

No. PFI/Prog/CSERC/2026/068

Dated: 11/02/2026

To,

The Secretary

Chhattisgarh State Electricity Regulatory Commission
Irrigation Colony, Shanti Nagar,
Raipur, Chhattisgarh- 492001

Subject: PFI Comments - Chhattisgarh DISCOM True Up FY 2024-25 & ARR FY 2026-27

Reference: CSERC inviting Comments on True Up of FY 2024-25 & ARR Petition for FY 2026-27

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 other concerned stakeholders.

With reference to above, PFI has analyzed the True Up Petition for FY 2024-25 & ARR Petition for FY 2026-27 filed by Chhattisgarh State Power Distribution Company Limited (CSPDCL) before CSERC. Our comments/ suggestions on the said Petitions are enclosed herewith for your consideration as *Annexure- I*. We would also like to orally submit our comments/ suggestions on the day of Public Hearing through video conference.

The comments have also been emailed to cserc.sec.cg@nic.in & cecomcseb@redifmail.com.

Warm Regards,

Encl: Annexure – I

Copy to:

- 1. The Hon'ble Chairperson**
Chhattisgarh State Electricity Regulatory Commission
- 2. The Hon'ble Member**
Chhattisgarh State Electricity Regulatory Commission

Yours Sincerely,



Executive Director, PFI

ANNEXURE-I**PFI Comments/Suggestions: CSPDCL True-Up Petition FY 2024-25**

- 1) PFI is a Policy Research and Advocacy entity, a registered society under the aegis of the Ministry of Power, Government of India, and supported by leading Central Power Sector Organizations, to undertake evidence-based policy research and facilitate informed decision making by the Regulators, Ministry and stakeholders concerned with the Power Sector.
- 2) Hon'ble Chhattisgarh State Electricity Regulatory Commission (CSERC/Commission) has sought comments / suggestions from various stakeholders on the Tariff Petition filed by Chhattisgarh State Power Distribution Company Limited (CSPDCL) on True-Up of FY 2024-25. PFI has reviewed and analyzed the said Petition, and our comments / suggestions are as follows:

A. Government Department Dues

- 3) It is observed that as per PFC's 14th Annual Integrated Rating & Ranking Report, Govt. Department Dues Rs. 1,227 Cr. (out of Rs. 1,612 Cr. amount billed) were not paid in FY 2024-25.
- 4) Such dues put additional financial burden on the DISCOM in the form of short-term loan leading at higher Interest Rate. Since, this component is attributable to Govt. of Chhattisgarh, therefore the State Govt. should bear the burden so that the same is not socialized at large among the consumers through Tariff. PFI has considered these Dues as part of Revenue collected and the same was considered for computing the Revenue (Gap)/Surplus for the year.
- 5) Accordingly, PFI has recomputed the collection efficiency and Revenue as follows:

Particulars	Claimed by DISCOM	Proposed by PFI
Dues of Govt. departments (Rs. Cr.)	-	1,227
Revenue (Rs. Cr.)	24,999	26,226

- 6) In view of above, PFI requests the Hon'ble Commission to consider Revenue as Rs. 26,226 Cr. for FY 2024-25 after factoring in Govt. Department Dues. **The increase in revenue is on account of Govt. of Chhattisgarh and hence should be borne by the GoC in the form of additional subsidy of Rs. 1,227 Cr.**

B. NO BREAK-UP OF POWER PURCHASE IN AUDITED ACCOUNTS

- 7) PFI has observed that Audited Accounts of FY 2024-25 do not provide station-wise break-up of Power Purchase expenses. In the absence of such break-up, it is not possible to ascertain if the station-wise power purchase cost being claimed is in line with the actuals. Relevant extract from the said Accounts is as follows.

Chhattisgarh State Power Distribution Company Limited Notes to the financial statements for the year ended 31st March, 2025 All amounts are in ₹ (In Lacs) unless otherwise stated		
Note no -23 Cost of power purchase		
Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
(a) Power purchase*	20,50,005.77	17,45,816.23
(b) Transmission charges	2,20,055.90	2,30,771.88
Total	22,70,061.66	19,76,588.11

*Apart from State Power Generator, CSPDCL also purchased power from Central and Private Power Generators through PPA's. The tariff of these generators are regulated by Central/State Electricity Regulatory Commission. Further the determination of tariff rates of these Power Generators takes more than one year or in many cases due to various reasons the tariff of more than one previous year is decided by the regulators on time to time basis. As it is not possible to estimate the exact differential amount payable to generators at the year end until final determination of tariff by regulators, the differential amount pertaining to earlier years are recognized in the year in which the final tariff orders is passed and upon receipt of power bill from the generators.

- 8) It is submitted that DISCOMs of various other States, like Bihar, Delhi & Uttarakhand as mentioned below, provide such break-up in their Audited Accounts.

UPCL Audited Accounts FY 2024-25

UTTARAKHAND POWER CORPORATION LTD.

CIN: U40109UR2001SGC025867

Notes Forming Integral Part of the Financial Statements as at 31st March, 2025

Note No. 23 => Purchase Cost of Electricity

(Amount Rs. in Lakhs)

S.No.	Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
A <u>Power Purchase from CSGS</u>			
1	NTPC	1,42,428.67	1,42,577.30
2	NPCL	14,445.38	14,139.19
3	NHPC	28,430.95	33,589.86
4	Satluj Jal Vidyut Nigam	13,524.22	14,745.43
5	THDC	14,691.99	12,439.34
6	Aravali Power Company Private Limited (APCPL)	4,016.84	7,541.72
7	Neyveli Uttar Pradesh Power Ltd.	920.56	-
	<i>Sub Total (A)</i>	2,18,458.61	2,25,032.84
B <u>Power Purchase from IPPS</u>			
1	Solar	50,145.25	29,517.53
2	UREDA	226.65	362.48
3	Hydro	56,345.47	27,030.15
4	Co. Generation	5,451.62	6,905.01
5	Gas Based	83,202.74	95,133.74
6	Other Large Pvt.	25,957.10	25,479.02
7	Others- Pine	-	0.06
	<i>Sub Total (B)</i>	2,21,328.83	1,84,427.98
C <u>Power Purchase from UJVN Ltd.</u>			
1	UJVNL	1,38,030.84	1,05,046.12
2	Cess & Royalty Payable to Govt.	16,138.01	16,045.73
	<i>Sub Total (C)</i>	1,54,168.85	1,21,091.84
D <u>State Royalty Power</u>			
1	Free Power (State Royalty Power)	26,946.74	22,940.49
	<i>Sub Total (D)</i>	26,946.74	22,940.49
E <u>Wheeling Charges</u>			
1	PGCIL	128.93	106.08
2	NRLDC	9,638.20	10,541.56
3	Short Term Open Access Charges	-	84.97
4	UP Power Transmission Corporation Limited (UPPTCL)	490.75	756.75
5	Central Transmission Utility of India Ltd.	58,562.33	67,552.37
6	PTCUL	38,439.25	37,392.42
	<i>Sub Total (E)</i>	1,07,259.46	1,16,434.15
F <u>Open Market Purchases</u>			
1	TATA Power Trading Company Ltd.	18,259.69	-
2	Manikaran Power Ltd.	4,095.11	-
3	Indian Energy Exchange Limited (IEX)	1,13,584.31	1,40,938.82
4	Power Exchange India Limited (PXIL)	16,448.89	6,894.54
5	NVVNL	-	38,889.90
6	Power Pulse Trading Solutions Limited (Adani Energy)	11,233.19	-
7	Arunachal Pradesh Power Corporation Pvt. Ltd.	15,994.84	129.74
	<i>Sub Total (F)</i>	1,79,616.03	1,86,853.00
G <u>LPS on Power Purchase (Surcharge)</u>			
1	LPS on Power Purchase (Surcharge)	3,071.58	10.85
	<i>Sub Total (G)</i>	3,071.58	10.85
H <u>Banking of Power</u>			
1	Banking of Power	6,513.54	638.19
	<i>Sub Total (H)</i>	6,513.54	638.19
I <u>Unscheduled Interchange Charges/Reactive Charges (Received)/ Payable</u>			
1	Unscheduled Interchange Charges/ Reactive Charges (Received)/Payable	(350.89)	(793.69)
	<i>Sub Total (I)</i>	(350.89)	(793.69)
	Total Cost (J=A+B+C+D+E+F+G+H+I)	9,17,012.75	8,56,635.67



SBPDCL Audited Accounts FY 2024-25

SB South Bihar Power Distribution Company Limited
Notes forming part of Financial Statements
Note No.27
Power Purchase Costs

Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
A. Power from Central Sector		
NTPC	990706.64	997927.81
NHPC	1854.27	7306.76
PTC	72022.17	35495.03
B. Power from Other Sources		
LI	12720.01	3134.04
GMR (G)	39148.90	56346.65
Jindal Thermal	32243.76	32791.69
Tata Power	25817.37	0.00
APCL	2.05	81.04
UPPCL	151.59	0.00
Meja Urja	2.66	115.50
NPCIL	3.86	169.43
SJVNL	3.94	69.64
THDC	-1.90	40.05
BSHPC	2622.03	445.27
NEA	0.94	1.68
IEX through PTC	37009.56	24232.86
Bottlers & Distillers-BM	942.89	698.11
ACME Magadh-solar	745.63	749.85
ACME Nalanda-solar	1062.74	1069.57
Alfa 1 PL-solar	1418.09	1438.61
Avada	49.72	100.07
Avada Clean Sustainable Energy	1542.04	0.00
Awantika-solar	289.81	291.78
Azore-solar	318.51	615.97
Glat Solutions-Solar	196.58	201.84
Response-Solar	672.89	688.06
GRT Jewellers-Solar	5060.73	4745.72
Renew Surwaxes-Solar	10187.37	10758.06
SB Energy Six Solar -NTPC-Solar	10375.16	10767.02
SECI-Solar	12511.49	607.67



Pradip Maji
Chartered Financial Officer

SB South Bihar Power Distribution Company Limited
Notes forming part of Financial Statements
Note No.27

Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
Sunmark-Solar	601.60	599.76
Udiptra Energy-Solar	304.06	318.38
Welspun-Solar	2850.62	2814.36
SECI-Wind	26873.97	21497.52
PTC Green Infra-Wind	2776.05	2682.12
PTC Mytra Vayu-Wind	2453.99	2326.99
PTC Ostro Kutch-Wind	2792.98	3067.19
Sugar Mills	2678.13	4460.74
Total Power Purchase (A+B)	130101.10	122856.84
C. Transmission Charge		
Transmission Charges (T-GNA)	8497.65	0.00
PGCIL	90259.28	115516.65
POSOLO	460.41	730.66
BSPTCL	93590.30	64942.49
BIHAR GRID CO. LTD.	22232.19	11550.10
Total C.	215039.83	192739.89
Grand Total (A+B+C)	151605.93	1421306.74



Pradip Maji
Chief Financial Officer
SBPDCL, Patna

BRPL Audited Accounts FY 2021-22

BRPL (Bihar Rajya Power Limited)
Details of Power Purchase Statement for FY 21-22
Annexure 1
No. in Crore

Particulars	April 2021										May 2021										June 2021										July 2021										August 2021										September 2021										October 2021										November 2021										December 2021										January 2022										February 2022										March 2022										April 2022										May 2022										June 2022										July 2022										August 2022										September 2022										October 2022										November 2022										December 2022										January 2023										February 2023										March 2023										April 2023										May 2023										June 2023										July 2023										August 2023										September 2023										October 2023										November 2023										December 2023										January 2024										February 2024										March 2024										April 2024										May 2024										June 2024										July 2024										August 2024										September 2024										October 2024										November 2024										December 2024										January 2025										February 2025										March 2025										April 2025										May 2025										June 2025										July 2025										August 2025										September 2025										October 2025										November 2025										December 2025										January 2026										February 2026										March 2026										April 2026										May 2026										June 2026										July 2026										August 2026										September 2026										October 2026										November 2026										December 2026										January 2027										February 2027										March 2027										April 2027										May 2027										June 2027										July 2027										August 2027										September 2027										October 2027										November 2027										December 2027										January 2028										February 2028										March 2028										April 2028										May 2028										June 2028										July 2028										August 2028										September 2028										October 2028										November 2028										December 2028										January 2029										February 2029										March 2029										April 2029										May 2029										June 2029										July 2029										August 2029										September 2029										October 2029										November 2029										December 2029										January 2030										February 2030										March 2030										April 2030										May 2030										June 2030										July 2030										August 2030										September 2030										October 2030										November 2030										December 2030										January 2031										February 2031										March 2031										April 2031										May 2031										June 2031										July 2031										August 2031										September 2031										October 2031										November 2031										December 2031										January 2032										February 2032										March 2032										April 2032										May 2032										June 2032										July 2032										August 2032										September 2032										October 2032										November 2032										December 2032										January 2033										February 2033										March 2033										April 2033										May 2033										June 2033										July 2033										August 2033										September 2033										October 2033										November 2033										December 2033										January 2034										February 2034										March 2034										April 2034										May 2034										June 2034										July 2034										August 2034										September 2034										October 2034										November 2034										December 2034										January 2035										February 2035										March 2035										April 2035										May 2035										June 2035										July 2035										August 2035										September 2035										October 2035										November 2035										December 2035										January 2036										February 2036										March 2036										April 2036										May 2036										June 2036										July 2036										August 2036										September 2036										October 2036										November 2036										December 2036										January 2037										February 2037										March 2037										April 2037										May 2037										June 2037										July 2037										August 2037										September 2037										October 2037										November 2037										December 2037										January 2038										February 2038										March 2038										April 2038										May 2038										June 2038										July 2038										August 2038										September 2038										October 2038										November 2038										December 2038										January 2039										February 2039										March 2039										April 2039										May 2039										June 2039										July 2039										August 2039										September 2039										October 2039										November 2039										December 2039										January 2040										February 2040										March 2040										April 2040										May 2040										June 2040										July 2040										August 2040										September 2040										October 2040										November 2040										December 2040										January 2041										February 2041										March 2041										April 2041										May 2041										June 2041										July 2041										August 2041										September 2041										October 2041										November 2041										December 2041										January 2042										February 2042										March 2042										April 2042										May 2042										June 2042										July 2042										August 2042										September 2042										October 2042										November 2042										December 2042										January 2043										February 2043										March 2043										April 2043										May 2043										June 2043										July 2043										August 2043										September 2043										October 2043										November 2043										December 2043										January 2044										February 2044										March 2044										April 2044										May 2044										June 2044										July 2044										August 2044										September 2044										October 2044										November 2044										December 2044										January 2045										February 2045										March 2045										April 2045										May 2045										June 2045										July 2045										August 2045										September 2045										October 2045										November 2045										December 2045										January 2046										February 2046										March 2046										April 2046										May 2046										June 2046										July 2046										August 2046										September 2046										October 2046										November 2046										December 2046										January 2047										February 2047										March 2047										April 2047										May 2047										June 2047										July 2047										August 2047										September 2047										October 2047										November 2047										December 2047										January 2048										February 2048										March 2048										April 2048										May 2048										June 2048										July 2048										August 2048										September 2048										October 2048										November 2048										December 2048										January 2049										February 2049										March 2049										April 2049										May 2049										June 2049										July 2049										August 2049										September 2049										October 2049										November 2049										December 2049										January 2050										February 2050										March 2050										April 2050										May 2050										June 2050										July 2050										August 2050										September 2050										October 2050										November 2050										December 2050										January 2051										February 2051										March 2051										April 2051										May 2051										June 2051										July 2051										August 2051										September 2051										October 2051										November 2051										December 2051										January 2052										February 2052										March 2052										April 2052										May 2052										June 2052										July 2052										August 2052										September 2052										October 2052										November 2052										December 2052										January 2053										February 2053										March 2053										April 2053										May 2053										June 2053										July 2053										August 2053										September 2053										October 2053										November 2053										December 2053										January 2054										February 2054										March 2054										April 2054										May 2054										June 2054										July 2054										August 2054										September 2054										October 2054										November 2054										December 2054										January 2055										February 2055										March 2055										April 2055										May 2055										June 2055										July 2055										August 2055										September 2055										October 2055										November 2055										December 2055										January 2056										February 2056										March 2056										April 2056										May 2056										June 2056										July 2056										August 2056										September 2056										October 2056										November 2056										December 2056										January 2057										February 2057										March 2057										April 2057										May 2057										June 2057										July 2057										August 2057										September 2057										October 2057										November 2057										December 2057										January 2058										February 2058										March 2058										April 2058										May 2058										June 2058										July 2058										August 2058										September 2058										October 2058										November 2058										December 2058										January 2059										February 2059										March 2059										April 2059										May 2059										June 2059										July 2059										August 2059										September 2059										October 2059										November 2059										December 2059										January 2060										February 2060										March 2060										April 2060										May 2060										June 2060										July 2060										August 2060										September 2060										October 2060										November 2060										December 2060										January 2061										February 2061										March 2061										April 2061										May 2061										June 2061										July 2061										August 2061										September 2061										October 2061										November 2061										December 2061										January 2062										February 2062										March 2062										April 2062										May 2062										June 2062										July 2062										August 2062										September 2062										October 2062										November 2062										December 2062										January 2063										February 2063										March 2063										April 2063										May 2063										June 2063										July 2063										August 2063										September 2063										October 2063										November 2063										December 2063										January 2064										February 2064										March 2064										April 2064										May 2064										June 2064										July 2064										August 2064										September 2064										October 2064										November 2064										December 2064										January 2065										February 2065										March 2065										April 2065										May 2065										June 2065										July 2065										August 2065										September 2065										October 2065										November 2065										December 2065										January 2066										February 2066										March 2066										April 2066										May 2066										June 2066										July 2066										August 2066										September 2066										October 2066										November 2066										December 2066										January 2067										February 2067										March 2067										April 2067										May 2067										June 2067										July 2067										August 2067										September 2067										October 2067										November 2067										December 2067										January 2068										February 2068										March 2068										April 2068										May 2068										June 2068										July 2068										August 2068										September 2068										October 2068										November 2068										December 2068										January 2069										February 2069										March 2069										April 2069										May 2069										June 2069										July 2069										August 2069										September 2069										October 2069										November 2069										December 2069										January 2070										February 2070										March 2070										April 2070										May 2070										June 2070										July									
-------------	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	-------------	--	--	--	--	--	--	--	--	--	----------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	--------------	--	--	--	--	--	--	--	--	--	---------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	------------	--	--	--	--	--	--	--	--	--	----------	--	--	--	--	--	--	--	--	--	-----------	--	--	--	--	--	--	--	--	--	------	--	--	--	--	--	--	--	--	--

- 9) **Therefore, PFI requests Hon'ble CSERC to direct CSPDCL to submit station-wise details of Power Purchase in the Audited Accounts.**

C. MISMATCH IN LPSC

- 10) PFI observes that CSPDCL has deducted Rs. 42 Cr. from the power purchase cost on account of LPSC paid to GenCos. No supporting documents have been provided for this claim.
- 11) Further, as per Audited accounts, LPSC is only Rs. 4.63 Cr. Relevant extract from the Audited Accounts is as follows.

The above Power Purchase cost Includes differential amount paid/payable to generators as per Final Order/Demand Letter as Under:		
Particulars	Amount in Lacs	Remark
Power Purchase Expense/(Income) due to Supplementary Bill raise by M/s NTPC in respect of Korba & SIPAT Thermal Power Station due to revision of tariff for the period FY 2009-2014 and F.Y. 2014-2019.	2,089.78	CERC Order Dated 05.01.2025
Power Purchase Expense/(Income) due to Supplementary Bill raise by M/s NTPC in respect of Gadawara Thermal Power Station due to revision of tariff for the period FY 2009-2014 and F.Y. 2014-2019.	4,414.75	CERC Order Dated 20.03.2025
Power Purchase Expense/(Income) due to Supplementary Bill raise by M/s NHPC in respect of Kisanganga due to short fall of Energy Generation for the period FY 2023-24	2,283.64	CERC Order Dated 15.03.2024
Power Purchase Expense/(Income) due to Late Payment Surcharge (LPS) Bill for the differential amount of Electricity Duty (ED) for Sept -19 to March -25 raised by Korba Power Ltd. (Formerly known as Lanco Amarkantak Power Ltd.)	121.74	CSERC Order Dated 25.03.2021
Power Purchase Expense/(Income) due to Late Payment Surcharge (LPS) Bill for the differential amount of Electricity Duty (ED) for F.Y. 2016-17 & F.Y. 2017-18 raised by Korba Power Ltd. (Formerly known as Lanco Amarkantak Power Ltd.)	342.98	CSERC Order Dated 25.03.2021

- 12) **Therefore, PFI requests Hon'ble Commission to direct CSPDCL to submit supporting documents & reconcile the LPS figures in the prudence check session.**

D. OVERLAPPING IN BANKING & BILATERAL TRANSACTIONS

- 13) PFI notes that short-term purchase of 1,818 MU has been claimed by CSPDCL for True-Up of FY 2024-25. Moreover, 1,186 MU of Banking Purchase and 628 MU of Banking Sale has been submitted.

- 14) It is submitted that in other States, like Delhi, time slots have been observed where energy was both procured and sold in the same time block. Such overlapping of purchase and sale demonstrates poor power procurement planning and puts unnecessary burden of Trading Margin & Transmission Charges on the consumers. The same has been mentioned in the Statement of Reasons of DERC Tariff Regulations, 2017:

“7.12 Overlapping in Banking & Bilateral Transactions: *It was observed during the Technical Validation Session for True up of power purchase cost that there was overlapping in import and export of Banking Transactions. There were time slots where the power was procured and sold through Import and Export of Energy in the same time slot and the contract had been signed for both Import and Export of Energy by the Distribution Licensees within a period of less than three month. The Commission is of the view that the Distribution Licensees shall review the total available power including future contracted import and export banking transactions of the time slots at the time of entering into fresh contract to avoid such overlapping. These overlapping transactions are resulting into additional expenses on account of Trading Margin and Transmission Charges on the consumers. Therefore, the provision has also been made part of Tariff Regulations, 2017 to avoid overlapping in import and export of Banking and bilateral Transactions and the relevant extract is as follows:*

“(c) Variation in short term power purchase quantum and cost of the distribution licensee based on projected short term power purchase quantum and cost vis-a-vis actual short term power purchase quantum and cost:

Provided that Trading Margin, Transmission Charges and Transmission Losses incurred on Forward and Reverse transaction in the same time slot executed within three months for Forward / Reverse power procurement/sale through Banking And Bilateral shall not be allowed in the Power Purchase Cost of the Distribution Licensee;”

- 15) Further, Hon’ble DERC in True-Up Order of FY 2014-15 dated 31/08/2017 disallowed Rs. 2 Cr. for FY 2014-15 & Rs. 1.5 Cr. for FY 2015-16 due to overlapping of Banking Transactions.

“OVERLAPPING IN BANKING TRANSACTIONS

3.462 During prudence check, the Commission directed the Petitioner to provide statement of banking transactions indicating opening and closing balance of banking transactions as per that indicated in the audited financial statement. 3.463 Further, the Commission sought list of months in which there were overlapping in banking transactions in RTC and non RTC basis both. The Petitioner submitted such information vide its e-mail dated 24/03/2017 and 03/05/2017 as follows:

Table 135: Overlapping in banking transactions submitted by Petitioner (MU)

Period of Overlapping	Import Units	Export Units	Overlapped Units
July-14	75.21	14.12	14.12
Sep-15	90.83	31.79	31.79

Table 136: Overlapping in banking transaction on non-RTC basis (MU)

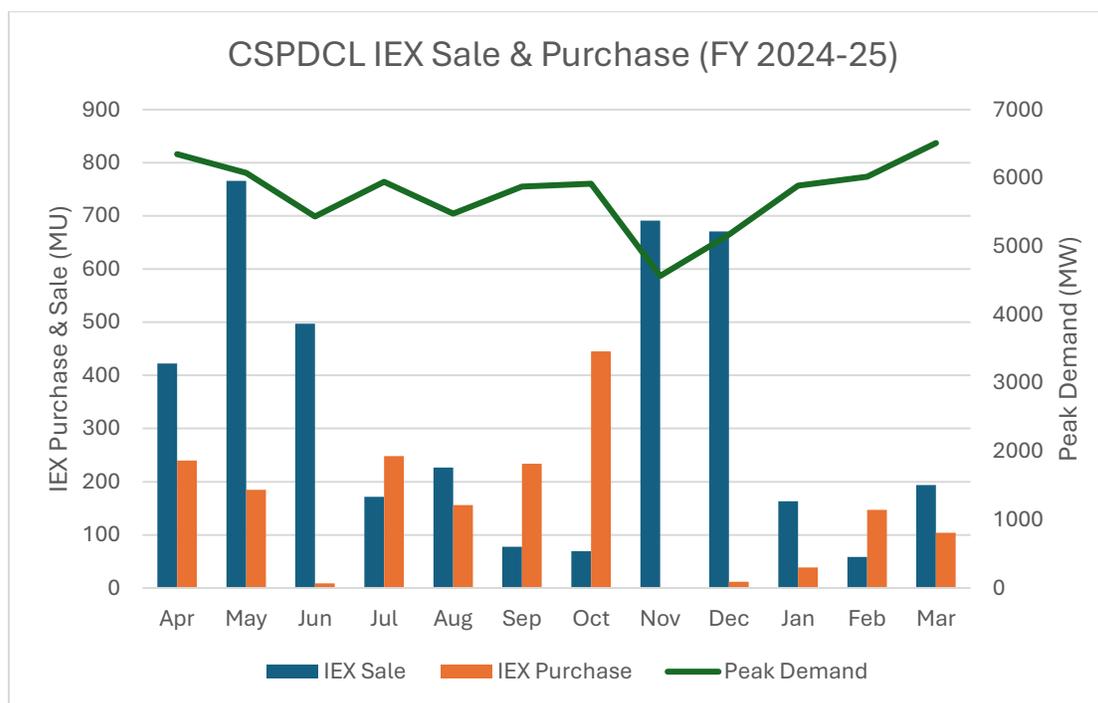
Period of Overlapping	Import Units	Export Units	Overlapped Units
Sep-14	34.43	3.60	0.6
Oct-14	13.09	35.41	1.6
Dec-14	2.91	156.43	2.9
Jan-15	33.36	155.82	27.8
Feb-15	15.38	129.79	15.4
Mar-15	1.08	125.53	1.1
Apr-15	10.50	23.44	4.3
May-15	92.02	10.54	0.0
Jun-15	70.32	2.74	0.5
Jul-15	83.66	14.65	0.0
Sep-15	69.81	1.7	1.6
Oct-15	7.14	20.9	0.0
Dec-15	13.32	77.74	0.1
Jan-16	23.59	97.19	0.1
Feb-16	6.31	104.28	0.0

3.464 During prudence check with regard to overlapping in banking transactions, the Petitioner explained that in order to procure power to meet Short Term demand, Petitioner is engaged in practice to indulge in power banking transactions without considering relevant financial impact in terms of opportunity losses. In view of the above it has been observed that 63.52 MU and 38.39 MU (including RTC and non RTC basis) were overlapped in banking transactions due to non-consideration of opportunity losses by Petitioner in the FY 2014-15 and FY 2015-16 respectively while planning for power banking. Therefore, **the Commission has decided to disallow the excess amount as submitted by the Petitioner of Rs. 2.32 Cr. and Rs. 1.46 for FY 2014-15 and FY 2015-16 respectively.**”

- 16) **Therefore, PFI requests Hon'ble Commission to direct CSPDCL to submit time-block wise import & export details for banking & bilateral transactions. Trading margin & transmission charges should only be allowed if there is no overlap in the same time-block.**

E. IMPRUDENT POWER PURCHASE PLANNING

- 17) PFI notes that CSPDCL has Purchased Short-term Power of 1,818 MU at the rate of Rs. 6.70/kWh but has sold surplus power of 4,008 MU at a low rate of Rs. 3.63/kWh.
- 18) Moreover, PFI has analysed month-wise sale and purchase in IEX as submitted in the Petition and observes that CSPDCL has resorted to purchasing huge amount of power during off-peak months, i.e Jul'25 – Oct'25, as can be seen in the graph below. Maximum Short-term Purchase is in the month of October and not in March where Peak is observed.



- 19) There remains scope for better management of the process for short term sale of the surplus power so as to significantly promote the interest of the consumers. The DISCOM should endeavor to maximize revenue from sale of surplus power.

- 20) PFI requests Hon'ble CSERC to scrutinize the short-term purchase and sale of power. In the meantime, Power Purchase Cost of Short-term power should be restricted to the Average Power Purchase Cost of Rs. 4.30/kWh. Therefore, short-term power purchase cost of only Rs. 782 Cr. against claimed cost of Rs. 1,218 Cr. should be provisionally allowed till the time the scrutiny is completed. The difference between the Power Purchase Cost claimed and as computed by PFI should not be passed on to the consumers of Chhattisgarh & rather should be borne by the Govt. of Chhattisgarh in the form of subsidy.
- 21) PFI also observes that CSPDCL has not submitted monthly reports certified by SLDC confirming that Merit Order Despatch principle has been followed in true spirit while scheduling the Power from various Generating Stations. Therefore, PFI requests Hon'ble Commission to direct CSPDCL to submit the details along with certification from Chhattisgarh SLDC that MoD has been followed in true letter and spirit.

F. RENEWABLE PURCHASE OBLIGATION COMPLIANCE

- 22) CSPDCL has only procured 6,620 MU against RPO target of 10,835 MU. Hence, there is a shortfall of 4,215 MU. Relevant extract from additional information submitted by CSPDCL on 2/02/2026 is as follows.

In view of the above, CSPDCL has achieved the following RPO targets for FY 2024-25

Total sales unit (in MU)	Particulars	RPO Target		Actual Energy Consumed from RE/ Achievement w.r.t. RPO	
		in %	in MU	in %	in MU
A	B	C	D	E=(F/A)*100	F
34495.84	Wind	2.46%	848.60	2.36%	814.33
	HPO	1.08%	372.56	1.23%	425.86

Other RPO (Biomass, Solar, Small Hydel & Rooftop etc)	26.37%	9096.55	14.97%	5163.17
Battery Storage	1.50%	517.44	0.63%	217.21
Total RPO	31.41%	10835.14	19.19%	6620.58

- 23) Regulation 9 of CSERC (Renewable Purchase Obligation and REC Framework Implementation) Regulations, 2021 stipulates that DISCOMs may be directed to submit a penalty based on forbearance price. Relevant extract from the said Regulations is as follows.

“9. Consequences of default

9.1 If an obligated entity does not fulfil the renewable purchase obligation as provided in these Regulations during any financial year, the Commission may direct the Obligated Entity to maintain a separate fund for such amount as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price decided by the Central Commission.”

- 24) **In view of above, PFI requests the Hon’ble Commission to impose penalty on non-compliance of RPO targets as per buyout price of Rs. 245/MWh proposed by Hon’ble CERC vide its suo-moto Order 22/10/2025. Hence, Rs. 103 Cr. may be reduced from the Power Purchase Cost claimed by CSPDCL. The inefficiency of DISCOM may not be passed on to the consumers of Chhattisgarh and rather should be borne by the Govt. of Chhattisgarh in the form of subsidy.**

G. PENSION AND GRATUITY

- 25) CSPDCL has claimed Rs. 826 Cr. of Contribution to Pension & Gratuity while itself mentioning that Amount in Audited Accounts is only Rs. 700 Cr.
- 26) The difference of Rs. 126 Cr. has been adjusted in the Provisions for Pension & Gratuity. The purpose of a True-Up exercise is defeated if adjustments in provisional amounts are included. True-Up Exercise is only based on actual expenses.
- 27) **Therefore, PFI requests Hon’ble Commission to consider only Rs. 700 Cr. of Contribution to Pension & Gratuity based on actual expenses. The difference between the claimed amount & the amount proposed by PFI may be borne by the Govt. of Chhattisgarh in the form of subsidy.**

H. ADMINISTRATIVE & GENERAL EXPENSES

H.1 Legal and Other Professional Charges

- 28) CSPDCL has claimed Rs. 92.95 Cr. as A&G expenses in its True Up petition for FY 2024-25 which include Rs. 23.73 Cr. against Legal & Other Professional Charges.
- 29) The legal fee claimed by DISCOM for FY 2024-25 is approximately 27% increase from the previous year as seen from the audited accounts which are as follows:

Chhattisgarh State Power Distribution Company Limited		
Notes to the financial statements for the year ended 31st March, 2025		
All amounts are in ₹ (in Lacs) unless otherwise stated		
Note no -26 Other Expenses		
Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
(e) Other expenses		
(i) Legal and other professional costs	2,373.09	1,828.88
(ii) Energy Bill Collection Charges	752.94	828.76
(iii) Other General Expenses	274.84	2,434.10
(iv) Claim & Compensation (Outsider)	627.71	591.75
Total Other Expenses	48,625.73	53,209.31

- 30) However, it is to be noted that DERC doesn't allow legal expenses on account of cases filed against the Orders or Regulations of the Commission as mentioned in clause 23 (7) of its Business Plan Regulation of 2023, the relevant extract is as follows:
- “(7) The Legal Expenses including that on account of cases filed against the Orders or Regulations of the Commission before any Court and the legal claims (compensation/penalty) paid to the consumer, if any, **shall not be allowed** in the Aggregate Revenue Requirement (ARR).”*
- 31) Cases filed against the Orders or Regulations of the Commission before any court can result in two outcomes - if the judgement is against the DISCOM, the legal expenditure incurred in this case should not be passed on in the ARR since the DISCOM was at fault and in case the judgement is in the favour of the DISCOM the expenditure along with the carrying cost is anyway recovered in the ARR.

- 32) In view of above, PFI requests the Hon'ble Commission to direct DISCOM to submit the details of legal fee and in case any fees claimed against the orders or Regulations of the Commission before any court may be reduced from the legal and other professional fees claimed by the DISCOM.

H.2 CLAIM & COMPENSATION

- 33) PFI notes that CSPDCL has claimed Rs. 6.27 Cr. of Claim & Compensation as part of A&G Expenses. Relevant extract from the Audited Accounts is as follows.

Chhattisgarh State Power Distribution Company Limited		
Notes to the financial statements for the year ended 31st March, 2025		
All amounts are in ₹ (in Lacs) unless otherwise stated		
Note no -26 Other Expenses		
Particulars	For the year ended 31st March, 2025	For the year ended 31st March, 2024
(a) Repairs and maintenance:		
(i) Plant & machinery	27,789.93	34,494.77
(ii) Buildingss	1,505.09	1,409.46
(iii) Others	8,445.09	6,325.03
(b) Operating and maintenance expense		
(i) Smart Meter Charges	1,590.67	-
(c) Administrative and general expenses		
(i) Power expense	1,707.14	1,657.66
(ii) Rent including lease rentals	93.96	68.94
(iii) Rates and taxes	249.62	282.50
(iv) Insurance charges	103.53	105.99
(v) Vehicle Running, Hiring and Maintenance charges	1,930.69	1,915.18
(vi) Water Charges	6.32	5.66
(vii) Telephone Charges	326.79	382.79
(viii) Postage & Printing Charges	388.34	584.04
(ix) Cashless Insurance Implementation Agency	37.90	16.78
(x) Office equipment	32.14	40.78
(xi) Advertisement Expense	366.34	213.81
(d) Auditors remuneration and out-of-pocket expenses		
(i) Statutory Audit	18.59	17.70
(ii) Tax Audit	5.02	4.72
(e) Other expenses		
(i) Legal and other professional costs	2,373.09	1,828.88
(ii) Energy Bill Collection Charges	752.94	828.76
(iii) Other General Expenses	274.84	2,434.10
(iv) Claim & Compensation (Outsider)	627.71	591.75
Total Other Expenses	48,625.73	53,209.31

- 34) However, PFI observes that Section 57 (2) and Section 59 (1) of the Act focus on two key points i.e., Compensation and Furnishing Case-wise information. Relevant sections are as follows:

“Section 57. (Consumer Protection: Standards of performance of licensee):

(1) The Appropriate Commission may, after consultation with the licensees and persons likely to be affected, specify standards of performance of a licensee or a class of licensees.

(2) If a licensee fails to meet the standards specified under sub-section (1), without prejudice to any penalty which may be imposed or prosecution be initiated, he shall be liable to pay such compensation to the person affected as may be determined by the Appropriate Commission:

Provided that before determination of compensation, the concerned licensee shall be given a reasonable opportunity of being heard....”

Section 59. (Information with respect to levels of performance):

(1) Every licensee shall, within the period specified by the Appropriate Commission, furnish to the Commission the following information, namely:-

(a) the level of performance achieved under sub-section (1) of the section 57;

(b) the number of cases in which compensation was made under subsection (2) of section 57 and the aggregate amount of the compensation.”

35) Conjoint reading of Section 57 & Section 59 leads to the conclusion that DISCOMs need to submit case-by-case details to the Commission and the Commission will determine the compensation only after going through the merits of each case.

36) Further, Hon'ble APTEL vide its Judgment dated 27/09/2012 in Appeal No.141 of 2012 provided clarification of Section 57(2) stating that SERCs will determine compensation on a case-by-case basis after analyzing the failure in meeting standard of performance and other details, relevant extract from said judgement is as follows: “Section 57(2) provides for a case-by-case determination of compensation. Such compensation has to be paid to the affected person. This will make it clear that the State Commission will have to determine on the basis of allegation that a particular standard of performance had been violated, as to how and what extent the person has been affected due to such violation.”

37) PFI observes that CSPDCL has not submitted any details or reference of communications forwarded to the Hon'ble Commission w.r.t. electrical accidents and action taken and have only claimed the compensation amount in the Petition.

38) It is pertinent to note that all penalties and compensation payable by the DISCOM to any party for failure to meet any Standards of Performance or for damages, as a

consequence of the orders of the Commission, Courts, Consumer Grievance Redressal Forum, and Ombudsman, etc., should not be allowed to be recovered through the Aggregate Revenue Requirement.

- 39) **In view of above, PFI proposes the Hon'ble Commission to direct CSPDCL to submit case-by-case reason of accident and allow pass through of compensation only in cases where the reason is not attributable to the DISCOM.**

I. EXCEPTIONAL ITEMS – LOSS DUE TO THEFT, FIRE & MISAPPROPRIATION

- 40) CSPDCL has claimed Rs. 66.57 Cr. as extraordinary expenses on account of loss due to theft, fire and misappropriation.
- 41) It is submitted that Hon'ble CSERC approves insurance expenses as part of the A&G expenses & hence any loss due to theft, fire and misappropriation can be claimed under this insurance. As per Note-26 of Audited Accounts, CSPDCL paid Insurance charges of Rs. 1.03 Cr. in FY 2024-25.
- 42) Further, in other States, like Rajasthan, the Hon'ble Commission does not allow such expenses on the same grounds. Relevant extract from Rajasthan DISCOMs' True-Up Order for FY 2023-24 dtd. 18/09/2025 is as follows.

“3.94 Since the Commission has allowed the insurance charges, therefore the claim on account of loss due to theft of Fixed Assets of Rs. 2.77 Crore is not considered by the Commission.”

- 43) **In view of above, PFI requests the Hon'ble Commission to reduce Rs. 66 Cr. of losses due to theft, fire & misappropriation. The loss should be recovered from insurance claim.**

J. NON-TARIFF INCOME – FINANCING COST OF LPSC

- 44) PFI observes that as per Audited Accounts (Note 21), Delayed Payment Charges of Rs. 800 Cr. have been received from consumers. The same has not been included in Non-Tariff Income.

45) However, Hon'ble APTEL in its judgment dtd. 28/11/2013 in Appeal Nos. 14 of 2012 in the matter of NDPL Vs DERC has decided that LPSC received by DISCOMs from the consumers shall be treated as NTI and its Financing Cost has to be allowed by Commission. Relevant extract of the said Judgment is as follows:

"131. The Submissions made by the Appellant on this Issue are as under:

- a) *LPSC is levied on consumers who pay their bill after the due date. LPSC received by the distribution licensee is treated as Non-Tariff Income under Regulation 5.23 of the MYT Regulations and the same is deducted to arrive at the ARR. Regulation 5.23 provides as follows:*
- b) *"5.23. All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to profit derived from disposal of assets, rents, delayed payment surcharge, meter rent (if any), income from investments other than contingency reserves, miscellaneous receipts from the consumers and income to licenses business from the Other Business of the Distribution Licensee shall constitute Non-Tariff Income of the Licensee."*
- c) *This Tribunal in Appeal No. 153 of 2009 has held that the distribution licensee is entitled to the cost of financing the entire outstanding principal amount that attracts LPSC at prevalent market lending rates....*

...

133. *Let us see the findings of the Delhi Commission in the impugned order which reads as under:*

Table 144: Funding of LPSC (Rs Cr)

Particular	FY 2009-10
<i>LPSC Collected (@ 18%)</i>	<i>16.09</i>
<i>Principle amount on which LPSC was charged</i>	<i>89.39</i>
<i>Interest Rate for funding of Principle of LPSC</i>	<i>9.5%</i>
<i>Interest approved on funding of Principle amount of LPSC</i>	<i>8.49</i>

135. *The Appellant has submitted that the financing of LPSC is required to meet the requirements of working capital. Delhi Commission has submitted that allowing financing cost for LPSC means allowing of additional working capital for the time period between the due date and the actual date of payment. Hence, financing cost of LPSC has to be at the same rate as that approved for working capital funding. The view taken by the Delhi Commission is correct and need not be interfered with.*

136. *Accordingly decided against the Appellant."*

- 46) Based on the above, PFI requests Hon'ble CSERC to consider LPSC as part of Non-Tariff Income, netting off the Financing cost associated with the same. PFI based on the methodology shown in the aforementioned APTEL Judgement has computed NTI, as shown below:

Particulars	FY 2024-25
LPSC as per Accounts	800
Principle amount on which LPSC was levied @ 18%	4445
WC Rate of DISCOM	11.12%
Financing Cost of LPSC	494
Net LPSC in NTI	306

- 47) **As above, LPSC net of financing cost has been worked out as Rs. 306 Cr. for FY 2024-25. Basis the judgement of Hon'ble APTEL, PFI requests Hon'ble CSERC to consider the same while doing True-Up of FY 2024-25.**

K. SUMMARY OF TRUE-UP FY 2024-25

- 48) As stipulated in above sections, summary of PFI Comments on True-up of FY 2024-25 for CSPDCL is as follows, Hon'ble Commission is requested to kindly consider the same.

(Rs. Cr.)

Sr. No.	Particulars	Claimed by DISCOM	Proposed by PFI	Difference
1	Sales (MU)	34496	34496	0
2	Distribution Loss	15%	15%	
3	Power Purchase Cost	20378	19839	(539)
3a	<i>Less: Costly Short-term Power Purchase</i>		436	
3b	<i>Less: RPO Penalty</i>		103	
4	Transmission Charges	2159	2159	0
5	Operation & Maintenance (O&M) Expenses (5a+5b+5c)	2581	2455	(126)
5a	Employee Expenses	2110	1984	
5a-i	<i>Less: Pension & Gratuity higher than actuals</i>		126	
5b	Administrative & General Expenses	93	93	
5c	Repair & Maintenance Expenses	377	377	
6	Return on Equity	459	459	0
7	Interest on Loan	254	254	0
8	Interest on Working Capital	233	233	0

Sr. No.	Particulars	Claimed by DISCOM	Proposed by PFI	Difference
9	Depreciation	439	439	0
10	Other Costs	615	615	0
10a	<i>Less: Loss due to Theft, Fire & Misappropriation</i>		67	
11	Aggregate Revenue Requirement (ARR)	27117	26,452	(665)
12	Less: Non-Tariff Income	112	418	(306)
12a	<i>Add: LPSC net of financing cost</i>		306	
13	Other Income	307	307	
14	Net ARR	26,699	25,727	
15	Revenue from Sale of Power	25000	26227	(1227)
16	<i>Add: Govt. Dept. dues</i>		1227	
17	<i>Prior Period (Gap)/Surplus</i>	(3075)	(3075)	
18	Revenue (Gap)/Surplus	(4773)	(2575)	(2198)

In view of above, elements of ARR which are not as per Regulatory provisions may not be passed on to the consumers, rather it should be borne by Govt. of Chhattisgarh in the form of subsidy. **Accordingly, the revised subsidy is of Rs. 8,717 Cr. instead of booked subsidy of Rs. 6,519 Cr. for FY 2024-25 which should be paid by Govt. of Chhattisgarh to CSPDCL.**

PFI Comments/Suggestions: CSPDCL ARR Petition FY 2026-27

A. IMPRUDENT POWER PURCHASE PLANNING

49) PFI observes that CSPDCL has projected Net Power Purchase requirement of 46,468 MU which it is able to exactly meet through existing & upcoming plants. No surplus power has been projected despite 4,008 MU sale of Surplus Power in FY 2024-25. Actual Sale of Surplus Power in past three years is tabulated below.

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Sale of Surplus Power (MU)	2,670	5,316	4,008

50) CSPDCL has made power purchase projections through an entirely arithmetic exercise without considering factors like Must-Run Status, Minimum Technical Limit of Generating Stations, Merit Order Adherence etc. Scheduling of Power Purchase is done on time-block basis and it is very difficult to imagine that CSPDCL will be able to meet the projected demand exactly in each time block such that no surplus energy will be left.

51) Power Purchase Cost accounts for 70-80% of the ARR of any DISCOM and therefore DISCOM as well as the Commission focus on optimizing the same which resulted into introduction of Merit Order Despatch principle and Resource Adequacy planning. Further, the Indian Power Sector is very dynamic and changing frequently with increase in renewable energy share resulting crash of short-term prices at Power exchange during the solar hours, Green Energy Open Access, tremendous growth in Rooftop solar/PM-Surya Ghar, deployment of Energy storage, etc. have impacted the process of demand projection and accordingly the power procurement. This mandates DISCOMs to cover such factors while projecting the power procurement. Hourly or at least monthly energy balance and monthly power purchase quantum and cost have become imperative.

52) Section 86 (1) (b) of the Electricity Act. 2003 mandates to regulate electricity purchase and procurement process of DISCOMs including the price at which electricity is procured from the generating companies or licensees or from other

sources through agreements for purchase of power for distribution and supply within the State.

53) Clause 8 of the Tariff Policy 2016 addresses various aspects associated with Supply of reliable and quality power as shown below:

“8. DISTRIBUTION

Supply of reliable and quality power of specified standards in an efficient manner and at reasonable rates is one of the main objectives of the National Electricity Policy. ... A suitable transition framework could be provided for the licensees to reach the desired levels of service as quickly as possible. Penalties may be imposed on licensees in accordance with section 57 of the Act for failure to meet the standards.”

54) Further, MoP notified the *Electricity (Amendment) Rules, 2020* dtd. 29/12/2022 wherein SERCs have been directed to frame regulations on Resource Adequacy, in accordance with the guidelines issued by the Central Government and the model Regulations framed by Forum of Regulators, if any. The relevant extract of the Rules is as follows:

“16. Resource Adequacy.— (1) *A guideline for assessment of resource adequacy during the generation planning stage (one year or beyond) as well as during the operational planning stage (up to one year) shall be issued by the Central Government in consultation with the Authority, within six months from the date of commencement of these rules.*

(2) *The State Commission shall frame regulations on resource adequacy, in accordance with the guidelines issued by the Central Government and the model Regulations framed by Forum of Regulators, if any, the distribution licensees shall formulate the resource adequacy plan in accordance with these Regulations and seek approval of the Commission.*

(3) The State Commission shall review the resource adequacy, for each of the distribution licensees, as per the time line given in resource adequacy guidelines issued by the Central Government.

(4) The State Commission may determine non-compliance charges for failure to comply with the resource adequacy target approved by the Commission.”

55) In this regard CEA, Govt. of India, vide notification dtd. 28/06/2023 has framed Guidelines for Resource Adequacy planning framework for India under the Rule 16 of Electricity (Amendments) Rules, 2022. These Guidelines specifies the role of SERCs for defining Planning Reserves Margin for Long term, Medium Term and Short-Term Contracts. the Guidelines also specifies the timelines for Resource Adequacy Planning.

56) PFI notes that till date 21 out of 36 States & UTs have issued Resource Adequacy Regulations – Haryana, Himachal Pradesh, Jharkhand, Karnataka, Bihar, Odisha, Tamil Nadu, Punjab, Assam, Arunachal Pradesh, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Sikkim, Goa, Chandigarh, DNHDD, Puducherry, Lakshadweep, Andaman & Nicobar Islands.

57) Hon'ble CSERC has also published Draft CSERC (Framework for Resource Adequacy) Regulations, 2024 on 04/09/2024. Annexure I of the Draft Regulations lays out the Methodology for Preparation of Resource Adequacy Plan as given below.

*“(a) The **hourly demand profile shall be projected** over the planning period by distribution licensee, based on the forecasted values of annual energy requirement and peak demand trajectory. The annual energy requirement and peak demand shall be forecasted using the methods specified in Regulation 6.7 of these Regulations. The projected hourly demand for the future years shall be used as inputs into the model. Distribution licensee shall ensure that the generation expansion planning model chosen is capable of simulating on an hourly chronological resolution. This is necessary to capture the behaviour of the system with respect to ramping of conventional generation, profiles of RE generation, behaviour of energy storage, etc”*

58) In neighboring States, like Madhya Pradesh and Andhra Pradesh, the Tariff Petitions include projection of Power Purchase Quantum and Cost on hourly & monthly basis and they even submit details related to MoD, the relevant pages from the Petitions are reproduced below.

MP DISCOMS ARR Petition FY 2026-27 Hourly Sales Projection & Power Availability

Hourly Demand Projections of FY 2026-27 (MU)

Existing ToD	Dates / Hours	Hourly Actual Schedule (MU)											
		Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27
Off Peak Night	00-01	332.38	358.05	330.21	308.22	298.17	297.52	321.74	341.77	320.74	324.44	338.75	345.25
	01-02	327.60	351.90	323.35	304.28	294.14	293.82	316.57	328.37	308.57	317.43	331.11	335.52
	02-03	318.59	343.70	317.11	299.89	289.63	289.42	310.47	323.25	300.31	311.30	325.51	324.42
	03-04	315.02	338.54	312.11	297.29	287.24	287.86	309.80	328.52	305.80	315.45	329.60	325.78
	04-05	311.80	334.22	308.31	295.77	286.79	287.49	311.01	331.89	310.66	315.21	328.17	330.31
Morning Peak	05-06	315.97	338.12	314.20	304.67	296.51	296.94	323.76	342.47	328.04	326.09	330.91	339.32
	06-07	338.33	347.15	324.15	326.30	324.41	324.38	359.20	398.58	394.54	385.77	375.80	382.63
	07-08	347.76	345.34	320.67	329.57	334.88	337.45	379.41	451.72	474.26	471.21	429.19	409.18
	08-09	340.53	335.68	309.22	322.41	331.35	331.25	374.84	473.11	509.15	508.35	451.09	409.03
	09-10	335.71	332.96	304.41	314.39	321.85	319.48	365.61	483.07	525.66	528.13	463.26	402.91
Off Peak / Solar Hours	10-11	332.18	337.46	306.02	305.05	310.97	308.94	356.00	479.30	520.88	536.84	472.24	390.37
	11-12	333.37	351.28	316.62	301.63	304.07	304.19	352.89	468.91	505.47	528.76	464.89	368.24
	12-13	331.38	357.23	323.58	306.59	294.91	295.66	343.82	458.68	492.41	513.77	450.69	345.68
	13-14	332.11	361.64	328.09	293.83	290.17	294.67	343.96	461.73	491.79	510.84	448.61	336.03
	14-15	335.90	365.40	331.02	295.92	290.07	294.79	346.79	457.34	481.88	499.90	440.74	331.37
Evening Peak	15-16	338.97	366.88	328.13	297.63	291.21	293.80	346.55	456.12	482.01	497.00	443.05	337.99
	16-17	328.75	347.97	313.71	295.04	294.44	291.34	342.48	448.25	477.70	487.26	429.54	340.70
	17-18	312.38	319.80	296.05	296.48	296.86	349.61	434.65	465.29	462.02	408.85	343.95	
	18-19	311.19	311.81	293.02	302.55	310.30	317.15	369.51	404.95	430.80	442.98	384.50	344.36
	19-20	330.46	336.11	314.19	313.38	328.08	326.82	358.24	368.96	395.54	412.19	365.81	340.30
Off Peak Night	20-21	318.43	333.82	319.07	313.05	312.77	306.53	328.53	322.86	344.17	367.40	324.99	325.16
	21-22	312.48	330.65	317.40	306.15	306.28	298.24	318.13	307.71	312.23	333.49	306.71	312.49
	22-23	334.24	355.03	328.38	311.89	304.70	300.96	323.84	336.85	325.47	341.00	335.67	341.69
	23-24	340.16	362.36	331.44	312.94	302.51	300.28	324.53	346.98	326.44	336.34	344.84	349.98

Hourly Availability Projections of FY 2026-27 (MU)

Existing ToD	Dates / Hours	Hourly Actual Schedule (MU)											
		Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27
Off Peak Night	00-01	350.87	370.16	344.63	313.57	329.78	330.10	385.17	368.60	384.26	399.26	354.01	375.33
	01-02	350.63	369.69	346.49	314.19	330.77	329.71	384.87	368.97	384.09	400.97	354.85	376.75
	02-03	351.22	371.29	352.93	315.55	324.16	330.32	385.71	370.64	378.24	395.65	356.59	377.61
	03-04	353.04	372.85	353.92	325.34	333.70	331.72	372.89	381.89	398.07	398.78	358.78	379.56
	04-05	355.02	374.46	356.25	327.41	347.63	343.84	387.45	373.57	389.03	398.20	360.49	380.89
Morning Peak	05-06	365.31	383.91	369.73	333.12	361.89	357.41	409.42	406.38	415.68	423.46	383.49	398.59
	06-07	400.23	415.09	393.48	358.57	380.68	379.86	429.42	437.35	472.32	480.17	431.71	444.93
	07-08	438.34	433.08	434.44	391.48	421.70	423.47	469.23	487.97	522.44	559.67	511.08	504.26
	08-09	463.09	480.76	463.89	418.57	448.74	450.47	499.27	529.25	580.02	600.60	522.21	522.94
	09-10	482.16	501.53	482.11	447.82	464.04	464.02	527.94	557.70	612.76	625.76	575.93	580.17
Off Peak / Solar Hours	10-11	486.08	503.14	475.36	431.72	482.83	481.19	513.68	533.19	589.00	611.19	567.50	578.78
	11-12	501.02	522.22	492.63	448.56	499.77	502.73	549.83	550.10	606.73	626.65	591.05	606.42
	12-13	498.75	517.79	492.37	450.18	498.19	497.28	548.58	548.89	605.37	621.73	589.62	605.60
	13-14	498.56	511.62	486.65	446.05	486.18	489.19	537.76	538.32	598.77	617.52	582.56	592.01
	14-15	481.53	493.16	470.32	431.99	476.12	478.78	522.17	526.13	579.37	600.98	572.32	579.50
Evening Peak	15-16	454.98	480.07	443.89	407.00	462.39	452.60	491.28	491.99	546.21	567.94	528.20	538.12
	16-17	443.53	464.63	447.15	406.53	437.06	433.81	465.77	498.36	500.23	576.79	522.52	518.64
	17-18	403.39	425.69	410.77	369.41	401.95	391.62	431.66	465.67	524.52	527.77	478.32	458.32
	18-19	377.37	395.32	391.62	347.84	373.85	366.02	415.48	428.59	481.04	486.06	429.71	410.11
	19-20	371.83	386.33	362.50	320.74	360.04	369.28	412.89	406.97	432.78	439.40	391.36	401.02
Off Peak Night	20-21	369.83	388.45	365.23	331.02	341.72	344.05	388.04	374.42	416.16	416.85	381.31	395.98
	21-22	360.10	379.92	354.68	331.17	339.40	342.34	393.42	367.97	397.16	402.66	362.46	384.16
	22-23	358.40	379.26	353.94	328.98	345.97	342.52	392.90	377.55	396.64	400.36	361.80	383.41
	23-24	357.27	377.18	351.51	326.98	344.19	351.56	390.84	376.00	394.01	396.88	359.49	381.81

Projection of Hourly Scheduling of Solar, Wind, other RE & Thermal Energy

Solar Energy

Existing ToD	Dates / Hours	Hourly Schedule Summary (MU)											
		Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27
Off Peak Night	00-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	01-02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	02-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	03-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	04-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Morning Peak	06-07	1.94	27.98	22.70	1.97	17.37	18.12	13.41	9.13	7.37	7.39	24.17	33.79
	07-08	64.48	66.13	63.00	57.31	56.46	58.80	57.58	48.93	34.53	54.91	70.34	83.73
	08-09	97.83	104.47	91.86	85.53	84.02	87.32	90.87	94.97	105.85	109.03	132.78	142.67
	09-10	123.40	120.59	115.08	113.72	113.56	115.84	124.19	120.24	149.10	152.51	169.42	176.57
	10-11	142.90	142.73	138.40	127.51	133.42	136.62	148.66	149.76	173.88	184.62	201.62	210.19
Off Peak / Solar Hours	11-12	158.77	162.95	147.78	147.64	151.33	157.38	166.42	170.16	195.80	204.26	228.37	241.27
	12-13	158.75	162.84	149.69	135.67	135.21	148.67	172.48	198.48	204.49	231.15	244.11	
	13-14	158.75	158.72	145.79	149.57	143.21	148.07	159.75	163.40	193.60	203.11	223.90	233.66
	14-15	140.98	138.20	138.24	133.30	136.56	131.93	147.59	169.26	182.45	182.38	218.69	
	15-16	113.41	110.19	101.17	107.14	115.41	107.55	106.34	106.56	127.28	142.90	163.89	173.38
Evening Peak	16-17	84.03	84.07	78.25	81.30	77.95	76.04	84.00	87.47	77.80	88.67	113.53	122.79
	17-18	40.94	43.92	41.82	42.65	44.06	44.25	48.07	31.52	31.71	57.09	60.12	
	18-19	9.73	11.95	20.93	19.67	13.46	7.93	6.02	4.36	3.03	5.05	5.08	5.73
	19-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	20-21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off Peak Night	22-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	23-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Wind Energy

Existing ToD	Dates / Hours	Hourly Schedule Summary (MU)											
		Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26	Jan-27	Feb-27	Mar-27
Off Peak Night	00-01	19.77	26.11	26.27	25.97	23.67	19.43	18.69	14.18	13.03	13.02	13.33	16.83
	01-02	21.98	27.69	28.53	28.32	24.57	20.87	19.34	13.02	13.90	13.89	14.12	18.51
	02-03	23.73	30.13	30.53	29.90	25.99	22.78	21.34	16.69	15.44	13.63	15.69	20.19
	03-04	23.32	31.78	32.05	32.30	28.19	24.26	22.94	18.35	17.38	17.36	17.23	21.88
	04-05	26.91	33.40	34.36	33.93	29.83	25.82	23.29	20.02	19.11			

Projection of Hourly Surplus Energy, Market Rate and Revenue

Surplus/(Deficit) Energy at normative loss level													Assumed Market Rate (Rs./kWh)													
Estimo g ToD	Date	01	02	03	04	05	06	07	08	09	10	11	Estimo g ToD	Date	01	02	03	04	05	06	07	08	09	10	11	
Off Peak Night	00-01	21	35	17	-	-	-	-	-	-	-	-	00-01	7.31	6.15	6.00	5.24	4.25	3.02	5.06	2.80	2.37	2.53	3.11	4.40	
	01-02	25	20	25	12	38	38	70	43	77	87	33	01-02	6.60	5.15	5.25	4.37	3.83	3.31	3.91	2.65	2.28	2.38	3.09	4.20	
	02-03	35	30	38	18	36	43	77	49	80	87	33	02-03	5.60	4.69	4.52	4.01	3.61	3.12	3.56	2.62	2.20	2.29	3.01	3.88	
	03-04	40	37	44	30	48	46	80	46	78	87	33	03-04	5.10	3.86	4.19	3.79	3.53	2.97	3.32	2.39	2.20	2.27	2.97	3.71	
	04-05	45	47	50	34	63	50	79	80	85	34	53	04-05	5.18	3.79	3.55	3.73	3.44	2.90	3.20	2.62	2.28	2.38	3.05	3.90	
	05-06	51	48	58	30	67	63	88	60	90	100	55	62	05-06	5.84	3.53	3.28	4.18	3.76	3.20	3.38	2.86	2.82	2.92	3.49	4.54
	06-07	64	70	72	34	58	58	72	41	80	97	58	65	06-07	6.69	3.54	3.32	4.49	4.32	3.79	3.39	3.75	4.12	3.95	4.50	6.17
Morning g Peak	07-08	93	110	116	64	87	58	92	38	80	91	84	97	07-08	4.07	2.51	2.57	3.33	3.48	3.03	3.42	3.93	6.20	8.40	9.25	6.01
	08-09	126	116	156	98	119	121	127	58	82	94	103	145	08-09	2.62	1.90	1.89	2.71	2.38	1.88	1.98	3.00	7.61	9.15	7.51	4.63
	09-10	152	171	180	135	144	147	164	77	89	100	115	179	09-10	2.21	1.46	1.68	2.43	2.03	1.53	1.62	3.22	6.05	7.78	5.79	3.30
	10-11	156	168	171	129	174	176	180	56	70	77	97	191	10-11	1.94	1.36	1.49	2.11	1.63	1.35	2.25	3.55	4.01	4.44	3.66	2.91
	11-12	170	175	178	149	198	201	199	83	103	100	128	240	11-12	1.37	1.41	1.53	2.04	1.59	1.35	2.13	2.22	3.19	3.42	3.35	2.74
	12-13	169	163	171	155	205	204	207	92	115	110	141	262	12-13	1.88	1.46	1.55	1.96	1.49	1.40	2.05	1.90	2.78	3.07	3.12	2.56
	13-14	169	152	161	154	198	197	196	79	109	109	136	257	13-14	1.85	1.45	1.54	1.88	1.42	1.28	2.05	1.85	2.51	2.69	2.78	2.38
Off Peak Solar Hours	14-15	148	130	141	138	188	186	178	71	100	103	133	250	14-15	2.23	1.97	1.87	2.21	1.77	1.54	2.00	2.38	2.84	2.98	2.85	2.58
	15-16	118	115	118	111	173	161	147	38	66	73	87	202	15-16	2.73	2.46	2.20	2.62	2.27	1.87	3.04	2.92	3.22	3.22	3.15	2.94
	16-17	117	119	136	113	148	145	125	52	84	92	99	180	16-17	3.11	2.77	2.61	2.87	2.80	2.37	3.49	3.68	4.00	4.04	3.65	3.40
	17-18	93	108	117	75	107	97	84	33	61	60	71	118	17-18	3.71	3.17	2.99	3.15	3.26	3.17	4.89	7.40	8.28	6.80	4.76	3.73
	18-19	68	86	101	47	65	52	48	26	53	46	47	68	18-19	6.52	3.89	3.51	4.22	5.10	5.90	8.03	8.30	8.96	9.37	8.40	6.39
	19-20	43	52	50	13	34	45	37	40	30	28	40	49	19-20	9.05	6.40	6.10	7.96	8.64	8.83	6.80	4.35	4.62	7.91	7.72	6.63
	20-21	53	57	48	20	31	40	62	54	61	52	58	73	20-21	8.81	7.10	6.85	8.53	8.71	8.11	5.55	3.58	3.51	4.45	4.18	7.52
Evening Peak	21-22	47	48	39	27	38	46	77	62	87	71	58	74	21-22	8.30	7.74	7.99	8.51	8.62	6.67	5.20	3.31	3.14	3.31	3.77	5.56
	22-23	26	28	28	18	43	44	71	43	73	62	28	44	22-23	8.14	8.02	8.60	8.31	8.27	6.34	5.03	2.72	3.00	3.36	3.68	7.7
	23-24	19	17	22	16	43	53	69	63	17	34	23-24	8.17	8.80	8.03	7.83	6.67	5.39	5.28	3.86	2.61	2.78	3.04	5.13		

AP DISCOMs ARR Petition FY 2026-27

Hourly Demand Supply Gap (Annexure-I)																								
Date/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
01-04-2026	37.7	106.7	59.1	70.0	220.5	261.3	204.1	900.5	-377.6	-763.2	-1155.0	-973.1	-956.2	-1000.2	-625.1	-308.9	-151.2	-300.3	360.7	356.9	370.0	592.7	607.8	479.4
02-04-2026	143.6	24.5	108.3	-13.9	206.7	182.4	20.4	-495.1	-410.7	-766.4	-1101.1	-976.7	-1000.6	-1030.6	-738.8	-362.4	-192.7	-199.1	-485.0	284.4	330.9	409.5	428.8	239.8
03-04-2026	67.6	80.6	111.3	222.4	312.2	346.4	219.4	-26.2	-346.7	-425.4	-967.3	-1015.8	-817.5	-910.2	-605.9	-220.5	-111.3	-296.7	330.6	33.7	231.7	330.6	442.9	206.1
04-04-2026	95.0	88.0	30.1	200.9	420.5	293.0	163.6	-296.0	-443.3	-891.4	-1317.6	-1097.7	-1007.3	-893.4	-715.2	-245.7	-95.1	-203.9	325.9	126.4	40.4	311.1	317.0	258.4
05-04-2026	51.1	-81.1	65.1	32.4	136.3	186.1	80.0	213.0	-63.1	-431.4	-978.5	-921.6	-809.5	-842.9	-728.6	-503.3	-491.0	-278.3	151.9	141.1	308.1	211.9	391.3	343.8
06-04-2026	281.1	289.4	172.7	80.7	58.7	63.1	-81.2	-611.1	-722.6	-946.7	-1294.4	-1440.0	-1197.3	-1065.0	-809.9	-659.3	-496.3	-490.3	131.9	-21.9	346.0	400.4	522.0	437.7
07-04-2026	365.5	289.2	221.3	131.6	164.3	144.2	8.6	-357.5	-394.9	-800.8	-1292.7	-1242.3	-1202.3	-1043.2	-794.0	-467.9	-475.3	-659.6	72.4	272.0	500.0	630.0	496.1	537.6
08-04-2026	520.3	445.4	141.6	294.6	236.4	367.1	56.4	-423.8	-461.0	-947.1	-1320.0	-1225.1	-1254.2	-1213.1	-928.5	-524.5	-432.7	-431.1	-68.0	289.6	495.0	576.2	423.5	516.8
09-04-2026	145.1	-37.8	57.7	-21.1	-1.9	-30.7	-22.2	-786.2	-873.1	-1247.9	-1603.8	-1603.8	-1416.8	-1028.3	-582.8	-685.9	-499.9	-475.4	-454.4	-235.9	-22.4	288.1	388.0	335.0
10-04-2026	361.5	193.0	368.9	132.6	174.2	416.7	161.8	-416.9	-606.2	-1009.6	-1144.2	-1114.8	-1071.8	-981.0	-684.0	-552.7	-339.6	34.1	122.2	116.6	25.6	145.1	137.7	137.7
11-04-2026	-312.7	-436.9	-486.9	-274.1	-84.8	37.1	-9.7	-638.2	-895.9	-1203.3	-1580.9	-1616.7	-1603.6	-1474.2	-1055.2	-675.1	-434.7	-282.0	518.5	323.6	506.5	570.1	472.0	508.2
12-04-2026	300.5	200.9	435.3	276.9	324.1	313.9	144.7	-328.8	-495.0	-824.2	-1134.9	-1152.9	-1089.3	-885.8	-612.6	-477.6	-438.8	72.8	36.0	312.0	460.2	442.2	434.1	434.1
13-04-2026	509.9	288.0	144.6	312.6	187.4	110.2	16.1	-476.6	-640.0	-1027.8	-1404.5	-1399.2	-1395.3	-1374.9	-1197.3	-810.0	-638.8	-599.8	40.2	-52.3	-50.0	-599.9	-796.1	-786.8
14-04-2026	-561.7	-546.2	-110.6	-325.1	-159.1	-226.4	-80.9	-888.5	-1133.0	-1424.4	-1748.9	-1802.0	-1874.6	-1684.3	-1188.0	-752.9	-713.5	-61.1	107.0	267.6	318.0	400.0	430.9	430.9
15-04-2026	354.3	293.0	224.6	207.7	182.9	70.9	-51.6	-469.1	-786.3	-1024.6	-1400.2	-1502.0	-1454.5	-1402.8	-1067.5	-1107.6	-750.5	-178.9	-21.9	-23.0	137.8	269.0	-32.4	-32.4
16-04-2026	-174.4	-219.5	-304.8	-407.3	-213.3	-159.0	-304.9	-849.8	-1148.2	-1478.2	-1974.3	-1385.9	-1385.9	-1343.4	-1087.2	-631.2	-437.0	-282.0	518.5	323.6	506.5	570.1	472.0	508.2
17-04-2026	169.9	151.4	100.6	48.1	79.9	69.0	-53.0	-610.4	-751.3	-1081.5	-1375.4	-1338.1	-1218.3	-1206.2	-904.5	-502.9	-316.4	-135.5	444.8	357.9	176.3	507.7	276.1	464.4
18-04-2026	265.5	335.3	184.2	309.9	302.2	432.4	781.9	307.5	-430.4	-734.0	-1207.3	-1166.6	-1210.4	-1075.6	-813.3	-432.5	-459.2	-339.7	441.5	464.4	377.7	913.7	645.1	671.0
19-04-2026	222.4	420.5	434.0	315.9	400.0	414.3	200.2	-332.2	-646.6	-1215.5	-1190.1	-1147.9	-1095.4	-1034.9	-827.8	-440.0	-397.2	-192.4	369.7	491.4	615.1	688.8	700.1	371.2
20-04-2026	457.5	425.8	451.9	404.4	496.6	377.6	189.5	-337.6	-490.3	-803.0	-1065.3	-1129.9	-825.1	-956.2	-781.7	-377.9	-139.3	-280.9	346.2	521.2	646.7	770.2	640.0	968.4
21-04-2026	759.2	633.3	593.8	477.8	367.9	244.0	174.2	-261.7	-462.5	-824.7	-1062.2	-1072.2	-958.4	-818.3	-488.6	-33.6	5.6	-21.7	575.1	638.8	822.6	925.6	812.6	716.8
22-04-2026	702.3	750.2	621.1	489.1	434.2	301.4	59.2	-404.2	-491.1	-703.7	-974.2	-1076.1	-748.8	-554.0	-258.6	88.1	293.4	124.3	598.3	639.4	826.2	1100.3	1111.7	879.3
23-04-2026	763.0	498.2	324.4	295.3	309.9	220.9	-15.7	-411.4	-406.6	-654.3	-975.4	-732.1	-669.2	-490.2	-331.3	285.6	388.0	386.3	795.7	722.5	867.0	1026.7	1107.7	655.6
24-04-2026	637.6	321.8	145.7	160.5	270.0	120.2	-87.0	-536.5	-695.4	-														

PFI COMMENTS / SUGGESTIONS: CSPDCL ARR Petition FY 2026-27



Date/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
01-05-2026	245.8	260.8	269.7	163.4	95.4	2.1	-264.3	-713.4	-1038.4	-1377.6	-1669.6	-1558.0	-1557.7	-1266.5	-926.1	-925.7	-534.2	-534.2	-30.4	277.8	795.6	962.1	1299.1	1645.4	763.3
01-06-2026	904.6	769.3	596.4	476.6	537.6	521.5	168.9	-412.8	-738.1	-1159.2	-1681.1	-1432.4	-1346.2	-1058.9	-669.8	-314.2	-280.2	-30.4	277.8	795.6	962.1	1299.1	1645.4	1248.2	1348.2
02-05-2026	1090.5	923.9	912.1	829.9	703.8	583.9	130.6	-283.4	-696.2	-1083.9	-1291.9	-1263.2	-1267.6	-961.9	-631.4	-487.5	-220.0	-375.9	149.3	604.6	856.6	1032.0	1192.3	1481.0	1132.9
02-06-2026	1074.8	1008.3	924.0	812.7	678.6	549.6	244.7	-78.9	-244.7	-528.6	-779.6	-1068.0	-1293.3	-1089.1	-747.8	-516.6	-216.6	-588.8	89.1	326.6	559.6	801.6	1126.6	1376.1	1132.9
03-05-2026	970.7	852.6	702.0	639.9	630.9	569.6	188.7	-304.0	-700.4	-1108.1	-1301.7	-1267.6	-1267.6	-940.6	-628.8	-463.9	-529.1	-483.9	27.7	785.0	1076.6	1312.0	1505.0	1060.0	1060.0
03-06-2026	903.7	808.8	531.6	605.5	646.1	531.2	168.6	-224.2	-551.2	-912.3	-1130.1	-839.7	-754.3	-339.3	-187.3	37.3	-202.9	-168.7	401.2	572.7	822.1	1170.0	755.2	482.2	482.2
04-05-2026	616.9	511.6	524.0	517.1	481.7	554.9	171.6	-274.7	-467.6	-1038.8	-1109.0	-1000.7	-906.2	-514.7	-389.7	-416.8	-343.0	-379.9	139.3	425.5	597.7	889.6	1161.6	696.6	696.6
04-06-2026	468.9	235.3	221.9	234.8	379.9	322.8	8.9	-572.5	-807.2	-1004.8	-974.3	-917.5	-828.2	-720.0	-408.4	-54.7	-542.5	-501.6	-16.7	199.8	411.1	644.4	643.6	316.7	316.7
05-05-2026	254.9	263.5	210.0	111.5	73.2	-44.5	-488.3	-892.5	-1081.5	-1232.9	-1352.7	-987.8	-905.6	-608.6	-510.5	-281.3	-49.6	-146.4	-42.7	599.9	1033.0	1310.2	1602.0	1037.2	1037.2
05-06-2026	756.6	789.6	782.0	721.1	378.8	23.8	-11.8	-643.1	-891.4	-1125.4	-1320.5	-1293.7	-1293.7	-949.9	-555.3	-42.1	299.8	89.0	-138.8	566.7	974.7	1244.5	1544.5	958.8	958.8
06-05-2026	880.2	734.9	491.3	549.9	482.6	487.8	120.5	-478.7	-790.2	-1368.2	-1518.1	-1179.8	-1131.5	-1010.4	-597.2	-299.2	-214.0	-75.6	174.0	257.1	343.9	482.2	454.4	505.5	505.5
06-06-2026	338.0	203.7	127.3	-20.4	-121.1	664.3	-567.1	-830.2	-1178.3	-1610.5	-1625.5	-1412.4	-1412.4	-1028.3	-736.3	-835.7	-736.3	-835.7	-47.2	189.4	502.2	886.7	649.0	435.5	435.5
07-05-2026	316.2	191.4	86.4	8.8	-52.9	-232.1	-665.0	-1031.8	-1142.2	-1407.8	-1598.9	-1438.8	-1320.2	-1242.4	-843.3	-781.4	-688.8	-700.3	128.3	113.5	392.1	557.8	583.9	309.3	309.3
07-06-2026	111.5	358.3	220.8	78.3	-52.7	-164.5	-229.1	-425.7	-1150.0	-1295.5	-1622.0	-1503.5	-1605.7	-1573.8	-1472.9	-1087.2	-889.4	15.5	184.2	406.6	881.2	643.1	534.0	534.0	534.0
08-05-2026	328.8	351.9	145.7	288.7	238.2	84.8	-81.2	-749.3	-824.1	-1222.0	-1556.0	-1559.9	-1663.1	-1837.9	-1155.3	-1020.0	-675.1	-578.6	-48.6	48.7	372.3	547.5	322.9	157.6	157.6
08-06-2026	148.9	234.7	204.9	24.2	-36.0	-219.8	-456.1	-974.6	-1424.4	-1844.4	-2248.8	-2118.8	-1964.4	-1377.7	-1041.6	-1092.0	-1294.6	-809.9	-175.1	-36.5	151.3	491.7	619.8	375.7	375.7
09-05-2026	395.0	187.8	81.6	-16.5	-89.4	-125.6	-442.0	-1063.6	-1273.3	-1469.5	-1649.4	-1603.1	-1609.5	-1249.4	-1199.9	-707.3	-539.2	135.3	376.4	510.4	595.4	700.0	364.1	364.1	364.1
09-06-2026	358.2	347.6	247.5	130.9	171.3	-14.4	-171.7	-784.5	-972.7	-1377.6	-1641.8	-1526.8	-1487.1	-1323.9	-1067.6	-915.8	-616.5	-411.5	374.4	684.7	809.7	818.1	822.2	777.5	777.5
10-05-2026	693.3	563.1	477.0	413.6	359.2	399.0	128.0	-562.3	-930.3	-1124.5	-1259.8	-1309.8	-1331.1	-1144.3	-1005.4	-753.6	-442.9	-143.3	425.2	620.8	826.9	921.1	807.8	843.7	843.7
10-06-2026	705.5	629.8	660.4	518.2	599.3	434.7	96.3	-519.9	-648.7	-829.4	-1079.6	-1103.0	-1058.0	-1106.3	-899.8	-687.9	-550.5	-263.2	361.8	674.0	702.8	703.2	787.4	702.6	702.6
11-05-2026	382.1	426.0	200.2	291.3	146.7	249.2	102.2	-409.3	-571.8	-822.6	-1227.7	-1218.2	-1191.4	-914.4	-652.8	-10.9	-93.7	-176.3	20.3	663.6	822.4	1068.2	866.2	787.9	787.9
11-06-2026	748.9	385.1	380.0	390.9	435.8	139.0	-244.6	-785.1	-1195.8	-1270.2	-1456.5	-1439.4	-1424.2	-1487.8	-1237.8	-886.9	-586.1	-345.3	172.3	497.0	289.2	224.3	281.5	233.0	233.0
12-05-2026	819.7	177.7	29.0	120.6	78.9	-40.5	-395.5	-753.7	-1105.9	-1420.8	-1641.7	-1675.2	-1708.5	-1839.2	-1431.1	-1197.7	-767.0	-381.7	79.8	417.9	410.5	184.0	61.2	51.0	51.0
12-06-2026	21.9	104.3	-231.3	-108.3	127.9	173.0	-38.6	-454.4	-893.3	-1250.4	-1639.7	-1613.5	-1491.0	-1439.5	-1244.1	-911.8	-690.9	-306.6	297.3	680.0	323.7	186.1	-286.7	26.0	26.0
13-05-2026	84.0	32.7	96.5	-235.0	-142.9	-48.0	-111.4	-574.0	-1133.0	-1259.5	-1543.7	-1671.6	-1549.2	-1593.1	-1090.2	-882.6	-466.7	77.0	453.3	286.3	151.0	-1.6	13.5	13.5	13.5
13-06-2026	-160.7	-308.2	-234.0	-218.7	-69.0	-79.6	-166.0	-465.9	-89.7	-1425.0	-1662.2	-1718.0	-1718.0	-1667.7	-1344.5	-1069.3	-751.6	-608.9	644.1	684.8	449.8	118.6	49.8	110.4	110.4
14-05-2026	148.9	234.7	204.9	24.2	-36.0	-219.8	-456.1	-974.6	-1424.4	-1844.4	-2248.8	-2118.8	-1964.4	-1377.7	-1041.6	-1092.0	-1294.6	-809.9	-175.1	-36.5	151.3	491.7	619.8	375.7	375.7
14-06-2026	395.0	187.8	81.6	-16.5	-89.4	-125.6	-442.0	-1063.6	-1273.3	-1469.5	-1649.4	-1603.1	-1609.5	-1249.4	-1199.9	-707.3	-539.2	135.3	376.4	510.4	595.4	700.0	364.1	364.1	364.1
15-05-2026	358.2	347.6	247.5	130.9	171.3	-14.4	-171.7	-784.5	-972.7	-1377.6	-1641.8	-1526.8	-1487.1	-1323.9	-1067.6	-915.8	-616.5	-411.5	374.4	684.7	809.7	818.1	822.2	777.5	777.5
15-06-2026	693.3	563.1	477.0	413.6	359.2	399.0	128.0	-562.3	-930.3	-1124.5	-1259.8	-1309.8	-1331.1	-1144.3	-1005.4	-753.6	-442.9	-143.3	425.2	620.8	826.9	921.1	807.8	843.7	843.7
16-05-2026	705.5	629.8	660.4	518.2	599.3	434.7	96.3	-519.9	-648.7	-829.4	-1079.6	-1103.0	-1058.0	-1106.3	-899.8	-687.9	-550.5	-263.2	361.8	674.0	702.8	703.2	787.4	702.6	702.6
16-06-2026	382.1	426.0	200.2	291.3	146.7	249.2	102.2	-409.3	-571.8	-822.6	-1227.7	-1218.2	-1191.4	-914.4	-652.8	-10.9	-93.7	-176.3	20.3	663.6	822.4	1068.2	866.2	787.9	787.9
17-05-2026	753.8	663.2	406.8	308.3	330.8	258.1	108.8	-517.8	-812.0	-1041.4	-1179.8	-1235.8	-1168.0	-827.4	-651.3	-204.5	92.1	177.6	744.6	654.2	464.8	603.3	653.7	573.9	573.9
17-06-2026	748.9	385.1	380.0	390.9	435.8	139.0	-244.6	-785.1	-1195.8	-1270.2	-1456.5	-1439.4	-1424.2	-1487.8	-1237.8	-886.9	-586.1	-345.3	172.3	497.0	289.2	224.3	281.5	233.0	233.0
18-05-2026	819.7	177.7	29.0	120.6	78.9	-40.5	-395.5	-753.7	-1105.9	-1420.8	-1641.7	-1675.2	-1708.5	-1839.2	-1431.1	-1197.7	-767.0	-381.7	79.8	417.9	410.5	184.0	61.2	51.0	51.0
18-06-2026	21.9	104.3	-231.3	-108.3	127.9	173.0	-38.6	-454.4	-893.3	-1250.4	-1639.7	-1613.5	-1491.0	-1439.5	-1244.1	-911.8	-690.9	-306.6	297.3	680.0	323.7	186.1	-286.7	26.0	26.0
19-05-2026	84.0	32.7	96.5	-235.0	-142.9	-48.0	-111.4	-574.0	-1133.0	-1259.5	-1543.7	-1671.6	-1549.2	-1593.1	-1090.2	-882.6	-466.7	77.0	453.3	286.3	151.0	-1.6	13.5	13.5	13.5
19-06-2026	-160.7	-308.2	-234.0	-218.7	-69.0	-79.6	-166.0	-465.9	-89.7	-1425.0	-1662.2	-1718.0	-1718.0	-1667.7	-1344.5	-1069.3	-751.6	-608.9	644.1	684.8	449.8	118.6	49.8	110.4	110.4
20-05-2026	148.9	234.7	204.9	24.2	-36.0	-219.8	-456.1	-974.6	-1424.4	-1844.4	-2248.8	-2118.8	-1964.4	-1377.7	-1041.6	-1092.0	-1294.6	-809.9	-175.1	-36.5	151.3	491.7	619.8	375.7	375.7
20-06-2026	395.0	187.8	81.6	-16.5	-89.4	-125.6	-442.0	-1063.6	-1273.3	-1469.5	-1649.4	-1603.1	-1609.5	-1249.4	-1199.9	-707.3	-539.2	135.3	376.4	510.4	595.4	700.0	364.1		

59) **In view of above, PFI requests Hon'ble CSERC to direct CSPDCL to resubmit the Power Purchase Planning Cost & Quantum after doing a detailed hourly analysis.**

B. HIGHER TRANSMISSION CHARGES

60) PFI notes while computing Transmission Charges, CSPDCL has considered escalation equal to 4-year CAGR (from FY 2020-21 to FY 2024-25). However, no reasoning has been provided by CSPDCL for arbitrarily considering such escalations.

61) It will not be prudent to escalate the ARR of FY 2026-27 and allow upfront loading in Tariff, due to increased Transmission Cost, for the consumers of Chhattisgarh. Moreover, Hon'ble Commission has already approved the monthly Fuel and Power Purchase Adjustment Surcharge (FPPAS), which recovers the variation in Power Purchase & Transmission cost through automatic route.

62) **PFI requests Hon'ble CSERC to consider the same Transmission Charges for FY 2026-27 as FY 2024-25 actuals. Any difference in Actual and Allowed Transmission Cost will be automatically factored in Fuel and Power Purchase Adjustment Surcharge (FPPAS) mechanism for FY 2026-27. It will not be prudent to escalate the ARR of FY 2026-27 and allow upfront loading in Tariff, due to increased Power Purchase Cost, for the consumers of Chhattisgarh. The difference in claimed Power Purchase Cost and as computed by PFI may be borne by the Govt. of Chhattisgarh in the form of subsidy.**

C. PROVISION FOR BAD DEBT

63) CSPDCL has claimed Rs. 131 Cr. of Provision for Bad Debt for FY 2026-27. It is pertinent to note that in the past three years, no bad debt has been claimed by the DISCOM or approved by the Commission.

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Bad Debt Written Off (Rs. Cr.)	0	0	0

64) Regulation 91.8 of CSERC (*Terms and Conditions for Determination of Multi-Year Tariff*) Regulations, 2025 stipulates that bad debt can only be allowed based on trend

of bad debt written off in previous year. Relevant extract of the said Regulations is as follows.

“91.8. Bad debts written off

*The Commission may allow bad debts written off, as approved by the Competent Authority, as a pass through in the Aggregate Revenue Requirement, **based on the trend of write off of bad debts in the previous years, subject to prudence check:***

Provided that, the Commission shall true-up the bad debts written off in the ARR based on the actual write off of bad debts excluding delayed payment surcharge waived off, if any, during the year, subject to prudence check:

Provided further that, if subsequent to the write off of a particular bad debt, revenue is realized from such bad debts, the same shall be included as an uncontrollable item under the Non-Tariff Income in the year in which such revenue is realized.”

- 65) **Thus, based on Regulatory provisions, it is submitted that in previous years no provision for bad debt has been allowed in the ARR and hence, no such provision should be allowed for FY 2026-27. Upfront loading on the ARR should not be allowed, any actual bad debt written off can be handled at the time of True-Up of FY 2026-27.**

D. R&M EXPENSES NOT LINKED WITH GFA

- 66) PFI notes that R&M Expenses are calculated based on Wholesale Price Index inflation as stipulated in CERC (Terms and Conditions for Determination of Multi-Year Tariff) Regulations, 2025. Relevant extract from the said Regulations is as follows.

“82.4. Operation And Maintenance (O&M) Expenses

..

ii. Maintenance and General (M&G) Expenses

(a) Maintenance and General (M&G) expenses shall comprise:

- (i) Administrative and General (A&G) expenses;*
- (ii) Repair and Maintenance (R&M) expenses*

(b) The Commission shall stipulate a separate trajectory for each of the components of M&G expenses viz., A&G expenses and R&M expenses for the Control Period.

(c) The A&G expenses (excluding expenses towards outsourcing manpower) (A&G) and R&M expenses (excluding expenses towards outsourcing manpower) (R&M) for the base year, i.e., FY 2025-26, shall be derived on the basis of the normalized average of the actual A&G expenses (excluding expenses towards outsourcing manpower) and R&M expenses (excluding expenses towards outsourcing manpower), respectively, available in the accounts for the previous five (5) years immediately preceding the base year FY 2025-26, subject to prudence check by the Commission: Provided that, any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five (5) years.

(d) The normalization of R&M expenses shall be done by applying last five-year average increase/decrease in Wholesale Price Index (WPI) of all commodities on year-to-year basis.”

67) It is pertinent to note that R&M expenses are intrinsically linked with the Gross Fixed Asset base quantum & Ageing of the same. Linking R&M only with WPI does not provide a true picture. That is why many State Electricity Regulatory Commissions calculate normative R&M Expenses by linking it with GFA. Relevant extracts from Tariff Regulations of Jharkhand & Uttar Pradesh are as follows.

**JSERC (Terms and Conditions for Determination of Distribution Tariff)
Regulations, 2025**

“10.6 The above components shall be computed in the manner specified below:

*a) **$R\&M_n = K * GFA * (INDX_n / INDX_0)$***

Where, ‘K’ is a constant (expressed in percentage (%)) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and shall be calculated based on the percentage (%) of R&M to GFA of the preceding year of the Base Year in the MYT Order after normalising any abnormal expenses;

‘GFA’ is the opening value of the gross fixed asset of the nth year;

INDX_n is the indexation for nth year of control period;

INDX₀ is the indexation for the base year of the control period;”

UPERC (MYT for Distribution) Regulations, 2025

“Repair and Maintenance Expense

33.7 *The normative Repair and Maintenance expense shall be allowed in the ARR/ True-up by the Commission as the sum of the following*

a) For the assets capitalised on or before 31.03.2025 @ 5% of the opening GFA as approved by the Commission.

b) For the assets capitalised after 31.03.2025 @ 3% of the opening GFA as approved by the Commission.

Provided that the normative R&M determined as per the above stipulation shall be inclusive of any impact of change in the applicable taxes or duties.”

- 68) Further, CEA Guidelines for Benchmarking of Operation & Maintenance Norms for Distribution Utilities dated 30/01/2025 also emphasize the need to link R&M Expenses with GFA. As GFA of a DISCOM depends on network capacity, therefore the DISCOM will be encouraged to invest in network upgradation, which in turn will help in better network availability and power availability to consumers. Relevant extract from the Guidelines is as follows.

“8.6.3 METHODOLOGY FOR DETERMINATION OF O&M EXPENSES

*Based on present regulatory practice, it has generally been observed that regulators have linked employee expenses and administrative & general expenses with either number of consumer or quantum of distribution assets, **while repair and maintenance expenses are linked to gross fixed assets (GFA) of DISCOMs.***

.
.

After examination of different models followed by Regulations, following hybrid approach for determination of O&M expenses is recommended:

A. Step 1: Business as usual with adjustment for efficiency improvement

In this step, the O&M expenses for DISCOM shall be computed for three components i.e. i) Employee expenses, ii) Repairs and Maintenance (R&M) expenses; and iii) Administrative and Generation (A&G) expenses. Each component of O&M expenses

shall be allowed based on past trends, and inflation index after adjustment for efficiency improvement as decided by the Regulator.

Each component of above O&M expenses of a DISCOM can be derived on the basis of actual O&M expenses for last three/five (3/5) years based on per Network component expenses (like No of SS, DTs, Line/cable length etc) subject to adjustment for best O&M practices in other DISCOMs. The average of such O&M expenses can be considered as O&M expenses for the middle year and then the middle year expenses are escalated with year on year basis with the escalation factor considering CPI and WPI of respective years in a defined ratio for subsequent years up to the considered year to arrive at base year figures for the control period.

Thereafter, O&M expenses for each year of the Control Period shall be computed based on the formula shown below:

$$\mathbf{O\&M_n = EMP_n + R\&M_n + A\&G_n}$$

Where,

- O&M_n – Operation and Maintenance expense for the nth year;
- EMP_n – Employee Costs for the nth year;
- **R&M_n – Repair and Maintenance Costs for the nth year;**
- A&G_n – Administrative and General Costs for the nth year;

The above components shall be computed in the manner specified below:

EMP _n =	EMP _{n-1} × Estimated Number of Consumers for nth year × (1+CPI Inflation%-X1)
R&M _n =	K × (GFA _n +GFA _{n-1})/2 × (1+WPI Inflation-X2) +
A&G _n =	(A&G _{n-1}) × Estimated Number of Consumer for nth year × (1+WPI Inflation -X3)

Note:

EMP_{n-1} – Employee Costs/consumer for the (n-1)th year;

“K” is a constant specified by the Commission in %. Value of K for each year of the control period shall be determined by the Commission in the MYT order based on distribution licensee’s filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by

the Commission in past, age of the assets and any other factor considered appropriate by the Commission; The floor limit of factor K shall be considered as 2% - 4%.

GFA_{n-1} - Gross Fixed Asset = Closing GFA of the distribution licensee for the n-1th year as per audited books of account. GFA_n – Estimated Gross Fixed Asset for the distribution licensee for the nth year based on approved CAPEX plan.

A&G_{n-1} – Administrative and General Costs/ Consumer for the (n-1)th year;

CPI Inflation – is the point to point change in the Consumer Price Index (CPI) for Industrial Workers (all India) as per Labour Bureau, Government of India; in case CPI Inflation is negative, the escalation/ change shall be 0%;

WPI Inflation – is the point to point change in the Wholesale Price Index (WPI) as per the Office of Economic Advisor of Government of India

X1,X2,X3- efficiency factors to be specified by the Commission. The efficiency factors shall be considered as 1-2% by the Commission. Further, the efficiency factor shall be considered as 0% if the consumer growth is more than 2%.

B. Step 2: Computation of O&M expenses as percentage of GFA

In this step, computation of O&M expenses will be carried out as percentage of GFA of DISCOM.

State-wise Gross Fixed Asset, O&M expenses and O&M expenses as % of Gross Fixed Asset during 2021-22 and 2022-23 available are at Annexure-II. All India average of O&M expenses as % of Gross Fixed Asset during 2021-22 and 2022-23 are 16.09% and 17.21% respectively. From Statistical analysis, it has been found that O&M expenses as a percentage of GFA lies between 13%-19% with 95% statistical confidence level with median of 14.70%. However, for hilly States and UTs, O&M cost as percentage of GFA is slightly higher (more than 20%).

In this step, O&M costs will be calculated at 15% (median) of the GFA for normal States/ UT and 21% of GFA for hilly states. GFA based O&M expenses will give more flexibility to distribution licensee to optimize their expenses based on requirement and will also shift

the focus of DISCOMs to invest in their network, and thus serve the consumers in better way. However, the Regulator may decide any other percentage based on their analysis.

C. Step 3: Hybrid Model:

In this step, the O&M expenses obtained as per Step-1 (Business as Usual) and as per Step-2 (GFA mode) will be compared for determination of O&M expenses by the Regulator. If the O&M expenses under Step-1 is less than O&M expenses under Step-2, then O&M expenses under Step-2 will be considered for determination of O&M expenses by the Regulator. In other cases, O&M expenses as per Step-1 will be considered for determination of O&M expenses by the Regulator.

This hybrid model will ensure that distribution licensee will get atleast certain % of GFA as O&M expenses. As GFA of a distribution licensee depends on network capacity, therefore distribution licensee will be encouraged to invest in network upgradation, which in turn will help in better network availability and power availability to consumers.”

- 69) **In view of above, PFI requests Hon’ble CSERC to use Power to Relax provision as per Regulation 113 of CSERC Tariff Regulations 2025 and amend the Regulations for calculating normative R&M Expenses so that it is linked with GFA quantum and ageing of the asset base.**

E. RETURN ON EQUITY NOT LINKED WITH STANDARDS OF PERFORMANCE

- 70) The Government of India has launched several reforms to enhance Electricity Consumer Satisfaction through supply of 24x7, reliable, quality & affordable power. To bolster consumer interests, the GoI issued Rights of Consumer Rules on 31/12/2020 which focus on timely release of connections, time bound replacement of burnt meters, standards of performance for DISCOMs, compensation for delay in services etc.
- 71) The need of the hour is to move beyond just supply of electricity and towards consumer satisfaction. In majority of the States, including Chhattisgarh, consumers can rely only on single DISCOM and have no other choice for electricity supply. In

such a scenario, it becomes critical that the service being provided by the DISCOM meets certain Standards which should be enforced through Regulation.

- 72) In this regard, PFI submits that various State Electricity Regulatory Commissions have divided the return on equity into two parts – base return & additional return. The additional RoE is only allowed if Standards of Performance are met. Relevant extracts from Tariff Regulations of Telangana & Gujarat are as follows.

TGERC (Multi Year Tariff) Regulations, 2023

“29 Return on Equity

29.2 Return on Equity shall be computed at the following base rates:...

*(e) Distribution licensee: **Base Return on Equity of 14% and additional Return on Equity up to 2% linked to Licensee’s performance towards meeting standards of performance :***

Provided that the Commission at the time of true-up shall allow the additional Return on Equity up to 2% based on Licensee meeting the summary of overall performance standards as specified in Clause 1.11 of Schedule III of TSERC (Licensees’ Standards of Performance) Regulations, 2016;”

GERC (Multi Year Tariff) Regulations, 2024

“35 Return on Equity

35.1 Maximum Return on Equity that shall be allowed on the equity capital determined in accordance with Regulation 32 of these Regulations for the assets put to use for the Generating Company and Retail Supply Business up to the rate of 15.50% per annum in Indian Rupee terms and for Transmission Licensee, SLDC and Distribution Wires Business, up to the rate of 15.00% per annum in Indian Rupee terms:

Provided that Return on Equity shall be allowed in two parts viz. Base Return on Equity, and Additional Return on Equity linked to actual performance:

Provided further that Additional Return on Equity shall be trued-up for respective year based on actual performance substantiated by documentary evidence, after prudence check by the Commission.

Provided further that the Commission may conduct a third-party verification of the performance parameters based on which the additional Return on Equity is being allowed...

35.12 In case of Retail Supply Business, with effect from April 01, 2025, an additional rate of Return on Equity on achievement of certain specified target performance parameters including overall collection efficiency (where smart metering is not implemented), percentage of assessed bills over total bills, meeting RPO Trajectory targets, CGRF performance (efficacy in dispute resolution/complaint handling), **compliance with Electricity (Rights of Consumers) Rules** or any other performance parameter shall be trued-up as per the trajectory provided by the Commission in the respective MYT Orders.”

- 73) However, CERC (Terms and Conditions for Determination of Multi-Year Tariff) Regulations, 2025 provide for a blanket 16% return on equity for Retail Supply Business. Thus, the DISCOM has no incentive to focus on consumer satisfaction. Relevant extract from the said Regulations is as follows.

“24. RETURN ON EQUITY

24.1. Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17 at the rate of 15.5% for generating company, transmission licensee, distribution wires business, and SLDC.

24.2. Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17 at the **rate of 16.0% for retail supply business.”**

- 74) **In view of above, PFI requests Hon’ble CERC to use Power to Relax provision as per Regulation 113 of CERC Tariff Regulations 2025 and amend the Regulations for calculating Return on Equity. The Return on Equity should be bifurcated into base return & additional return. In consumer interest, the additional Return on Equity should only be allowed if Standards of Performance are met.**

F. SUMMARY OF ARR FY 2026-27

- 1) As stipulated above, summary of PFI Comments on ARR of FY 2026-27 for CSPDCL is as follows, Hon'ble Commission is requested to kindly consider the same.

(Rs. Cr.)

Sr. No.	Particulars	Claimed by DISCOM	Proposed by PFI	Difference
1	Sales (MU)	38729	38729	0
2	Distribution Loss	13.19%	13.19%	
3	Power Purchase Cost	18733	18733	0
4	Transmission Charges	2418	2159	(259)
4a	<i>Less: Escalation on Transmission Charges</i>		259	
5	Operation & Maintenance (O&M) Expenses (5a+5b+5c)	2728	2728	0
5a	Employee Expenses	2139	2139	
5b	Administrative & General Expenses	138	138	
5c	Repair & Maintenance Expenses	452	452	
6	Return on Equity	519	519	0
7	Interest on Loan	284	284	0
8	Interest on Working Capital	146	146	0
9	Depreciation	466	466	0
10	Other Costs	653	522	(131)
10a	<i>Less: Provision for Bad Debt</i>		131	
11	Aggregate Revenue Requirement (ARR)	25947	25,556	(390)
12	Less: Non-Tariff Income	486	486	0
13	Net ARR	25,460	25,070	
14	Revenue from Sale of Power	26216	26216	0
15	<i>Prior Period (Gap)/Surplus</i>	(7064)	(7064)	
16	Revenue (Gap)/Surplus	(6308)	(5918)	(390)

In view of above, elements of ARR which are not as per Regulatory provisions may not be passed on to the consumers, rather it should be borne by Govt. of Chhattisgarh in the form of subsidy. **Accordingly, the subsidy to be decided by Govt. of Chhattisgarh for FY 2024-25 should include Rs. 390 Cr. additionally.**

PRAYERS BEFORE HON'BLE CSERC:-

- 1) To consider the comments / suggestions of Power Foundation of India (PFI) on True-Up Petition FY 2024-25 & Tariff Petition FY 2026-27 of CSPDCL.
- 2) To direct DISCOM to submit station-wise power purchase breakup in Audited Accounts
- 3) To impose penalty for non-compliance of RPO targets.
- 4) To direct CSPDCL to submit time-block wise import & export details for banking & bilateral transactions. Trading margin & transmission charges should only be allowed if there is no overlap in the same time-block.
- 5) To direct CSPDCL to endeavor to maximize revenue from sale of surplus power. Moreover, DISCOM should be directed to submit SLDC certified monthly reports stating that Merit Order Despatch Principle has been followed.
- 6) To allow Pension & Gratuity as per audited accounts
- 7) To not allow loss due to theft, fire & misappropriation
- 8) To include LPS from consumers as part of Non-Tariff Income after adjusting for financing cost of the LPS.
- 9) To allow compensation for injuries, death and damages only for incidents where the fault was not attributable to the DISCOM.
- 10) To not escalate Transmission Charges while determining the power purchase cost for FY 2026-27.
- 11) To not allow provision for Bad Debt in line with trend of previous three years.
- 12) To use Power to Relax and amend CSERC Tariff Regulations 2025 so that R&M expenses are lined with GFA quantum & ageing and Return on Equity is lined with Standards of Performance.
- 13) The inefficiencies of CSPDL should not be allowed to socialize to consumers at large rather it should be borne by Government of Chhattisgarh through revised subsidy of Rs. 8,717 Cr. instead of booked subsidy of Rs. 6,519 Cr. for FY 2024-25. Further, Govt. of Chhattisgarh should provide additional subsidy of Rs. 390 Cr. on account of higher claims of CSPDCL as tabulated above, over and above the subsidy decided by Govt. of Chhattisgarh for FY 2026-27.
- 14) To consider the additional submissions, if any, made by PFI for True-Up Petition FY 2024-25 & Tariff Petition FY 2026-27 of CSPDCL.