



TELANGANA STATE ELECTRICITY REGULATORY COMMISSION
5th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500 004

19.10.2022

Present

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

In the matter of amendment to certain Clauses of General Terms and Conditions of Supply for enhancement of power supply capacity at 11 kV and 33 kV for common and dedicated feeders – Statement of Reasons thereof

STATEMENT OF REASONS

Introduction:

Representations were received from certain stakeholders (HT consumers) for amendment to certain Clauses of General Terms and Conditions of Supply (GTCS) for enhancement of power supply capacity at 11 kV and 33 kV for common and independent (dedicated) feeders. TSDiscoms (TSSPDCL and TSNPDCL) have also submitted their representations for amendment of GTCS.

The Commission finds merit in these representations and recognizes the need to amend the existing Clauses of GTCS so as to meet the growing power demands from industrial sector in the Telangana State with minimum hurdles in the matter of providing service lines and augmenting the substation capacities in line with the standards being notified by the Central Electricity Authority (CEA) from time to time and also in the interest of higher revenues to the Distribution Licensees through higher sales of energy to the industrial sector.

After examining the relevant technical and commercial aspects, the Commission decided to initiate proceedings for making appropriate amendment to the Clauses of GTCS. Accordingly, the Commission has notified the Draft amendment of GTCS on its official website www.tserc.gov.in on 17.08.2022 and invited suggestions/comments from all the stakeholders and public on the proposed amendment to the Clauses of GTCS on or before 08.09.2022.

In response, the Commission has received written suggestions/comments from seven (7) stakeholders. The list of stakeholders who have submitted the written suggestions/comments is enclosed at Annexure-I.

After due consideration of the suggestions/comments received, the Commission has finalized the amendment to certain Clauses of GTCS for enhancement of power supply capacity at 11 kV and 33 kV for common and dedicated feeders.

The relevant Clauses of the Draft Amendment, deliberations on suggestions/ comments expressed by the stakeholders & TSDiscoms and the reasons for decisions of the Commission are given in the succeeding paragraphs. The Clause numbers given in this Statement of Reasons are those mentioned in the Draft Amendment.

1. Existing Clause:

3.2.2.1: HT consumers intending to avail supply on common feeders:

For total Contracted Demand with the Company and all other sources like APGPCL, Mini Hydel, Wind Power, MPPs, Co-Generating Plants, etc.:

Contracted Demand	Voltage Level
Up to 1500 kVA	11 kV
1501 kVA to 5000 kVA	33 kV
Above 5000 kVA	132 kV or 220 kV as may be decided by the Company

Commission's Proposal:

For Clause 3.2.2.1 of GTCS, the following Clause shall be substituted:

“3.2.2.1 HT consumers intending to avail supply on common feeders:

For total Contracted Demand with the Company and all other sources like APGPCL, Mini Hydel, Wind Power, MPPs, Co-Generating plants etc.,

Contracted Demand	Voltage level
Upto 1500 kVA	11 kV
1501 kVA to 2500 kVA	11 kV or 33 kV
2501 kVA to 5000 kVA	33 kV
5001 kVA to 10000 kVA	33 kV or 132 kV
Above 10000 kVA	132 kV or above

Stakeholders' suggestions/comments:

Common feeders at 132 kV level are not available in Telangana State. The common feeders at 132 kV should be available abundantly so that the consumers having 5001 kVA and above contracted demand can able to shift to 132 kV from existing 33 kV level, otherwise there is no meaning of having such Clause without the availability of common feeders at 132 kV level in the State. The details of such common feeders and available capacities at individual substations shall be made available at the DISCOMs website.

TSDiscom's suggestions/comments:

3.2.2.1: The table for the contracted demand and voltage level may be modified as given below:

Contracted Demand	Voltage level
Upto 1500 kVA	11 kV
1501 kVA to 2500 kVA	11 kV or 33 kV, as may be decided by the Company
2501 kVA to 5000 kVA	33 kV
5001 kVA to 10000 kVA	33 kV or 132 kV, as may be decided by the Company
Above 10000 kVA	132 kV and above

Commission’s view:

The Commission has noted the suggestions/comments of the stakeholders. It is to clarify that the present proposal is only for enhancement of power supply capacity at 11 kV and 33 kV for common and dedicated feeders. The Commission is of the view that the suggestions/comments of TSDiscoms are already covered in Clause 3.2.2.3(i). Further, the Commission opines that the naming the other sources is not necessary and may lead to ambiguity and hence to bring more clarity modified the Clause 3.2.2.1 as below:

“3.2.2.1 HT consumers intending to avail supply on common feeders:

For total Contracted Demand with the Company and all other sources.

Contracted Demand	Voltage level
Upto 1500 kVA	11 kV
1501 kVA to 2500 kVA	11 kV or 33 kV
2501 kVA to 5000 kVA	33 kV
5001 kVA to 10000 kVA	33 kV or 132 kV or above
Above 10000 kVA	132 kV or above

2. Existing Clause:

3.2.2.2: HT consumers intending to avail supply through independent feeders from substation:

For total Contracted Demand by applicants seeking HT supply through independent feeders from the sub-stations, with the Company and all other sources like APGPCL, Mini Hydel, Wind Power, MPPs, Co-Generating Plants etc., shall be:

Contracted Demand	Voltage Level
Up to 2500 kVA	11 kV
2501 kVA to 10000 kVA	33 kV
Above 10000 kVA	132 kV or 220 kV

Commission’s Proposal:

For Clause 3.2.2.2 of GTCS, the following Clause shall be substituted:

3.2.2.2 HT consumers intending to avail supply through an exclusive independent (dedicated) feeder from the substation:

For total Contracted Demand with the Company and all other sources like APGPCL, Mini Hydel, Wind Power, MPPs, Co-Generating plants etc.,

Contracted Demand	Voltage Level
Upto 3000 kVA	11 kV
3001 kVA to 5000 kVA	33 kV
5001 kVA to 20000 kVA	33 kV or 132 kV
Above 20000 kVA	132 kV or above

Stakeholders’ suggestions/comments:

The existing consumers with loads above 10000 kVA on dedicated feeders with 220 kV supply, as they already incurred costs on their feeders, they shall be allowed to continue on 220 kV for present and as well as for future load enhancements upto 20000 kVA. Also for existing consumers, with below 3000 kVA load connected at 33 kV, who will now be categorized under 11 kV shall be continued to avail supply at their existing connected voltages as per previous GTCS.

Further, if any existing consumer wants to change the voltage level (either higher or lower) as per the proposed amendment to Clause 3.2.2.2, the consumer shall be permitted to do so.

Further, it is also suggested that as per the draft amendment the consumers having contracted demand 5001 kVA and above can opt for supply connection at 33 kV or 132 kV level through independent feeder and to add the following provision:

"the existing consumers at 33 kV level having CMD of 5001 kVA and above may opt for 132 kV network. It will however be subject to feasibility and contribution of cost of extension by the consumer as per GTCS and as per the Regulations of the Commission.

The TSDiscoms should freely allow the consumers to choose the supply voltage level at least in case of dedicated feeder as the entire cost of the line and associated cost shall be borne by the consumer.

Voltage wise cost of supply for HT-I(A) for FY 2022-23 are mentioned in Table 5-1 of Tariff order cost of service for FY 2022-23 (Rs/kWh) wherein the cost of supply at 132 kV level is lesser by Rs.0.75/unit with respect to cost of supply at 33 kV.

TSDiscom's suggestions/comments:

The table for the contracted demand and voltage level may be modified as below:

Contracted Demand	Voltage Level
Upto 3000 kVA	11 kV
3001 kVA to 5000 kVA	33 kV
5001 kVA to 20000 kVA	33 kV or 132 kV, as may be decided by the Company
Above 20000 kVA	132 kV and above

And to incorporate the following note on 'deviation condition' for the Clause 3.2.2.2, for specific cases where the consumer has opted for power supply at a higher voltage than the applicable voltage by considering the feasibility of network in the given area of supply -

"If the consumer opts for higher levels of voltage for contracted demand less than that specified in GTCS and the power supply to such consumer is extended by TSDiscom under the deviation condition the consumer shall bear the extra expenses and the TSDiscom shall levy the tariff as per the applicable voltage of GTCS and not as per the actual supply voltage."

Commission's view:

The Commission finds merit on suggestions/comments raised by the stakeholders and decided to retain the existing lower limits of contracted demand at various voltage levels and further to clarify that the fulfillment conditions are addressed in Clause 3.2.2.3.

The Commission is not in agreement with the suggestions/comments of the TSDiscoms for the reason that the present proposal is for enhancement of power supply capacity at 11 kV and 33 kV for common and independent (dedicated) feeders and the amendment to the Clauses in GTCS is to release power supply at an appropriate voltage level and TSDiscoms should adhere to GTCS and ensure that no deviation should arise.

Further, the Commission opines that the naming the other sources is not necessary and may lead to ambiguity and accordingly, modified the Clause 3.2.2.2 as below:

“3.2.2.2 HT consumers intending to avail supply through an exclusive independent (dedicated) feeder from substation:

For total Contracted Demand with the company and all other sources.

Contracted Demand	Voltage Level
<i>Upto 2500 kVA</i>	<i>11 kV</i>
<i>2501 kVA to 3000 kVA</i>	<i>11 kV or 33 kV</i>
<i>3001 kVA to 10000 kVA</i>	<i>33 kV</i>
<i>10001 kVA to 20000 kVA</i>	<i>33 kV or 132 kV or above</i>
<i>Above 20000 kVA</i>	<i>132 kV or above</i>

3. Existing Clause:

3.2.2.3 The relaxations under this Clause are subject to the fulfillment of following conditions as stated in the Tariff Order:

- i) The consumer should have an exclusive dedicated feeder from the sub-station
- ii) The consumer shall pay full cost of the service line as per standards specified by Company including take off arrangements at sub-station.

Commission’s Proposal:

3.2.2.3 Release of supply to HT consumers under Clause 3.2.2.1 and 3.2.2.2 is subject to the fulfillment of following conditions:

- i. The Company will extend the power supply capacities subject to technical feasibility.
- ii. While extending power supply at 33 kV for smaller demands, proper CT ratio has to be selected.
- iii. The Company shall ensure adequate conductor capacity and if augmentation of conductor capacity is required, the necessary augmentation charges shall be collected from the consumer.
- iv. The Company shall ensure voltage regulation within the specified limits.
- v. Power supply at 132 kV or above shall be through an independent (dedicated) feeder or through Loop-in-Loop-out (LILO) arrangement as decided by the TSTransco.
- vi. In case of consumer categories, for whom the voltage-wise tariff is applicable, the Company shall levy the tariff as per the actual supply voltage.
- vii. The consumers shall pay full cost of service line as per the standards specified by Company including take off arrangements at substations.

Stakeholders’ suggestions/comments:

One stakeholder has suggested to add the following points at appropriate places:

1. The relevant parameters to be considered for technical suitability mentioned in 3.2.2.3(i), may be specified in the form of tables.

2. It's presumed that as per Clause 3.2.2.3(vi), if a H.T consumer with CMD below 1500 kVA who has to avail supply at 11 kV, actually avails supply at 33 kV, he will be charged tariffs applicable for 33 kV supply.

In the event, it's desirable to modify the Clause suitably to convey the meaning that such of the consumers who avail supply at a voltage higher than the specified voltages with specific approval of Discoms, will be charged on the basis of actual supply voltage.

This will automatically cover the deterrents for availing supply at a lesser voltage as per the conditions of the relevant Tariff Order apart from the normal tariff applicable for actual supply voltage.

Another stakeholder has suggested, that in case of consumer categories, for whom the voltage wise tariff is applicable, the Company shall levy the tariff as per their actual connected voltage. Further for the existing consumers for whom the voltage wise tariff is applicable, the company shall levy the tariff as per their existing actual connected voltage.

Another stakeholder has suggested that Discoms should charge the tariff as per the voltage wise tariffs determined in Retail Supply Tariff Orders even the consumers connected at 132/33 kV level and derated their loads below 1500 kVA.

TSDiscom's suggestions/comments:

- (a) The relevant parameters to be used as guidelines by the Company for technical feasibility are as follows:

Voltage of Supply - 11 kV

Conductor	Current rating at 45° C Amb. Temp. (in Amps))	Maximum Rated Power at 0.9 pf (in MVA)	Maximum allowable distance in km at 8% Voltage Regulation	
			2.5 MVA	3 MVA
Rabbit (55 Sq.mm)	194	3.696	4.86	4.05
Dog (100 Sq.mm)	283	5.391	9.23	7.69

Table-I: Voltage of Supply -33 kV

Conductor	Current rating at 45° C Amb. Temp. (in Amps)	Maximum Rated Power at 0.9 pf (in MVA)	Maximum allowable distance in km at 8% Voltage Regulation		
			At rated Power	15 MVA	20 MVA
Dog (100 Sq.mm)	283	16.18	12.84	13.85	-
Wolf (175 Sq.mm)	398	22.75	12.87	19.51	14.63
Panther (232 Sq.mm)	478	27.32	13.32	24.27	18.20

- (b) Sub-clause (iii) may be modified as:
"The Company shall ensure adequate conductor capacity and if augmentation of conductor capacity and/or substation or feeder

capacity, as may be required, the necessary augmentation charges shall be collected from the consumer.”

- (c) Sub-clause (vi) may be modified as:
“If the consumer opts for higher levels of voltages for demands less than that specified in GTCS and the power supply to such consumer is extended by the DISCOMs under the deviation condition proposed under Clause 3.2.2.2, the consumer shall bear the extra expenses and the DISCOM shall levy the tariff as per the applicable voltage of GTCS and NOT as per the actual supply voltage.”

Commission’s view:

The Commission takes note of the relevant parameters for technical feasibility given by TSDiscoms. The TSDiscoms shall decide the technical feasibility duly following the applicable standards as notified by the CEA from time to time. The Commission is not in agreement with the stakeholder’s suggestion for providing relevant parameters to be considered for technical feasibility in the form of table under sub-clause 3.2.2.3(i) as there shall be continuous advancements in technology.

The Commission is not in agreement with the suggestions/comments of stakeholders on sub-clause 3.2.2.3(iii) and 3.2.2.3(vi) as the present proposal is for enhancement of power supply capacity at 11 kV and 33 kV for common and independent (dedicated) feeders and the amendment to the Clauses in GTCS is to release power supply at an appropriate voltage level and TSDiscoms should adhere to GTCS and ensure that no deviation should arise.

Further, to clarify that the proposed amendment at sub-clause 3.2.2.3(vi) addresses tariff issues raised by the stakeholders.

Hence, the Commission retains the sub-clauses 3.2.2.3(i) to 3.2.2.3(vi) as proposed. As the sub-clause 3.2.2.3(vii) is applicable for dedicated feeder the same is modified as -

“(vii) In case of dedicated feeder, the consumers shall pay full cost of service line as per the standards specified by Company including take off arrangements at substations.”

Sd/-
(BANDARU KRISHNAIAH)
MEMBER

Sd/-
(M.D.MANO HAR RAJU)
MEMBER

Sd/-
(T.SRIRANGA RAO)
CHAIRMAN

ANNEXURE-I

List of stakeholders who submitted written suggestions/comments against Public Notice dated 17.08.2022 on Draft amendment to GTCS

Sl. No.	Name of the stakeholder & address
1)	Sri Vijay Rathod, Chief Project and Engineering Officer, GMR Aero Towers, Rajiv Gandhi International Airport, Shamshabad, Hyderabad 500 108.
2)	Northern Power Distribution Company of Telangana Limited (TSNPDCL), Corporate Office, # 2-5-31/2, Vidyuth Bhavan, Nakkalagutta, Hanamkonda, Warangal 506 001.
3)	M/s Sitaram Spinners Private Limited, Rama Towers, 5-4-83, 2 nd Floor, Opp. Ranigunj Bus Depot, M.G.Road, Secunderabad 500 003.
4)	M/s Agarwal Foundries, 2 nd Floor, 5-4-83, TSK Chambers, M.G.Road, Secunderabad 500 003.
5)	Sri S.Surya Prakash Rao, Former Director(Commercial), erstwhile APCPDCL and former Secretary, erstwhile APERC, Flat No.105, Ashok Chandra Enclave, 11-4-660, Red Hills, Hyderabad 500 004.
6)	Sri Giridhar Rao P.V.S., The Hindu, Hyderabad.
7)	Southern Power Distribution Company of Telangana Limited (TSSPDCL), Corporate Office, 6-1-50, Mint Compound, Hyderabad.