

# **BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**

5<sup>th</sup> Floor Singareni Bhavan, Red Hills, Hyderabad – 500 004

**OP No. 58 & 59 of 2021**

## **IN THE MATTER OF**

Petition requesting the Commission

1. To review the power requirement estimate submitted by TSDISCOMs.
2. To review the power purchase cost estimate submitted by TSDISCOMs.
3. Not to allow tariff hike proposed by TSDISCOMs.
4. To examine the financial crisis of TSDISCOMs and find a way out.
5. To take stringent action to bring down electrical accidents.
6. To allow the objector to be heard in person before the Commission takes any decision on this application of the DISCOMs.

## **IN THE MATTER OF**

### **Name and full address of the petitioner:**

People's Monitoring Group on Electricity Regulation  
H. No. 3-4-107/1, (Plot No. 39), Radha Krishna Nagar,  
Attapur, Hyderabad – 500048

### ***Represented by***

M. Thimma Reddy

Convenor

People's Monitoring Group on Electricity Regulation  
H. No. 3-4-107/1, (Plot No. 39), Radha Krishna Nagar,  
Attapur, Hyderabad – 500048

And

### **Name and address of the Respondents:**

Chairman and Managing Directors of

Northern Power Distribution Company of Telangana Ltd,

Southern Power Distribution Company of Telangana Ltd,

# BEFORE THE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

\* 5<sup>th</sup> Floor Singareni Bhavan, Lakdi-ka-pool, Red Hills, Hyderabad – 500 004

**1.1** The following comments are being submitted on TSDISCOMs' ARR and tariff proposals for the FY 2022-23 in response to the Public Notice published in the Newspapers on 29<sup>th</sup> December, 2021.

## **Sales forecast:**

**2.1** TSDISCOMs estimated power requirement during the ensuing FY 2022-23 to be 84,222 MU. This is 16.69% higher than power requirement during the current FY 2021-22. TSSPDCL in its filing projected electricity consumption to increase by 13.76% during the ensuing FY while it is expected to increase by 8.59% during the current FY. In the absence of ARR and tariff proposal filings during the last three years it is difficult to assess consumption projections made by TSDISCOMs for the ensuing year. The high electricity consumption growth rates projected for the ensuing year do not appear to be supported by historical experience and need to be moderated.

**2.2** According to TSDISCOMs' estimates LT domestic consumers will be using 14,143 MU during the ensuing year. LT domestic consumers will account for 16.79% of electricity requirement during the ensuing year. Both the DISCOMs assumed that electricity consumption by LT domestic consumers would increase by 7% during ensuing year while electricity consumption by this consumer category increased by less than 5% during the current year. During FYs 2020-21 and 2021-22 electricity consumption by domestic consumers increased in the background of COVID-19 restrictions, closure of offices and schools and spread of work from home and online classes – people spent more time in their houses. As COVID-19 restrictions are being brought down step by step with some of the offices opening and physical classes for senior students starting the same level of consumption by domestic consumers as during the last two years cannot be expected. In this background assumption of 7% growth rate in electricity consumption by LT domestic consumers appears to be on the higher side and the same need to be brought down.

**2.3** TSDISCOMs estimated that agriculture pump sets would be consuming 18,707 MU of electricity during the ensuing year accounting for 22.21% of electricity requirement in the state. In the absence of meters to the agriculture services estimation of electricity consumption by agriculture pump sets has become contentious issue. While NPDCL in its filing claimed to have used ISI Methodology approved by the Commission SPDCL did not make clear on what basis it has arrived at the electricity consumption by agriculture pump sets. Both the DISCOMs indicated release of new services as one of the reasons for increased electricity consumption by these services. But the following information provided by NPDCL (pp. 26-27) raises doubts on this explanation:

Table 1: Agriculture consumption

Particulars	2016-17	2017-18	2018-19
% increase in No. of agriculture connections	1.23	3.06	3.11
% of growth in agriculture sales	19.99	23.48	18.46

**2.4** From January 2018 agriculture connections in Telangana are being given 24 hour supply and it is mentioned as one of the reasons for increased electricity consumption in agriculture sector. But the above table leads to doubts on this count also. In FY 2016-17, a year before the initiation of 24 hour electricity supply to agriculture, consumption was reported to have increased by 19.99% while number of connections increased by 1.23% only. During FY 2018-19, after initiation of 24 hour electricity supply consumption increased by 18.46% while number of connections increased by 3.11%. Such data raises further doubts on TSDISCOMs' claims regarding electricity consumption by agriculture services.

**2.5** What is more, both the DISCOMs project that consumption by agriculture services during the ensuing year will be less than during the current year. According to TSNPDCL filing LT agriculture consumption will be 7,525 MU during FY 202-23 compared to 7,839 MU during FY 2021-22. In the case of TSPDCL the LT agriculture consumption is expected to be 11,647 MU for 2021-22 and 11,182 MU for 2022-23. Increasing irrigation under lift irrigation schemes is expected to bring down electricity consumption by agriculture pump sets. Newspaper reports also indicate that electricity consumption in agriculture sector in the state is coming down due to spread of surface irrigation and decline in area under paddy, particularly during rabi season. (<https://www.thehansindia.com/telangana/nizamabad-irrigation-facilities-lead-to-less-power-consumption-in-northern-districts-724003>) Impact of increasing cultivation under lift irrigation/surface irrigation on electricity consumption by agriculture pump sets needs to be carefully analysed.

**2.6** Lift irrigation schemes in Telangana have emerged as one of the major electricity consumers. During the ensuing year these lift irrigation schemes along with Composite Public Water Supply Schemes (CPWS) are projected to consume 14,962 MU accounting for 17.76% of electricity requirement in the state. Both the DISCOMs have adopted very high consumption growth rates in the case of lift irrigation schemes. TSNPDCL projected that during the FY 2022-23 power consumption by lift irrigation schemes would be three times higher than in FY 2021-22. TSNPDCL also included 1,128 MU towards pumping of additional TMC of water. But works related to additional TMC are caught up in controversy and operationalisation of it during the ensuing year is doubtful. As such power requirement of this component may not be included. NPDCL projected total connected load of lift irrigation schemes in FY 2022-23 to be 3,714 MW. According to SPDCL's filing highest expected load in a month will be 617 MW in November 2022. According to a newspaper report the irrigation department had given an indent for 2,500 MW demand per day. (Velugu, 11 November, 2021) This is far less than the total loads indicated by TSDISCOMs. Another newspaper report indicated that the State Government of Telangana had initiated an exercise to bring down electricity cost of lift irrigation schemes by regulating the use of lift irrigation pumps according to water needs. This was expected to save electricity as well as water. A command control centre is reported to have been set up in Hyderabad to operate and manage lift irrigation systems in the state. (Andhra

Jyothi, 28 October, 2021) These interventions are expected to bring down electricity consumption by lift irrigation systems in the state.

**2.7.1** During the ensuing year T&D losses will account for 11.27% of the electricity requirement in the state. While it will be 10.43% in the case of NPDCL it will be 11.71% in the case of SPDCL. For the FY 2018-19 the Tripartite MoU under UDAY set the AT&C losses of TSNPDCL at 10.00% and TSSPDCL at 9.90%. The T&D losses projected by TSDISCOMs in the ARR for FY 2022-23 are higher than the levels stipulated for the FY 2018-19 under the Tripartite UDAY - MoU. The TSDISCOMs have claimed that, after formation of the Telangana State, Rs.31,968 crore has been spent on transmission and distribution networks. Despite such huge investments on T&D network in the state TSDISCOMs have failed to achieve the target set by UDAY on AT&C losses. AT&C losses include collection efficiency along with T&D losses. T&D loss levels should have been much less than AT&C losses. This shows that there is scope to bring down T&D losses from the levels projected in the ARRs. When the estimated T&D losses are brought down to the previous or even to lower levels the quantum of power to be procured will also come down.

Table 2: T&D and AT&C losses in Hyderabad

Circle	Division	T&D Losses (%)	AT&C Losses (%)
Hyd - Central	Mehdipatnam	22	19.28
Hyd - South	Asmangadh	39	35.01
	Begumbazar	35	34.01
	Charminar	38	35.73

**2.7.2** TSSPDCL's Energy Audit Report for the period 01-07-2021 to 30-09-2021 brought out the disturbing information contained in the above Table. In the case of four divisions listed in the above table T&D losses were above 20% of the electricity in put in to the network. These four divisions are not located in any far away, remote corner of the DISCOM area, posing problems in terms of billing due to inaccessibility. These divisions are located in the heart of the City of Hyderabad and these divisions are at a stone's throw away from the corporate office of the TSSPDCL and Office of the Commission. Even more striking information is that AT&C losses are lower than T&D losses. In these divisions collection efficiency is more than 100%. In these divisions 20 to 40% of the electricity input is not metered. If we assume technical losses of 5% remaining 15 to 35% of the electricity is being stolen under the very nose of the powers that be. This issue of high T&D losses in these areas was raised in the past also but to no avail. We request the Commission not to allow T&D losses above 5% and direct the DISCOM to take the responsibility of the remaining losses from its own resources. It is not fair to burden the sincere consumers with the losses due to theft/ illegal activity of other consumers.

**2.7.3** We request the Commission to direct TSNPDCL to make Energy Audit Reports public.

**2.8** Past experiences show that actual power procurement by the TSDISCOMs was much less than their ARR proposals. The power procurement estimates prepared as a part of ARR proposals related to the FY 2022-23 also appears to be overestimated. These estimates need to be subjected to detailed scrutiny.

## **Power availability:**

**3.1** According to TSDISCOMs' ARR and Tariff filings for FY 2022-23 electricity availability will be 87, 288 MU dispatch will be 84,222 MU leaving a surplus of 3,066 MU. But this surplus figure is an underestimate and misleading. Actual surplus electricity available according to their submissions should have been 5,458.50 MU.

Table 3: Power availability, dispatch and surplus (MU)

<b>Generating Station</b>	<b>Availability</b>	<b>Dispatch</b>	<b>Surplus</b>
TSGENCO – Thermal	27,434.98	27,206.10	228.88
CGS	21,611.51	17,960.27	3,651.24
Singareni	9,044.38	7,466.00	1,578.38
Total	58,090.87	52,632.37	5,458.50

**3.2** While 58,090.87 MU will be available from TSGENCO – thermal units, CGS units and Singareni power plant 52,632.37 MU will be dispatched leaving a surplus of 5,458.50 MU. TSDISCOMs show a surplus of 3,066 MU only as short-term purchases of 2,393 units appear under dispatch but do not figure under availability leading to higher quantum of dispatch and lower surplus. Even if 2,393 MU of short-term power is procured surplus electricity available will be 5,458.50 MU, as long as more power is not procured from these public sector plants.

The related question is – when 5,458.50 MU of surplus power is available is there need to go for short term purchase of 2,393 MU at a higher price?

**3.3** The filings show that all the TSGENCO thermal plants will be operating at below their threshold level PLF. This implies that actual surplus electricity available is much higher than 5,458.50 MU. While threshold level PLF of these plants is 80% to 85% PLF taken in to account in the filings is below 75%, with the exception of Kothagudem -VII (81%) and BTPS (78%). Threshold level of PLF these plants is 85%. If TSGENCO thermal plants operate at threshold level PLF additionally 2,000 to 3,500 MU of electricity will be available taking the surplus electricity available to 7,500 MU to 9,000 MU.

**3.4** The filings show that Thermal Power Tech Corporation will be operating its plants at 95% PLF. If other thermal power plants operate at this level surplus electricity available will be much more.

**3.5** TSDISCOMs in their submissions on Relinquishment of Telangana State's share in CGS units of NTPC Ramagundam 1 and 2 and NLC units I and II claimed that the gap due to foregoing these plants could be filled by operating GENCO plants at higher PLFs.

**3.6** All these factors show that 3,066 MU of surplus electricity projected by TSDISCOMs is an underestimate as well as misleading figure. Given the scope for surplus electricity available from the generation capacities available to TSDISCOMs during the ensuing year 2022-23 there will be no need to procure short term power from market at higher price.

**3.7** The information related to power procurement during the years 2020-21 and 2021-22 leads us doubt whether merit order is being followed in power procurement. Variable cost of

power from CSPGCL is Rs. 1.20 per unit and that of TPCIL is Rs. 2.26 per unit. If merit order was followed CSPGCL should have been preferred to TPCIL. But in fact, power at higher PLF (80 to 95%) is procured from TPCIL compared to CSPGCL (37 to 52% PLF). We request the Commission to see that merit order is followed in power procurement.

### **Power purchase cost:**

**4.1** TSDISCOMs propose to spend Rs. 39,415.08 crore on power procurement during the ensuing year. This accounts for 74.29% of aggregate revenue requirement (ARR). Avenues shall be explored to bring down power procurement cost to reduce tariff burden on the consumers as well as budgetary support from the state government.

Table 4: Fixed costs

Generation Station	Fixed cost (Per unit) (Rs)	Fixed cost (Per MW) (Rs. In Cr)
Kothagudem VII	2.09	1.47
KTPP II	2.17	1.41
BTPS	2.82	1.92
CSPGCL	2.70	1.71
Singareni	1.90	1.18
TPCIL I	1.49	1.24
TPCIL II	2.40	1.99

**4.2** TSDISCOMs in their narrative of reasons for the proposed tariff hike highlighted variable cost components like price of coal, transport cost of coal, clean energy cess, etc., While not totally denying these factors, a closure examination of TSDISCOMs' ARR and Tariff filings for the FY 2022-23 shows that fixed costs are equally a cause for the proposed tariff hike. While unit fixed cost increased from Rs. 1.61 in FY 2018-19 to Rs 2.01 in FY 2022-23, unit variable cost declined from Rs. 3.08 to Rs. 2.76. In other words, during this period while unit fixed costs increased by 24.84%, unit variable costs declined by 10.39%. This statistic demands us to pay more attention to increasing fixed cost burden. The important reason for this higher fixed cost is the high capital cost of the thermal power projects that have become operational since formation of separate State of Telangana.

**4.3** Fixed costs being paid to new units of TSGENCO are very high. Even when compared to Singareni thermal power project, whose capital cost was considered to be high due to inefficient execution of the project, fixed costs of TSGENCO units are very high. While fixed cost of Singareni thermal power project is Rs. 1.18 crore per MW it is Rs. 1.41 crore in the case of KTPP II, Rs. 1.47 crore in the case of Kothagudem VII and Rs. 1.92 crore in the case of BTPS. TSDISCOMs' ARR filings show that power from CSPGCL is proving to be costly. Per MW fixed cost burden of this plant is Rs. 1.71 Crore compared to Rs. 1.18 Crore of Singareni plant. TPCIL I is a green field project while TPCIL II is a brown field project. Normally, capital cost of brown field project shall be lower than green field project. But in the case of TPCIL brown field unit's fixed cost is higher than green filed unit. These anomalies demand a re-examination of fixed costs of these thermal power plants.

**4.4** Fixed cost of Ramagundam B unit was Rs. 51 crores during the FY 2020-21. It is estimated to increase to Rs. 101 crores during the FY 2021-22 and is projected further to increase to Rs. 122 crores in the FY 2022-23. Though there is no change in the capacity of the plant fixed are expected to more than double during the current and ensuing years. No explanation is provided for this hike in fixed cost of Ramagundam – B unit. We request the Commission not allow the increase in fixed cost of this unit.

Table 5: Variable costs

Generation Station	Variable cost (Per unit) (Rs)
CSPGCL	1.20
TPCIL – I	2.26
NTPC Ramagundam I	2.57
KTPS – V	2.81
KTPS – VI	2.82
KTPS – VII	2.49
KTPP - I	2.85
KTPP – II	2.87
BTPS	2.91
YTPS	2.49
Singareni	2.99
Ramagundam – B	3.43

**4.5** Per unit variable cost of coal based thermal power plants supplying power to TSDISCOMs differ widely. This indicates that there is scope to bring down these variable costs. Per unit variable cost of CSPGCL is Rs. 1.20. Compared to this variable cost of all other coal based thermal plants are more than 100% higher. One may argue that CSPGCL is a pit head plant and other plants are not so. Except YTPS all other TSGENCO thermal plants are located near coal mines and expenditure related to dedicated railway lines to transport coal from mines to the power plant are made part of plants’ capital cost. As a result, there should not be much difference between variable cost of CSPGCL and variable cost of TSGENCO units. Per unit variable cost of TPCIL is Rs. 2.26. This plant is located far away from coal mines and still its variable cost is less than all TSGENCO thermal power plants.

**4.6** One may point out that coal for CSPGCL comes from open cast mines which is not the case with TSGENCO units. TSGENCO thermal power plants get their coal supplies from SCCL coal mines located in Telangana. As of FY 2019-20 SCCL produced 86% of coal from open cast mines. As such, cost difference between CSPGCL and TSGENCO thermal units shall not be much.

**4.7** Variation in variable costs of the plants may also be due to the efficiency at which these plants are being operated. Some of the units of TSGENCO like KTPS – VII, KTPP – II, BTPS have come in to operation after TPCIL and should have operated more efficiently.

**4.8** TSDISCOMs in their submissions on Relinquishment of Telangana State’s share in CGS units of NTPC Ramagundam 1 and 2 and NLC units I and II claimed that NTPC Ramagundam units are not pit head plants. Even then variable cost of NTPC Ramagundam

units is less than TSGENCO thermal units. This calls for an explanation from both TSGENCO and TSDISCOMs.

**4.9** Per unit variable cost of Singareni thermal power project is Rs. 2.99. This high variable cost is also attributed to allocation of coal for this plant from Naini coal blocks located in Odisha. SCCL in its letter dated 6.7.2015, to the Ministry of Coal while requesting allocation of coal for its power plant from its coal mines had pointed out that it would be able to supply the coal to its own thermal plant without affecting the existing FSA/linkage quantity to other allottees. The Government of Telangana also sought from GoI allocation of coal from SCCL to its project. But this did not lead to any positive outcome. Under Section 1.1 d) of UDAY – MoU the Government of India has obligation for ensuring rationalisation of coal linkages. This issue shall be actively taken up with GoI.

**4.10** Even more worrying is the GoI's proposal to auction four coal blocks of SCCL to private players. This would further complicate allocation of coal available in Telangana to power plants located in Telangana. Government of Telangana opposed this move on the part of the central government. All the trade unions of workers of SCCL went on strike for three days against the move of the GoI. But there is no sign that the central government is re-examining its policy on coal mining.

**4.11.1** TSDISCOMs propose to procure 400 MW of solar power from SECI at the rate of Rs. 2.78 per unit and 1692 MW of solar power from NTPC – CPSU at the rate of Rs. 2.82 per unit. At a time when solar power is available at rates below Rs. 2.50 per unit the above rates appear to be higher. Recently SECI offered solar power to Andhra Pradesh at Rs. 2.49 per unit without any interstate transmission costs. TSDISCOMs did not specify on what basis this solar power is being procured from SECI and NTPC-CPSU.

**4.11.2** Solar power is suitable for decentralised, distributed power generation. Solar power can be generated at the point of consumption. This will bring down T&D costs as no additional network expansion is needed to utilise solar power. The Central Government also started promotion of decentralised solar power generation in agriculture sector under KUSUM policy. TSDISCOMs shall stop procuring solar power from MW/utility scale solar plants and instead procure solar power from decentralised solar power plants.

**4.12.1** TSDISCOMs on the one hand propose to relinquish Telangana State's share in NTPC's Ramagundam Super Thermal Power Station Units I & II and NLC Thermal Power Station Stage 1 & 2 with aggregate capacity of 528.91 MW and on the other propose to procure 500 MW from PTC. Cost of power from NTPC's Ramagundam units is Rs. 3.18 per unit, that of NLC Stage 1 is Rs. 3.47 per unit and that of NLC Stage 2 is Rs. 3.61 per unit. Cost of power (variable rate) from PTC is Rs. 4.29 per unit. Cost of power from NTPC and NLC units proposed to be relinquished is much lower than power from PTC. Given this, we suggest to TSDISCOMs to withdraw the proposal to relinquish Telangana State's share in the above CGS units and to withdraw the proposal to procure costly power from PTC.

**4.12.2** Andhra Pradesh DISCOMs share the legacy of PPAs related to NTPC Ramagundam I & II and NLC TPS-II with Telangana DISCOMs. It is interesting to note that APDISCOMs took the stand opposite to TSDISCOMs with regard to continuation of PPAs with these two power plants. An extract from APSPDCL's ARR for FY 2022-23 is reproduced below:



“The PPA with NTPC Ramagundam I & II was expired on 31.10.2017 and the PPA with NLC TPS-II Stage-I & II is going to expire by 31.03.2021. Power procurement is continued from Ramagundam I & II plant owing to its low price. .... These two projects are old stations with pithead fuel facility, and are presently operating as “Base Load Stations” in AP Power System with cheaper cost.... Based on the adequacy of the “Base Load” thermal capacity requirement in the system to extend 24X7 reliable, secured and cost effective power supply to the Consumers, APDISCOMs are continuing procurement of power from these pithead stations viz. Ramagundam-Stage-I&II and NLC- TPS-II.” (p. 11-12, APSPDCL ARR 2022-23)

Average power purchase cost of APDISCOMs is Rs. 4.13 per unit. Average power purchase cost of TSDISCOMs is Rs. 4.78 per unit. This shows that TSDISCOMs are in need of these cheaper power sources compared to APDISCOMs. This makes TSDISCOMs’ preference to relinquish this cheaper power inexplicable. We again suggest to TSDISCOMs to withdraw the proposal to relinquish Telangana State’s share in the above CGS units.

**4.13** Even when TSDISCOMs have 5,458 MU of surplus electricity at their disposal according to their filings related to FY 2022-23, still want to procure 2,393 MU from short-term, market sources at a cost of Rs. 3.85 per unit. The TSDISCOMs have not explained the basis for this price, even while showing that price for 2021-22 as Rs.3.59 per unit. In fact, surplus electricity available to TSDISCOMs is much higher than 5,458 MU as all the TSGENCO thermal units, Singareni units and some of the CGS units supplying power to Telangana will be operating at below their threshold PLF. In the background of substantial surplus capacity available to TSDISCOMs we request the Commission not to allow power procurement from short-term, market sources.

**Tariff proposals:**

**5.1** TSDISCOMs have proposed increase of 50 p/Unit for all domestic consumers, increase of 1 Rs/Unit for all LT commercial (except haircutting saloons) and increase of 1 Rs/Unit for all LT industry consumers and most of the HY consumers. In addition, there is introduction of fixed charge for domestic, increase for commercial and industry and increase in customer charges and minimum charges. Customer charges in some cases are sought to be increased by more than 100%. Periodic reasonable tariff increase can be acceptable, but this sudden increase in tariff after five years and that too same increase for all slabs in absolute terms is not reasonable.

Table 6: Tariff proposal (Rs. In Cr)

Particulars	NPDCL	SPDCL	Total
ARR	18,183.36	34,870.18	53,053.54
Revenue from current tariffs	10,702.75	25,708.51	36,411.26
Non-tariff income	29.41	33.10	62.51
Revenue deficit	7,451.21	9,128.53	16,579.78
Revenue through proposed tariffs	1,786.63	5,044.27	6,830.90
Tariff hike %	16.69	19.62	18.76
External subsidy	4,254.15	1,397.50	5,651.65
Net deficit	1,410.44	2,686.79	4,097.23

**5.2** TSDISCOMs' tariff proposals will lead to collection of Rs. 6,830.90 crore as additional revenue. This implies a tariff hike of 18.76%. But the tariff impact on different consumer categories varies. Some consumer groups face a tariff hike of more than 50%.

Table 7: Impact of tariff increase - 1

Slab	Existing tariff	Proposed tariff	Consumption	Existing energy charges	New energy charges	Dem and charges	Total new charges	% increase
	Rs. /U	Rs. /U	Unit	Rs.	Rs	Rs.	Rs.	%
LT-1 (A)								
0-50	1.45	1.95	50	72.50	97.50	15	112.50	55.20
51-100	2.60	3.10	100	202.50	252.50	30	282.50	39.50
LT-1 (B)(i)								
0-100	3.50	3.80						
101-200	4.30	4.80	101	334.30	384.80	45	429.80	28.60
			200	760.00	860.00	45	905.00	19.10
LT-1 (B) (ii)								
0-200	5.00	5.50						
201-300	7.20	7.70	201	1007.20	1107.70	75	1182.70	17.40
301-400	8.50	9.00	301	1728.50	1879.00	75	1954.00	13.00
401-800	9.00	9.50	401	2579.00	2779.50	75	2854.50	10.70
800+	9.50	10.00	801	6179.50	6580.00	150	6730.00	8.90

**5.3** Domestic consumers in the lower slabs face higher tariff hike compared to consumers in the higher slabs. As the above Table shows while domestic consumers in the 0-50 units slab face tariff hike of 55.20%, consumers in the 51-100 units slab face tariff hike of 39.50%, consumers in the 401-800 units slab face tariff hike of 10.70% and consumers in the 800 + units slab face tariff hike of 8.90%. This shows that poor households who consume less than 50 units per month face disproportionately high tariff hike. In the above table changes only in energy charges and demand charges are taken in to account. Changes in customer charges and minimum charges also impact tariff burden. These changes are taken in to account in the following table:

Table 8: Impact of tariff increase - 2

	<b>Current</b>	<b>Proposed</b>	<b>% Increase</b>	<b>Rs/Unit Current</b>	<b>Rs/Unit Proposed</b>
Average monthly consumption	46 units				
Energy charge 0-50 Rs/U	1.45	1.95			
Energy charge 51-100 Rs/U	2.60	3.10			
Demand charge Rs/month	0	15.00			
Customer charge Rs/month	30.00	70.00			
Energy charge Rs/month	67.00	90.00	34		
<b>Monthly Electricity bill Rs.</b>	<b>97.00</b>	<b>175.00</b>	<b>80</b>	<b>2.10</b>	<b>3.78</b>
Minimum charges single ph. < 1 kW Rs.	25.00	65.00			
<b>Monthly No consumption bill Rs.</b>	<b>55.00</b>	<b>150.00</b>	<b>173</b>		

**5.4** In the case of domestic consumers, the tariff increase in energy charge and customer charge as well as the introduction of fixed charge is expected to increase tariff revenue by Rs 960 Cr, that is an average increase of 13%. But the average monthly electricity bill of a typical 0-100 slab domestic consumers becomes nearly double because of this tariff increase. This is going to impact a large number of people in Telangana, since 0-100 domestic slab consumers are nearly two-third of the total 1.15 Crore domestic consumers. In the above Table the rows in bold give the impact of tariff increase. Monthly average consumption by domestic consumers in the 0-100 units' slab is 46 units. Under the present tariff monthly electricity bill will be Rs. 97 and under the proposed tariff monthly electricity bill will be Rs. 175, which shoes a 80% increase in monthly tariff. In the last row impact of changes in minimum charges is examined. A consumer has to pay minimum charges even when there is no consumption. In this case consumer has to pay customer charges and minimum charges. Hence if the household does not consume even one unit of electricity in a month, they would have to pay Rs. 150/month as opposed to current Rs.55/month - that is nearly three times!

**5.5** This is quite unreasonable. A similar situation would arise for small commercial and small industrial consumers. The reason for this is the uniform increase of 50 paise or 1 rupee/unit for all slabs. For the domestic consumers, we propose that the tariff increase should be in percentage terms, not in absolute value. The % increase for low slab could be at the inflation rate and for higher slabs, it could be higher. This would reduce the tariff impact on small consumers and would respect the very idea of slab wise telescopic tariff. For example, 4-5% increase in energy charge for 0-100 Units, 5-6% for 101-200 and 15% increase for > 200 Units/month would result in similar additional tariff revenue. In addition, there should be no fixed charges (demand charges and consumer charges) for the lowest domestic slab of 0-100.

## Electrical accidents

Table 9:

	No. of accidents			Exgratia paid		
	NPDCL	SPDCL	Total	NPDCL	SPDCL	Total
2020-21	460	238	698	351	178	529
H1 of 2021-22	222	76	298	123	133	356

**6.1** During the FY 2020-21 the number fatal accidents involving humans stood at 698. This is the highest number of fatal accidents in the recent past. The last highest number of fatal accidents were 678 in FY 2016-17. This shows that instead of electrical accidents coming down they are on the rise, in spite of huge investments in men and materials to strengthen T&D network.

**6.2** In the past the DISCOMs provided causes for these fatal electrical accidents. This time DISCOMs did not provide such information. We request the Commission to direct the DISCOMs to provide causes for these fatal electrical accidents.

**6.3** The information provided by TSDISOMs on electrical accidents show that most of the fatal accidents took place in circles with predominantly rural services. These accidents are low in urban circles. This implies that the rural consumers are not receiving quality service. Every step shall be taken to correct this anomaly.

**6.4** The Construction, Operation & Maintenance of electrical plant & lines especially at distribution level by DISCOMs is in a very unsafe condition. DISCOMs are not following the basic statutory safety regulations of CEA. The state government and its CEIG are not taking action on DISCOMs.

**6.5** At many places especially in rural areas, bare live parts in DTRs and associated bare lines and wires are not kept inaccessible to living beings. Barriers, fences and enclosures and minimum clearances to ground are not maintained so that live parts are out of reach to prevent fatal shocks as required in Regulations 58,17,37(1) and 44(1)(i) of CEA (Measures relating to safety and electric supply) Regulation, 2010

**6.6** For safety, isolating A B switch on H.V side of DTRs are to be kept in working condition as per Regulation 80(2)(a)(b) of CEA (Technical Standards for construction of electrical plants and lines) Regulations, 2010. At many DTRs, A B switches are stuck in closed position and do not open.

**6.7** As per Regulations 74(1) (2) of CEA (Measures relating to safety and electric supply) Regulation, 2010 and Regulation 78(1) and (2) of CEA (Technical Standards for construction of electrical plants and lines) Regulations, 2010, on all DTRs on H.V sides of transformers, surge diverters are to be provided to protect consumers against transient over voltages due to lightning and switching surges and protect consumers equipment getting damaged. But in almost all DTRs these are not in working condition and are disconnected.

**6.8** The statutory CEA (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011 give very important and elaborate policy and management systems for ensuring electrical safety. Regulation 4(4) requires the

supplier to provide physical/financial resources for safety management, internal and external audit of safety. Regulation 5 requires preparation and application of detailed safety manuals/ It gives what matters are to be covered (Refer schedule I & II). Regulations 6(1)(c)(ii) requires appointment of a very senior level officer for safety, working directly under Chief Executive. Regulations 6(1)(d)(e)(f)(g) gives his functions and duties like periodic inspection, audit, training, advising management on prevention of injuries. Regulation 5 of CEA (Measures relating to safety and electric supply) Regulations 2010 which is being revised also deals with electrical safety officer and authorized Chartered electrical safety engineer for periodical testing and to conform to Regulation 30 & 43.

**6.9** To the best of our knowledge TSDISCOMs are not implementing the above mandatory regulations. TSERC is requested to order TSDISCOMs to submit detailed report and evidence to show their total commitment to these management level Regulations.

**6.10** According to a newspaper report TSNPDCL is taking a loan of Rs. 1,500 crores from REC to bring down electrical accidents. This news report also mentioned that already first instalment of Rs. 300 crores were released. We would like to know whether the Commission's approval was obtained for this spending. In the recent past the Commission had allotted Rs. 5 crore to each DISCOM to take up works to improve safety. But DISCOMs did not care to spend this amount despite large number of electrical accidents. Since the formation of Telangana state more than Rs. 31,000 crore was spent on strengthening T&D network in the state. And this did not help to bring down electrical accidents. We doubt whether this spending of Rs. 1,500 crore on system strengthening will alter the situation on the ground, as long attitude of the TSDISCOMs change towards safety electrical network in the state.

### **TSDISCOMs' financial crisis:**

Table 10: Deficit (Rs. In Cr)

Year	NPDCL	SPDCL	Total
2018-19	3,877.87	6,354.87	10,232.74
2019-20	1,712.28	5,604.01	7,316.29
2020-21	2,369.79	6,296.97	8,666.76
2021-22	3,615.98	7,007.86	10,623.84
Total	11,575.92	25,263.71	36,839.63

The above deficit is after taking in to account subsidy provided by the state government.

Table 11: Losses: (Rs. In Cr)

Year	NPDCL	SPDCL	Total
2014-15	1,343	1,171	2,514
2015-16	1,010	2,369	3,379
2016-17	1,502	4,700	6,202
2017-18	1,561	3,925	5,486
2018-19	3,060	4,967	8,027
2019-20	1,116	4,940	6,056
Total	9,592	22,072	31,664

Source: TSDISCOMs' Annual Reports

**7.1** TSDISCOMs are facing severe financial crisis. Total losses of TSDISCOMs from FY 2014-15 to FY 2019-20 are Rs. 31,664 crore. These losses are equivalent to 59.68% of ARR of FY 202-23. This information on losses is gathered from TSDISCOMs annual reports. Annual Reports are not available for the FY 2020-21 and 2021-22. According to ARR filings of FY 2022-23 total deficit of TSDISCOMs over the period FY 2018-19 to FY 2021-22 is Rs. 36, 839.63 crore. This is equivalent to 69.44% of ARR of 2022-23. This mirrors the depth of financial crisis facing TSDISCOMs. This financial crisis raises doubts on future of DISCOMs.

**7.2** This financial crisis of TSSDISCOMs is result of their inability to file ARR and tariff proposals for the last three years. TSDISCOMs did not have the approval from the State Government of Telangana to file ARR and tariff proposals. The same thing applies to true up filings. The existing regulations allow power purchase true up annually but TSDISCOMs did not file true up claims for the period 2018-19 to 2021-22. As a result TSDISCOMs have to face huge deficits between the costs incurred by them and the revenues received by them. In order to run the show these DISCOMs have borrowed heavily. The interest burden of this further adds to the financial misery of DISCOMs. This interest burden constitutes the carrying cost of the debt and the TSDISCOMs have no way of recovering this interest burden through true up as normally Electricity Regulatory Commission allow carrying cost only from the time of filing of true up petitions.

Arrears:

Table 12: Arrears of Rs. 50,000 and more pending for six months As on 30-09-2021

(Rs. In Cr)

DISCOM	LT	HT	Total
NPDCL	75.45	4,817.71	4, 893.16
SPDCL	164.44	6,921.70	7,086.14
Total	239.89	11,739.41	11,979.30

**7.3** According to ARR filings of FY 2022-23 total arrears of Rs. 50,000 and more pending for six months As on 30-09-2021 are Rs. 11, 979.30 crore. Substantial portion of these arrears have to come state government departments. (While SPDCL mentioned the arrears due from Government departments NPDCL did not show these details). According to Section 1.2 i) of UDAY – MoU all outstanding dues from the government departments to DISCOMs for supply of electricity shall be paid by 31-03-2017. Since then arrears in fact increased. There is also no information on pending subsidy payment from the state government. If the Government departments pay in time towards electricity consumed by them and the State Government releases subsidies according to the monthly schedule as stipulated by the Commission TSDISCOMs can bring down debt burden to a large extent.

**7.4** The delayed payments from the State Government to DISCOMs and DISCOMs' failure to file for annual tariff revision and true ups in time, again due to the State Government, are the main causes behind huge debt burden of DISCOMs as well as the accumulated losses. According to Section 1.3 j) of UDAY – MoU TSDISCOMs shall strive to file tariff petitions in time before TSERC. Due to lack of funds with them DISCOMs are forced to delay payments to GENCO and GENCO in turn has to delay payments for coal supply. Because of irregular payments GENCO has to face adverse terms in coal supply which resulted in higher

variable cost. This in turn led to higher power purchase cost. This has become a vicious circle. The issue is how to break this vicious circle.

**7.5** In this whole scenario of financial crisis facing TSDISCOMs the State Government appears to be the main contributor. Had it disbursed the subsidy as promised and allowed the Government Departments to pay for electricity consumption in time, and also allowed the TSDISCOMs as their owner to file for true ups in time this financial crisis would not have unfolded. As such, solution for the present financial crisis of TSDISCOMs lies with the State Government only.

**7.6** According to Section 1.2 g) of UDAY – MoU “The Government of Telangana shall take over the future losses of the DISCOMs in a graded manner as follows:

Year	2016-17	2017-18	2018-19	2019-20	2020-21
Previous year's DISCOMs loss to be taken over by the State	0% of the loss of 2015-16	5% of the loss of 2016-17	10% of the loss of 2017-18	25% of the loss of 2018-19	50% of the previous year loss.

According to Section 1.2 h) of UDAY – MoU “The Government of Telangana shall provide Operational Funding Requirement (OFR) to the DISCOMs till the DISCOMs achieve turnaround.”

The Government of Telangana has done none of these to improve financial condition of TSDISCOMs. Instead, pending payments from the Government of Telangana towards electricity consumed by Government Departments and monthly subsidy release are turning the situation from bad to worse.

**7.7** In this context we would like to draw attention of TSERC to the advice given by the Maharashtra Electricity Regulatory Commission (MERC) dated 5<sup>th</sup> January, 2022 to the Government of Maharashtra under Section 86 (2) of the Electricity Act, 2003 as DISCOMs in Maharashtra are also facing similar financial crisis. The advice includes short-term measures and long-term measures. We request the TSERC to advise the State Government of AP to take relevant measures to improve financial health of TSDISCOMs.

#### **Prayer before the Commission**

1. To review the power requirement estimate submitted by TSDISCOMs.
2. To review the power purchase cost estimate submitted by TSDISCOMs.
3. Not to allow tariff hike proposed by TSDISCOMs.
4. To examine the financial crisis of TSDISCOMs and find a way out.
5. To take stringent action to bring down electrical accidents.
6. To allow the objector to be heard in person before the Commission takes any decision on this application of the DISCOMs.

Hyderabad

Date: 26-01-2022

Deponent

M. Thimma Reddy