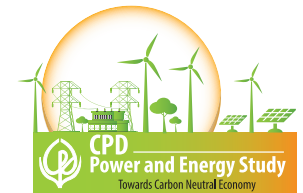


# Currents of Change

## Quarterly Brief of the Power & Energy Sector of Bangladesh

Volume 1, Brief No. 3  
January-March 2024



## Key Highlights

- In the third quarter of FY2024, the government of Bangladesh implemented an automatic fuel pricing system alignment with global market trends to comply with IMF conditions.
- The government announced an average 8.5 per cent increase in average electricity tariffs raising the wholesale price from Tk 6.70 to Tk 7.04 per unit, and the retail price from Tk 8.25 to Tk 8.95 per unit.
- During this quarter, three IPPs have been phased out as per their contract however, 1 IPP Shajibazar Hobiganj (92.8 MW) is believed to be still in operation with zero generation output.
- During this quarter, Bangladesh invited international bidding for oil and gas exploration in 24 blocks in the Bay of Bengal to boost domestic gas production.
- The slow implementation of ten renewable energy projects resulted in a significant shortfall of 251.77 MW in renewable energy production in this quarter.

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## 1. BACKGROUND

The third quarter (Q3) of Fiscal Year 2024 (January-March 2024) was particularly significant for the power and energy sector as several policy decisions were made from national and international perspectives. Some of these are: the government has adopted automated pricing mechanism for fuel oil, taking the decision to revise electricity prices in stages, the Ministry of Power, Energy and Mineral Resources (MoPEMR) has been initiating proposals on domestic gas exploration; inviting international bidding for oil and gas exploration and Bangladesh obtained foreign financial assistance and investment for renewable energy projects.

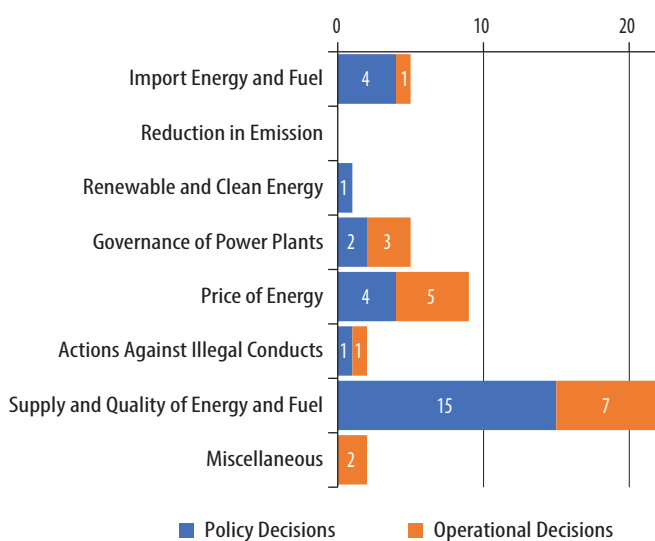
The quarterly is segregated into six broad sections, including a brief snapshot of the major policy and operational decisions, power and energy sector performance, renewable energy deployment status, the reflection of the second quarterly brief's recommendations in the policy decisions of this quarter, and remarks on the overall health of the power and energy sector during this quarter.

## 2. MAJOR DECISIONS TAKEN DURING JANUARY-MARCH 2024

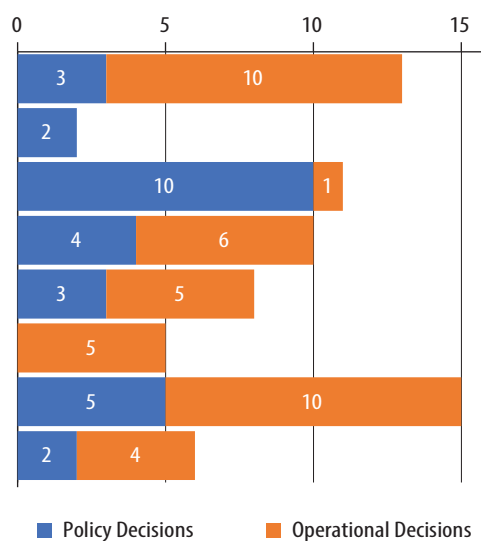
**Policy Decisions:** From January to March 2024, the focus of government policy decisions in the energy sector has contrasted in number compared to the activity seen in the October-December 2023 quarter. The latter period was marked by robust policymaking, particularly towards renewable and clean energy initiatives. The previous quarter's decisive turn towards sustainability was highlighted by the approval of solar power projects, significant international funding partnerships, the welcoming of private sector participation in energy markets, enhancements in power plant governance, and the implementation of regulatory measures for energy pricing and subsidy structures.

During the 3rd quarter of FY2024, Bangladesh's energy landscape buzzed with strategic maneuvers and robust international collaborations. The government introduced an automatic fuel pricing mechanism to synchronise domestic oil costs with global market trends, while the Bangladesh Energy Regulatory Commission (BERC) adjusted LPG prices slightly upwards. In response to the nuanced demands of energy management, thoughtful increments in electricity and gas prices were implemented, aiming for a balance between production costs and consumer accessibility. The period was notably enriched by the Islamic Development Bank (IsDB) Group's generous USD 4.9 billion loan for development and energy procurement, alongside a strategic USD 2.1 billion loan agreement with the International Islamic Trade Finance Corporation, dedicated to bolstering oil and gas purchases. Power generation saw a boost through the Cabinet Committee on Government Purchase (CCGP)'s extension for three Summit Group gas-fired plants, complemented by adjusted CNG station operations regulations to address low gas pressure issues. A highlight of the quarter was Indonesia's expression of interest in investing in renewable energy, particularly eyeing a 100MW solar power project, marking a significant stride in Bangladesh's renewable energy endeavours. Amid these strategic policy implementations, international loans, and infrastructural developments, Bangladesh's energy narrative in early 2024 was a testament to policy governance, global partnerships, and infrastructural foresight, steering towards a sustainable and secure energy future.

**Figure 1** Government and Government Relevant Authorities' Action Focus Point During January- March 2024



**Figure 2** Government and Government Relevant Authorities' Action Focus Point During October- December 2023



Source: Authors' Compilation of Various News Papers and Relevant Government Websites.

**Operational Decisions:** In the 3rd quarter of FY2024, there was a noticeable dip in the volume of operational decisions within Bangladesh's energy sector compared to the subsequent quarter, with a concentrated effort on addressing importation challenges, fuel supply stabilisation, and maintenance of quality. These included settling Bangladesh Petroleum Corporation's overdue import bills, securing long-term LNG agreements, and receiving vital coal shipments for power production. The government also pursued regional cooperation and initiated RLNG imports from India to mitigate global market volatility.

In the 3rd quarter of 2024, Bangladesh's energy sector was marked by significant operational decisions to bolster infrastructure, secure international LNG supplies, and enhance efficiency through technological advancements. Amid financial challenges, Bangladesh Bank introduced bonds worth Tk 5,000 crore, potentially rising to Tk 12,000 crore, to assist the Bangladesh Power Development Board (BPDB)

**Upward revision of Power Tariff:** On 29 February 2024, the government announced an average 8.5 per cent increase in average electricity tariffs. Effective immediately, the wholesale electricity price has risen from Tk 6.70 to Tk 7.04 per unit, and the retail price from Tk 8.25 to Tk 8.95 per unit, on an average. This move, disclosed by State Minister for Power, Energy and Mineral Resources Nasrul Hamid on 29 February, was implemented sooner than the previously scheduled next month. The adjustment will be reflected in the next payment for customers with prepaid meters, impacting various usage levels, with increases up to Tk 696 for the highest brackets.

in mitigating its losses, supplemented by regular government subsidies. The Cabinet Committee on Government Purchase (CCGP) greenlit the import of three LNG cargoes from Singapore-based companies, alongside a notable 15-year agreement with QatarEnergy and Excelerate Energy for an annual supply of 1 million metric tonnes of LNG starting January 2026. To curb losses and improve service delivery, State Minister Nasrul Hamid mandated the fast-tracking of automation in all state-run oil companies, aiming to minimise pilferage and wastage. The operational debut of the Single Point Mooring system on 29 February marked a milestone in optimising oil transportation. Furthermore, initiatives like the inauguration of gas supply from Rashidpur gas field wells and a discussion on the Bibiyana gas field's potential underscored efforts to enhance domestic gas production. Operational adjustments also addressed gas supply suspensions in several districts due to maintenance, and new discoveries in the Sylhet region promised to augment the national grid's capacity. The procurement of 33.60 lakh MMBtu LNG from TotalEnergies Gas & Power Limited, adjustments in CNG station hours, and ambitious drilling plans by Petrobangla to meet future gas demands illustrated proactive measures for energy security. The government's strategic move to limit new gas connections to prioritise industrial and power generation use, along with a prospective LNG supply contract with Summit Group reflects growing reliance on LNG in the upcoming months. Exploration of domestic gas did not set momentum during this quarter.

### 3. POWER SECTOR DURING JANUARY-MARCH 2024

**Generation:** With the conclusion of the winter season, a general upsurge in the use of each fuel source is observed throughout this quarter. However, this upward trajectory shows heavy fluctuations across all fuel types. Notably, the per-day expenditure on oil during this period ranged from a staggering BDT 66.87 crore to a mere BDT 17.5 lakh, while expenditure on coal fluctuated between BDT 64.24 crore and BDT 17.66 crore (see Figure 3). Despite the reduced demand for electricity during winter, the proportion of fuel usage is maintained, even though it would have been more economically viable to lower the consumption of high-cost oil and coal while keeping the use of gas constant. The fixed quantity contracts signed with Independent Power Producers (IPPs) and Quick Rental Reserves (QRR) are the reason for this persistence of proportional usage, despite higher prices. This again reflects the necessity of following “No electricity, No pay” conditions to avoid unnecessary financial burden.

Additionally, in the previous summer in FY2203, the peak generation reached 15,648MW on 19 April 2023 while peak demand reached 16,000MW, causing an unmet electricity demand situation. This year, the minister of Power and Energy is anticipating the potential demand for electricity will rise to about 17,500MW in the coming summer, resulting in generation shortages.

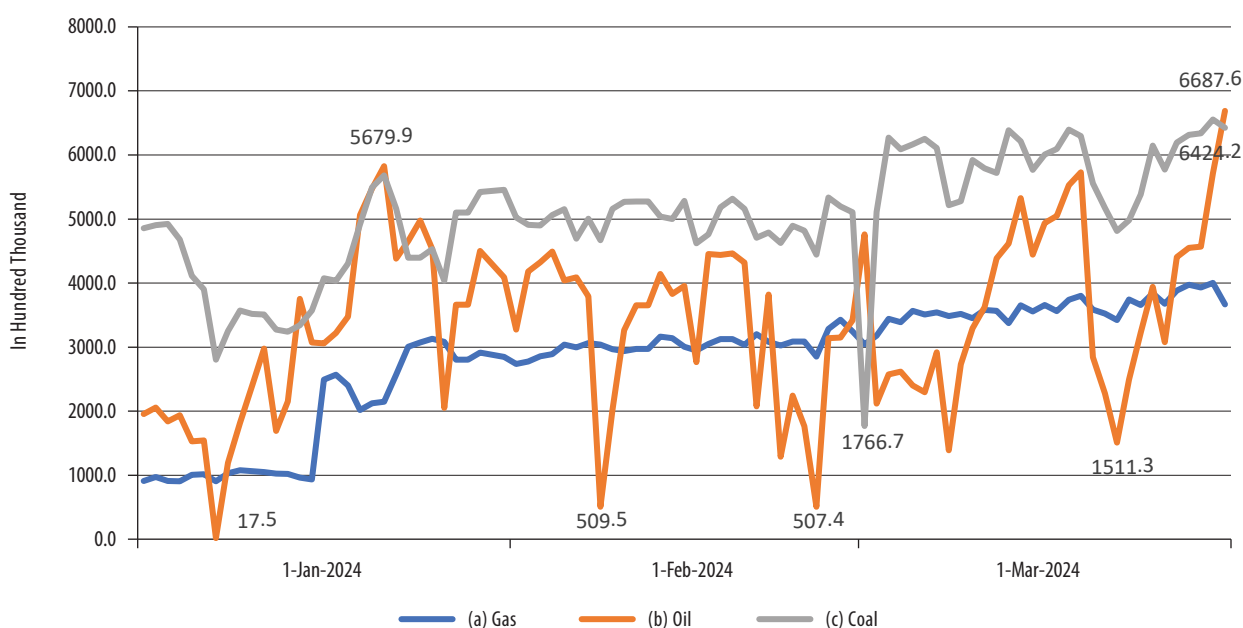
**Transmission & Distribution:** As of March 2024, at the end of Q3, the transmission lines stood at 15,948 circuit km, and distribution lines are at 643,000 km while having a grid sub-station capacity of 66,839 Mega Volt Amp (Table 1). The substation capacity and transmission system have made significant progress in this quarter, while the progress in distribution lines is stagnant.

**Load Shedding:** According to the Power Grid Company of Bangladesh, distribution companies have implemented load shedding every two days since 21 January 2024, with daily occurrences throughout February given the start of summer. During this quarter, the demand and supply gap of power generation increased from 0 MW in December 2023 to 2296 MW in March 2024, again reflecting the seasonal increase in demand. Figure 4 reflects the load-shedding scenario in various regions of Bangladesh during January, February, and March. The graphs indicate that, despite lower electricity demand, Mymensingh keeps experiencing more power outages than other regions in the country. Initiatives to improve the load-shedding scenario in this region are required.

Table 2 portrays further insights into the sub-station wise load-shedding pattern. It shows that in this quarter, the load-shedding happening at the day peak is higher than in the evening peak. This is why on 7 February, the Ministry of Power, Energy, and Mineral Resources issued a statement, urging farmers to run irrigation pumps from 11 pm to 7 am this season to mitigate load shedding and meet daytime demand for electricity. This highlights the need for solar-based power plants in Bangladesh, which have a high potential to meet the daytime demand of the country.

In the previous quarter, the duration of the outage due to tripping or emergency maintenance was lower than the duration of the outage due to scheduled maintenance or project work following the then ongoing project works. Whereas, during this quarter, the duration of

**Figure 3 Per day Fuel Cost of Powerplants (Taka)**



Source: BPDB Daily Generation Report.

**Table 1 Progress in Transmission- Distribution system**

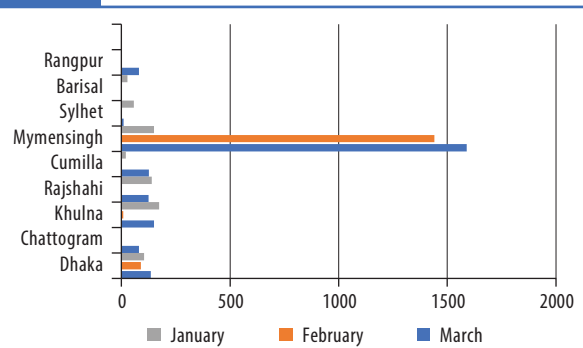
Indicators	End of Q2 (December 2023)	End of Q3 (March 2024)
Transmission lines (Circuit Km)	14,948	15,948
Distribution lines (Km)	643,000	643,000
Grid sub-station capacity (MVA)	65,790	66,839

Source: BPDB Monthly Report.

**Table 2 Monthly Load Shedding pattern (Sub-station end)**

Month	Maximum Load Shed (MW) at Evening Peak	Nos. of Days Load Shed at Evening Peak	Maximum Load Shed (MW) at Day Peak	Nos. of Days Load Shed at Day Peak
Dec-23	0	0	0	0
Jan-24	617	2	732	13
Feb-24	166	19	448	20

**Figure 4 Zone wise Load-shed at Evening Peak (Generation end) in MW**

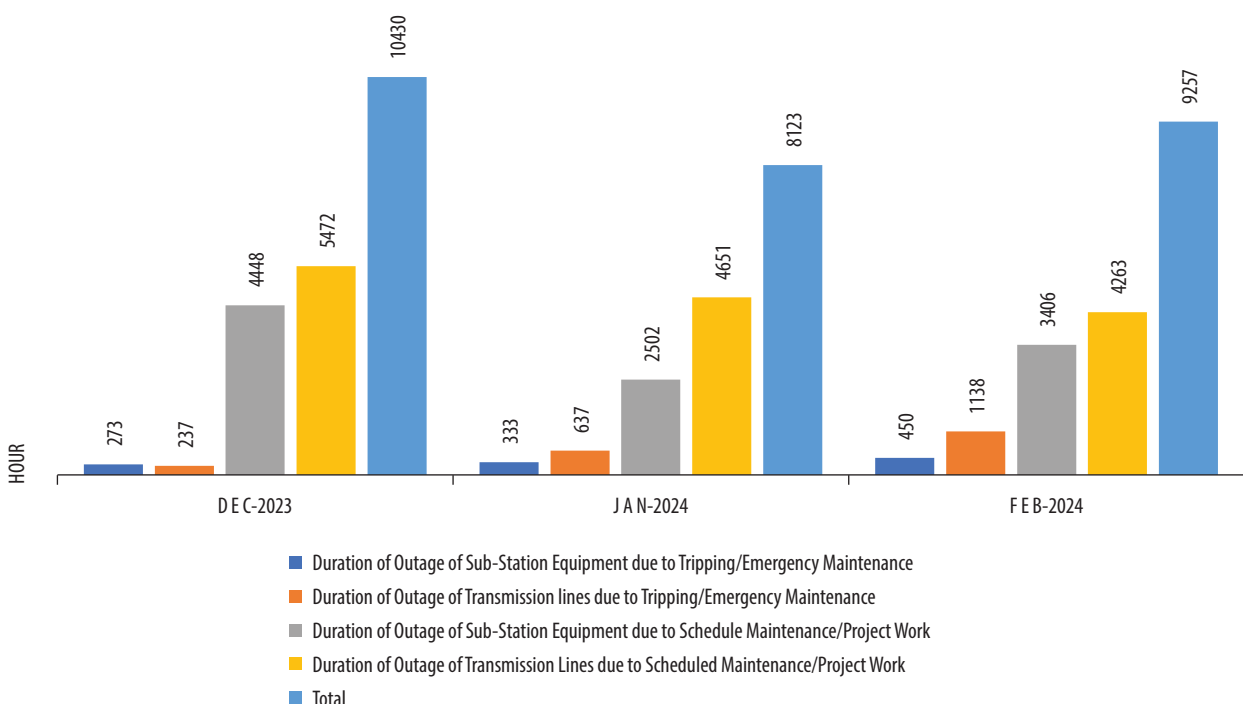


Source: PGCB Monthly Report.

the outage due to scheduled maintenance and the project works seemed to be getting lower indicating the finishing pattern of the project works (Figure 5). On the other hand, outage due to tripping or emergency maintenance is increasing which indicates the development work to increase the capacity of the transmission and distribution system may not be working efficiently.

**Fossil Fuel Phaseout and New IPPs:** During this quarter, three IPPs, namely Paramount Baghabari Sirajganj (200 MW), Doreen Feni (22 MW) and Shajibazar Hobiganj (92.8 MW), were scheduled to be phased out in February according to their contract expiration date.

**Figure 5 Per day Fuel Cost of Powerplants (Taka)**



Source: BPDB Daily Generation Report.

**Table 3** Status of Fossil Fuel Phase-out

Fuel		Contract Expired IPP			New IPP		
		January	February	March	January	February	March
Gas	Number	-	1	-	1	-	-
	Capacity	-	22	-	584	-	-
Coal	Number	-	-	-	-	-	-
	Capacity	-	-	-	-	-	-
Oil	Number	-	1	-	-	-	-
	Capacity	-	200	-	-	-	-

Source: BPDB.

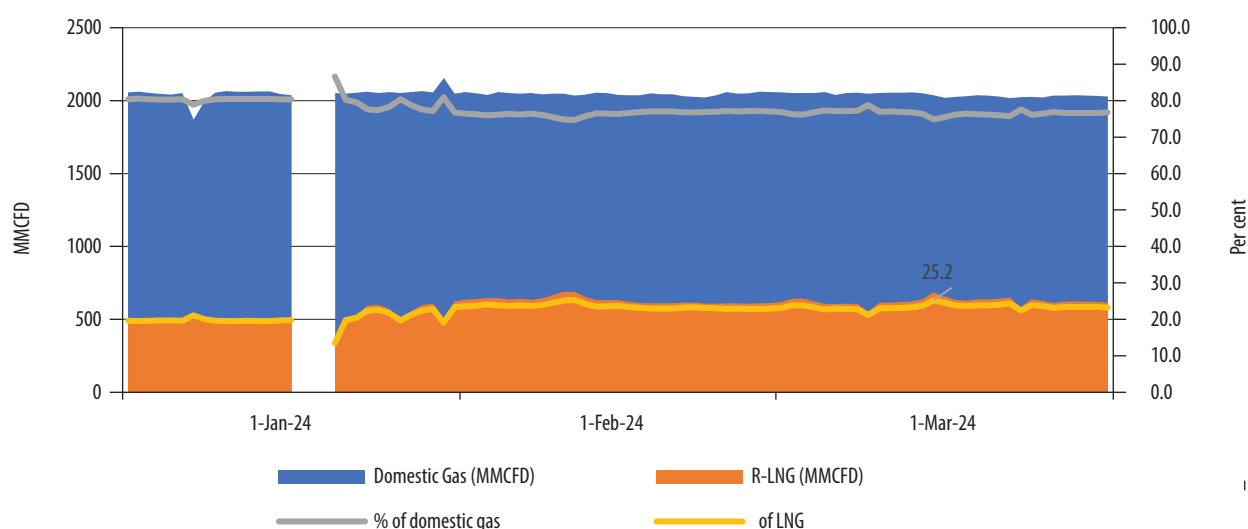
Based on the data provided by BPDB, the first two of these power plants have been phased out, maintaining the expiration date. However, Shajibazar Hobiganj (92.8 MW) is believed to be still in operation with zero generation output. On the other hand, a new Gas-based power plant called 'Unique Meghnat 584 MW CCPP' has started operating with a capacity of 584 MW (Table 3).

## 4. ENERGY SECTOR DURING JANUARY-MARCH 2024

### 4.1 Natural Gas Status in Q3, FY2024

**Gas Demand and Supply:** During the quarter three of FY2024, the gas supply, including LNG, was roughly stable. In the last quarter, the share of LNG of the total gas supply was as high as 25 per cent, which is lower than the RLNG supply of the previous quarter. This is mainly due to the gas supply crisis in the country propelled by maintenance work at LNG (liquefied natural gas) terminal.

**Figure 6** Gas (Domestic & RLNG) Supply during Jan- Mar'24



Source: Authors' illustration from PetroBangla data.

Note: Gas supply data during 17-19 January 2024 was unavailable in the PetroBangla.

**Gas Exploration:** During this quarter, Bangladesh invited international bidding for oil and gas exploration in 24 blocks in the Bay of Bengal on 10 March in an effort to boost domestic energy production. However, no new wells or gas fields has been explored during this quarter.

#### 4.2 Imported LNG Status in Q3, FY2024

**LNG Import:** The government decided to procure LNG from Switzerland and Singapore-based companies. Bangladesh will procure 33.60 lakh MMBtu liquified natural gas (LNG) from the Switzerland-based TotalEnergies Gas & Power Limited. Additionally, Cabinet Committee on Government Purchase (CCGP) approved three separate proposals to import three LNG (liquified natural gas) cargoes from Singapore-based companies. Under the new long-term LNG supply agreement, QatarEnergy and US-based Exceleerate Energy will supply 1 million metric tonnes per year (mtpa) of liquefied natural gas (LNG) to Bangladesh for 15 years from January 2026. Overall there is a move towards putting emphaise on LNG against the depleting domestic gas reserve.

#### 4.3 Fuel Oil During Q3, FY2024

During this quarter, in order to purchase LNG and oil to ensure energy security, the Energy Division has recently entered into a loan agreement with the International Islamic Trade Finance Corporation for around USD 2.1 billion.

**Adoption of Automated Fuel Pricing System:** Effective from 7 March 2024, the government of Bangladesh has implemented an automatic fuel pricing system, adjusting fuel prices monthly in alignment with global market trends. This initiative, a condition of a USD 4.7 billion IMF loan, has led to a reduction in diesel and kerosene prices to Tk 108.25 per liter, petrol to Tk 122.00, and octane to Tk 126.00, according to a recent gazette notification by the Ministry of Power, Energy and Mineral Resources (MoPEMR). However, the estimation of energy needs to review as a number of important indicators are not considered in the estimation method.

## 5. RENEWABLE ENERGY DURING JANUARY-MARCH 2024

**Renewable Energy Progress during January-March 2024:** The renewable energy sector's trajectory in the January-March 2024 quarter showed a slight improvement despite ongoing challenges. While delays remained a prevalent issue, there was a noteworthy

**Table 4** Progress Status of Renewable Based Power Plants Scheduled to Operate Commercially in 2024 (During January and March 2024)

Progress Status	Number of Power Plants in Q2 of FY24	Number of Power Plants in Q3 of FY24
Fully Operational on Time	0	2
Fully Operational but Delayed	0	0
Partially Operational but on Time	0	3
Partially Operational but Delayed	2	0
Delayed	8	10
Construction Starts	1	0
Projects Approved	10	1

**Source:** Authors' Calculation from BPDB Monthly Reports of 2024 and SREDA.

change with two new power plants becoming fully operational, albeit one delayed from previous schedules. The number of projects that shifted to the partially operational phase, although delayed, decreased significantly.

However, the continuation of ten projects remaining in the delayed status underscores the persistent obstacles that hinder the sector's pace. Consequently, these setbacks resulted in a significant shortfall in renewable energy production, with an estimated 251.77 MW of clean electricity generation missed due to the delays. Furthermore, within this quarter, the government has sanctioned the development of only 1 new power plant, compared to 10 from the previous quarter.

**Renewable Energy Financing during January-March 2024:** During the third quarter of FY2024, Bangladesh did not obtain much foreign financial assistance or investment for renewable energy projects compared to the second quarter. In this quarter, there was only a single reported instance of securing renewable energy finance: Indonesia's investment in a 100 MW solar power plant in Bangladesh. The details of the investment size, however, were not disclosed. Furthermore, there has been no visible progress in utilizing the international funds (in various forms such as foreign loan, foreign investments, grants etc.), associated with facilitating renewable energy, received in the first and second quarter of FY2024.

## 6. FOLLOW-UP OF THE PREVIOUS QUARTER

Bangladesh's power and energy sector witnessed significant change in the third quarter of FY2023-24, marked by some strategic policy decisions and operational advancements. Notably, the government's adoption of an automated fuel pricing mechanism and robust international collaborations underscored a proactive approach toward energy management and procurement. Operational initiatives, including infrastructural advancement and international LNG agreements, reflected a concerted effort to continue focus on fossil fuel based energy sector in the country.

Despite progress, the number of operational decisions and policy changes in this quarter is lower than in the previous quarter. A lower number of operational decisions and policy changes compared to the previous quarter may indicate stabilised market conditions but also possibly lower initiative. Additionally, challenges such as load shedding in the power supply and delays in renewable energy projects persisted, signalling the need for continued focus on mitigating demand-supply gaps and expediting clean energy deployment. The quarter's major incidents included the timely phase-out of three IPPs and new loans and investments in renewable energy projects, highlighting opportunities for strategic interventions to ensure sectoral success.

### CPD Power and Energy Publication during January-March 2024

1. Overseas Investment in Bangladesh's Renewable Energy Sector: Case of Chinese Investment
2. How Bangladesh's Renewable Energy Sector Can Attract Chinese Overseas Investment Addressing the Challenges
3. The Future Unplugged: Forecasting a Comprehensive Energy Demand of Bangladesh - a Long Run Error Correction Model