Power Foundation of India

Power Foundation of India

(An autonomous Society under the Ministry of Power, Govt of India)

No. PFI/Prog/RERC /2025/36
Dated: 9 May 2025

To,

The Secretary
Rajasthan Electricity Regulatory Commission
Vidhyut Viniyamak Bhawan, Sahakar Marg,
Near State Motor Garage, Jaipur
Rajasthan- 302001

Subject: PFI Comments : Rajasthan DISCOM (JdVVNL) ARR & Tariff Petition FY 2025-26

Ref: RERC inviting Comments on ARR and Tariff Petition for FY 2025-26

Dear Sir,

Power Foundation of India (PFI) is a Policy Research and Advocacy entity and a registered society under the aegis of Ministry of Power, Government of India. PFI is supported by leading Central Power Sector Organizations to undertake evidence-based policy research and facilitate informed decision making by the Regulators, Ministry and concerned stakeholders. PFI is also committed to addressing challenges in Power Sector for the benefit of consumers and investors and ensuring sustainable development of the Sector.

With reference to above, PFI has analyzed the ARR and Tariff Petitions of FY 2025-26 filed by Rajasthan DISCOM Jodhpur Vidyut Vitran Nigam Limited (JdVVNL) before Rajasthan Electricity Regulatory Commission (RERC). Our comments/ suggestions on the said Tariff Petition of JdVVNL are enclosed herewith for your consideration as *Annexure- I.*

The comments have also been emailed to rercjpr@yahoo.co.in. We would also like to orally submit our comments/ suggestions on the day of Public Hearing through video conference.

Warm Regards,

Encl: Annexure – I

Copy to:

1. **The Chairperson**
   Rajasthan Electricity Regulatory Commission

2. **The Member (Legal)**
   Rajasthan Electricity Regulatory Commission

Yours Sincerely,
Sambit Basu
(SAMBIT BASU, HEAD RESEARCH)
For, Executive Director, PFI

POWER FOUNDATION OF INDIA
B-28, Qutab Institutional Area, New Delhi–110 016
+91 11 -69650004, E mail: dg@powerfoundation.org.in
Website: www.powerfoundation.org.in

ANNEXURE-I

PFI Comments/Suggestions: JdVVNL ARR and Tariff Petition for FY 2025-26

A. HIGH DISTRIBUTION LOSSES

1) JdVVNL in the ARR of FY 2025-26, as per Form D 7.2, has claimed 15% distribution losses at the DISCOM level which is identical for each circle. However, in True-Up of FY 2023-24, JdVVNL has claimed 23.58% distribution loss overall and different loss levels for each Circle. The loss level, which is distinct for each circle in FY 2023-24, has claimed to be uniform as 15% in FY 2025-26. For example, in FY 2023-24 distribution losses for Sirohi and Jodhpur DC Circle were 26.74% and 18.94% respectively, however, uniform losses of 15% have been claimed for both the Circles in FY 2025-26 as shown below:

FY 2023-24

S. No.	Voltage Level	[illegible]	[illegible]	Energy Input	[illegible]	Total Losses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	2	3	4	5	8	9	10	11	12	13	14
Jodhpur CC	11 kV	432	432	2,133	1630.36	472.14	25.47%	NA	NA	NA	11.68
Jodhpur DC	11 kV	2,864	2,859	6,777	5179.64	1,499.97	18.94%	NA	NA	NA	34.86
Pali	11 kV	967	967	2,290	1750.14	506.82	26.66%	NA	NA	NA	8.35
Sirohi	11 kV	445	441	1,568	1198.56	347.09	26.74%	NA	NA	NA	7.85
Jalore	11 kV	1,374	1,374	3,188	2436.56	705.60	25.01%	NA	NA	NA	11.79
Barmer	11 kV	1,470	1,429	3,628	2772.63	802.93	25.13%	NA	NA	NA	12.91
Jaisalmer	11 kV	694	693	1,583	1209.99	350.40	23.02%	NA	NA	NA	20.32
Bikaner DC	11 kV	1,923	1,871	5,214	3984.92	1,153.99	19.15%	NA	NA	NA	33.37
Hanumangarh	11 kV	812	812	2,151	1643.80	476.03	26.11%	NA	NA	NA	8.25
Sri Ganganagar	11 kV	727	727	2,101	1605.57	464.96	23.79%	NA	NA	NA	18.44
Churu	11 kV	1,029	1,029	2,991	2285.68	661.91	20.87%	NA	NA	NA	27.00
D.F. Bikaner			-	1,189	908.87	263.20	0.00%	NA	NA	NA	
Jodhpur Discom		**12,737**	**12,634**	**34,814**	**26606.7**	**7,705.04**	22.13%	**NA**	**NA**	**NA**	

FY 2025-26

S. No.	Voltage Level	No of Feeders	[illegible]	Energy Input	Total Output	Total Losses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	2	3	4	5	[illegible]	[illegible]	[illegible]	11	12	[illegible]	14
Jodhpur CC	11 kV	432	432	2146.71	1824.71	322.01	15.00%	NA	NA	NA	NA
Jodhpur DC	11 kV	2864	2864	6820.09	5797.07	1023.01	15.00%	NA	NA	NA	NA
Pali	11 kV	967	967	2304.42	1958.76	345.66	15.00%	NA	NA	NA	NA
Sirohi	11 kV	445	445	1578.15	1341.43	236.72	15.00%	NA	NA	NA	NA
Jalore	11 kV	1374	1374	3208.24	2727.01	481.24	15.00%	NA	NA	NA	NA
Barmer	11 kV	1470	1470	3650.75	3103.14	547.61	15.00%	NA	NA	NA	NA
Jaisalmer		694	694	1593.20	1354.22	238.98	15.00%				
Bikaner DC	11 kV	1923	1923	5246.98	4459.94	787.05	15.00%	NA	NA	NA	NA
Hanumangarh		812	812	2164.41	1839.75	324.66	15.00%				
Sri Ganganagar	11 kV	727	727	2114.07	1796.96	317.11	15.00%	NA	NA	NA	NA
Churu	11 kV	1029	1029	3009.58	2558.14	451.44	15.00%	NA	NA	NA	NA
D.F. Bikaner	11 kV	0	0	1196.72	1017.21	179.51	15.00%	NA	NA	NA	NA
Jodhpur Discom	11 kV	12737	12737	35033.33	29778.33	5255.00	15.00%	NA	NA	NA	NA

2) PFI further notes that as per *RERC (Terms and Conditions of Tariff) Regulations, 2025,* the Distribution Licensee must give information of distribution losses along with the basis on which such losses have been worked out. In case losses exceeds 15%, all the losses to be borne by the Distribution Licensee and not by the consumers. Relevant extracts of the Regulations is as follows:

"74. Distribution Losses & Collection Efficiency

(1) The Distribution Licensee shall give information of total and voltage-wise distribution losses in the previous year and current year and the basis on which such losses have been worked out.

(5) The Gains or losses accrued to distribution licensee due to deviation from approved Aggregate Technical and Commercial loss reduction trajectory shall be quantified on the basis of Average Power Purchase Cost and shared between the distribution licensee and consumers. Two third of the gains shall be passed on to the consumers in tariff and rest shall be retained by the distribution licensee. Two third of the losses shall be borne by the distribution licensee and rest shall be borne by the consumers.

Provided that all the losses shall be borne by the Distribution Licensee in case the AT&C losses crosses the level of 15%"

3) It is pertinent to mention that, in True-Up of FY 2021-22 and FY 2022-23, JdVVNL has claimed Distribution losses in increasing trend, around 30%. However, the approved losses were 15% for both FY 2021-22 and FY 2022-23. Again, in True-Up of FY 2023-24, JdVVNL has claimed 23.58% Distribution losses while the approved losses were 15%. From the accounts of JdVVNL it has been observed that it is a loss-making utility, and its performance is deteriorating year on year. In ARR of FY 2025-26, 15% losses have been claimed by JdVVNL, as shown in the Table below, however, looking at the part performance and trend it is quite doubtful that up to what extent JdVVNL can achieve the targeted losses in FY 2025-26.

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Approved	15.00%	15.00%	15.00%	15.00%	-
True-Up/ARR	29.66%	**30.60%**	23.58%	18.00%	15.00%

**No losses have been approved for FY 26*

4) It is pertinent to state that, the Government of India has approved the RDSS to support DISCOMs in improving their operational efficiencies. One of the components on which RDSS Scheme focuses is Metering. Under this part, Prepaid Smart metering for consumers, and System metering at Feeder and Distribution Transformer level with communicating feature along with associated Advanced Metering Infrastructure (AMI) is to be done. The Total sanctioned funds under RDSS for Rajasthan DISCOMs is Rs. 28,391 Cr. (Source: RDSS portal). The Hon'ble RERC vide Tariff Order dated 26/07/2024 for FY 2024-25 has also allowed Capital Expenditure under RDSS and other Govt. schemes. Despite investment in CAPEX schemes for loss reduction and network strengthening, JdVVNL has not been able to improve its Distribution over the past few years and has claimed higher losses than approved.

5) PFI submits that as per Rules issued by Ministry of Power, GoI, namely *Electricity (Second Amendment) Rules, 2023* vide notification dtd. 26/07/2023, the Distribution losses trajectory should be in line with the Trajectory approved under any Central Scheme i.e., RDSS and any deviation from the same is not allowed. Relevant extract of such Rules is as follows:

> *"**20. Framework for Financial Sustainability:** (1) The Aggregate Technical and Commercial loss reduction trajectory to be approved by the State Commissions for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government under any national scheme or programme, or otherwise.*
>
> *(2) The trajectory for both collection and billing efficiency, for distribution licensee shall be determined by the State Commission in accordance with the trajectory approved under sub-rule (1)."*

6) **PFI has observed that Ministry of Power, GoI, in its letter dtd. 30/05/2023 (copy enclosed herewith) approved 14% AT&C losses for JdVVNL for FY 2025-26. In view of above, PFI requests Hon'ble RERC to consider the losses as approved by MoP for FY 2025-26.**

7) It is pertinent to state that in the said letter MoP has provided AT&C loss trajectory. However, Hon'ble RERC considers 100% Collection Efficiency for approving the ARR. So, the Distribution losses may also be considered as 14% for FY 2025-26. Based on the above, PFI has reworked Power Purchase requirement as provided in the subsequent Section.

B. HIGH POWER PURCHASE COST

B.1 HIGHER POWER PURCHASE DUE TO DISTRIBUTION LOSSES

8) As submitted above, JDVVNL has claimed 15% Distribution losses for FY 2025-26, however, Ministry of Power, GoI, has approved 14% losses for JdVVNL for FY 2025-26. So, PFI has reworked Power Purchase requirement based on 14% DL and actual Intra State Transmission losses of FY 2023-24 (4.33%), as tabulated below, with a request to Hon'ble RERC to consider the losses as approved by MoP for FY 2025-26.

Particulars	Claimed	PFI Working
Energy Sales (MU)	29778	29778
Distribution Loss (%)	15%	14%
Distribution Loss (MU)	5255	4848
Energy required at DISCOM Periphery (MU)	35033	34626
Intra state Transmission Loss (%)	4.50%	4.33%
Loss (MU)	1576	1449
Energy required at State Periphery (MU)	36684	36,193
Additional Power Purchase Quantum (MU)	-	491
APPC (Rs./kWh)	-	4.66
Additional Power Purchase Cost to be disallowed due to higher Distribution losses (Rs. Cr.)	**-**	**229**

9) **As worked out by PFI, losses on account of higher Distribution losses are Rs. 229 Cr. for FY 2025-26 which may be deducted from the ARR of JdVVNL and to be borne by Government of Rajasthan in the form of subsidy.**

10) PFI observes from the Tariff Order dtd. 1/04/2024 of Bihar Electricity Regulatory Commission (BERC) that the Government of Bihar has extended a subsidy to the DISCOMs to meet their financial losses arising due to higher AT&C loss beyond the trajectory fixed by the Commission. **The Government of Bihar (GoB) provides 2**

types of subsidies to Bihar DISCOMs i.e., Tariff Subsidy and AT&C Loss Subsidy. Tariff Subsidy is the subsidy received from GoB related to consumers towards tariff to reduce the burden of cost of electricity and the same is credited to the consumer accounts. AT&C Loss subsidy is a subsidy to the Discoms to meet their financial losses arising due to higher losses beyond the trajectory fixed by the Commission for meeting the power purchase requirement as per the actual Distribution losses.

11) Relevant extract of the said Tariff Order of BERC is as follows:

"Treatment of Subsidy from GoB for Power Purchase

The Government of Bihar has extended a subsidy to the Discoms to meet their financial losses arising due to higher AT&C loss beyond the trajectory fixed by the Commission. This Financial support is primarily to facilitate the Discoms to pay the power purchase bills and accordingly the Government has arranged a subsidy of Rs.4276.92 Crore for FY 2022-23 for both Discoms combinedly.

On a query SBPDCL, vide letter No.41 dated 08.01.2024, has provided the details of subsidy and stated that both the Discoms have received a Combined Tariff Subsidy of Rs.7800.86 Crore and AT&C Loss Subsidy of Rs.1093.94 Crore for FY 2022-23. Further, the Discoms have also received arrear AT&C Loss Subsidy of Rs.3182.98 Crore pertaining to FY18, FY19, FY20 and FY21. The AT&C Loss subsidy is revenue in nature and therefore recognized as revenue in the books of account. The summary of Discom wise Tariff Subsidy and AT&C Loss Subsidy received and allocated is represented below:

Nature of Subsidy	Total Subsidy Received (Rs Crore)	Allocation of Subsidy	
		NBPDCL (Rs Crore)	SBPDCL (Rs Crore)
Tariff Subsidy	7,800.96	3,623.04	4,177.92
AT&C Loss Subsidy	1,093.92	1,021.92	3,255.00
Arrear AT&C Loss Subsidy (FY18 to FY21)	3,183.00		
Total	**12,077.88**	**4,644.96**	**7,432.92**

The audited accounts of Discoms also depict the subsidy amount of Rs.1021.92 Crore for NBPDCL and Rs. 3255.00 Crore for SBPDCL totaling to Rs.4276.92 Crore for FY 2022-23."

12) **Based on above, PFI requests Hon'ble RERC to disallow losses on account of higher Distribution losses of Rs. 229 Cr. from the claimed Power Purchase Cost of FY 2025-26.**

C.2 HIGHER POWER PURCHASE DUE TO COSTLIER PLANTS

13) JdVVNL in the ARR Petition for FY 2025-26 have projected procurement of power from costlier power plants. JdVVNL has submitted the variable cost of Rs. 4.79/kWh and Rs. 4.67/kWh for CTPP (5&6) and NCTPS 2 respectively for FY 2025-26, However, the actual power purchase cost, as per the True Up Petition FY 2023-24, for CTPP (5&6) and NCTPS 2 have been Rs. 3.03 and Rs. 3.84/kWh respectively. So, JdVVNL has claimed escalation of 58% and 22% on the Variable Charges of CTPP (5&6) and NCTPS 2 in FY 2025-26 over FY 2023-24. No basis has been submitted by JdVVNL for such huge escalation in the Variable Cost of these Power Plants.

14) Therefore, PFI has reworked the Power Purchase Cost for FY 2025-26 taking into account the actual Cost of these Plants. **Any difference in Actual and Allowed Power Purchase Cost will be automatically factored in Fuel and Power Purchase Adjustment Surcharge (FPPAS) mechanism for FY 2025-26. It will not be prudent to escalate the ARR of FY 2025-26 and allow upfront loading in Tariff, due to increased Power Purchase Cost, for the consumers of Rajasthan.**

15) PFI has considered two scenarios for the calculation of the variable power purchase cost for FY 2025-26 for these 2 Power Plants. In scenario 1, the Variable cost has been considered as per the True up petition FY 2023-24 and in scenario 2, PFI have assumed the escalation of 2.5% year on year. The variable cost submitted in the petition for approval of ARR for FY 2025-26 is much higher even after considering 5% escalation for two years considering FY 2023-24 as base year.

16) In scenario 1, the Variable cost for FY 2025-26 has been considered as per the True up petition FY 2023-24, i.e., Rs. 3.03/ kWh and Rs. 3.84/kWh for CTPP (5&6) and NCTPS 2 respectively. Accordingly, PFI has reworked the variable Purchase Cost as Rs. 581.96 Cr. and Rs. 12.69 Cr. against Rs. 920.07 Cr. and Rs. 15.43 Cr. for CTPP (5&6) and NCTPS 2 respectively. Hence, **Rs. 340.85 Cr** has been worked out as the

Power Purchase Cost for the costlier Power plants that may be disallowed by the Hon'ble Commission from the Power Purchase Cost of FY 2025-26.

17) In Scenario 2, the Variable cost for FY 2025-26 has been considered after an escalation of 2.5% year on year. i.e., Rs. 3.18/ kWh and Rs. 4.03/kWh for CTPP (5&6) and NCTPS 2 respectively. Accordingly, PFI has calculated the variable Purchase Cost as Rs. 611.06 Cr. and Rs. 13.32 Cr. for the respective plants as mentioned above for FY 2025-26. Hence, **Rs. 311.11 Cr** has been worked out as the Power Purchase Cost for the costlier Power plants that may be disallowed by the Hon'ble Commission for FY 2025-26.

***Table 1:** Power Purchase Cost for CTPP (5&6) and NCTPS 2 for JdVVNL*

Particulars	CTPP (5&6)	NCTPS 2	Total
VC Claimed FY 2025-26 (Rs./kWh)	4.79	4.67	
Quantum (MU)	1920.81	33.03	
VC Claimed FY 2025-26 (Rs. Cr.)	920.07	15.43	935.49
PFI Working			
Scenario:1			
VC for FY 2025-26 with 0% escalation over VC of FY 2023-24 (Rs./kWh)	3.03	3.84	
Quantum (MU)	1920.81	33.03	
VC Claimed FY 2025-26 (Rs. Cr.)	581.96	12.69	594.65
Disallowance	**338.11**	**2.74**	**340.85**
Scenario:2			
VC for FY 2025-26 with 5% escalation (Rs./kWh)	3.18	4.03	
Quantum (MU)	1,921	33	
VC Claimed FY 2025-26 (Rs. Cr.)	611.06	13.32	624.38
Disallowance	**309.01**	**2.10**	**311.11**

Adherence to Merit Order Despatch

As per the Regulatory provisions, the Power Purchase Cost shall be on least cost basis and strictly on Merit Order Despatch.

C. DISALLOWANCE ON ACCOUNT OF DEPRECIATION

18) JdVVNL has claimed Rs. 1510 Cr. for FY 2025-26 on account of depreciation, which is not as per the regulatory principles. For the calculation of Depreciation, the closing balance of the previous year must be considered as the opening of the current year, the capitalization during the year must be added and the average depreciation to be calculated accordingly. Based on the above Regulatory principles, PFI has calculated the Depreciation for FY 2025-26 as **Rs. 873.33 Cr** after considering closing balance of approved ARR of FY 2024-25 and the Capitalization same as claimed for FY 2025-26.

19) Hence, PFI requests Hon'ble Commission to disallow **Rs. 637 Cr** on the account of Depreciation as per the regulatory provisions. PFI working for calculation of Depreciation is tabulated below:

Table 2: *PFI working for disallowance on account of Depreciation for FY 2025-26 for JdVVNL*

Sr. No.	Particulars	PFI Working
1	Depreciable assets at the beginning of the year (closing of FY 2024-25)	14,282
2	Capitalization during the year (Form 3.6)	5617
3	Closing balance of GFA	19,899
4	Average depreciable assets during the year	17,091
5	Average depreciation rate (as approved)	5.11%
6	Depreciation worked out for FY 2025-26	**873**
7	Claimed Depreciation for FY 2025-26	1510
8	**Disallowance**	**637**

D. INTEREST ON LONG TERM LOANS

20) JdVVNL has projected Rs.1125 Cr. on account of normative interest cost in the petition for FY 2025-26, which is not as per the Regulatory Principles, as the DISCOM has not considered the approved closing loans of FY 2024-25 as the opening loan of FY 2025-26. Hon'ble RERC in previous Tariff Orders has considered Opening Loan as the closing loan of the previous year.

21) Therefore, as per the Regulatory norms, opening balance of Normative loan to be considered as per the ARR Order FY 2024-25. Addition during the year has been considered same as claimed by JdVVNL. Based on the above principles, PFI has

calculated the Normative Interest Cost as Rs. 458 Cr against the claimed Rs. 1125 Cr. for FY 2025-26 as given in the table below.

***Table 3:** Interest on Long Term Loan claimed and PFI working for FY 2025-26 for JdVVNL (in Rs. Cr.)*

Sr. No.	Particulars	FY 2025-26 (Claimed)	PFI Working
1	Opening Balance of Normative Loan	9712	3590
2	Addition During the Year	2738	2738
3	Repayments	1510	1510
4	Closing Balance of Loan	10940	4818
5	Average Balance during the year	10326	4204
6	Interest Rate	10.90%	10.90%
7	**Normative Interest Cost**	**1125**	**458**
8	**Disallowance**		**667**

22) So, Hon'ble Commission is requested to disallow Rs. 667 Cr while approving the Interest on Loan for FY 2025-26.

E. NO ROAD MAP FOR ENERGY STORAGE

23) India's evolving energy storage policy framework underscores its commitment to enhancing grid flexibility and supporting renewable energy integration. Since 2019, a robust regulatory ecosystem has been crafted to support energy storage deployment through national initiatives around technical standards, legal frameworks, transmission charges, Resource Adequacy (RA) planning, market mechanisms, and financial incentives, as well as state-level initiatives.

24) In a significant regulatory development, the MoP clarified Legal Status to ESS on January 29, 2022. The order identifies Energy Storage Systems (ESS) as an essential component of the power system under the Electricity Act of 2003, permitting ESS to function as a standalone or integrated element within generation, transmission, or distribution networks. The ESS can be operated by various entities, and standalone ESS projects can be licensed independently and granted connectivity under specific rules, encouraging broader ESS applications and ownership models.

25) The Waiver of Inter-State Transmission System (ISTS) Charges for solar, wind (onshore and offshore), and green hydrogen projects was mandated by the Ministry of Power (MoP) on November 23, 2021, with subsequent amendments in November 2021, December 2022, and May and June 2023. This waiver also applies to Hydro Pumped Storage Projects (PSP) and Battery Energy Storage Systems (BESS) commissioned up to June 30, 2025.

26) The Central Electricity Authority (CEA) on 28/06/2023, has established RA planning guidelines at both national and state levels, an important step forward, and has recently come up with state-wise RA reports with up to 5-year or 10-year RA projections. The CEA Resource Adequacy guidelines also outline a framework for incorporating ESS in RA planning.

27) Recent national and state government policies have begun to lay a foundation that will support ESS deployment and its integration into RA planning and procurement, electricity markets, and system operations.

28) The CEA in its Report for Resource Adequacy Plan[1] for the State of Rajasthan for the period from FY 2024-25 to FY 2034-35 has identified that:

- The total projected Capacity for the year 2029-30 is 50,972 MW which consists of 17,698 MW from Coal, 822 MW from Gas, 1,157 MW from Nuclear, 234 MW from Biomass, 3,239 MW from Hydro, 19,322 MW from Solar, 8,399 MW from Wind, **100 MW from PSP along with 1135 MW from storage** and 4409 MW from STOA/MTOA. This Installed Capacity is able to meet the projected demand with prescribed reliability criteria.
- In Rajasthan, Energy demand of 0.87 % is likely to be unserved during the period of Dec to Feb in the year 2029-30.
- Rajasthan is deficit in fulfilment of its RPO and needs to contract renewable capacities for fulfilling them. The state may require additional Solar and Wind

[1] https://cea.nic.in/wp-content/uploads/resource_adequacy_st/2024/08/Resource_Adequacy_Report_for_Rajasthan_upto_2031_32-1.pdf

capacity addition of around 11 GW and 4 GW respectively, till 2032 in order to meet the RPO obligations.

29) Many DISCOMs in the country have initiated the bidding process for ESS and for many of them the tariff discovered has also been adopted by respective SERCs. Few such DISCOMs along with their ESS proposal pertaining to the objective of Energy Arbitrage are as follows:

Category	Energy Storage Tender_ DISCOMs	Capacity
BESS	GUVNL Phase II (March 2024)	500 MWh
	GUVNL Phase III (June 2024)	1000 MWh
	MSEDCL (August 2024)	600 MWh
	UPPCL (August 2024)	1200 MWh
	GUVNL Phase IV (August 2024)	800 MWh
PSP	MSEDCL (Sept 2024)	24000 MWh

30) Various SERCs, have approved the Energy Storage based on the proposal received from their DISOCMs. Like, in Delhi, DERC has approved a 20 MW/40 MWh standalone BESS project for their DISCOM on 1/05/2024. On 26/09/2024, MERC approved the procurement of 1000 MW of energy storage from pumped hydro storage (PHS) projects in Maharashtra, with an additional greenshoe option of 2000 MW, allowing for potential expansion. The bid results, as outlined in MERC's order, provide a benchmark for competitive energy storage costs in the region. For projects designed to discharge up to 8 hours daily, with a maximum continuous discharge of 5 hours—enabling two cycles per day—the levelized cost of storage is estimated at ₹3.2 per kWh. This price is highly competitive.

31) Standalone and co-located ESS can play an important role in meeting RA requirements under India's emerging RA framework. Going forward, state-level RA frameworks need to be closely aligned with long-term planning and resource procurement processes to support cohesive implementation.

32) **In the Tariff Petition for ARR of FY 2025-26, it is noted that the JdVVNL have submitted power Purchase from Tehri PSP wef August 2025. However, hon'ble**

RERC may monitor the compliance of 2% ESS target for FY 2025-26 as per (Renewable Purchase Obligation) Regulations, 2023.

33) **In view of above, PFI submits that Energy Storage is an effective tool for Energy arbitrage for DISCOMs in optimization of their Power Purchase Cost. For instance, in BESS, Batteries can be charged in the off-peak hours and can be discharged in Peak hours, thus, avoiding reliance of DISCOMs on high-cost short term Power from markets or not scheduling the high-cost Power Plants. With steep reduction in Battery prices in CY 2024 and active participation by various DISCOMs, as stipulated above, Rajasthan DISCOMs necessitates to also consider Energy Storage as part of their Power Procurement Planning in line with Resource Adequacy Planning formulated by CEA for Rajasthan.**

F. OTHER ISSUES PERTAINING TO NON-ALIGNMENT WITH MoP (GoI) RULES

F.1 LEVY OF REGULATRY SURCHARGE

34) Rajasthan DISCOMs have proposed levy of Regulatory Surcharge @ Rs. 1.00/kWh for FY 2025-26. JdVVNL has submitted that this surcharge is driven by the necessity to liquidate the substantial regulatory assets that have accumulated over time.

35) However, PFI notes that Ministry of Power in its letter dtd. 1/04/2021 has written to all Regulatory Commissions that No creation of new regulatory assets under business-as-usual conditions. Relevant extract of the letter mentioned is as follows:

"7. In view of the legal provisions in the Electricity Act 2003 and the Tariff Policy 2016

(ii) No creation of new regulatory assets under business-as-usual conditions. "

36) Further Tariff Policy 2016 also stipulates that the Creation of Regulatory Assets should be done as a very rare exception in case of natural calamity or force majeure conditions only. Relevant extract of the Policy is as follows:

"8.2.2 The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as a very rare exception in case of natural calamity or force majeure conditions and subject to the following:

a. *Under business as usual conditions, no creation of Regulatory Assets shall be allowed;*

37) Further, Hon'ble RERC has issued RERC (Terms and Conditions for Determination of Tariff) Regulations, 2025wherein specifically mentioned that *Regulatory Asset shall be created only under exceptional circumstances. Relevant extracts of the Regulations is as follows:*

"Regulation 91
(1) Regulatory Asset shall be created only under exceptional circumstances
(2) The tariff shall be cost reflective and there shall not be any gap between approved Annual Revenue Requirement and estimated annual revenue from approved tariff except under natural calamity conditions."

38) In view of above, PFI requests Hon'ble RERC to restrict the Creation of Regulatory Assets in normal Business scenarios and not allow any levy of Regulatory Surcharge.

F.2 RENEWABLE PURCHASE OBLIGATION (RPO) FOR FY 2025-26

39) While projecting the action Plan for meeting Renewable Purchase Obligation (RPO) targets for FY 20252-6, JdVVNL has claimed new capacity addition of 700 MW from Rajasthan Atomic Power Project (RAPP) 7&8 (Nuclear). However, as per the *RERC (Renewable Purchase Obligation) Regulation 2023* Nuclear Energy is not a part of Renewable Energy Sources. Relevant extract of the RPO Regulations is as follows:

"V. "Renewable Energy Sources" means renewable source of energy such as water, wind, sunlight, biomass, bagasse, municipal solid waste and other such sources as approved by the MNRE from time to time and shall include cogeneration;"

40) Further, JDVVNL has submitted that it has unable to achieve RPO targets and has also seen accumulated RPO backlog. It has submitted a Petition under RPO

Regulations which seeks to waive the RPO shortfall of the Discoms from 2011 to 2024. Relevant extract from the ARR Petition for FY 2025-26 is as follows:

"4.20 The petitioner here submits that the Rajasthan Discoms are making every effort to meet the Renewable Purchase Obligation (RPO) targets. However, despite their diligent efforts, they have been unable to achieve these targets and have also seen an accumulation of backlog.

...

4.23 RUVITL has also submitted a petition under Regulation 9(2) of the RERC (Renewable Energy Certificate and RPO Compliance Framework) Regulations, 2010, in conjunction with Sections 86(1)(e) and 86(1)(1) of the Electricity Act, 2003. This petition seeks to waive the Renewable Purchase Obligations (RPO) shortfall that the Discoms were required to meet from 2011 to 2024"

41) PFI notes that the Government of India (GoI) has set a target of non-fossil energy capacity of 500 GW by 2030 and a target of achieving 50% of the cumulative electric power installed capacity from non-fossil fuel-based sources by 2030. These targets also contribute to India's long-term goal of reaching net-zero emissions by 2070. Over the last few years India has experienced significant development in the Renewable Energy (RE) Sector. Progressive National and State level policies have contributed significantly to this development and this contribution is also fulfilled through RPO targets specified by State Electricity Regulatory Commissions (SERCs) under Section 86 (1) (e) of the Electricity Act, 2003. However, Rajasthan DISCOMs have failed to achieve the RPO targets specified by Hon'ble RERC over the last few years and has submitted RPO shortfall.

42) So, based on the above, **PFI requests Hon'ble Commission that the submission for waiving off the RPO targets may kindly be rejected by the Hon'ble Commission and penalties be imposed on DISCOMs for not complying with the directions of the Commission. Further, Energy from Nuclear Power Plants shall not be made part of sources for compliance of Renewable Purchase Obligation as the same is not part of Renewable Sources of Energy as per RERC RPO Regulations.**

43) Further, Rajasthan DISCOMs has projected the RPO requirements for FY 2025-26 as per RERC RPO Regulations 2023 wherein the Commission has set a different source wise RPO Target from Wind, HPO and others different from the RPO Target specified by MoP vide its notification dtd. 20/10/2023[2]. RERC has not defined any Distributed RPO Target separately and has kept the same in "Other" category, as shown below:

Sr. No.	FY 2025-26	Wind	Hydro	Distributed RE	Other RE	Total RE
1	RERC RPO	3.36%	1.48%	28.17%		**33.01%**
2	MoP RPO Targets	1.45%	1.22%	2.1%	28.24%	**33.01%**

44) Further, in case the specified RPO is not complied with by the obligated entities, MoP has proposed penalty as specified in Sub Section (3) of section 26 of the Energy Conservation Act, 2001.

45) **Therefore, PFI suggests that Hon'ble RERC should amend the RPO Regulations as per MoP notification dated 20/10/2023 to have source wise RPO targets same as that of MoP and should impose penalties on Rajasthan DISCOMS in case the RPO requirements are not met.**

F.3 REVENUE GAP (ELECTRICITY (AMENDMENT) RULES, 2024 DTD. 10/01/2024)

46) MoP vide *Electricity (Amendment) Rules, 2024* dtd. 10/01/2024 has specified the following with regards to Revenue Gap between approved Annual Revenue Requirement and estimated Annual Revenue from approved tariff:

> ***"23. Gap between approved Annual Revenue Requirement and estimated annual revenue from approved tariff–*** *The tariff shall be* ***cost reflective*** *and there* ***shall not be any gap*** *between approved Annual Revenue Requirement and estimated annual revenue from approved tariff except under natural calamity conditions:*
>
> *Provided that such gap, Created if any,* ***shall not be more than three percent of the approved Annual Revenue Requirement.***

2 https://powermin.gov.in/sites/default/files/Notification_Regarding_Renewable_Purchase_Obligation_RPO.pdf

....”

47) The Rules have clearly specified that the tariff shall be cost reflective and there shall not be any gap between approved Aggregate Revenue Requirement and Estimated Annual Revenue from approved tariff except under natural calamity conditions. And if at all, the Gap is Created it shall not be more than 3% percent of the approved Annual Revenue Requirement.

48) **It is noted from the Tariff Petition of JdVVNL that for ARR of FY 2025-26 there is a Revenue Surplus of Rs. 571 Cr. at existing Tariff for FY 2025-26.**

49) Hon'ble APTEL in its judgement dated 11/11/2011 in OP 1 of 2011 has laid the significance of cost reflective tariff as follows:

“56. It is to be pointed out in this context, that the legislative intent in enacting the Act, 2003 is to secure effective Regulations characterised by tariff rationalisation with timely cost reflective tariff determination based on the principles set out in Section 61 read with the National Tariff Policy. ...”

50) Section 62 of the Act empowers SERCs to determine the Tariff on cost plus basis for the utilities regulated by them engaged in generation, transmission and distribution of electricity. Section 63 empowers SERCs to adopt the Tariff discovered through transparent process of bidding. Determination of cost-reflective tariff of Distribution Licensees by SERCs plays a significant role as it lays the foundation of routing revenue up the supply chain.

51) Hon'ble Supreme Court's in its judgement in PTC India Vs. CERC dated 15/03/2010 has ruled that the term "tariff" includes within its ambit not only the fixation of rates but also the rules and regulations relating to it. Through Sections 61 and 62 of the Act, the Appropriate Commission shall determine the actual tariff in accordance with the provisions of the Act, including the terms and conditions which may be specified by the Appropriate Commission under Section 61 of the said Act. Under the 2003 Act, it becomes clear from Section 62 with Section 64, that although tariff fixation is legislative in character, the same under the Act is made appealable vide Section 111. These provisions, namely Sections 61, 62 and 64 indicate the dual nature of functions

performed by the Regulatory Commissions, viz, decision-making and specifying terms and conditions for tariff determination.

52) Similarly, Hon'ble APTEL vide its judgment dated 04/09/2012 in Appeal No. 94 of 2012 has stated that the term 'Regulate' has got a wider scope and implication not merely confined to determination of tariff. Section 61 and 79 not only deal with the tariff but also deal with the terms and conditions of tariff. The terms and conditions necessarily include all terms related to tariff.

53) Further, Tariff Policy, 2016, also states that in terms of Section 61(g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.

54) **In view of above, PFI submits before RERC to determine cost-reflective Tariff for FY 2025-26 as per the principles stipulated in MoP rules dated 10/01/2024.**

F.4 TIME OF DAY (ELECTRICITY (RIGHTS OF CONSUMERS) AMENDMENT RULES, 2023 DTD. 14/06/2023)

55) *Electricity (Rights of Consumers) Amendment Rules, 2023* dtd. 14/06/2023 stipulates that every consumer category except Agriculture should have Time of Day (TOD) Tariff with effect from 01/04/2025 and shall be made effective immediately after installation of Smart Meters, for consumers with Smart Meters.

56) Further, the Rules also stipulate that ToD Tariff for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff. Further ToD during Off-peak hours should be at least 20% less than the normal tariff (not more than 80% of the normal tariff). Rajasthan DISCOMs have proposed ToD Tariff for consumers above 10 kW but have not proposed any Peak and Off-peak Tariff for the same.

57) **Further, Rajasthan DISCOMS has also not submitted the status of ToD in their area (tariff category wise). The said status report should provide benefit derived from ToD through flattening of Load Curve and avoiding procurement of costly power in Peak Period.**

58) PFI observes that the cost of power purchase during peak hours is quite high. ToD Tariff is an important Demand Side management (DSM) measure to flatten the load curve and avoid such high-cost peaking power purchases. Accordingly, in ToD Tariff regime peak hour consumption is charged at higher rates which reflect the higher cost of power purchase during peak hours. At the same time, a rebate is being offered on consumption during off-peak hours. This is also meant to incentivize consumers to shift a portion of their loads from peak time to off-peak time, thereby improving the system load factor and flattening the load curve. The ToD Tariff is aimed at optimizing the cost of power purchase, which constitutes over 80% of the Tariff charged from the consumers. It also assumes importance in the context of propagating and implementing DSM and achieving energy efficiency.

59) Introduction of higher peak hour Tariff would initially generate additional revenue which would compensate for the reduction in revenue on account of lower Tariff during off peak hours. In the long run, this would provide signals to the consumers to reduce load during peak hours and, wherever possible, shift this consumption to off-peak hours. Any loss of revenue to the utility on account of shifting of load from peak to off-peak hours in the long run would by and large get compensated by way of reduction of off-peak surplus to the extent of increase in off-peak demand.

60) The ToD Tariff would thus have immediate as well as long-term benefits for both, consumers as well as the utility and contribute towards controlling the rise in power purchase costs

61) **Thus, PFI requests RERC to formulate ToD Tariff for all eligible consumers in line with the MoP Electricity (Rights of Consumers) Amendment Rules, 2023 dtd. 14/06/2023 as amended from time to time.**

G. SUMMARY OF DISALLOWANCES

62) As stipulated in above Sections, summary of disallowances worked out by PFI is tabulated as follows. Hon'ble RERC is requested to kindly consider the same while approving the ARR of FY 2025-26 for JdVVNL and inefficiencies of JdVVNL may not be passed on to the consumers rather it should be borne by Govt. of Rajasthan in the form of Subsidy, if any:

Table 2: *Summary of Disallowances for FY 2025-26 for JdVVNL (Rs. Cr.)*

Particulars	Claimed	PFI Working		Disallowance (Scenario 1)	Disallowance (Scenario 2)
		VC with 0% escalation	VC with 5% escalation		
Power Purchase Cost	19,960	19,420	19,450	-540	-510
Disallowance due to higher DL	-	*199*	*199*	*-199*	*-199*
Disallowance due to Costlier Plants	-	*341*	*311*	*-341*	*-311*
Operation and Maintenance Expenses	2,601	2,601	2,601	0	0
Depreciation	1510	873	873	-637	-637
Interest and Finance Charges	3731	3064	3064	-667	-667
Aggregate Revenue Requirement (ARR)	27,802	25,958	25,988	-1,844	-1,814
Less: Non-Tariff Income & CSS	1,230	1,230	1,230	0	0
Net Aggregate Revenue Requirement (ARR)	26,572	24,728	24,758	-1,844	-1,814
Revenue	27,386	27,386	27,386	0	0
Revenue (Gap)/Surplus	**814**	**2,658**	**2,628**	**-1,844**	**-1,814**

H. PRAYERS BEFORE HON'BLE RERC FOR ARR AND TARIFF PETITION OF FY 2025-26

1) **To consider the comments / suggestions of Power Foundation of India (PFI) on ARR and Tariff of FY 2025-26 for JdVVNL.**

2) **To consider Disallowances on account of excess Power Purchase due to:**
   a) Higher Distribution loss
   b) Purchasing power from costly plants

3) **To consider Disallowances on account of excess Depreciation.**

4) **To consider Disallowances on account of interest on long term loan.**

5) **Hon'ble RERC is requested to kindly consider that inefficiencies of JdVVNL should not be passed on to the consumers rather it should be borne by Govt. of Rajasthan in the form of Subsidy.**

6) **To consider the additional submissions, if any, made by PFI for ARR and Tariff Petition of FY 2025-26 for JdVVNL.**

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