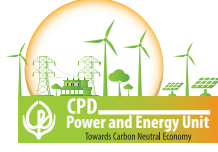


Power and Energy Sector Reform

Agenda for the Interim Government

Khondaker Golam Moazzem
Helen Mashiyat Preoty
Mashfiq Ahasan Hridoy





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Abstract

This Special Report outlines a comprehensive set of recommendations for reforming Bangladesh's power and energy sector under the new interim government, which began its term in August 2024. It emphasises the need for significant reforms in policies, laws, and government institutions to address inefficiencies, lack of transparency, and financial challenges in the sector. Key areas of focus include revising outdated legislation, enhancing the institutional capacity of regulatory bodies, eradicating operational misconducts, promoting renewable energy, phasing out inefficient power plants, and improving transparency in financial and operational activities. The report also highlights the importance of regional and international cooperation in energy transition, as well as the need for a structured approach to infrastructure development, including the modernisation of the national grid. The report lays out short to medium term reforms and formulation activities can be divided into first three phases of the energy transition. The proposed reforms are aimed at facilitating a just energy transition in Bangladesh, aligning with global climate commitments, and ensuring sustainable economic development. The expectation is that the interim government will place its 100-day programme for the power and energy sector taking into account the energy transition in mind.

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Acronyms

ADP	Annual Development Programme
AFB	Adaptation Fund Board
AIIB	Asian Infrastructure Investment Bank
BAPEX	Bangladesh Petroleum Exploration and Production Company Limited
BERC	Bangladesh Energy Regulatory Commission
BoP	Balance of Payments
BPC	Bangladesh Petroleum Corporation
BPDB	Bangladesh Power Development Board
CPGCBL	Coal Power Generation Company Bangladesh Limited
EC	European Commission
EIB	European Investment Bank
FiT	Feed-in Tariff
FSRU	Floating Storage Regasification Unit
GHG	Greenhouse Gas
IDCOL	Infrastructure Development Company Limited
IEPMP	Integrated Energy and Power Master Plan
IPPs	Independent Power Producers
LNG	Liquefied Natural Gas
MCPP	Mujib Climate Prosperity Plan
MDBs	Multilateral Development Banks
MoPEMR	Ministry of Power, Energy and Mineral Resources
NDCs	Nationally Determined Contributions
OLS	Ordinary Least Squares
PMO	Prime Minister's Office
PPA	Public Procurement Act
PPR	Public Procurement Rules
REC	Renewable Energy Certificate
RPGCL	Rupantarita Prakritik Gas Company Limited
RPO	Renewable Portfolio Obligation
SREDA	Sustainable and Renewable Energy Development Authority

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T&D	Transmission and Distribution
VECM	Vector Error Correction Model
WZPDC	West Zone Power Distribution Company Limited

1. Context and Background

Bangladesh has entered a new political phase with the starting of the operation of an interim government on 8 August 2024. Major reforms are needed in key economic sectors including power and energy because of the prevailing non-competitive nature, inefficiencies, lack of transparency and accountability, and dominance of big conglomerates in the government’s decision-making process. Despite different challenges, the earlier regime has made considerable progress in ensuring access to grid electricity across the country, and considerable public and private investment in generation, transmission, and distribution has taken place. At the same time, the sector entered a phase of huge financial loss, public debt, and fiscal burden; and thereby the government faced major fiscal pressure (table 1). The fiscal and financial stress caused by the power and energy sector is one the single most important factors

for current macroeconomic challenges. As a result, the old institutional and sectoral paradigm has created some major fiscal burdens, institutional inefficiency, and operational limitations. One of the concerning areas is the lack of readiness for energy transition focusing on clean/renewable energy-based power and energy sector as well as energy-based economic activities by 2041.

It is expected that the new interim government will work on the priority areas to reform the sector within their timeline and help facilitate the energy transition by progressing in the renewable energy readiness index. The Chief Adviser has already instructed the concerned secretaries to submit the priority areas of work for the interim government within a week. The main objective of this policy brief is to put forward a set of recommendations for the new government to kick-start the energy transition journey through operational, institutional, policy, and financial reforms.

Table 1: Current state of the power and energy sector: July 2024

Issues	Status (till July,2024)	Issues	Status (till July,2024)
Power		Gas	
Power Generation Capacity (Grid)	28,098 MW	Total Gas Supply	2634.0 mmcf/d
Highest Power Generation (Grid)	16,477 MW	Total LNG Supply	605.3 mmcf/d
Actual Generation (Renewable Energy)	1,126 MkwH	Domestic Proven Gas Reserve (tcf)	28.89 tcf
Reserve Margin	41%	LNG Infrastructure	“Excellence LNG FSRU” (Length: 277 m, Width: 44 m, Draft:12.5 m)
Total Transmission Lines	15,624 circuit km		“Summit LNG FSRU” (Length: 277 m, Width: 44 m, Draft:12.5 m)
Total Distribution Lines	643,000 km	Gas Tariff	BDT 14/cubic meter
Access to Electricity (including renewable energy)	100%	(Captive Power)	BDT 30/cubic meter
Per Capita Electricity Consumption	602 MW	Gas Tariff	1,066 mmcf/d
Per Unit Power Generation Cost	BDT11.03/kwh	(Other sectors)	Taka 30.75/cubic meter
Tariff (Electricity)	BDT 8.95/kwh	Deficit in Gas Supply	
Payment Due to IPPs, rental and QRRs (as of June 2024)	BDT 10,000 crore	Tariff (IPPs)	

Source: BPDB, SREDA and BERC website.

2. New Interim Government: Its Political Perspective on the Power and Energy Sector

The Head of the Interim Government Professor Yunus's vision of creating a world of three zeros by unleashing entrepreneurship in all includes *Zero net carbon emission, Zero wealth concentration for ending poverty, and Zero unemployment*. He embodied his vision of an emerging new economic system that can save humankind and the planet in a book titled *A World of Three Zeros: The New Economics of Zero Poverty, Zero Unemployment, and Zero Net Carbon Emissions*. He is also the founding chair of Grameen Shakti, which is one of the leading social enterprises in the world intending to improve 'Access to Energy' for the rural people of Bangladesh. Providing sustainable renewable energy solutions with the objective of socio-economic development, empowering women, creating green jobs, alleviating poverty, reducing greenhouse gas (GHG) emissions, and building up healthy community are the key areas of intervention of Grameen Shakti. Overall, it is only fair to expect that the Chief Adviser will take a bolder step toward progressing renewable energy-based power generation as part of his global commitment to the GHG emission. His decarbonization effort is expected to further extend to other important GHG-emitting economic activities including agriculture, transport, industry, and household.

The Adviser for Power and Energy, who just took his office, has prior experience working as Power Secretary as well as founding executive director of IDCOL. The Advisor designed and implemented the most successful solar home systems (SHS) programme in the world under which more than 4 million SHSs have been installed in rural Bangladesh. The Adviser for Environment and Climate Change is one of the distinguished civil society leaders for environmental conservation and the development of clean energy. Some advisers are human right activists and legal experts who are expected to work on broader human rights issues. Moreover, the interim government is formed with the fair share and participation of pro-environmentalists and renewable energy advocates. Based on the new interim government, a Just Energy Transition can be expected in the coming period.

However, the agenda for the interim government is not only for ensuring just energy transition but also for implementing sectoral reforms that will ensure a competitive, inclusive, transparent and accountable system. The Centre for Policy Dialogue (CPD) would like to see how the interim government is going to set and adopt agendas and implement work plans in the coming months/years.

3. Reforms in Policies, Laws, and Acts Related to the Power and Energy Sector

The following sections delve into the key legislative and policy frameworks that have shaped Bangladesh's energy sector, highlighting the critical issues and recommended changes for ensuring a more sustainable and transparent approach to energy development. Table 2 chalk out the reform measures needed to initiate for the existing policies, laws, acts and plans and what new plans, policies, laws can be drafted to ensure the reform.

3.1 Repealing Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010 (Amended in 2021)

The Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, formulated in 2010 and amended multiple times, was originally intended for two years but has been repeatedly extended, most recently until October 2026. This Act removes the requirement for competitive bidding, allowing the government to award contracts based on 'good faith'. Although it was meant to expedite decisions on the urgent extraction and utilisation of energy-related minerals, it has not been effectively implemented.

Furthermore, the Act overrides the Public Procurement Act of 2006, undermining the transparency and accountability of the Bangladesh Power Development Board (BPDB). Section 4 of the Act permits the government to accept proposals for importing electricity or energy from abroad without proper scrutiny, fostering an environment susceptible to lobbying and favouritism.

Table 2: Key Policies/Laws/Acts/Plans: Major Reforms Required

Policies/Laws/Acts/Plans	Year of Adoption/ Amendment	Reform Measures to be Taken
Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010	2021	Immediate Repealing
Amendment of Bangladesh Energy Regulatory Commission (BERC) Act, 2003	2023	Immediate Amendment
Integrated Energy and Power Master Plan (IEPMP)	2023	Revision of the Plan
Mujib Climate Prosperity Plan (MCPMP)	2022	Updating
Nationally Determined Contributions (NDCs)	2021	Revision and Updating
Perspective Plan 2041 (PP 2041)	2021	Updating of the Plan
National Energy Policy 1996	1996	To be Newly Formulated
Renewable Energy Policy (Draft) 2022	2022	Revision of the Policy
Energy Conservation Act	-	To be Formulated
Energy Audit	-	To be Designed
Centralised Database	-	To be Built
Pricing and Investment Policy	-	To be Designed
Competitive Bidding	-	To be Initiated
Just Transition Network	-	To be Designed
FiT Scheme	-	To be Designed and Practised
Request for Quote and Request for Proposal	-	To be Initiated
Auction Guidelines	-	To be Designed and Practiced

Source: Authors' illustration.

Table 3: Concerning Issues - Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010

Issues	Current State	Recommended Changes
Competitive Bidding	Absent	Should be present
Procurement	Absence of Public Procurement Act, 2006	Public Procurement Act, 2006 should be referred in every negotiations
Acceptance of Proposal	In 'good faith'	Should be transparent and public
Publicity of Plan or Proposal	Absent	Should be present

Source: Authors' finding.

The consequences of this Act are detrimental to both the sectors as well as the overall economy. During FY2023, 11 power plants were paid BDT 220.5 crore, yet they remained idle for more than 80 per cent of the time. Given these issues, the Act should be repealed immediately to restore transparency, accountability, and efficiency in the energy sector.

3.2 Amendment of Bangladesh Energy Regulatory Commission (BERC) Act, 2003

The Bangladesh Energy Regulatory Commission (BERC) Act, established in 2003, was designed to foster an investor-friendly, competitive, and transparent national energy market. However, significant amendments in 2020 and 2023 have substantially weakened BERC's authority. These changes allow the government to adjust gas and electricity prices

Table 4: Concerning Issues - Amendment of BERC Act, 2003

Issues	Current State	Recommended Changes
Authority to discuss and finalise tariffs	Ministry set price according to their wish without BERC's opinion	BERC should be the sole authority to set all kinds of price and tariffs
Price Adjustment	No public hearing	Should be transparent and based on public hearing
Tariff Setting	Changed multiple times in a year	Should be adjusted as per market-based price setting mechanism

Source: Authors' finding.

without holding public hearings and permit multiple tariff changes within a single year. The absence of public hearings erodes market transparency and discourages investment, with foreign investors expressing concerns about these frequent tariff adjustments.

To restore BERC's role in ensuring a fair and stable energy market, these amendments should be abolished, and the original provisions of the 2003 BERC Act should be reinstated. The BERC should be the sole authority in setting prices and tariffs, ensuring that adjustments are made transparently and based on public consultations.

3.3 Revision of Integrated Energy and Power Master Plan (IEPMP)

The Integrated Energy and Power Master Plan (IEPMP), approved in November 2023 by the previous government, has faced significant criticism from Civil Society Organisations (CSOs). Key concerns include faulty energy and power demand forecasting, the encouragement of coal exploration, and the promotion of LNG imports. The plan also employs an ambiguous definition of 'clean energy', lacks clear phase-out strategies for fossil fuel-based power plants, and fails to abolish quick rental power agreements.

The energy demand estimation in the IEPMP is based on the Ordinary Least Squares (OLS) method, which is not suitable for long-term planning as it considers only Nominal GDP, leading to overestimations. A more appropriate approach would be to use a Vector Error Correction Model (VECM), which allows for the inclusion of multiple variables. Furthermore, the plan's reliance on GDP projections, which exclude exchange rate and inflation considerations, leads to inaccuracies, especially for an import-dependent country like Bangladesh.

Moreover, the plan's support for domestic coal exploration directly contradicts its 40 per cent renewable energy target, and the budget allocated for coal should be redirected to renewable energy initiatives. The ongoing promotion of LNG imports exacerbates Bangladesh's economic burden, and no new LNG contracts should be signed.

Finally, the IEPMP lacks a clear definition of 'Renewable Energy', instead using the ambiguous term 'Clean Energy', which includes hydrogen, ammonia co-firing, and carbon capture and storage (CCS). Such technologies are often regarded as 'false solutions'

Table 5: Concerning Issues-IEPMP

Issues	Current State	Recommended Changes
Energy Demand Forecasting	OLS Method	VECM Model
Power Demand Forecasting	Constant Demand-GDP Elasticity	VECM Model
Coal Exploration	Encourages	Should be Abolished
LNG Import	Promoted	No new contract should be signed
Definition of Renewable Energy	Ambiguous	Should be clear and no promotion of 'false solutions'
Phase-out Plans	Absent	Should have a timeline
Quick Rental Power Agreements	No plans for abolishing	Should be abolished

Source: Authors' finding.

due to the lack of concrete evidence supporting their effectiveness in reducing CO2 emissions. Investments should focus on proven renewable technologies rather than these unproven methods. The IEPMP also fails to provide a plan for fossil fuel phase-out, and it neglects to abolish quick rental power plants. To ensure the energy transition is on the right track, a major revision of the IEPMP is urgently needed.

3.4 Unblemished of Mujib Climate Prosperity Plan (MCP)

The Mujib Climate Prosperity Plan (MCP) presents more realistic estimates compared to other national plans and aims to achieve a 40 per cent renewable energy target, although it requires revision. The MCP aligns with the Paris Agreement, setting ambitious goals for Bangladesh to achieve 30 per cent renewable energy by 2030 and up to 40 per cent by 2041. This represents a significant commitment to reducing greenhouse gas emissions and contributing to the global climate target of limiting temperature rise to 1.5°C.

The plan includes specific projects, such as the Bay of Bengal Independence Giga Array, a 4-gigawatt wind generation project, intended to enhance renewable energy independence and security. However, this is an overestimation given the current slow growth of wind energy in the country. The MCP also emphasizes grid modernisation and the development of energy storage infrastructure to enhance resilience against

Table 6: Concerning Issues -MCP

Issues	Current State	Recommended Changes
GDP growth is projected to reach 9 per cent by 2030	5.82 per cent	The projection should be revised in the next revision
GDP per capita would be USD 4,400	USD 2,646	The projection should be revised in the next revision
Bay of Bengal Independence 4-Gigawatt Wind Generation Array	No such initiative has been initiated	Plans should be made so that wind energy becomes a viable source of renewable energy

Source: Authors' finding.

climate impacts. Additionally, it proposes converting coal plants into green energy facilities.

Projections under the MCP include a 9 per cent GDP growth by 2030, with GDP per capita rising by 137 per cent to approximately USD 4,400, potentially elevating Bangladesh to upper-middle-income status. However, these projections are optimistic, given that the GDP growth for FY2024 was only 5.82 per cent. The plan is designed to be updated every five years to incorporate new technologies and resources, ensuring its continued effectiveness through 2041 and beyond.

3.5 Updating Nationally Determined Contributions (NDCs)

Nationally Determined Contributions (NDCs) of each country are evaluated based on nine indicators. Bangladesh's NDC meets seven of these indicators, which include ambition of targets, clarity and specificity, transparency and accountability, inclusivity and fairness, integration with national development goals, resilience and adaptation, and financial and technical support. However, it falls short in addressing two critical indicators: Long-term Vision and Just Transition.

To improve the long-term Vision, the NDC should articulate a clear strategy for achieving net-zero emissions by 2050. This requires developing sector-

Table 7: Concerning Issues-NDCs

Issues	Current State	Recommended Changes
Long-term Vision	No detailed long-term strategy or roadmap extending beyond 2030	Sector-specific roadmaps for emission reductions beyond 2030
Just Transition	No plans that address the impacts on workers and communities as the country shifts to a low-carbon economy	Develop a Just Transition Network

Source: Authors' finding.

specific roadmaps for emission reductions beyond 2030 and establishing an institutional framework for continuous NDC updates.

For Just Transition, the NDC should include a social impact assessment to identify vulnerable groups affected by the transition to a low-carbon economy and propose mitigation measures. This includes implementing reskilling programmes and providing social protection for workers, as well as promoting economic diversification in high-emission regions to support new green jobs. The updated NDC of 2026 should be more precise, incorporating an interim revision of the existing NDC by that time. Additionally, each indicator must be quantified and updated annually to track and understand changes effectively.

3.6 Revising Perspective Plan of Bangladesh (2021-2041)

The Perspective Plan of Bangladesh (PP2041), adopted in 2020, is intended to be updated every five years based on lessons learned and the Master Plan. However, there is not much alignment observed currently between these two plans. The perspective plan lays out different targets such as enhancing grid-based power generation capacity, grid modernisation, ensuring financial viability of the sector, emphasising domestic coal extraction. Given the current circumstances, key objectives and targets under PP2041 for the power and energy sector require updates and revisions.

Table 8: Concerning Issues - Perspective Plan 2041

Objectives/Performance Indicators	FY2041 Target	Latest Observations	Recommendations
Make the power sector financially viable		As of 2022-23, BPDB has a loss of BDT 117,655 million	Competitive tariff while purchasing from IPPs
Total grid-based generation capacity of electricity	56,734 MW	As of 31 May 2024, on-grid generation capacity is 27,515 MW	Downward revision of projected demand
Maximum Peak Demand Based on PSMP 2016 base case	51,000 MW	As of 31 May 2024, peak electricity demand stands at 16,477 MW	Recalculate the peak demand estimation using the VECM Model
Increase efficiency of energy use as well as reducing the system loss (T&D loss)	T&D loss target: Single digit	As of January 2024, T&D loss is 8.9%	Use of better wire, transformers and capacitor banks
Diversify fuel use in power generation capacity to balance use of low-cost fuel with low carbon content of the fuel mix	35% gas; 35% coal; 12% nuclear; 16% power import; 1% liquid fuel; 1% hydro	48.6% gas; 17.9% import; 18.7% coal; 12.7% liquid fuel; 1.2% Hydro; 0.9% renewable	Promote renewable energy and be rigid on the 40% renewable energy goal by 2041
Increase private sector investments in electricity, gas, and other energy supply	60%	50%	Remove the administrative red tape and bring transparency
Encourage energy trade	9000 MW	As of 2022-23, 2656 MW	Readjust the bar of import and make the T&C of the imports transparent
Access to electricity	100%	100%	Ensure every region of the country is under proper grid system
Installed processing capacity of refinery	19.5 million tonnes	1.3 million tonnes	Recalculate the capacity demand with proper historical trend analysis

Source: Authors' finding.

Especially, the plan's emphasis on coal and its limited focus on renewable energy, excluding hydro, necessitate revisions to prioritise renewable sources and phase out fossil fuels. While the plan acknowledges the importance of increasing private sector investments, removing the regulatory capacity of the BERC has hindered progress.

High energy import dependency weakens the power sector's sovereignty. The terms of energy import should be more transparent and import levels should be carefully monitored. Similarly, the proposed increase in refinery capacity, which supports fossil fuel use, should be reconsidered based on historical trend analysis.

3.7 Amendment of National Energy Policy, 1996

Table 9: Concerning Issues - National Energy Policy

Issues	Current State	Recommended Changes
Fuel Priority	Fossil fuel	Should be replaced by renewable energy
A centralised database for all kinds of fuels and energy	Absent	Should be implemented
Pricing and Investment Policy	Absent	Should be implemented
Environmental Policies	Many are not in practice	Policies should be updated and implemented strictly
Energy Regulatory Commission	In weak state	Need major overhauling and regulatory reform
Human Resource Development	Absent	Should be initiated
Encouragement of Joint Venture	Absent	Should be incentivised
Use of Locally Manufactured Equipment	Not in practice due to low quality	Quality of the equipment should be improved

Source: Authors' finding.

The National Energy Policy of 1996, which was last updated in 2004, is outdated and does not reflect the significant technological advancements that have occurred in the global energy sector. While the policy mentions a few renewable technologies and their potential, it lacks specific guidelines or plans for implementation. The policy heavily relies on fossil fuels, including gas and petroleum, and promotes domestic coal exploration.

A centralised database to track energy sources, conversion, supply, consumption, and pricing, as proposed in the policy, remains unimplemented. Additionally, the policy underscored the importance of an 'Energy Conservation Act', mandating energy audits across all levels, which is yet to be realised.

The policy anticipated the government would implement fixed pricing and investment policies. However, frequent price changes and the absence of investor-friendly policies have hindered progress. Furthermore, many environmental policies outlined in the policy, such as the use of catalytic converters and diesel particulate filters in vehicles, are not enforced. The policy also established an Energy Regulatory Commission to oversee pricing, but its influence has waned significantly over the years.

Human resource development in the energy sector was addressed in the policy, but more initiatives are needed. Local companies were to be encouraged to form joint ventures with foreign entities, particularly in exploration activities with BAPEX, yet no substantial efforts have been made in this area. Additionally, the push for using locally manufactured equipment has faltered due to poor quality, leading to a reliance on imports.

3.8 Updating and Approving Renewable Energy Policy (Draft) 2022

In 2022, the Sustainable and Renewable Energy Development Authority (SREDA) initiated a revision of the Renewable Energy Policy of 2008. The newly drafted policy is more detailed and comprehensive, addressing various aspects of the energy system to achieve the 40 per cent renewable energy target

Table 10: Contrasts between Renewable Energy Policy 2008 and Renewable Energy Policy (Draft) 2022

Issues	Renewable Energy Policy of 2008	Renewable Energy Policy (Draft) 2022
Vision	Energy security	Environment friendliness
Objectives	Prioritises investments	Prioritises climate goals
Renewable Energy Resources	Solar, wind and biogas	Focused on other resources as well
Policy Period	None	10 years
Institutional Frameworks	No role of other organisations	Mentioned roles of IDCOL, PGCB, BEREC, etc.
Programme and Project Development	None	Mentions RPO, REC, and Green Building Policy
Allotment of Projects	None	Pre-conditional requirements
Investment Facilitations	Micro-credit support systems	Micro-credit support systems
Fiscal Incentives	Exemption of charging 15% VAT	Waived VAT and import duties
Regulatory Policy	None	RPO and REC

Source: Renewable Energy Policy (Draft) 2022: A Comprehensive Assessment; Moazzem and Hridoy (2023).

by 2041. However, the draft was not presented or passed in the previous parliament. Despite some shortcomings, the new draft is significantly better than the existing policy.

The draft policy of 2022 shifts its vision from energy security to environmental friendliness and prioritises climate goals. It expands the focus of renewable energy resources beyond solar, wind, and biogas to include other resources as well. The policy period is defined as 10 years, and it introduces institutional frameworks that involve organisations like IDCOL, PGCB, and BEREC, which were absent in the 2008 policy. Furthermore, the draft includes provisions for Renewable Portfolio Obligations (RPO), Renewable Energy Certificates (REC), and a Green Building Policy. It also sets pre-conditional requirements for project

Table 11: Concerning Issues-Renewable Energy Policy

Issues	Current State	Recommended Changes
Reduction of GHG emissions	No fixed goal	Should have a fixed goal complied with the Paris Agreement
Employment	Not focused	Should be prioritised
Protection of other natural resources	Slightly focused	This should be detailed in the policy
Auction Guidelines	Mentioned	Should be in practice
Electrification of Rural Areas	Only mentioned in the objectives	Should be prioritised
FiT Scheme	Not mentioned and practised	Should have a proper guideline
Request for Quote and Request for Proposal	Only exist theoretically	Should have a guideline and be in practice
Sector-wise Renewable Energy Diversification	Only Mentioned	Inter-ministerial plans should be designed
Investment sources	Not mentioned	Should mention the sources and facilities
Tariff structure	Discussed	BERC should be the sole authority to do so

Source: Authors' finding.

allotments and provides micro-credit support systems, waiving VAT and import duties as fiscal incentives.

Despite these improvements, some issues need to be addressed in the final policy. The draft lacks a fixed goal for reducing greenhouse gas (GHG) emissions, which should align with the Paris Agreement. Employment opportunities within the renewable energy sector are not sufficiently prioritised as Moazzem and Hridoy (2023) found that the renewable energy sector could generate about 9300–28626 new employment, mainly through on-grid-based electricity generation. The protection of natural resources, although slightly mentioned, should be further detailed. Auction

guidelines, rural electrification, feed-in tariffs (FiT), and sector-wise renewable energy diversification need clearer guidelines and implementation practices. The policy should also include more specific investment sources and establish BERC as the sole authority over tariff structures.

4. Reforms in Government Bodies related to the Power and Energy Sector

To ensure a sustainable and effective energy transition in Bangladesh, it is essential to address the institutional and regulatory challenges that currently hinder progress. SREDA struggles with limited authority and capacity, while the BERC has seen its powers significantly reduced through recent legislative amendments. Furthermore, the Bangladesh Petroleum Corporation (BPC) faces operational inefficiencies and a lack of transparency in its pricing mechanisms. Table 12 represents the required reform measures for the government bodies to ensure efficiency of those authorities. To

Table 12: Key Government Bodies: Major Reforms Required

Institutions	Reforms needed
Sustainable and Renewable Energy Development Authority (SREDA)	Institutional Overhauling and Upgradation
Bangladesh Energy Regulatory Commission (BERC)	Amendment including Reinstating Earlier Responsibilities and More Functionality
Bangladesh Petroleum Corporation (BPC)	Strengthening Dhaka Office with human resource and Accessibility
Establishing New Institutes for Renewable Energy Transition	<ul style="list-style-type: none"> • Renewable Energy Laboratory • Office of Energy Efficiency and Renewable Energy • Office of Scientific and Technical Information on Energy • Energy Information Administration • Council for Environmental Qualble Energy Laboratory

Source: Authors' findings.

complement these existing bodies, the establishment of new institutions dedicated to renewable energy is crucial. These new entities would focus on research, policy implementation, and data dissemination, drawing on successful models from countries like the USA and China to support Bangladesh's energy goals.

4.1 Institutional Capacity of Sustainable and Renewable Energy Development Authority (SREDA)

The Sustainable and Renewable Energy Development Authority (SREDA) in Bangladesh faces significant challenges in directing the country's energy transition due to a lack of proper authority and institutional capacity. The Renewable Energy unit of the BPDB holds more influence over decision-making on renewable energy projects than SREDA. Although SREDA is authorised to undertake 24 different types of activities, it has been largely unsuccessful in executing these tasks. The agency is only permitted to issue licenses for small-scale power plants (with a capacity of less than 10 MW), while large-scale renewable energy projects fall under the jurisdiction of the Ministry of Power, Energy and Mineral Resources (MoPEMR) or the Prime Minister's Office (PMO).

Moreover, SREDA has not disclosed findings from renewable energy resource assessments, which are critical for attracting investment. The agency also suffers from a lack of skilled personnel, with important positions occupied by individuals without prior academic or professional expertise in the energy sector.

Table 13: Concerning Issues-SREDA

Issues	Current State	Recommended Changes
Energy Audit	Absent	Should be initiated
Standardisation	Absent	Should be provided with the authority
Licensing Authority	Absent	Should be provided with the authority
Enforcing Orders	Absent	Should be provided with the authority
Complaint Cell	Absent	Should be built nationally

Source: Authors' finding.

Training and awareness programmes have been neglected since 2021, hindering progress toward a just energy transition. Additionally, SREDA lacks dedicated divisions for solar, wind, hydro, and other emerging renewable technologies, a deficiency that needs to be addressed by abolishing the Renewable Energy wing under the BPDB. To ensure SREDA's effectiveness, the organisation requires a major overhaul and upgrade to match the institutional structures of successful countries like India, China, and the UK. It should be elevated to a fully functional authority, possibly under the leadership of a full 'Secretary,' and establish separate wings for various renewable energy technologies.

4.2 Weakening of BEREC through Government's Decisions

The amendment of the BEREC Act in 2023 has significantly weakened the institutional capacity of the BEREC. Previously, the BEREC held extensive powers to ensure a fair and effective energy transition. These powers included the authority to conduct energy audits, implement standardisation criteria for equipment, introduce competitive bidding to break monopolies, and issue licenses following comprehensive assessments of energy-related activities such as power generation, transmission, distribution, supply, and storage. Additionally, the BEREC had the authority to enforce orders on private entities and Independent Power Producers (IPPs), impose penalties for discrepancies, and establish a complaint cell for issues related to energy usage. The agency was also responsible for renewing the licences of institutions annually based on their performance. Through such power, the BEREC was able to hold the government regulatory bodies, power plant owners, public, and private companies, and joint ventures accountable for their actions and ensure the public's involvement through public hearings.

Despite these responsibilities, the BEREC struggled to enforce its mandates effectively. The weakening of BEREC through legislative amendments has further eroded its ability to function as an independent regulatory body. To restore its effectiveness, a major revision of the BEREC Act is necessary to reinstate these responsibilities and

ensure BEREC is provided with the full authority and functionality needed to enforce its duties.

Table 14: Concerning Issues-BEREC

Issues	Current State	Recommended Changes
Energy Audit	Absent	Should be initiated
Standardisation	Absent	Should be provided the authority
Licensing Authority	Absent	Should be provided the authority
Enforcing Orders	Absent	Should be provided the authority
Complaint Cell	Absent	Should be built nationally

Source: Authors' finding.

4.3 Reformation of Bangladesh Petroleum Corporation (BPC)

The Dhaka Liaison office of the Bangladesh Petroleum Corporation (BPC) is hindered by inadequate manpower, leading to operational inefficiencies. Most officers are based in the Chattogram office, which causes difficulties in communication and access to data at the Dhaka office. It is recommended that the Chairman of BPC establish a fixed timeline and schedule to ensure equal presence in both offices throughout the year.

The analytical wing of the BPC also needs to improve its transparency by making all relevant data publicly available, including the methodology used for setting fuel prices. Currently, BPC's price calculation mechanism is unclear, with several hidden charges that lack proper justification. For instance, BPC adds a 3-5 per cent margin on imported fuels, but the reasoning behind this per cent and its variability is not clearly defined. Additionally, BPC includes a 'buffer' price of BDT 10 per litre and imposes a 15 per cent VAT, further complicating the pricing structure.

These opaque pricing mechanisms raise concerns about the methodology employed by the BPC, and even the BEREC is not fully aware of the logic behind these practices. To enhance transparency and

fairness, the BPC should publicly disclose its pricing methodology and eliminate hidden charges.

Table 15: Summary Table of the Concerning Issues of BPC

Issues	Current State	Recommended Changes
Human Resource	Low in Dhaka office	Should have more manpower at the Dhaka office
Availability of Chairman in Dhaka	Low	Should have a fixed schedule
Analytical Wing	Not transparent	Should make their methodology public
Price Calculation Mechanism	Unclear	Should be made public and should have no hidden charges

Source: Authors' findings.

4.4 Establishing New Institutes for Renewable Energy Transition

To facilitate a just energy transition in Bangladesh, there is a critical need to establish new institutions dedicated to renewable energy, complementing the efforts of the SREDA and BPDB. Following the models of the renewable energy system of the USA and China, several new entities are proposed:

Renewable Energy Laboratory: This would serve as the premier research institution in Bangladesh, focused on the development, innovation, and testing of renewable energy technologies such as solar, wind, hydro, and biomass. The laboratory would collaborate with universities, industry, and international research institutions, providing data and tools to support policymakers and researchers.

Office of Energy Efficiency and Renewable Energy: This office would promote energy efficiency and renewable energy through the dissemination of resources and information, implementation of programmes and incentives, and organisation of workshops, seminars, and public awareness campaigns. It would also focus on sustainable transportation solutions.

Table 16: Suggested Entities for Renewable Energy Expansion

Organisations	Responsibilities
Renewable Energy Laboratory	Premier research institution for renewable energy technologies; focus on R&D in solar, wind, hydro, biomass; collaborate with universities and industries; provide data and tools
Office of Energy Efficiency and Renewable Energy	Promote energy efficiency and renewable energy; provide resources and information; promote sustainable transport; implement programmes and incentives
Office of Scientific and Technical Information on Energy	Central repository for scientific, technical, and engineering research; disseminate scientific information; provide online platform for collaboration; facilitate research collaboration
Energy Information Administration	Collect, analyse, and disseminate energy information; provide statistical data and analysis; produce reports and forecasts on energy landscape
Council for Environmental Quality	Coordinate national efforts for public health and environment; oversee implementation of environmental policies; conduct environmental impact assessments

Source: Authors' finding.

Office of Scientific and Technical Information on Energy: Serving as the central repository for scientific and technical research in energy, this office collects, organises, and disseminates information, particularly related to renewable energy. It would provide an online platform for collaboration among researchers, policymakers, and the public.

Energy Information Administration: This entity would collect, analyse, and disseminate independent energy information to support policymaking and public understanding of energy's interaction with the economy and environment. It would produce statistical data and projections on energy production, consumption, and trends.

Council for Environmental Quality: This council would coordinate national efforts to protect public health and the environment by overseeing the implementation of environmental policies, conducting environmental impact assessments, and acting as an advisory body to the government on energy-related environmental matters.

5. Operational Reforms related to the Power and Energy Sector

The sectoral reforms also requires operational reforms as much as institutional and policy reform.

Table 17: Operational Issues: Major Reforms Required

Issues	Measures to be taken
Public procurement	Replacing the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010 by Public Procurement Act 2006 and Public Procurement Rules 2008
Capacity rationalisation	Phasing out inefficient and expensive power plants including those of QRRs, IPPs with low level of efficiency and high gen. cost
Ensuring transparency and accountability	Re- establish BERC's institutional power as part of moving towards a transparent and accountable power and energy sector
Reducing fiscal and financial burden	Revision of the contracts with IPPs as per 'no electricity no pay' without capacity payment clause
Withdrawal of subsidy	No further electricity tariff revision rather withdrawal of the provision of capacity payment
Market-based pricing	Revision of IMF conditionalities and review of the market-based pricing formula
Decarbonization of the power sector	Promoting renewable energy
Promoting energy transition	Revising the ADP allocation for the power and energy sector for FY2024-25
Addressing the anomalies in collection of electricity bill	Investigating the issue of faulty pre-paid meters causing troubles for consumer

Source: Authors' finding.

The operational malpractices and unfair activities have mainly caused the mountain equal fiscak debt of this sector. Table 17 demonstrates the operational misconducts and required measures to address those.

5.1 Future of Public Procurement under the Public Procurement Act 2006

The prevailing Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010 is anti-competitive and stops the opportunity to go for competitive bidding to find the most efficient contracting party. In total 91 rental and quick rental power plants have been approved under this Act in last 14 years. As part of the reform, this law should be abolished as early as possible to create space for a competitive market environment. After the abolishment of the current Act, a proper transparent mechanism needs to be set up in the BPDB, BPC, Petrobangla, and RPGCL in light of the Public Procurement Act 2006 and Public Procurement Rules 2008. The provisions of the PPA and PPR are highly required to ensure fair procurement process in the power sector. According to the PPA 2006, there should be an independent evaluation committee for evaluating the contracts submitted to the power division. The most important provision of the PPA 2006 is, that it states the government shall ensure the papers and documents related to the public procurement must made available to the general public and properly preserved. The procurement committee must ensure competition within the bidders and applicants of the power projects. Adopting the PPA and PPR will help ensure transparent bidding, procurement, and awarding process for the power plants.

5.2 Phasing Out Inefficient Rental and Quick Rental Power Plants

The previous government planned to phase out all the rental and quick rental power plants by 2023 however, it failed to do that. A total of 64 IPPs with the capacity of 10,445MW, 10 SIPs with 284 MW capacity, 2 rental power plants of 137 MW, and 11 rental power plants (under No electricity No pay) of 852 MW capacity is currently in operation. At present, there is an overgeneration capacity of 42 per cent which is significantly higher than the maximum

required reserve margin (25 per cent). There is scope for reducing the capacity of 7,500MW without having any major adverse effect on the electricity supply in the country. The former government did not maintain the retirement schedule of IPPs, QRPPs, public and BPDB power plants. All the QRRs (16 power plants) are supposed to be retired by 2023; however, as many as 13 QRRs are still in operation of which 2 plants (137 MW) with capacity payment facility and 11 power plants (under no electricity no pay) with a capacity of 852 MW. According to Moazzem and Shibly (2024), a total of 28 power plants with a generation capacity of 3655 can be phased out by 2030 after their current contracts are over.

5.3 Revision of the Contracts with IPPs as per 'No Electricity No Pay' without Capacity Payment Clause

The former government paid a total of around BDT 1.05 trillion in 14 years as capacity payments to power plant owners up to August 2023. The capacity payment is paid by using the allocated subsidy from the national budget. More than a third of the subsidies (37 per cent) allocated in the new budget is for the power sector totalling BDT 40,000 crore in FY2024-25. Despite giving high subsidies and upward tariff revision, the BPDB is still unable to come out of the loss. Reducing capacity payment through structural reformation to dampen the amount of debt is the only right approach. As new power plants are now starting to operate in 'No Electricity No Pay' clause, even several power plants have been extended based on this clause. The provision of capacity payment should be withdrawn from all the rental and quick rentals and the 'No Electricity No Pay' clause should apply to them.

5.4 Re-establishing BERC's Institutional Power as Part of Moving Towards a Transparent and Accountable Power and Energy Sector

The amendment of the BERC Act 2003 in 2023 has further weakened the institutional capability of the BERC. It has created scope for the government to make arbitrary decisions on raising retail and bulk power and energy prices. Under the IMF's condition of adopting the market-based pricing mechanism, the

BERC could have played the role of monitoring and adjusting the prices regularly. This system could have both electricity and fuel oil prices similar to that of LPG. As a regulatory commission, the BERC's role will be much-needed during the period of market-based pricing system which is difficult to ensure in its current stature. Hence, re-establishing BERC's institutional power is highly needed as part of moving towards a transparent and accountable power and energy sector.

5.5 No Further Power Tariff Revision for Withdrawal of Subsidy

The previous government had drawn up a plan to increase the price of electricity four times a year for the next three years to withdraw all subsidies in the power sector, under IMF's recommendation. The Ministry of Power Energy and Mineral Resources (MoPEMR) has last raised the electricity tariff (February 27, 2024) which is increased to BDT 8.95/unit from BDT 8.25/unit. Through such an adjustment, the burden has fully passed through the consumers of electricity—households, agriculture, industry, businesses, services, and other economic activities. No further tariff revision in the upcoming years is required if the capacity payment is phased out from the power plants.

5.6 Revision of IMF Conditionalities and Review of the Market-based Pricing Formula

To align with the IMF's conditions linked to a USD 4.7 billion loan, the former government has revised the electricity and energy tariff several times. Under the IMF conditionality, Bangladesh is bound to rationalise subsidies by FY2026. This includes the implementation of an automated pricing formula for petroleum and raising electricity and gas prices to reduce subsidies in the power sector. As discussed, upward tariff revision of electricity and energy is indeed a faulty and inefficient measure to rationalise subsidy under IMF conditionality—the burden is fully passed on to the consumers which are supported to be adjusted from 'capacity payment'. Hence, measures to be taken by the new interim government to phase out capacity payment for IPPs power generation. As

discussed in the previous section, the price calculation mechanism of petroleum is unclear and there are a few hidden charges, a very high margin of BPC, and a buffer price without any proper justifications. These pricing mechanisms raise questions about the BPC's methodology and BERC is also not aware of the logic behind this mechanism. Through adjustments, both the BPC and BPDB are pushing the entire subsidy burden on the consumer's shoulders in the name of IMF reformation.

5.7 Promoting Renewable Energy

The former government had the agenda to achieve 40 per cent renewable energy by 2041. However, the initiatives and progress toward attaining that goal were negligible. As a result, currently, the share of renewable energy is only 4.38 per cent (on-grid and off-grid) of the power generation. In FY2024, 15 renewable energy-based power plants, with a combined capacity of 477 MW, were at various stages of implementation, but none were fully operational on time. Several reasons have fueled the low priority of renewable energy in Bangladesh. Over-ambitious power demand estimation, absence of smart grid, unjust policy and fiscal incentives for renewable energy, and slow implementation of renewable energy projects are a few of them. Moazzem and Quaiyyum (2024) estimate, 40 per cent of the RE by 2041 indicates 14,000 MW of electricity. Considering the current capacity of 1,374MW, an additional 12,626MW worth of renewable energy investment will be required. As per the BPDB, a total of 4,850 MW will be generated from renewable energy-based power generation by 2027.

To achieve 40 per cent renewable energy by 2041, an additional 7,776 MW worth of renewable energy-based power generation capacity needs to be installed between 2028-and 2041. As renewable energy is variable energy, the existing grid of Bangladesh cannot integrate renewable energy. Modernising the grid to Smart Grid will support the integration of large-scale renewable energy projects.

5.8 Revising the ADP Allocation for the Power and Energy Sector for FY2024-25

The national budget for FY2025 has just passed on June 2024, and power and energy were on the list of priority sectors as always. However, it failed to give attention to issues such as renewable energy expansion, de-emphasis on domestic coal exploration and reduced emphasis on LNG use in power generation. There are only 5 renewable energy-related projects to be implemented in FY2025 same as of FY2024. Of these 5 projects, 3 are generation-related and 2 are distribution-related. In FY2025, a total of 16 gas-related projects are currently under implementation, 7 less than FY24. Of these, 5 are carry-over projects, 8 are concluding, 2 are continuing projects and 1 new project. In FY2025, there are 2 LNG-related projects. Conducting a study on the LNG terminal at Matarbari has already become a carry-over project. The project should not be advanced since it contradicts the commitment to achieving energy security. There is a need to review the ADP projects related to fossil-fuel-based generation and LNG import. More allocation and more projects to be implemented on renewable energy-based power generation.

5.9 Faulty Pre-Paid Metre and Troubles for Consumers

Prepaid electricity metres have emerged as a significant concern among Dhaka City residents due to overcharging and inconsistencies in daily charges, even when the same appliances are used consistently. Despite the inclusion of metre rent (which does not apply to customers who have purchased their meters), demand charges, service charges, and VAT, discrepancies persist in calculating electricity costs. A resident from Tolarbag of the Mirpur area in the capital, (household size is two) reported regularly monitoring his electricity meter and discovered a 233 per cent rise in his electricity bill, between March 2023 and March 2024. His bill has been increased from BDT 1200 to BDT 4000 in just one month despite the same amount

of power consumption. In line with his experiences, there has been a continuous stream of complaints voiced on social media platforms. Moreover, there have been indications from responsible officials in the power sector that additional charges may have been levied to boost the revenue of the power sector.

6. Transparency and Accountability related to Power and Energy Sector

Ensuring transparency and accountability in Bangladesh's power and energy sector is essential for public trust and efficient resource management. The current lack of openness in procurement and bidding processes has led to financial mismanagement, as seen in major projects like the Adani, Payra, and Rampal power plants. Reforming these processes to be more transparent and competitive, along with revising capacity payment contracts, would reduce unnecessary government spending and improve sector integrity. The reform measures that need to be undertaken immediately by the interim government is demonstrated in table 18.

Table 18: Transparency and Accountability: Major Reforms Required

Issues	Reform measures
Ensuring transparency in procurement process	Disclosing the procurement and bidding process of the power plants
Addressing the anomalies in financial accounts of government entities	Financial Accounts Disclosure of Public Authorities

Source: Authors' finding.

6.1 Disclosing the Procurement and Bidding Process of the Power Plants

The ongoing lack of transparency in the procurement and bidding processes for power plants in Bangladesh has raised substantial concerns regarding fairness and accountability within the energy sector.

The confidential and non-competitive nature of these processes has led to issues such as unclear determination of power purchase rates, questionable capacity payments, and the unwarranted extension of inefficient power plants. These practices have not only undermined the integrity of the sector but have also prevented the public from understanding and participating in decisions that affect national resources and expenditures.

A particularly troubling example is the procurement and bidding process associated with major power projects, including the Adani Power Plant, Payra Power Plant, and Rampal Power Plant. These projects have incurred significant additional costs, reportedly amounting to BDT 35,000 crore, due to flawed procurement practices. Such financial mismanagement underscores the urgent need for a more transparent and open public procurement process. Making these processes open and subject to public scrutiny would ensure greater accountability and prevent the recurrence of similar issues in the future.

Additionally, many power plants in Bangladesh are currently operated under 'capacity payment' contracts, which guarantee payment to the plants regardless of whether electricity is produced. Given the ongoing economic challenges faced by the country, there is a pressing need to revise these contracts to adopt a 'No Electricity, No Pay' principle. This would align payments with actual energy production, thereby reducing unnecessary financial burdens on the government and ensuring more efficient use of resources.

To further enhance transparency and public accountability, data related to generation costs, power purchase tariffs, efficiency levels, fuel costs, capacity payments, contract expiration dates, and costs associated with oil and LNG imports must be regularly updated and made publicly available. This level of transparency would not only foster trust in the sector but also allow for informed public discourse on energy policies and expenditures.

6.2 Financial Accounts Disclosure of Public Authorities

The disclosure of financial accounts by government bodies, particularly BPDB, BPC, and PetroBangla, remains opaque and inconsistent. Financial reports are often published with significant delays, typically six months or more, and there is a notable lack of transparency. This delayed reporting, coupled with inconsistencies in the financial data across different sources, have raised concerns about the accuracy and reliability of the information provided to the public.

One prominent issue is the discrepancy in the reported average power generation costs by the BPDB. In its FY2022 annual report, BPDB stated an average generation cost of BDT 5.02 per unit. However, when recalculating based on plant-wise power generation costs as provided in the same report, the actual cost

stands at BDT 38.5 per unit. Such significant disparities not only question the accuracy of BPDB's reporting but also suggest potential mismanagement or errors in financial oversight.

Moreover, several government authorities, especially BPC, have consistently projected financial losses over the past few years. These losses are typically managed through subsidies, debt, or both. While some financial reports, like those from BPC, later indicate a profit, there remains a critical concern regarding whether these institutions possess the financial depth to manage such substantial losses sustainably through debt. This situation highlights the urgent need for a thorough review of expenditure on non-revenue-generating activities, with a focus on either reducing these costs or converting them into revenue-generating operations.

Table 19: Financial Accounts Disclosure of Public Authorities (in Lakhs BDT)

BPC			
	FY2024-25	RFY2023-24	BFY2023-24
Net Profit/Loss	-556398.80	384151.36	-1001900.48
Dividends payable to Government Exchequer	30000.00	30000.00	10000.00
Total Contribution Payable to Government Exchequer	1360731.09	1139846.82	1426308.33
Long-term Loan Repayment	0.00	0.00	1400000.00
Investment in Fixed Asset	240780.00	217955.00	392391.00
BPDB			
	FY2024-25	RFY2023-24	BFY2023-24
Net Profit/Loss	-5401154.61	-3977839.36	-5034169.78
Dividends payable to Government Exchequer	0.00	0.00	0.00
Total Contribution Payable to Government Exchequer	201246.51	197989.71	210192.00
Long Term Loan Repayment	165935.00	201978.39	180935.00
Investment in Fixed Asset	60048.30	662612.72	557022.09
Petrobangla			
	FY2024-25	RFY2023-24	BFY2023-24
Net Profit/Loss	27778.30	41461.15	44882.95
Dividends payable to Government Exchequer	30000.00	40000.00	46000.00
Total Contribution Payable to Government Exchequer	30000.00	40000.00	46000.00
Long Term Loan Repayment	37000.00	37000.00	28000.00
Investment in Fixed Asset	2166.00	1023.00	1870.00

Source: SOE Budget Summary FY2024-25.

Improving transparency in financial disclosures and ensuring accurate reporting is crucial for building public trust and enabling more effective financial management in the power and energy sector. Table 19 represents the budget summary of different state-owned enterprises in this sector. While preparing budget, the BPC always projects losses and ends up with hefty profit. Despite attaining such high profit even in the last fiscal year, the basis of BPC's estimated loss projection is unclear. The BPDB is also forecasting loss for the ongoing fiscal year despite the declaration of increasing power tariff four times. If BPDB cannot come out of loss after multiple upward tariff revisions, then it is not the actual way and BPDB's financial state will never be able to come out of red without removing capacity payment.

6.3 Eradicating Corruption

The power and energy sector in Bangladesh has been deeply affected by long-standing issues of poor governance, corruption, and mismanagement. A striking example of corruption is the CPGCBL's import of tools for the Matarbari Power Plant at grossly inflated prices—some items priced up to 18,545 times their recorded value. This suggests that further incidents of corruption are likely to emerge. To combat these issues, it is crucial to enforce greater transparency and accountability within public institutions. Publishing white papers on the actual conditions in the sector, empowering oversight bodies to enforce regulations, and depoliticising law enforcement agencies are essential steps. Additionally, creating a more business-friendly environment through sound policy implementation is necessary to restore integrity and efficiency in the sector.

7. Regional Partnership and Cooperation

Bangladesh's power and energy sector is undergoing significant shifts in its bilateral and multilateral partnerships. The partnership with the USA is expected to gain momentum, focusing on energy efficiency, offshore gas exploration, and LNG investments. Simultaneously, cooperation with the European Union (EU), particularly in renewable energy, is likely to continue. The following section delves into the

future of Bangladesh's partnerships in the Power and Energy sector.

7.1 Bilateral and Multilateral Partnership and Cooperation at Regional and Global Levels

Bilateral and multilateral partnerships in the power and energy sector are expected to experience significant shifts. The partnership with the USA is anticipated to gain new momentum, focusing on energy efficiency, the exploration of offshore gas, and continued or expedited investments in LNG projects. Simultaneously, the partnership with the EU is likely to continue, particularly in promoting clean and renewable energy, with renewed cooperation talks expected under the new interim government. A recent agreement with the European Investment Bank (EIB) and the European Commission (EC) includes a 477 million Euro loan and grant to support Bangladesh's renewable energy sector.

Partnerships with Russia will likely continue, particularly in implementing the Rooppur Nuclear Power Plant, though new contracts for onshore gas exploration may face challenges. Bilateral partnerships with India and other South Asian countries through Indian territories may also encounter uncertainties. However, partnerships with China for coal and renewable energy-based power plants, and with Japan (with some changes in focus), are expected to proceed without major difficulties.

Partnerships with Multilateral Development Banks (MDBs) like the World Bank, IMF, AFB, and AIIB are expected to gain momentum. However, the government's need for increased foreign exchange flow, given the pressure on the balance of payments (BoP), could complicate ongoing bilateral partnerships.

7.2 Regional Partnership and Cooperation with India, Nepal and Bhutan

Bangladesh currently imports 2,656 MW of electricity from India, representing 10 per cent of its installed power generation capacity. Of this, 1,600 MW is

supplied by Adani Power's Godda plant in Jharkhand, India, under a contract to export 100 per cent of its power to Bangladesh. A recent amendment to Indian law (12 August 2024) allows Adani to connect to the domestic grid if there is a consistent drop in offtake or payment defaults, with excess power being supplied to India only after Bangladesh's demand is met.

BPDB should reconsider the significance of importing 1,600 MW from the Indian plant, especially given the excess domestic capacity. With fiscal pressures mounting, the government should focus on reducing dependency on import-based electricity and emphasise renewable energy-based electricity.

On June 11, the former Cabinet Committee on Government Purchase approved a proposal to import 40 MW of hydropower from Nepal at a rate of BDT 8.17 per unit, inclusive of transmission charges. The electricity will be transmitted to Bangladesh through the Indian grid, with India receiving a trading margin of 0.059 rupees per unit. The additional transmission costs to India are yet to be determined. Furthermore, the plan to import 500 MW from Nepal via an Indian corridor requires further discussions with India, especially under the new interim government.

7.3 Partnership for Import of LNG Import

On July 3, 2024, the former Cabinet Committee on Procurement approved a proposal from Exceleerate Energy of the USA to import LNG at USD 12.9697 per MMBtu, totalling BDT 609.27 crore. Given the high cost, a price review is recommended. Additionally, approval was granted to acquire an LNG cargo ship from Singapore's Vital Asia Pvt. Ltd at USD 17.55 per unit, a deal which also warrants review.

In October 2023, the government planned to enter a 15-year agreement with Exceleerate Energy, starting in 2026, to supply 1-1.5 million tonnes of LNG annually.

Pricing for LNG would be set at 13.35 per cent of crude oil prices plus USD 0.35, a variable pricing mechanism that requires careful reassessment due to the long-term nature of the deal. Similar agreements have been made with Oman and Qatar for LNG imports beginning in 2026, all of which should be reviewed to ensure competitive pricing.

An agreement between Sylhet Gas Fields Limited and Sinopec International Petroleum Service Corporation, China, was approved for well drilling activities under the projects 'Drilling of Sylhet-11 (Development Well)' and 'Rashidpur-13 No. Well (Exploratory Well)'; with BDT 444.85 crore allocated. This initiative, along with local gas drilling exploration, is welcomed. Additionally, Petrobangla is encouraged to expedite offshore gas bloc bidding processes, alongside the utilisation of its 'gas development fund' to explore onshore power plants.

8. Pathway for Energy Transition under the Interim Government

8.1 Framework for Energy Transition in Bangladesh

To gradually transition towards energy transition to achieve 40 per cent renewable energy target by 2041, the new interim government have to take immediate action. The chronology of the energy transition can be segregated into 5 stages demonstrated in Table 20.¹

The CPD Power and Energy Study is laying out activities and initiatives that need to be taken by the new government in the short to medium terms. These reforms and formulation activities can be divided into first three phases of the energy transition. It is expected that the interim government will place its 100-day programme for the power and energy sector taking into account the energy transition in mind where proposed measures will be reflected.

¹Red indicates No/marginal progress has been made; Yellow indicates Limited progress has been made
Green indicates Moderate progress has been made.

Table 20: Stages of energy transition chronology

Phase 1: Assessment and Planning	Phase 2: Research, Development, and Demonstration	Phase 3: Infrastructure Development	Phase 4: Market Integration	Phase 5: Monitoring, Evaluation, and Adjustment
Energy Resource Assessment	Research and Development	Grid Modernisation	Market Design and Regulation	Performance Monitoring
Policy Framework Development	Pilot Projects	Scaling up Projects	Private Sector Engagement	Policy Review and Adjustment
Stakeholder Engagement	Capacity Building	Energy Storage Solutions	Distributed Generation	Public Awareness Campaigns

No/marginal progress has been
 Limited progress has been made
 Moderate progress has been made

Source: Authors' Illustration.

8.2 Recommendations for Phase 1 (Immediate)

Repealing the Quick Enhancement of Electricity and Energy Supply Act (Special Provision) 2010:

The extended Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010 is highly anti-competitive and stops opportunity to go for competitive bidding to find out the most efficient contracting party. As part of reform, this law should be abolished earliest possible and to create space for a competitive market environment. Harmful Acts like Quick Enhancement of Electricity and Energy Supply Act must be abolished as the first reform agenda of the interim government.²

Necessary revision, amendment, and formulation of acts, laws, rules should be the first and foremost step of the interim government:

Current policies, such as the National Energy Policy of 2004, are outdated and should be revised to incorporate modern renewable energy technologies and practices. Policies should include a fixed goal for reducing greenhouse gas emissions, detailed plans for electrifying rural areas, and guidelines for feed-in tariffs (FiT) and sector-wise renewable energy diversification. The revised policies should include clear definitions and objectives, prioritise renewable energy, and establish a framework

for phase-out plans for fossil fuels. However, the MCPPE should be kept intact.

BERC Act 2023 needs to be amended to strengthen its institutional capacity:

The amendment of the BERC act is the need of time so that the institution can stay true to its designated role. BERC's role is much-needed during the period of a market-based pricing system which is difficult to ensure in its current legal stature. The electricity tariff determination should also be under the jurisdiction of BERC along with LPG.³

IEPMP needs to be revised: Given the prevailing weaknesses, IEPMP needs to be revised. The current OLS method used in the IEPMP should be replaced with VECM for more accurate and reliable energy demand forecasting. This model will better account for variables and prevent overestimation

Ensuring stakeholders' participation to make the decision-making more inclusive:

Engaging with a broad range of stakeholders, including government bodies, private sector participants, civil society, and international partners will ensure a comprehensive approach to energy transition. This engagement should include regular consultations and feedback loops to refine strategies and policies continually.

²On the same day of the media briefing, 18 August 2024, the energy advisor suspended all the ongoing activities under the Quick Enhancement of Electricity and Energy Supply (Special Provisions) Act 2010 (Amended 2021). CPD appreciates such initiative. However, the Act must be repealed to ensuring complete abolishment of such non- competitive process.

³The government power to fix electricity and gas prices under the Section 34 Ka of the Bangladesh Energy Regulatory Commission (Amendment) Act 2023 were suspended. Such quick response is much acknowledged.

Prioritising the identification and assessment of renewable energy resources such as solar, wind, and hydro across different regions of Bangladesh:

The initiative should include feasibility studies, potential site identification, and resource mapping. Transparency in these assessments is critical to attract both local and international investments. A thorough satellite mapping can be carried out by the government to help the country understand the best locations for installing solar panels. In fact, this could facilitate private consumers and government offices in realising the extent to which they should consider solar panel installation.

Reviewing the procurement and bidding process of the power plants: Given the allegation of the non-transparent procurement process of the power plants, it is important to review the contract of the existing power plants. If needed, the clause of the contract should be revised withdrawing the capacity payment clause.

Competitive bidding processes should be implemented and ensure all procurement plans and proposals are publicly available: This will increase transparency, reduce the risk of favouritism, and foster public trust in energy transition projects. The new procurements must follow the public procurement act.

Phasing out inefficient rental and quick rental power plants: The rentals and quick rentals that have already finished its lifetime and exhausted their potential should be stopped immediately. The inefficient power plants with very low annual plant factor should be phased out at the earliest possible. The efficiency assessment of the power plants that have completed half of its lifetime should be conducted.

Revising the ADP allocation for FY2024-25 to expedite renewable energy: Necessary review and revision of the budgetary allocation and ADP allocation needs to be done focusing on building Smart Grid, renewable energy promotion, and domestic gas exploration. The two projects on LNG import and building FSRUs should be stopped immediately.

Faulty pre-paid metre causing troubles for consumers: In line with troublesome experiences of the high power tariff bills, there has been a

continuous stream of complaints voiced on social media platforms. In response to these grievances, a formal legal complaint was submitted to the High Court, leading to the establishment of an investigative committee. Despite this, during the tenure of the former government, the incumbent Secretary of the Power Division emphatically asserted that there was no possibility of tampering with electricity bills in the pre-paid metre system. However, the findings of the investigation were not made public. Consequently, a new investigation must be undertaken by the interim government to uncover the truth behind these persistent complaints.

Ensuring transparency and accountability of financial accounts of the public authorities: The actual financial state of the public authorities needs to be transparently revealed to the public to ensure accountability. The financial data of BPDB, BPC, RPGCL, and PetroBangla should regularly be updated on the respective websites with audit reports.

The financial accounts of the public authorities specially BPDB, BPC and PetroBangla must be reassessed: The non-transparent public accounts and mismatch regarding the financial accounts within the different public documents have raised the credibility question of the financial reporting. The accounts of BPDB, BPC and PetroBangla must be reassessed by the big four international audit firms to find out the actual scenario of their loss profit.

Disclosure of procurement contracts and data of the power plants: All the documents and reports related to public procurement, especially power plants, should be openly accessible as these are not confidential documents by law. The data must be updated and published on the respective website regularly.

No further discussion on domestic coal extraction should be brought up: The former government in different policy documents and different platforms mentioned extracting coal from domestic coal mines. The interim government must immediately put a hold on the discussion and initiative as it will only put the energy transition of Bangladesh backtrack. Rather it should have a firm commitment to stop such agenda and look for ways to phase out existing coal-based power plants.

8.3 Recommendations for Phase 2 (Short term)

SREDA needs to be Overhauled as the lead authority for renewable energy: The institutional structure of SREDA needs a major overhaul which is better suited to take a lead role in energy transition in the power sector. SREDA should be operated under the Prime Minister/Chief Adviser's Office. The capacity of institutions like SREDA to provide training programmes for personnel, focusing on renewable energy technologies and project management as well as prioritisation of project completion should be strengthened. Public awareness campaigns should be conducted to educate the community about the benefits and importance of transitioning to renewable energy. As SREDA is a specialised technical institution, professional and technical personnel should be in the authority and leadership position. SREDA needs to play a major role in the coordination of the green energy transition by better coordinating with other relevant ministries responsible for the green energy transition (such as the Ministry of Finance, Ministry of Agriculture, and Ministry of Industries).

Formation of necessary renewable energy-related government facilities: Dedicated research institutions such as the Renewable Energy Laboratory and Office of Energy Efficiency and Renewable Energy to focus on innovation in renewable energy technologies should be established. These institutions should work on developing solutions tailored to Bangladesh's specific geographic and economic conditions.

Enhancing the Research and Development for Energy Transition: An Office of Scientific and Technical Information on Energy to serve as a central repository for energy research and data should be set up. This office should facilitate collaboration among research institutions and industry players

Pilot projects and feasibility studies in selected regions to test and demonstrate the viability of various renewable energy technologies should be launched: These projects should be closely monitored, and the results should be made publicly available to inform future large-scale implementations. In a number of states in India (such as Delhi), it is made mandatory for all government buildings with an area of 500 square

metres or more must install rooftop solar panels within the next three years. Upon conducting, the satellite mapping, the Bangladesh government could consider a similar policy.

Initiative to attract more foreign direct investment needs to be adopted: Several bilateral, regional, and global financing sources (approximately USD 39.74 billion) are available for Bangladeshi and global investors to invest in renewable energy in Bangladesh. However, the priority for now should be attracting investors by restoring law and order and improving the economic situation including the reserve scenario.

8.4 Recommendations for Phase 3 (Medium term)

Upgrading the existing grid to Smart Grid by 2041: Prioritising and investing in advanced grid technologies, including smart grids and automated systems, while strengthening the capacity of transmission and distribution networks is crucial to achieving energy transition goals. A significant portion of power outages are caused by inefficiencies in the current grid, rather than generation shortages. Modernising the grid will support the integration of large-scale renewable energy projects. Additionally, upgrading the grid will enable the implementation of smart metering systems, improving energy management and reducing billing inaccuracies

Priority should be shifted from LNG import to domestic gas exploration: The target set of drilling 48 wells by 2025 will not be possible unless the priority is shifted from LNG import to domestic gas exploration. More well workover projects should be undertaken to ensure the daily gas requirement (2,000mmcf/d) is mostly met with the local gas.

Immediate prioritisation of scaling up of renewable energy projects: To scale up renewable energy projects the government must ensure speedy and on-time completion of the domestic renewable energy projects. The tax and incentive structure needs to be revised for an equitable and just business environment for renewable energy-based power generation.

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Bangladesh has entered a pivotal phase with the establishment of a new interim government as of August 2024, facing the challenge of overhauling the power and energy sector. This sector, despite past progress in electricity access, is now marred by financial losses, institutional inefficiencies, and a lack of transparency. The interim government, tasked with steering the country towards a sustainable energy future, must address the urgent need for reforms. These include transitioning to clean, renewable energy and rectifying the systemic issues that have led to significant fiscal pressures and operational limitations. This agenda sets the stage for bold actions to ensure a competitive, transparent, and accountable power sector, driving Bangladesh towards energy security and economic resilience.



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