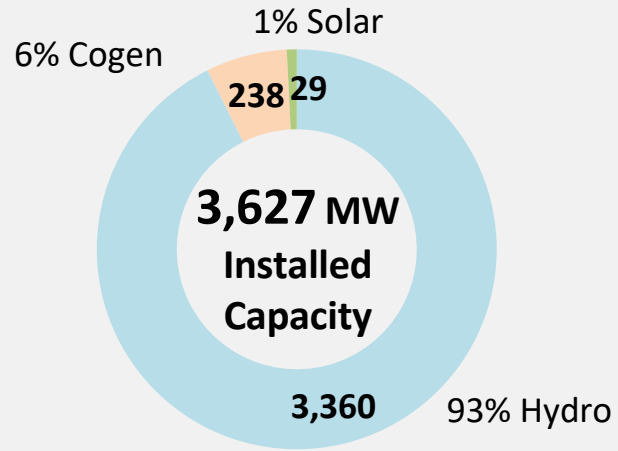
COD: Mar 2012  
 Ownership: 30.0%  
 Capacity MW: 6  
 Equity MW: 2

### 13. Chiangrai Solar

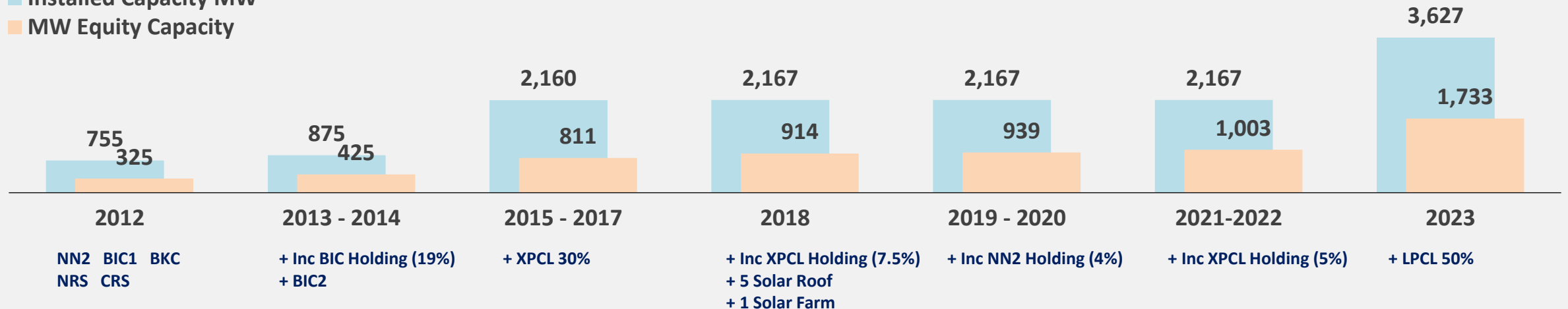
Associate

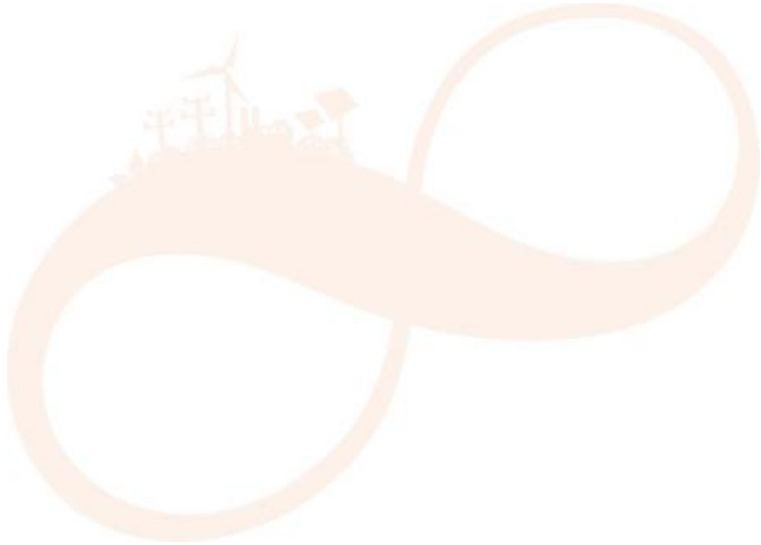
COD: Jan 2013  
 Ownership: 30.0%  
 Capacity MW: 8  
 Equity MW: 2

## Installed Capacity



■ Installed Capacity MW  
 ■ MW Equity Capacity






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# Long-term Growth

TO BE ONE OF THE REGION'S **LARGEST PRODUCERS** OF ELECTRICITY FROM **RENEWABLES** WITH ONE OF THE **LOWEST CARBON FOOTPRINTS**



**4,800**  
MW by 2024

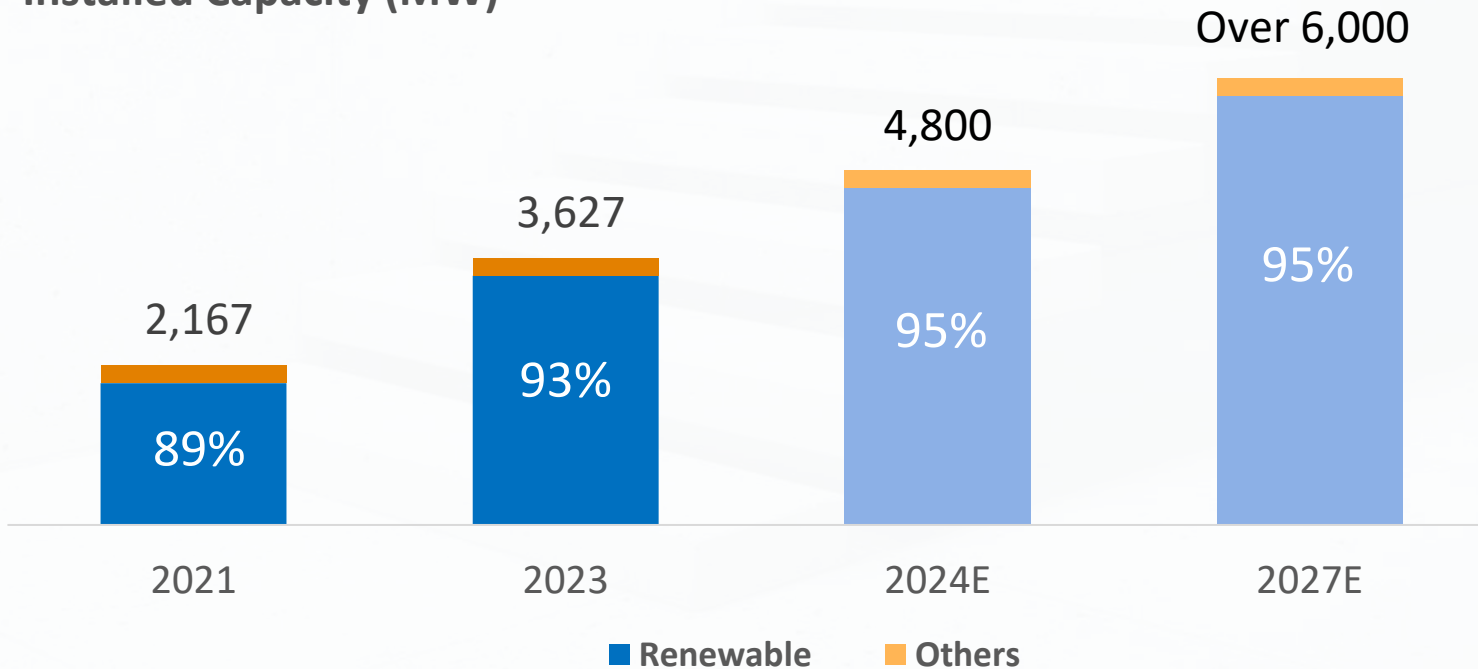


**95%**  
RENEWABLE



**ASEAN**  
FOCUSED

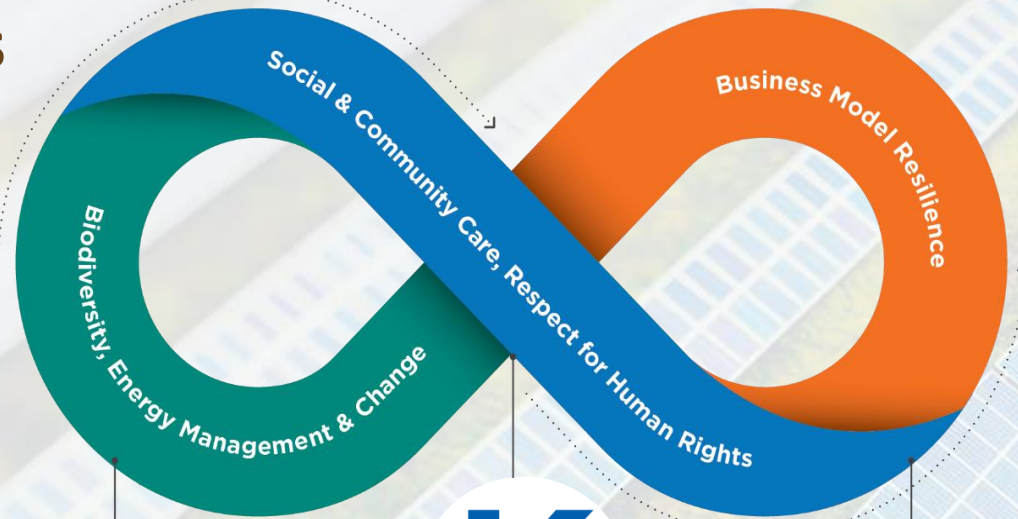
Installed Capacity (MW)



**NET ZERO** GHG EMISSION BY 2050



**100%**  
INTERNAL RENEWABLE  
ELECTRICITY USE  
BY 2043



**CLEAN ELECTRICITY**  
Environment

**Energy management and Climate**

- 100% Renewable Internal Electricity Consumption with REC by 2043
- Over 95% Renewable Capacity by 2043
- Net Zero GHG Emission by 2050

**Biodiversity**

- Biodiversity Roadmap Development
- Residual Impact Assessment for All Operation Sites by 2025
- No Net Loss (NNL) of Biodiversity and Ecosystem by 2040

**KIND NEIGHBOR**  
Social

**Respect for Human Rights**

- Human Rights Roadmap Development
- 100% Employee Awareness of Human Rights
- 100% Risk & Impact Assessment of Human Right throughout Value Chain
- Zero Cases of Human Rights Violation

**Social and Community Care**

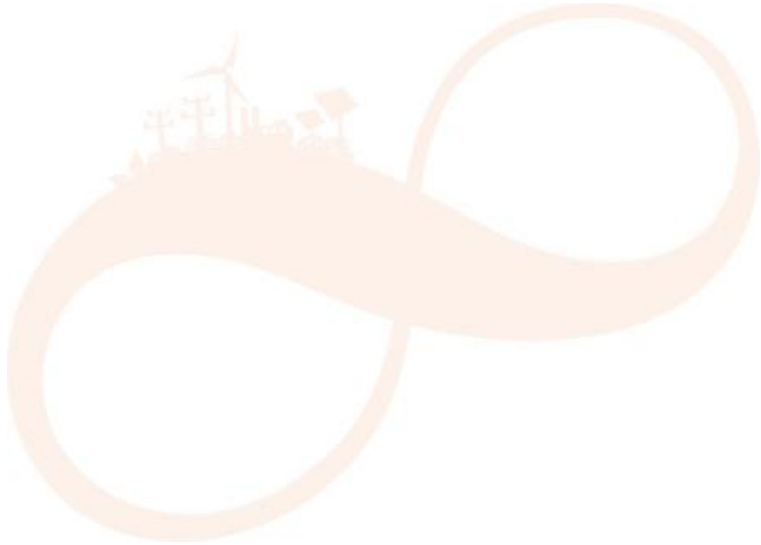
- Zero Unresolved Complaints
- Value Creation for Society and Ecosystem with Renewable Electricity by 2026

**PARTNERSHIP FOR LIFE**  
Governance & Economic

**Business Model Resilience**

- New Customers & Geographies within ASEAN
- Digital Transformation & Other Innovations





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## Dividend Payment from 2022 Operating Results

Dividend payment of Baht 0.085 per share, totaling of Baht 691.0 million, was approved in the 2023 Annual Ordinary General Meeting.



## LPCL Fulfilled Terms and Conditions under the Main Contracts

- Achieved the terms and conditions of Concession Agreement, Power Purchase Agreement, and Credit Facility Agreement as planned
- Expected COD in Early 2030



## CKP Maintained Credit Ratings

TRIS Rating affirmed CKP's company rating at "A/Stable" and debentures rating "A-/Stable".



## NN2 Maintained Credit Ratings

TRIS Rating affirmed NN2's company rating and debentures rating "A/Stable".



## XPCL Green Debentures 1/2023

Date	Tenor	Amount (Bt mn)	Interest Rate
26/10/23	3 years	1,500	5.15%
26/10/23	4 years	384	5.30%
26/10/23	5 years	1,616	5.55%
		3,500	5.35%

## LPCL Investment

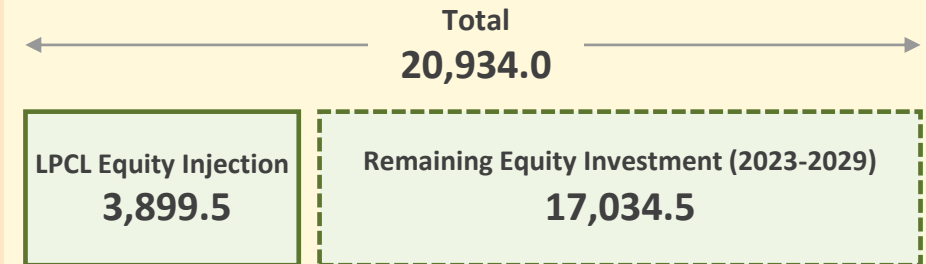


### Luang Prabang Hydroelectric Power Project

Installed Capacity:	1,460 MW
Type:	Run-of-River
Concession Period:	35 years
SCOD:	Early 2030

- CKP holds 50.0% in Luang Prabang Power Company Limited (LPCL)
  - Total equity investment of LPCL: Bt 41,868 mn
  - CKP's proportion of equity investment: Bt 20,934 mn

Unit: Bt mn



## SET ESG Ratings 2023



Ranked “AAA” in SET ESG Ratings 2023 by the Stock Exchange of Thailand

## Excellent CG Score



Received “Excellent” CG Score for the 6th consecutive year

## ESG100 List of 2023



Included in the ESG100 list of 2023 by Thaipat Institution for the 2nd consecutive year

## The Asset ESG Corporate Awards 2022



Received the ESG Corporate Awards 2022 – Platinum Level from The Asset

## The Most Sustainable Hydro Power Company in Thailand Award



Received the Most Sustainable Hydro Power Company in Thailand Award from the Global Economics Magazine.

## The Best Green Bond Hydropower Plant Framework – Thailand Award



Received the Best Green Bond Hydropower Plant Framework – Thailand Award from the International Finance Magazine.

## Asia Responsible Enterprise Awards 2023



Won Asia Responsible Enterprise Awards 2023 – Social Empowerment from AREA for the 2nd consecutive year.

## The European Global Sustainability & ESG Awards 2023



- Best Leadership in the Sustainable Energy Industry: Mr. Thanawat Trivisvavet – Thailand
- Best Sustainable Development Strategy Energy Industry

## Carbon Champion Certificate

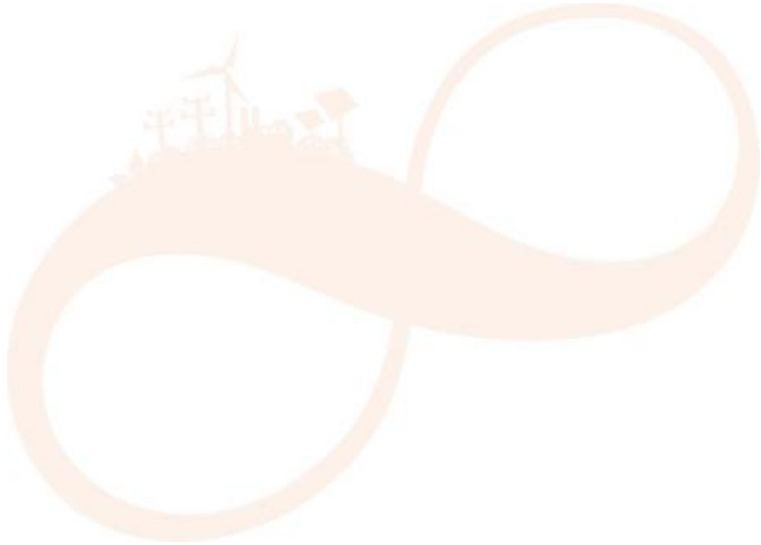


Received the Carbon Champion Certificate – Standard Tier Level from Enterprise Asia’s Carbon Champion Programme

## CSR-DIW for Beginner Award 2022



Two solar power plants of BKC won CSR-DIW for Beginner Award 2022 by the Department of Industrial Works, Ministry of Industry



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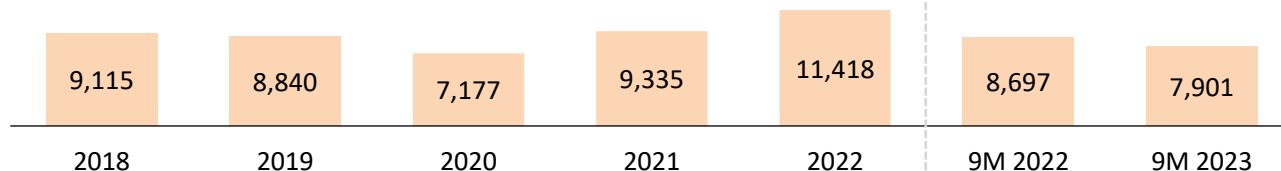
# 9M 2023 Consolidated Performance

## Consolidated Financial Performance

Unit: Bt mn

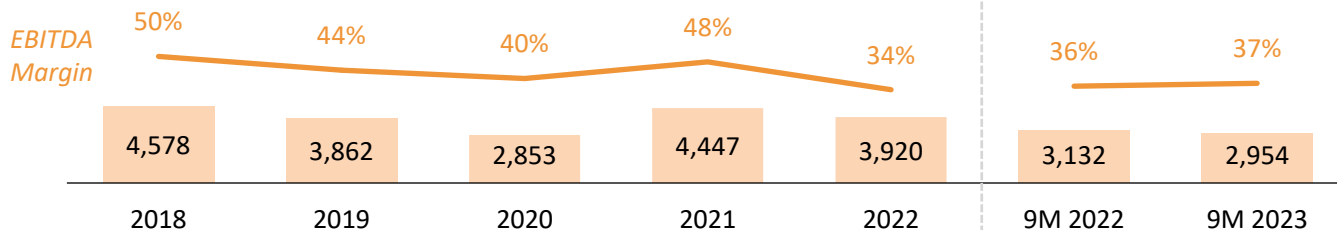
### Revenue

+22.3% YoY (9.2%) YoY



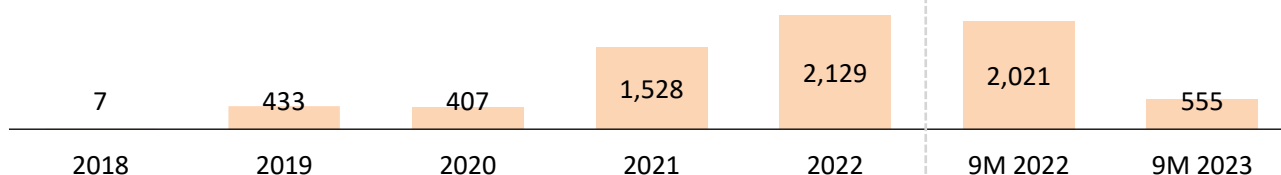
### EBITDA

(11.8%) YoY (5.7%) YoY



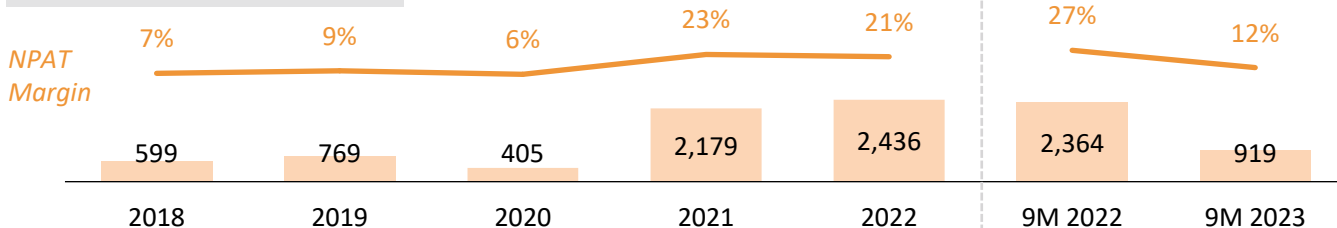
### Share of Profits

+39.3% YoY (72.5%) YoY



### NPAT

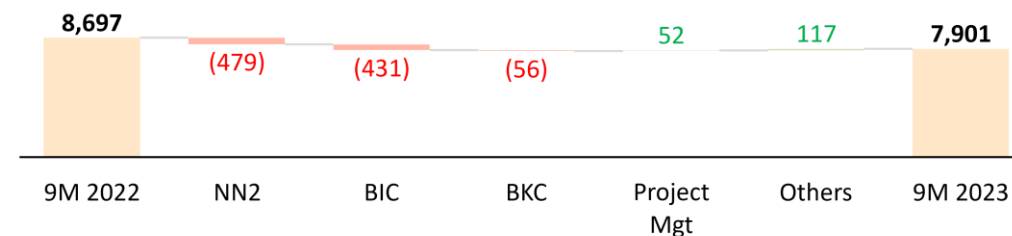
+11.8% YoY (61.1%) YoY



## Performance Highlights

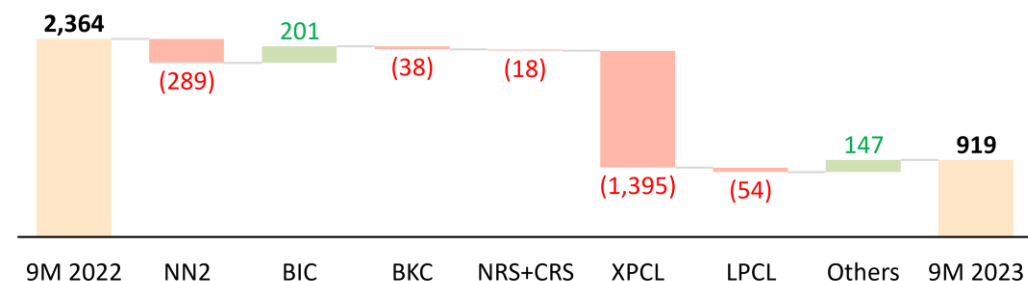
Unit: Bt mn

### Revenue



- Total Revenues decreased YoY mainly due to lower NN2's revenue following lower electricity sales volume and lower BIC's revenue following lower natural gas price;
- Partially offset by higher project management income, CKP's other income related to LPHPP and BIC's insurance claim.

### NPAT



- NPAT declined YoY mainly driven by lower share of profit from XPCL and lower contribution from NN2;
- Partially offset by higher contribution from BIC, mainly driven by lower natural gas price.

# NN2 9M 2023 Financial Performance

Consolidated  
Subsidiary



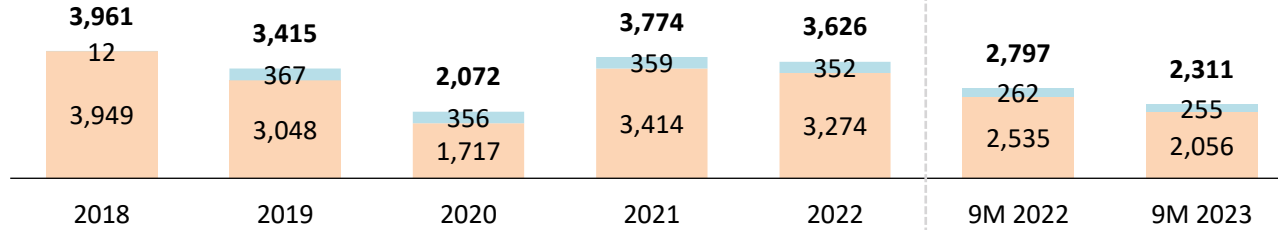
## Financial Performance

Unit: Bt mn

### Revenue

Electricity Revenue Other Income (3.9%) YoY

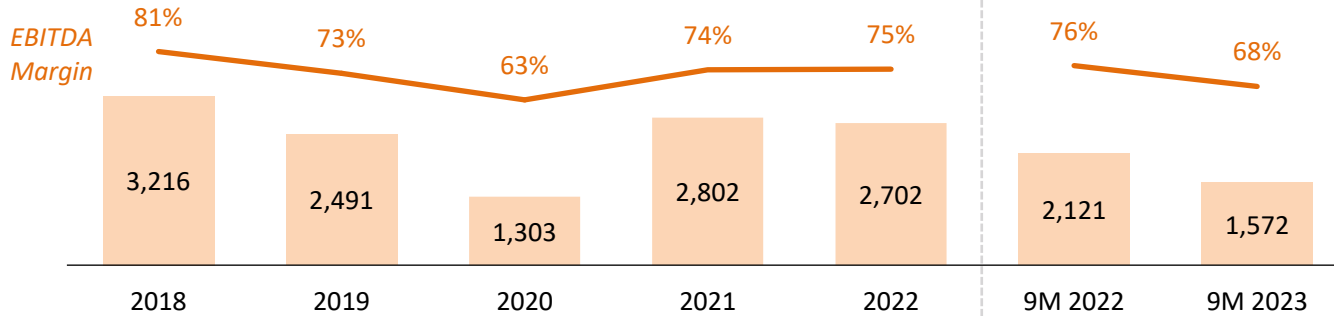
(17.4%) YoY



### EBITDA<sup>(1)</sup>

(3.6%) YoY

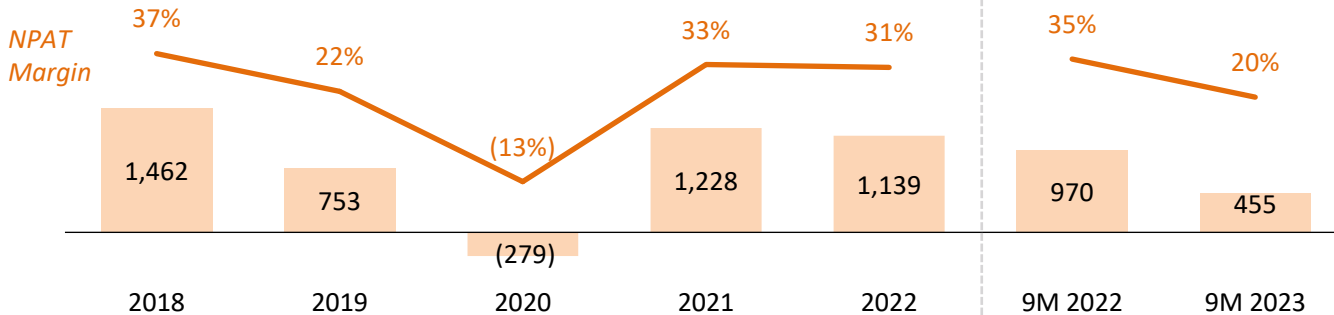
(25.9%) YoY



### NPAT

(7.3%) YoY

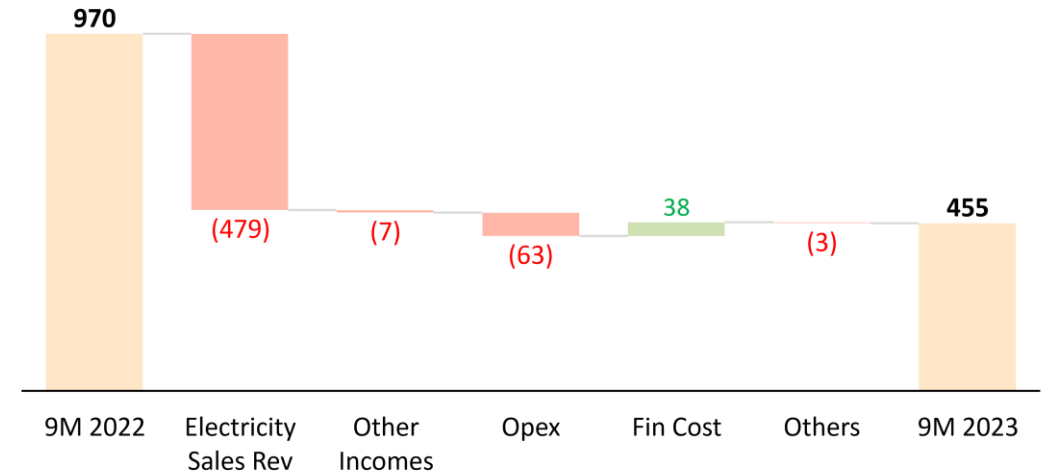
(53.1%) YoY



## Performance Highlights

Unit: Bt mn

### NPAT



- NPAT declined mainly due to lower electricity sales following lower inflow during 1H 2023 and an increase in operating cost mainly from the planned Major Overhaul;
- Partially offset by lower Finance Cost from redemption of matured Debentures.

## Key Activities in 2023

- Major Overhaul during 2023-2025: 1<sup>st</sup> Unit on 18 Nov - 28 Dec 2023
- Close monitor of water inflow and declaration
- Debentures redemptions:
  - Bt 800 mn redeemed in March
  - Bt 400 mn redeemed in September

(1) Excluded FX Gain/(Loss)

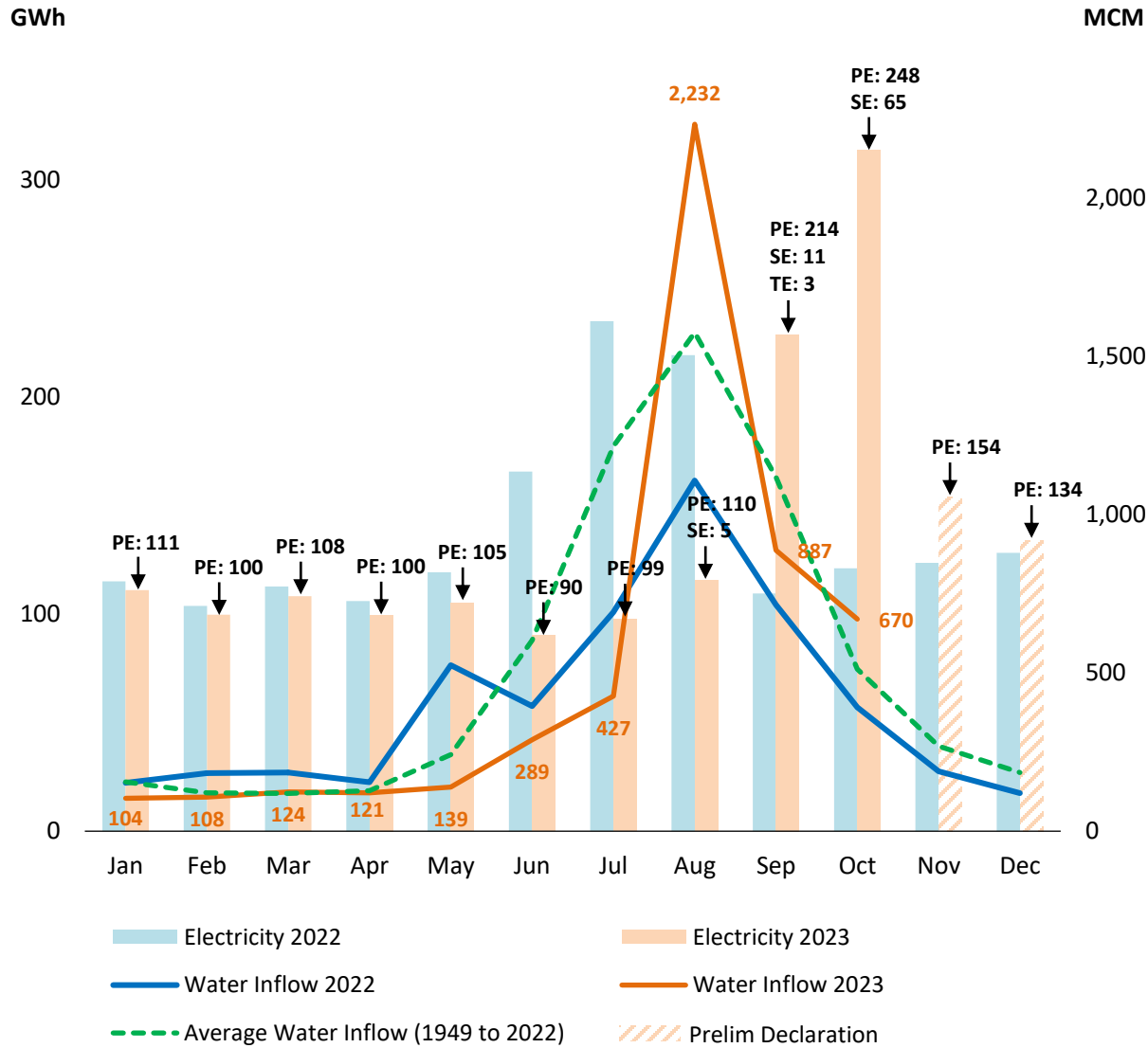


# NN2 9M 2023 Operation

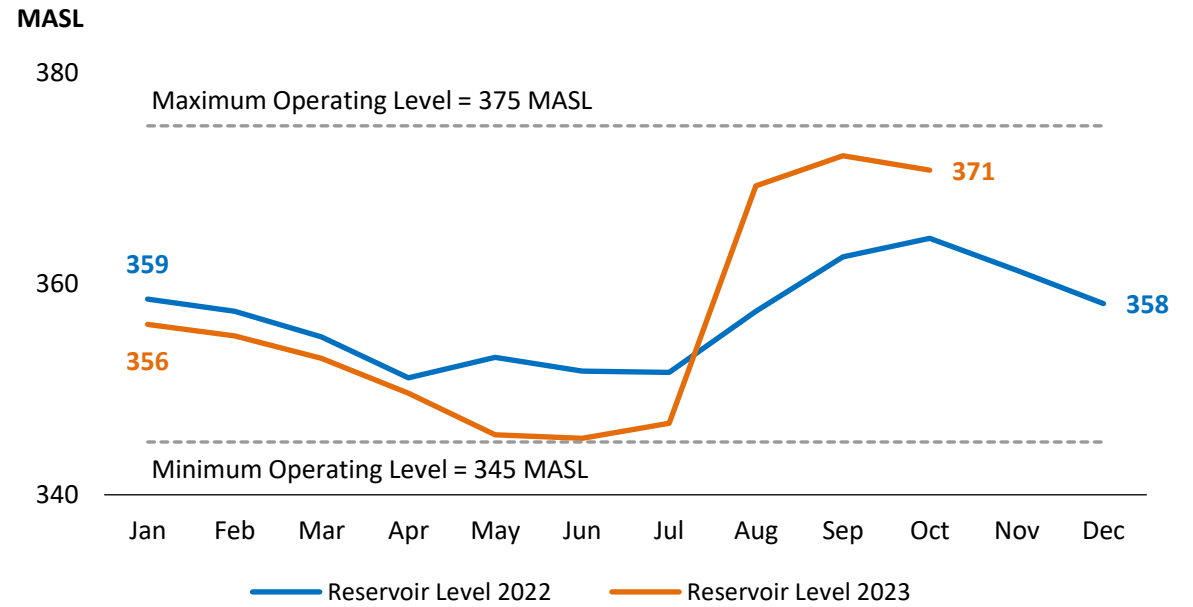
Consolidated  
Subsidiary



## Electricity Sales Volume and Water Inflow



## Reservoir Level (End of Month)



## Electricity Sales Volume

Unit: GWh

	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	9M/22	9M/23
PE	553	369	319	295	423	1,275	1,036
SE	11	-	-	-	16	11	16
EE	-	-	-	-	-	-	-
TE	-	4	-	-	3	-	3
Account-PE	-	-	-	-	-	-	-
Account-SE	-	-	-	-	-	-	-
<b>Total</b>	<b>564</b>	<b>373</b>	<b>319</b>	<b>295</b>	<b>442</b>	<b>1,286</b>	<b>1,055</b>
% YoY Change	+1.0%	+1.5%	(3.8%)	(24.6%)	(21.6%)	(13.0%)	(17.9%)

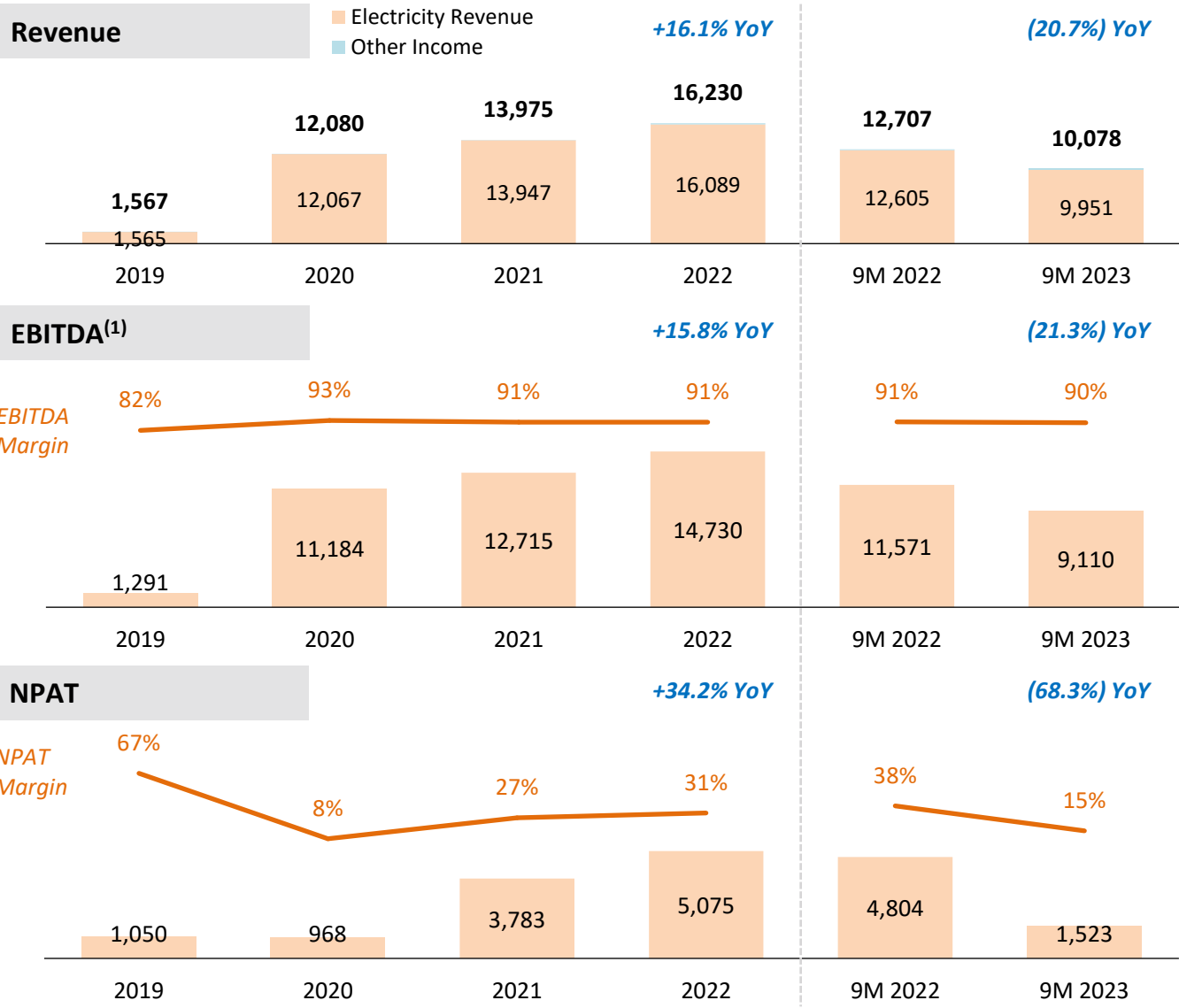
# XPCL 9M 2023 Financial Performance

Share of Profit



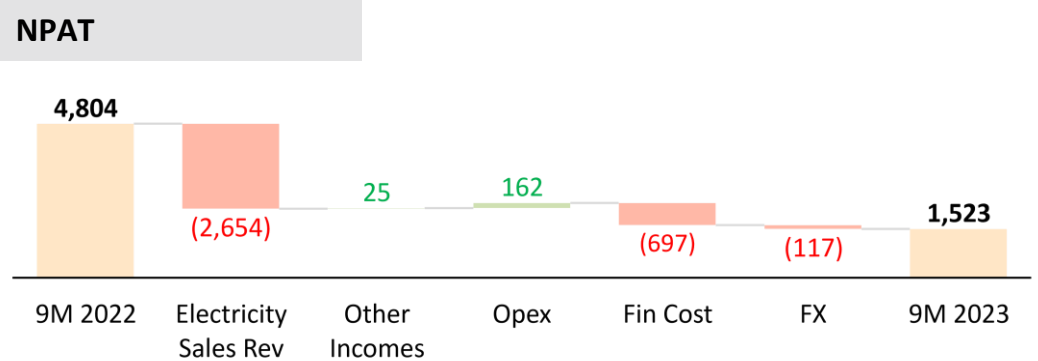
## Financial Performance

Unit: Bt mn



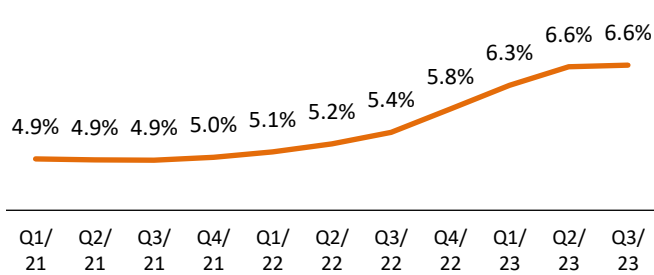
## Performance Highlights

Unit: Bt mn

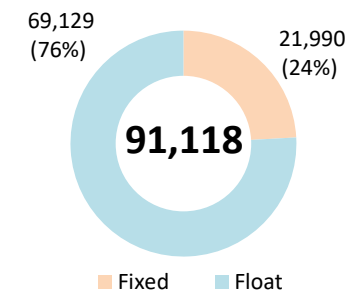


- 9M 2023 performance declined YoY, mainly due to the YoY decline in electricity sales following lower water flow and the YoY increase in finance cost driven by rising global interest rate;
- Partially offset by lower Operating Expenses.

## Average Cost of Debt



## LT Debt (Bt mn)



## Key Activities in 2023

- Optimize electricity declaration and production
- Green Debentures issuance in Oct 2023
- Close monitor of interest rate trend to reduce overall finance cost

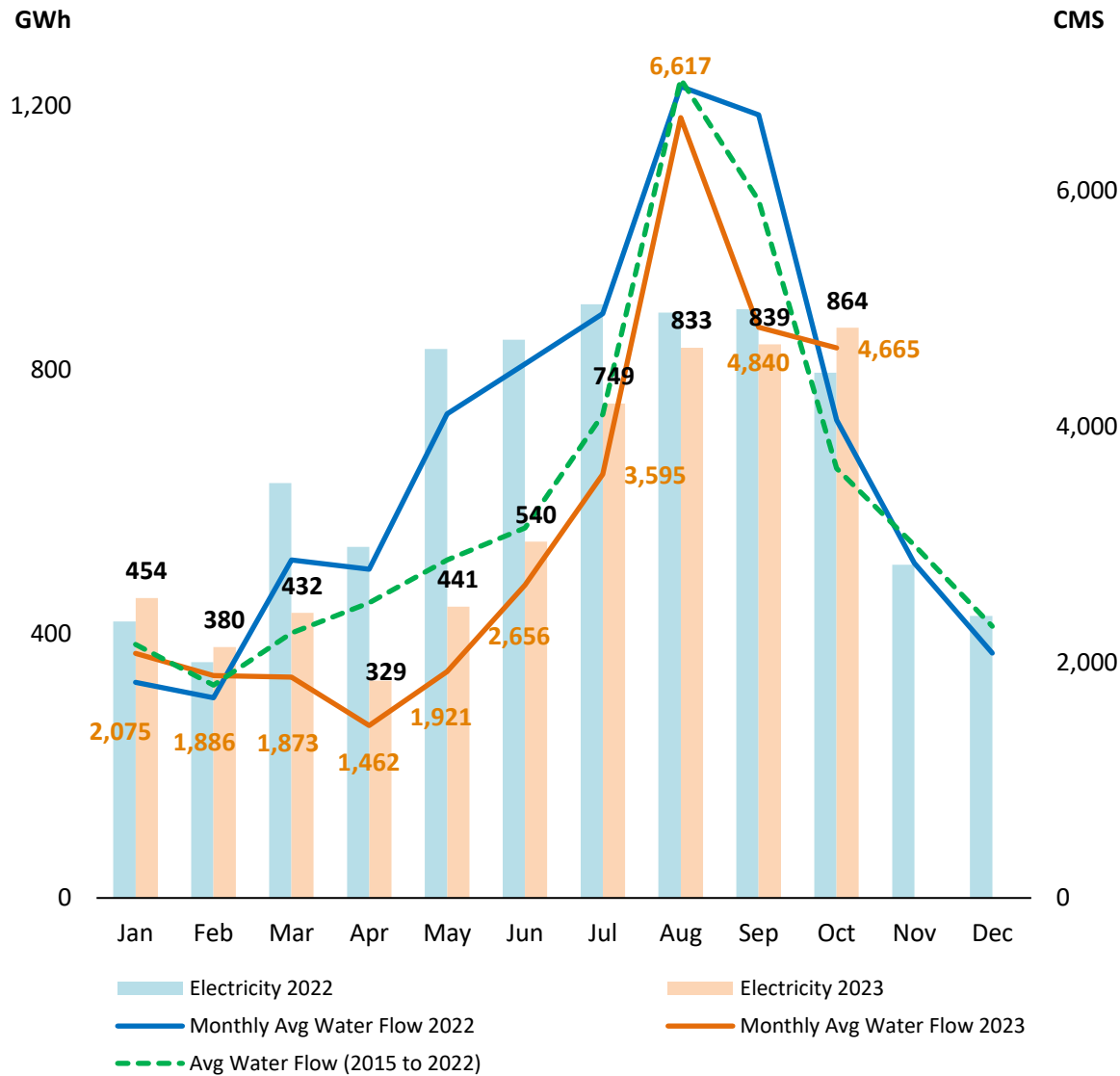
(1) Excluded FX Gain/(Loss)

# XPCL 9M 2023 Operation

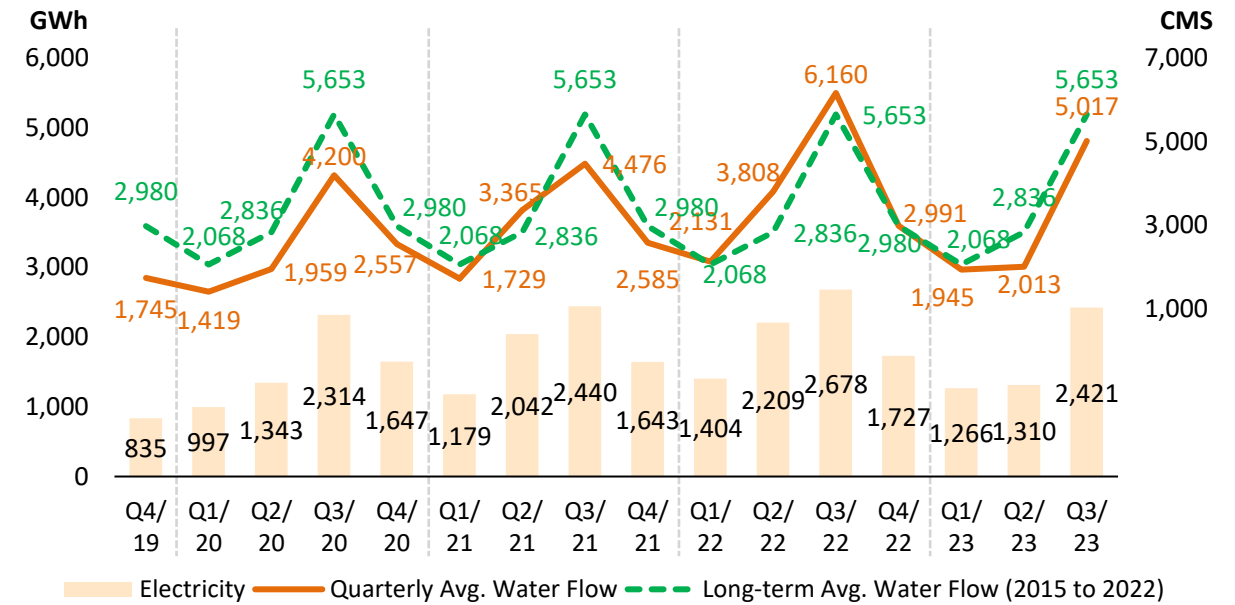
Share of Profit



## Monthly Electricity Sales Volume and Water Flow



## Quarterly Electricity Sales Volume and Water Flow



## Electricity Sales Volume

Unit: GWh

	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	9M/22	9M/23
<b>Water Flow (CMS)</b>	6,160	2,991	1,945	2,013	5,017	4,033	2,992
<b>PE</b>	1,494	1,064	731	762	1,334	3,534	2,827
<b>SE</b>	589	96	256	274	511	1,355	1,041
<b>EE</b>	489	549	277	268	497	1,295	1,042
<b>TE</b>	-	9	1	-	-	-	1
<b>Total EGAT</b>	<b>2,572</b>	<b>1,718</b>	<b>1,265</b>	<b>1,304</b>	<b>2,342</b>	<b>6,184</b>	<b>4,911</b>
<i>%YoY Ch – EGAT</i>	<i>+8.2%</i>	<i>+4.7%</i>	<i>(9.9%)</i>	<i>(40.9%)</i>	<i>(9.0%)</i>	<i>+10.8%</i>	<i>(20.6%)</i>
<b>EDL</b>	105	9	1	6	79	107	86
<i>% YoY Ch – EDL</i>	<i>+68.3%</i>	<i>+263.4%</i>	<i>+72.7%</i>	<i>+661.5%</i>	<i>(24.9%)</i>	<i>+31.4%</i>	<i>(19.1%)</i>
<b>Grand Total</b>	<b>2,678</b>	<b>1,727</b>	<b>1,266</b>	<b>1,310</b>	<b>2,421</b>	<b>6,291</b>	<b>4,997</b>
<i>% YoY Ch - Total</i>	<i>9.7%</i>	<i>5.1%</i>	<i>(9.9%)</i>	<i>(40.7%)</i>	<i>(9.6%)</i>	<i>+11.1%</i>	<i>(20.6%)</i>

(1) XPCL Annual Supply Target: PE 4,299 GWh, SE 1,410 GWh; (2) Outstanding SE Excess Account is 105 GWh

# BIC 9M 2023 Financial Performance

Consolidated  
Subsidiary

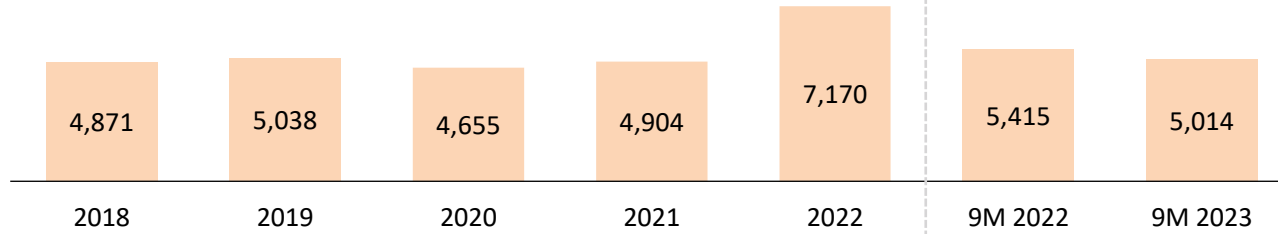


## Financial Performance

Unit: Bt mn

### Revenue

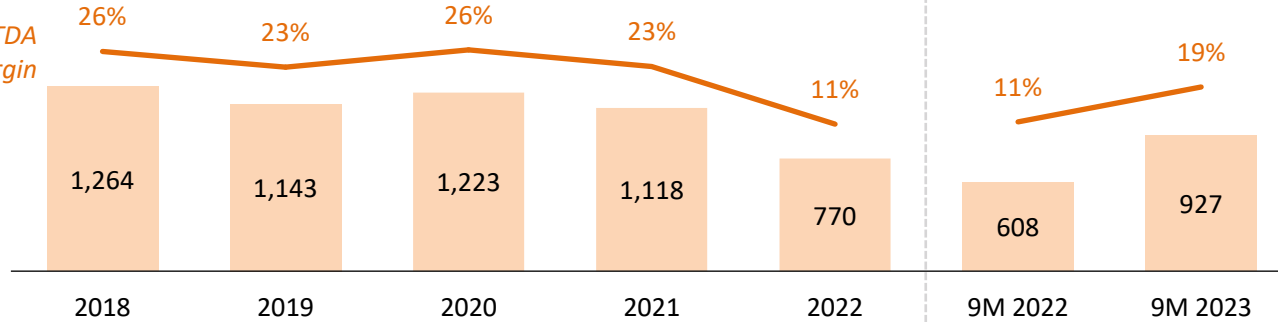
+46.2% YoY (7.4%) YoY



### EBITDA

(31.1%) YoY +52.4% YoY

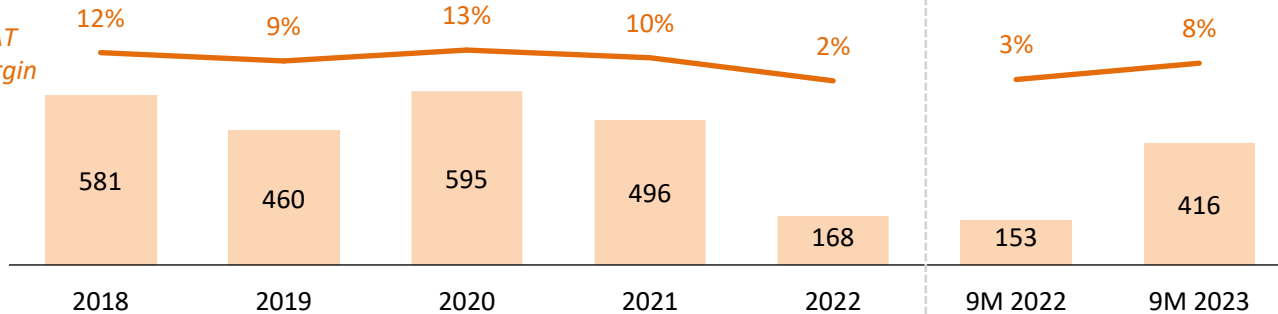
EBITDA  
Margin



### NPAT

(66.1%) YoY +173.0% YoY

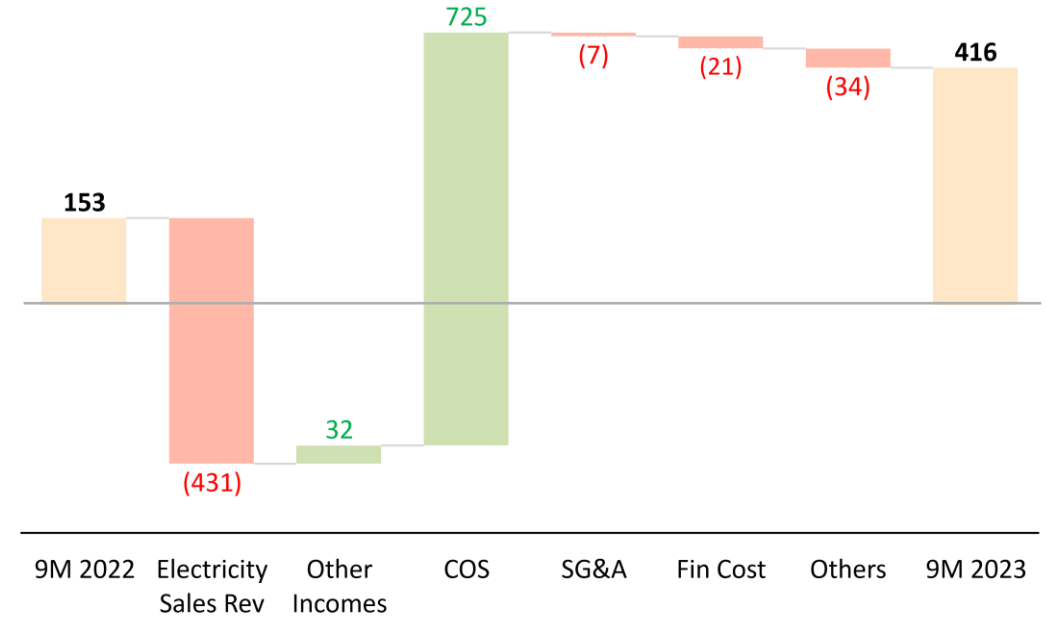
NPAT  
Margin



## Performance Highlights

Unit: Bt mn

### NPAT



- 9M 2023 performance improved YoY, mainly driven by the lower natural gas price resulted in significantly lower Cost of Sales YoY.

## Key Activities in 2023

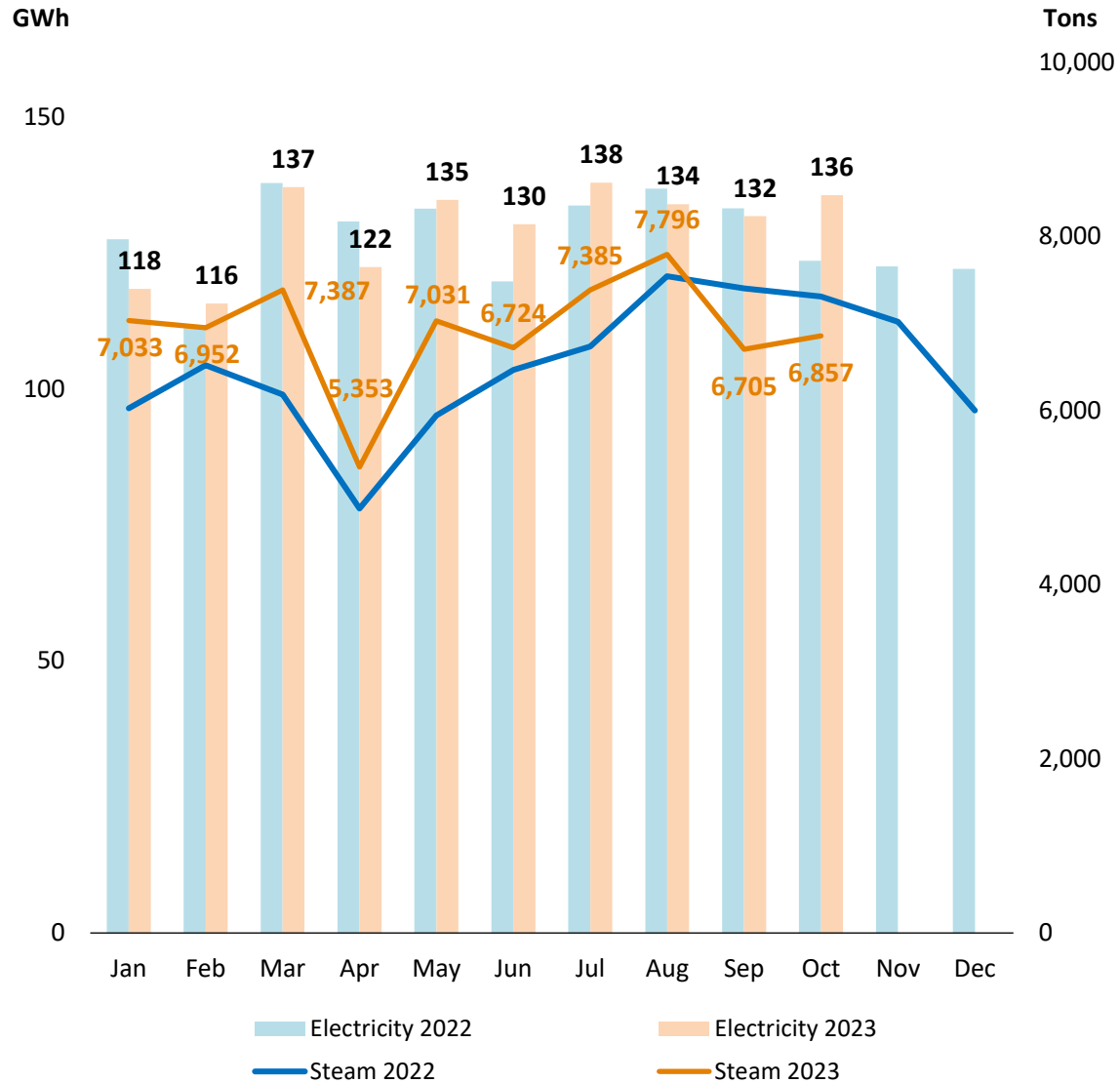
- Close monitoring of gas price and cash flow management
- Load optimization and improvement in overall plant efficiency

# BIC 9M 2023 Operation

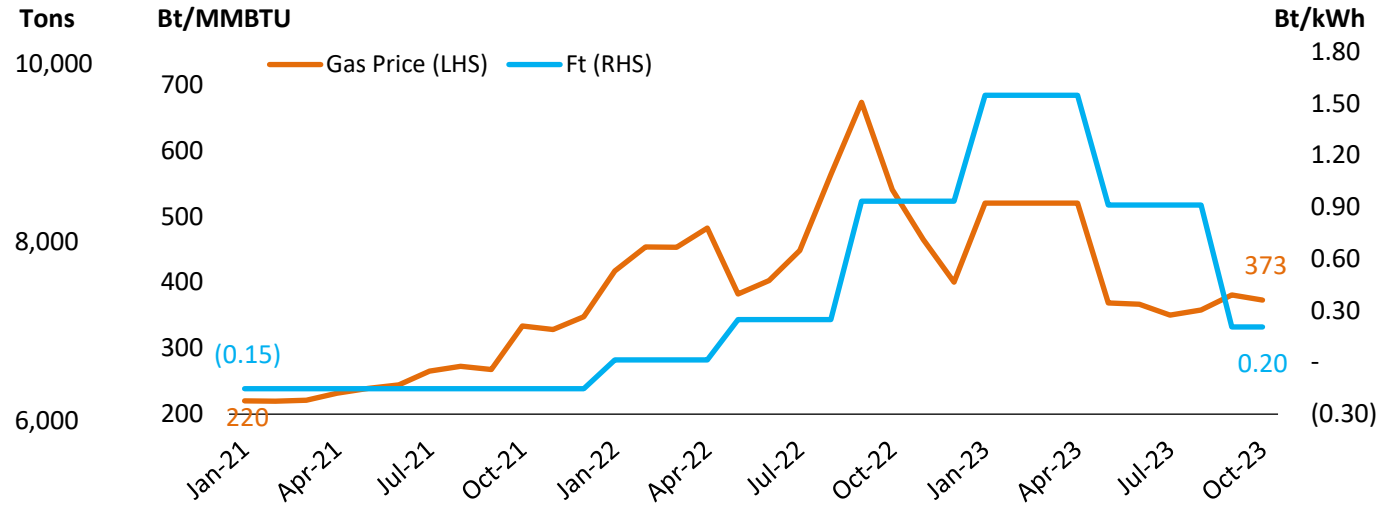
Consolidated  
Subsidiary



## Monthly Electricity and Steam Production



## Gas Price and Ft



## Electricity and Steam Sale Volume

Unit: GWh/Tons

	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	9M/22	9M/23
EGAT	327	300	301	314	332	933	946
IUs	77	68	70	73	72	231	216
<b>Total (GWh)</b>	<b>404</b>	<b>368</b>	<b>371</b>	<b>387</b>	<b>404</b>	<b>1,164</b>	<b>1,162</b>
Steam (Tons)	21,681	20,335	21,372	19,108	21,886	57,701	62,366
Tariff (Bt/kWh)	5.19	4.70	4.81	4.26	3.80	4.58	4.29
Gas Price (Bt/MMBTU)	562	469	520	419	363	475	434
% YoY Ch – Electricity	+0.3%	(4.9%)	(1.4%)	+1.0%	-	+0.6%	(0.1%)
% YoY Ch – Steam	+31.0%	+8.2%	+14.1%	+10.5%	+0.9%	+5.7%	+8.1%
% YoY Ch – Gas Price	+109.2%	+39.2%	+17.9%	(1.0%)	(35.4%)	+96.1%	(8.7%)

# BKC 9M 2023 Financial Performance

Consolidated  
Subsidiary



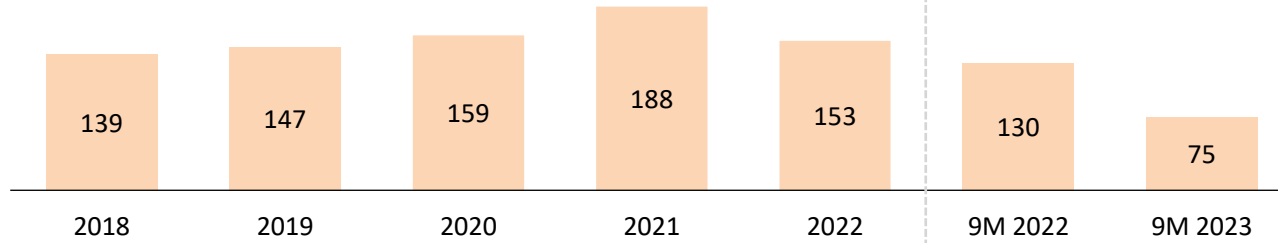
## Financial Performance<sup>(1)</sup>

Unit: Bt mn

### Revenue

(18.7%) YoY

(42.3%) YoY

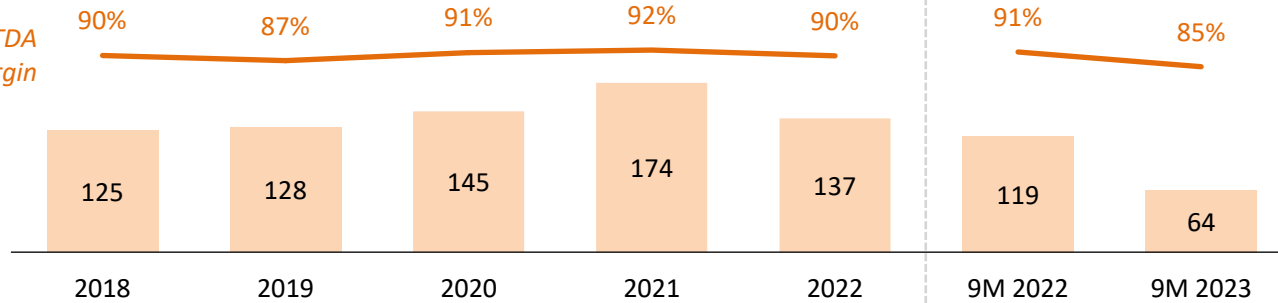


### EBITDA

(20.9%) YoY

(46.6%) YoY

EBITDA  
Margin

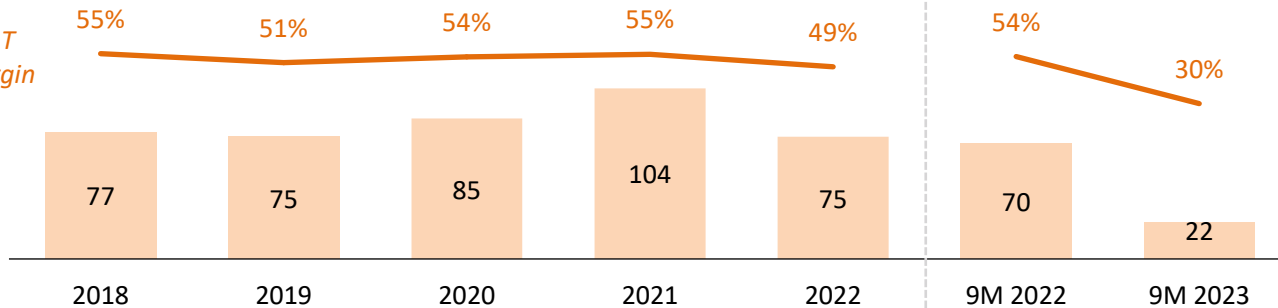


### NPAT

(28.3%) YoY

(68.2%) YoY

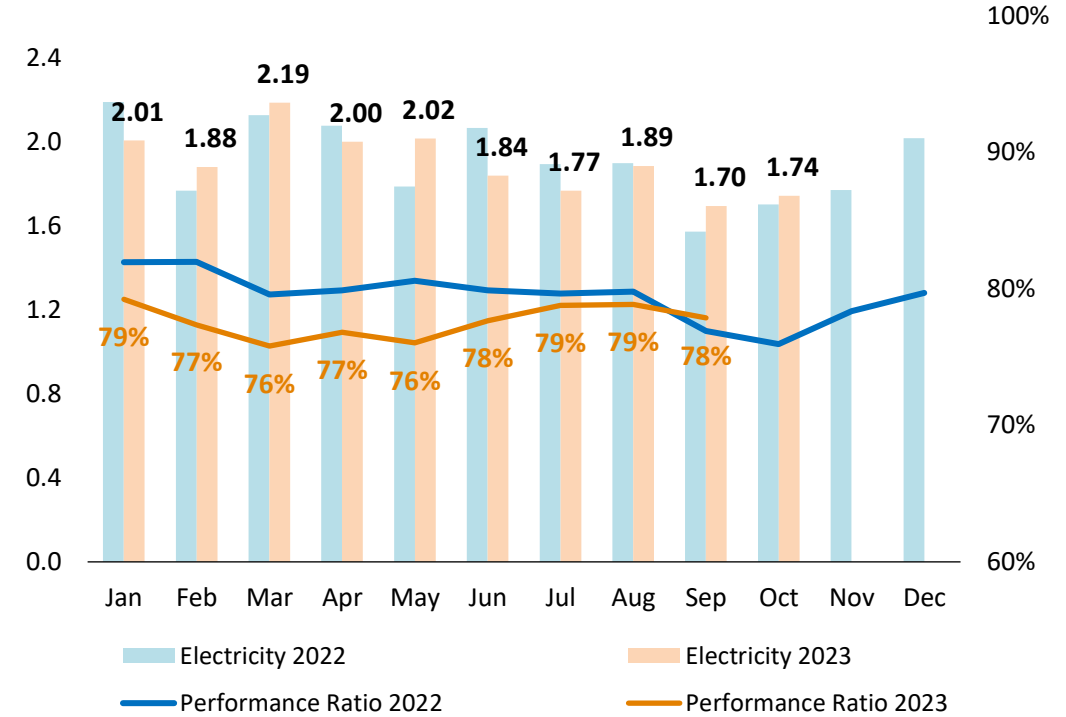
NPAT  
Margin



## Monthly Electricity Production<sup>(1)</sup>

GWh

%



## Electricity Sales Volume<sup>(1)</sup>

	Q3/22	Q4/22	Q1/23	Q2/23	Q3/23	9M/22	9M/23
Electricity (GWh)	5.37	5.49	6.08	5.86	5.35	17.4	17.3
%YoY Change	+0.2%	(4.5%)	(0.2%)	(1.2%)	(0.3%)	(0.7%)	(0.6%)
Ft <sup>(2)</sup> (Bt/kWh)	0.33	0.80	1.26	0.93	0.58	0.07	0.92

(1) Include Revenue and Electricity Sales of new solar rooftop power plants and solar farm; (2) Average wholesale Ft rate

# Consolidated Financial Position as at 30 September 2023

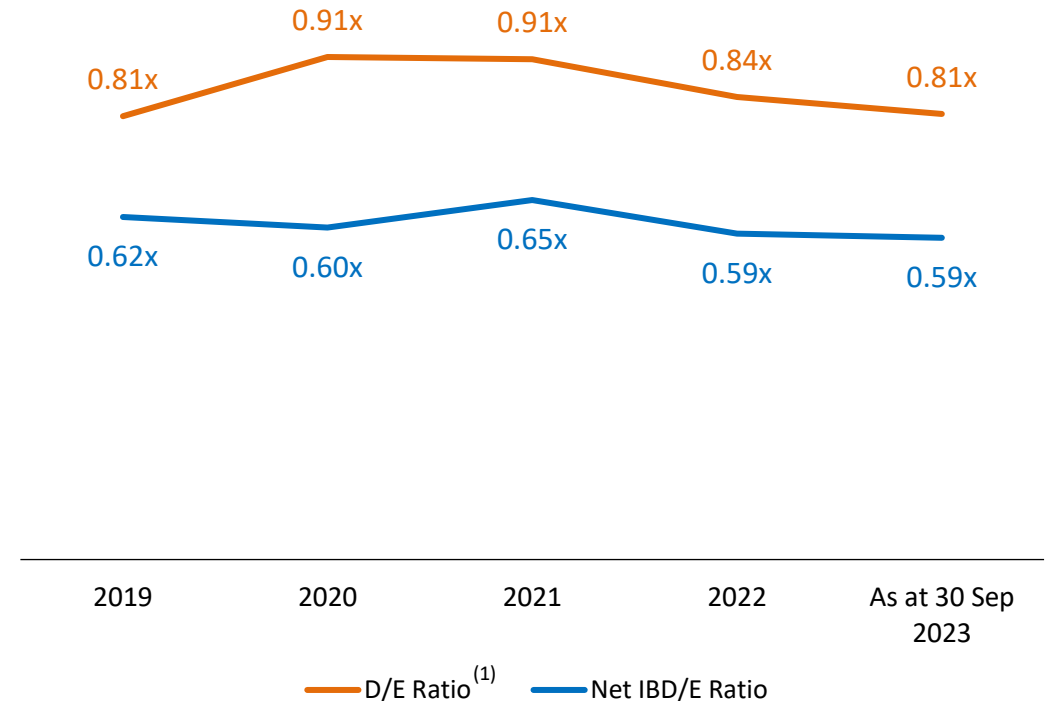
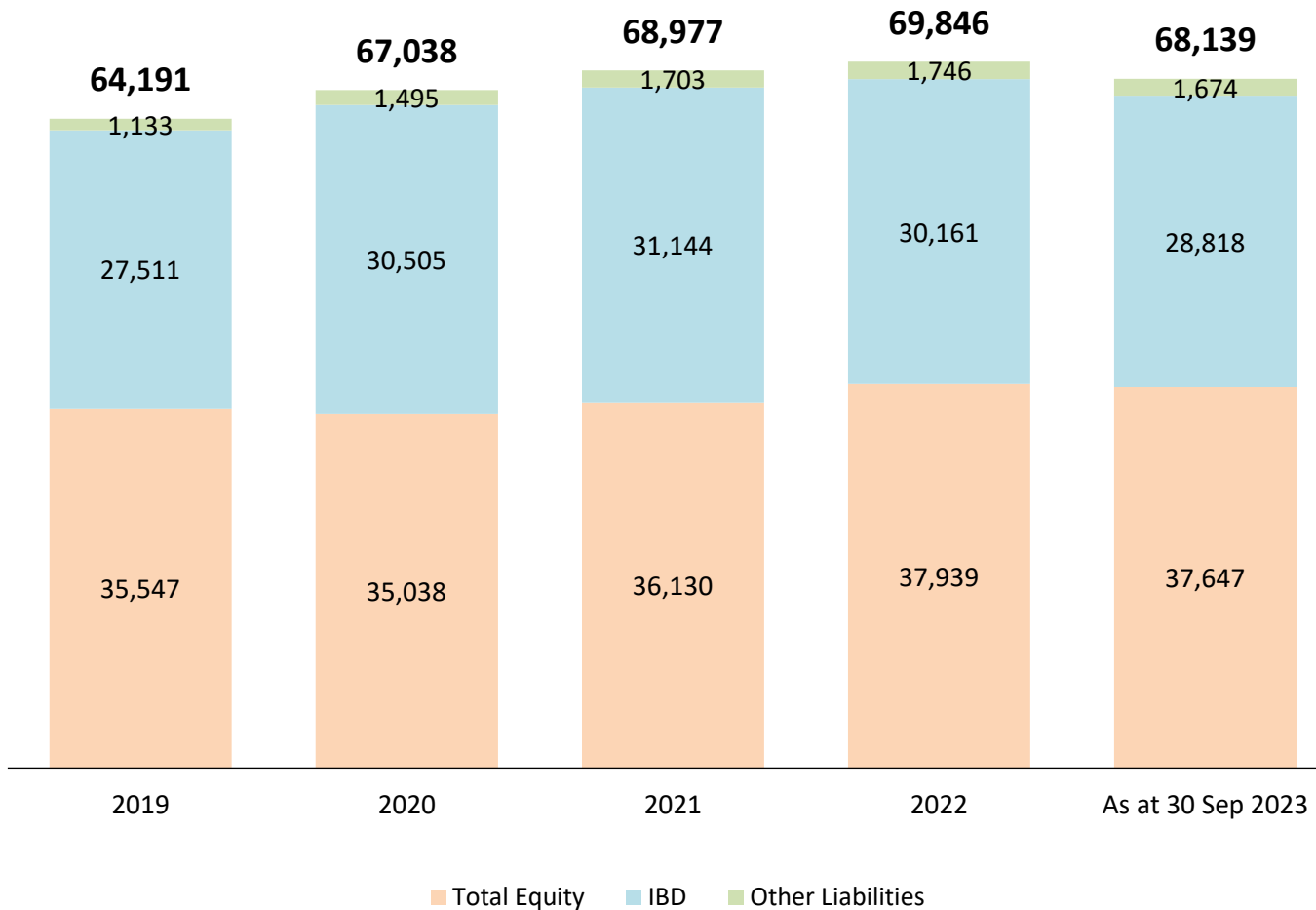
## Financial Position

Unit: Bt mn

Total Assets decreased mainly due to additional sponsor loan to XPCL, the debentures redemption, the Company's dividend payment and the decline in investments in associates during 9M 2023.

## Leverage Ratios

**CKP's Debentures Covenant:** Net IBD/E Ratio not exceeding 3.00x

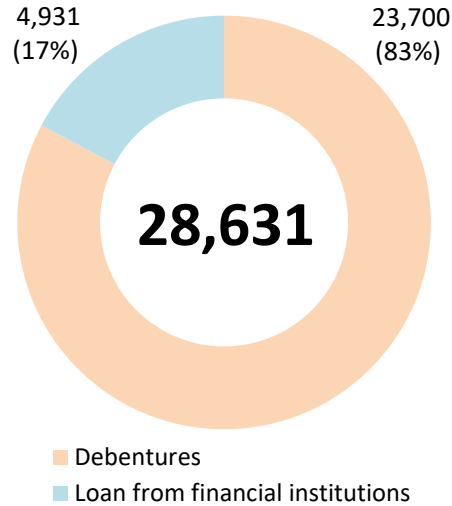
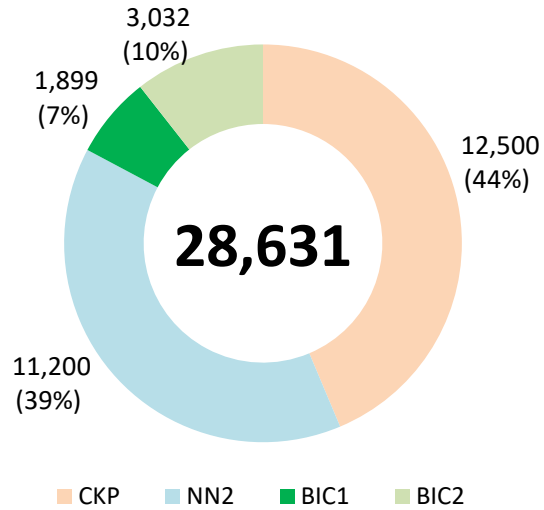


(1) D/E Ratio calculated from Total Liabilities divided by Total Shareholders' Equity

# Long-term Loan and Credit Ratings

## Long-term Loan and Debentures<sup>(1)</sup>

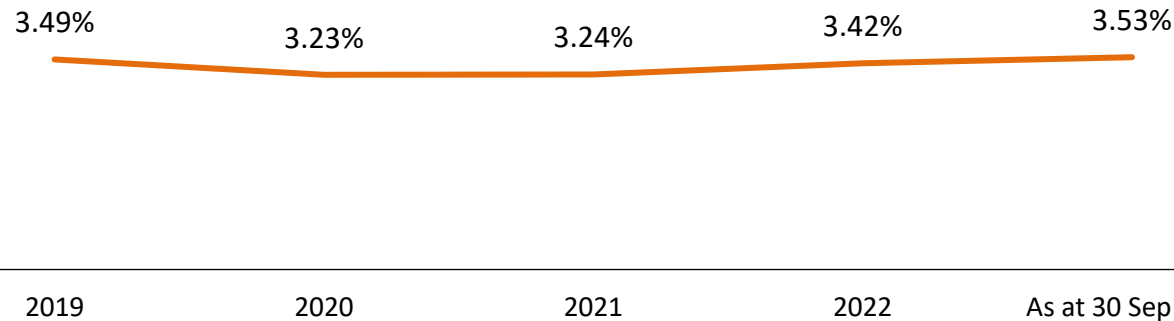
Unit: Bt mn



## TRIS Ratings

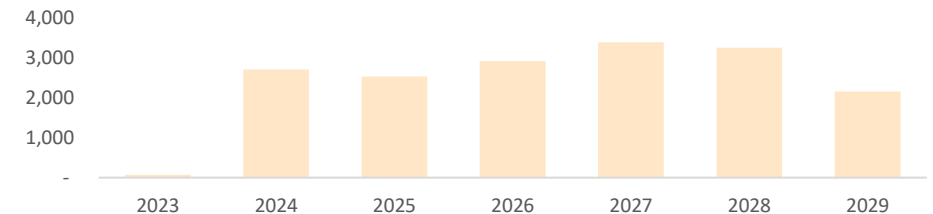
	Company Rating: <b>A / Stable</b>	Issue Rating: <b>A- / Stable</b>
	Company Rating: <b>A / Stable</b>	Issue Rating: <b>A / Stable</b>
	Company Rating: <b>A- / Stable</b>	Issue Rating: <b>BBB+ / Stable</b>

## Average Cost of Debt



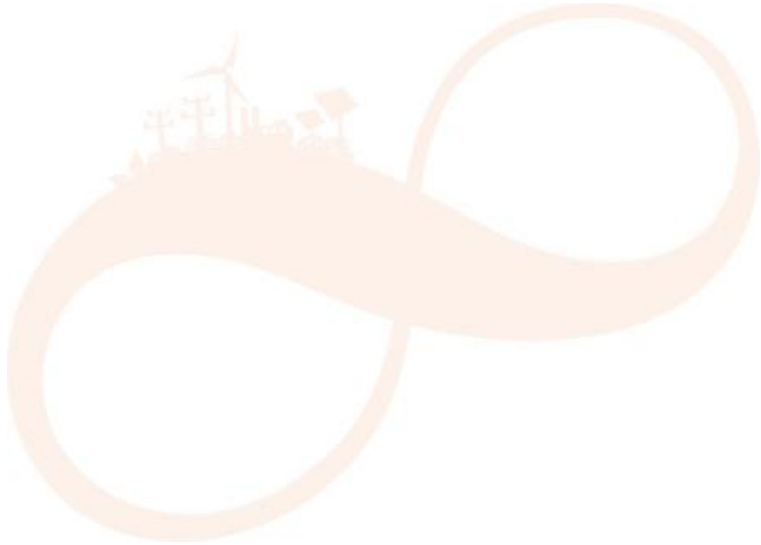
## Investment & Capex Plan

	Status	Bt mn
New Investment Budget	2023	550
LPCL Equity Investment	2023 – 2029	17,000



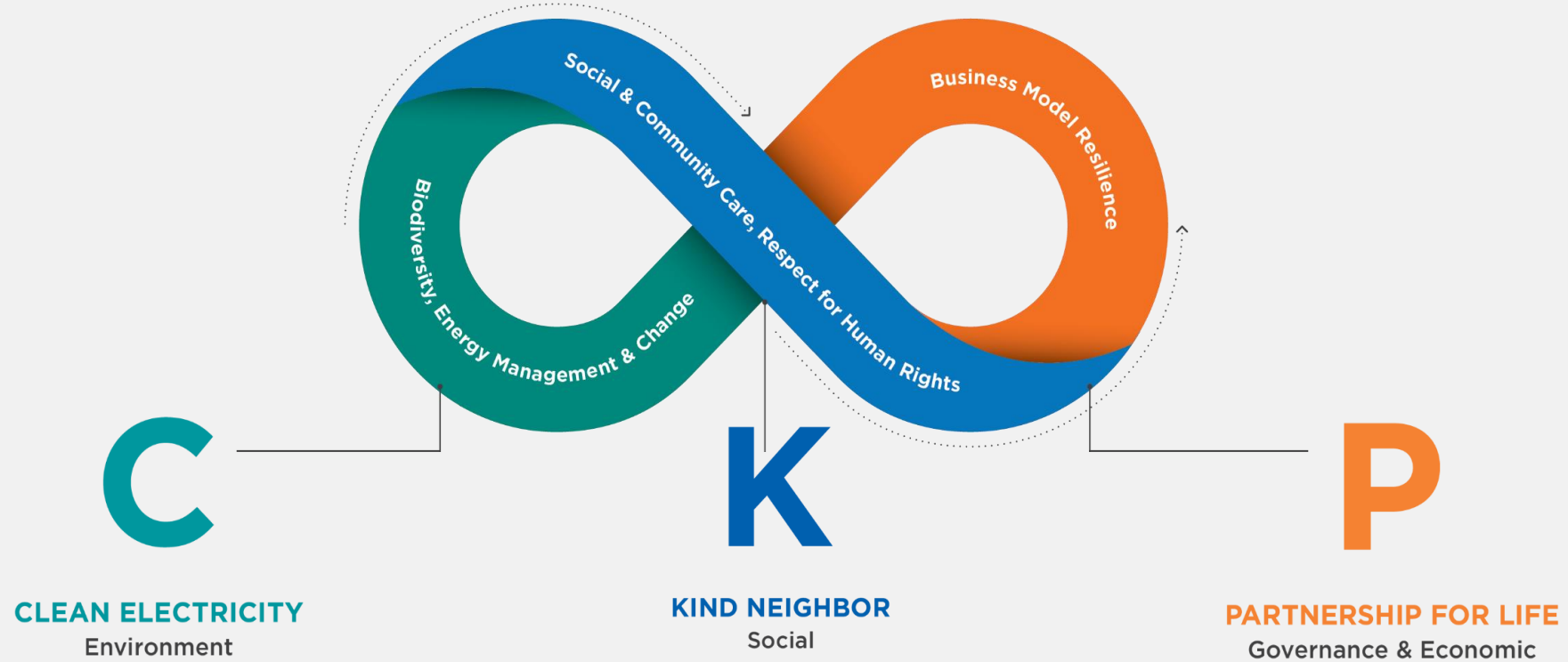
(1) Loan and debentures outstanding before transaction costs





- 1. Corporate Overview and Portfolio**
- 2. Growth and Sustainability Strategies**
- 3. Key Developments during 9M 2023**
- 4. 9M 2023 Financial Performance**
- 5. Q&A**

## RENEWABLE ENERGY FOR A SUSTAINABLE FUTURE



### Investor Relations

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