

## Highlights



The National Parliament approved an allocation of BDT 26,066 crore for the MoPEMR in the National Budget of FY2022–23, lower than the targeted allocation in the 8th FYP. Under ADP allocation for FY2022–23 of the sector, a total of 68 projects have been passed of which 53 per cent of the total projects are 'carry-over' projects.



Generation is still prioritised in the budget as 58 per cent of ADP allocation goes to generation, while only 21 per cent of allocation is for transmission and distribution (T&D) each. The carry-over projects in T&D need to be completed earliest possible to develop better-integrated infrastructure in the power sector.



The sector will not be able to overcome the crisis if the shortage of primary fuel is not addressed through domestic gas exploration. The government should immediately allocate the necessary budget for completing 3D seismic survey in the Bay of Bengal region along with exploration from the old/unused wells as there is a strong possibility to have gas in some potential pockets.



The government must establish a favourable fiscal incentive structure for the development of renewable energy, particularly the development of land, T&D system, import of necessary raw materials and equipment for the solar PV system and smart grid system etc.



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## The Power and Energy Sector in the National Budget for FY2022–23

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### 1. Introduction

The National Budget for FY2022–23 was placed in the Parliament during June 2022. It was approved at a time when Bangladesh's economy had been confronting a number of domestic and external challenges. The economy has yet to come out from the post-covid challenges. Owing to the Ukraine-Russia War, the disruption in the global supply chains, particularly related to the energy supply chains, has made a significant adverse impact on the domestic economy. The ongoing war has posed short to medium-term threats to the global energy market in terms of energy supply, energy price, energy sustainability and future clean energy targets. Hence, the National Budget needs to take into account the energy and power sector-related concerns in terms of fiscal measures and budgetary allocations.

Alternatively, the National Budget for FY2022–23 is being implemented at a time when the power and energy sector has made considerable progress and has set some milestones on the clean energy goals. During FY2021–22, the sector had achieved the milestone of 100 per cent electrification. Before the COP26 in November 2022, Prime Minister Sheikh Hasina announced the target to achieve 40 per cent of renewable energy by 2041 as part of her commitment to shifting from fossil fuel towards clean energy. Since the 8th Five Year Plan (8FYP) was officially in operation in FY2020–21, the government needs to undertake a number of measures with regard to the power and energy sector during the fiscal year FY2022–23. Moreover, it is important to review how the power and energy sector has progressed during the first two years of the plan period. Further, it should be reviewed how the sector will achieve the short and medium-term energy targets. Hence, the new budget needs to take measures to achieve its short, medium and long terms targets.

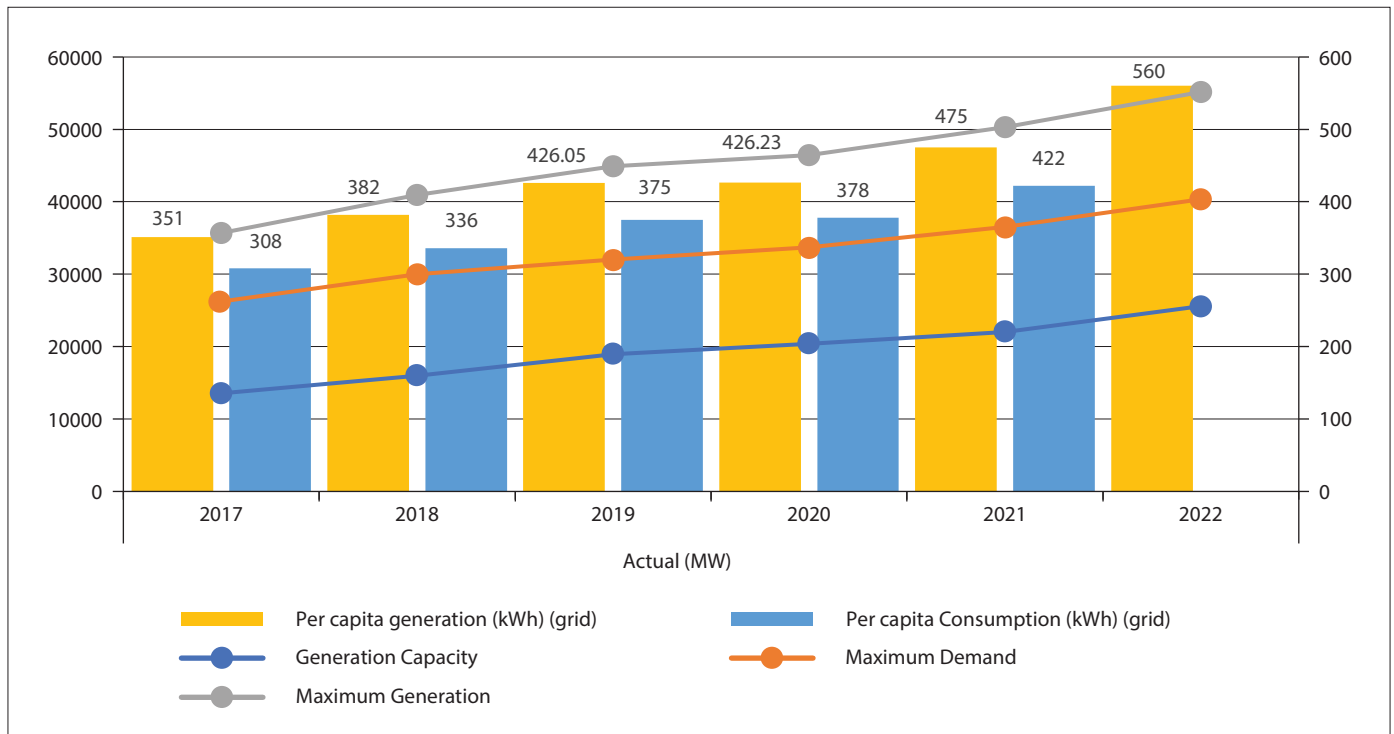
In this backdrop, this policy brief highlights the major allocative priorities of the power and energy sector in the National Budget for FY2022–23 considering the ongoing challenges and future commitments for energy security, energy sustainability and clean energy targets.

### 2. State of the Power and Energy Sector during 2017–2022

The allocative priorities of the power sector in the National Budget during FY2022–23 are likely to be influenced by the state of progress of the power and energy sector. Hence, it is important to review important indicators including power generation, import of energy, generation capacity, transmission and distribution, financial state of the Bangladesh Power Development Board (BPDB) and subsidies payment, etc.

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Figure 1: Current Power Demand and Supply Scenario



Source: Authors' illustration from BPDB data.

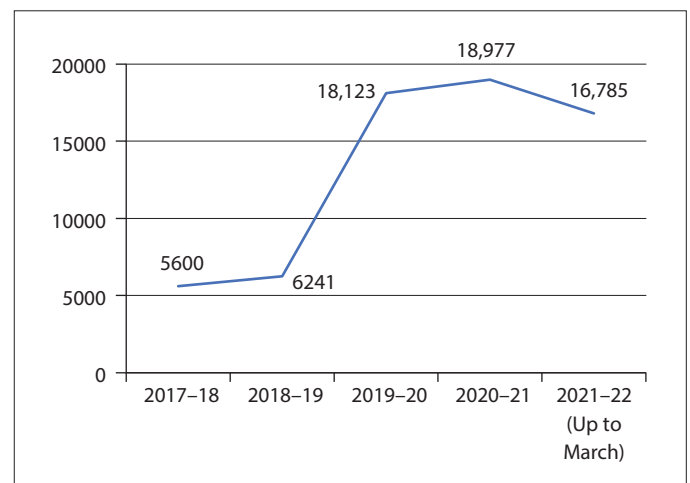
### 2.1 Power Generation

The figure 1 shows the current power demand and supply scenario. As of the BPDB progress report December 2022, the generation capacity of the power sector reached 25,556 MW, of which 22,348 MW capacity (87.4 per cent of total capacity) is at on-grid and 3,208 MW capacity (12.6 per cent) is at off-grid. Between FY2017–2022, a significant rise has been shown in generation capacity (by 88.5 per cent) against the rise in consumption of electricity (by 37 per cent). The per capita consumption of electricity reached 422 KWh in FY2020–21. The energy-mix is overwhelmingly fossil-fuel dependent and no major changes happened during the last five years. A moderate change happened in the case of gas-based power generation that is mainly because of less supply of imported LNG due to its higher market price. On the bright side, the share of renewable energy-based power generation has marginally increased. Even though the total number of solar power plants has somewhat increased, the total power generated from solar remains at the same level (202 MW). The number of furnace oil based power plants, such as Heavy Fuel Oil (HFO), has increased. The power generation from the HFO has also increased, whereas the number of high speed diesel (HSD) remains the same.

**Overgeneration capacity and capacity payment:** Conventionally, excess generation capacity in the power sector is required as a reserve margin. In the power sector of Bangladesh, the generation capacity, as a form of excess reserve margin, has been growing at a very high rate. The share of overgeneration capacity, in terms of total capacity, has escalated to 42.1 per cent in FY2021–22 which amounted to 10,764 MW (8,231MW in FY2016–17—30.8 per cent rise).

The hike has fueled the pressure of capacity payment to independent power producers (IPPs). The pressure has increased due to two consecutive effects—the 'volume effect' and the 'price effect'. 'Volume effect' occurs due to a rise in excess capacity and the 'price effect' occurs due to a rise in energy price. The amount of capacity payment to IPPs, including rental and quick rental power plants, has significantly increased - from BDT 5,600 crore in FY2018 to as high as BDT 16,785 in FY2021–22 up to March 2022 (Figure 2). It is presumed that the burden of capacity payment will further increase in FY2022–23. It is important to examine how the BPDB will manage to pay this excess capacity payment to the IPPs in

Figure 2: Capacity Payment of IPPs over Time (Crore taka)



Source: Authors' illustration from BPDB data.

FY2022–23 for which it is overwhelmingly dependent on the government’s subsidies.

## 2.2 Generation Cost of Electricity

Although it was expected that power generation costs would be reduced over the years through the efficient choice of the energy mix, but the generation costs increased instead. During FY2017–2022, per unit cost had gone up over the years—it had spiked by 11.8 per cent in FY2021–22 compared to FY2018–19 (from BDT 5.91/KWh to BDT 6.61/KWh) (Figure 3). This mainly

happened owing to the rise in generation costs in the IPP plants (14.6 per cent) and public plants (11.1 per cent) which increased as a result of using expensive fuel, low annual plant factor of several power plants, inefficient operation, huge capacity payments and rising share of costly imported fuel. The inability to reduce generation costs despite having excess generation capacity indicates the ultimate drawback of the BPDB power generation policy.

The cost incurred for imported energy is an important component of the overall cost related to the generation of electricity. Energy import by BPDB has been increasing over the last five years. During FY2019–20, the energy import declined slightly, then sharply increased by 20 per cent in FY2020–21 (Figure 4). The energy import cost demonstrates the same pattern by pushing the import cost by 20.4 per cent (BDT 1,707.4 crore) in FY2020–21 compared to FY2019–20. Given the rise in energy prices worldwide, the cost of energy import might rise in FY2022–23. It is important to examine the financial plan for BPDB for FY2022–23 with a view to accommodate the higher cost of imported electricity.

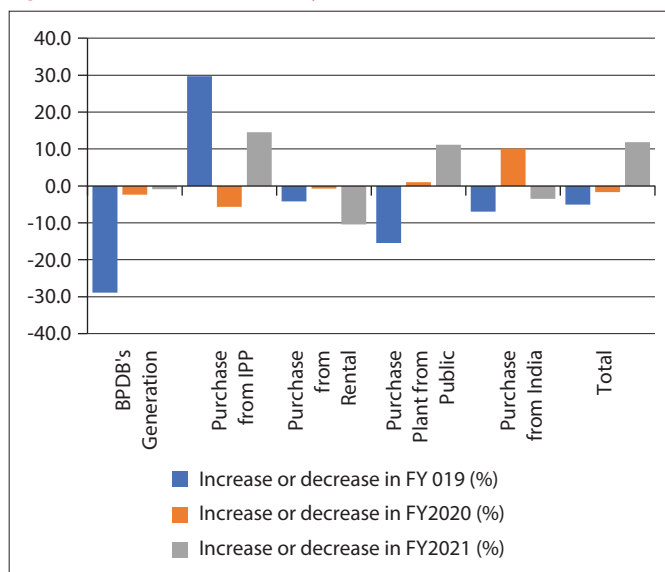
## 2.3 Progress in the Transmission and Distribution System

During FY2021–22, the length of transmission and distribution lines increased. Transmission lines had spiralled by 5.5 per cent in FY2021–22, maintaining the growth of 4–6 per cent level over the years. Distribution lines had expanded by about 2.5 per cent in FY2021–22, indicating a gradual deceleration in expansion over the years (from 16 per cent in FY2017–18 to 2.5 per cent in FY2021–22). The slow rise in transmission and distribution lines against the substantial power generation capacity demonstrates a major gap in the priorities of public investment in the power and energy sector. Without commensurate growth of transmission and distribution capacity, the power generation capacity would be largely unutilised and the BPDB would have to continue to pay the capacity payment for unutilised capacity. Therefore, it is important to examine how the BPDB allocates its budget for developing the transmission and distribution systems during FY2022–23.

## 2.4 Financial State of the BPDB in FY2020–21

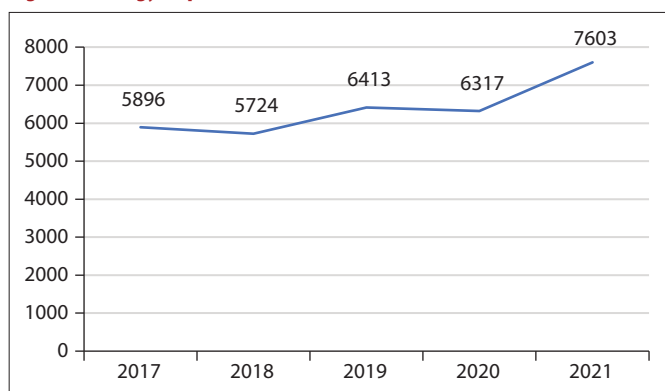
The financial position of BPDB continued to be in the red mark as the operating cost for FY2020–21 had doubled since FY2019–20. Operating expenses in FY2020-21 increased by 26.2 per cent, whereas operating revenue increased by 17.6 per cent, which validates the losses incurred by the BPDB during FY2020–21 (Table 1). Purchasing electricity from IPP (58.3 per cent) and importing from India (17.3 per cent) had become costly. In contrast, purchasing electricity from public plants was less costly although BPDB did not purchase adequately from those sources. Despite the low cost, fewer electricity purchases from the public plants and mass purchases from IPPs had put BPDB in a tight fiscal position. It

Figure 3: Cost of BPDB’s Electricity Purchase



Source: Authors’ illustration from BPDB data.

Figure 4: Energy Import Scenario over Time



Source: Authors’ illustration from BPDB data.

Table 1: Financial Situation of BPDB

Head of Accounts	Operating Incomes/Expenses (BDT)				Yearly Percentage Change		
	FY2017–18	FY2018–19	FY2019–20	FY2020–21	FY2018–19	FY2019–20	FY2020–21
Operating Revenue (1)	30604	34507	35535	41,770	12.8	2.9	17.55
Operating Expenses (2)	36812	39553	39887	50,434	7.5	0.8	26.44
Operating Profit/Loss= (1–2)	-6207	-5046	-4352	-8664	-18.7	-13.8	99.08

Source: BPDB annual reports.

is important to examine how the BPDB takes initiatives in FY2022–23 to reduce its financial loss.

### 2.5 Energy-mix: Use of Domestic Gas

The table 2 shows the current gas supply-demand scenario. As the domestic reserve of natural gas has been depleting over the years, there has been a shortage of gas as a primary fuel for power generation. This unmet demand has been met by increasing the import of LNG—from 0.12 TCF in FY2018-19 to 0.22 TCF in FY2021–22. Given the rise in LNG price particularly due to Ukraine-Russia War, costs for importing LNG have significantly increased which made it difficult for the Rupantorito Prakritik Gas Company Limited (RPGCL) to bear the huge costs by its earnings alone without depending on subsidies from the government. However, the government is not in a position to allocate necessary subsidies to the RPGCL given its fiscal pressure. In this backdrop, it is important to put emphasis on exploring domestic gas. Besides, it is also necessary to promote renewable energy use in major economic activities. How the power and energy sector allocates its resources for exploring gas as well as promoting renewable energy during FY2020–23 is an important area of focus.

**Table 2: Current Gas Supply-Demand Scenario**

Fiscal Year	Domestic Production (TCF)	Total Consumption (TCF)	Percentage of Demand unmet with only natural gas reserve	R-LNG Supply (TCF)
2017-18	0.97	0.98	-1.35	–
2018-19	0.96	1.04	-7.69	0.12
2019-20	0.89	0.99	-10.60	0.20
2020-21	0.88	1.02	-13.26	0.22

Source: Authors’ estimation from BAPEX and RPGCL data.

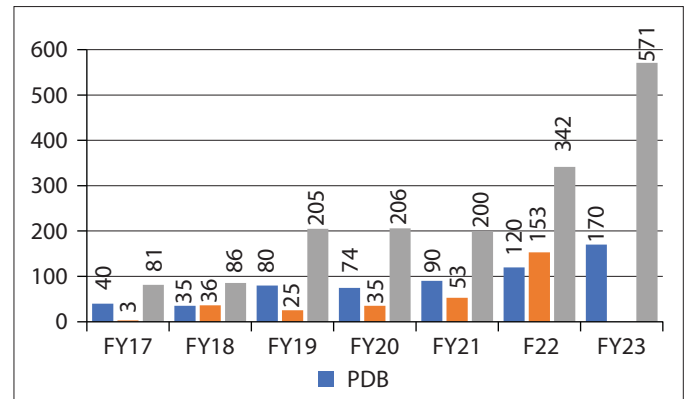
### 2.6 Financial State of the BPC in FY2020–21

The Bangladesh Petroleum Corporation (BPC) seemed to be in a profitable state in FY2020–21 even though they claimed to face loss in 2022. While its income had increased by 94.8 per cent compared to FY2021–22, its expenditure had also increased by 11.4 per cent. The rise in expenditure was mainly attributed to a significant increment in administrative expenses (77.5 per cent). BPC’s profit is mainly generated due to windfall gain through low petroleum prices in the world market (USD 73.3 per barrel in June 2021) against the relatively high administered price at the retail level. However, the petroleum price had drastically soared in FY2021–22 (USD 125.2 per barrel on 22 June 2022) which rather caused a deceleration of the profit margin of the BPC during FY2021–22. Under such context, how the BPC would prepare its financial plan for FY2022–23 is an important area to look at.

### 2.7 Subsidies for the Power and Energy Sector

The figure 5 shows the subsidies for the power and energy sector over the years. The power and energy sector has been the main beneficiary of government subsidies over the years. Their share in total subsidies had substantially increased (from 52.9 per cent in FY2016–17 to 79.8 per cent) in FY2021–22. Despite the hefty

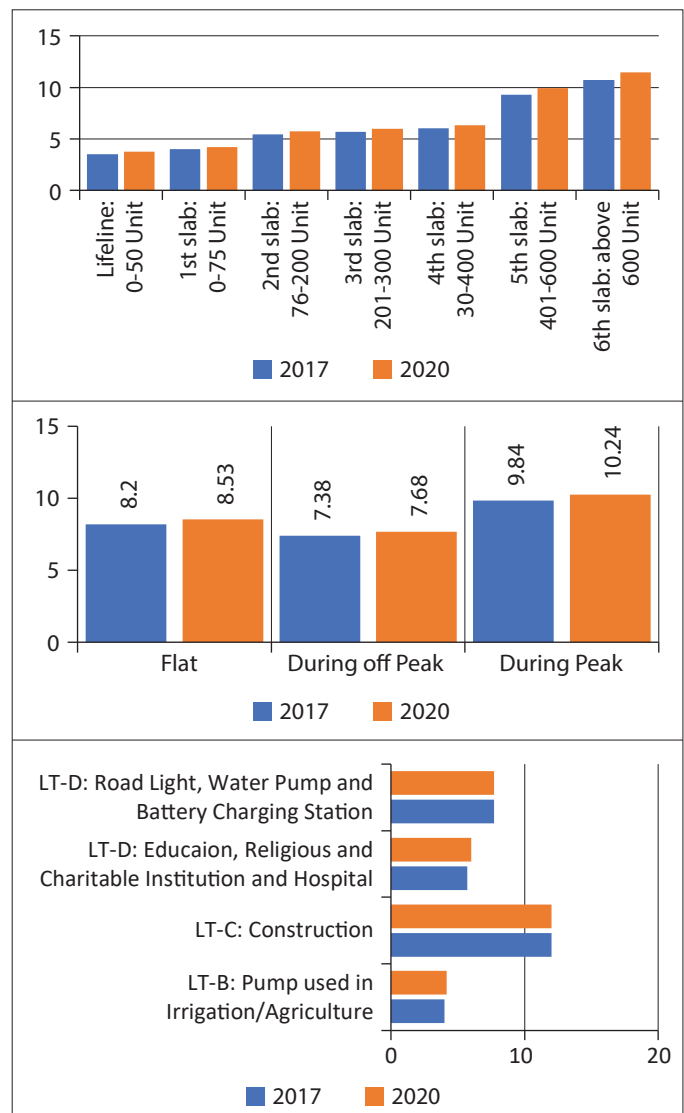
**Figure 5: Subsidies for the Power and Energy Sector Over the Years**



Source: Finance Division, Ministry of Finance (MoF).

subsidies payment (BDT 12,000 crore in FY2021–22), it could meet only 45 per cent of the required capacity payment. Revised allocation for the BPDB (BDT 12,000 crore from BDT 9,000 crore)

**Figure 6: Power Tariff Slabs of BERC**



Source: BERC website.

could not reduce its financial state from red. Often the Ministry of Power, Energy and Mineral Resources (MoPEMR) tries to shift a part of the financial burden to the consumer in the form of the rising retail price of energy and power.

**Electricity tariff:** Bangladesh Energy Regulatory Commission (BERC) had the responsibility to review and revise the energy prices. The BERC revised the power tariff during FY2019–20 after a break of three years (FY2016–17) (Figure 6). Tariffs for construction and roads, lighting, water pumps and battery charging stations from 2017–2020 remain the same, but in education, religious and charitable institutions and hospitals and pump houses in irrigation had increased more than before. Given high fiscal pressure and growing demand for subsidies, further revision of tariffs is being considered by the government.<sup>1</sup> However, BERC has yet to set a transparent and rational framework for the revision of energy prices. The budgetary allocation for FY2022–23 is likely to be influenced by how the ministry is considering the revision of energy and power prices in the coming months.

**Table 3: Total Cash Transfer to Government**

(in crore taka)

Fiscal Year	2019-20	2020-21	2021-22
BPDB	3861	1439	1915
Petrobangla	854.86	700	750
BPC	14123	7265	8384

Source: SOE annual reports.

### 2.8 Transfer of Extra Funds to the Government (Petrobangla, BPDB, BPC)

For several years, power and energy sector-related agencies have been transferring a significant amount of resources to the public exchequer. BPDB transferred a total fund of BDT 1,915 crore, while BPC transferred BDT 8,384 crore and Petrobangla BDT 750 crore in FY2021–22. As of 8 June 2022, BPC incurred a loss of around BDT 895 million on diesel trade and BDT 39 million on octane (Table 3).<sup>2</sup> To accommodate the additional expenses, the BPC increased the prices of selected fuels on 25 March, 2022.

### 3. Power and Energy Sector in the National Budget for FY2022–23

The National Parliament has approved the National Budget for FY2022–23 which amounted to BDT 6,78,064 crore. The power and energy sector is the 11th in terms of total allocation of operating and development budgets for different sectors. The allocation for the MoPEMR for FY2022–23 amounted to BDT 26,066 crore. This amount is 6 per cent higher compared to that in FY2021–22, among which the operating budget increased by 9.1 per cent and the development budget increased by 13.9 per cent. The proposed budget for the power sub-sector has increased by 5.78 per cent owing to BDT 24,196 crore in operating and

development expenditure. Whereas the allocation for the energy sub-sector has increased by 13.68 per cent amounting to BDT 1,870 crore. The overall share of the energy sector budget has increased mainly due to a rise in its operating and development expenditure. Given the prevailing demand for energy, the higher allocation for development expenditure likely to be used for exploring domestic natural gas. This initiative is a positive measure taken by the government.

The allocation for the development expenditure during FY2022–23 is lower than what is targeted in the 8th FYP. The Annual Development Programme (ADP) allocation of BDT 25,937 crore in FY2022–23 has been reduced against the projected allocation of BDT 39,080 crore as per the 8th FYP. Similarly, the transmission and distribution-related activities did not get the required attention in the ADP allocation for FY2022–23. Allocation for power generation related projects still dominates in the composition of ADP allocation—about 58 per cent of ADP allocation goes to generation-based projects while only 21 per cent of allocation goes to transmission and distribution each. Such continuous favouring towards power generation would further widen the gaps in developing required transmission and distribution systems and overcapacity will remain a major problem in the coming years.

The BPDB would require a substantial amount of subsidies in order to meet the additional expenditure for purchasing high-cost imported fuel. In the revised FY2021–22, the subsidies had been raised to BDT 12,000 crore from BDT 9,000 crore for the power sector.<sup>3</sup> However, the subsidies allocated for the power sector (which was not specifically mentioned in the budget document) was not likely to be enough to meet the additional costs. Hence, the government probably accommodated these expenditures through the rise in electricity tariffs. Such high fiscal pressure on the MoPEMR as well as on the government may continue unless the ministry moves from the expensive oil and LNG-based power generation, transmission and distribution system. Keeping up with the trend, the proposed FY2022–23 budget has not given due importance towards renewable energy. Hence the long-term targets as set by the 8th FYP for achieving 10 per cent share of renewable energy by 2025 will be impossible to achieve (the current renewable share is only 3 per cent).

### 3.1 Major Development Projects for FY2022–23

Under 2022's ADP allocation for the power and energy sector, a total of 68 projects have been passed. As high as 53 per cent of the total projects (36 projects) are carry-over projects, appropriately postulating the current power sector scenario. Projects that have been carried over will most likely cause cost overrun, pushing the power sector under huge budgetary pressure. The number of concluding projects is the least, only 11, whereas 21 projects are continuing. The generation has the highest number of carry-over projects followed by distribution. The carry-over projects in distribution needs to be finished as soon as possible for better

<sup>1</sup>In December 2022, the bulk electricity price was hiked by 19.92 per cent. At retail level the price of electricity has been hiked by 5 per cent in each month of January and February 2023

<sup>2</sup>As per international oil price as on June 3, 2022.

<sup>3</sup>According to some media sources, an additional subsidies of BDT 32,500 crore in electricity, BDT 5,000 crore in LNG and BDT 19,358 crore for fuel oil have been demanded for FY2022–23

**Table 4: Major Development Projects for FY2022–23**

Project	Carry-over	Concluding	Continuing	Total
Generation	15	3	4	22
Transmission	8	1	8	17
Distribution	10	6	6	22
Fuel and Energy	3	1	3	7
Total	36	11	21	68

Source: ADP for FY2022–23.

**Table 5: Major Transmission Projects for ADP FY2022–23**

Name of The Project	Maximum Completion Rate	Project Status
Ghorashal 3rd unit repairing programme	85%	Carry-over
Ghorashal 4th unit repowering programme (1st revised)	82%	Carry-over
Matarbari 2x600 MW ultra-supercritical coal-fired power project (1st revised)	59%	Continuing
Long-term service agreement for Bheramara combined cycle power plant	75%	Continuing
Rooppur nuclear power plant	63%	Continuing
TA for Strengthening and Development of Sustainable Power Sector in Bangladesh	16%	Carry-over

Source: Authors' estimation from ADP for FY2022–23.

integration in the power sector. The following table (Table 4) shows the current implementation status of different projects.

**Major projects in power generation:** During FY2022–23, a total of 22 generation-related projects will be implemented. However, most of these projects are carry-over projects (Table 5). Not approving new generation-based projects is a wise step as the power sector is already burdened with overgeneration capacity. Besides, Japan's decision to withdraw its finance from Matarbari Coal-fired power plant project (2nd phase) is a positive stance in keeping up with global commitments.

Other than the ADPs, 3 more IPPs are in the pipeline for getting the approval to start construction. While these IPPs will be implemented, an additional 1770 MW generation capacity will be added to the existing capacity.

**Major projects in transmission:** The commitment to focusing more on T&D is not well reflected in the National Budget for FY2022–23. Even with the small number of projects under implementation, those are not implemented on time - the number of carry-over projects is much higher than concluding projects (2) (Table 6). The lack of focus in this sector also continues in this fiscal year's budget. Provided the grid instability and failure, strengthening the transmission system should be more prioritised than it is now.

**Major projects in distribution:** This year's budget seems to signify the distribution system more compared to that of the transmission system. There is a total of 22 projects under the distribution system. Among these 10 projects are carry-over projects, six are concluding and six are continuing projects (Table 7). Even though the number of distribution-related projects is the same as the

**Table 6: Major Transmission Projects for ADP FY2022–23**

Name of The Project	Maximum Completion Rate	Project Status
Dhaka-Chattogram main power grid strengthening programme	92%	Continuing
Patuakhali-Payra-Gopalganj 400 KV transmission line and Gopalganj 400KV grid sub- station building	69%	Carry-over
Development of transmission infrastructure for generated power evacuation of Rooppur Nuclear Power Plant	41%	Continuing
Expansion and strengthening of power transmission system in Chattogram region	11%	Continuing
Geo-information for Urban Planning and Adaptation to Climate Change	32%	Carry-over

Source: Authors' estimation from ADP for FY2022–23.

**Table 7: Major Distribution Projects for ADP FY2022–23**

Name of The Project	Maximum Completion Rate	Project Status
Power distribution system development projects, Chattogram zone (2nd phase)	33%	Carry-over
100 per cent sustainable and reliable electrification in Hatia, Nijhum and Kutubdia Island	98%	Concluding
Construction of sub-stations & rehabilitation, establishment of bank for power system and smart grid under DPDC	14%	Concluding
Rangpur power distribution lines & construction of sub-stations & rehabilitation	69%	Carry-over
Construction of Bogura-Rangpur-Syedpur gas transmission pipeline project	29%	Concluding
Construction of Bakhraghat-Meghnaghat-Haripur gas transmission pipeline project	25%	Continuing

Source: Authors' estimation from ADP for FY2022–23.

**Table 8: Major Energy Sector Projects for ADP FY2022–23**

Name of The Project	Maximum Completion Rate	Project Status
Construction of Rangpur, Nilphamari, Pirgonj and surrounding area's gas distribution pipeline project	181%	Underway
Wellhead compressor establishment in the location of Titas gas field	26%	Underway
Installation of TGTDC pre-paid gas meter (BD-P78: natural efficiency project)	12%	Carry-over
Installation of single point mooring (SPM) with double pipeline (2nd revised)	81%	Carry-over
Construction of Bogra-Rangpur-Syedpur gas transmission pipeline project	29%	Concluding
Construction of Bakhraghat-Meghnaghat-Haripur gas transmission pipeline project	25%	Underway
Geo information for Urban Planning and Adaptation to Climate Change	32%	Carry-over

Source: Authors' estimation from ADP for FY2022–23.

generation-related project, there are no approved projects for the next fiscal year.

**Major projects in fuel energy:** The total number of projects in fuel and energy has decreased. In FY2021–22 there were 27 projects, while in FY2022–23 there are only 7 projects to be implemented. The implementation rate of the projects shows a mixed pattern (Table 8).

Governments’ weak appetite for exploration of domestic natural gas indicates more willingness to rely on imported fuel especially imported LNG. There is only one LNG-based concluding project in the ADP for FY2022–23 under MoPEMR and the maximum completion rate by FY2022–23 of this project would be 15 per cent. Since the government is targeting more clean energy-based power and energy sector, LNG-based projects should not get priority in budget allocation.

#### 4. Development of the Renewable Energy Based Power Sector

The proposed FY2022–23 budget has not provided due importance towards renewable energy. The 8th FYP set a target of achieving a 10 per cent renewable share by 2025, where the current renewable share is only three per cent. The budget speech of the FY2022–23 announced that six coal-based power plants will be renewable or gas-based. Such initiatives are timely and much appreciated, but lands allocated for these coal power plants should be immediately contracted out to the competent private or public sector for implementing renewable energy-based power generation projects.

According to the ADP 2023, several renewable energy-based projects are being implemented by the MoPEMR. Among 66 projects to be implemented under the ADP, only five projects are renewable energy-based ones (four are generation and one is distribution-related projects) (Table 9). Another three renewable energy-based projects under the MoA have been approved in ADP for FY2022–23. Notably, no project under the Sustainable And

**Table 9: Major RE Projects for ADP FY2022–23**

Name of The Project	Maximum Completion Rate	Project Status
Electricity distribution through solar panel establishment in the remote areas of Chattogram Hill Tracts	71%	Concluding
Construction of 100 MW solar power plant in Madargang	11%	Continuing
Sonagaji 50MW solar power plant building	44%	Carry-over
Agriculture irrigation through solar driven pump (Distribution)	98%	Carry-over
Resource Assessment and Piloting Related Technical help for Renewable Energy Project	86%	Carry-over
Through Expanding Solar Energy and Water Affordable Modern Technology Crops Production Enhancement Project	97%	Carry-over
Development of micro panel irrigation through the use of solar panel	55%	Carry-over

Source: Authors’ estimation from ADP for FY2022–23.

Renewable Energy Development Authority (SREDA) is included in the ADP for FY2022–23.

Among seven projects in the renewable sector, six are generation-related projects. The majority of these projects are carry-over projects with a high maximum completion rate. Two projects don’t show considerable progress in implementation despite being carry-over projects. Almost all the projects implemented are under the MoPEMR.

The Solar Home System Programme by Investment Development Company Limited (IDCOL) provides funding and technical know-how to private companies within the renewable energy niche. As such, initiatives resulted in Bangladesh hosting the largest domestic solar power programme globally, covering 11 per cent of the population.

It is important to withdraw discriminatory fiscal measures against renewable energy-based power generation. For example, In budget FY2022–23, one per cent import duty has been imposed on solar panels & modules which would rise the solar panel cost and would make the investment costly on solar-based power generation systems. The government should consider withdrawing this one per cent import duty and help to reduce the cost.

The government has already set a goal to achieve 500 Gigawatts (GW) and 50 per cent non-fossil fuel energy share of power by 2030. The finance minister, in his budget speech, said they are planning to source 40 per cent of electricity from renewable energy by 2041 after putting straight the fact that only 780 MW is currently being generated as renewable energy out of an overall installed capacity of 25,566 MW. Bangladesh’s National Solar Energy Action Plan aims for increasing the capacity up to 40 Gigawatts (GW) which is to be installed by 2041. It sets a target of 25 GW for a medium roll-out plan, and 8 GW for a business-as-usual outcome/case. However, the budget for FY2022–23 does not reflect major political and bureaucratic intentions moving in that direction.

#### 5. Conclusion and Recommendations

The government faced fiscal pressure in FY2021–22 due to increasing capacity payment as well as a petroleum price hike which is forecasted to rise further in FY2022–23. An immediate policy shift is required in three accounts: (a) reducing overgeneration capacity; (b) transitioning from fossil-fuel-based energy and (c) rising the use of renewable energy.

##### 5.1 Immediate Completion of Transmission and Distribution Related Projects

The carry-over project in transmission and distribution must be finished earliest possible by allocating additional budget. This would help to develop a better-integrated infrastructure in the power sector. The National Budget for FY2022–23 is expected to address some of the unaddressed concerns like transmission and distribution systems. Even though distribution-related projects are found in a better position, transmission-related projects continue to get neglected—growth in allocation is getting slower.

## 5.2 Exploring Domestic Sources of Primary Fuel before Building Any New Power Plants

The current problem in the power and energy sector is more linked to the energy problem. The sector will not be able to overcome this crisis as long as the shortage of primary fuel is not addressed. Domestic gas production has to be increased first instead of emphasising importing LNG for meeting the demand.

## 5.3 Domestic Gas Exploration Needs to be Emphasised

Gas production in our country has been decreasing since 2017. Production capacity will decrease if new gas sources are not invented. By 2040, gas usage will be negligible, significantly impacting electricity. According to anecdotal information, Bengal Delta is the largest one in the world but it is least explored for gas. The government should immediately allocate a budget for completing a 3D seismic survey in the Bay of Bengal region.

Besides, gas exploration from the old/unused wells need to be undertaken as there is a strong possibility to have gas in some potential pockets.

## 5.5 Budgetary Incentive in Renewable Energy Needs to be Introduced

Renewable energy-based projects are yet to get priority to the government's power and energy sector development. It is important to establish a favourable fiscal incentive structure in case of the development of land, transmission and distribution systems, import of necessary raw materials and pieces of equipment, equipment for smart grid system, etc. to set up renewable energy-based power generation system. Moreover, it is also important to withdraw the fiscal measures in favour of fossil fuel-based power generation systems and thereby create a level-playing field for all types of energy sources, particularly renewable energy-based power systems in the country.

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