Submitted to Rajasthan Electricity Regulatory Commission

Comments on Petition for Approval of Multiyear Tariff and Investment Plan for FY21 to FY24 by JVVNL

CENTRE FOR ENERGY, ENVIRONMENT & PEOPLE

Rajasthan Electricity Regulatory Commission (RERC) has uploaded the petition filed by the Jaipur Vidyut Vitran Nigam Ltd. for determination of Multiyear Tariff and Investment Plan for FY 2020-2021 to 2023-2024. The present submission is in response to the petition published on the commission's website. We request the Commission to accept this submission on record.

GENERAL COMMENTS

- Due to the COVID-19 pandemic and the subsequent lockdown, the financial and operational position of the DISCOM was under unprecedented crisis. We appreciate the measures taken by the petitioner to the reduce burden on the consumers. However, the absence of an action plan to deal with such an unexpected crisis was evident. Readiness to manage a situation of crisis which may be in the form of a natural disaster, major technical failure or accident or disruptions caused by external forces such as hacking is extremely important for essential services such as supply of electricity. We request the commission to mandate the petitioner to put forth a 'Crisis Management Plan' within a period of one year.
- In the previous tariff orders, the commission allotted Rs. 50 Lakh for consumer awareness. But in the current MYT petition, the petitioner has not considered any allocation of the consumer education and awareness in the petition. The attitude of the petitioner towards the consumer awareness capacity building to enhance the efficacy of the regulatory process is of serious concern. We request the commission to take serious cognizance of the issue while allocation funds for the consumer awareness
- The petitioner did not fulfil the RPO compliance for the past 3 years. We submit the commission shall issue directive to the petitioner to ensure 100% realisation of the RPO targets.

Table 1: RPO compliance for the state of Rajasthan

Financial Year	RPO Target	Achievement
2017-18	14.25%	10.62%
2018-19	13.35%	12.26%
2019-20	15.00%	13.75%
2020-21 (upto Oct 20)	16.65%	14.91%

Source: Draft RERC order on installation of solar power systems at schools of the state government

SECTION-WISE COMMENTS

Impact of Covid-19 On MYT Projections

Our Comments

The petitioner submitted that the COVID-19 crisis has caused the distress situation affecting the Distribution Loss, Bad debts, Increase in O&M expenses, accrued debt burden, Working Capital Loans, Increased ACS-ARR gap due to change in sales mix.

We submit that three quarters have already passed. Hence, it is requested that the commission direct the petitioner to compute the impact of COVID-19 based on provisional data of accounts, finance, sales, and purchase. Consumer category-wise electricity sales forecast shall also be done after taking into account trends until December 31, 2020.

The petitioner in section 2.6 claimed "Consumers can view, download duplicate copies, and pay their bills through 'Urja Mitra' app available for Android and Apple devices as well as computers." We would like to remind the petitioner that the app they developed is "Bijli Mitra" and the app Urja Mitra is developed by Ministry of Power for alerting about the outage to the registered consumers. We submit that the petitioner shall exercise due diligence in filing the petition.

The petitioner submitted that the bills were notified through email and SMS for the consumers who have registered their email-ids and phone numbers. We request the petitioner to submit a report on the status of updating of consumer details – Mobile Numbers and Email IDs. We also request the commission to issue directives to the petitioner to undertake pro-active, time bound, target-based exercise to completely update the KYC details for the connections.

The petitioner in Section 2.8 of the petition submitted that as a relief measure for the COVID, the deferred amounts were also allowed to be paid by the consumers in two equal instalments in July 2020. We request the petitioner to submit category wise number of consumers who have availed this provision, amount of deferred receivables for the period.

Projection of Electricity Sales

Our Comments

The petitioner considered that Domestic Sales growth at a CAGR 7% from FY 12-13 to FY19-20 as the basis for projecting the BAU sales. The CAGR for the 3-, 5- and 7-year period presents a contrasting growth rate for the sales across different categories. Same is presented in Table 2 below.

Table 2: Category-wise CAGR computed for the past 3, 5 & 7 years

	Compound Annual Growth Rate (CAGR)		
Category	**3 years**	**5 years**	**7 years**
Domestic	3.75%	5.51%	6.32%
Non-Domestic	3.65%	5.08%	6.96%
Public streetlight	1.13%	0.68%	3.42%
Agriculture (Metered)	5.31%	8.25%	9.01%
Agriculture (Flat)	-6.98%	-10.74%	-9.32%
Small Industry	0.34%	-0.61%	0.91%
Medium Industry	2.29%	2.24%	1.85%
Large industry	4.00%	9.85%	8.18%
Public Water Work (S)	10.64%	12.30%	11.16%
Public Water Work (M)	-6.75%	-6.06%	-0.92%
Public Water Work (L)	-1.85%	3.86%	6.61%
Mixed Load	-6.29%	0.30%	-13.79%
Total	3.63%	6.50%	6.46%

Table 3 below presents year-on-year growth assumed by the petitioner for the MYT control period. It can be clearly deduced that the projections of the petitioner do not align with trends of 3-year and 5-year CAGR. Especially, projections for domestic, street lighting and public water works need to be noted and evaluated.

Table 3: Category-wise YoY growth rate considered by JVVNL for the MYT period

	YoY growth considered by JVVNL			
Category	**FY 21**	**FY 22**	**FY 23**	**FY 24**
Domestic	11.91%	6.88%	6.89%	6.89%
Non-Domestic	-18.50%	20.02%	9.98%	7.20%
Public streetlight	6.08%	4.69%	4.98%	4.74%
Agriculture (Metered)	1.77%	6.31%	7.28%	4.71%
Agriculture (Flat)	-11.26%	-25.00%	-33.33%	-50.00%
Small Industry	-18.15%	20.08%	4.88%	4.98%
Medium Industry	-17.78%	20.00%	4.07%	4.15%
Large industry	-18.65%	20.01%	7.06%	7.05%
Public Water Work (S)	2.44%	10.74%	10.78%	10.89%
Public Water Work (M)	3.33%	3.23%	3.13%	3.03%
Public Water Work (L)	8.95%	7.62%	7.36%	7.36%
Mixed Load	1.00%	5.45%	5.63%	5.78%
Total	-3.84%	10.75%	6.98%	5.94%

Further, the sales growth is likely to be significantly impacted because of the lockdown and decreased economic activity. The impact of COVID-19 is also likely to extend to FY22 and 23 based on forecasts of many expert agencies. Hence, the projections need to be prudently made based on recent trends and economic forecasts for state of Rajasthan.

The petitioner has considered an additional sale of 5% over and above the projected BAU 7% growth in the domestic category for FY20-21. The petitioner has also not submitted the category-wise provisional sales for the three Q1-Q3 (April 2020-December 2020) the period during which the impact of COVID was significant. We submit that the petitioner shall file the petition with the provisional sales based on actual values instead of the estimated sales projected.

Our analysis in Figure 1 from the data of the previous tariff and true-up petitions for the past 3 years shows there is a significant mismatch between the projected sales proposed by the petitioner in the tariff petition and the actual sale reported in the true-up petition across all categories. The projections also do not take into account sales migrations because of rooftop solar across different categories.

Such discrepancies in estimation of electricity sales have a significant impact on the overall performance and planning of the DISCOM, adding unnecessary additional burden on the consumers.

We further submit that the petitioner shall review the current practice projecting the sales on the basis of historical data, using category-wise CAGR. We further submit that the commission shall direct the petitioner to take into account the rapidly changing socio-economic, demographic and technological changes with the help of econometric models and resubmit projected sales for the overall MYT period and revise the projections in Table 12. The petitioner is also requested to provide category-wise data of solar rooftop capacity installed in the last 5 years.

Traction Load and EV Charging stations

Our Comments

The petitioner in the section 3.10 of the petition submitted that “Till date there have been no consumers in the categories of Traction Load and EV charging stations. Further, due to disruption in economic activity due to COVID, no new connections in these categories are expected for FY 2020-21.”

It may be noted that a considerable number of sales of Electric Vehicles have been happening in Rajasthan in FY 20-21. These sales are spread across two, three and four-wheeler categories. An EV cell has already been incorporated within JVVNL as per the mandate of the Commission. We request the petitioner submit details of the progress/status of the EV Cell and the activities undertaken in the FY 20-21 along with the detailed activities proposed for the MYT period.

We also request the petitioner to clarify why the supply to the Jaipur Metro and Indian Railways is not categorised as the traction.

Sales Projections for Agriculture Category

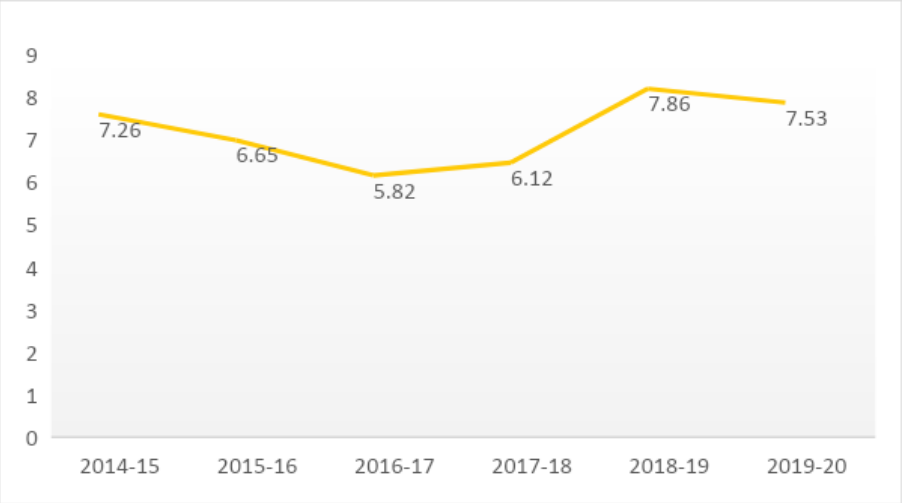
Agriculture (Metered)

Our Comments

The petitioner in section 3.13 of the petition had submitted the projected connected load (kW) per consumer for agriculture metered connection for calculation of the sales under the respective category as 10.53 for FY21.

Our analysis of the average connected load per consumer in the agriculture metered category for the years between FY15 and FY20, in Figure 2 shows the load is much less than the projected values for the MYT period. Since the new agriculture connections issued are for the areas with relatively less farm size, the likelihood of connections with high average connected load is very less.

Figure 1: Average connected load per consumer for agriculture metered category between FY15 and FY20



We submit that the petitioner may explain the rationale behind the increase in the average connected load per consumer in agriculture-metered category for the MYT period in comparison to the previous year's data.

Conversion of Agriculture (Flat) to Agriculture (Metered)

Our Comments

The petitioner in section 3.15 proposed the conversion of the flat category consumers to metered over the MYT period with majority expected to be converted by FY 2023-24. Our analysis of the tariff petitions between FY 2014-15 to FY 2019-20 indicates that the petitioner has time and again made similar claims over the past 6 years.

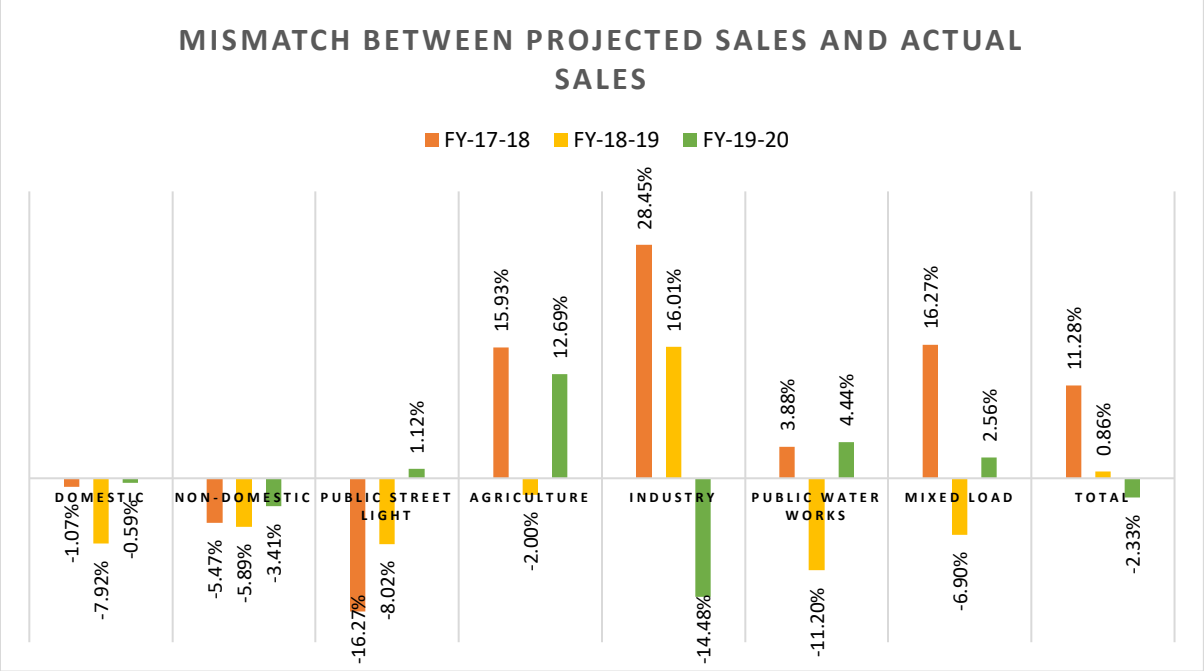
Table 4: Details of the proposed conversion of flat-metered consumers to metered consumers between FY15 and FY20

Year	Number of Consumers at beginning of Year	Proposed Conversion in the Year	Number of Consumers at the end of Year
2014-15	32277	10000	22777
2015-16	36252	15000	21252

2016-17	36694	25000	11694
2017-18	11694	10000	1694
2018-19	20506	10000	10506
2019-20	19961	4000	15961

From Table 4 it is evident that targets of the conversion proposed by the petitioner in tariff petitions were consistently not achieved, and the deviation in trends also indicates possible manipulation of actual numbers.

Figure 2: Mismatch between the projected and actual sales between FY18 and FY20 of different category consumers



Hence, we submit that the commission shall have serious cognizance of the issue and mandate 100%-meter agriculture connections by the end of FY 21-22.

Specific Consumption of Agriculture (Flat) Consumers

Our Comments

The commission has consistently approved the specific energy consumption (SEC) of 1945 kWh/kW/year for flat-rate agriculture consumers in the last six tariff petitions. The petitioner claimed the same for the MYT period.

We would like to bring to the notice of the Commission the report of the Working Group for Agriculture Consumption Study in Maharashtra (Working Group) undertaken for Maharashtra Electricity Regulatory Commission. A brief synopsis of the report and our analysis for Rajasthan is attached in Annexure I for the consideration of the Commission.

It may be noted the SEC for unmetered consumers is considered as highest in Rajasthan amongst the states of Gujarat, Maharashtra, and Punjab, despite water intensive cropping being uncommon in Rajasthan. While high average connected load per consumer may be

attributed to lower water levels, the same does not necessarily apply for SEC. The Working Group in Maharashtra found various discrepancies in reporting of electricity sales data for agriculture feeders and estimation of agriculture sales. Such discrepancies are also highly likely in Rajasthan also.

Hence, it is our submission that SEC shall be capped at 1,093kWh/Hp/annum or 1,466 kWh/kW/annum. It is also requested that the Commission institutes an independent study to ascertain the same.

Distribution Loss

Our Comments

The petitioner claims in the Section 3.32 that the actual distribution loss for FY 2019-20 stood at 17.21%. While in the Section 35.19 of the Notes forming part of the Financial Statements year ended on 31st March 2020 of the Annual Report 19-20, the petitioner declared the AT&C loss of 27.61%

As per the tri-partite MOU signed by the petitioner under the UDAY scheme, the petitioner agreed to reduce the AT&C losses to 15% by the end of FY18-19. Despite receiving UDAY's benefits as per the MOU, the petitioner failed to achieve the targets.

The distribution loss as a parameter does not take into account the commercial losses due to the inefficiencies in the working of the petitioner and thus transferring it onto the consumers.

The RERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, sub regulation 75 (3) and 75 (4) mandate the Distribution Licensee to propose a target for loss reduction and improvement in collection efficiency for the ensuing year as well as for the subsequent years of Control Period and give details of the measures proposed to be taken for achieving the targets proposed. Accordingly, the Commission shall fix a target for reduction of distribution losses and improvement in collection efficiency for the ensuing years of the Control Period.

The petitioner submitted the targets of collection efficiency as 100% for the MYT period which has been the practice even in the previous tariff petitions. However, the data from the audited accounts of FY20 submitted by the petitioner in F6.2 of Annexure D indicate a collection efficiency of 87.45%.

We recommend the commission fix achievable targets for the collection efficiency and mandatorily penalize the petitioner for the not achieving during the truing up of accounts for the corresponding year.

We request the commission to take serious note of this parameter. We suggest the commission while approving the petition should prescribe the AT&C loss trajectory along with the distribution loss trajectory, collection efficiency on similar lines with the other state regulatory commissions. We suggest the commission to incorporate the methodology

prescribed by the CEA & Ministry of Power to compute the AT&C of the petitioner. This shall bring the operational performance metric of the petitioner in line with the rest of the industry.

The petitioner submitted a list of measures taken by the petitioner for reduction of Distribution losses. We submit that the petitioner shall provide the quantified details of each of the measures undertaken and the outcomes of such measures in detail along with the trajectory and target-based measures for improving collection efficiency as mandated by the regulations.

Transmission Loss

Our Comments

For FY 2019-20, the petitioner has considered the total transmission losses based on the audited accounts, i.e., 5.42%. While computing the energy requirement, total transmission loss has been applied to energy procured intra-state while same has been considered as zero for inter-state energy procured. This approach doesn't make any sense at all, and hence the petitioner is requested to report inter-state and intra-state losses separately as audit accounts.

We would also like to highlight that the inter-state transmission losses are technical in nature. The transmission companies have been making investments in the sector to the tune of thousands of Crores every year and it is expected to have an effect on the losses. But the petitioner considered losses and transmission charges as constant for the MYT period. The projections need to be revised accordingly.

The inter-state transmission losses claimed by the petitioner at 3.15% for the entire MYT is high considering the industry standards. In comparison, MSEDCL -reported inter-state losses of 3.07% (FY 18-19 to FY 24-25) and Delhi reported 2% (FY 20-21).

The Commission may also note that transmission losses in Rajasthan are far above the global standards. For instance, The United States reports losses of less than 2% for the National Grid, and the United Kingdom reports losses of 1.7%. Even in the neighbouring countries of China and Bangladesh, reported overall transmission and distribution loss are 5.9% and 10.3 %, respectively. We request that the Commission mandates a trajectory for bringing the transmission losses to less than 2% within the MYT control period, and additional losses shall not be passed on to the distribution company and consumers.

Energy Balance

Our Comments

The petitioner is requested to clarify the discrepancy in the total energy sales data represented in "Table 12: Total sales for MYT period (MU)" and the "Table 14: Distribution Losses and Energy Requirement at DISCOM Periphery" of the petition for the FY20.

Table 12: Total sales for MYT period (MU)

Category	FY-20	FY-21	FY-22	FY-23	FY-24
Domestic	5,776	6,464	6,909	7,385	7,894
Non-Domestic	2,519	2,053	2,464	2,710	2,905
Public Street Light	181	192	201	211	221
Agriculture (Metered)	7,787	7,925	8,425	9,038	9,464
Agriculture (Flat)	293	260	195	130	65
Small Industry	292	239	287	301	316
Medium Industry	821	675	810	843	878
Large Industry	6,039	4,913	5,896	6,312	6,757
Public Water Works (S)	409	419	464	514	570
Public Water Works (M)	30	31	32	33	34
Public Water Works (L)	313	341	367	394	423
Mixed Load / Bulk Supply	200	202	213	225	238
Total	**24,660**	**23,713**	**26,263**	**28,097**	**29,766**

Energy Balance Calculation

Our Comments

We believe calculations for the provided Table 17: Energy Balance of DISCOM for MYT period in the petition are erroneous. The calculations made for Energy Required at DISCOM Periphery, Energy Required at State Periphery and Net Energy Requirement do not match the computed values as per our calculations in Table 5. We submit that the DISCOM shall clarify the same based on our below calculation.

Table 5: Calculations for the Energy balance for the MYT period based on data submitted by the petitioner.

Particulars	Calculation	FY20	FY21	FY22	FY23	FY24
Estimated Sales*	A	24,929	23713	26263	28097	29766
Distribution Loss (%)*	B	17.20%	18%	16%	15%	14.50%
Energy Required at DISCOM Periphery	C = A/(1-B)	30107	28918	31265	33055	34814
Intra-State Transmission Loss (%)*	D	3.33%	3.35%	3.31%	3.30%	3.30%
Energy Required at State Periphery	E= C/(1-D)	31145	29921	32336	34183	36002
Energy available from state source*	F	22,255	20298	23806	25177	25994
Inter-State Transmission Loss (%)*	G	3.15%	3.15%	3.15%	3.15%	3.15%
Energy to be procured from outside state	H = (E-F)/(1-G)	9179	9936	8807	9299	10334
Net Energy Requirement	I = H+F	31434	30234	32613	34476	36328
Net Energy Requirement as reported by JVVNL		32529	31883	34188	35856	37393

We submit the petitioner shall revise the calculation to appropriately account the intra-state and inter-state losses on overall power procured and power procured from outside the state respectively.

Table 14: Distribution Losses and Energy Requirement at Discom Periphery

Description	FY-20	FY-21	FY-22	FY-23	FY-24
Energy Sales (MU)	**24929**	**23713**	**26263**	**28097**	**29766**
Distribution Loss %	17.21%	18.00%	16.00%	15.00%	14.50%
Energy Required (MU) at Discom Periphery	**30113**	**28919**	**31265**	**33055**	**34815**

Power Purchase Cost

Our Comments

The petitioner in section 4.11, the petitioner submitted that “the state already has sufficient tied up capacity.” But in section 4.6, the petitioner submitted that various Central Sector plants expected to come up during the MYT period and the Petitioner has not considered any projections from such Central Sector plants as the plants are in ‘unsure category’. The petitioner is requested to the submit the details and progress of the currently contracted capacity from Centre/State/Private Sector plants which are under construction.

We suggest the commission direct the petitioner to undertake a study to assess the quantum of stranded capacity and analyse the plants with no reliable/efficient fuel linkages (gas/coal) and recommend an action plan to address the issues to reduce the burden of the capacity charges.

Fixed and Variable Charges

Our Comments

The petitioner has claimed that the energy procurement is done on the basis of the Merit Order Dispatch (MoD). We have analysed the publicly available data from the Merit India portal of the Ministry of Power for the period of 09.02.2021 to 16.02.2021.

Table 6: Deviation in the Energy Scheduled against the Merit Order Dispatch Principle

Deviation between Declared Capability of the day and scheduled									
Plant	**Variable Cost (Rs/Unit)**	**09/02/21**	**10/02/21**	**11/02/21**	**12/02/21**	**13/02/21**	**14/02/21**	**15/02/21**	**16/02/21**
MAHI	0.3	0.14%	0.63%	0.14%	29.51%	1.07%	2.30%	5.62%	0.10%
CGPL MUNDRA UMPP	1.66	7.37%	16.67%	0.00%	20.30%	0.00%	1.04%	0.00%	8.15%
CSTPP UNITS	2.23	20.88%	24.44%	26.12%	21.48%	21.92%	4.21%	4.64%	3.35%
KOTESHWAR	2.4	16.75%	25.12%	25.60%	26.16%	19.70%	9.50%	0.29%	2.82%
TANDA-II	2.61	14.47%	16.00%	17.00%	21.84%	14.89%	19.37%	15.95%	17.79%
SSCTPS	2.73	27.31%	27.78%	27.31%	37.33%	20.50%	25.51%	7.61%	8.35%
UNCHAHAR IV	2.81	19.68%	18.90%	18.61%	23.38%	15.83%	18.57%	16.17%	17.13%
MEJA	2.82	16.36%	23.91%	5.75%	18.25%	15.69%	18.32%	15.29%	15.89%
SEWA-II HEP	2.94	29.39%	24.12%	40.02%	31.03%	30.15%	27.63%		
UNCHAHAR I TPS	2.98	27.29%	19.86%	35.57%	28.14%	26.43%	24.57%	20.71%	61.86%
UNCHAHAR-III TPS	2.98							23.36%	27.41%
UNCHAHAR-II TPS	3.01	28.26%	21.59%	42.45%	29.22%	31.87%	25.62%	22.25%	25.38%
DADRI-II TPS	3.07	28.01%	19.87%	41.53%	27.80%	35.88%	25.03%	22.42%	24.05%
Min Procurement Cost from Exchange (Rs/unit)		2.58	2.67	2.60	2.29	2.43	2.50	2.71	2.70
Avg Procurement Cost from Exchange (Rs/Unit)		3.77	3.91	3.90	3.97	3.92	3.18	4.08	3.90
Max Procurement Cost from exchange (Rs/unit)		5.70	5.71	6.00	6.05	6.05%	4.43	6.00	6.00

It is observed that despite the Merit Order rules, the energy from power plants with least variable cost are not scheduled to their fullest declared capability for the day. In the cases highlighted in Table 6, this deviation is to the tune of more than 15%. The reasons for such deviation are also not provided. At the same time, power is procured from the exchange at comparatively higher cost during each day.

The petitioner is requested to provide a clarification for defiance of MOD principles and procurement of expensive power from exchange despite availability of excess contracted capacity. The Commission is requested to deny all additional costs that are incurred due to non-compliance of Merit Order Dispatch.

Transmission & SLDC Charges

Our Comments

The petitioner submitted that in section 4.23 that Actual transmission charges for FY-20 are provided. But the same is not reflected in the subsequent Table 19: Transmission charges for MYT period. The petitioner shall revise the table and provide the necessary data.

The petitioner submitted constant transmission charges for the entire MYT period in Table 19 of the petition, despite the increase in the amount of projected sales. We submit that the petitioner shall take due note of this, make changes to reflect the growth in sales and revise the transmission charges for the entire MYT period.

Total Power Purchase Cost

Our Comments

The petitioner in the Table 21 of the petition furnished data on Power Purchase Cost of DISCOM for MYT period. As the data for FY20 is actual and not the estimated value, the petitioner is requested to furnish the details of the DSM penalty/Charges incurred for the FY20.

The petitioner is requested to clarify the discrepancy in the data reported as Inter- DISCOM sale/ purchase of Rs. (-322) Crores in Table 21 for FY 20 as the same is not accounted in the tariff petitions of the AVVNL and JdVVNL

Table 17 : Power Purchase Cost of Discom for MYT period (Rs Cr)

Source	FY-20	FY-21	FY-22	FY-23	FY-24
NTPC (Total)	1060	1086	1108	1128	1222
NHPC	193	185	188	189	215
RVUN (Total)	4447	3616	3852	3935	4122
Rajwest	815	683	784	835	851
SJVN (Naptha-Jhakri, Rampur)	77	64	65	81	83
Neyvelli Lignite	147	147	150	151	160
Aravali Power	0	0	0	0	0
NVVNL Bundled	335	330	335	337	344
Coastal Gujarat	173	201	204	206	210
ADANI POWER	1043	1037	1054	1061	1082
Sasan Power	114	133	135	136	139
PTC (KW, DB, Maruti, Teesta)	705	640	652	657	692
PTC Tala (Bhutan)	3	3	3	3	3
NPCIL NAPP	36	36	36	36	37
RAPS	335	315	315	331	331
THDC (Tehri, Koteshwar)	52	47	52	54	55
Shared Projects (BBMB, Chambal/Satpura)	44	41	42	42	47
RFF	0	0	0	0	0
NCES (including CPP)	1252	1273	1500	1885	1802
New tied capacity (STPS unit 7&8)	0	1403	1403	1403	1403
Transmission charges	1642	1637	1637	1637	1637
Purchase from Exchange/Banking/UI	180	0	0	0	0
Total	**12653**	**12876**	**13515**	**14108**	**14434**

JdVVNL

Table 17 : Power Purchase Cost of Discom for MYT period (Rs Cr)

Source	FY-20	FY-21	FY-22	FY-23	FY-24
NTPC (Total)	881	904	923	939	1017
NHPC	161	154	156	157	179
RVUN (Total)	3705	3011	3208	3277	3433
Rajwest	678	569	653	695	709
SJVN (Naptha-Jhakri, Rampur)	65	53	54	68	69
Neyvelli Lignite	123	123	125	126	133
Aravali Power	0	0	0	0	0
NVVNL Bundled	273	275	279	281	286
Coastal Gujarat	222	167	170	171	175
ADANI POWER	868	863	878	884	901
Sasan Power	147	111	113	113	116
PTC (KW, DB, Maruti, Teesta)	589	533	543	547	576
PTC Tala (Bhutan)	2	2	2	2	2
NPCIL NAPP	30	30	30	30	31
RAPS	279	262	262	276	276
THDC (Tehri, Koteshwar)	44	39	44	45	46
Shared Projects (BBMB, Chambal/Satpura)	36	34	35	35	39
RFF	0	0	0	0	0
NCES (including CPP)	931	1070	1257	1576	1503
New tied capacity (STPS unit 7&8)	0	1169	1169	1169	1169
Transmission charges	1369	1363	1363	1363	1363
Purchase from Exchange/Banking/UI	150	0	0	0	0
Total	**10553**	**10732**	**11263**	**11754**	**12023**

AVVNL

We request the Commission to direct the petitioner to improve its power procurement practices. The Commission is requested to issues necessary orders to ensure accountability

by the petitioner and Rajasthan Urja Vikas Nigam. A detailed study shall be undertaken to optimise the power procurement portfolio based on base load, intra-day and seasonal variations in electricity demand.

Operation and Maintenance Expenses

Our Comments

The petitioner in the Annexure D, sheet F2.1 FY19 and F2.1 F20 indicated that the Distribution Franchisee (DF) is provided bulk energy at an average rate of Rs. 6.97/kwh and Rs.7.16/kwh. The entire operational and maintenance activities for the area served by the DF are undertaken by the DF while the petitioner holds no responsibilities for the work in the same region. Hence, we submit to reject the following prayer made by the petitioner.

6.6 DISCOM prays to the Hon'ble Commission to kindly include the sales in the distribution franchisee area, while approving the O&M expenses.

We submit to the Commission that all per unit norm expenses - Employee Expenses/ A&G Expenses/ R&M Expenses of the O&M shall be approved with reference to the energy sales excluding the sales made to the DF.

The petitioner has prayed for additional O&M expenses due to COVID in the petition. We submit that the petitioner shall furnish the details of the pay cuts enforced for the personnel during the same period along with a reduction in operating fixed costs of the petitioner due to the reduced workforce for the period of lockdown enforced.

Further, the petitioner is also requested to provide details of savings incurred during the lockdown because of deductions in the salary of employees, reduced intensity of operations and fuel cost reduction for generation.

Insurance Expenses

Our Comments

The petitioner submitted in Table 9 of the petition that the actual insurance expenses for FY20 are Rs. 1.90 Crores. We request the petitioner to clarify why the insurance expenses escalated to Rs. 30.33 Crores, Rs. 31.56 Crores Rs. 33.49 Crores and Rs. 35.05 Crores in the projections of FY21, FY22, FY23, and FY24 respectively.

Terminal Benefits

Our Comments

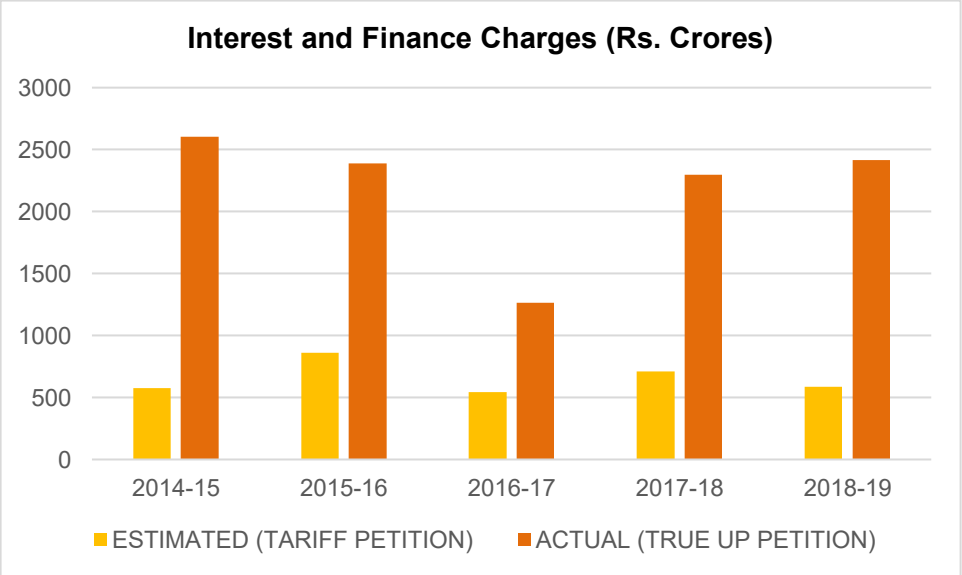
The petitioner in Table 30 claimed a constant terminal benefit of Rs. 634.68 Crores for the entire MYT period. We request the petitioner to explain why there was no escalation of the Terminal Benefits over the MYT period, despite the expenses being subjected to inflation and have seen an increasing trend in the past years.

Interest and Finance Charges

Our Comments

From our analysis of previous tariff and true up petitions, it is evident from the Figure 3 that there has been a significant increase in the interest finance charges when truing up.

Figure 3: The details of the estimated and actual costs incurred under the heads Interests and Finance Charges



Hence, the petitioner is requested to quote realistic charges for interest and finance costs for the MYT control period. Alternatively, the petitioner may provide an appropriate justification for the charges considered in the petition with assurance that such significant deviation shall not be entertained during truing-up.

Bad Debts

Our Comments

The petitioner has requested the commission to exercise the Regulation 95 of RERC Tariff Regulation to increase the allowable bad debts norms by 20 times from 0.25% to 5%. We submit that the commission shall exercise the "regulation 95 - power to remove difficulties" judiciously and in the rarest of the cases when it is necessary. We submit that the current proposal by the petitioner does not fall into those criteria and hence we request the commission to reject the proposal as it shall increase the (increase in) burden on the consumers caused by inefficiency of the petitioner to recover the dues. Tt can also set a poor precedent, leading to poor practices in future.

Interest on Working Capital

Our Comments

We submit that the commission to accept the petitioner's proposal to increase the working capital requirement for the first quarter of FY-21 to 3 months of receivables in place of normative 1.5 months of receivables.

The petitioner in Table 35 of the petition submitted that actual interests on the working capital for FY20 is Rs. 1402 Crores.

Table 7: Details of the Actual costs on Interests on Working Capital for the FY13 and FY19

Year	Interest on Working Capital from Trued up Accounts (Rs.)
2012-13	98.75 Crores
2013-14	103.31 Crores
2014-15	115.22 Crores
2015-16	119.26 Crores
2016-17	130.37 Crores
2017-18	154.94 Crores
2018-19	144.56 Crores

But the data from the previous true-up orders indicate comparatively lesser quantum of interests on working capital. We request the petitioner to clarify the drastic increase in the interest on working capital.

Non-Tariff Income and Other Income

Our Comments

For the MYT control period, the estimates for the wheeling charges, cross subsidy surcharge and additional surcharge are taken as constant and equal to the actual values of FY20. The petitioner fails to accommodate the increasing trends of migration to Open Access along with increase in captive solar for industries into estimates. We submit that the petitioner shall revise the estimates for non-tariff income by including the aforementioned issues.

Aggregate Revenue Requirement for MYT Period

Our Comments

With reference to Table 38, the petitioner is requested to clarify why there was no interest on regulatory assets for FY20.

Subsidy from State Government

Our Comments

With reference to the Table 40 – the subsidy support from State Government for MYT period, the petitioner is requested to clarify what constitutes the “Subsidy against compounding charges.”

TARIFF RATIONALIZATION

Our Comments

The petitioner claimed that some consumers in the Small domestic category are artificially suppressing their consumption within 50 units per month so as to benefit from the subsidy of Rs. 1.3/kWh in energy charges and Rs. 25/connection/ month in fixed charges. The petitioner has proposed a merger of the small domestic category with the general domestic category, provided that in case any small domestic consumer has consumed more than 900 units over a period of the last 12 months, the consumer will be charged as per the applicable tariffs of the respective slabs under the general domestic.

The issue needs to be evaluated holistically and preferably backed by ground research. However, some insights can also be gained through logical reasoning.

While cases of artificial suppression of demand can be possible, the petitioner needs to take ownership wherein such cases are happening due to its inefficiency or because of collusion between consumers and its employees. This is important to ensure that any deserving household is not devoid of lifeline access to minimum electricity.

It is observed that cross-subsidy in domestic categories is quite inefficiently distributed, where the economically poor are receiving inadequate benefits, while the affluent are receiving benefits even when they don't need it.

We make our case for the rationalisation of tariffs in the domestic category through the following analysis.

As a hypothesis, load and energy consumption are estimated for households across different economic strata. Number of rooms and equipment are reflective of the economic condition of the household. We calculate estimated month billing and average unit cost paid by the consumer across different household profiles. Subsidy distribution across household profiles is also estimated. The assumptions made for the analysis are attached in the Annexure - II of this submission and results of the analysis are discussed in following sections.

Centre for Energy, Environment & People (CEEP) proposes a simplified tariff structure for domestic categories, as below, wherein a single tariff corresponding to consumer's consumption slab is applied for all units consumed in a month. The details of tariff structure proposed by CEEP are presented in Table 8. The tariff structure is designed to ensure lifeline and affordable access to low-income consumers, and equitable distribution of

Table 8: Proposed Tariff Structure for Domestic Category Consumers

Consumer Category	Tariff Slab	Fixed Cost(monthly)	Energy Charge
BPL (D0)	50 units/month 900 units/annum	Rs 50	Rs 3.55 /unit
Small Domestic (D1)	50 units/month 900 units/annum	Rs 50	Rs 3.85 /unit
Domestic (D2)	150 units/month 1800 units/annum	Rs 80	Rs 6.55 /unit
Domestic (D3)	300 units/month 3600 units/annum	Rs 120/kW	Rs 7.55 /unit

Domestic (D4)	500 units/month 4800 units/annum	Rs 150/kW	Rs 8.55 /unit
Domestic (D5)	Above 5kW MDI or 500 units/month or > 4800 units/annum	Rs 200/kW	Rs 9.05 /unit

We also computed estimated monthly billing, average unit cost borne by consumer and subsidy distribution for proposed tariff structure across different household profiles assumed. Figure 4 presents the average unit cost borne by consumers in summer season across different household profiles considered for the analysis, for tariff regime applicable to domestic consumers in Rajasthan, Delhi, Gujarat and Maharashtra. Tariff structures proposed for the domestic category by CEEP are also considered. Same analysis in Figure 5 is also repeated for the winter season since load profile across households tend to change significantly.

Figure 4: Estimated per unit cost for Domestic Consumers for the summer season in different states including based on the existing tariff of Rajasthan and tariff structure proposed by CEEP

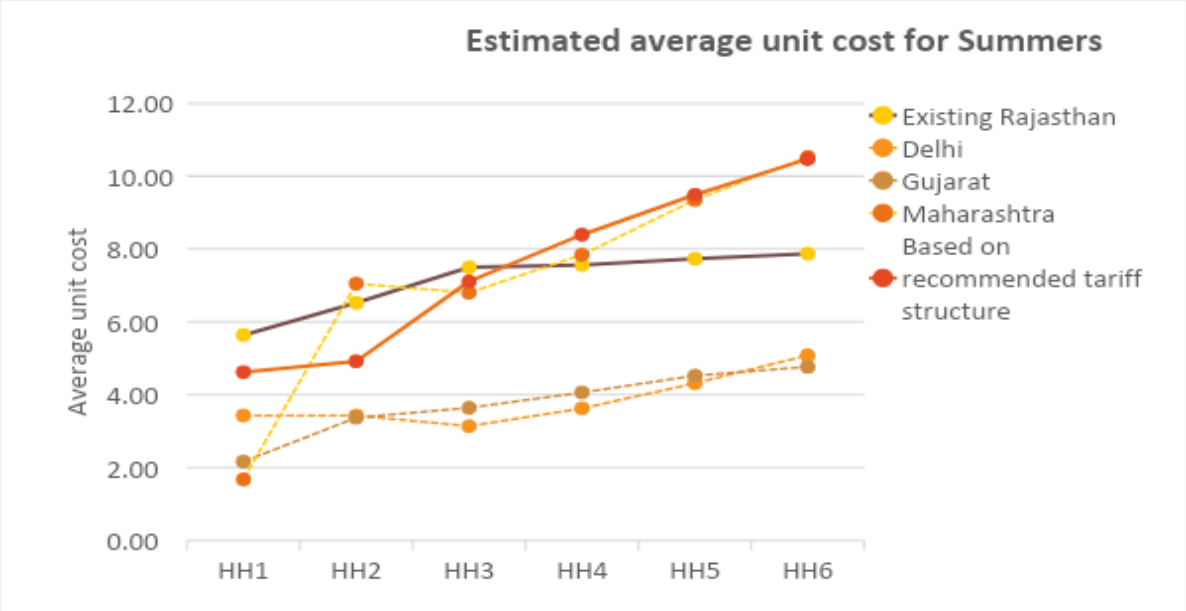
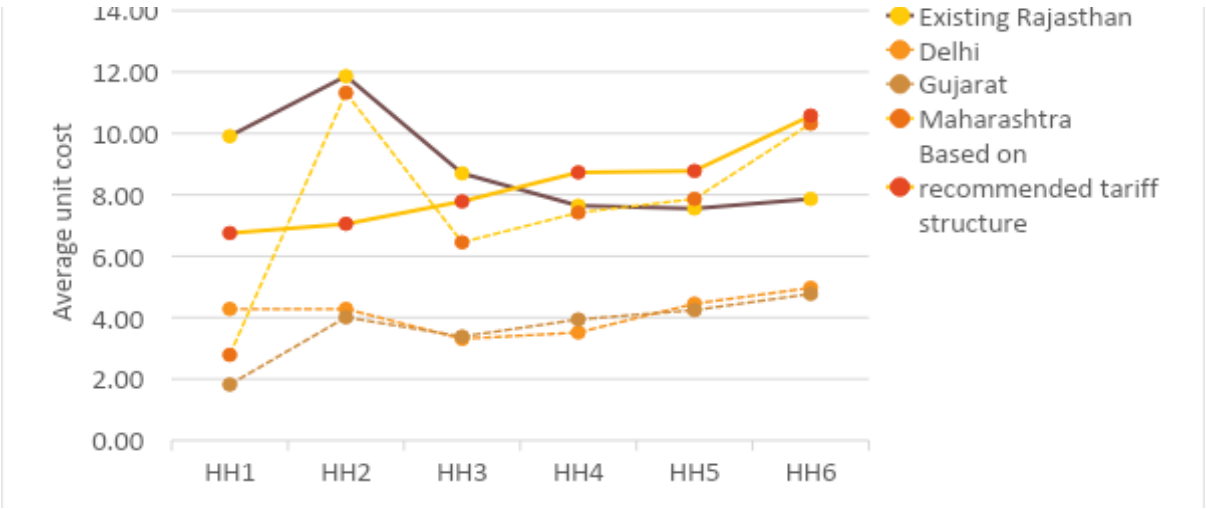


Figure 5: Estimated per unit cost for Domestic Consumers for Winter season in different states including based on the existing tariff of Rajasthan and tariff structure proposed by CEEP



It is clearly observed that while households across higher income profiles pay higher unit costs during high-demand months, low-income households pay a significantly higher cost during low-demand months.

Figure 6: Cross subsidy availed by the different categories of households in summer season

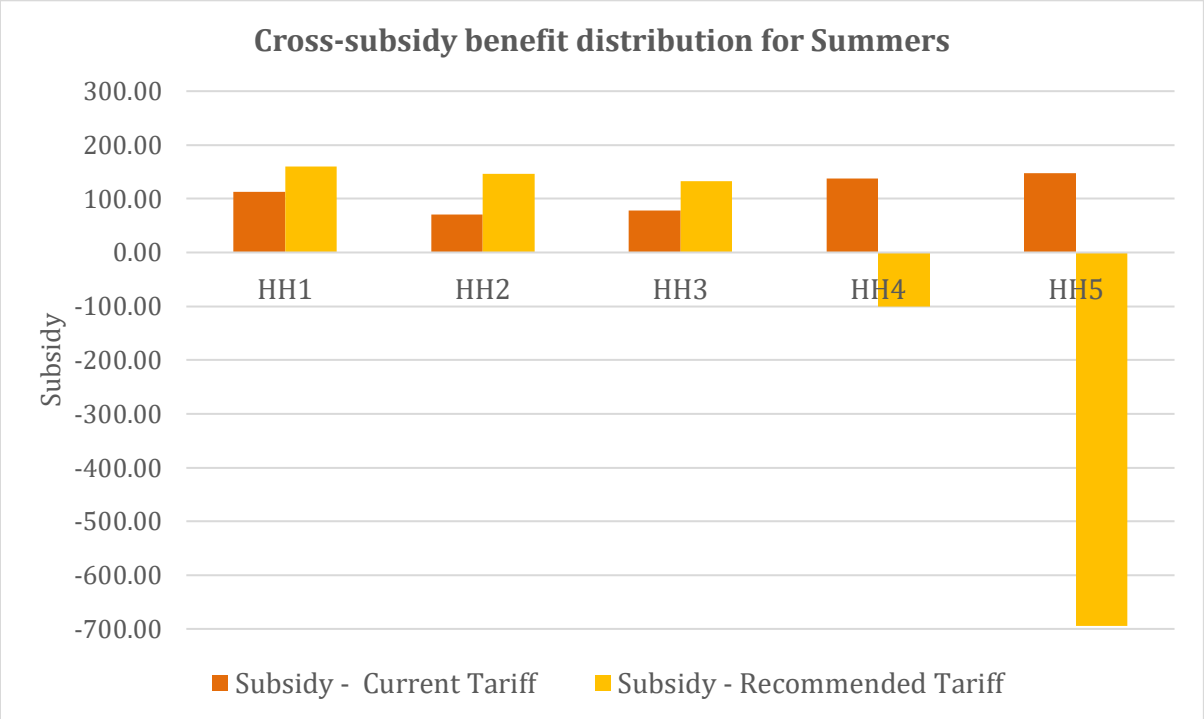
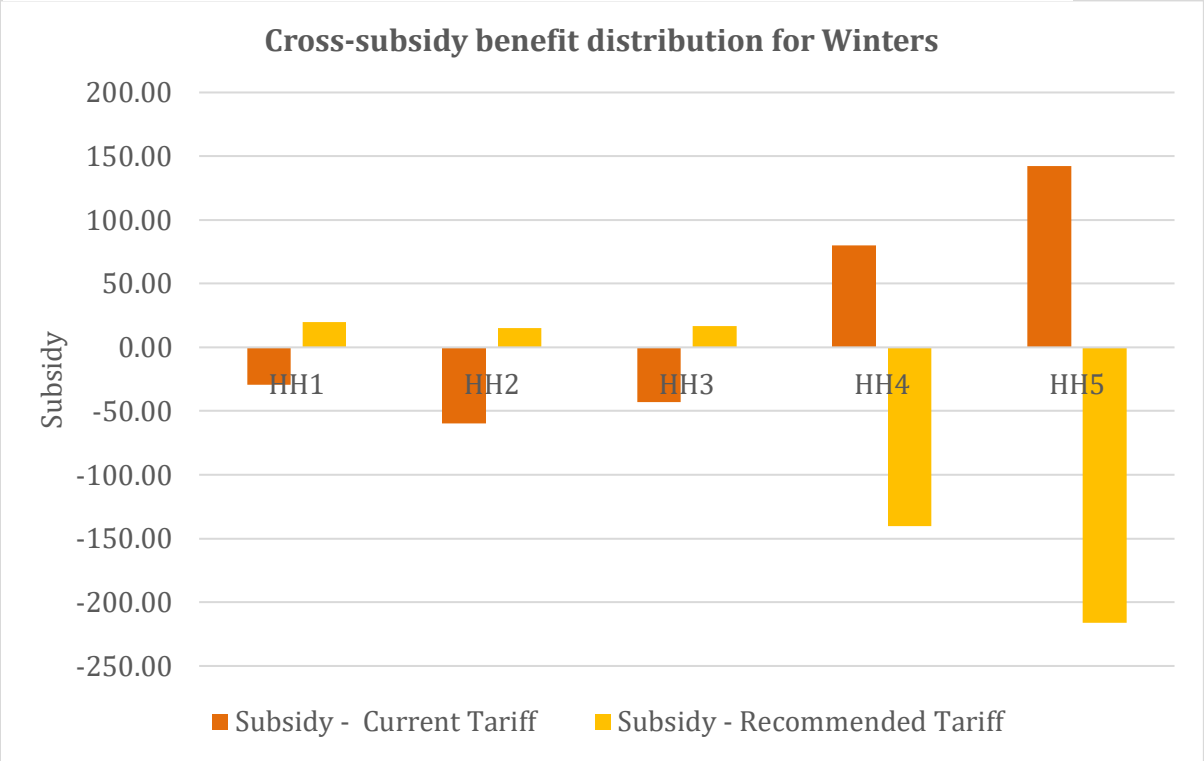


Figure 7: Cross subsidy availed by the different categories of households in winter season



Analysis of distribution of cross-subsidy benefits across household profiles indicate that under the current tariff regime, rich consumers receive proportionately high cumulative subsidy amounts per consumer on their over electricity consumption. Further, from the from Figure 6 and Figure 7, it is evident that low-income households actually do not receive any cross-subsidy benefits during low consumption months (winters for example) and they end up paying above average cost of supply. The tariff structure proposed by CEEP ensures equitable allocation of subsidies and does not subsidize the economically privileged.

Rationalisation of the tariffs using above strategy shall serve following purpose:

1. Ensuring benefits of cross-subsidy to the under-privileged
2. Improving affordability, and hence possibly reducing incidents of electricity theft
3. Reducing overall cross subsidy burden for industrial and other categories
4. Making energy efficiency attractive for high consumption categories
5. Demand based billing shall provide signals for optimization of power procurement portfolio.

Change in eligibility of Dharamshalas under Domestic category

Our Comments

We request to the Commission that *dharamshalas*, whether outside or within temple premises typically do not need the benefit of lower electricity tariffs. Hence, we appeal to the

Commission, that *dharamshalas* with connected load less than 5kW shall only receive the benefit of lower category tariff.

CAPITAL INVESTMENT PLAN PETITION

Our Comments

The petitioner is requested to revise the petition and submit in the format as per the Rajasthan Electricity Regulatory Commission (Investment Approval) Regulations,2006. This includes

- Submission of Cost benefit analysis for all schemes of distribution licensee.
- Details of Capital expenditure on Institutional strengthening, consumer services and Preliminary works shall not require cost benefit analysis
- The petitioner is requested to file the compliance of the proposed investment plan to the below regulations
- Regulation 4 specifies that "the Overall size of the investment proposed in a year, except deposit works, shall be based on growth of business, reduction in losses and inflation rate."
- Regulation 9 "the size of the annual investment plan (including deposit works of the other agency) and consumer/user's contribution) shall not exceed the ceiling limit determined based on growth of load/sales and annual inflation rate.
- Regulation 4 defines the ceiling limits for schemes under various heads along with their order of priority. The petitioner is requested to submit the capital investment as the breakup in Table 9 as specified in the regulation.

Table 9: Order of priority and ceiling limit of capital expenditure for the implementation of the annual plan for distribution licensee

S.No	Particular	Ceiling
1	Ongoing schemes and carried over liability	5%
2	(a) Schemes for power evacuation	5%
	(b) Schemes for defence /strategic importance and water supply	5%
3	Rural electrification	12.5%
4	Other schemes based on cost benefit analysis	
	(a) Reduction of system losses:	12.5%
	(b) System strengthening:	12.5%
	(c) System Augmentation:	12.5%
	(d) System Improvement:	12.5%
5	(a) Capacitor Installation	7.5%
	(b) Load dispatch & Metering	7.5%
	(c) Consumer Servicing	5%
	(d) Institutional Strengthening.	1%
6	Project preparation and preliminary works including Survey and investigation, statutory clearances and consultancy	3%
7	Supply to Consumers	10%

Smart metering/ AP Supply (2 Block Regime)

Our Comments

The petitioner is requested to submit the details of the works proposed to be executed in the MYT Period under the Smart Metering scheme - Rs. 534 Crores, and AP Supply (2 Block Regime)- Rs. 496 Crores with their targets

Feeder Segregation

Our Comments

The petitioner proposed an investment of Rs. 2095.22 Crores for feeder segregation. We request the petitioner to submit the output achieved through the feeder segregation in the previous years and the benefits accrued due to the investments. Along with details of the proposed works undertaken under the scheme in the MYT period.

ADDITIONAL SURCHARGE

In the petition, section 12.20 the petitioner submitted the calculations for the additional Surcharge for the FY 2020-21 based on data of FY 2019-20.

Our Comments

In the below calculation of the stranded power due to Open Access submitted by the petitioner, the box up capacity is also taken to compute the net stranded capacity for each time block of each day of the month (Column 4). The issue of box up capacity arises due to the reasons not attributable to the open access consumers. The reasons range from MoD or lack of fuel supply or others. Hence, we submit that this component shall not be used to compute the net stranded capacity for each time block of each day of the month for the additional Surcharge calculations.

Month	Backdown Aggregated over 96 Time Blocks	Boxup Aggregated over 96 Time Block	Boxup + Backdown aggregated over 96 time blocks	Open Access Aggregated over 96 Time Blocks	Backdown due to Open Access Aggregated over 96 Time Blocks
	MW	MW	MW	MW	MW
	(1)	(2)	(4)	(5)	(6)
April	3448562	3420385	6868947	1264093	1257041
May	2415860	1504250	3920110	757089	650219
June	2383093	533500	2916593	624178	503269
July	3885254	3733525	7618779	826729	811988
August	4696485	4516645	9213130	1190429	1173129
September	2759821	1775490	4535311	572845	530473
October	4455757	2054120	6509877	423384	423384
November	4238753	2108680	6347433	615074	598225
December	3332132	2589930	5922062	1017782	879707
January	3855801	2446170	6301971	1213683	971566
February	2807994	2196830	5004824	800368	558614
March	4260230	6481215	10741445	397471	355171
Total	**42539743**	**33360740**	**75900483**	**9703125**	**8712786**

Column 1, 2 & 3 represent sum of back-down, boxup and bilateral respectively for each time block of each day of the month in MW. Column 4 represents sum of net stranded capacity for each time block of each day of the month in MW. Column 5 represents sum of net open access respectively for each time block of each day of the month in MW. For Column 6, lower of net stranded capacity and open access has been considered for each time block separately

We would like to highlight the following observations made by the Independent Auditor regarding the petitioner in the Annual Report of 2019-20:

- Annexure A1. (a) The Company has not maintained proper records of Fixed Assets showing full particulars including quantitative details and situation of Fixed Assets. (b) As explained to us, Fixed Assets of the company have not been physically verified by the Company during the year. In absence of Physical verification, we are unable to comment on the discrepancies, if any, in relation to physical existence of the assets and their book value. The company does not have the proper system of physical verification of assets at regular intervals.
- Annexure A: Section 2. As informed to us, the inventories of 11 O&M Circles out of total 13 O&M Circles, have been physically verified during the year by the Company. In our opinion, the frequency of verification is not reasonable.

Our Comments

The commission is requested to make serious note of the comments that the petitioner "does not have the proper system of physical verification of assets at regular intervals". This is despite the commission mandating the petitioner to submit the Fixed Asset Register. This is clear negligence of the petitioner and disregard to the public resources.

- *Annexure B: Section B (2): In our opinion, the system of billing needs to be strengthened looking at the aspect of adjustments being carried out of past billing in few cases which indicates that the billing is not proper at first instance. With regard to collection of revenue, the company has engaged various and uses online collection systems also. The subscriber's connection is disconnected as and when the bills are not paid within the stipulate time which itself acts as deterrent for non-payment and act as an effective system for collection. However, with respect to dues relating to PDC debtors, the company needs to strengthen the system of collection.*

Our Comments

The billing is the one of the core activities of the petitioner and any inefficiencies shall lead to serious effects on the operational feasibility of the petitioner's business and an additional burden on the consumers. As highlighted by the auditor, the petitioner needs to strengthen the system of collection. We request the commission to direct the petitioner to recover the pending dues from the PDC debtors within a strict timeline. We also recommend capping the allowable PDC dues receivable per year and penalize the petitioner for crossing the targets.

- Annexure B: Section B (4): Energy Department under Government of Rajasthan vide its Letter No. F.7(2) Energy/2019 dated 21.08.2020, clearly states that Rs. 4,461 Crores Is payable to Discerns, from which JVVNL's share is Rs. 1,426.63 Crores (as per the details provided to us by Company), against total subsidy receivable of Rs. 3,999.33 Crores in

books. Further, GoR in its letter also suggested DISCOMs to account for the same in books of accounts. Accordingly, as GoR has only admitted Rs. 1,426.63 Crores claim out of Rs. 3,999.33 Crore, balance of Rs. 2572.70 Crore should be accounted for In Statement of Profit & Loss, but the company has not made any treatment for the same till date. Consequently, Current Year Prior Period Income is overstated by Rs. 2,572.7 Crores and Other Non-Current Assets are overstated by Rs. 2572.7 Crores. In the absence of details of year-wise rejection of subsidy claims of the company by the GoR, we are unable to give the impact of the same on the current year's profit and prior period income of the company separately. Company is persuading the matter with GoR

Our Comments

As highlighted by the auditor, the petitioner while failing to account the same as loss, has overstated the Assets. This is deliberate concealment of the quantum of actual loss and inefficiencies of the petitioner. We request the commission to take serious cognizance of the issue, subsidy claims denied (Rs. 2572.7 Crores) by the Government of Rajasthan and direct the petitioner shall file a time bound action plan to either recover the dues or declare the same as loss and not carry the same to the subsequent FY.

- Annexure C

a) The Company has no comprehensive model for internal control over financial reporting incorporating risk assessment, control process and gap tracking along with the description of objective, process and ask associated thereof, as par the Guidance Note on Audit of internal Financial Controls over Financial Reporting issued by the Institute of Chartered Accountants of India.

b) The Company did not have a proper system for correlating the security deposits with the consumer wise outstanding under 'Trade Receivables', these could potentially result in the Company recognizing over/ under Revenue, Debtors and Security Deposits.

c) The Company did not have an appropriate internal financial control system to correlate capital expenditure incurred with the grants/ subsidy received, which could potentially result in Incorrect recognition of deferred revenue income.

d) The Company did not have an appropriate internal control system for timely recognizing Inter Company transactions which could potentially result in the Company recognizing over/under cost of Power Purchase and Trade Payables.

e) The Company's Internal financial control over accounting of power procured is not operating effectively as the power purchase cost is booked on the basis of bills received till cut-off date and not on actual power purchased. This could potentially result in misstatement in Company's Trade payables and power purchase cost.

f) The Company did not have appropriate internal financial control over accounting for late payment surcharges to power suppliers. Further, internal control system for

Identification of delay in payments to suppliers and details of late payment surcharge payable thereon Is not operating and during the year, late payment surcharge (including previous periods) has been provided on ad-hoc or tentative basis. This could potentially result in material misstatement in the Company's liabilities and expenses.

g) The Company did not have appropriate Internal control over the identification of differences and reconciliation of subscriber deposits between MIS and books of accounts, which has resulted in a misstatement in liability and expenses.

h) The Company's Internal financial control over the existence, completeness, valuation and allocation of property, plant & equipment and capital work-in-progress (including material lying at the site) is not operating effectively. The Company did not have an appropriate Internal control system over the maintenance of Property, plant & equipment & Capital work-in-progress (CWIP) records, impairment of Properly, plant & equipment & CWIP and physical verification of Property, plant & equipment & CWIP. Further, the internal control system over capitalisation of value, manner of capitalization and allocation of administrative cost and finance costs is not adequate. These material weaknesses could potentially result in material misstatement In Company's Property, plant & equipment, CWIP, depreciation and expenses.

i) The company's internal financial control over maintenance and valuation of Inventory is not appropriate. Despite physical verification of inventories at venous units, there are still long pending items in respect of shortage or excess of inventory, the reasons of which are unidentifiable. Different units across the company do not follow the same method for the valuation of Inventories. These material weaknesses could potentially result in material misstatement in the company's Inventory and subsequent cost related to the same.

j) The Company did not have an appropriate internal control system for recording of material received in stores on reel reel-time basis, which potentially resulted in the recording of material in stores.

Our Comments

The above observations raised by the auditor are related to serious discrepancies and issues plaguing the work of the petitioner. The commission is requested to take cognizance of the seriousness of the issue and the impact of these actions and inactions of the petitioners on the consumers. The petitioner is requested to submit an explanation and time-bound action plan to address the above issues.

The Hon. Commission in the Tariff Order 2019-20 issued directives to the petitioner. The petitioner filed the details of the compliance to the directives. Below are our comments on the compliance report submitted by the petitioner.

2. Upload feeder-wise losses on its website and analyse the feeder-wise losses for last 3 years and submit a report to the Commission for 25 % feeders where the losses were highest during last year along with action taken by the DISCOM for reduction in losses.

Our Comments

The petitioner submitted that an online system of 'Bijli Prabandh' is developed for collecting and analysing the feeder wise losses. But the directive of the commission for the petitioner is to upload the feeder wise losses on its website. This should facilitate the consumer

3. MD of each DISCOMs *should adopt two circles where losses are highest, whereby Distribution losses of* DISCOMs *can be reviewed and monitored properly and can be reduced in a progressive manner. Technical Director should also adopt one circle with third highest loss. Outcome of this measure should be reported to the Commission after six months of issue of the orders.*

Our Comments

The petitioner notified that order regarding the directive was issued on 12.06.2020. The directive of the commission is that the petitioner shall report the outcome of the measures. Without knowing the outcome, it merely acts as another issue on paper without accountability.

4. Carry out compulsory checking of meters installed at quarters of GSS, police Station, public places and other Government colonies.

Our Comments

The directive of the commission to the Petitioner is to carry checking of meters of GSS, police stations, public places, and other Government colonies. The data submitted by the petitioner in Annexure D1-D5 pertains to the circle wise number of checking done by the vigilance, assessment made, and amount realized. This is misleading and should be considered as non-compliance with the commission's directive.

5. Take necessary initiatives to reduce the scope of theft like regular checking of theft-prone installations

Our Comments

The petitioner submitted the regular activities undertaken by the vigilance as the compliance measures for the directives of the commission. The petitioner failed to submit the compliance with regard to what initiatives are taken to reduce the scope of the theft in the theft prone area identified in each of the circle.

7. Initiate a scheme of appreciation and reward, where a person who informs the DISCOMs about theft cases is being appreciated and rewarded.

Our Comments

The petitioner submitted that the scheme is under consideration at the Senior Management level of the Jaipur DISCOM. It is requested that the petitioner shall furnish the time bound commitment to frame such scheme which shall

8. Re-assess wheeling losses and furnish detailed report.

Our Comments

The petitioner submitted that the process is delayed due COVID-19 outbreak. We request the petitioner to submit a time bound plan for re-assessing wheeling losses.

9. DISCOMs are directed to make a loss reduction plan.

10. Furnish a detailed report of AT&C Losses.

Our Comments

For both of the above directives, the petitioner submitted a single document title "Action plan on AT&C loss reduction as part of power sector reforms Rajasthan DISCOMs". This is a generic document with no referencing to the petitioner – JVVNL.

We submit that the petitioner shall submit a detailed plan for the AT&C loss reduction. Even in the MoU signed by the petitioner under the UDAY scheme, the petitioner has submitted to reduce the AT&C losses to 15 & by the year FY 19-20.

11. DISCOMs may also work out a tariff design which incentivizes the consumer to move to metered category and keep the meter in healthy condition and furnish suitable proposal along with next tariff petition.

Our Comments

The petitioner made the below submission in compliance to the directive of the commission.

"Since, a majority of the defective meters pertain to agriculture category consumers, the DISCOMs have proposed a revised tariff design, in which the Fixed charges have been increased and the corresponding energy charges have been decreased so as to make the proposal revenue neutral. As the energy charges payable by the agriculture consumer shall be reduced, the incentive for them to tamper their meters and make them defective shall reduce."

We submit that the proposal by the petitioner is of not much significance and the proposed increase of Rs. 2 per HP per Month of SCL shall not have any major impact on the number of tampering of the meters. We submit the commission shall further direct the petitioner to submit a much-detailed plan to incentivize the consumer to move to metered category and keep the meter in healthy condition

12. Identify all unmetered street light points and ensure that no street light point exists without the correct meter.

Our Comments

The petitioner shall submit a detailed time bound target-based action plan to ensure all public streetlights are connected to the correct meter and are billed.

13. DISCOMs should ensure that messages/bills are timely delivered to end consumers.

Our Comments

The DISCOM shall undertake a half-yearly audit of the database of the contact numbers of the consumers to ensure messages related to bills are timely delivered. The petitioner shall provide the monthly MIS of the mobile number updating.

14. Carry out a detailed study of actual specific consumption of flat rate agriculture consumers of three DISCOMs separately and submit the same to the Commission along with the next ARR and Tariff Petition. This study should be supported by Feeder meter readings and total of meters installed at Agriculture Consumers.

Our Comments

The petitioner submitted that the compliance to the directive of the Hon'ble Commission shall be submitted in due course of time as feeder segregation and accurate feeder metering is under process. But the current practice of all three DISCOMs to consider specific energy consumption of 1945 kWh/kW/year for flat rate agriculture consumers is highly over estimated. We recommend the commission to undertake an independent study on actual specific consumption of flat rate agriculture consumers of three DISCOMs separately within the next 6 months. The same should be considered for the truing up of accounts for the MYT period.

15. There is provision of giving a 5% rebate to consumers on average bills if the meter remains defective. The DISCOMs should ensure that they pass on this rebate to consumers. In case of non-replacement of meter timely, suitable disciplinary action be taken against the concerned employee.

Our Comments

The petitioner submitted that Rs. 17.82 Lakh is passed as rebate for the consumers with defective meters in FY19-20. The details submitted indicate that a very significant part of Rs. 14 Lakh was provided to PSL category.

16. To fix some targets in terms of numbers / percentage of total meter readings for these officers and on such checking if difference in meter reading is found, strict action be taken against defaulters.

Our Comments

The petitioner submitted that order in compliance to the directive was issued on 25.05.2012. We submit that the petitioner shall furnish the actual status of the implementation of the measure along with outcomes achieved through such initiatives.

17. To review category-wise and age-wise position of arrears and initiate a drive for recovery of arrears.

Our Comments

The petitioner has submitted the category-wise arrears. But the directive of the commission is to submit the age-wise position of the arrears. The petitioner has not fully complied with the directive of the commission.

As per the data submitted by the petitioner, the outstanding PDC dues as of March 2020 are Rs. 817.91 Crores. The petitioner submitted that Rs. 40 Crores was recovered from PDC consumers which amounts to less than 1% of the overall dues. The petitioner should be directed to impose disciplinary actions against the field officers responsible for the recovery.

21. DISCOMs are directed to file detailed category-wise calculations of sales and revenue realization made for consumers with defective meters along with the next year's ARR and Tariff petition.

Our Comments

The petitioner submitted the category-wise details of revenue recovered from consumers with defective meters for FY 18-19 & FY 2019-20 are provided in Annexure-B2(J). Below the attachment is the annexure submitted by the petitioner which indicates the data related to consumers with defective meters is not provided. The petitioner deliberately titled the annexure as required but provided the wrong data to the commission. The commission should take serious notice of this act of the petitioner and penalize the petitioner for disclosing wrong information to the commission and for non-compliance of the dwithective

Annexure - D

CATEGORY WISE SALES AND REVENUE REALIZATION FROM THE CONSUMERS WITH DEFECTIVE METERS

As per MIS

S.NO.	CATEGORY	2018-19			2019-20		
		NO. OF REGULAR CONSUMERS	UNIT SOLD (In Lacs)	REALIZATION (In Lacs)	NO. OF REGULAR CONSUMERS	UNIT SOLD (In Lacs)	REALIZATION (In Lacs)
1	DOMESTIC	3430046	48807.47	346322.71	3592560	51620.27	374623.29
2	NON-DOM	373437	21634.11	218208.86	391708	22917.71	234926.71
3	P.S.L.	2879	1371.08	8509.54	3316	1422.56	11169.48
4	AGR(M)	500081	67315.42	357033.89	530817	77782.47	422631.82
5	AGR(F)	19947	3296.35	18104.36	18033	2925.17	17232.95
6	AGR(P)	130	5.38	32.53	125	6.47	35.96
7	IND(S)	40928	3071.45	25142.90	42422	2782.85	27882.39
8	IND(M)	12375	7614.50	68615.30	13005	7738.45	72547.09
9	IND(L)	3983	63944.66	529232.27	4363	57896.99	500752.76
10	P.W.W(S)	25791	3014.58	16926.92	27581	4064.14	19021.56
11	P.W.W.(M)	270	279.65	2489.09	295	291.30	2560.63
12	P.W.W.(L)	151	2691.88	22245.47	169	2563.52	21404.96
13	MIXED LOAD	11922	1601.45	12556.26	12014	1710.61	13642.25
	TOTAL	4421940	224648.00	1625420.08	4636408	233722.52	1718431.85

22. Furnish Fixed Assets Register along with physical verification report ithe n next true up/tariff filing.

Our Comments

We submit that the petitioner shall publish the details of the FAR on its website.

24. Prepare a financial turnaround plan which shall contain the road map for financial turnaround showing likely expenses, revenues, availability, and requirement of funds, need for tariff increase, plan for optimization of capital and revenue expenses, need for improvement in operational parameters, restructuring of debts and initiative for cash flow improvement

Our Comments

The financial turnaround plan submitted by the petitioner is generic in nature with no defined achievable targets for the roadmaps. The plan documents the issues of DISCOMs in Rajasthan as a whole. We submit the commission shall take note of this and direct the petitioner to submit the detailed action plan for the financial turnaround of the likely expenses, revenues, availability, and requirement of funds, need for tariff increase, plan for optimization of capital and revenue expenses, need for improvement in operational parameters, restructuring of debts and initiative for cash flow improvement of JVVNL.

38. Convene a meeting with the representative of Jaipur Metro to consider various issues related to the metro including bifurcation of Non-Domestic Load and furnish proposals for revision in tariff in the next petition.

Our Comments

The petitioner submitted that after detailed discussions and deliberations, all members of the committee are of the opinion that segregation of traction /non-traction load is not feasible. The minutes of the meeting suggested – a separate tariff (NDS) may be applied to all commercial connections given by Jaipur Metro and the same should be reduced from the total consumption of the metro. Since the NDS tariff is higher than the traction load tariff, this measure could help the petitioner increase the revenue. However, the petitioner has not submitted the proposal in the current petition to change the commercial connection in Jaipur Metro from traction to NDS.

To run a program for skill development, imparting training, and refresher training to new entrants, Engineers, Administrative and Financial personnel, technical workmen and the Executives for improving their services.

Our Comments

The petitioner has submitted the details of the training programs run in FY19-20 in compliance with the commission's directive. We request the petitioner to submit the details of compliance specifically for training programs conducted for skill development, imparting traininand g, and refresher training to new entrants, Engineers, Administrative and Financial personnel, technical workmen the Executives as directed.

Carry out a third-party audit of material used in various capital investment schemes and retrieval of old material during the execution of these schemes.

Our Comments

From the compliance report submitted by the petitioner in annexure B(T), the audit had made 371 observations. Out of which only 121 were rectified while 250 are still pending. The petitioner is asked to furnish the details of actions taken against the contractors for the shortcomings/defects and for their non-rectification of issues.

To clearly indicate the detailed break up of other debits, fuel surcharge and other miscellaneous charges shown in consumer electricity bills.

Our Comments

The petitioner submitted that, "as the Spot Billing practice being followed by the Jaipur DISCOM, there is a constraint on the space available on the bill being generated under such Spot Billing. Hence, detailed breakup of other debits, FSA and miscellaneous charges is not being presently indicated. However, alternatives such as providing detailed breakup in e-copy are being explored."

We submit that the number of consumers availing the e-copy of bill is very limited and the majority of consumers only avail the regular bills. We recommend the commission to direct the petitioner to make necessary changes in the current spot billing mechanism to clearly indicate

the detailed break up of other debits, fuel surcharge and other miscellaneous charges in the bills.

File suitable proposals for allowing demand/Load based billing along with suitable proposal for revision in fixed charges with the next tariff petition.

Our Comments

The provision for demand/Load based billing proposed in the current MYT petition for the Domestic consumers with sanctioned connected load greater than or equal to 10 kW or with annual energy consumption of more than 12,000 kWh in the previous financial year does not reflect the actual fixed costs incurred by the petitioner. We recommend the petitioner reduce the ceiling limit for demand/load-based billing to all domestic consumers with sanctioned connected load above or equal to 5kW.

DISCOMs should ensure the dispatch of power strictly on the merit order principle. Merit Order Dispatch (MOD) should be placed on the website of DISCOMs.

Our Comments

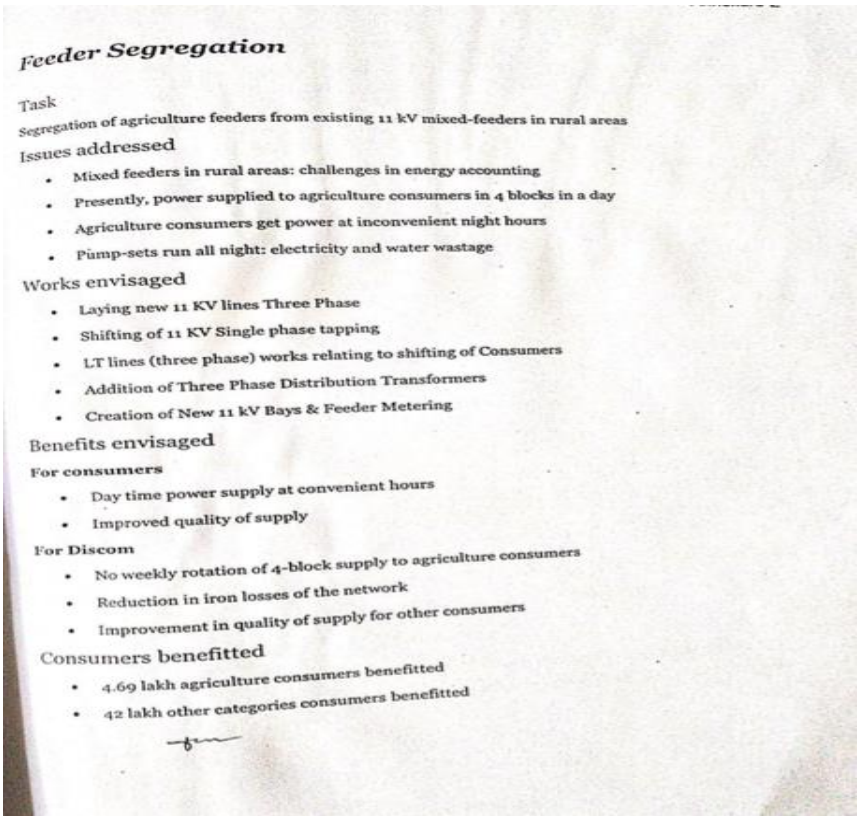
The petitioner submitted that "Merit Order Dispatch (MOD) is being placed regularly on the JVVNL website. Moreover, the MoD compliance of each and every DISCOM in the country is also available, on weekly basis, on the portal (http://meritindia.in/) developed by MoP"

We submit that the MOD document uploaded in the petitioner's website does not provide the details of the energy schedule and deviation with details reasons as per the MOD principles. Further, the Merit India portal does not have the details of the MoD compliance for each and every DISCOM. It only provides the state-wise data. We submit the petitioner shall make the data of daily despatch as per the MoD be made available on the website.

Submit a detailed report on the benefits of the feeder improvement programme and feeder segregation programme.

Our Comments

The petitioner submitted the below document in compliance with the commission's directive. It is clear of the laxity of the petitioner to submit a single-page submission with generic information on the benefits of the programs instead of a detailed report on the benefits of the feeder improvement programme and feeder segregation program for JVVNL. The commission should take serious note of the same, consider this as non-compliance and direct the petitioner to file a detailed report within 6 months with the benefits incurred for the programmes undertaken.



Feeder Segregation

Task

Segregation of agriculture feeders from existing 11 kV mixed-feeders in rural areas

Issues addressed

- Mixed feeders in rural areas: challenges in energy accounting
- Presently, power supplied to agriculture consumers in 4 blocks in a day
- Agriculture consumers get power at inconvenient night hours
- Pump-sets run all night: electricity and water wastage

Works envisaged

- Laying new 11 KV lines Three Phase
- Shifting of 11 KV Single phase tapping
- LT lines (three phase) works relating to shifting of Consumers
- Addition of Three Phase Distribution Transformers
- Creation of New 11 kV Bays & Feeder Metering

Benefits envisaged

For consumers

- Day time power supply at convenient hours
- Improved quality of supply

For Discom

- No weekly rotation of 4-block supply to agriculture consumers
- Reduction in iron losses of the network
- Improvement in quality of supply for other consumers

Consumers benefitted

- 4.69 lakh agriculture consumers benefitted
- 42 lakh other categories consumers benefitted

Annexure - I

Synopsis of the report of Working Group for Agriculture Consumption Study in Maharashtra (Working Group) undertaken for Maharashtra Electricity Regulatory Commission.

The field survey of nearly 1.33 lakh consumers spread across the state of Maharashtra by the working group was undertaken to analyse Agriculture metering status. Below are some of the findings of the WCG, which present the discrepancies in the estimation of the average number of hours for using agriculture pumps per connection in Maharashtra.

1. Nearly 70% of surveyed consumers use pumps between 50 and 150 days a year. 90% of consumers use pumps for less than 200 days a year, and just about 1.5 % of consumers use pumps for more than 250 days a year.
2. Of the 502 feeders surveyed, 307 feeders have registered more than 100% of the total connected load, with 28 of them recording more than 300% of the total connected load. This implies a rampant prevalence of unauthorized use of electricity.
3. Out of these 70 feeders considered for full-year data analysis, 42 feeders (60%) have registered excess load (more than the total connected load on the feeder) for at least 10 hours, while 31 feeders (44%) have registered more than 125% of the connected load for at least 10 hrs.
4. For 34% of the feeders, more than 25% of annual feeder input was during excess loading.
5. Based on the consumption calculated for 386 feeders, the working group recommended an estimated agricultural consumption norm of 1,093 kWh/HP/yr. or 1,465 hrs./ annum.

The state of Maharashtra, with water-intensive agriculture crops like Sugarcane and with lift irrigation practices, considers 1448 kWh/HP/Annum for estimating unmetered agriculture consumption. In comparison, the Rajasthan Electricity Regulatory Commission (RERC) considered the specific consumption of 1945 kWh/kW/year (1450 kWh/HP/annum) for estimating the consumption by unmetered connections.

According to the analysis by Maharashtra Veej Grahak Sanghatana, for regions where water-intensive crops, especially Sugarcane, are grown, the annual hours of pump operation for lift irrigation schemes, which get 16 hours per day supply, are 1875 hrs. This implies a specific consumption of 1,398.75 kWh/annum/Hp. Despite the water table is lower in Rajasthan than in the other states, since DISCOMs in the state supply electricity for irrigation needs for about 6 hours per day, it clearly indicates that the specific consumption assumption of 1,450 kWh/annum/Hp in Rajasthan is a significantly exaggerated figure.

The estimate arrived at by the working group is also supported by the study conducted by the Maharashtra State Electricity Board (MSEBHCL) through IIT-B, which estimated AG Index for Maharashtra as 1063 hrs per annum for FY 15-16.

Since the cropping of water-intensive crops in Rajasthan is relatively limited, it may be considered that the majority of the agriculture consumers in Rajasthan are using pumps for less than 150 days a year. This shall correspond to a maximum annual average pump usage of 900 hours or a maximum SEC of 671.4 kWh/annum/Hp.

Analysis of data reported by Rajasthan DISCOM

For the computation of the agriculture sale in the tariff and true-up petition, the Commission considered the same specific consumption across the three DISCOMs in the state. However, a brief analysis of the data in DISCOM's tariff petitions indicates that each DISCOM has a different mix of metered and unmetered connections. The same is presented in Table 2.

Table 10: Agriculture connection data across three DISCOMs in Rajasthan

Agriculture (FR) Sales for FY 18-19	**JVVNL**	**AVVNL**	**JdVVNL**	**Total**
Agriculture Metered Supply (MU)	6956	4952	9799	21707
Agriculture Flat Rate Supply (MU)	259	868	1224	2350
% of Flat Rate Sales in Agriculture	3.58%	14.91%	11.10%	9.76%
No of flat-rate consumers	10506	31785	30588	72879

Given the diversity in cropping patterns, water availability, and climatic zones, the specific consumption for each DISCOMs shall be determined separately. This shall also prevent the transfer of the inefficiencies of one DISCOM to another and avoid cross-subsidization amongst the DISCOMs.

Recommendations for estimations of un-metered electricity sales to agriculture consumers in Rajasthan:

It is highly unlikely that Rajasthan, with comparatively less water-intensive agriculture practices than Maharashtra, has higher specific consumption for agriculture connections. There is a high likelihood of over-estimating unmetered agriculture consumption of electricity in Rajasthan, possibly due to the incorrect estimation of the overall agriculture load, improper consumer indexing, theft/unauthorised use of agriculture feeder, defective metering.

We strongly recommend that a detailed study is conducted in Rajasthan should be conducted. In the meanwhile, the following measures may be adopted for Rajasthan to improve the accounting of unmetered agriculture sales.

1. Maximum specific consumption to be allowed for estimation of unmetered electricity sales shall be capped at 1,093 kWh/Hp/annum or 1,466 kWh/kW/annum.

2. The specific consumption shall be computed for each DISCOM separately to account for cropping and ecological diversities.

3. Launch a drive to provide curtail theft in agriculture feeders and improve energy efficiency.

4. Develop a strict framework for monitoring and reporting of actual hours of supply to agriculture consumers, especially unmetered consumers.

5. Initiate a detailed feeder study by independent organisations to quantify SEC for unmetered connections.

Reference:

Prayas (Energy Group) (2020) Working Group for Agricultural Consumption Study – Final Report. Maharashtra Electricity Regulatory Commission
https://www.prayaspune.org/peg/publications/item/457-working-group-for-agricultural-consumption-study-final-report.html

Annexure – II

For the tariff analysis of Domestic Category Consumers, the households are categorised on 6 different profiles.

HH 1	Low-income household (BPL Card Holder)	1-2 Rooms
HH 2	Low-income household (Non- BPL Card Holder)	1-2 Rooms
HH 3	Lower middle income household	2-3 Rooms
HH 4	Middle income household	2-4 Rooms
HH 5	Upper middle income household	2+ Rooms
HH 6	Upper middle income household	3+ Rooms

The load and monthly consumption of these households are estimated based on the different number of appliances used according to the income strata are described in the below table:

Washing Machine	**Geyser**	**Water Pump**	**TV**	**Mixer/Blender**	**Air Conditioner (1.5Ton)**	**Air Cooler**	**Refrigerator***	**Ceiling Fan**	**LED Tube light / Bulb**	**LED Bulb**	**Name**	**Details of Appliances**	**For Summer season**
500	1500	746	70	500	1500	250	250	80	20	10	Load (W)		
			1					1	1	2	No of appliances in household	0-50 units	HH1
			4					14	4	4	No of hours of usage per day		
			1					1	1	2	No of appliances in household	0-50 units	HH2
			4					14	4	4	No of hours of usage per day		
			1			1	1	2	3	3	No of appliances in household	50-150 units	HH3
			6			6	4.8	8	4	4	No of hours of		

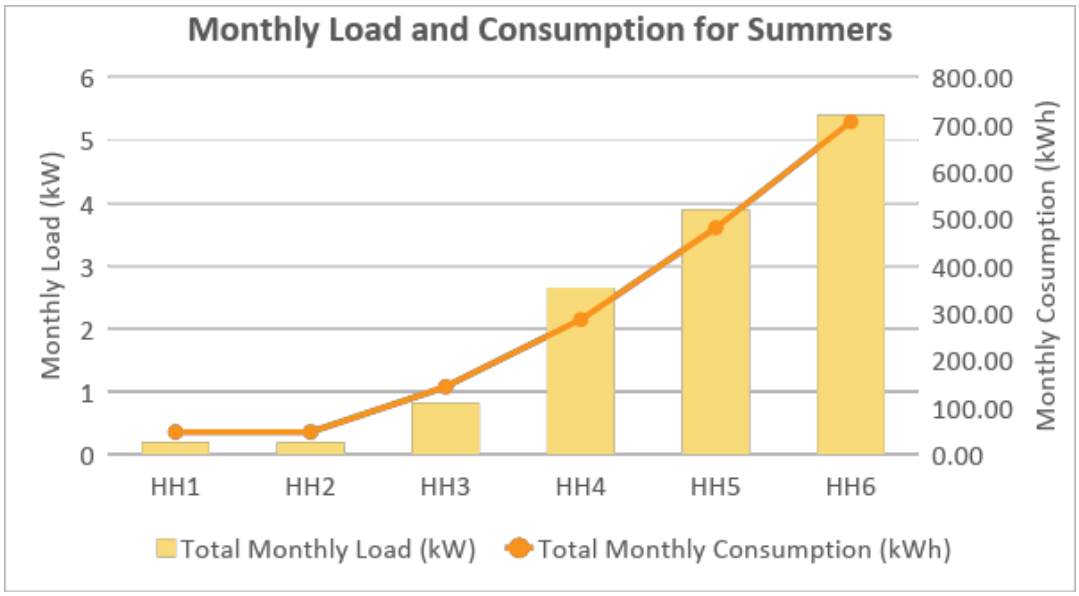
											usage per day		
1		1	1	1		1	1	3	3	3	No of appliances in household	150-300 units	HH4
1		1	6	0.5		16	4.8	8	6	4	No of hours of usage per day		
1		1	1	1	1		1	3	3	3	No of appliances in the household	300-500 units	HH5
1		1	6	0.5	7		4.8	8	6	4	No of hours of usage per day		
1		1	1	1	2		1	3	3	3	No of appliances in household	>500 units	HH6
1		1	6	0.5	6		4.8	8	6	4	No of hours of usage per day		

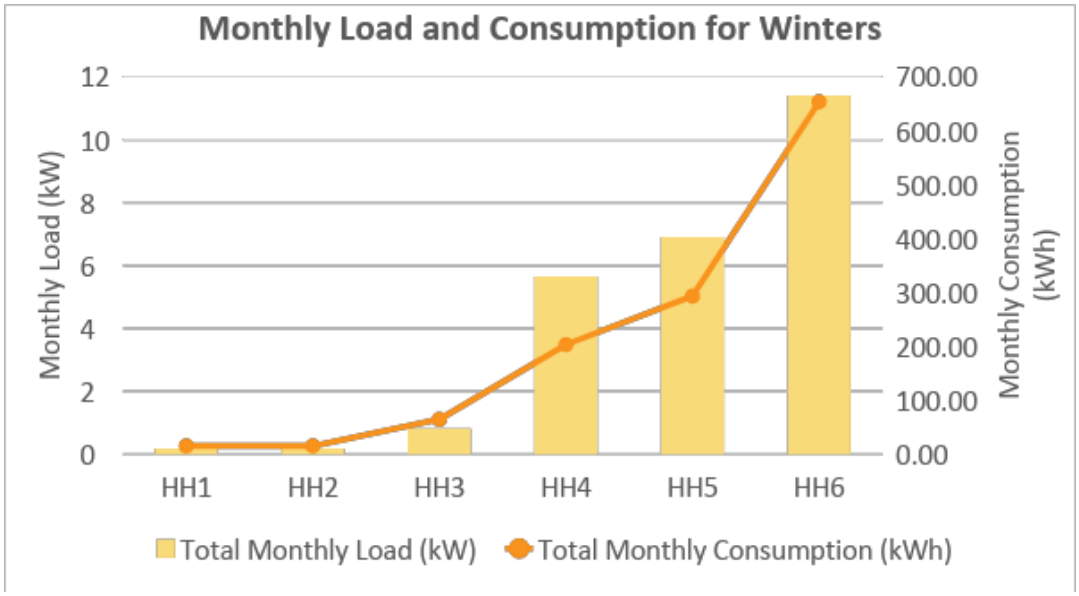
Room Heater	**Washing Machine**	**Geyser**	**Water Pump**	**TV**	**Mixer/Blender**	**Air Conditioner (1.5Ton)**	**Air Cooler**	**Refrigerator***	**Ceiling Fan**	**LED Tube light / Bulb**	**LED Bulb**	**Name**	**Details of Appliances**	**For Winter season**
				1					1	1	2	Load (W)		
				4					0	6	6	No of appliances in household	0-50 units	HH1
				1					1	1	2	No of hours of usage per day		
				4					0	6	6	No of appliances in household	0-50 units	HH2

				1			1	1	2	3	3	No of hours of usage per day		
				6			0	4.8	0	6	6	No of appliances in household	50 - 150 units	HH3
1	1	1	1	1	1		1	1	3	3	3	No of hours of usage per day		
1	1	1	1	6	0.5		0	4.8	0	8	6	No of appliances in the household	150-300 units	HH4
1	1	1	1	1	1	1		1	3	3	3	No hours of usage per day		
2	1	2	1	6	0.5	0		4.8	0	8	6	No of appliances in household	300-500 units	HH5
2	1	2	1	1	1	2		1	3	3	3	No of hours of usage per day		
4	1	2	1	6	0.5	0		4.8	0	8	6	No of appliances in household	>500 units	HH6
				1					1	1	2	No of hours of usage per day		

*An operating factor of 0.2 is considered for calculating the consumption of refrigerators
Based on the above assumptions, the overall monthly consumption and corresponding monthly load are calculated for each of the considered household categories.

		HH1	HH2	HH3	HH4	HH5	HH6
Summer Season	**Total Monthly Load (kW)**	0.19	0.19	0.82	2.646	3.896	5.396
	Total Monthly Consumption (kWh)	46.80	46.80	142.80	285.48	480.48	705.48
Winter Season	**Total Monthly Load (kW)**	0.19	0.	0.82	5.646	6.896	11.396
	Total Monthly Consumption (kWh)	15.60	15.60	64.80	203.28	293.28	653.28





Based on the data from the Approval of Aggregate Revenue Requirement and Tariff Petition of Jaipur Vidyut Vitran Nigam Ltd. (JVVNL) 2019-20, the average Cost of Supply is considered as Rs. 8.04/unit. The cross-subsidy for each of the household categories is computed based on the difference in the cost of the supply and revenue generated from the consumer in each of the assumed categories.