TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004

O.P.(SR) No.33 of 2019

Dated 02.06.2021

Present
Sri T. Sriranga Rao, Chairman
Sri M. D. Manohar Raju, Member (Technical)
Sri Bandaru Krishnaiah, Member (Finance)

Between:

(1) Southern Power Distribution Company of Telangana Limited,
6-1-50, Mint Compound, Hyderabad-500 063.

(2) Northern Power Distribution Company of Telangana Limited
H.No.2-5-31/2, Corporate Office, Vidyut Bhavan
Nakkalagutta, Hanamkonda, Warangal-506 001. …Petitioners

AND

-Nil- … Respondent

The petition came up for hearing on 15.02.2021. Sri Mohammad Bande Ali, Law Attaché for the petitioners has appeared through video conference and the petition having been heard and having stood over for consideration to this day, the Commission passed the following:

ORDER

Southern Power Distribution Company of Telangana Limited (TSSPDCL) and Northern Power Distribution Company of Telangana Limited (TSNPDCL) (petitioners) being the TSDISCOMs have filed a petition u/s 181 of the Electricity Act, 2003 (Act, 2003) seeking amendment to certain clauses of the Terms and Conditions for Determination of Tariff for wheeling and Retail Sale of Electricity being Regulation No.4 of 2005 and its subsequent amendment thereof as adopted by the Commission in Regulation No.1 of 2014. The contentions of the petitioners are as under:

a) The Terms and Conditions for Determination Tariff for Wheeling and Retail Sale of Electricity Regulation, 2005 being Regulation No.4 of 2005 at clause 10 on page 7 as adopted by the Commission vide Regulation No. 1 of 2014 is as follows.

“1. … …

… …

4. Controllable and Uncontrollable items of ARR:- The expenditure of the Distribution Licensee considered as "controllable" and “uncontrollable” shall be as follows:

Table 1: Controllable and Uncontrollable items of ARR

Distribution Business	
ARR Item	***“Controllable”/“Uncontrollable”***
Operation & Maintenance expenses	*Controllable*
Return on capital Employed	*Controllable*
Deprecation	*Controllable*
Taxes on Income	*Uncontrollable*
Non-Tariff Income	*Controllable*

In addition to the above items the retail supply business shall include the following:

Retail Business	
ARR Items	***“Controllable”/ “Uncontrollable”***
Cost of power purchase	*Uncontrollable*

b) The pass through of gains and losses on variations in “uncontrollable” items of ARR are allowed as per clause 10.5 of Regulation No.4 of 2005 as per the actual data. The gains or losses in the controllable items of ARR on account of factors that are beyond the control of the distribution licensees force majeure shall be passed on as an additional charge or rebate in ARR. For retail supply business, cost of power purchase is treated as “uncontrollable” item.

c) The existing regulations do not consider factors viz., higher agricultural sales above approved volumes, change in actual sales mix, actual distribution losses, bad debts etc., while pass-through of gains/losses of the DISCOMs. These factors have considerable impact on the finances of the licensee and become imperative to allow those variations in the pass-through mechanism of the tariff regulations to cope up with the present-day situations.

d) Many other state ERCs that is Gujarat, Delhi, Maharashtra and Uttar Pradesh had issued latest tariff regulations for generation, distribution and retail supply business in 2015 and 2016 in line with changes in tariff policy and latest developments by making suitable amendments. Few other states such as Rajasthan had issued new draft tariff regulation in 2019, which is yet to be finalized.

e) The following proposals for change in the Regulation No. 4 of 2005 read with its amendment Regulation No.1 of 2014 are placed before the Commission, praying the need for the amendments to the existing regulation.

I. 1st proposal - Power purchase cost adjustments:

Power purchase quantum variation:

i) As per clause 12.5 (a) of the Regulation No. 1 of 2014 First Amendment to (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) Regulation No.4 of 2005, to arrive the power purchase cost variation, the least of the following power purchase quantity is the be considered:

(a) Actual power purchase quantity procured by the TSDISCOMs for its consumers.

(b) Power purchase quantity computed based on actual sales except LT agriculture sales. LT agricultural sales will be limited to tariff order quantity. These aggregated sales will be grossed up with approved losses tor the relevant year in the MYT orders.

ii) The existing clause has following constraints

(a) Firstly, limitation of the power purchase quantum to the approved agriculture sales despite licensee's efforts to assess the consumption as per the approved ISI methodology.

(b) Secondly, the DISCOMs are penalised with stringent distribution losses by limiting it with the approved losses of MYT orders.

iii) The existing regulation do not consider the total power purchase cost variation which is entirety an uncontrollable factor resulted mainly due to increase in power purchase due to variation in unmetered agriculture sales and increase in distribution losses compared to the approved values in the tariff order.

II) **2nd Proposal - Limitation of Agricultural sales**

i) The amendment regulation allows for deviation in power purchase cost by limiting the agricultural sales to approved volumes and not considering the actual agricultural sales of the licensees, which are assessed based on ISI methodology as per the directions of the Commission. There is a substantial variation in the approved sales and the assessed sales of agriculture, which is tabulated in the Table 2 below during the past 5 years.

Table 2: Agricultural sales of TSSPDCL and TSNPDCL

Financial Year	Approved sales	Assessed sales	Excess sales	Excess sales grossed up with approved losses	Actual average power purchase cost	Incremental cost of power purchase due to agricultural sales
	MU	MU	MU	MU	Rs./unit	Rs.Crore
	1	2	3=2-1	4	5	6=4x5
TSSPDCL						
2013-14*	8074	9190	1117	1386	3.46	480
2014-15	6665	6933	268	331	3.88	128
2015-16	6318	6518	200	224	4.46	109
2016-17	6946	8768	1822	2170	4.70	1020
2017-18	6824	11318	4495	5355	4.50	2410
2018-19$	4679	9116	4438	5243	4.60	2412

Financial Year	Approved sales	Assessed sales	Excess sales	Excess sales grossed up with approved losses	Actual average power purchase cost	Incremental cost of power purchase due to agricultural sales
	MU	MU	MU	MU	Rs./unit	Rs.Crore
	1	2	3=2-1	4	5	6=4x5
TSNPDCL						
2013-14*	3956	4361	406	483	3.51	170
2014-15	3956	4738	783	934	3.90	364
2015-16	4340	4672	332	389	4.46	173
2016-17	4589	5606	1017	1183	4.50	533
2017-18	4941	6922	1981	2311	4.51	1042
2018-19$	3592	5329	1738	2012	4.55	915

* *erstwhile APCPDCL and APNPDCL figures*
$ *values upto December 2018*

ii) As observed from the above table, such disallowance is costing to the licensees in terms of huge losses to the tune of thousands of crores of rupees every year. On one hand, such unapproved power purchase costs due to excess agricultural sales are being borne by the DISCOMs as there is no recovery mechanism for such costs and on the other hand there is no pass-through mechanism for revenue variations due to such higher sales especially in the cross-subsidised categories. These losses often trigger the DISCOMs to take working capital loans to meet the operational needs leading to huge interest cost burdens which are non-recoverable.

iii) The limitation of agricultural sales to the Commission approved values in real-time conditions is not practicable. DISCOMs are assessing the monthly agricultural consumption as per the ISI methodology approved by the Commission. Every month, DISCOMs are submitting to the Commission the agricultural sales assessed as per the ISI methodology, which is reviewed by the Commission from time to time. It is apparent that the actual consumption under agriculture is beyond the control of the TSDISCOMs and being a primary sector of the economy, it is far from practicality to restrict the actual consumption to the approved sales values, which is extremely dependant on external factors viz., rainfall, crop pattern, underground water levels and irrigated land volumes. Hence, any variation in the agricultural consumption has to be considered as a pass-through as DISCOMs are following the methodology approved by the Commission. If the need be, the Commission is requested to conduct an audit on the actual sales figure by a third party.

iv) In addition, recent changes in policy decision to provide 9 hours power supply to agriculture sector by the government instead of 9 hours supply from 01.01.2018 has also shown enormous growth which is evident in the consumption in the FY 2016-17 and at the fag end of FY 2017-18 and continued during the current FY 2018-19.

v) The restriction on agricultural sales within the approved limits is unviable and this excess sale necessitates TSDISCOMs to procure power at the marginal cost to meet the demand of the consumers.

vi) Many state ERCs where the agriculture consumption is unmetered, has considered the entire assessed consumption while allowing variance in the power purchase costs. The details of such states are tabulated below.

Table 3: Agriculture sales and their allowance in the power purchase cost variations.

State	Whether assessed Agricultural Sales are considered in PPCA
Gujarath	Yes
Maharashtra	Yes

State	Whether assessed Agricultural Sales are considered in PPCA
Punjab	Yes
Rajasthan	Yes
Karnataka	Yes
Madhya Pradesh	Yes
Uttar Pradesh	Yes

vii) Therefore, it is prayed that assessed agricultural consumption arrived based on the ISI methodology approved by the Commission has to be considered for arriving at the total power purchased from generators and power purchase cost variation without any limitations.

III) **3rd Proposal - To allow the actual losses in arriving at power purchase cost variation**

i) The Regulation No. 1 of 2014 computes the power purchase quantity by aggregating the sales with approved losses rather than the actual losses. The approved distribution and actual losses of TSSPDCL and TSNPDCL for the past periods are tabulated below:

Table 4: Approved Distribution and actual distribution losses

Year	2013-14*	2014-15	2015-16	2016-17	2017-18	2018-19	Reduction
TSSPDCL							
Approved (Excl. EHT)	12.84%	12.52%	11.63%	10.94%	10.78%	10.81%	2.03%
Actual (Excl. EHT)$	14.63%	14.19%	12.65%	12.45%	12.45%	11.72%	2.91%
Dis-allowed loss %	1.79%	1.67%	1.02%	1.51%	1.67%	0.91%	
TSNPDCL							
Approved (Excl. EHT)	13.45%	13.45%	12.58%	12.14%	11.93%	11.77%	1.68%
Actual (Excl. EHT)$	14.89%	14.69%	14.35%	13.70%	12.31%	11.81%	3.08
Dis-allowed loss %	1.44%	1.24%	1.77%	1.55%	0.38%	0.04%	

$ actuals upto December 2018

ii) The actual reduction of distribution losses for TSSPDCL is 2.91% and for TSNPDCL is 3.08% in the past 5 years as against the target reduction of 2.03% and 1.68% respectively as envisaged in the MYT orders. It is clearly evident that the DISCOMs have been reducing their losses in accordance with the targets set by the Commission. However, the disallowance of losses is nearly 1.5% every year, which translates to 700 to 800 MU amounting to unrecovered costs of Rs.325 Crore per annum.

iii) The as per clause 5.3 (h) (2) of National Tariff Policy

"In cases where operations have been much below the norms for many previous years the initial starting point in determining the revenue requirement and the improvement trajectories should be recognized at relaxed levels and not the desired levels."

iv) The DISCOMs have been reiterating the same in their MYT filings on the tough loss targets. Though DISCOMs had significantly reduced the distribution losses TSSPDCL from 18.68% in FY 2008-09 to 12.45% till 2017-18 and distribution losses of TSNPDCL from 17.28% in FY 2008-09 to 12.31% in 2017-18, the DISCOMs were penalised in the form of disapproval of the entire power purchase cost in excess of the approved distribution losses. This led to further adding up of losses during the past years.

v) Such disallowance is to the tune of 2.12 times and 1.24 times of distribution margin allowed to TSSPDCL and TSNPDCL respectively by the Commission as depicted in Table 5 below:

Table 5: Loss due to distribution losses vs distribution margin

Year	2013-14*	2014-15	2015-16	2016-17	2017-18	Weighted average
TSSPDCL						
Approved Losses (incl. EHT)	11.43%	11.15%	10.57%	9.79%	9.70%	
Actual Losses (incl. EHT)	13.20%	12.92%	11.59%	11.38%	11.35%	
Actual PP units (MU)	39125	33885	34742	36802	42086	
Deviation in losses (MU)	692.51	599.76	354.37	585.15	694.42	

Year	2013-14*	2014-15	2015-16	2016-17	2017-18	Weighted average
Average cost of power (Rs. / unit)	3.46	3.88	4.46	4.7	4.5	
Loss to DISCOM (Crs)	239.61	232.71	158.05	275.02	312.49	
Distribution Margin (Return on equity)	81.83	77.83	105.28	137.25	170.83	
Losses Suffered / Distribution Margin	2.93	2.99	1.6	2.01	1.83	2.12
TSNPDCL						
Approved Losses (incl. EHT)	11.88%	11.88%	11.13%	10.77%	10.20%	
Actual Losses (incl. EHT)	13.32%	13.25%	12.84%	12.20%	11.03%	
Actual PP units (MU)	12457	13453	14600	15099	18210	
Deviation in losses (MU)	179.62	184.94	250.10	216.04	152.26	
Average cost of power (Rs. / unit)	3.51	3.90	4.46	4.50	4.51	
Loss to DISCOM (Crs)	63.13	72.09	111.48	97.22	68.64	
Distribution Margin (Return on equity)	50.63	52.79	62.91	74.94	92.00	
Losses Suffered / Distribution Margin	1.25	1.37	1.77	1.30	0.75	1.24

‘*’ Erstwhile APCPDCL and APNPDCL figures

vi) As per clause 18 of the Regulation No.5 of 2005 being the terms and conditions for determination of tariff for transmission of electricity, the transmission company shall earn incentive if the transmission losses are lower than the approved and shall attract penalty if the transmission losses are higher than the approved targets. Further, provided that such penalty shall not exceed 10% of the Return on Equity (RoE).

vii) Therefore, it would be practicable to develop a similar mechanism to incentivise/penalise the DISCOMs if the targets/ benchmarks set by the Commission are not met as the distribution business is akin to transmission business.

viii) Hence, the DISCOMs requested the Commission:

(a) To allow the actual losses in arriving at power purchase cost variation while passing through gains/losses for the control period by amending clause 10 (7) of the regulation;

(b) Levy penalty for non-adherence of the distribution loss targets which shall be subject to a maximum of 10% of the Return on Capital Employed (RoCE) and supply margin; and

(c) A nominal incentive up to 2% of distribution margin upon exceeding the targets subject to maximum benefit accrued through such reduction of losses.

IV) **<u>4th Proposal - Banked Energy and solar roof-top energy purchases</u>**

i) As per Regulation No.2 of 2014 that is second amendment to the Interim Balancing and Settlement Code for Open Access Transaction) Regulation, 2006 and TSERC Regulation No.1 of 2017, Banking is allowed to wind, solar and mini-hydel power generation. The unutilised energy from these non-conventional energy (NCE) sources by their open access consumers has to be purchased by the DISCOMs at pooled cost of power purchase for the financial year as determined by the Commission. Similarly, the net energy exported by the solar roof top net meter consumers for every six months has to be settled at pooled cost of power purchase. These costs are not specifically allowed as passthrough in the current regulation.

ii) Hence, the DISCOMs requested the Commission to consider the power purchased and its cost under banking and energy exported by solar roof top net metering consumers in the actual power purchase cost for arriving at the power purchase cost variation.

iii) The current regulation, limits the actual power purchase quantum with the approved agricultural sales and losses to arrive at the power purchase cost variation by re-drawing the merit order at the end of the financial year. In view of rationality in consideration of actual agriculture sales and losses as mentioned above, the DISCOMs requested the Commission to consider the actual despatch of energy which is in line with the merit order principles as laid out by the Commission in its entirety while arriving at power purchase cost variation.

V) **<u>5th Proposal - Periodicity for determination of Fuel Surcharge Adjustment (FSA):</u>**

i) The FSA determination clause, initially was inserted under clause

45-B of the Conduct of Business Regulation (as amended by Regulation No. 1 of 2003) wherein the licensee had to file before the Commission the variation in power purchase cost through levy of fuel surcharge on a quarterly basis as per the approved formula.

ii) In the third amendment to Conduct of Business Regulation, 2013, the erstwhile Commission has deleted clause 45-B of Chapter–IV A of Conduct of Business Regulations, 1999 and repealed all its subsequent amendments (including Regulation 1 of 2003).

iii) Subsequently, erstwhile Commission has issued amendment that allows the licensee to file the power purchase cost variations on annual basis as a special item along with the retail supply business ARR filings through insertion of clause 12.5 to Regulation No.4 of 2005.

iv) The licensee has to file PP cost variations of approved and provisional costs (based on first half actuals and estimates for second half) of the previous year to the tariff year and also power purchase cost variations of approved and actual costs of the year immediately preceding the previous year.

v) The final true-up/true-down in the power purchase costs for a year will be actually passed on to the consumers with a lag of 2 years. It is pertinent to mention that the power purchase cost is an uncontrollable item and also accounts for more than 75% of the total ARR of distribution and retail supply businesses. Any deviation in the costs will hugely impact the DISCOMs working capital and result in great financial burden in terms of carrying costs if such variation continues for more than a month.

vi) With the increasing trend of availing open access by the eligible consumers, it becomes more important that the uncontrollable cost should be fully recovered in the same year of occurrence and should not be postponed, to be recovered at the time of true-up that is after two years of its occurrence. Some of the consumers, for whom costlier power is purchased in a particular year, may in the subsequent year(s) purchase power under open access from sources other than the distribution licensee. Thus, delaying such recovery would amount to cross subsidisation by other consumers by paying higher tariff. In sum and substance, it is in the wider interest of all the consumers to recover the variations in entire power purchase cost as early as possible.

vii) The need for frequent adjustments in fuel costs has been emphasized in various pronouncements of the Tribunal (Suo-moto order in O. P. No. 1 of 2011) and in the National Tariff Policy guidelines issued by MoP.

viii) Section 62 (4) of the Act, 2003 has expressly permitted to pass on the fuel costs adjustments within a financial year by amending the tariffs.

ix) The variation in power purchase costs being uncontrollable in nature is required to be recovered from the consumers on a regular basis. The DISCOMs had requested the Commission for provisional fuel cost adjustments on monthly basis to reduce the carrying cost burden in their earlier submissions to the Commission.

x) As per clause 5.11 (h) (4) of National Tariff Policy, 2016

"Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of adverse natural events."

xi) Even the consumers will be at benefited as they are not burdened with the historical costs or notional incremental hikes in tariffs especially to domestic or industrial consumers.

xii) Many other Regulatory Commissions viz., Delhi, Uttarakhand, Kerala, Chhattisgarh, Gujarat, Haryana, Jharkhand, Punjab, Maharashtra, Uttar Pradesh, Karnataka, Rajasthan, Madhya Pradesh allow quarterly fuel surcharge due to the huge costs involved in the business of the retail supply business. Few states also allow auto surcharge adjustment immediately and post-facto approval by the Commission on quarterly / annually.

Table 6: Regulations on fuel surcharge adjustment.

Sl. No.	State	Auto pass through mechanism	Periodicity of filing for approval
1	Uttarakhand	FCA shall be levied for the quarter without prior approval of the Commission. The licensee shall submit the computations and supporting documents within 30 days of the end of quarter for post-facto approval of the Commission.	Quarterly
2	Gujarat	FPPPA worked out beyond ten (10) paise per unit in a quarter, prior approval of the Commission shall be necessary. FPPPA calculations shall be submitted to the Commission within one month from end of the relevant quarter.	Quarterly
3	Madhya Pradesh	FCA computation shall be submitted to the Hon'ble Commission at least 15 days before the commencement of the billing quarter, for prior approval.	Quarterly
4	Karnataka	If FAC calculation exceeds 10 paise per unit or the limit fixed by the commission, prior approval of the Commission shall be necessary.	Quarterly
5	Maharashtra	FAC levied for preceding quarter along with detail computations and supporting documents shall be submitted to the Commission within 60 days of the close of each quarter, for post-facto approval.	Quarterly
6	Jharkhand	The licensee shall submit the details relating to FPPPA computation for each quarter at the end of following quarter. FPPPA Shall not exceed 10% of variable component of tariff or ceiling limit fixed by the Commission from time to time.	Quarterly

xiii) The petitioners requested the Commission that the variation in power purchase cost be allowed to be recovered as an auto- pass through on a monthly basis subject to final prudence check by the Commission on quarterly basis in order to relieve the financial strain caused to the licensees.

VI) **<u>6th Proposal - PGCIL and ULDC costs:</u>**

i) In the existing amendment regulation which deals with power purchase cost variation and its adjustment, the deviation in interstate network costs is not included, which is being paid by the licensee to PGCIL, for utilisation of interstate networks based on CERC tariffs. As the quantum traded varies in the real time scenario based on the actual demand supply position and the tariffs are determined quarterly by CERC, there is considerable change in actual PGCIL costs borne and approved costs. The PGCIL and ULDC costs in the last 5 years is shown in the table below.

Table 7: PGCIL costs for TSSPDCL and TSNPDCL

Year	2013–14*	2014–15	2015–16	2016–17	2017–18$
TSSPDCL					
Approved PGCIL costs (Rs.Crs)	195.76	195.76	257.62	521.90	835.05
Actual PGCIL Costs (Rs.Crs)	265.12	397.28	323.40	731.91	564.72
Excess/(deficit) costs (Rs.Crs)	(69.36)	(189)	(65.78)	(210.01)	270.33
TSNPDCL					
Approved PGCIL costs (Rs.Crs)	67.45	67.45	104.84	217.86	338.97
Actual PGCIL Costs (Rs.Crs)	91.23	164.74	135.00	307.13	322.81
Excess/(deficit) costs (Rs.Crs)	-23.78	-97.29	-30.16	-89.27	16.16

'*' Erstwhile APCPDCL and APNPDCL figures $ including ULDC

Table 8: ULDC costs for TSSPDCL and TSNPDCL

Year	2013–14*	2014–15	2015–16	2016–17
TSSPDCL				
Approved ULDC costs (Rs.Crs)	12.52	12.52	16.44	6.14
Actual ULDC costs (Rs.Crs)	12.20	6.14	8.32	5.79
Excess / (deficit) costs (Rs.Crs)	0.32	6.38	8.12	0.35
TSNPDCL				
Approved ULDC costs (Rs.Crs)	4.31	4.31	6.69	2.56
Actual ULDC costs (Rs.Crs)	4.32	2.56	3.47	0.67
Excess / (deficit) costs (Rs.Crs)	-0.01	1.75	3.22	1.89

'*' Erstwhile APCPDCL and APNPDCL figures

ii) The petitioners requested the Commission to consider the variance in PGCIL and ULDC costs while truing up of power purchase cost variations by amending the regulation.

VII) **<u>7th Proposal - Recovery of power purchase cost adjustment</u>:**

i) The existing regulation allows recovery of power purchase cost variation on per unit basis equally from all categories of consumers. However, in the tariff order, the approved power purchase costs are allocated among consumer categories based on the coincident demand and energy consumption and the tariffs are determined considering the allocated costs, cross subsidy and government subsidy for each category of consumers.

ii) The recovery of costs from each category of consumers shall also be made by cross subsidy from other subsidising category and subsidy from state government. As the power purchase cost adjustment is a variation of approved costs, it is prudent that, it is to be recovered from the categories of consumers based on their tariffs considering the cross subsidy as being done in the tariff order.

iii) Hence, the DISCOMs requested the Commission to allow them to recover power purchase cost adjustment from the category of consumers in proportion of average revenue realization of the category to the ARR of the DISCOM.

VIII) **<u>8th Proposal - Proposed Formula for determination of power purchase cost variation</u>:**

i) In accordance with the above proposed modifications, the petitioners requested the Commission to substitute the existing clause of 12.5 of amendment regulation with the following:

*"12.5 **True up for power purchase cost**:*

a) The power purchase cost variation of n^{th} month shall be computed within 45 days after completion of n^{th} month as per the formula mentioned below and power purchase variation cost per unit to be levied on the consumers shall be published in the official *website of the DISCOMs, which has to be levied in (n+2) month consumption bill.*

$PPCA_n = (PPC_{Act(n)} – PPC_{App(n)}) + I + A + D$

Where

$PPCA_n$ =	*power purchase cost adjustment in Rs. crore for n month*
$PPCA_{Act(n)}$ =	*actual power purchase cost in Rs. crore for n month including prior period expenses, PP cost for unutilized banked energy and energy purchased from roof top solar consumers and excluding sale of power*
$PPCA_{App(n)}$ =	*approved power purchase cost in Rs. crore for n^{th} month*
I =	*variation in interstate transmission costs includes PGCIL and ULDC costs of n^{th} month.*
A =	*adjustments of under/over recovery for the previous periods.*
D =	*adjustment of cost due to variation in the PP cost true up levied on the consumers and approved by Commission quarterly.*

Power purchase cost adjustment shall be recovered from the each consumer category as per the below formula

$PPCA_{n\ cat} = \{PPCA_n \div (Sales_n)\}x(ARR_{app\ cat} \div ARR_{app\ D})x10$

Where

$PPCA_{n\ cat}$ =	*per unit power purchase cost adjustment for a category of consumer n^{th} month*
$Sales_n$ =	*total sales to the DISCOM including assessed consumption of agriculture*

in million units of nth

$ARR_{app\ cat}$ = approved average revenue realisation of the category

$ARR_{app\ D}$ = approved average revenue realisation of the DISCOM

* *$PPCA_{n\ cat}$ will be levied on the consumers based on the sales recorded in the n^{th} month*

b) The variation in power purchase costs arrived per unit which is in the range of ±10% of approved average power purchase cost per unit including PGCIL and ULDC cost shall be recovered from the consumers / adjusted to the consumers in the bills as the case may be, without approval of the Commission in the (n+2) month consumption bill.

c) For any variation in PPCA, worked out on the basis of above formula, beyond ±10% of approved power purchase costs including PGCIL & ULDC cost, the licensee can only collect / adjust the amount of the variation in PPCA upto ±10%.

d) The licensee shall file on a quarterly basis before Commission, the monthly details of PPCA levied on the consumers, PPCA calculations as per the formula specified, generator wise actual cost along with supporting documents necessarily for approval of the Commission within 45 days from the end of the quarter.

e) Any under or over recovery of the Consumers shall be recovered / adjusted by the DISCOMs as per the orders of the Commission in the subsequent quarter."

ii) The DISCOMs further requested that the existing clause 10 (5) and 10 (7) be amended by appending the words "*except for power purchase cost variation which shall be done as per clause 12.5 of the regulation*".

IX) **<u>9th Proposal - Sales and Revenue as uncontrollable item</u>**

i) The Regulation No.4 of 2005 allows for deviation of only expense items in ARR like PP cost, network cost, O&M cost, but there shall be deviation between approved and actual revenue due to in revenue due to –

(a) change in sales quantum.

(b) change in sales mix.

(c) variation in cross subsidy.

The variation in average revenue realisation, which is due to sales mix and sales quantum of past 5 years is tabulated in table below:

Table 9: Average revenue realisation for metered sales for TSSPDCL and TSNPDCL

Year	2013–14	2014–15	2015–16	2016–17	2017–18
TSSPDCL					
Approved (INR per unit)	6.33	6.33	6.56	6.98	7.02
Actual (INR per unit)	6.31	6.16	6.52	6.90	7.02
TSNPDCL					
Approved (INR per unit)	4.81	4.81	4.93	5.24	5.29
Actual (INR per unit)	4.91	4.86	5.14	5.38	5.41

ii) The change in average revenue realization is mainly due to change in the sales mix within slabs / sub-categories or across the voltages. This also leads to increase in the revenue gap of the DISCOMs due to non-realization of revenue as anticipated in the tariff order due to change in sales mix and sales quantum, which is beyond the control of the TSDISCOMs.

iii) Further, the variations in the sales mix, sales quantum and actual costs also highly affects the ratio of cross subsidising sales to the cross subsidised sales and influences the cross-subsidy revenues of the DISCOMs. An analysis of impact on cross-subsidy on revenues for FYs 2015-16, 2016-17 and 2017-18 due to change in sales quantum and sales mix is tabulated below:

Table 10: Impact on cross-subsidy due to change in sales

Particulars	Cross subsidy (Rs. in crores)					
	2015–16		2016–17		2017–18	
	Approved	Actual	Approved	Actual	Approved	Actual
TSSPDCL						
Cross subsidy requirement for subsidized categories	(4871)	(5016)	(5217)	(6110)	(5106)	(7459)
Cross subsidy recovery from subsidizing categories	4112	3993	4047	3677	3790	4120
Gap	758	1023	1170	2433	1316	3338
Revenue gain (loss) due to sales variation		(265)		(1262)		(2022)
TSNPDCL						
Cross subsidy requirement for subsidized categories	(3939)	(4011)	(4108)	(4505)	(4402)	(5392)
Cross subsidy recovery from subsidizing categories	376	462	565	672	470	592
Gap	(3563)	(3549)	(3543)	(3833)	(3932)	(4799)
Revenue gain (loss) due to sales variation		14		(291)		(867)

iv) As can be seen from the above table, the total financial loss on cross-subsidy realisation due to change in sales mix is Rs. 3550 Crore and Rs. 1144 Crore for TSSPDCL and TSNPDCL respectively during the past 3 years. The DISCOMs are unable to recover these losses due to non-provision of sharing of gains and losses arising out of sales mix in the current regulation.

v) The recent regulations by State Regulatory Commissions of many states such as Delhi, Uttar Pradesh, Uttarakhand, Jharkhand and Madhya Pradesh has also considered sales as an uncontrollable factor. Some of the extracts of the Commission orders are as below.

Table 11: Regulations on Variation in Sales

Sl. No.	Regulatory Commission	Regulations	Dated	Ref. Clause	Description
1	Uttarakhand Electricity Regulatory Commission	UERC (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2015	Sep 10th 2015	12 (5)	The "uncontrollable factors" shall include such of the factors which are beyond the control of, the applicant, as determined by the Commission. Some examples of uncontrollable factors are as follows: g) Variation in number or mix of consumers or quantities of electricity supplied to the consumers.
2	Uttar Pradesh Electricity Regulatory Commission	UPERC (Multi Year Distribution Tariff) Regulations, 2014	May 12th 2014	9.1	The "uncontrollable factors" shall comprise of the following factors which were beyond the control of, and could not be mitigated by the applicant: d. Variation in sales

Sl. No.	Regulatory Commission	Regulations	Dated	Ref. Clause	Description
3	Madhya Pradesh Electricity Regulatory Commission	MPERC (Terms and Conditions for determination of tariff for supply and wheeling of electricity and methods and principles for fixation of charges) Regulations, 2012	Nov 29th 2012	18.1	The "uncontrollable factors" shall comprise the following factors which were beyond the control of, and could not be mitigated by the licensee: (d) Variation in sales:
4	Delhi Electricity Regulatory Commission	DERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011	Dec 12th 2011	4.11	Sales shall be treated as uncontrollable
5	Jharkhand State Electricity Regulatory Commission	JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010	Nov 1st 2010	5.29	ARR – Element-Sales – Uncontrollable Item

vi) Hence, the Commission while allowing the deviation in the ARR shall also consider the sales as uncontrollable elements in true-up and shall allow the deviation in losses/gains attributable to the change in sales and revenue mix along with cost variation.

vii) Thus, the licensees requested the Commission to amend clause 10 (4) of the regulation by considering the sales item as 'uncontrollable' under retail supply business and allow pass through of gains / losses on variations in uncontrollable item in the ARR for the year succeeding the relevant year of the control period depending on the availability of data as per actuals with respect to effect of uncontrollable items.

X) **<u>10th Proposal - Formula for pass-through of revenue gains/loss due to sales variation</u>:**

i) The licensees requested the Commission to insert sub-clause 6 to Clause 12 in respect of pass through of revenue gains/losses due to sales variation:

"12.6 Revenue True-up

Revenue Variance = Variance in Cross Subsidy requirement for subsidised categories + Variance in Cross Subsidy recovery from subsidizing categories

Where,

Revenue Variance = Financial loss / (gain) in rupees crores due to sales mix

Variance in Cross Subsidy requirement for subsidised categories =

$$\sum_{i}^{n}\left[Sales_{app(i)} \times \left(ARR_{app(i)} - CoS_{app(i)}\right)\right] - \left[Sales_{act(i)} \times \left(ARR_{act(i)} - CoS_{app(i)}\right)\right]$$

Where,

i = Subsidising Sales Category for which Approved CoS is more than Approved ARR in the relevant Tariff Order.

Variance in Cross subsidy recovery from subsidising categories =

$$\sum_{i}^{n}\left[Sales_{app(j)} \times \left(ARR_{app(j)} - CoS_{app(j)}\right)\right] - \left[Sales_{act(j)} \times \left(ARR_{act(j)} - CoS_{app(j)}\right)\right]$$

Where,

j = subsidising sales category having approved CoS less than approved ARR in the relevant Tariff Order.

$Sales_{app}$= *Approved sales for i^{th} or j^{th} category*
$Sales_{act}$= *Actual sales for i^{th} or j^{th} category*
ARR_{app}= *Approved Average Revenue Realisation per unit for i^{th} or j^{th} category*
CoS_{app}= *Approved Cost of Service per unit for i^{th} or j^{th} category*
ARR_{act}= *Actual Average Revenue Realisation per unit for i^{th} or j^{th} category*

- The gains/losses on variation in revenue shall be eligible for pass-through as per clause 10 (5) of the Regulation."

Sharing of gains or losses on account of controllable item

ii) The factors responsible for variation in controllable items as specified in the regulation such as O and M expenses, depreciation cost are partly controllable and partly uncontrollable in nature. Such factors include wage revision, inflation variation, actuarial valuations, EPF contributions, increase in employee base due to geographical changes in the area of business viz. creation of new circles, divisions, sections and changes in investments due to introduction of new central schemes, variation in sales, growth proportions and lending avenues. Hence, the gains or losses on account of controllable items cannot be accountable completely on the licensee.

iii) The licensees requested the Commission to substitute the following clause for clause 10 (8) of the Regulation.

"The approved aggregate gain to the Licensee on account of controllable factors shall be dealt with in the following manner:-

(i) Two-third of the amount of such gain shall be passed on as a rebate in Tariff over such period as may be stipulated in the Order of the Commission.

(ii) The balance amount of such gain shall be retained by the licensee. The approved aggregate loss to the Licensee on account of controllable factors shall be dealt with in the following manner:-

(a) Two-third of the amount of such loss may be passed on as additional charge in tariff over such period as may be stipulated in the order of the Commission.

(b) The balance amount of such loss shall be absorbed by the Licensee."

XI) **11th Proposal - Bad and doubtful debts**

i) The licensees requested Commission to allow the provision for bad and doubtful debts as a legitimate business expense with the ceiling limit of 2% of the revenue receivables provided the distribution licensee actually identifies and writes off bad debts as per the policy approved by the Commission. In case there is any recovery of bad debts already written off, the recovered bad debts shall be allowed to pass-through as non-tariff income.

XII) **12th Proposal - Supply Margin**

i) As per Regulation No. 4 of 2005, supply margin has been considered to be 2% per annum of equity (25%) in the Regulated Rate Base (RRB) and Return on Equity for distribution business has been considered to be 14% per annum of equity in the RRB.

ii) The effective supply margin per unit is to the tune of 0.4 to 0.55 paise/unit as seen in table below.

Table 12: Supply Margin for TSSPDCL and TSNPDCL

Year	2013–14*	2014-15	2015–16	2016-17	2017-18
TSSPDCL					
Power purchase units (MU)	39,125	33,885	34,742	36,802	42,086
Supply margin (Actual) crores	13.94	11.95	15.93	20.82	22.87
Paise/unit	0.36	0.35	0.46	0.57	0.54
TSNPDCL					
Power purchase units (MU)	12,458	13,453	14,600	15,099	18,210
Supply margin (Actual) crores	7.23	7.54	8.99	10.71	13.14
Paise/unit	0.58	0.56	0.62	0.71	0.72

'*' Erstwhile APCPDCL and APNPDCL figures

iii) Though retail and distribution businesses are handled by same entities, both have their own share of complexities. The retail business involves

(a) Handling of power procurement in millions of units on day-to-day basis.

(b) Handling of huge contracts.

(c) Balancing the power deficit by short term power purchases.

iv) As envisioned in the Electricity Amendment Act, 2014 to separate retail and wire business, it is prudent to delink supply margin from distribution business and link it to number of units handled. With the complexities, risk (higher technical and commercial losses) involved in the business, it is more viable for DISCOMs to link the supply margin in retail business to number of units handled, instead of RRB which does not have a direct correlation to retail supply business. The proposed supply margin is comparable to the guidelines of CERC allowing trading licensees to charge trading margin of upto 7 paise per unit.

v) Thus the licensees requested the Commission that a supply margin of 7 paise / unit may be allowed to the licensees.

2. The petitioners have sought the main prayer in the petition as stated below:
"Therefore, the petitioners requested the Commission to amend the Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity Regulation No.4 of 2005 and Regulation No.1 of 2014 to include the above provisions."

3. The petition has been taken for hearing at SR stage as regards maintainability of the same. The Commission has heard the representative of the petitioners and perused the material on record. The submissions in nutshell are as below:

"… … The representative of the petitioners stated that the petition is filed for amending the Regulation No.4 of 2005 on the aspect of determination of tariff for wheeling and retail sale of electricity as adopted by the Commission with regard to certain aspects. The Commission sought to know from the representative of the petitioners as to whether the petition is required to be considered through public hearing mode. The representative of the petitioners replied in the affirmative as to the process to be undertaken by the Commission *on the issue*. … …

Commission's view

4. The Commission has examined thoroughly the submissions of the petitioner. The petitioner has sought amendment to certain clauses of Determining the Tariff Distribution and Retail Supply Business Regulation, 2005 as amended in 2014 being Regulation No.4 of 2005 as adopted by the Commission in its Regulation No.1 of 2014.

5. The Commission noticed that the petitioner did not state or explain the maintainability aspect with respect to who can file a petition when a regulation is made by an authority exercising the power to make regulations. As regards complying with the provision contained in the sections 45, 62, 64, 86 (1) (a) and 181 (2) Act, 2003, it is noticed that the Commission has already exercised the power by giving an opportunity to all the stakeholders before it has framed the regulation. It is clear and obvious that the regulation is made in exercise of such power duly complying with the procedure set out therein. The said regulation also underwent amendment and now the same is sought to be amended by this petition.

6. It is appropriate to state that an authority while making a rule or regulation is required to afford an opportunity to all the stakeholders in the matter including but not limited to persons and bodies who are required to follow/implement such rules or regulations unless such an exercise is specifically required to be followed as provided in the law itself. At the same breath, any addition or amendment or variation of regulation cannot be at the instance one of the stakeholders, be it the persons who are implementing or the beneficiaries of such implementations. The exercise of framing rule or regulation which is termed as subordinate or delegated legislation, cannot be added to or amended or varied by invoking power either through the adjudicatory proceedings or inherent rule making power at the instance of any of the stakeholders. On the other hand, such an authority can suo-moto exercise such a power to add to or amend or vary the same as explained in section 21 of General Clauses Act, 1897 and that too in accordance with the policy framework that is to be adopted by the authority at any given point of time in accordance with the governing Act and Rules made thereunder.

7. Since the Commission has already exercised the regulation making power, it cannot lay its hands on the regulation unless it is exercising its inherent power and not otherwise.

8. Moreover, the Government of India in exercise of its rule making power has also notified the Electricity (Procedure for Previous Publication) Rules, 2005. By this petition the Commission could not have followed the said Rules. It is well settled law that regulations are termed as subordinate legislation. Regulations having been notified in exercise of legislative power conferred under the Act, 2003 become part of the statute and partake the character of legislation. Clause 23 of the Regulation No.4 of 2005 empowers the Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of the regulation. In doing so, the Commission is bound to follow the due procedure and such amendments cannot be carried out qua an order in this petition. Accordingly, the Commission does not find it appropriate to decide on the merits of the amendments sought by the TSDISCOMs in this Order. The Commission would treat the submissions of the TSDISCOMs as suggestion/input as and when the Commission initiates the process of adding to or amending or varying regulation relating to the Terms and Conditions for Determination of Tariff for wheeling and Retail Sale of Electricity. The TSDISCOMs are also at liberty to place any more inputs when the Commission invites comments/suggestions on any such draft regulation on the subject matter.

9. The petition stands refused to be entertained subject to the observation made above, without costs.

This order is corrected and signed on this the 2nd day of June, 2021

Sd/-	Sd/-	Sd/-
(BANDARU KRISHNAIAH)	(M. D. MANOHAR RAJU)	(T. SRIRANGA RAO)
MEMBER	MEMBER	CHAIRMAN

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