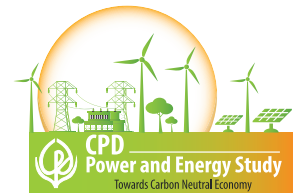


# Currents of Change

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

Volume 2, Brief No. 2  
October-December 2024



## Key Highlights

- Finally, the interim government has repealed the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010
- Bangladesh will begin to import 40MW of electricity from Nepal under the Tripartite Power Sales Agreement with Nepal Electricity Authority (NEA), Bangladesh Power Development Board (BPDB), and NTPC Vidyut Vyapar Nigam Ltd (NVVN)
- Given the seasonality impact there is an overall decline (lowest generation: 8,653 MW) in the power demand, hence both the electricity consumption and generation cost have declined
- The delayed operation of the renewable energy power plants resulted in delayed addition of 253.32 MW of renewable energy into the national grid
- BPDB has reduced the annual net loss in 2024 by more than 25% by increasing the electricity tariff rather than lowering the electricity generation cost from IPPs, rental and quick rental power plants

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## 1. BACKGROUND

The second quarter of FY2025 (October-December 2024) was particularly significant as it was the first full quarter under the operation of the interim government. The supply of power and energy; and demand served continue to suffer, given the fuel shortage; and government is focusing on finding solution through imported Liquefied Natural Gas (LNG) and renewable energy. A number of major initiatives have been undertaken during this quarter. These include: (a) repeal of the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010, (b) decision to import 40MW of electricity from Nepal via India for five months during the period of June-November, (c) initiating the LNG import from international markets, (c) formation of another review committee to investigate allegations on corruption associated with the country's electricity and energy production and supply agencies, (d) initiation of domestic gas exploration inside the country.

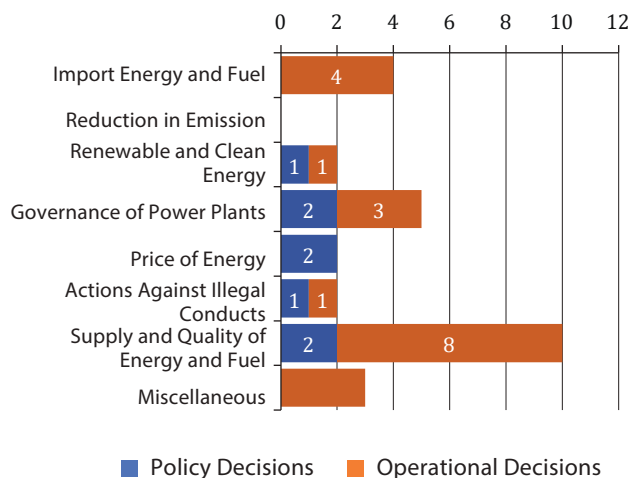
This quarterly is segregated into five broad sections, including (i) A brief snapshot of the major policy and operational decisions, (ii) Generation, Transmission & Distribution of the Power Sector, (iii) Demand, Supply & Exploration in the Energy Sector, (iv) Status of Renewable Energy, (v) Remarks on the overall health of the power and energy sector during this quarter.

## 2. MAJOR DECISIONS TAKEN DURING OCTOBER-DECEMBER 2024

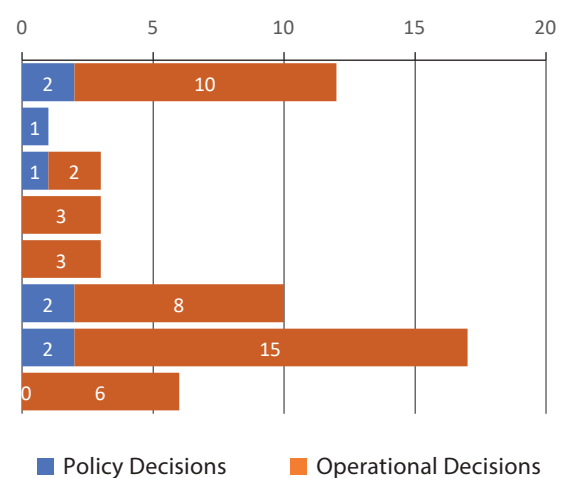
**a) Policy Decisions:** During Q2 of FY25 (October to December 2024), the focus of government policy decisions in the energy sector has remained the same in number compared to the activity seen in the 1st quarter of FY25. The latter period was marked by important issues of policymaking for governing the power plants, and the price of energy.

During this quarter, Bangladesh's energy sector undertook a number of policy measures, especially in addressing supply and operational challenges. Policy decisions during this period includes forming a national review committee to review the institutional structure of the Bangladesh Rural Electrification Board (BREB) and Palli Biduyt Samity (PBS) in order to ensure 100 per cent electrification and quality supply. Most importantly, the government has also repealed the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010 during this quarter. Moreover, the government has formed another review committee to investigate any allegations on corruption associated with the country's electricity and energy generation and supply agencies. The government has taken a bold step in the procurement process with a view to promote competition and cost cutting measures. The government has also permitted the local suppliers to enter into a joint-venture with international spot suppliers for supplying of LNG to the domestic market. An important step of the government during this quarter is to cancel an approved waste-to-energy power plant in order to control the water pollution, biodiversity and emissions. Lastly, the National Board of Revenue (NBR) has reinstated the tax exemptions on private investment on renewable energy projects which marked a significant step towards facilitating and expanding renewable energy in the country.

**Figure 1 Major Actions Taken on Power & Energy During July- September 2024**



**Figure 2 Major Actions Taken on Power & Energy During October-December 2024**



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

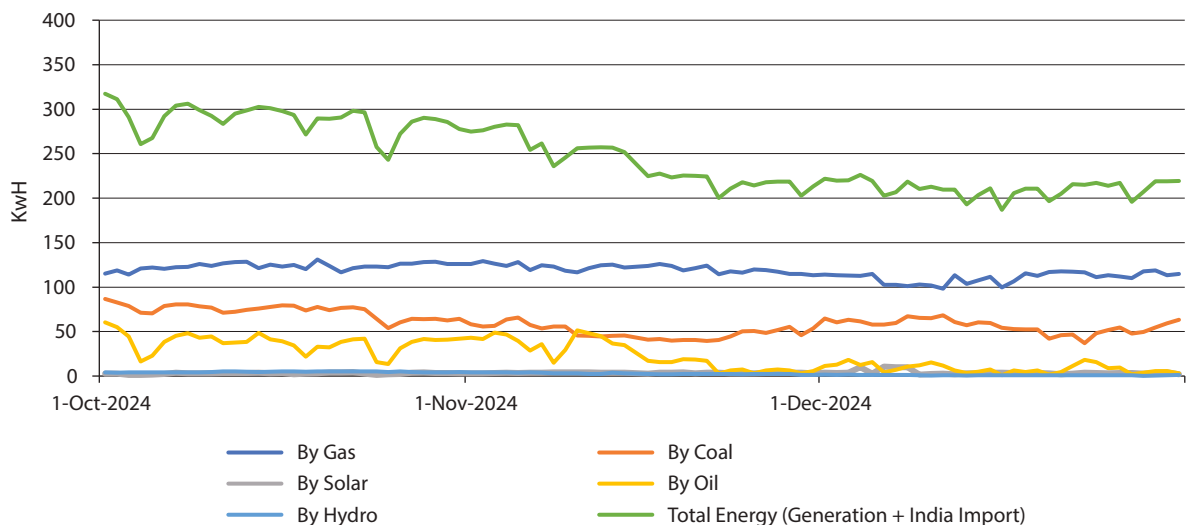
**b) Operational Decisions:** During October- December of 2024, there was a noticeable increase in the volume of operational decisions within Bangladesh's energy and power sector compared to the subsequent quarter, with an increasing effort on addressing importation challenges, fuel supply stabilisation, and maintenance of quality. In this quarter, the government has to deal with the power purchase agreement with India's Adani Group. The ministry has formed a review committee, and legal assistance has been in place, including writ petition to the High Court, to put an end to the Adani deals. Moreover, the government has been active in paying the dues to the Adani group and all other power plants and energy suppliers during this quarter. Additionally, the government has formed a review committee to inspect all the power and energy deals made during 2009-2024. The trend of operational actions has been consistently observed since FY2024 which contributed to generation, transmission and distribution of power and energy. These included settling overdue import bills, overdue electricity tariff payments to the power plants, purchasing long-term LNG agreements, removing illegal electricity and gas connections, and receiving vital coal shipments for power production. Furthermore, the government has appointed three new members in the Bangladesh Energy Regulatory Commission (BERC) in order to strengthen the independent regulatory role of government in the power and energy sector. Lastly, during this quarter, the government has been observed as an active player to boost renewable energy by issuing open tenders. The authorities have also readjusted the price of fuel oil and LPG following their routine responses to the international market.

### 3. GENERATION, TRANSMISSION & DISTRIBUTION OF THE POWER SECTOR DURING OCTOBER-DECEMBER 2024

**Generation:** During October- December 2024, the installed generation capacity reached 31,194 MW (on grid and off-grid) where annual per capita electricity generation was 640 Kwh and annual per capita electricity consumption was 503 Kwh. The maximum peak generation during Q2 of FY25 was 14,677 MW on October 1, 2024, while the electricity reserve margin was 13,063 MW (53 per cent of the on- grid capacity). The lowest electricity generation during the same quarter was 8,653 MW on December 16, 2024, while the electricity reserve margin was 69 per cent of the on- grid capacity (19,137 MW).

A seasonality in electricity generation can be observed through the generation pattern. Given the trend of declining demand during the winter season in Bangladesh, there is an overall decline in the use of all kinds of fuels specially fuel oil (figure 3).

**Figure 3** Energy Generation (MKWH)



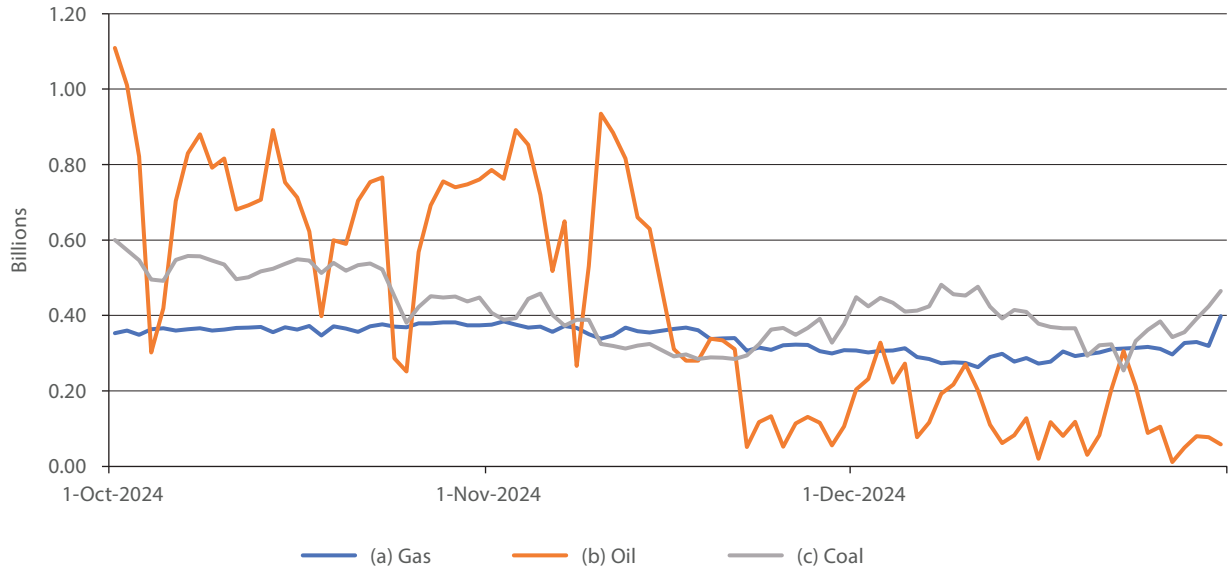
**Source:** BPDB Daily Generation Report.

Figure 3 shows the electricity generation of October-December 2024 quarter. The total electricity generation, including both domestic generation and imports from India, fluctuates between 187 million Kwh and 317 million Kwh per day.

Gas-based electricity generation is the most consistent source as the cost of electricity generation from domestic gas is still the lowest. It shows a relatively stable output throughout the period, fluctuating between 131 million Kwh and 99.5 million Kwh. Coal-based electricity generation also contributes significantly, though slightly lower. It ranges between 37 million Kwh and 87 million Kwh per day. Oil-based electricity generation is relatively low, fluctuating between 60 and 2 million Kwh per day, which happened due to the high price of oil and low energy demand during the winter season. Solar and hydropower-based electricity generation are minimal compared to other sources and are considered the least contributing sources of electricity generation.

Figure 4 presents the cost of fuel in electricity generation during October-December 2024. The oil cost for electricity shows the most significant fluctuations. It starts high in early October, then drops sharply, and then rises again towards the end of

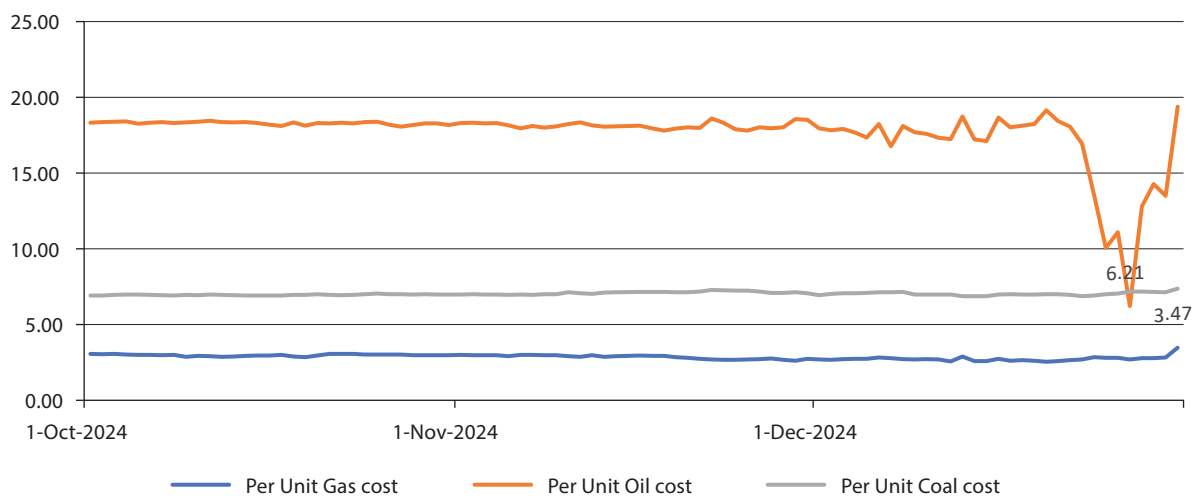
**Figure 4 Fuel cost (Billions BDT)**



Source: BPDB Daily Generation Report.

the period. Gas costs for electricity also fluctuate, but to a lesser extent than oil. It starts at a moderate level, increases slightly, then decreases, and finally rises again. Coal costs for electricity generation remain relatively stable throughout the period, with minor fluctuations around a consistent level.

**Figure 5 Per Unit Fuel cost (Taka/ Unit)**



Source: Authors' Calculation from BPDB Daily Generation Report.

Figure 5 shows the daily per-unit fuel cost for electricity generation from October to December 2024. The per unit average generation cost also demonstrates the same pattern as the total generation cost. It is to be noted that the cost of electricity generation from oil has sharply declined on 27 December 2024. The reason is most of the oil-based power plants did not operate on that day. Most significantly, the highest per unit electricity generation cost from gas (BDT 3.47) is much lower than the lowest per unit oil-based power generation cost (BDT 6.21).

**Transmission and Distribution:** At the end of the quarter, as of December 2024, the transmission lines extended to 16,060 circuit kilometers, and the distribution lines reached 648,725 kilometers, with a grid substation capacity of 73,991 Mega Volt Amp. Table-1 highlights progress in the transmission and distribution system during Q2 (October to December 2024). All the transmission and distribution related indicators experienced possible changes during this period.

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

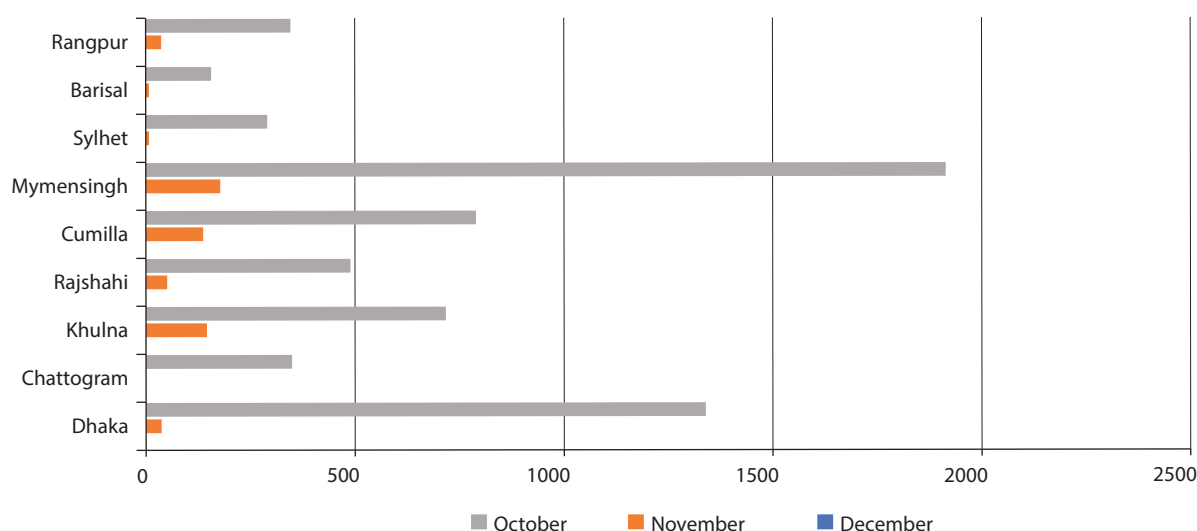
Indicators	Start of Q2 (Oct' 24)	End of Q2 (Dec'24)	Change in %
Transmission lines (Circuit Km)	15,656	16,060	2.58
Distribution lines (Km)	648,000	648,725	0.11
Grid sub-station capacity (MVA)	72,785	73,991	1.66

Source: BPDB.

Transmission lines expanded by 2.58 per cent in circuit kilometers, while distribution lines registered a modest growth of 0.11 per cent. Furthermore, grid sub-station capacity increased by 1.66 per cent, reflecting steady advancements in the overall capacity and reach.

**Load Shedding:** During this quarter, the demand and supply gap of power generation decreased from 6,390 MW in October to 0 MW in December 2024, again reflecting the seasonal decline in the demand for electricity during the winter season.

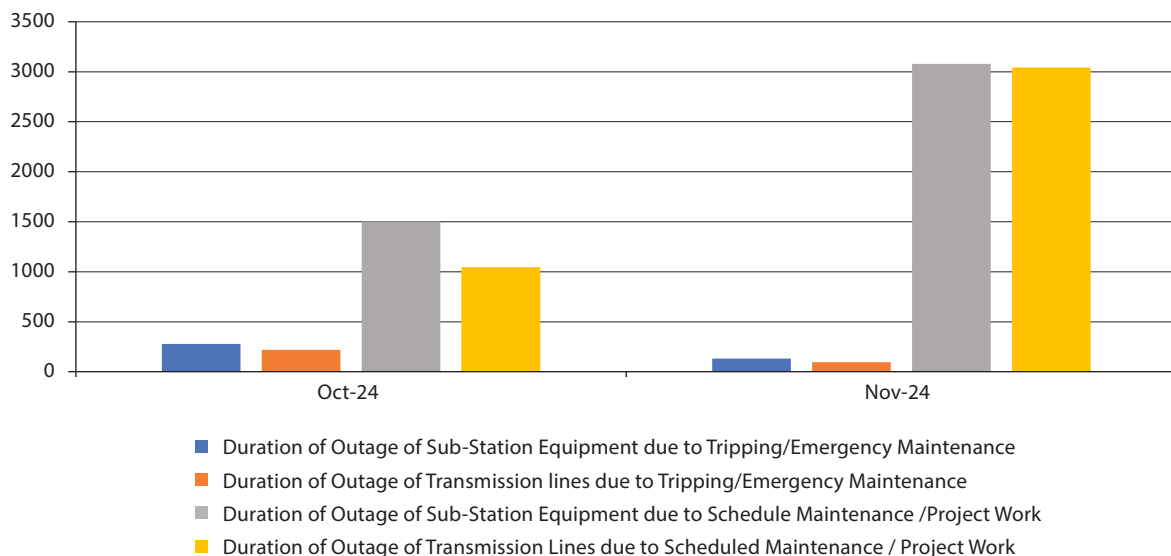
**Figure 6** Load shedding during Octobrt-December'24



Source: BPDB Daily Generation Archive.

Figure 6 reflects the load-shedding scenario in various regions of Bangladesh during October- December 2024. The figure indicates that, despite declining electricity demand, Mymensingh, Dhaka, Cumilla and Khulna experienced more power outages compared to other regions. Rajshahi and Chattogram experienced minimal loadshedding. According to BPDB data, there was 'zero' load-shedding across the country in December 2024 from the generation's end. However, some areas experienced load-shedding for the transmission and distribution's end. Figure 7 summarises the monthly outage durations due to emergency and scheduled maintenance during October- November 2024, categorised by sub-station equipment and transmission lines.

**Figure 7 Summary of Monthly Tripping and Outage (EMERGENCY & SCHEDULED)**



**Source:** PGCB Operation Monthly Reports.

In October, outages caused by sub-station equipment tripping/emergency maintenance totaled 278.12 hours, while transmission line outages were 219.01 hours. Scheduled maintenance caused the longest outages, with 1501.2 hours for sub-station equipment and 1045.3 hours for transmission lines.

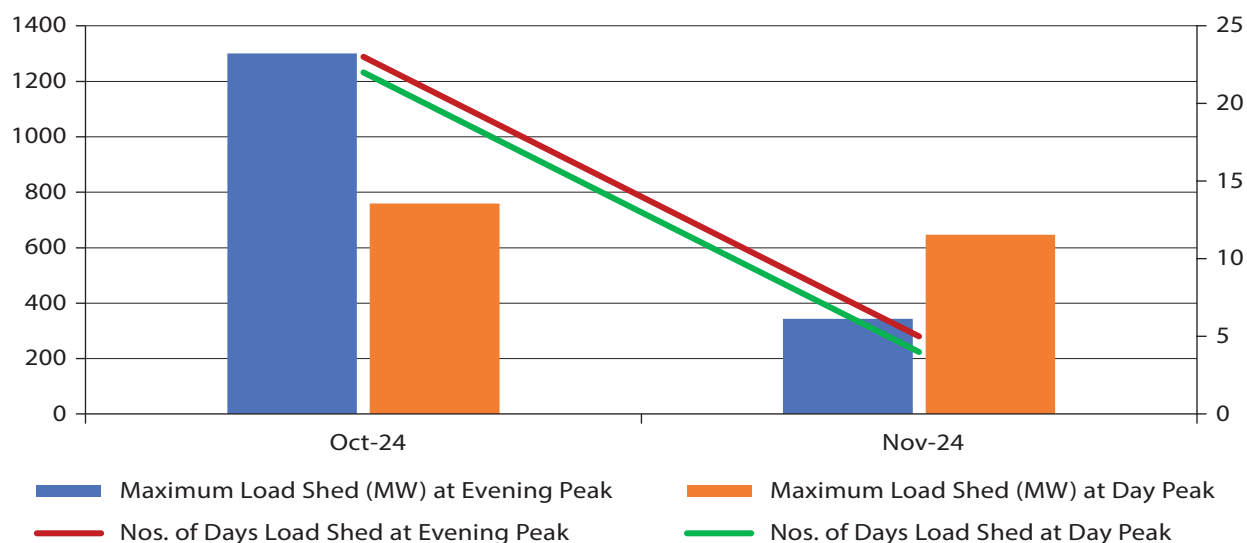
In November, emergency outages dropped significantly to 96.59 hours for sub-station equipment and 131.04 hours for transmission lines. However, outages from scheduled maintenance increased sharply, reaching 3041.43 hours for sub-station equipment and 3077.41 hours for transmission lines.

Figure 8 represents the monthly load-shedding pattern at the sub-station end for October- November 2024. It includes: the maximum load shed, and the number of days load shedding occurred at both the evening and day peaks.

In October 2024, load shedding was the most severe, with 1,301 MW at the evening peak and 760 MW at the day peak. The number of days with load shedding was also high, 23 days at the evening peak and 22 days at the day peak.

In November 2024, there is a significant improvement, with the maximum load shed dropping to about 343 MW at the evening peak and slightly increasing to 647 MW at the day peak. The number of days with load shedding also decreased drastically to around 5 days for both peaks. This trend highlights the lower demand in winter season.

**Figure 8** Monthly Load Shedding Pattern (Sub-station end)



**Source:** PGCB Operation Monthly Reports.

**Note:** December data has yet to be updated.

**Fossil Fuel Phaseout and New IPPs:** During this quarter, a gas-fueled 15-year rental power plant, 'Fenchuganj 51 MW Power Plant', was phased out due to reaching its contract expiration date. Moreover, a furnace-oil-fueled plant called 'Katakhal Rental Power Plant' with a capacity of 50 MW was also phased out according to its renewed expiration schedule. A renewable-based power plant named 'Pabna 100 MW Solar Power Plant' with a capacity of 100 MW started its operation in December 2024.

**Table 2** Status of Fossil Fuel Phase-out

Fuel	Month	Gas		Coal		Oil		Renewable	
		Number	Capacity (MW)	Number	Capacity (MW)	Number	Capacity (MW)	Number	Capacity (MW)
Contract Expired IPP	October	-	-	-	-	-	-	-	-
	November	1	51	-	-	-	-	-	-
	December	-	-	-	-	1	50	-	-
New IPP	October	-	-	-	-	-	-	-	-
	November	-	-	-	-	-	-	-	-
	December	-	-	-	-	-	-	1	100

**Source:** BPDB.

**Financial Situation of BPDB:** BPDB published its annual report for FY2023-24 on 15th October 2024. According to the report, BPDB incurred a net loss of BDT 8,764 crore in FY2023-24, which exceeded the revised budgeted net loss by BDT 2,647 crore. The net loss was estimated to be BDT 6,117 crore. Operating revenue increased substantially to BDT 64,449 crore. This is mainly due to the decision to increase the electricity tariff by 15 per cent in three phases during FY2023-24. The operating expenses rose to BDT 104,039 crore due to an increase in electricity purchases from India. BPDB has paid BDT

**Table 3** BPDB's Financial Statement (BDT Crore)

Indicators	FY2022-23	FY2023-24	Per cent Change
Operating Revenue	51,847	64,449	24.3
Operating Expenses	95,386	104,039	9.1
Operating Loss	-43,539	-39,590	-9.1
Net Non-Operating Expenses	5,057	4,206	-16.8
Subsidy from Government	39,535	38,289	-3.2
Comprehensive Income for the Year	-11,765	-8,764	-25.5

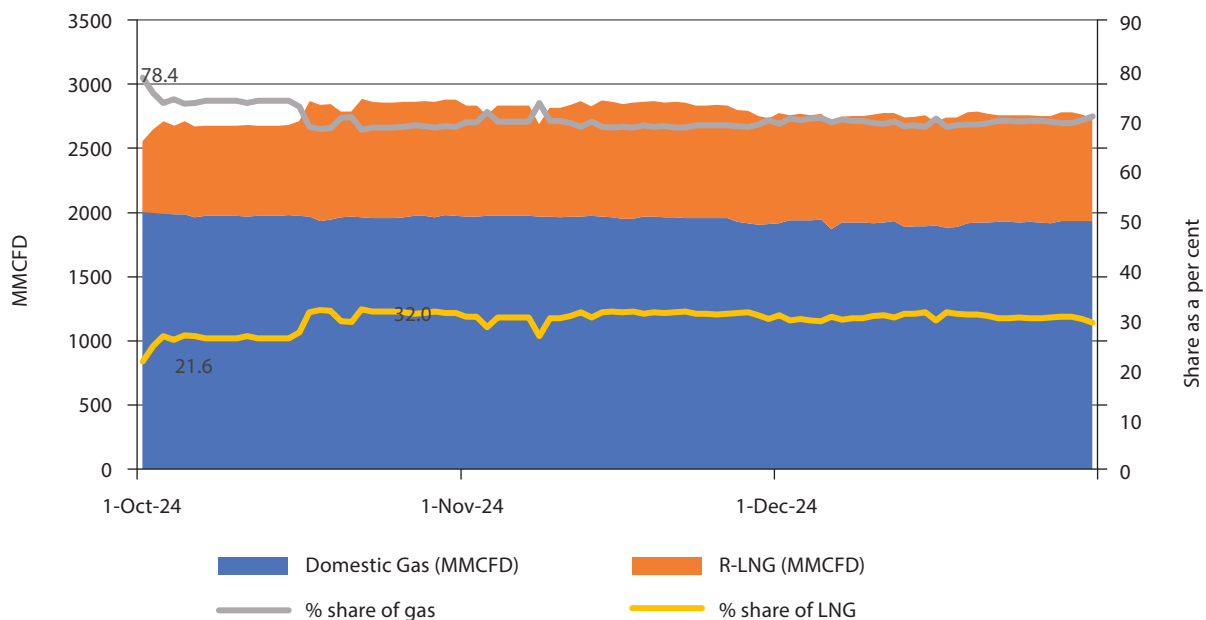
Source: BPDB Annual Report.

19,412 crore to India to purchase electricity in FY24, out of which BDT 12,147 crore was to Adani Power Ltd. Given the increasing trend of operating expenses, it is evident that BPDB has been adjusting its net loss by increasing the electricity tariff rather than lowering the generation cost of electricity. The office and administrative expenses have also increased from BDT 128 crore to BDT 372 crore. The increasing operating expense has surpassed the operating revenue, resulting in an operating loss of BDT 39,590 crore. Even with the help of government subsidies worth BDT 38,289 crore, a net loss of BDT 8,764 crore still remained in BPDB's account for FY2023-24 (Table 3).

## 4. DEMAND, SUPPLY & EXPLORATION IN THE ENERGY SECTOR DURING OCTOBER-DECEMBER 2024

**Gas Demand and Supply:** During October – December 2024, the gas supply, including LNG, was mostly low compared to the previous quarter specially during the beginning of first month of the quarter. The main reason was the unavailability of the imported LNG. The LNG supply was as low as 550.9 MMCFD (21 per cent of the total gas supply) (figure 9) and to as high as 904.6 MMCFD (31 per cent of the total gas supply). Such a supply is significantly lower than the usual supply of 40 per cent of the total gas supply from imported LNG. The highest amount of domestic gas supply was 2880 MMCFD which is also

**Figure 9** Domestic gas and LNG supply



Source: PetroBangla daily gas data.



much lower than the average gas supply in the previous quarters due to the scheduled maintenance work at key supply points like Bibiyana, Titas gas wells.

**Gas Exploration:** In early October 2024 Bangladesh Petroleum Exploration and Production Company Limited (BAPEX), decided to drill 19 new wells in Bhola district to extract gas reserves of 5 trillion. However, BAPEX did not have adequate manpower and financial solvency. Out of the new 19 wells, 5 are in the district headquarters and 14 are in Borhanuddin and Char Fashion areas. BAPEX and Russian energy company Gazprom identified the well drilling site after joint 2-D, 3-D exploration. After the new adviser has taken over, significant change is obsessed with the domestic gas exploration. On 10 March 2024, Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) floated the international tender to explore 15 deep-sea and 9 shallow-sea blocks. The government's tender for oil and gas exploration in the Bay of Bengal has failed to attract any bidders in nine months, despite initial interest from several international companies. Seven companies had purchased the tender documents, but none submitted proposals even after extending the timeline by 3 months.

**LNG Import:** Several decisions for importing 5 LNG cargoes have been decided by the interim government. The government, on 24 October 2024, approved separate proposals for procuring two cargoes of LNG and 30,000 tonnes of fertiliser to meet the country's growing demand. During November 2024, the government has decided to import LNG from Brunei on a long-term basis under a G-to-G contract. The government, on 21 November 2024, approved separate proposals for procuring two cargoes of LNG. The Energy and Mineral Resources Division would procure one cargo LNG from the spot market from M/S Vitrol Asia Pte Ltd, Singapore through an international quotation process at a cost of around BDT 709 crore (including VAT and Tax) with per MMBtu LNG costing USD 15.02.

## 5. RENEWABLE ENERGY DURING OCTOBER-DECEMBER 2024

**Renewable Energy Progress during October-December 2024:** The renewable energy sector's trajectory in October-December 2024 quarter showed more improvement compared to the previous quarter. While delays remained a prevalent issue, one new power plant became fully operational, albeit they were delayed from previous schedules and two new power plants are highly likely to be in full operation on time in upcoming months based on their progression in this quarter. However, the continuation of seven 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 253 MW of clean electricity generation missing due to the delays. Compared to the beginning of construction of two renewable power plants during the last quarter, this quarter observed no start of any renewable energy power plants. We can observe the beginning of three renewable energy projects during this quarter.

**Table 4** Progress Status of Renewable-based Power Plants Scheduled to Operate Commercially in 2024 (During October-December 2024)

Progress Status	Number of Power Plants in Q1 of FY25	Number of Power Plants in Q2 of FY25
Fully Operational on Time	0	2
Fully Operational but Delayed	2	1
Partially Operational but on Time	0	0
Partially Operational but Delayed	1	2
Delayed	9	7
Construction Started	3	0
Projects Approved	0	0

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

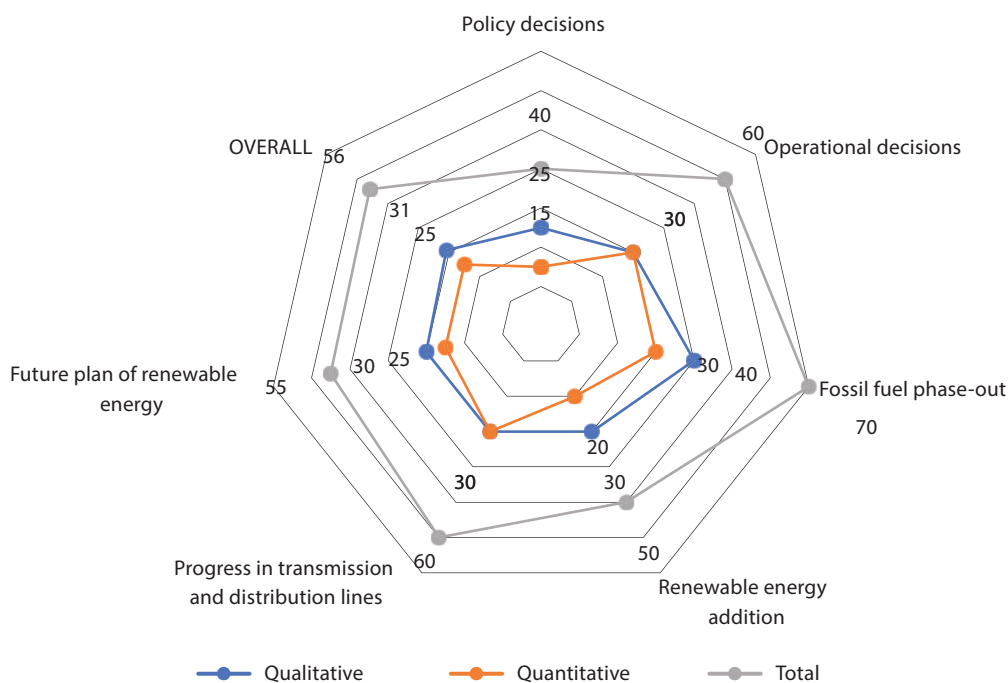
Furthermore, within this quarter, the government has not sanctioned the development of any new power plant, like the previous quarter.

**Renewable Energy Financing October-December 2024:** During this quarter, Bangladesh did not obtain much of any foreign financial assistance or investment for renewable energy projects compared to the third or fourth quarters of the previous fiscal year, albeit a significant improvement in the second and third quarter of FY2024. The BPDB has just prepared to float a tender for a power plant during this quarter. One significant advancement associated with the financing of renewable energy projects is that the NBR reinstates tax exemptions on private investment on renewable energy projects in this quarter.

## 6. FOLLOW-UP OF PREVIOUS QUARTER

The second quarter of FY2024-25 was stable, in which not much significant progress in the case of renewable energy has been noticed. The major crisis of this quarter was the shortage of gas supply. The seasonality impact on power demand was a relief as the imported fuel shortage could have rampage the electricity generation during the quarter. However, there has been improvement in the transmission and distribution system, only a few scheduled maintenances have been observed during this quarter. In terms of renewable energy, the progress is still stagnant. Figure 10 demonstrates overall progress in the power and energy sector from the energy transition point of view. In a nutshell, it can be concluded that a moderate progress can be observed in the energy transition readiness in Bangladesh.

**Figure 10** Energy Transition Readiness Assessment During this Quarter



Source: Author's illustration.