

GUJARAT ELECTRICITY REGULATORY COMMISSION
GANDHINAGAR

Draft Distribution Code (Third Amendment), 2017

Notification No. 1 of 2017

In exercise of powers conferred under Section 86 (c), (e) and (i) of the Electricity Act, 2003 (Act 36 of 2003) and under Section 42 (b) of the Gujarat Electricity Industry (Reorganisation and Regulation) Act, 2003 (Gujarat Act 24 of 2003) and all powers enabling it in that behalf, the Gujarat Electricity Regulatory Commission hereby amend the Distribution Code (No. 6 of 2004), the principal Code.

1. Short Title, Extent and Commencement

- (1) This Code may be called the Gujarat Electricity Distribution Code (Third Amendment), 2017
- (2) This Code shall come into force on the date of their publication in the Gazette.

New Definition in Section 2 of the principal code:

2. Following definition of 'Force Majeure' shall be added at the end of Section 2 of the principle Code:

“Force Majeure refers to any event which is beyond the control of the persons involved, which they could not foresee or with a reasonable amount of diligence, could not have foreseen or which could not be prevented and which substantially affects the performance by person such being the following including but not limited to:-

- (i) Acts of God, natural phenomena, floods, droughts, earthquakes and epidemics;
- (ii) Enemy acts of any government, domestic or foreign, war declared or undeclared, hostilities, priorities, quarantines, embargoes;
- (iii) Gird failure not attributable to a person”

Amendment to Section 4 of the principal code:

3. Section 4.5 (11) of principal code shall be substituted as under:

“4.5 (11)

The following parameters of equipments and system designs shall be standardized to facilitate easy replacement and reduction of inventories of spares in stores:

- (a) Capacities of power transformers,
- (b) Capacities and designs of distribution transformers,
- (c) **33 kV/22 kV/11 kV** substation layouts,
- ...
- ...
- (p) Clamps and connectors”

4. Section 4.6 (2) of the principal code shall be substituted as under:

“4.6 (2)

The Distribution Licensee shall carry out energy audit of his total system compiling the data and analysis carried out in each responsibility centre in the best possible manner. The energy received from each substation shall be measured at the **33 kV/22 kV/11 kV** terminal switchgear of all the outgoing feeders installed with appropriate energy meters such that the energy supplied to the each feeder is accurately available. It shall be compared with the corresponding figures of monthly energy sales and the distribution loss for each feeder shall be worked out. In case the Distribution Licensee has adopted ring main system at **33 kV/22 kV/11kV** and there is difficulty in determining the distribution losses for each feeder, then the Distribution Licensee shall work out distribution losses for the overall Area of Supply.”

Amendment to Section 5 of the principal code:

5. Section 5.5 (3) of the principal code shall be substituted as under:

“5.5 (3)

EHT/HT Consumers: The supply voltage may be 220kV/ 132kV/ 66kV/**33 kV/ 22 kV** or 11 kV or voltage as agreed by the Distribution Licensee. The substations shall be owned by the Users. The boundary shall be the feeder entry in the premises of the Users or when so provided it shall be the busbar between breakers of the Distribution Licensee and the EHT/ HT Consumers.”

Amendment to Section 6 of the principal code:

6. Section 6.8 (3) of the principal code shall be substituted as under:

“6.8 (3)

The voltage in the Distribution System may vary depending upon the available generation, system demand, and the configuration of Transmission and Distribution Systems at any time. Under normal operating conditions the Licensee shall exercise proper voltage management in the Distribution System beyond the point of connection with the Transmission System to maintain voltage at all levels according to the quality of supply mentioned in the Distribution System Planning and Security Standard as mentioned under Attachment –1 of this code. The capacitors, wherever available in the 33/22/11 kV substations shall be operated to maintain reactive compensation to be within acceptable limits of power factor of at least 0.9 keeping the bus voltage in view.”

7. Section 6.10 (4) of the principal code shall be substituted as under:

“6.10 (4)

The Users shall maintain their Apparatus and Power Lines at all times conforming to *Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 as amended from time to time and other applicable Regulations* which are in force for time being and will be replaced by new rules made under Electricity Act, 2003 and shall be suitable for being connected to the Distribution System in a safe and reliable manner.”

Amendment to Section 7 of the principal code:

8. Section 7.2 (1) of the principal code shall be substituted as under:

“7.2 (1)

1 The minimum requirement of operational metering at Distribution System

substations shall be as follows:

(a) 66kV/ 22kV or 66kV/ 11kV or 33/11 kV substation

- 66/ 33 kV bus voltage
- 33/ 22 / 11kV bus voltage
- 66 / 33 kV incoming / outgoing current in each phase and each circuit

- Power transformer primary and secondary currents in each phase of every transformer.
 - 33/22 / 11 kV outgoing feeder current in each phase for each feeder.
 - Power factor in each 22 / 11 kV feeder.
 - Load survey meters having memory duration of at least 45 days for all the incoming and outgoing feeders (both 66 / 33 kV, 33/11 kV and 22 / 11 kV).
 - Facility to record energy in MWH and frequency at interval of 15 minutes at point of connection with Transmission Licensee.
- (b) User's System with Demand of 1 MW and above
- Voltage
 - Current
 - Load
 - Power Factor
 - Energy”

9. Section 7.5 (3) of the principal code shall be substituted as under:

“7.5 (3)

The settings of protective relays for 33 kV, 22 kV and 11 kV lines shall be such that a fault in any section does not affect the section between the generating unit and the faulty section under all conditions. The Transmission Licensee shall notify the initial settings and any subsequent changes to the Users from time to time. Routine checks on the performance of the protective relays shall be conducted and any malfunction shall be noted and corrected as soon as possible. Short circuit studies required for deciding the relay settings shall be conducted by the Licensee with the data collected from the Transmission Licensee and the Users. Representatives of the Generating Companies, Transmission Licensees and Distribution Licensees shall meet periodically to discuss such malfunctions, changes in the system configuration, if any, and possible revised settings of relays.”

10. Section 7.5 (7) of the principal code shall be substituted as under:

“7.5 (7)

Distribution lines: - All the 33 kV, 22 kV and 11 kV lines at Connection Points / Interface Points shall be provided with a minimum of over current and earth fault relays as follows:

(a) Plain radial feeders: Non-directional time lag over current and earth fault relays

with suitable settings to obtain discrimination between adjacent relay settings.

(b) Parallel/ring feeders: Directional time lag over current and earth fault relay.”

Amendment to Section 9 of the principal code:

11. Section 9.3 (1) of the principal code shall be substituted as under:

“9.3 (1)

All reportable incidents occurring in the lines and equipments of 11 kV and 22 kV *and 33 kV* substations shall be promptly reported orally by the Licensee whose equipment has experienced the incident, to all other significantly affected Users identified by the Distribution Licensee and the Transmission Licensee. The reporting Distribution Licensee should submit a written report to the Transmission Licensee within one hour of such oral report. If the reporting incident is of major nature, the written report shall be submitted within two hours duly followed by a comprehensive report within 48 hours of the submission of the initial written report. In other cases, the reporting Distribution Licensee shall submit a report within five working days to the Transmission Licensee.”

Amendment to Attachment - 1 of the principal code:

12. Attachment – 1 (5) (1) of the principal code shall be substituted as under:

“Attachment – 1 (5) (1)

The service area of a distribution network is an area in which the load is supplied by a substation by one or more number of feeders, as required. The distribution network fed from the distribution transformers and the substations from which the *33 kV/22 kV/11 kV* feeders emanate shall be initially planned as independent networks within their respective service area. Further, wherever possible, provision shall be made for interconnection with adjacent networks and/or substations for an alternate supply in case of failure. The design of distribution lines shall incorporate features to enable their augmentation in future, with minimum interruption to power supply. The existing right of way shall be fully exploited.”

13. Attachment – 1 (7) (2) of the principal code shall be substituted as under:

“Attachment – 1 (7) (2)

The following factors, which affect reliability indices, shall be considered subject to availability of data:

- (a) Momentary incoming supply failures
- (b) Momentary interruptions on **11 kV, 22 kV and 33 kV** feeders
- (c) Breakdown on LT feeders
- (d) Prearranged shutdowns on lines and feeders
- (e) Blowing out of distribution transformer fuses
- (f) Individual fuse off calls.”

14. Attachment – 1 (13) (7) of the principal code shall be substituted as under:

“Attachment – 1 (13) (7)

In case of single contingency; failure of any substation equipment controlling any outgoing **33 kV/22 kV/11 kV** feeder, the load interrupted shall not generally exceed 50% of the total demand on the substation. The Distribution Licensee has to bring it down to 20% within a period of three years.”

-Sd-

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Date-09/05/2017