BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

May 28, 2022

IN THE MATTER OF

Proceedings on Truing-up for the financial year 2020-21 (FY21), Annual Performance Review FY22, and Annual Revenue Requirement and tariff determination for FY23 for the power distribution utilities in Uttar Pradesh

Submission from the Council on Energy, Environment and Water (CEEW)

The Hon'ble UPERC initiated proceedings on Truing-up for FY21, Annual Performance Review (APR) for FY22 and Annual Revenue Requirement and Tariff determination for FY23 for the state discoms (namely DVVNL, PVVNL, MVVNL, PuVVNL & KESCO). Hon'ble UPERC vide public notice dated 30th May 2022 invited comments on the proceedings. This submission is in response to the said notice and elaborates on a few points on the petitions. We request the Commission to accept this submission and allow us an opportunity to further elaborate on any of the suggestions, as per need.

For FY23, UP discoms (all 5) have projected the total annual revenue requirement at INR 84,526 crore. The average cost of supply (ACoS) (on energy sold basis) is projected to be INR 8.43/kWh, an increase of 7% over FY22 (projected). Such a high ACoS is worrisome for many reasons, including the increasing tariff burden on consumers who are also grappling with high inflation in general, threat of increasing sales migration to open access and associated reduction in cross-subsidy support, increase in requirement for direct subsidy form state government in view of a large number of newly electrified and poor consumers in need of tariff support. In parallel, the gaps in quality and reliability of power supply in the state continue, despite such high power tariffs. Through this submission, we aim to bring the Commission's attention to some salient action points to help improve the operational and financial efficiency of the discoms in the state. Below is the summary of issues/suggestions covered:

1. Demand/Sales projection and demand-side intervention

1.1 Mandatory 100% metering required for Energy accounting and demand forecasting

Despite repeated directions from the commission, the discoms are yet to achieve 100% metering. The discoms have to ensure that 100% metering (including LMV 10) needs to be completed. Metering is the backbone of the financial health of discoms. Without 100% metering discoms can never ascertain the loss level and energy leakages to improve upon the same.

Moreover, Energy Audit Reports (at various levels) have not been submitted by discoms. The discoms have not submitted the energy audit report for FY 20, FY 21 and FY 22, stating that feeder & DT metering work is in process. Therefore, it is requested that the Commission should direct the discoms to submit the energy audit report for the areas where the metering has been completed on a rolling basis.

The discoms should submit the status of feeder & DT metering status along with category/sub-category-wise consumer metering achieved till date and plans to achieve 100% metering for each category.

Our Comment/Suggestion:

The discoms should submit the status of feeder & DT metering status along with category/sub-category-wise consumer metering achieved till date and plans to achieve 100% metering for each category.

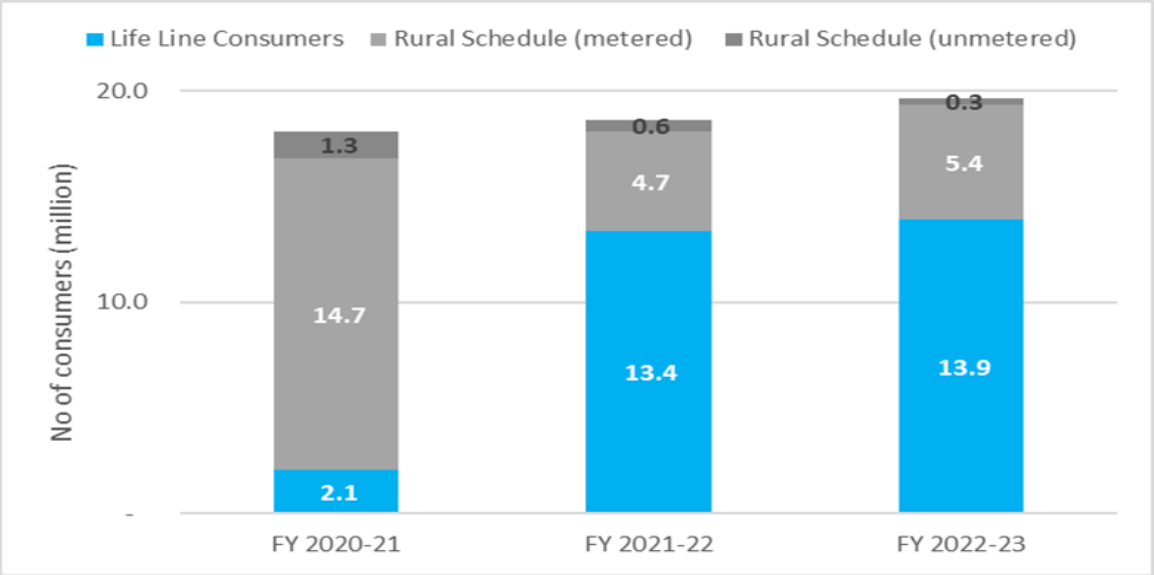
We suggest that Discoms should take up phase-wise metering campaigns for all major unmetered categories (LMV-1, LMV-5 and LMV-10) consumers for the purpose of Energy accounting, whilst ensuring these consumers that metering will not necessarily impact their electricity bills.

This energy accounting will also help discoms to better forecast their energy demands and avoid power supply shortages, especially in rural areas.

1.2 Need to review sudden increase in LMV-1 lifeline and rural unmetered sale

In FY22, neither the discoms projected nor the Commission approved any billing determinant (sales, load, or revenue) for unmetered consumers in LMV-1 consumer category. However, in the tariff petition for FY23, the discoms have projected about 6 lakh unmetered consumers in FY22 and 3 lakhs in FY23 with 900 MU of sales projected for FY23. In addition, the number of lifeline consumers has suddenly increased seven-fold from 2.1 million in FY21 (trued-up nos.) to 13.9 million in FY23 petition, as shown in Figure 1, without any justification for this change. This trend is accompanied by a drop in the number of rural (metered) consumers, including those falling in slabs with consumption greater than 100 units/month. We humbly request the commission to review this sudden change in the consumer category and seek justification for the same from the discoms.

Figure 1: Sudden change in composition of LMV-1 consumer mix from FY21 to FY23



Source: CEEW analysis using data from discom's tariff petition for FY21, FY22 and FY23

Our Comment/Suggestion:

We have observed that the number of consumers in LMV-1 rural metered and rural unmetered sub-category have fallen substantially for APR and ARR years, while the consumers under Lifeline category has risen by seven folds. ***We humbly request the commission to review this sudden change (~546%) in consumer numbers & demand of the lifeline consumer category and seek justification for the same from the discoms.***

We would also like to bring to attention that since LMV-1 category constitutes approx. 50% of the total sales for the UP discoms, it is important to forecast their sales as accurately as possible, otherwise it leads to power shortage issues, or will impact consumers in form of increased Incremental costs.

1.3 Need to revise normative consumption for unmetered agriculture connections using feeder-level data

Un-metered agricultural demand for FY23 is projected to account for about 75% of the total LMV-5 sales. The LMV-5 category is the predominant recipient of subsidies. The estimation of sales (though it is for normative booking/accounting under the discoms commercial statements) should be based on a more scientific and rigorous methodology. This is especially true as the demand estimations have implications on revenue recovery, cross-subsidy requirement, subsidy, and distribution losses estimation. The Hon'ble Commission vide order UPERC/Secy/D(T)/2016/336 dated December 09, 2016 has recognised the same. It has emphasised conducting a robust study for estimation of un-metered consumption. The relevant section of the order has been quoted below.

"*The Commission is aware that increasing the normative consumption figures for unmetered categories of consumers will result in decrease in the loss level of the licensee but reduction in billing per unit of energy, thereby increasing the subsidy bill of GoUP. Further, the overall ABR will go down thereby increasing the Gap between the ACOS and ABR. Furthermore, revised consumption norms will result in improving one of the parameters of UDAY i.e. loss level but at the same time other parameters i.e. gap between ACOS and ABR will go up*.

…….

It is once again reiterated that the approved consumption norms will only be used for the purpose of energy accounting and the tariff of the consumers will not change. For all billing purposes, even in cases of assessment, NA, NR, defective meter, meter not installed in a metered connection etc, ***the existing (old) consumption norms will be used till the Commission approved the new revised consumption norms based on studies***"

Moreover, in the aforementioned order dated December 9, 2016, Commission approved the normative consumption on an interim basis for six months (till June 30, 2017) **and directed the discoms to complete the study of consumption norms based on MYT Distribution Tariff Regulations 2014,** before that. However, since 100% metering of LMV-1 and LMV-5 is still pending, the old norms still continue to be used by the Licensee for demand projection and ARR assessment. The study of consumption norms is yet to be carried out by the discoms. Given the change in consumption pattern of all consumer categories on account of Covid-19, changes in seasonal pattern, and cropping patterns, the Hon'ble Commission and the discoms must conduct a comprehensive study to assess the unmetered domestic and agricultural demand, to revise the norms for estimating demand, especially for the given control period.

The Commission revised the consumption norm for unmetered LMV-5 slab in the tariff order for FY 19-20 dated September 3rd, 2019. The relevant section is quoted below:

"Further, for LMV-5 category, the Commission in its Tariff Order for FY 2019-20 dated 03.09.2019, had approved a consumption norm of 140 kWh per kW per month consumers assuming a supply of 14 hours for 120 days. The same norm for LMV-5 has been considered. The Commission has computed the excess sales booked by Petitioners as under"

We would also like to bring to the Commission's notice that MERC had constituted a working group (consisting of MERC officials, discoms officials, think tanks, and others) to study the agricultural consumption in their state. The working group concluded that the feeder meter-based analysis enables capturing data of many agricultural consumers in an economical, efficient, and reasonably accurate manner. Similarly, the Commissions in Punjab and Haryana have followed a feeder data-based approach to estimate agricultural sales. In Uttar Pradesh, significant agriculture feeder separation has been done.

Our Comment/Suggestion:

We request the Hon'ble UP Commission to initiate an independent study to assess agricultural consumption based on feeder and DT input data and sample surveys to inform the consumption norms concerning sales from FY23 onwards*. As an independent think-tank who has prior expertise in carrying out such studies in state of Uttar Pradesh, CEEW will be happy to participate in the transparent bidding process for the same.*

1.4 Need to account for the impact of PM-KUSUM scheme in LMV-5 sales projection

The impact of demand side interventions such as solarisation of agriculture feeder under the PM-KUSUM scheme seems to be lacking from discoms' sales projections. MNRE has already sanctioned a 225 MW capacity target for UP under Component A of the scheme. The Government of UP (GoUP) had recently issued an order dated January 13, 2021, sanctioning capacities of 150 MW to various State Implementing Agencies (SIAs)/Discoms to implement the Component-A. UPPCL had proposed a ceiling tariff of INR 3.10/kWh, approved by the Hon'ble Commission, for procurement of solar energy under KUSUM.

We estimate that 225 MW of solar capacity can fulfil ~355 MU[1] of agricultural demand. The discoms should take the same into consideration while projecting the sales and corresponding power purchase requirements. The saving potential can be estimated to be the difference of power purchase cost required to cater the demand of Agricultural consumers and ceiling tariff of INR 3.10/kWh.

In December 2020, the Ministry of New and Renewable Energy (MNRE) issued revised guidelines for the PM-KUSUM scheme allowing feeder solarisation under Component C. Under Component C, a capital expenditure grant of 30% will be available to the discoms. With no conditionality of using farmers' land for project setup under this component, the surplus land near the substations could be leased out to develop small solar power plants to cater to agricultural feeders originating from the substation. Solarisation of agricultural feeders is important to ensure reliable daytime supply to farmers, meet renewable purchase obligations (RPO), reduce cross-subsidy requirements and tariff subsidy burden on the government, and cut down distribution losses.

Our Comment/Suggestion:

We request the Hon'ble Commission to consider the impact of KUSUM in demand and power purchase projections and direct the discoms to leverage feeder solarisation actively.

[1] Source: UPNEDA website
Assumption: ~Considering 18% CUF for 225 MW capacity (225*18%*365*24/1000) installed for projects under Component A

1.5 Billing determinants of Energy efficient pumps missing

The Hon'ble commission created a separate slab for Energy Efficient (EE) pumps under LMV-5 category. This slab was specifically created to promote uptake of EE pumps, replacing old agricultural pumps in order to save energy and improve losses in the agricultural category. ***However, it has been observed that the discoms are not providing or projecting any billing determinants (consumer no., sales and load) for the same since the time it has been created.***

EESL and UPNEDA have been implementing EE pumps on-ground, however such data is neither captured and nor reflected in the Tariff orders/petitions of the discoms. There is also a lack of any report or study that demonstrates the impact of replacing old agricultural pumps with EE pumps and the future plans for implementing these pumps.

Our Comment/Suggestion:

We request the Hon'ble Commission to direct the discoms to provide the status of agricultural pumps replaced by EE pumps and also provide projections in billing determinants for the EE pumps. We also request the Hon'ble Commission to conduct an independent study to assess the impact of EE pumps on energy and monetary savings for the discoms as well as for the consumers.

2. Power purchase costs

The cost of power constitutes about 80% of the annual revenue requirement of the discoms. It is therefore necessary to optimise the power procurement cost so that financial burden on discom can be reduced.

2.1 Need to evaluate the high fixed and variable charges projected for FY23

Discoms' submission shows a mere 0.32% increase in total projected energy purchased in FY23 over FY22. However, the total fixed cost burden is projected to increase by almost 50%, from INR 22,181.96 crore (approved in FY22) to INR 32,924.20 crore in FY23. About 40% of this increment burden is due to fixed charges to be paid to PGCIL.

As per the discoms, the significant component of fixed costs (FC) for FY23 has been estimated by applying a 5% escalation factor to the plant-wise FC per kWh, as approved by the Commission in the Tariff Order dated July 29, 2021, and further applying these to the total dispatch, derived from the estimated total demand. However, the actual variable charges are going in a downward trend year-on-year and the actual fixed cost is lower than the approved as can be seen in the table 1 and 2 respectively below:

Table 1: Claimed, Approved and Actual Variable Charges (average) in INR/unit in past 5 years

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
VC claimed	2.55	2.68	2.35	2.37	2.39	2.48
VC approved	2.43	2.61	2.31	2.29	2.30	
VC Actual	2.32	2.37	2.45	2.37	2.14	

Source: Author's analysis from Discom`s Tariff Petitions

Table 2: Claimed, Approved and Actual Fixed costs in INR crore in past 5 years

Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
FC claimed	16643	17402	20709	28070	33350	**32924**
FC approved	16516	15464	19122	22774	25319	
FC Actual	13901	16977	17953	19419	**22182**	

Source: Author's analysis from Discom`s Tariff Petitions

Our Comment/Suggestion:

Hence, we humbly submit that ***the Hon'ble Commission must take a realistic view of the potential growth in retail sales in FY23 and accordingly approve the power purchase quantum and cost (including fixed cost)****.*

2.2 Need to relinquish old and stranded thermal capacity to optimise power purchase expenditure

It is observed that discoms have considered a power purchase quantum of 221 MU for FY23 from NCTPS-1. **Whereas the Hon'ble Commission** vide its Order dated 25.04.2022 in the Petition No. 1806 of 2021 in the matter of "seeking permission to relinquish purchase of power from NCTPS, Dadri Stage-I Generating Station in light of MoP Letter dated 22 March 2021 and in terms of Regulation 17 of CERC (Terms and Conditions of Tariff) Regulations, 2019" **allowed UPPCL to relinquish the power of 84 MW of NCTPS Dadri-I. Hence NCTPS-I shall not be considered in power purchase cost computation by the discoms.**

List of most expensive plants as per MoD principles (high variable cost), based on FY 2020-21 power purchase submitted by discoms:

Table 3: List of expensive power plants identified by CEEW as per MoD principles

Generating Stations	Intra/Inter	Energy Charges Per Unit (INR/kWh)	Total Cost Per Unit (INR/kWh)
LALITPUR	Intra	2.98	11.29
KHARGONE STPS	Inter	3.02	7.08
BEPL KUNDRAKHI	Intra	3.15	8.07
FGUTPS-1	Intra	3.16	5.38
MAUDA-II STPS	Inter	3.17	6.82
MAUDA-I STPS	Inter	3.19	9.35
FGUTPS-4	Intra	3.19	5.88
NCTPS-1	Inter	3.21	4.30
FGUTPS-2	Intra	3.22	5.57
NVVN Thermal	Inter	3.24	3.40
FGUTPS-3	Intra	3.30	5.92
APCPL	Inter	3.33	5.89
BEPL MAQSOODAPUR	Intra	3.34	9.48
BEPL UTRAULA	Intra	3.34	8.13
BEPL BARKHERA	Intra	3.43	13.64
BEPL KHAMBHAKHERA	Intra	3.43	9.92
TANDA TPS	Intra	3.47	6.00
HARDUAGANJ EXT.	Intra	3.64	6.39
SOLAPUR TPS	Inter	3.65	10.98
NCTPS-2	Inter	3.73	7.95
PARICHHA EXT.	Intra	3.73	6.42
PARICHHA EXT. STAGE-II	Intra	3.74	6.15
DADRI GPS	Intra	3.80	5.24
ANTA GPS	Inter	4.46	6.64
AURAIYA GPS	Intra	4.89	7.92

Source: True-up of FY 2020-21 from Tariff petitions for FY 22-23

Further, we have identified the power plants older than 25 years with the increase in per kWh fixed cost burden as per the projected power purchase by Discoms from NTPC power stations and the projected fixed costs for FY23, as per Table 4 below:

Table 4: List of older power plants identified by CEEW that are placing a higher per kWh FC burden on UPPCL

S.No.	NTPC power plant	Contracted Capacity	Fixed Charges		Variable charges		Change in per unit FC in FY22-23 over FY 21-22	Age
		(MW)	(INR/unit)	(INR crore)	(INR/unit)	(INR crore)		(years)
1	SINGRAULI	753.60	0.69	356.26	1.54	789.54	6%	38
2	RIHAND-1	325.70	0.85	190.10	1.57	353.03	15%	34
3	ANTA GPS	91.2	13.11	55.23	4.64	19.56	292%	33
4	FGUTPS-1	249.98	3.52	187.05	3.29	174.67	82%	32
5	FGUTPS-2	128.9	2.60	94.18	3.35	121.73	81%	32
6	FGUTPS-3	63	3.47	62.03	3.43	61.45	79%	32
7	FGUTPS-4	222.94	4.14	254.23	3.32	203.70	73%	32
8	TANDA TPS	440	4.02	370.40	3.61	333.04	83%	31
9	DADRI GPS	245.61	2.64	116.84	3.95	175.26	155%	30
10	NCTPS-1	84	2.55	56.29	3.34	73.79	59%	30
11	KHTPS-1	77	2.59	51.67	2.45	48.84	63%	28
12	**Total/Avg.**	**2681.9**	**3.65**	**1794.28**	**3.14**	**2354.61**	**89.77%**	**32**

Source: Tariff petitions for FY 22-23 and MERIT portal

Note: The coloured rows signify our suggestion of plants that can be considered for relinquishing power immediately

Based on above, we have computed that **there is an increase of INR 0.08/kWh due to payments of fixed charges of stranded capacity** in the Average Power Purchase Cost (APPC) of UPPCL projected for FY23 (INR 5.08/unit) compared to FY 20-21. It should be noted that the stranded cost burden on the consumers impacts the overall affordability of electricity. Therefore, it is essential to monitor the utilisation level of the existing fleet and have robust demand-supply estimation to avoid such stranded capacity burden in the future.

Similar to Dadri NCTPS-1, discoms must target power plants older than 25 years and with the highest increase in per kWh fixed cost burden. Plants like Singrauli and Rihand-I may be reconsidered for PPAs as their contracted capacity is significant for the state and the variable charges are on the lower side of the MoD. Their fixed cost has also not varied drastically, so they contribute marginally to the fixed cost burden. Whereas, all other plants shown in the table above require a planned phasing-out strategy as their fixed cost and variable charges are very high. A larger increase in expected per kWh FC shows that the FC burden for a power plant would increase disproportionately to its utilisation. **The discoms can consider reaching an alternative contractual arrangement with older plants such that the fixed cost**

burden is borne in line with plant utilisation, as is envisaged under Regulation 17 of the CERC (Terms and Conditions of Tariff) Regulations, 2019. Based on the financial aspect, gradually relinquishing these capacities could also result in savings of the fixed cost outlays over the course of the remaining (contractual) life of these assets.

Further, for the capacity that represents plants of a newer vintage and not identified for retirement in the National Electricity Plan (NEP), we propose a temporary moth-balling of these facilities. Given that fixed cost payments are contractual obligations and must be made, we envision that these facilities will continue to be available for the system should the need arise.

UPPCL has already planned new capacities that are expected to come up in FY23, as shown in Table 5, that can easily replace the old capacity bring relinquished while sufficiently serving the increasing demand. We will be happy to provide any further information on this matter, as per need.

Table 5: New capacity planned by UPPCL

Plants	Capacities (MW)	Units	Expected COD
Panki Extension	660	Unit#1	Mar-23
OBRA-C	1,320	Unit#1/#2	Aug-22/Mar-23
Jawaharpur	1,320	Unit#1/#2/#3	Mar-22/Jul-22/Nov-22
Ghatampur	1,683	Unit#1/#2	Aug-22/Mar-23
Total	**4,983 MW**		

Source: Discom's reply to 2nd Data gap for FY23

Our Comment/Suggestion:

Discoms must identify a list of plants and include them in the "stranded capacity bucket" i.e.* power plants older than 25 years and with the highest increase in per kWh fixed cost burden*. The identified old and stranded capacity must be considered for gradual relinquishment in view of multiple economic and environmental benefits associated with such an action.

It is to be noted that the state governments of NCT of Delhi, Haryana, Himachal Pradesh, Punjab, Rajasthan, Madhya Pradesh, regarding surrendering of their quota of power from the central generating stations (Anta, Auriya, Dadri and Kawas) as informed vide order No.3/6/2019-0M-Part(I) dated 28th April, 2022 by the Ministry of Power, as provided below:

Status of Surrender Power by different States/UTs as on 28.04.2022

S. No.	Surrendered by State(s)/UT(s)	Surrendered from (Power Station)	Surrendered power in MW
01.	Delhi	Anta Gas Station of NTPC	43
		Auraiya Gas Station of NTPC	72
		Dadri Gas Station of NTPC	91
02.	Haryana	Anta Gas Station of NTPC	24
		Auraiya Gas Station of NTPC	39
		Dadri Gas Station of NTPC	41
03.	Himachal Pradesh	Anta Gas Station of NTPC	15
		Auraiya Gas Station of NTPC	22
		Dadri Gas Station of NTPC	25
04.	Punjab	Anta Gas Station of NTPC	49
		Auraiya Gas Station of NTPC	83
		Dadri Gas Station of NTPC	132
05.	Rajasthan	Anta Gas Station of NTPC	83
		Auraiya Gas Station of NTPC	61
		Dadri Gas Station of NTPC	77
06.	Madhya Pradesh	Kawas Gas Station of NTPC	140
		Gandhar Gas Station of NTPC	117
	Total		**1,114**

Our Comment/Suggestion:

Discoms/UPPCL may relinquish capacity from costlier gas power plants similar to *the decision made by the state governments of NCT of Delhi, Haryana, Himachal Pradesh, Punjab, Rajasthan, Madhya Pradesh.*

2.3 Late payment surcharge due to generators should not be passed on to consumers

In their tariff petition, UP discoms have claimed a late payment surcharge (LPS) of INR 4,096 crore, which is equivalent to 6.83% of the total power purchase cost claimed for FY21. We observe that UPPCL has been paying a large amount every year as LPS to the generators, which is later claimed to be levied on the consumers.

Table 6: Late payment surcharge levied on UP discoms during past three years

Year	FY 2018-19	FY 2019-20	FY 2020-21	Total
INR crore	1,134	1,447	4,096	6,677

Source: Authors' compilation using previous year Tariff Petitions

As shown in Table 6, LPS on UP discoms has been increasing y-o-y, signifying that discoms are not paying the generators on time (highest amount attributed to state IPPs). Further, discoms are taking benefits of

the schemes such as UDAY, and additional borrowings from the Governments. As per the Praapti portal, UP discoms have outstanding dues of INR 10,000 crore to the generators as on 1st April 2022. These will again invite an LPS. The central government has already come out with a scheme to liquidate the past dues of discoms which allows them to pay dues in up to 48 monthly instalments.

Our Comment/Suggestion:

The Hon'ble Commission has not been allowing these expenses in the past and it is expected, these will not be passed on to the consumers this year as well.

2.4 Periodic review of the applicability of differential bulk supply tariff (DBST) for discoms

It is observed that the DBST (in lieu of PPA allocation to discoms) was approved by the Hon'ble Commission in FY 2020-21 tariff order. **However, the discoms have not claimed any True-up of DBST, but have only claimed DBST for APR & ARR projections in FY23 petition**.

Further, it is for the Commission's consideration that the DBST mechanism promotes cross-subsidisation among discoms. Good performing discoms (with better billing and collection efficiency) bear the brunt of the lesser performing discoms. This dilutes the incentive for discoms to improve their operational and financial performance. The low-performing discoms should be nudged towards strict compliance and improvements.

Our Comment/Suggestion:

In the medium term, the Hon'ble Commission, GoUP, and UPPCL/discoms should move towards actual allocation of power purchase agreements (PPAs) among discoms rather than UPPCL and allow the power purchase cost for each discom to be reflective of the expenses incurred by them*. This, in turn, would enable each discom to improve their operational efficiency and scheduling and dispatch principles.*

Further,implementation of new CERC Regulations like GNA & Deviation Settlement Mechanism 2022 would be further enabled by allocation of PPAs between discoms.

2.5 Information on compliance with the RPO and HPO targets needs to be uniform

- It has been observed that the RPO and HPO compliance segment under power purchase cost has been removed from the tariff petition and is only provided in the MYT formats of the discoms. Moreover, the data provided by the discoms in the MYT formats for the tariff petition is very different from that provided during the suo moto proceedings regarding the meeting of RPO/HPO targets by obligated utilities vide Petition 1565 of 2020 dated 16 June, 2021. A snippet of the discrepancy in data is shown in Table 7 below, taking the example of targets of energy required from respective sources in MU, that should be the same, for the true-up year 2020-21.

Table 7: RPO/HPO compliance targets in MUs for FY 2020-21

Particulars	As per petition 1565 of 2020	As per instant Tariff Petition
Solar RPO	2,969	3,020
Non-Solar RPO	5,940	6,040
HPO	1,979	2,013

Source: Authors' compilation

The commission is requested to look into the data discrepancy and direct the discoms to maintain uniformity and publish the data of actual status of RPO/HPO compliance.

- It is also observed that the energy purchased under KUSUM scheme and from RSPV consumers is not being accounted for towards the RPO/HPO compliance. The discoms are requested to take note of such distributed energy resources that can be accounted for towards RPO compliance.
- Moreover, we would like to bring to the notice of the Hon'ble commission that present RPO and HPO targets are upto FY24. Considering the national target of 500 GW non fossil capacity by 2030 along with low wind and solar prices, and existing RE procurement of the Discoms, **we suggest the commission should come out with much higher targets for the obligated entities upto FY30.** Other states such as Andhra Pradesh and Karnataka have already revised their RPO/HPO targets for the upcoming years in line with the new national target. We humbly suggest that UPERC should also commission studies for determining long term targets for 2030 for the state.

Our Comment/Suggestion:

- *The commission is requested to look into the data discrepancy and direct the discoms to maintain uniformity and publish the data of actual status of RPO/HPO compliance.*
- *The energy purchased under KUSUM scheme and via RSPV net-metered consumers should also be accounted towards RPO compliance*
- ***Present RPO and HPO targets are up to FY24. Considering the national target of 500 GW non-fossil capacity by 2030 along with low wind and solar prices, and existing RE procurement of the Discoms, we suggest the commission should come out with much higher targets for the obligated entities up to FY30***

3. Distribution Losses

3.1 Re-evaluate trued-up power purchase cost computed on actual losses

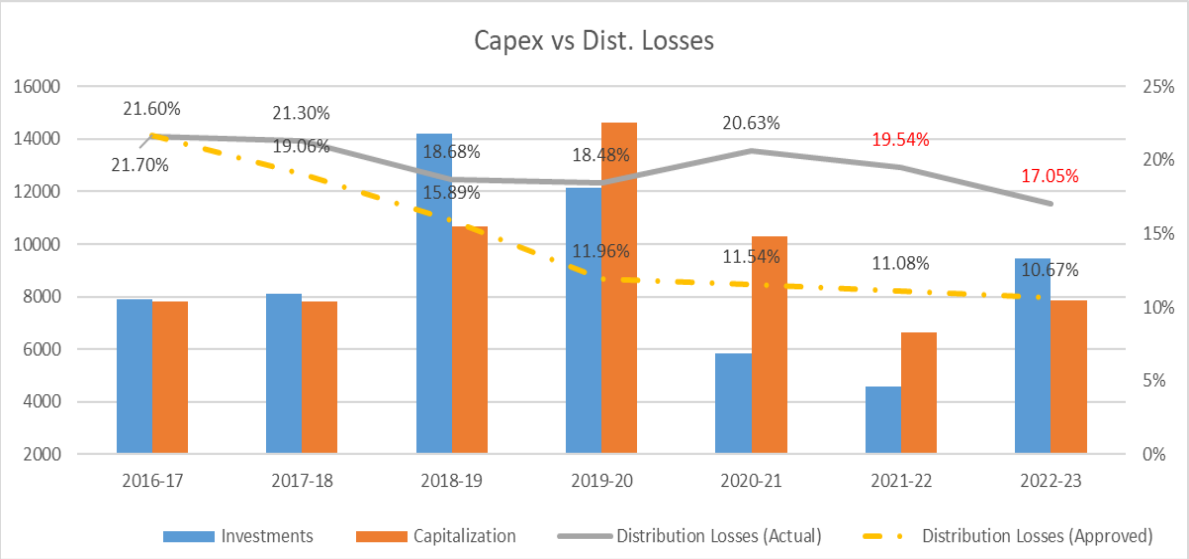
Discoms have computed the trued-up power purchase cost for FY21 considering the actual distribution losses of 20.63% (consolidated for all discoms) and not the approved losses and accordingly the discoms have arrived at the BST of INR 5.24/unit.

Further, while truing-up, when the Commission re-evaluates power requirement based on approved losses for FY21, it may consider recompiling the BST (i.e. revised APPC and ISTS transmission charges) by applying merit order principles and removing the expensive plants with high variable charges corresponding to power purchased MUs disallowed.

3.2 No improvement in distribution losses despite huge capital expenditure

It is observed that the consolidated capital expenditure (capex) by the discoms in the past 5-years is above INR 48,000 crore under various schemes such as RAPDRP, IPDS, Saubhagya, etc. Despite such a huge capex on infrastructure upgradation, the losses have not reduced and are still above 20%.

Figure 2: Capex vs distribution losses in Uttar Pradesh over the past five years



Source: CEEW analysis using discom Tariff Petition and previous year Tariff orders

The discoms should justify and submit the impact of the capex and grants spent under various schemes for performance improvement and loss reduction of each discom, and explain why the loss trajectory of consolidated for all discoms diverges significantly from approved trajectory.

Moreover, it has been observed that detailed project reports (DPR) for schemes over INR 10 crore are being submitted by UPPTCL and NPCL but not by the discoms. The Regulations mandate and the Commission had directed the discoms in the past to timely submit the DPRs for prior approval**. The commission, in the past (FY 2020-21) has also penalised UPPCL and UPPTCL by disallowing 25% of the capital investments as the DPRs were not submitted in a timely fashion and the Commission's approval was not taken. The disallowance will benefit the consumers by reduction of ARR by INR 50-100 crore.**

Our Comment/Suggestion:

The discoms should justify and submit the impact of the capex and grants spent under various schemes for performance improvement and loss reduction of each discom, and explain why the loss trajectory of consolidated for all discoms diverges significantly from approved trajectory.

4. Revamped Distribution Sector Scheme (RDSS)

4.1 Details of RDSS scheme must be submitted by discoms in Tariff petition

The discoms have claimed around INR 2,776 crore under Revamped Distribution Sector Scheme for FY23.[2] However, going by the RDSS guidelines, discoms will not have to spend upfront capex on metering and related activities.

Below are produced relevant clauses from scheme's guidelines for the Commission's consideration.

i) *"3.2.4.1 One or more independent Project Management Agency(ies) (PMA) may be appointed by the DISCOM for project management."*

The cost of the Project Management Agency if included in the Capex projection for FY 2022-23, should not be allowed as it is a part of administrative and general expenses rather than Capex.

ii) The cost of Training and capacity building of employees in the Capex for FY 2022-23 under RDSS scheme should not be allowed, as it is a part of O&M Expenses and shall not be considered as capex and it is 100% through grant.

iii) **The Smart metering works under RDSS is to be implemented in Totex mode i.e. (Capex+Opex**), as per the following provision:

"2.3.2 Funding under this Part will be available only if the DISCOM agrees to the operation of smart meters in prepayment mode for consumers, and in accordance with the uniform approach indicated by the Central Government, with implementation in TOTEX mode. Under this mode, a single agency will be contracted for supplying, maintaining and operating the metering infrastructure for the purpose of meter related data and services to the DISCOM. It will make both capital and operational expenditure under DBFOOT (Design Build Fund Own Operate & Transfer) or similar modes and will be paid for a portion of its capital expenditure initially and the remaining payment over the O&M period."

"3.3.3 The Action Plan and DPRs for loss reduction and metering shall be scrutinized by the Nodal Agency and approved by the Monitoring Committee with such modifications, as are necessary to achieve the objectives of the Scheme. Monitoring Committee will issue sanctions of loss reduction

[2] INR 515.61 crore for MVVNL, INR 156.20 crore for KESCo, INR 1302.76 crore for DVVNL and INR 802.32 crore for PVVNL. PuVVNL has not given the data for RDSS scheme separately in their petition

works contingent to sanctions of metering works being already in place; or, Smart metering works being already implemented by the DISCOMs in line with the SBD for Smart prepaid metering in TOTEX mode; or together, as the case may be."

Further, the Hon'ble Commission in previous True Up for FY 2019-20 has not allowed the Opex works under smart metering works and ruled that:

"4.6.19. Keeping the above in view, since the net improvement in Collection and Billing Efficiency has been envisaged keeping the net consumer tariff (ABR) constant and the Net benefit/gain to the Discoms is without any increase in the consumer tariffs, and the above scheme would be in OPEX mode, it means the scheme is self-sustaining and hence ***the total cost should stay out of the ARR."***

The RDSS guidelines (para 2.4.3) also provides the provision of capex for Public-charging Infrastructure for Electric Vehicles. **The Commission may also direct discoms to provide the details of capex projected under the Public-charging Infrastructure for Electric Vehicles for RDSS scheme**.

Our Comment/Suggestion:

a) **Direct the discoms to submit the detailed breakup of works under RDSS scheme with year wise bifurcation under different heads.** This may include capex for metering, Infrastructure works, modernisation, project management agency cost, cost of training and capacity building of employees

b) **Capex expenditure for the smart metering works under the RDSS, should not be allowed and passed on to consumers, in line with the scheme's guidelines and provisions**.

c**) Direct the discoms to upload the state action plan, DPRs and result evaluation matrix on its website for the larger public to be aware of the intent and targets of the RDSS scheme for each discoms and the State as a whole.**

4.2 Methodology for evaluation of cost benefit analysis of large-scale smart meter deployment

The discoms have provided an assessment of the progress made in improvement in operational and financial efficiency due to smart meter deployment and in addition their plans under RDSS.

Before the mass rollout of smart metering (or prepaid metering, as has been seen in the recent push from the central government), the following aspects need to be considered:

- **Smart metering infrastructure should be deployed with a systemic approach**, focussing on high-loss feeders and building capacity of utility staff, and constituting a strong regulatory framework to guide responsible data storage and sharing practices, protection of consumer privacy and securing the system against ever-evolving cyber-attacks.
- **State Electricity Regulatory Commissions (SERCs) should incentivise discoms to carry out pilot studies at scale to ascertain the benefits and suitability of prepaid metering under different contexts.** The assumption that prepaid metering will do away with all problems

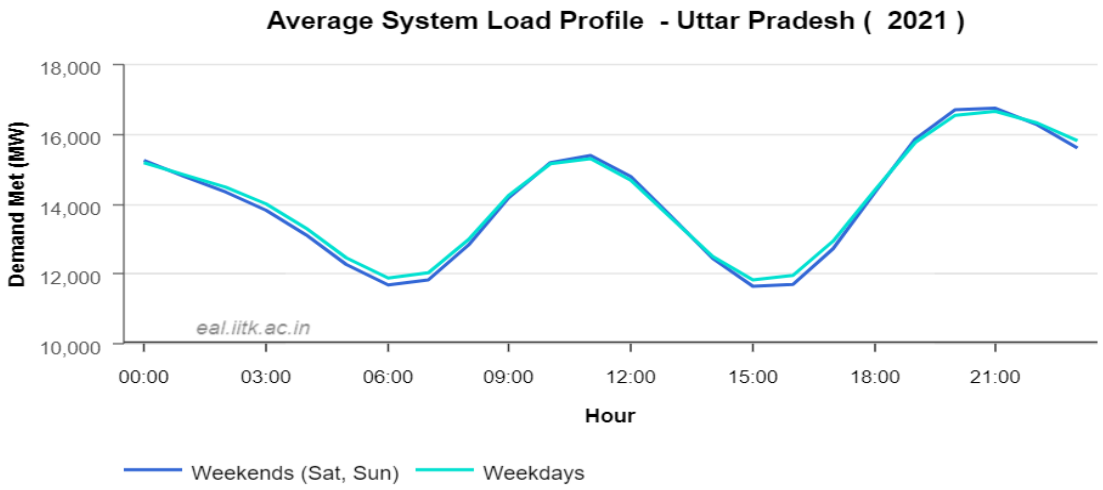
associated with meter reading, billing, collection and disconnection on non-payment, needs to be validated in the Indian context, due to limited experience and evidence on the returns to discoms on pre-paid deployment.

- **Substation level energy audit:** To ascertain the benefits of smart metering in bringing down the commercial losses (especially theft cases), a bottom up approach should be deployed wherein energy audit of consumption from consumer level up until substation level is conducted.
- **The time limit of three years to ensure prepaid metering needs to be reconsidered in view of several facts:**
    - the loss on investment against a large share of meters, particularly 79.80 lakh meters installed under Saubhagya, which have a significant remaining life.
    - Changing technology landscape, with new generation smart metering technologies based on Narrow Band - Internet of things (NB-IoT) and 5G being developed. A hasty approach would lock the discoms into an older technological regime.
    - A long timeframe would allow technology expansion to be driven by domestically manufactured meters, in line with the 'Make in India' initiative.
- While smart meters can be operated in both prepaid and post-paid mode, **consumers should be given a choice to opt for prepaid or post-paid, to suit their specific contexts.**

5. Leverage Time of Day (ToD) tariffs to manage peak demand effectively

5.1 The Demand and Supply availability for Uttar Pradesh:

Figure 3: Uttar Pradesh's average daily load curve for the year 2021



Source: Data published by Energy Analytics lab of IIT-Kanpur (retrieved from https://eal.iitk.ac.in)

The present ToD tariff structure needs to be revised in line with the recent load curves

The present ToD structure (except for LMV-11) for Uttar Pradesh looks as below:

Summer Months (April- September)

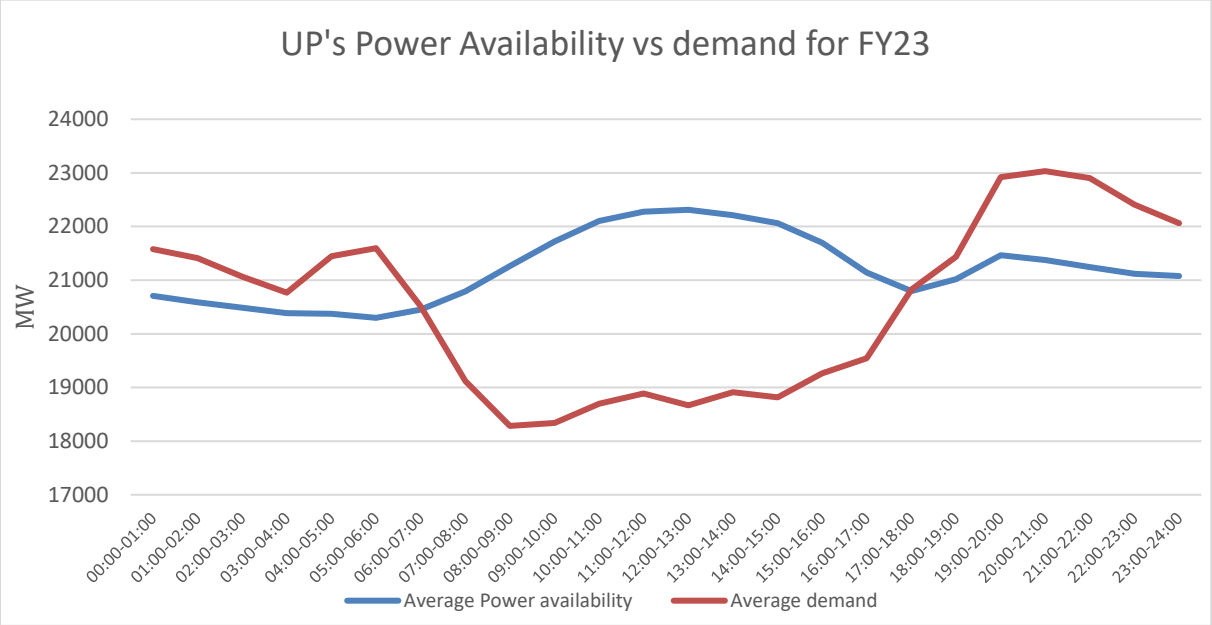
Hours	% of Energy Charge
05:00 hrs – 11:00 hrs	(-) 15%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	0%

Winter Months (October- March)

Hours	% of Energy Charge
05:00 hrs – 11:00 hrs	0%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	(-) 15%

The average daily load curve of Uttar Pradesh, as shown in figure 3 below, suggests that the duration from 11:00 hrs -17:00 hrs can also be treated as the off-peak hours. As per the present ToD structure no incentive is provided for the aforementioned duration. However, the Demand v/s Supply curve of UP looks as under:

Figure 4: Uttar Pradesh's Demand Supply Gap for FY23

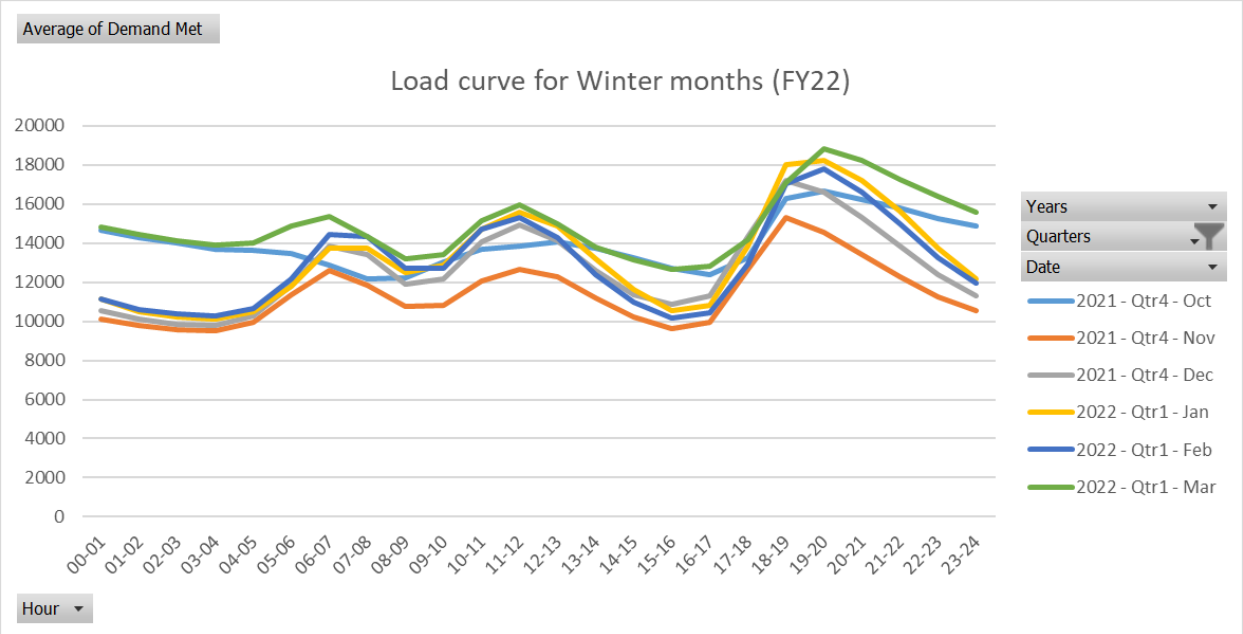


Source: Authors' compilation for April to October months, using data vide UPERC Petition no. 1805 of 2021 dated 11.03.2022

The power availability curve for UP for the high demand months of Apr-Oct 23 suggests that it is most economical for discoms to sell power during the periods 0700 hrs to 1700hrs as the power supply during these hours mostly comes from solar plants which are must-run plants. Hence, the discoms may rethink the duration of off-peak periods based on the availability of such must-run power plants (wind, solar, hydro) and pass on the benefits to consumers in the form of off-peak ToD tariffs.

Further, the daily load curves provided by the discoms, as shown in figure 5, suggest that during the winter months (from October-21 and March-22), 11:00 hrs -17:00 hrs can be considered as off-peak hours and be used for supplying load to the categories such as agriculture and seasonal industries. Since, it is easier to operate during these hours rather than at the present off-peak duration from 23:00 hrs – 05:00 hrs during winters, this practice can also be helpful in reducing over-flooding of agriculture fields by farmers and help avoid wastage of energy in industries as well.

Figure 5: Uttar Pradesh's average daily load curve for winter months (Oct-21 to Mar-22)



Source: Authors' compilation using Load curves provided by discoms as annexure to Tariff Petition

Our Comment/Suggestion:

The demand supply curve suggest that the load needs to be shifted from evening 5 pm - 12 am to 6 am - 5 pm and Time of day tariff should be designed accordingly.

Hence, the present ToD structure needs to be revisited and hence, we propose a detailed analysis of load curves of the past 5 years as well as power availability for next 5 years should be carried out by the discoms and the ToD tariff structure should be redesigned for individual consumer categories, season wise, for better management of demand.

5.2 High consuming LT/HT consumers be brought under the ToD tariff

Given the current situation of increased power cuts, unavailability of energy supply, future shift of agricultural demand to daytime with the implementation of KUSUM, uptake of rooftop solar PV and the importance of managing evening peaks, the scope of ToD tariffs needs to be redefined. With the ongoing progress in smart metering end-consumers as well as distribution infrastructure, it is suggested that all **consumers with a connected load greater than 10 kW should be subject to ToD tariffs in the next 3 years. This is crucial as it will enable discom to incentivize LT consumers (LMV2, LMV6) to shift their loads as per the grid conditions and to effectively manage the load.**

6. Tariff Rationalisation

6.1 Providing relevant information of the rationalized categories

It is humbly submitted that the discoms have provided the Tariff Rationalization model without the Average Billing Rate (ABR) of the categories pre and post rationalization which is making it difficult to analyse the impact. **We humbly request the Hon'ble commission to kindly make the ABR, pre and post rationalisation available publicly so that detailed senstivity analysis can be carried out in order to provide substantive comments on the same**. Nonetheless, we have a few comments regarding the Tariff Rationalization structure which are presented below.

6.2 Reassessment of Lifeline consumers to improve affordability

The discoms have resubmitted their plan for rationalisation of tariff sub-categories in FY23. This is a welcome move as this may reduce the complexity in the tariff structure and will make it easy for consumers.

With rationalisation of sub-categories, it is important to remove any differentiation in tariff between rural and urban consumers as well. The tariff design accounts for lifeline consumption in both rural and urban areas. Thus, identical tariff categorisation and rates for other domestic consumers both in rural and urban areas will drive discoms to provide better quality supply and in turn may improve revenue recovery from rural consumers.

Moreover, as per CEEW's research in the state, inability to afford high electricity bills is the key reason for the non-payment of electricity bills among low-income households. This is directly linked to the tariff design. Table 9 below depicts the comparison of lifeline tariff for domestic consumers of UP vis-à-vis a few better performing states.

Table 9: Lifeline tariffs in UP is significantly higher than some of the better performing states

State	Lifeline units (kWh)	Energy charge (INR/kWh)	Fixed charge (INR)	Total charge in INR (for consumption of 30 units/month)
Uttar Pradesh	0-100	3.0	50 per KW	140
Gujarat	0-30	1.5	5 per connection	50
Haryana	0-50	2.7	NA	81
Maharashtra	0-30	1.1	25 per connection	58

Source: CEEW analysis of Tariff orders of representative states

The lifeline category in UP encompasses a broader consumption slab (0-100 units) compared to the other three states, and nearly 50% of domestic consumers fall under this category. The financial burden of both the fixed and energy charge for consumption up to 30 units is more than twice that in Gujarat and Maharashtra.

To ensure affordability of electricity for poor consumers (both urban and rural), and improve payments rates among them, we request the Commission to consider the following:

1. **Same tariff design for urban and rural consumers, as is the practice across Rajasthan, Maharashtra, Andhra Pradesh and other such states in India.**

2. **All consumers using <50 units/month are considered as lifeline consumers**. Consumers with consumption >50 units for any three months in the year should not be considered as lifeline consumers.

The proposed changes would bring the monthly electricity cost within INR 100 range for nearly 1 crore households.[3] Based on FY21 data, if all households using <50 units per month were charged INR 1.5/unit and a fixed charge of INR 50, the total subsidy outlay would increase from INR 3,161 crore to INR 4,925 crore. Part of this increase could be covered by making the tariffs of high-consumption categories reflective of the cost of supply, as has already been proposed by the discoms under Tariff rationalisation.

6.3 Create a lifeline tariff category for LMV-2 consumers

Current ABR for LMV-2 non-domestic consumers is INR 10.02/unit, higher than that of HV industrial (LMV-6 and HV-2). Due to lack of categorisation in tariff slab for small shops/businesses, many small shops/enterprises resort to run out of homes. This problem is prevalent in many parts of Uttar Pradesh, leading to many litigations and harassment cases.

The new proposed tariff structure has merged the previous 'upto 2kW' and '2-4 kW' slabs with 'upto 4 kW' slabs. In order to ensure affordable power for such small shopkeepers and provide ample growth opportunities for small businesses and prevent unauthorised use of electricity, **we request the Commission to consider creating a new tariff slab 'non-domestic lifeline' for 0-100 units a month.** This is already a practice in multiple states including Andhra Pradesh, Madhya Pradesh, Punjab, Rajasthan, Uttarakhand, Chhattisgarh, Telangana, Tamil Nadu. We have calculated the subsidy required (or reduction in revenue) for such a move would be around **INR 20-25 crore** assuming that around 5% of 0-100 units slab of the Non-domestic consumer category fall under 0-50-unit slab.

[3] Assumptions used for share of consumers in <50 units in 0-100 slab: Lifeline (60%), RD (80%), UD (35%), as per CEEW's IRES survey and MVVNL master data.

Our Comment/Suggestion:

1. ***It is proposed to that all consumers (rural or urban) using <50 units/month be considered as lifeline consumers.***

Proposed Slab:	***Fixed Charges***	***Energy Charges***
Metered Lifeline LMV-1 (both urban and rural)	***INR 50 KW/month***	***INR 1.5 /kWh***

2. ***Creation of a new 'Non-domestic lifeline' for consumers using <100 units a month and upto 1 kW load with tariff***

Proposed Slab:	***Fixed Charges***	***Energy Charges***
Metered Lifeline LMV-2	***INR 50 KW/month***	***INR 1.5 /kWh***

****Only for consumers with connected load upto 1 kW and for consumption up to 100.00 kWh / month***

7. Government Subsidy

7.1 Transparency w.r.t. state government subsidy disbursal is required

The Commission must direct the discoms to periodically furnish details of the consumer category-wise information on subsidies promised and subsidy received, and interest cost due to delays, if any. Such reports must be made available on discoms website for the public consumption. This information will bring transparency in the subsidy disbursement process for the consumers.

7.2 State government subsidy promised in ARR must remain fixed

There is a lack of transparency on how the subsidy is being calculated and proposed by the discoms. The over & under estimation of subsidy leads to deferment of tariff increase/decrease ultimately impacting both the consumers and the discoms.

a. *Over-estimation of subsidy leads to deferment of tariff increase*

The subsidies promised during ARR proceedings need to be kept intact, as they affect the tariff designs for that particular year. It is observed that for FY 21, during ARR proceedings the State Government promised the subsidy of INR 10,250 crore, whereas actual subsidy provided is INR 7,661 crore.

Further, for FY 21 the discoms have mentioned that INR 343 crore rebate was passed on to consumers as in their bills as covid relief:

S.No.	Consumer Category	No. of consumer to whom the rebate is passed on	Amount of Rebate (Rs. Cr)
1	Domestic	42786	36.84
2	Commercial (LMV-2, HV-11, HV-12)	656870	122.85
3	Private Tubewell (LMV-5)	74001	60.46
4	Industrial (LMV-6, HV-2)	128921	122.53
	Total	**902578**	**342.68**

It is not clarified where these INR 343 crore are included in the subsidy of INR 7661 crore or if it is included in revenue or not?

b. Under-estimation of subsidy leads to deferment of tariff reduction

During FY 22 the subsidy promised was INR 11,600 crore whereas, in the APR, discoms have revised it to INR 14,500 crore. The subsidy for the subsidised categories needs to be clearly computed considering the projected sales for APR and ARR, revenue realisation and cost to serve computed by the discoms and made available in the ARR and Tariff Proposals filed by the discoms.

7.3 Government should subsidise LMV-10 consumers

The Commission has been repeatedly directing and even penalising the discoms for transparency and metering of LMV-10 consumer category and merging of the same with LMV-1 category. However, discoms have taken no action on this front till date. As a result, it is the consumers who have to bear the unjustified burden of 'subsidising' departmental employees in the form of rising cost of supply. The revenue anticipated from LMV-10 consumers in past 4 years is shown below, which has been passed on to other consumers:

Table 10: Revenue from LMV-10 consumers

S. No	Financial Year	Revenue (in INR crore)
1.	2019-18	316.13
2.	2019-20	291.76
3.	2020-21	351.15
4.	2021-22	373.44

Source: Authors' compilation using previous year Tariff Petitions

We propose that the entire LMV-10 category should be subsidised by the state government. This would be justified as the lack of action on part of discoms and the state government to address this matter should not fall on consumers. State may also drive the discoms to monitor and regularise the connections and determine the quantum of the energy supplied and subsidy due.

It is to be noted that since LMV-10 consumers receive free electricity and are not metered as a result, it is the consumers who have to bear the unjustified burden of 'subsidising' departmental employees in the form of rising cost of supply.

Our Comment/Suggestion:

State Government should subsidise the entire LMV-10 category as they receive free electricity and are not metered as a result, it is the consumers who have to bear the unjustified burden of 'subsidising' departmental employees in the form of rising cost of supply.

7.4 Commission should publish cost-reflective tariffs without considering the subsidy from the state

Section 65 of the Electricity Act mandates that state governments determine and pay the subsidy amount that they want to provide to various consumer categories in advance. Further, the 2016 National Tariff Policy prescribes that the state electricity regulatory commission "***should determine the tariff initially, without considering the subsidy commitment by the State Government and subsidised tariff shall be arrived at thereafter considering the subsidy by the State Government for the respective categories of consumers***" (Ministry of Power, 2016).

It has been observed that the Tariff Order in UP does not publish cost-reflective or full-cost tariff for subsidised categories (LMV-1 and LMV-5). Even the discoms have been requesting the same and have also provided the list of State Electricity Regulatory Commissions, as given below, that have been determining their tariff schedule without considering the subsidy from the state governments.

- Bihar
- Haryana
- Andhra Pradesh
- Delhi
- Tamil Nadu
- Madhya Pradesh
- Rajasthan

We propose the Commission to consider publishing a full-cost tariff which will reflect the true financial requirement of the discoms with regards to specific categories, which in turn can help them better assess the subsidy and cross-subsidy requirements. Further, it would also provide the consumers a sense of the true cost of electricity they are consuming.

Our Comment/Suggestion:

Tariffs of the consumers to be approved depicting separately in terms of 2016 National Tariff Policy:

1. **Tariff without subsidy**
2. **Tariff with subsidy**

7.5 Need for further deliberation on the design of Direct Benefit Transfer (DBT) of subsidy model

Despite the repeated directions of the Commission, the discoms have not submitted a roadmap for the DBT of subsidy payments in the ARR for FY 23. The discoms must review the DBT models being practised across states and plan pilot projects following different models. Also, the objectives of the DBT model should be clearly specified. Any DBT scheme potentially fulfils one or more of the following objectives:

- Avoid pilferage in the transfer of funds from the government to the consumers or the discom, such as in the LPG scheme;
- Improve targeting so that the subsidy reaches intended beneficiaries;
- Ensure timeliness of payments through timely subsidy transfers either to the consumers or the discom, as applicable;
- Nudge behaviour change in consumers as the pilots in Punjab did to incentivise reduced power consumption;
- Inculcate a culture of making timely payments from consumers to discoms and improve the liquidity of the latter.

Further, the implementation of DBT is likely to face some challenges, which should be considered while drawing up such a roadmap.

a. There needs to be clarity on how the DBT mechanism will be operationalised. Currently, there are four models available for consideration:

i. Transfer of subsidy amount to consumers' accounts with the discoms in advance,

ii. Upfront payment of unsubsidised tariff by consumers to the discom and subsequent subsidy credit directly to consumers' bank accounts by the state government,

iii. As has been implemented in Andhra Pradesh, the state government transfers subsidy amounts to escrow accounts in beneficiaries' names but operated by discoms, and

iv. Adjustment of subsidy amount shown in consumers' electricity bill as a deduction against the total payable amount.

b. The first and the second model would require KYC updation of all consumers along with their bank details. Discoms should provide a trajectory for undertaking the KYC exercise.

c. Also, it is unclear how the first three models would resolve delays in subsidy disbursement and accountability of the state government in this matter. Discoms should be entitled to hold the state government accountable for delayed payments and appropriate provisions should be made in the model.

d. Further, identifying and tagging beneficiaries is essential before using consumers' bank accounts or escrow accounts in their name for DBT. This is especially true for LMV-5 (agricultural) consumers, where the landowner and user of the electricity connection may be different people.

e. In case of escrow accounts, the subsidy amounts will come and go from beneficiaries' accounts, and their involvement is only to the extent of being informed about the bill amounts. If consumers are not involved in the subsidy process, then any attempt to induce energy-efficiency or payment related behavioural change nudges will be futile. Shouldn't there be a vision to transition the subsidised consumer category into regularly paying consumers over time, or an attempt at engendering energy-saving or energy-efficient behaviours? A long-term vision is a pre-requisite to devising effective subsidy delivery models.

f. DBT implementation must leverage the capability of smart meters to provide real-time consumption data, and remote meter reading, which would help in proper accounting of subsidy amounts to be disbursed. Therefore, discoms' smart meter rollout plan must be dovetailed with the DBT roadmap.

Given these complexities with DBT implementation, the implementation roadmap should include pilot projects at scale before proposing mass rollout.

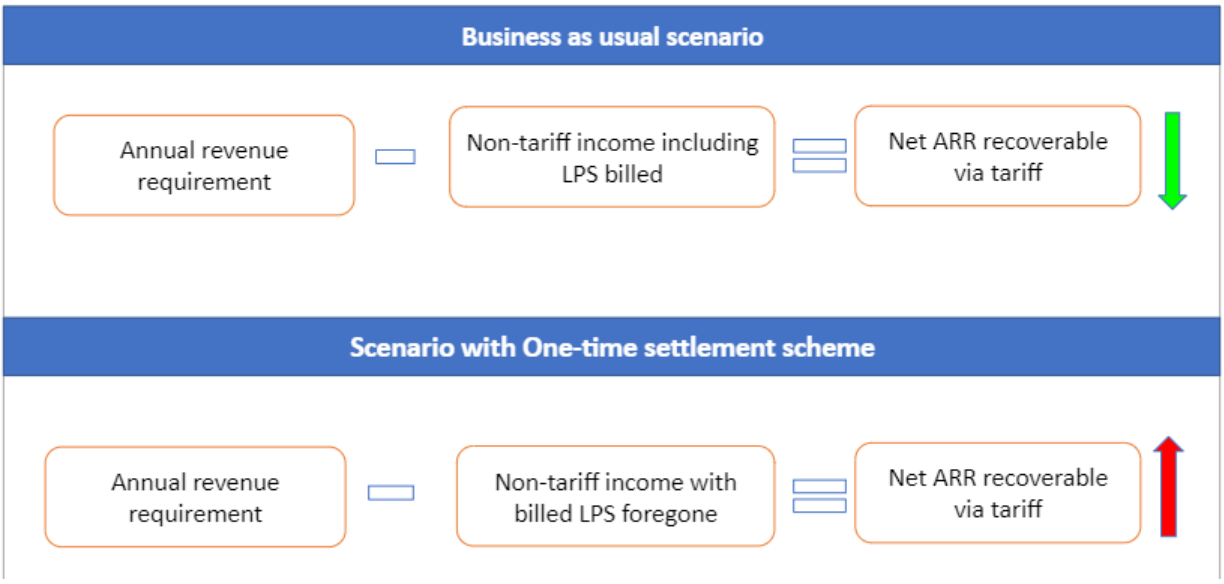
8. Additional Costs and revenue

8.1 Discoms should submit OTS details and same should be treated in ARR

UPERC (MYT) Regulation, 2014 disallowed any OTS scheme post 31st March, 2017 and was abolished by Commission. However, discoms and state government keep on providing OTS scheme to non-paying consumer.

Further, the Discoms were directed to submit year wise OTS data from the beginning to FY 2021-22 by the Hon'ble commission in the last order. However, Discoms haven't provided any data.

Figure 6: Impact of OTS across consumer categories



Source: Authors' analysis

Hence, it can be seen from the figure above that OTS scheme socialises the late payment surcharges of few consumers on all the consumer via ARR recovery.

Our Comment/Suggestion:

1. **The discoms should submit the entire details of LPS surcharge waiver till date along with carrying costs.**
2. **State Government should subsidise any waiver given to the Late payment surcharge to the consumers, it should not be levied on other consumers.**

8.2 Discoms must consider new avenues to enhance non-tariff income

The non-tariff income, including delayed payment surcharge (DPS), has been projected to reduce by about 72% in FY22 from FY21. Given that the discoms face immense challenges in recovering their tariff revenues and have cash flow issues, the Commission can direct the discoms to look for other avenues of non-tariff income opportunities, which obviously wouldn't be passed on to the consumers, but would effectively reduce the ACoS for the discoms. Some of the innovative measures that the discom could consider to improve their non-tariff incomes could be:

- utilising poles owned by UPPCL to put up private sector advertisements, security cameras, air pollution monitoring sensors;
- leasing out the unused land/space at the local substation offices for private advertisements or temporary commercial activities;
- providing consultancy, as is being done by the discoms in Haryana and Delhi.

8.3 Need for data on interest accrued on security deposits

Discoms are required to share the interest on security deposits with the consumers. It is humbly requested from the hon'ble commission to direct the discoms to provide the data on interest on security deposit in ARR petition. The below format is suggested for Hon'ble Commission`s consideration:

Table 11: Format suggested for reporting information about consumer security deposit

Sr. No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-21
1	Opening Security Deposit				
2	Add: Deposits during the Year				
3	Less: Deposits refunded				
4	Less: Deposits in form of BG/FDR				

5	Closing Security Deposit				
6	Bank Rate				
7	Interest on Security Deposit				
8	Cumulative Interest on Security Deposit including Past Years				
9	Interest on Security Deposit Paid				
10	Balance Interest on Security Deposit to be Paid during the FY				

Source: Authors' compilation

9. Open Access

9.1 Cross-subsidy level (ABR % of ACOS) is still beyond the range prescribed in the Electricity Act

From the submission of the discoms, it can be clearly observed that the ABR of several categories are more than the limits of ACOS (+/-) 20% specified by the National Tariff Policy and the electricity Act. Especially LMV-1 rural metered, LMV-2 and HV-1 categories. The Commission must design the tariff such that these cross subsidy levels are brought under the 20% range. Further, the Commission in the tariff Order depicts ABR as % of ACOS without subsidy, however the same should also be depicted as ABR (with subsidy).

9.2 Computation of cross-subsidy surcharge (CSS) by discoms to be revisited

It is observed that the discoms have not computed the open access charges for each category/sub-category as per the methodology defined by the Hon`ble Commission in the Tariff Order of FY22. Also, the discoms have not considered distribution losses at each voltage level i.e. 220 KV, 110 kV, 33 kV and 11 kV for computation of cross-subsidy surcharges. As per methodology adopted, voltage wise losses, JERC methodology can be referred- voltage wise asset break-out.

9.3 Differential cross-subsidy surcharge (CSS) can be considered

We propose that the Commission may work out a differential CSS for the discoms based on the DBST values submitted by them. This would help align the CSS with the performance of discoms and avoid cross-subsidisation of one discom by another. Differential CSS would also encourage industrial consumers to opt for open access, which is currently discouraged by a common but high CSS. For example, an industry in Meerut may find a supplier in the NCR region and go for open access, compared to an industry in Kanpur. Such practice has already been adopted by SERCs of Gujarat and Maharashtra.

10. Suggestions concerning implementation of green tariff

The discoms proposal for the provision of Green Energy tariff for HT consumers is a welcome move. However, we propose the following points for the Commissions considerations:

- Currently, the licensees have proposed that Green tariff shall be available for only industrial and commercial category consumers with contract demand 1 MVA and above. The discoms have mentioned that they have adopted the same in line with Maharashtra methodology. While Maharashtra gives options to all consumers, HT or LT. **In the interest of domestic consumers who wish to adopt green energy, the option should be extended to single point for bulk load domestic consumers (residential societies) to begin with.**
- The licensee has mentioned that:

  "*The petitioner also requests to the Hon'ble Commission that only 50% of the revenue earned through the Green tariff may be treated as Tariff Income and the remaining 50% of the amount, may be utilized at the discretion of the Distribution Licensee*."

It is requested that since the procurement cost would form part of the ARR and as per UPERC MYT Regulations, 2019 any revenue w.r.t. tariff should be considered as tariff income, hence **Green Tariff should be considered as tariff income only**. The revenue from the green tariff should be treated as regular income of supply business, thereby allowing all revenue earned by the discoms to be used for reduction in ARR of supply business. However, the amount collected as Green Tariff may be separately maintained and the details of the same shall be furnished to the Commission at the time of tariff petition.

Our Comment/Suggestion:

- **In the interest of domestic consumers who wish to adopt green energy, the option should be extended to single point for bulk load domestic consumers (residential societies) to begin with.**
- **Income from Green Tariff should be considered as tariff income only**