CPD Briefing on

Interim Government's Energy & Power Sector Master Plan (EPSMP): 2026-2050

CPD's Quick Reaction

CPD Power and Energy Studies

15 January 2026

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1. Introduction

1. Introduction

- The Ministry of Power, Energy and Mineral Resources has prepared a draft master plan titled **"Energy and Power Sector Master Plan (EPSMP) 2025"**
- On 6 January 2025 the MoPEMR has presented the plan to the Chief Advisor
  - The full plan is **yet to be finalized and made public**
- However, the available partial information about the plan through newspapers has raised serious **concerns regarding the future energy transition pathway in Bangladesh**
- Keeping this new draft master plan and the energy transition targets in Bangladesh in mind, an immediate analysis and response has been done by CPD
- This study will look into the key features of EPSMP to explore the following questions:
  - How it is **different from the other** key plans especially IEPMP?
  - Whether the plan will be able to help **achieve the energy transition** goals in Bangladesh?

2. Revision of the IEPMP and Introduction of EPSMP

2. Revision of the IEPMP and Introduction of EPSMP

- The Ministry of Power, Energy and Mineral Resources (MoPEMR) prepared a master plan for the energy and power sector titled **Integrated Energy and Power Master Plan (IEPMP) in July 2023**
  - This was the first ever integrated master plan of the sector done by the previous government
- However, the critiques raised several key concerns regarding the plan
  - Such as **faulty demand estimation**, **inclusion of advanced technology** and false solution for renewable energy expansion, **over emphasise on the LNG import** and starting the discussion of the **domestic coal exploration**
- For these critical observations, it was recommended that the IEPMP must be revised by the interim government
  - Right after taking the office, the power and energy advisor initiated to revise the IEPMP but ended up drafting **another master plan for the sector only after 2 years** of the approval of last one
- It was expected that the new master plan will address all the **key challenges of IEPMP** and will come up with a **better and more energy transition supportive** EPSMP

3. EPSMP: Brief Overview

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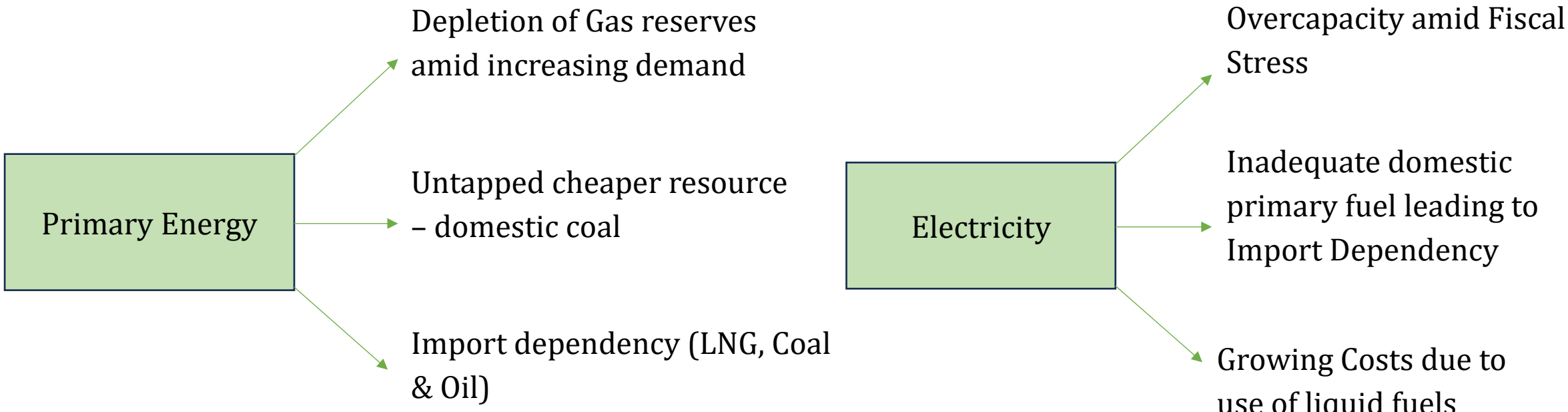
3.1 Context, Origin, Vision, Philosophy & Pillars

Figure 1: Policy Context of EPSMP



Source: EPSMP 2025 7th draft

3. EPSMP: Brief Overview

3.1 Context, Origin, Vision, Philosophy & Pillars

Figure 2: Vision, philosophy and Pillars of EPSMP

Vision	To ensure **reliable, affordable, and sustainable** primary energy & electricity for all Bangladeshis through **domestic resource optimization, energy security, efficiency,** and **environmental responsibility**
Philosophy	Evidence-based, Transparent, and Efficient
Pillars	• Realism and Adaptive Planning • Resource Optimization and Energy Security • Fiscal and Environmental Sustainability

Source: EPSMP 2025 7th draft

3.2 Electricity Demand Estimation

- The new plan proposes a newly estimated electricity demand for 2040, 2045 and 2050 (table 1)
  - Given the available information, it seems that the power demand estimation is solely based on the GDP growth rate and other associated factors varying from **5.19% to 6.99%**
- A new addition to the plan is the EPSMP 2025, proposes a **zone wise peak demand** along with a zone wise electricity generation plan

Table 1: Electricity demand forecast in EPSMP 2025

	2040	2045	2050
Low GDP Growth ~ Avg 5.19%	36,372 MW	44,780 MW	54,420 MW
BAU GDP Growth ~ Avg 5.90%	40,836 MW	49,753 MW	**59,351 MW**
High GDP Growth ~ Avg 6.99%	47,312 MW	59,205 MW	70,030 MW

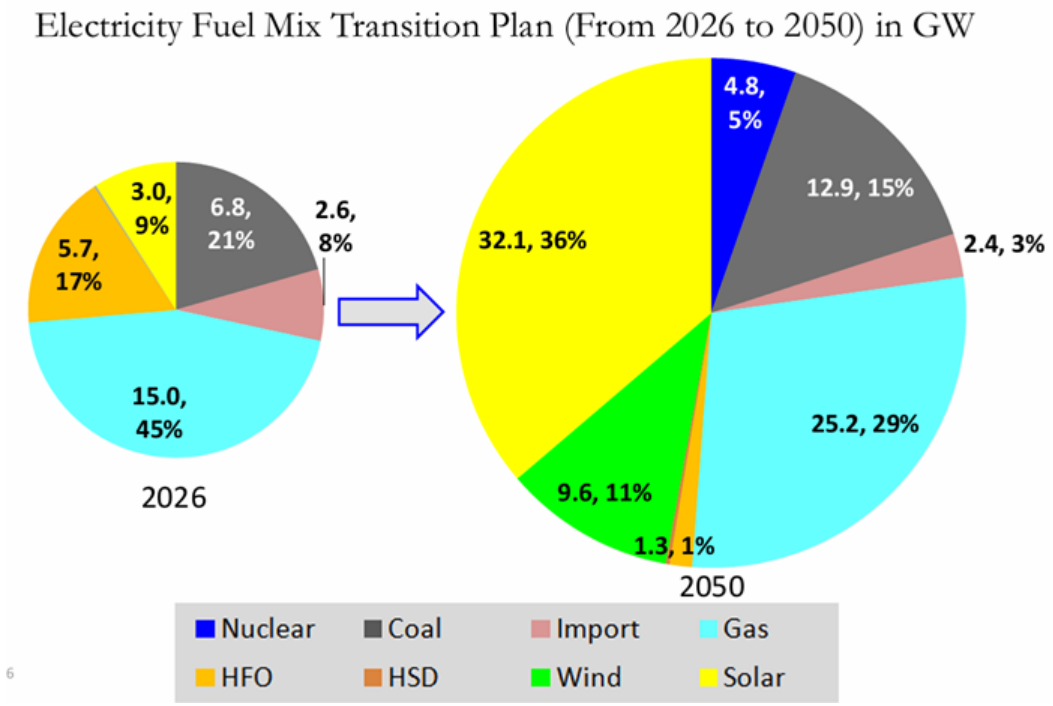
Source: EPSMP 2025 7th draft

3. EPSMP: Brief Overview

3.3 Power Generation Fuel Mix

- Gas & LNG: Currently gas (including LNG) dominates the fuel mix with 45% share
  - EPSMP plans to reduce the share to **29% in 2050**
- Coal: Jumps from **6.8 GW to 12.9 GW** indicating further coal expansion plans with new coal power plants
- Fuel oil: EPSMP plans to drastically reduce electricity generation from fuel oil from **17% to 1%**
- Nuclear: Has planned to build **another nuclear power** plant in CHT with the capacity of 24000 MW
- Solar: Solar will be the dominating source of electricity in 2050 with the totaling generation capacity **of 32.1 GW**
- Wind: Wind share in fuel mix will be 11% with 9600 MW
- Import: **Narrowed down**, whereas it can be a good source to meet the RE targets by importing RE from Nepal and Bhutan

Figure 3: Proposed Fuel Mix



Source: EPSMP 2025 7th draft

3. EPSMP: Brief Overview

3.4 Primary Energy Scenario

Table 2: Primary Energy Scenario in EPSMP

	Issues	
Phase 1 (2026-2030) Supply Stabilization and System Strengthening	Natural Gas	Drilling 150 wells Seismic survey: 2D-7755 LKM, 3D-5674 Sqkm
	LNG	LNG import through FSRUs
	Oil	ERL modernization and SPM installation
	Coal	**Barapukuria stabilisation and mineral assessment**
	System Efficiency	• Gas transmission network expansion • Cost control and subsidy discipline • Gas loss reduction
Phase 2 (2030-2040): Infrastructure Expansion and Resource Diversification	Natural gas	Off- shore development and on-shore integration
	LNG	Matarbari LNG terminal operation
	Oil	Refining capacity enhancement
	Coal	**Dighipara and Jamalganj development**
Phase 3 (2040-2050): Transition and Sustainability	Renewable and future energy	• Massive RE integration • **Hydrogen energy introduction** • **Advanced energy storage solutions**
	Advanced tech.	• CCS implementation • Smart grid deployment • Digitalisation of energy system
	Sector transformation	• Sustainable energy transition • Net- zero emission targets alignment • Enhanced energy security and reliance

Source: EPSMP 2025 7th draft

3. EPSMP: Brief Overview

3.5 Strategic Project Development

Table 3: Priority and Strategic Projects

	Issues
Fast-Track Priority Projects (2026-2030)	Offshore Exploration Round -2026 ▪ Immediate launching of PSC bidding ▪ Priority for shallow & deep-water blocks
	Gas Production Boost ▪ **150 new wells (onshore) in next 5 years** ▪ Accelerated 3D seismic in Chattogram & Sylhet
	LNG Supply Security ▪ **1 new FSRU (quick)** ▪ **Start construction of 1 land-based LNG terminal**
	Refinery Capacity Expansion ▪ Fast-track ERL-2 ▪ Approve new 10-15 MTPA refinery under G2G/PPP/GoB
	Strategic Storage Expansion ▪ Petroleum storage for 45-60 days ▪ Expand LPG coastal terminals

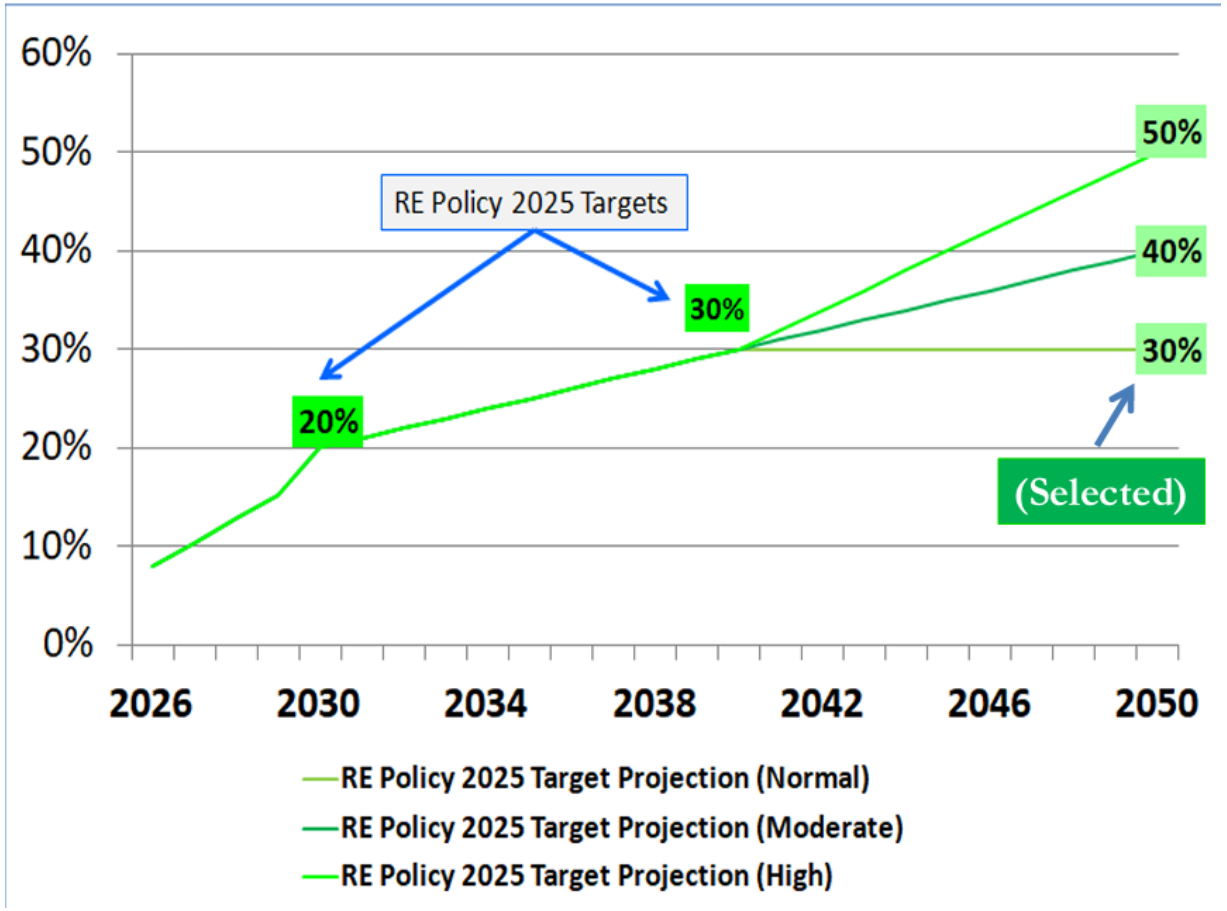
	Issues
Long-Term Strategic Projects (2030-2050)	Offshore Gas Development ▪ Production from deep-water & frontier blocks ▪ Expansion of offshore pipelines and landing stations
	Large-Scale Refining & Petrochemical Expansion New oil refinery (10-15 MTPA) ▪ Integrated petrochemical complexes
	Hydrogen & Ammonia Infrastructure ▪ **Green hydrogen production hubs** ▪ **Ammonia import/export terminals** ▪ **Hydrogen-ready industrial clusters**
	Geothermal Development & Tidal Wave ▪ Commercial-scale geothermal in Chattogram Hill Tracts ▪ High-enthalpy resource development

Source: EPSMP 2025 7th draft

3.6 Renewable Energy Policy Targets

- The new master plan is aiming for Green Revolution - **(20% by 2030, 30% by 2040)**
  - It aligned with the Renewable Energy Policy 2025 targets by 2030 and 2040
- But further expanded the projection by 2050 with high and moderate growth
- With the high growth target, **50% of renewable energy can be achieved**
  - While the moderate growth projects 40% renewable energy by 2050
- But the RE share includes **Large Scale Utility Solar, Rooftop Solar, Onshore & Offshore Wind, Waste to Energy, Geothermal, Hydrogen and Ammonia Co-firing**
- The plan is to promote market-based generation and B2B power trading through Merchant Power Policy

Figure 4: RE projection



Source: EPSMP 2025 7th draft

3.7 Financial Issues

- The new plan chalks out an investment requirement by 2050 for both primary energy and electricity
  - The estimated required investment in **primary energy sector is $70-85 billion**
  - Whereas, the electricity sector will **require $107.4 billion**
- The new plan also forecasted the electricity and gas tariff till 2050
  - The power tariff shows a **moderate high trend** in 2050 compared to 2026
  - However, the gas price demonstrates an **increasingly higher trend** as it will reach **Tk 65/ cubic meter**
- Lastly, the new EPSMP also proposes a **pathway for subsidy reduction** and gradual phase out of subsidy
- The plan includes three scenarios **IMF Plan, BAU reduction and Low reduction plan**
  - Under IMF plan the subsidy will be phased out in 2030, in 2037 incase BAU scenario and in 2042 for low reduction scenario
- Lastly, the plan mentioned to clear overdue payments by settling overdue payments normalizes supply chains and reduces risk

3.8 Environmental & Social Plan

- The new plan provides an Environmental and Social Plan to **reduce emissio**n from the sector
- The power demand growth has been forecasted to be more than double in 2050
  - Against which the emission is also said to be doubled
  - At the same time the emission intensity efficiency is said to be improved
- However, the number seems to be conflicting as if the emission intensity efficiency improves, the absolute emission must also decrease

Table 4: Environmental Impact Assessment		
	2025	2050
POWER DEMAND GROWTH	17 GW	59 GW
ABSOLUTE EMISSIONS (YEARLY)	58.9 MtCO2e	129 MtCO2e
EMISSION INTENSITY EFFICIENCY	0.62 tCO2e / MWh	0.35 tCO2e / MWh
EMISSION SAVING SCENARIO	64.5 M tCO2 Annual Savings (Year 2050)	1,600 M tCO2 Cumulative Savings

Source: EPSMP 2025 7th draft

4. Comparison between EPSMP with Major Energy Policies/Plans

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Table 5: Comparative analysis with EPSMP, IEPMP, RE Policy 2025 and NDC 3.0

Issues	IEPMP	RE Policy 2025	NDC3.0	EPSMP
Vision/ Focus/ Objective	A long-term energy plan covering every sector and energy source and The global momenta toward low-carbonization and/or decarbonization	To adapt and develop RE technologies and promote local manufacturing capabilities to ensure an affordable, scalable, reliable, environment-friendly and sustainable energy supply in the country.		To ensure reliable, affordable, and sustainable primary energy & electricity for all Bangladeshis through domestic resource optimization, energy security, efficiency, and environmental responsibility
Timeline	2023-2050	2025-2040	2025-2030	2026-2050
Demand estimation	**2030- 27,087 MW** **2040- 50,364 MW** **2050- 70,512 MW**	-		**2040- 40,836 MW** **2045- 49,753 MW** **2050- 59,351 MW**
Methodology used	Upgraded and quantitative methodological approach than before, still some cases need to be revised based upon this.	-		GDP growth rate based methodology
Fuel mix	**Mostly dominated by fossil fuel (specially gas, LNG and coal)**	Focuses on RE sources	-	**Mostly dominated by solar power and gas, however, a significant share of coal is still present**
Gas development	Didn't pay much focus on the exploration of domestic gas both in on-shore and off-shore	-	-	Gives emphasis on the domestic gas exploration by targeting to explore 150 gas wells by 2050
LNG Import	Very **high LNG demand projection in all the scenarios while proposing to build 1 FSRU and 1 land based terminal**	-	-	**Continuing to engage in LNG Supply Security by also building 1 new FSRU (quick) and start construction of 1 land-based LNG terminal**

4. Comparison between EPSMP with Major Energy Policies/Plans

Table 5: Comparative analysis with EPSMP, IEPMP, RE Policy 2025 and NDC 3.0 (cont.)

Issues	IEPMP	RE Policy 2025	NDC3.0	EPSMP
Coal exploration	**Promoted coal-based energy as a form of cleaner energy sources. Expansion plan of Barapukuria Coal Mine (BCMCL), Development plan for Dighipara coalfield, CBM at Jamalgonj**	-	-	**Adamant in proving coal as a cheaper fuel sources along with Barapukuria stabilisation and mineral assessment plan; and development of Dighipara coalfield, CBM at Jamalgonj**
RE target	**30% by 2030 and 40% by 2040**	**20% by 2030 and 30% by 2040**	**25% BY 2035**	**20% by 2030 and 30% by 2040**
Definition of RE	**Defined RE as cleaner energy including CCS, Nuclear, Hydrogen and Ammonia in it**	**Packages as Green Energy means energy produced from renewable sources that do not emit or emit close to zero greenhouse gases**	**Included rooftop solar, solar park, solar irrigation, solar charging system, solar drinking water system, floating solar, agrivoltaics, wind & biomass**	**RE share includes Large Scale Utility Solar, Rooftop Solar, Onshore & Offshore Wind, Waste to Energy, Geothermal, Hydrogen and Ammonia Co-firing**
Grid modernisation	Recommended establishing a smart grid with GIS and SCADA as components to reduce distribution system losses, theft, and leakage	Emphasizes on the urgency of grid upgradation	Briefly mentions grid modernization as a mitigation action	Proposes National SCADA, grid flexibility programs, and transmission backbone upgrades (400 kV → 765 kV)

4. Comparison between EPSMP with Major Energy Policies/Plans

Table 5: Comparative analysis with EPSMP, IEPMP, RE Policy 2025 and NDC 3.0 (cont.)

Issues	IEPMP	RE Policy 2025	NDC3.0	EPSMP
Mention of False solutions	**Coal-fired power will shift to ammonia after its introduction as co-firing fuel. After its introduction, gas-fired power will be replaced by hydrogen-fired power**	**Other significant RE sources include Geothermal, Tidal energy, River current, Wave energy, Green Hydrogen**	**Explore the potential of the adoption of green ammonia using renewable hydrogen**	**Hydrogen & Ammonia Infrastructure** **▪ Green hydrogen production hubs** **▪ Ammonia import/export terminals** **▪ Hydrogen-ready industrial clusters**
Subsidy reduction	-	-	-	Mentions a three-scenario subsidy reduction plan. IMF Plan, BAU reduction and Low reduction plan
Tariff specification	-	-	-	Includes forecast on electricity and gas tariff
Carbon emission reduction	-	-	84.97 $MtCO_2eq$ by 2035	Annual Savings (Year 2050) 64.5 M Tco2 and 1,600 M tCO2 Cumulative Savings
Investment required	Proposed investment in power $176 bln by 2050 Proposed investment for gas and LNG $3987 mln by 2050	-	RE- $ 105.96 bln by 2035	Proposed investment for gas and LNG $42 bln by 2050

4. Comparison between EPSMP with Major Energy Policies/Plans

- The new plan has **somewhat alignment** with the major sectoral other policy and planning documents in all the wrong ways
  - In terms of **overestimated power demand projection**, **renewable energy target** and **definition** of renewable energy
- There are a few new areas that have been added in EPSMP such as
  - **Zone wise electricity demand and supply estimation**, **tariff forecast**, **subsidy reduction t**arget, **social and environmental impa**ct, **policy suggestion** for future
- However, other key issues **echo the same pattern and priorities** observed in IEPMP
  - **incorrect demand estimation, establishing renewable energy sources by greenwashing LNG, coal and not actually prioritising the traditional renewable sources, undue focus given to LNG import and LNG infrastructure**
- New masterplan **ignored regional power grid especially** for renewable energy-based power trade with India, Nepal and Bhutan
  - It plans to decrease the power import to 1%, over looking the potential of cheaper renewable energy integration from regional trade

5. Analysis of EPSMP from Energy Transition Perspectives

5. Analysis of EPSMP from Energy Transition Perspectives

5.1 Does the context, vision, philosophy & pillars support energy transition goals?

Table 6: Analysis of context, vision, philosophy and pillars

	Issues	**Comments from Energy Transition Perspective**
Context	**Primary Energy** • Depletion of Gas reserves amid increasing demand • Untapped cheaper resource – domestic coal • Import dependency (LNG, Coal & Oil) **Electricity** • Overcapacity amid Fiscal Stress • Inadequate domestic primary fuel leading to Import Dependency • Growing Costs due to use of liquid fuels resulting subsidy needs	**Not aligned** • The fact that such a plan is contextualizing domestic coal as an untapped cheaper resource is unfortunate • Bangladesh committed to not further explore domestic coal years ago • Given Bangladesh's commitment for energy transition the plan should have focused on highlighting the untapped RE potentials
Vision	To ensure reliable, affordable, and sustainable primary energy & electricity for all Bangladeshis through domestic resource optimization, energy security, efficiency, and environmental responsibility	**Not aligned**
Philosophy	Evidence-based, Transparent, and Efficient	**Not Aligned**
Pillars	• Realism and Adaptive Planning • Resource Optimization and Energy Security • Fiscal and Environmental Sustainability	**Not Aligned**

5. Analysis of EPSMP from Energy Transition Perspectives

5.2 Has EPMP overcome the faulty peak demand projection challenge?

- EPMP has forecasted the power demand will be 40,836 MW by 2040 and 59,351 MW by 2050 in BAU case
- IEPMP forecasted 50,335 MW by 2040 and 70,000 MW of power demand by 2050
- The gap between these 2 estimation is **only 10,000 MW** in both the cases
  - This clearly shows that the plan **still lacks appropriate calculation** for electricity demand projection
  - As the full **plan is not available**, it is difficult to point out the exact methodological error of demand estimation
- According to CPD's calculation, the demand should not be more than **30,000 MW in 2040**
- Such over estimation will again continue to create excess generation capacity burden which will keep spiraling in sectoral financial crisis

5. Analysis of EPSMP from Energy Transition Perspectives

5.3 What is the actual share of renewable energy in the RE integration plan?

- The target set for the renewable energy expansion seems to align with the national target
- However, we are not yet **sure how much of this share is from traditional renewable energy** sources as the target also includes **hydrogen and ammonia** as a RE source
- However, the phase wise planning and priority projects timeline doesn't align with this target
  - For example, according to the EPSMP implementation plan, the sustainability and transition will be focused in **phase three (2040-2050)**
  - At that time massive renewable energy integration will take place
- However, we must attain 30% renewable energy by 2040 for which we must start renewable energy integration as early as 2030
  - Similarly, there is **not a single renewable energy project mentioned** in the priority and strategic projects
  - There is an unlined plan to show ammonia and hydrogen-based energy (to be generated from coal and LNG) as renewable energy and raise the share of so-called RE
- How can possibly Bangladesh achieve energy transition targets **with such weak planning and implementation roadmap?**

5. Analysis of EPSMP from Energy Transition Perspectives

5.4 Why again camouflaging false solutions as future energy sources?

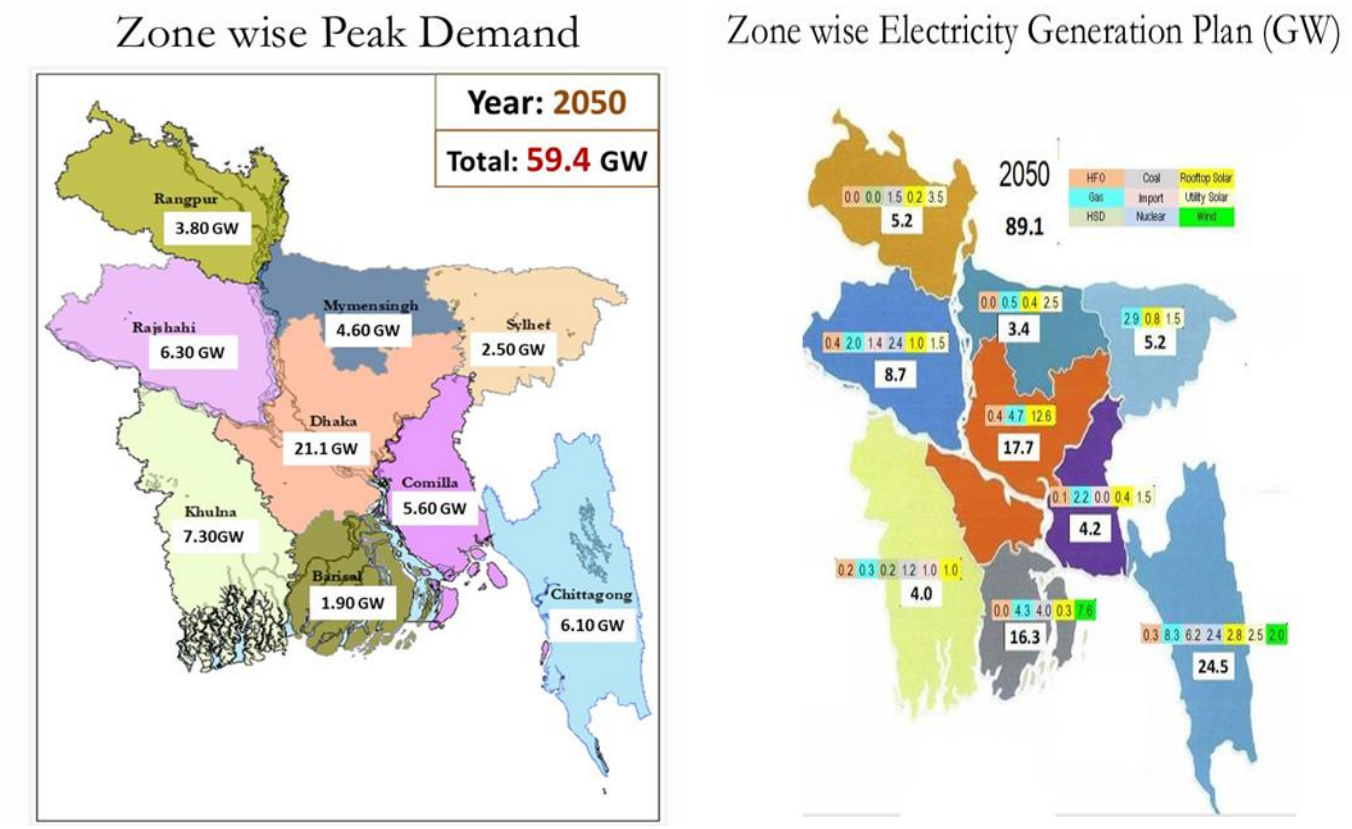
- Instead of focusing on the renewable energy projects, the new plan has introduced another term ***Future Energy*** to establish CCS, ammonia and hydrogen as renewable energy transition pathway
- More extensive emphasis has been provided to **hydrogen energy introduction**, **advanced energy storage solutions**, **carbon capture and storage implementation, ammonia deployment**
- There are even priority projects on building **hydrogen & ammonia infrastructure are mentioned which is absurd**
- Talks on green **hydrogen production hubs**, **ammonia import/export terminals** and **hydrogen-ready industrial clusters** are raising serious concerns regarding this government's willingness to achieve energy transition
- Such technologies and solutions are **far fetched and much more expensive reality** for a country like Bangladesh
- "**Why Again**?" , despite repetitively concerned raised by CSOs including some from the current advisor panel

5. Analysis of EPSMP from Energy Transition Perspectives

5.5 Does zone wise peak demand and generation estimation align with future growth trajectory?

- The highest demand has been forecasted in **Dhaka**
  - Currently the power demand in Dhaka is around **5-6 GW, which is one fourth** of the estimated demand
- There is very low chances of such demand hike in Dhaka in the coming days
- Infact other industrial areas where there will be **industrial hubs and EPZs is forecasted lower** demands, such as Chittagong, Sylhet
- The demand is forecasted to be low in **Barishal** but there will be much more power generation in that region
- **Inconsistency** in planning and estimation can be observed
- Chittagong has the highest **solar energy potential** in Bangladesh, and yet the plan not much focuses on exploring the solar generation scopes in Chittagong

Figure 5: Zone wise peak demand and generation estimation



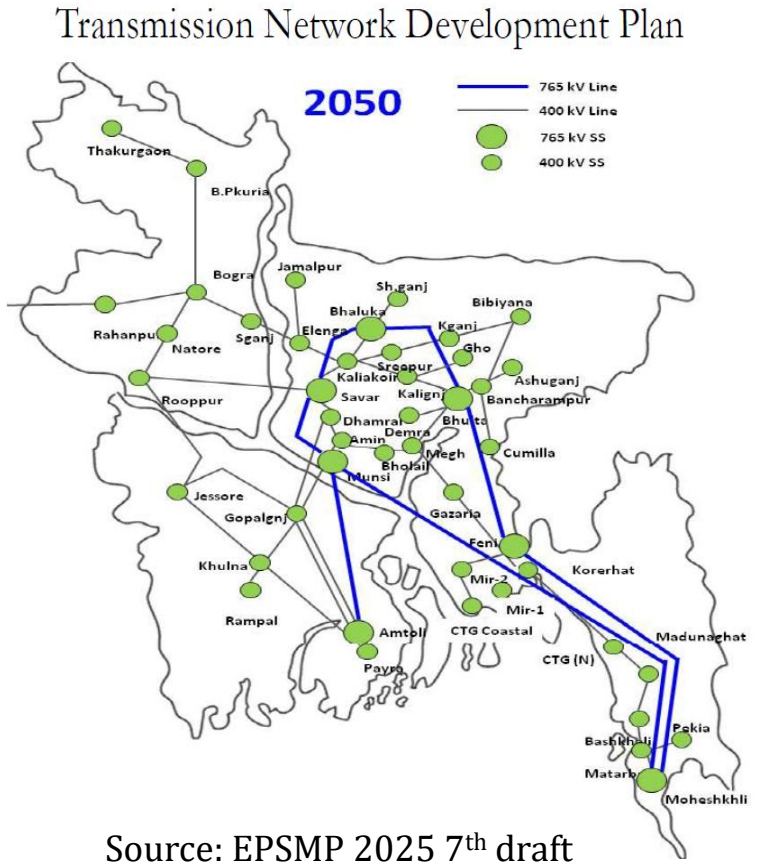
Source: EPSMP 2025 7th draft

5. Analysis of EPSMP from Energy Transition Perspectives

5.6 Why does bridging power sector demand forecast with T&D Development Plan miss RE potential grid mapping?

- EPSMP **barely puts any attention** in the upgradation of T&S system
- The EPSMP demonstrates the plans on achieving 50% energy from RE
- However, it **lacks the planning for grid development**
  - The establishment of smart grid is **said to start in phase 3 of the implementation plan (2040-2050)**
    - But it can't wait till 2040 as the RE target is 30% by 2040. The existing grid can only take upto 20% VRE
    - Smart grid project **must be started in the phase one** for gradual implementation
  - There is an **absence of region-wise RE potential** grid mapping including development plans (T&D)
    - To achieve targeted energy from Large Scale Utility Rooftop, it lacks the integration processes how this energy will be fed to the grid

Figure 6: Transmission Network Development Plan in EPSMP 2025



Source: EPSMP 2025 7th draft

5. Analysis of EPSMP from Energy Transition Perspectives

5.7 Does the primary energy scenario align with energy transition?

Table 8: Analysis of primary energy scenario

Issues		Comments from Energy Transition Perspectives
Natural Gas	Phase 1: Drilling 150 wells and Seismic survey: 2D-7755 LKM, 3D-5674 Sqkm Phase 2: Off- shore development and on-shore integration Priority projects Offshore Gas Development, Production from deep-water & frontier blocks, Expansion of offshore pipelines and landing stations	**Align**
LNG	Phase 1: LNG import through FSRUs Phase 2: Matarbari LNG terminal operation Priority projects 1 new FSRU (quick) and Start construction of 1 land-based LNG terminal	**Fully Conflicting**
Oil	Phase 1: ERL modernization and SPM installation Phase 2: Refining capacity enhancement Priority projects Fast-track ERL-2, Approve new 10-15 MTPA refinery under G2G/PPP/GoB, Petroleum storage for 45-60 days, Expand LPG coastal terminals	**Conflicting**
Coal	Phase 1: Barapukuria stabilisation and mineral assessment Phase 2: Dighipara and Jamalganj development	**Strictly Conflicting**

5. Analysis of EPSMP from Energy Transition Perspectives

5.8 Investment Plan

Table 9: Financing Needs (2026-2050): Primary Energy Sector		
	Estimated Investment (USD)	**Comments**
LNG terminals + pipelines	25-30 bn	**Almost half of the total energy investment is for building LNG terminals and pipelines**
Gas exploration (on + offshore)	10-12 bn	**Very low investment in gas**
Refinery + storage	15-20 bn	
Hydrogen/geothermal	2-3 bn	**Alarming**
Total	70-85 billion	
Financing channels	▪ Public Finance: Exploration, Pipelines ▪ G2G: Refinery, **LNG terminals**, SPM ▪ PPP: LPG terminals	

Table 10: Financing Needs (2026-2050): Electricity Sector		
	Estimated Investment (USD)	**Comments**
Generation	85.15 bn	**Still heavily focused on the generation**
Transmission	11.45 bn	**Very low compared to generation. Need much more investment in Smart grid**
Distribution	10.65 bn	
Total	107.25 billion	
Financing Channels	▪ Public Finance: Rooftop/ Small Solar, Small Storage, Smart Grid Program, Grid Flexibility Program ▪ **G2G: Nuclear**, Transmission, Storage, Wind and Solar ▪ PPP: CCPP, Large Steam Turbine Power Plants, Large Storage, Wind and Solar ▪ **FDI: Offshore wind, hydrogen** ▪ Climate Finance: ADB, WB, GCF for RE + efficiency	

5. Analysis of EPSMP from Energy Transition Perspectives

5.8 Investment Plan

- Ironically, the available version of the EPSMP has **not detailed out the renewable energy investment plan**
- There is no breakdown of the power generation plan which makes it difficult for us to indicate whether enough allocation is being estimated for renewable energy expansion
- A CPD Power and Energy study has already estimated that we will be needing almost **$35 bln to achieve 30% renewable energy by 2040** (table 11)

Table 11: Period-wise Investment Requirement for Renewable Energy

Energy Source	Between 2025-2030	Between 2031-2035	Between 2036-2040
Solar	5,938.4	5,702.7	4,954.7
Wind	4,357.7	4,630.3	3,629.7
Hydro	2,299.9	1,772.4	1,939.6
Biogas	3.4	2.6	2.7
Biomass	38.0	1.5	1.6
Off-grid renewable energy	0.0	0.0	0.0
Import	5,530.0	1,165.1	686.2
Total (million USD)	18,167.4	13,274.6	11,214.5
Total (without import) (million USD)	12,637.4	12,109.5	10,528.3
Total (without import) (billion USD)	12.6	12.1	10.5

Source: CPD Power and Energy Studies, 2025

5. Analysis of EPSMP from Energy Transition Perspectives

5.8 Investment Plan

Investment Facilitation Scenario: Directionally Clear, Operationally Incomplete

EPSMP 2025 clearly identifies **required capital volumes and broad financing sources**, but does not articulate how investments **will be mobilized, sequenced, and de-risked** at the project and transaction level.

- **Absence of a defined investor risk framework:** The plan does not address key risks facing investors in a **transitioning market, including offtake uncertainty, foreign exchange exposure, and payment or termination** security beyond the single-buyer model.
  - There is **no pathway mentioned for managing** offtake risk under market-based or merchant power arrangements
  - No guidance on FX risk mitigation, payment security mechanisms after BPDB's role is restructured
- **PPP repeatedly referenced but not structurally designed:** While PPP is positioned as a core financing channel, EPSMP does not translate this into an actionable PPP framework for the energy and power sectors. For instance,
  - There is no mention of **standardized or model contracts aligned with new market structures**
  - No designated institutional interface or lead agency for energy-sector PPP development
- **Climate finance potential acknowledged but not operationalized:** Although carbon credit revenue and climate finance are quantified, the institutional and financial architecture required to realize them is not specified. Such as MRV framework or accreditation pathway for carbon markets, institutional host or coordination mechanism for carbon finance

5. Analysis of EPSMP from Energy Transition Perspectives

5.9 Will this plan be able to end the spiraling financial crisis?

- EPSMP has mentioned **financial sustainability** as one of the key agenda
  - Under which the plan is to **end subsidy and establish competitive bidding**
- In order to withdraw subsidy, MoPEMR must ensure that the public authorities are in good financial health
- BPDB is not being able to come out of the financial crunch, even in 2025, BPDB is facing a loss of **Tk10,614** crore
  - However, BPC made a profit **of Tk4316** crore
- Subsidy rationalization should not be done **by increasing the power** and **energy tariff**
- Rather must address the root cause and **phase out capacity payment**

5. Analysis of EPSMP from Energy Transition Perspectives

5.10 Institutional Structure: Where Reform Stops Short

EPSMP 2025 clearly identifies governance failures and sets a reform-oriented direction, yet avoids defining responsibility, sequencing, and authority for implementation.

- **Lack of an institutional reform roadmap:** The plan does **not provide a sequenced transition pathway from the current structure to the proposed market-oriented framework**, such as there is no —
  - No timeline for **redefining or unbundling** BPDB's roles
  - No **sequencing of reforms** across generation, transmission, distribution, and system operation
  - No clarity on **leadership** for market design, whether vested in the ministry, regulator, or system operator
- **Regulatory capacity implicitly assumed rather than strengthened:** Market-based generation and trading are proposed without parallel reforms to ensure regulatory credibility and independence. For example, there is no concrete measures to enhance **BERC and SREDA's autonomy** and enforcement capacity
- **Acknowledged fragmentation without a coordination solution:** While institutional fragmentation is explicitly recognized, this EPSMP does not resolve how coordination failures will be corrected.
  - No guidance or proposal for consolidation or rationalization of **overlapping agencies**
  - No clear **accountability framework** across divisions and implementing entities

5. Analysis of EPSMP from Energy Transition Perspectives

5.11 Energy transition policy alignment

- The new plan has proposed a bunch of policy reforms and new policies
- Some of them will support and facilitate energy transition in the long term such as
  - Towards Zero-Oil Generation (Minor Grid Upgrades & Optimized Operation) by 2026
  - Large-Scale Solar (Now) & Wind (from 2033) Power Generation
  - Energy Storage Roadmap (by 2026) & Large-Scale Storage Deployment (from 2035)
  - National SCADA & Smart Grid Policy by 2026
  - 765kV National Transmission Backbone by 2035
  - Grid Flexibility Program by 2036
  - Smart Distribution (2026-2035)
  - Uniform Design Standards & Integrated Urban Framework by 2027
  - National Rooftop and Renewable Energy Registry by 2026
  - Energy Efficiency Program by 2035

5. Analysis of EPSMP from Energy Transition Perspectives

5.12 Is the plan directly promoting carbon credit?

- A new tendency to include and promote **carbon credit** in a form of greening the emission has been observed in the recent policy documents
- Followed by the **NDC3.0, EPSMP** is also promoting carbon crediting
- A Carbon Credit Guideline is going to launch by **2026**
- Through which **$20 bln** worth of carbon will be credited by 2050
- Meaning a myriad amount of carbon emission will be legitimized through the carbon credit system
    - Such policy introduction further weakens government's position to support energy transition
    - Hence, before **adapting any plan, more scrutiny** on carbon credit is needed

6. Conclusion

6. Conclusion

- Given the existing draft document, it is safe to say that the newly proposed draft EPSMP has in fact failed to do address, accommodate and answer the critics, concerns and questions raised in the IEPMP
- In fact, in some issues, it has raised more serious concerns regarding
  - The emergence of domestic coal, intensified LNG needs, reluctance towards renewable energy expansion of this pro energy transition government
- As the plan is yet to be finalized, there is still scope for further refinement
- CPD Power and Energy Studies would like to propose the following recommendations that need to be undertaken before finalization of EPSMP
- ***In no way the existing version of EPSMP should be approved without major revision***
- After the comparative analysis in terms of energy transition, it is safe to say that EPSMP is no better than IEPMP
- In some cases, it might be proved to be more degrading than IEPMP
- Hence, approving this document in the current form will be noting but anti energy transition supportive

6. Conclusion

EPSMP must shift it's core focus from coal and LNG to RE

- The current draft heavily emphasizes on the importance of domestic resources mostly domestic coal exploration stating it as one of the cheaper sources
- The plan must withdraw the focus from coal exploration and LNG import by redrafting the context and specifying that the domestic resource doesn't imply domestic coal rather only domestic gas
- Rather the opportunity of renewable energy expansion in Bangladesh should be the basis of EPSMP

The final EPSMP must drop all the discussion on false solution, advanced technology or future energy sources

- Bangladesh is yet to be technically and economically ready for green/ renewable hydrogen or green ammonia
- Other than these, gray/ blue hydrogen and ammonia co-firing solution is not a renewable solutions
- So, Bangladesh must get rid of the idea of greening coal or gas in the form of energy transition and focus solely and entirely on traditional renewable energy sources

EPSMP should end the saga of faulty power demand projection with wrong methodology

- IEPMP and all the previous PSMPs were primarily criticized for its faulty and overestimated electricity demand projection
- Unfortunately, the new plan also couldn't let go of this tendency
- Additionally, the zone wise electricity demand and supply should be reviewed and revised with caution

6. Conclusion

Immediate planning upgradation of grid system must be imposed by EPSMP and executed by PGCB

- To accelerate grid readiness for renewables prioritization to be given RE-rich zones in transmission expansion planning
- Institutional reform of PGB through GIS-centric power evacuation planning from RE Sources and independent system planning and strengthened system operator function needs to be done

No new coal power plant to be added into the grid

- From the fuel mix scenario, it is evident that MoPEMR is further planning to add new coal power plants
- EPSMP should drop any plan of adding more new coal based power plants to the grid, rather come up with a timeline to phase out the existing ones

LNG terminal plans (FSRU and in land) must be put on a hold immediately

- Building new FSRUs specially the in land LNG terminal will cost a fortune for Bangladesh
- Such expensive projects are unnecessary and conflicting to energy security and energy transition

6. Conclusion

More allocation to be used for gas exploration

- Rather than going all in with the LNG import and building LNG infrastructures, domestic gas exploration should be emphasised more
- majority of the primary resource investment allocation to be provided for on-shore and off-shore domestic gas exploration, seismic surveys

A big chunk of investment allocation to be used for renewable energy expansion by 2040

- A chunk of estimated investment in the electricity generation should be kept for renewable energy priority projects
- Priority to be given towards the areas where solar and wind potential is high such as in CHT and coastal areas

The subsidy reduction should be based on the phase out of capacity payment

- Subsidy reduction target is one of the new features of this master plan but without the full plan apparently it seems that the reduction will be justified by increasing energy tariff
- However, the full plan must ensure that the gradual subsidy reduction is supported by gradual phase out of capacity payment

6. Conclusion

The zone wise power demand and supply should be planned according to the upcoming RE power plants and National Solar Rooftop Programme

- As there are already plans to intergrade more than 5000 MW of RE from utility scale and more than 3000 MW from national rooftop programme, the location wise planning and estimation must be done by the zonal mapping
- More focus to be given on the areas where solar and wind electricity potential is higher in the country

Allowing carbon credit without any extensive scrutiny might backfire energy transition

- Normalising carbon credit at this stage can unintentionally legitimize emission
- Hence a detailed review and scrutiny before establishing a framework might be needed

Operationalize adaptive planning

- Introduce rolling 3 year EPSMP reviews using real-time grid, demand, and fuel data
- A monitoring and evaluation framework is needed to measure the implementation progress of the EPSMP in achieving energy transition

6. Conclusion

Regional RE trade with Nepal and Bhutan needs to be taken into consideration

- Before finalising the new document, EPCMP should add regional RE trade potentials and required grid stability into its plan

Clear timelines, responsibilities, and authority should be defined

- To move from the current fragmented structure to a market-oriented and functional governance framework
- Including unbundling BPDB roles, sequencing generation-transmission-distribution reforms, and specifying leadership roles for the ministry, regulator, and system operator.

The autonomy, enforcement powers, and operational capacity of BERC and SREDA should be enhanced to ensure effective regulation and implementation

- Institutional fragmentation should be addressed to enhance inter-agency cooperation and planning efficiency
- By consolidating overlapping agencies, clarifying reporting lines, and **defining performance** metrics across divisions and implementing entities
- Necessary measures must be taken to enhanced participation in competitive procurement of RE. Otherwise, the process will remain competitive on paper only.

Thank You!