



**NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
PERFORMANCE STANDARDS (DISTRIBUTION)
REGULATIONS, 2021**

Islamabad, the -----, 2021

NOTIFICATION

S.R.O...../2021. — In exercise of the powers conferred by Section 47 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997) read with Section 34 thereof, the National Electric Power Regulatory Authority is pleased to make the following Regulations namely: —

**PART I
PRELIMINARY**

1 Short title and commencement.—(1) These Regulations may be called the National Electric Power Regulatory Authority Performance Standards (Distribution) Regulations, 2021.

(2) These shall come into force at once.

2 Definitions.—(1) In these regulations, unless there is anything repugnant in the subject or context,—

- (a) "Authority" means the National Electric Power Regulatory Authority established under Section 3 of the Act;
- (b) "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);
- (c) "connection" means the provision of electric power supply services;
- (d) "Force Majeure" means an act of God that is reasonably not foreseeable by a distribution company or a force or cause beyond the reasonable control of a distribution company;

Explanation: Events such as an earthquake, explosion, riot, floods, hurricane that result in exceeding the design parameters of the equipment or other calamity of catastrophic nature whose timing, duration, and extent of the impact cannot reasonably be foreseen or quantified by the distribution company may be considered as a Force Majeure condition.

- (e) “kV” means kilo-volts or 1,000 volts;
- (f) “Load Shedding” means the process of deliberately removing either manually or automatically pre-selected consumer’s load demand from the power system as per scheduled program on a rotating and proportionate basis for each class of consumers notified earlier by a distribution company;
- (g) "Long Duration Power Supply Interruption" means loss of electric supply to one or more consumers for a duration of more than three minutes;
- (h) “NTDC” means the National Transmission and Dispatch Company;
- (i) "Operator" means a person authorized by the distribution company to operate its electrical facilities;
- (j) "Planned Power Supply Interruption" means planned or scheduled outage of electrical supply to one or more consumers;
- (k) “Point of Outage” means the point in the distribution system of a distribution company beyond which electric service is interrupted including without limitation grid station, 11 kV feeders, 400/230 volts line and transformer;
- (l) “Power Supply Interruption” means loss of electric supply to one or more consumers;
- (m) “Short Duration Power Supply Interruption” means loss of electric supply to one or more consumers for a duration of three minutes or less excluding momentary interruptions of duration less than one second;
- (n) “rural area” means the area falling within the jurisdiction of all rural local bodies including without limitation union councils, tehsil councils and zila councils;
- (o) "Step Potential" means difference of voltage between the steps of an Operator, human being or animal coming in contact or operating electrical facilities of a distribution company;
- (p) “System Average Interruption Duration Index (SAIDI)" means the average duration of consumer Power Supply Interruptions per consumer occurring in a given year, determined by dividing the aggregated sum of all consumers power supply interruption durations in minutes by the total number of consumers served

by a distribution company in a given year;

- (q) “System Average Interruption Frequency Index (SAIFI)” means the average frequency of Consumer Power Supply Interruptions per consumer occurring in a given year, calculated by dividing the total annual number of Consumer Power Supply Interruptions by the total number of consumers served by a distribution company in the respective year;
 - (r) “urban area” means the area falling within the jurisdiction of all urban local bodies or development authorities including without limitation to committees, municipal committees, municipal corporations, metropolitan corporations and cantonment boards;
 - (s) “electric power service” includes generation, transmission, distribution, supply, sale or trading of electric power and all other services incidental thereto;
 - (t) “electric power supplier” means a person who has been granted a license under the Act to undertake supply of electricity; and
 - (u) “year” or “annual” means the period of twelve months beginning on the 1st day of July and ending on the 30th day of June.
- (2) The words and expressions used but not defined in these regulations shall have the meaning assigned to them in the Act.

PART II

GUARANTEED STANDARDS OF PERFORMANCE

3 Guaranteed Standards of Performance. —(1) A distribution company shall implement Guaranteed Standards of Performance for each and every individual consumer as specified in sub-regulation (3).

(2) In the event of Planned Power Supply Interruptions, a written notice shall be served by the distribution company to all affected consumers at least forty-eight hours in advance of any such planned interruption excluding defense establishments where Planned Power Supply Interruptions shall only be taken through mutual agreement. Where the consumers’ mobile number or email addresses are available with the distribution company, the notice of any planned interruption shall also be sent through a text message or electronic mail to the consumers in addition to any other modes employed by the distribution company to serve the notice.

(3) The following Guaranteed Performance Standards (GS1 to GS5) shall apply to Long Duration Power Supply Interruptions (duration lasting more than three minutes). Whereas, the following Guaranteed Performance Standard (GS6) shall apply to Short Duration Power Supply Interruptions (duration lasting less than or equal to three minutes).

(a) Guaranteed Standard 1 – Restoration following Unplanned Long Duration Power Supply Interruptions (GS1U & GS1R):

Urban Consumers (GS1U) and Rural Consumers (GS1R)

In the case of an unscheduled or unplanned Power Supply Interruption, a distribution company shall restore the supply of power to all affected consumers within the time limits specified below namely: —

Consumers in urban areas (GS1U). 10Hours*

Consumers in rural areas (GS1R). 16 Hours*.

Explanation:

* The time period shall commence from the time when the first affected consumer reports a Power Supply Interruption, or when the distribution company's automatic equipment indicates, or should have indicated, whichever is the sooner, a Power Supply Interruption.

(b) Guaranteed Standard 2 - Maximum Number of Unplanned Long Duration Power Supply Interruptions (GS2)¹:

In the event of an unscheduled or unplanned Power Supply Interruption, a distribution company shall ensure that supply of electricity to consumers is not interrupted, on an annual basis, more frequently than the limits specified below, namely: -

Consumers receiving supply at:	132/66 kV and above	33/11 kV	400/230 Volts.	
			Urban	Rural
Maximum number of interruptions for each individual consumer per annum (GS2).	6	30	60	80

(c) Guaranteed Standard 3 - Duration of Unplanned Long Duration Power Supply Interruptions (GS3)²:

In the event of an unscheduled or unplanned Power Supply Interruption, a distribution company shall ensure that supply of electricity to consumers is not interrupted, on an annual basis, for an aggregated duration greater than the limits specified below, namely:-

Consumers receiving supply at:	132/66 kV and above	33/11 kV	400/230 Volts	
			Urban	Rural
Maximum interruption aggregated duration** (Hours) for each individual consumer per annum (GS3).	26	44	88	175 240***

Explanation:

** Aggregated duration for a consumer shall be computed by adding the duration of all Power Supply Interruptions for that consumer in a given year.

*** This limit shall apply to K-Electric Electric Limited (KEL) only.

1, 2 Power Supply Interruptions resulting from the load shedding carried out by the distribution company due to the distribution system overloading or inadequacies shall be included in the calculation of GS2 through GS5.

(d) Guaranteed Standard 4 - Maximum Number of Planned Long Duration Power Supply Interruptions (GS4) ³:

A distribution company shall not exceed the annual number of scheduled or Planned Power Supply Interruptions of any consumer as specified below, namely: —

Consumers receiving supply at:	132/66 kV and above	33/11 kV	400/230 Volts	
			Urban	Rural
Maximum number of Planned Interruptions for each individual consumer per annum (GS4).	4	8	16	16

(e) Guaranteed Standard 5 - Duration of Planned Long Duration Power Supply Interruptions (GS5) ⁴:

In the event of a scheduled or Planned Power Supply Interruption, a distribution company shall ensure that supply of electricity to consumers is not interrupted, on an annual basis, for an aggregated duration greater than the limits specified below, namely: —

Consumers receiving supply at:	132/66 kV and above	33/11 kV	400/230 Volts	
			Urban	Rural
Maximum interruption aggregated duration* (Hours) for each individual consumer per annum (GS5).	36	64	80	96

Explanation:

* Aggregated duration of a Planned Power Supply Interruption for a consumer shall be computed by adding the duration of all Power Supply Interruptions for that consumer in a given year. For each Planned Power Supply Interruption, the distribution company shall make efforts that the supply to consumers is not disconnected before 6am and is restored by 5pm, in winter, during the period the 16th October to the 15th April; and is not disconnected before 5am and is restored by 6pm, in summer, during the period the 16th April to the 15th October or any other convenient time to the consumers.

3, 4 Power Supply Interruptions resulting from the load shedding carried out by the distribution company due to the distribution system overloading or inadequacies shall be included in the

calculation of GS2 through GS5.

(f) Guaranteed Standard 6 - Maximum Number of Unplanned Short Duration Power Supply Interruptions (GS6):

In the event of an unscheduled or unplanned Short Duration Power Supply Interruption (duration lasting less than or equal to three minutes) a distribution company shall ensure that supply of electricity to consumers is not interrupted, on an annual basis more frequently than the limits specified below, namely: —

Consumers receiving supply at:	132/66 kV and above	33/11 kV	400/230 Volts	
			Urban	Rural
Maximum number of unplanned Short Duration Power Supply Interruptions for each individual consumer per annum (GS6).	4	140	275	300

PART III

OVERALL STANDARDS OF PERFORMANCE

4 Overall Standards of Performance.—In addition to Guaranteed Standards of Performance to individual consumers, the following Overall Standards of Performance shall provide the underlying indicators of assessment of supply reliability, quality of supply, and safety of electric power supply that a distribution company provides to its consumers. In addition, these Standards shall also provide time required for a connection to a new consumer; and principles and priorities of the Load Shedding for distribution companies.

(a) Overall Standard 1- System Average Interruption Frequency Index (OS1):

A distribution company shall ensure that the System Average Interruption Frequency Index (SAIFI) of supply of power per consumer per annum does not exceed the limit as determined by the Authority on annual basis. The limit shall be determined by the Authority on the basis of 5% reduction over the mean value of five years historical data of SAIFI.

$$\text{System Average Interruption Frequency Index* (SAIFI)} = \frac{\text{Total annual number of all Consumer Power Supply Interruptions}}{\text{Total number of consumers served by the distribution company in a given year}}$$

Explanation:

* In the calculation of SAIFI (OS1) any Power Supply Interruption on the distribution system of a distribution company caused due to the outage of a transmission (220 kV and above) or generation facility OR another licensee's (other than the distribution company) system facility (planned or unplanned interruption) shall not be accounted for.

(b) Overall Standard 2 - System Average Interruption Duration Index (OS2):

A distribution company shall ensure that the System Average Interruption Duration Index (SAIDI) of supply of power per consumer per annum does not exceed the limit as determined by the Authority on annual basis. The limit shall be determined by the Authority on the basis of 10% reduction over the mean value of five years historical data of SAIDI.

$$\text{System Average Interruption Duration Index* (SAIDI)} = \frac{\text{Aggregate sum of all Consumer Power Supply Interruption durations in minutes}}{\text{Total number of consumers served by the distribution company in a given year}}$$

Explanation:

* In the calculation of SAIDI (OS2), any Power Supply Interruption on the distribution system of a distribution company caused due to the outage of a transmission (220 kV and above) or generation facility OR another licensee's (other than the distribution company) system facility (planned or unplanned interruption) shall not be accounted for.

(c) Overall Standard 3- Time Frame for New Connections (OS3):

A distribution company shall provide electric power service to at least 95% of new connections to its eligible consumers as specified in the Consumer Eligibility Criteria laid down by the Authority pursuant to section 21(2) (b) of the Act in each of the following categories within the time limits specified below from the date of application for new connection, namely: —

Sr. No.	Description	Time-limit for issuance of demand notice after receipt of application	Time-limit for provision of connection after payment of demand notice.
1.	For supply at voltage level upto 400 V and load upto 15 kW	10 days	20 days
2.	For supply at voltage level upto 400 V and load above 15 kW but not exceeding 70 kW.	10 days	34 days
3.	For supply at voltage level upto 400 V and load above 70 kW but not exceeding 5000 kW	12 days	46 days
4.	For supply at voltage level 11 or 33 kV and load above 500 kW but not exceeding 5000 kW	30 days	76 days
5.	For supply at voltage level 66 kV and above for all loads.	45 days	451 days

Explanation:

“In case the distribution company does not take the required action within the stipulated time prescribed in the above table, the distribution company shall have to give reasons for each day delay in writing to the consumer with a copy to the Authority; the Authority may accept or reject such reasons. However, the delay shall not absolve the distribution company from the obligation to complete the required action (*i.e.* issuance of demand notice or provision of connection, as the case may be)”.

(d) Overall Standard 4- Nominal Voltages (OS4):

- (i) A distribution company shall supply power to at least 95% of its consumers within the range of $\pm 5\%$ of the nominal voltage.
- (ii) The following nominal voltages shall be used for the distribution system of a distribution company, namely: —
 - (a) 400/230 Volts
 - (b) 11 kV
 - (c) 33 kV
 - (d) 66 kV
 - (e) 132 kV
 - (f) 220 kV (if applicable)

(e) Overall Standard 5- Frequency (OS5):

- (i) A distribution company shall supply power to its consumers within the frequency range of 50 ($\pm 1\%$) Hz.
- (ii) The company shall supply electric power to its consumers of the power quality in accordance with the IEEE Standard 519-1992 pertaining to harmonic content.

(f) Overall Standard 6 - Priorities and Principles of Load Shedding (OS6):

- (i) A distribution company shall have plans and schedules available to shed up to 30% of its connected load at any time upon instruction from NTDC. This 30% load must be made up from separate blocks of switchable load, which can be disconnected in turn at the instruction from NTDC. A distribution company shall provide copies of these plans to NTDC.
- (ii) Wherever possible NTDC shall give distribution companies advance warning of impending need for load shedding to maintain system voltage and/or frequency in accordance with the Grid Code.
- (iii) As per the provisions of the Grid Code, NTDC shall maintain an overview and as required instruct each distribution company the quantum of load to be disconnected and the time of such disconnection. This instruction shall be given in clear, unambiguous terms and related to prepared plans.
- (iv) When instructed by NTDC, the distribution companies shall shed the load in the following order, namely: —
 - (a) Supply to dedicated feeders serving residential or commercial consumers;
 - (b) Supply to common feeders primarily serving residential and commercial

consumers;

- (c) Supply to common feeders primarily serving agriculture consumers;
- (d) Supply to common feeders primarily serving industrial consumers;
- (e) Supply to dedicated feeders serving agriculture consumers;
- (f) Supply to dedicated feeders serving industrial consumers;
- (g) Supply to dedicated feeders serving schools and hospitals.
- (h) Supply to defense and strategic installations.

Explanation:

For the purposes of this clause, a feeder is 'primarily' serving a consumer category where more than fifty percent (50%) of its load is being allocated to that consumer category.

- (v) A distribution company shall prepare the sequence of load shedding operations and detailed procedure in accordance with the priority order of consumer groups outlined in clause (iv) above and shall ensure:-
 - (a) Rotational load shedding in discrete blocks within an area of supply; and
 - (b) Equitable treatment of consumers falling within a consumer group outlined in clause (iv) above.

(g) Overall Standards 7 - (Safety (OS7):

- (i) All distribution facilities of a distribution company shall be constructed, operated, controlled and maintained in a manner consistent with the Distribution Code, Power Safety Code, Consumer Service Manual, and other applicable documents.
- (ii) A distribution company shall prepare and implement a comprehensive construction manual in accordance with approved standards based on relevant international standards like IEC, IEEE, ASI and sound engineering technical principles for construction of distribution system. In particular, due regard shall be given to following:
 - a) Standard clearance of all voltage lines up to 132kV (vertical as well as horizontal) from grounds, buildings, from each other, railway crossing, road crossing etc.
 - b) List and use of standard overhead HT/LT conductors, and underground cables
 - c) Proper procedure for laying HT/LT underground cables

- d) Procedure for proper erection of HT/LT structures
 - e) Preparation of site safety plan
 - f) Proper use of T&P and PPE
 - g) Proper foundation of structure and PC poles
 - h) Procedure for proper installation and earthing of structure and distribution transformer and other electrical equipment
- (iii) A distribution company shall ensure that its distribution facilities do not cause any leakage of electrical current or step potential beyond a level that can cause harm to human life, as laid down in the relevant IEEE/IEC Standards; prevent accessibility of live conductors or equipment; and prevent development of a situation due to breakdown of equipment which results in voltage or leakage current that can cause harm to human life, property and general public including without limitation, employees and property of the distribution company.
- (iv) A distribution company shall plan, design, coordinate with NTDC, procure, install, operate and maintain its requisite protection system. The distribution company shall follow suitable and necessary provisions regarding protection system practices by designing protection schemes to cope with single element, double element failure or stuck breaker condition, by maintaining proper equipment protection and by providing proper earthing devices
- (v) A distribution company must ensure the earthing of a distribution transformer, the neutral and body of the transformer should be connected to ground rods as per IEC and PSI Standards Design Specifications. Earthing of Consumer Service and its meter shall be as per design standards adopted by the distribution company; and consistent with IEC and IEEE Standards. The earth resistance of the distribution transformers and HT/LT structures/poles shall not be more than 2.5ohm and 5ohm respectively.
- (vi) A distribution company shall implement suitable, necessary, and appropriate regulations, regulations and working practices, as outlined in its Distribution Code or applicable documents, to ensure the safety of its staff and members of the public. This shall also include suitable training for familiarity and understanding of the regulations, regulations, practices, and training to use any special equipment that may be required for such purposes including without limitation basic first aid training.
- (vii) A Safety Management System shall be developed by a distribution company specifying the principles and procedures to ensure the health and safety of persons working on the distribution system and at or across operational and ownership boundaries, general public and animals.
- (viii) A distribution company shall plan and develop its sub-transmission system and distribution system that should be capable of providing consumers with

a safe, reliable and efficient supply of electricity as per the requirements and provisions of Grid Code, Distribution Code, Performance Standards and Consumer Service Manual.

- (ix) A distribution company shall make every effort to protect the public at all times when work is in progress by the use of signs, barricades or personal warnings.
- (x) A distribution company shall make every effort to protect the life and property of public from any malfunction, fault or breakage in its system or equipment.

PART IV MISCELLANEOUS

5. Database and complaints mechanism: — (1) A distribution company shall maintain a computerized database system covering all Power Supply Interruptions. The database shall include for each occurrence the following information, namely: —

- (a) Date and time of occurrence of an outage;
 - (b) the point of an outage (interruption);
 - (c) the time at which the service is restored, allowing for staged restoration of a major interruption;
 - (d) total duration of interruption for each restoration stage;
 - (e) affected feeder and transformer code number;
 - (f) the number of connected consumers; and
 - (g) the number of consumers affected by each interruption;
- (2) Subject to the provisions of sub-regulation (3),—
- (a) a distribution company shall ensure that all consumer complaints are properly registered and accurately recorded;
 - (b) a distribution company shall establish complaint offices to facilitate consumers in lodging complaints which can be done by appearing personally or lodging the complaints telephonically or electronically;
 - (c) a toll-free telephone system shall be established to receive complaints; and

- (d) all complaints shall be immediately registered; and the complainant shall be informed by the distribution company of the reference number allotted to the complaint.
- (3) In case of a failure by a distribution company to comply with the provisions of sub-regulation (2), the distribution company shall be subject to fines and penalties under regulation 9:

Provided that the Authority may relax the application of this regulation on the basis of special circumstances or size of a particular distribution company.

6 Resolution of metering and billing disputes. — A distribution company shall ensure that any investigation and decision of dispute concerning metering, billing and electricity consumption charges are finalized within twenty one days of the filing of the complaint failing which it shall be immediately referred to the Provincial Offices of Inspection (POIs), established pursuant to section 38 of the Act. However, the disputed meter shall be inspected by the authorized distribution company personnel within five days of receipt of the particular complaint from the consumer.

7. Annual Performance Reports.—(1) Each distribution company shall supply to the Authority an Annual Performance Report every year, before the 31st of August of the succeeding year, in the Forms as set out in Annexure I to these Regulations.

(2) The Annual Performance Report shall contain all relevant information with respect to compliance with these Regulations during the year, including a comparison with the compliance reporting provided in the previous year to the Authority.

(3) The Annual Performance Report shall include as a minimum the following information, namely: —

(a) System Performance Reports:

The format for reporting performance is shown in Performance Standards Forms as set out in Annexure-I to these Regulations.

(b) Consumer Service Performance Reports:

The format for reporting performance is shown in Performance Standards Forms as set out in Annexure-I to these Regulations.

(c) Distribution Companies Written Report on Performance and Plans for Improvement:

This should be in the distribution company's own style but concentrating on:-

- (i) reasons for any poor performance against standards;
- (ii) worst served consumers;
- (iii) worst performing circuits;
- (iv) plans to improve the reported poor performance areas related to

- geography, investment plans or organizational change; and
- (v) expected performance improvements as a result of any investment.

8 Monitoring of standards.— (1) The Authority may, periodically or such intervals and incidents as deemed fit, monitor the compliance of each distribution company with these regulations;

(2) The Authority may send its teams in the field and verify the data submitted by a distribution company under requirement of above regulations;

(3) The Authority may conduct a performance audit of a distribution company every year in order to assess the technical health of distribution company

(4) The Authority may require the distribution company to undertake a performance audit at the distribution company's expense, for the purpose of monitoring the same.

9 Fines.—(1) Subject to section 27B of the Act and without prejudice to other powers of the Authority under the law including under section 28 of the Act, —

- (a) if a distribution company does not comply with any of these regulations except regulation 3, it shall be liable to pay fine which may extend to two hundred thousand rupees for each non-compliance; and in the case of a continuing non-compliance with an additional fine which may extend to one hundred thousand rupees for each day during which such non-compliance continues to take place; and
- (b) in case of non-compliance by a distribution company of the Guaranteed Performance Standards (GS1U, GS1R, GS2-GS6) as specified in regulation 3, the following penalty shall be payable by the distribution company to the Authority, namely: —

Sr. No.	Consumers receiving supply at:	132 kV and above	66 kV	33/11 kV	400/230 Volts
(1)	(2)	(3)	(4)	(5)	(6)
		Rs.	Rs.	Rs.	Rs.
1.	Penalty payment for each Guaranteed Performance Standard failure beyond the prescribed limit.	10,000	5,000	1,000	300
2.	For an excess of each additional complete six-hour period, beyond permissible limit, after a GS1U or GS1R or GS3 or GS5 Failure.	2,000	1000	1000	200
3.	For Every Additional Interruption Beyond the Permissible Limits after a GS2 or GS4 or GS6 Failure	2,000	1,000	500	200

(2) A distribution company shall ensure that payment of any fine becoming due under these regulations shall be paid to the Authority within one billing cycle of the distribution company becoming aware of the non-compliance through its own monitoring and recording systems or through the receipt of a consumer complaint to the distribution company or the Authority.

(3) The fines imposed under this regulation shall be indexed to the Consumer Price Index (“CPI”) published from time to time by the Federal Bureau of Statistics as provided in the NEPRA (Fees) Regulations, 2002.

10. Force Majeure. —(1) The fines shall not be imposed under these Regulations in case of non-compliance of Guaranteed Performance Standards under Force Majeure conditions; provided that the Authority has approved, upon a request from the distribution company, the exemption of the respective regulation for a specific event and for such period and time of circumstances.

(2) The application for exemption of some or all of these regulations shall be made by the distribution company as soon as the distribution company becomes aware of the need for such exemption and in any event within the delivery time of service of the Guaranteed Performance Standards.

(3) In the event that a distribution company wishes to claim an exemption due to Force Majeure for circumstances that increment an annual count of a particular Guaranteed Performance Standard, the distribution company shall declare, and intimate the occurrence to the Authority within fourteen days of such an occurrence.

(4) Force Majeure exemption shall not be applicable to Overall Standards as Force Majeure exemption is necessitated to cater for extreme, peculiar and unusual circumstances only.

11. Issuance of instructions.—For carrying out the purposes of these regulations, the Authority may issue specific instructions and guidelines to distribution companies in the form and manner determined by the Authority which shall be complied with by all distribution companies.

Form-1
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Guaranteed Standards-Unplanned Power Supply Interruptions Sheet 1

Consumer supply voltage	Total number of Unplanned Consumer Power Supply Interruptions	Number of urban Unplanned Consumer Power Supply Interruptions (GS1U)		Number of rural Unplanned Consumer Power Supply Interruptions (GS1R)	
		Restored within 10 hrs.	Extending beyond 10 hrs.	Restored within 16 hrs.	Extending beyond 16 hrs.
220 kV					
132 kV					
66 kV					
33 kV					
11 kV					
400/230 V					

Consumer supply voltage	Maximum permitted number of Unplanned Power Supply Interruptions for each individual consumer per annum (GS2)	Number of consumers whose number of Unplanned Power Supply Interruptions exceeded the maximum limit of GS2	Maximum permitted Aggregate duration of Unplanned Power Supply Interruptions for each individual consumer per annum. (hours) (GS3)	Number of consumers whose aggregate Unplanned Power Supply Interruption time exceeded the maximum limit of GS3
220 kV	6		26	
132 kV	6		26	
66 kV	6		26	
33 kV	30		44	
11 kV	30		44	
400/230 V Urban	60		88	
400/230 V Rural	80		175 (distribution company), 240 for KESC	

Form-2

CONSUMERS SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Guaranteed Standards- Planned Power Supply Interruptions
Sheet 2

Consumer supply voltage	Maximum permitted number of Planned Power Supply Interruptions for each individual consumer per annum (GS4)	Number of consumers whose Planned Power Supply Interruptions exceeded the maximum limit of GS4	Maximum Power Supply Interruption aggregate duration (Hours) for each individual consumer per annum (GS5)	Number of consumers whose aggregate Planned Power Supply Interruption duration exceeded the maximum limit of GS5
220 kV	4		36	
132 kV	4		36	
66 kV	4		36	
33 kV	8		64	
11 kV	8		64	
400/230 V Urban	16		80	
400/230 V Rural	16		96	

Form-3
CONSUMERS SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Guaranteed Standards- Unplanned Short Duration Power Supply Interruptions
Sheet 3

Consumer supply voltage	Maximum permitted number of short duration Power Supply Interruptions for each individual consumer per annum (GS6)	Number of consumers whose short duration Power Supply Interruptions exceeded the maximum limit of GS6
132/66 kV	4	
33 /11 kV	140	
400/230 V Urban	275	
400/230 V Rural	300	

Form-4
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Overall Standards- Average Power Supply Interruptions*
Sheet 4

Consumer supply voltage	Total number of consumers served by the distribution company in a given year	Total annual number of consumer Power Supply Interruptions**	SAIFI (OS 1) (4)=(3)/(2)	Aggregate Sum of all Consumer Power Supply Interruption Duration in Minutes***	SAIDI (OS 2) (6)=(5)/(2)
(1)	(2)	(3)	(4)	(5)	(6)
220 kV					
132 kV					
66 kV					
33 kV					
11 kV					
400/230 V					

* Calculation of SAIFI (OS1) and SAIDI (OS2) shall not include any power supply interruptions caused due to failure or outage (planned or unplanned) on the Generation and/or Transmission System (Owned by NTDC) or another Licensee's System.

** Total annual number of consumer's power supply interruptions shall be computed by summing the total number of consumers affected by each and every power supply interruption for all the power supply interruptions in a given year.

*** Aggregate sum of all consumer power supply interruption durations in minutes shall be computed by summing, for each and every power supply interruption, the product of total number of consumers affected by a power supply interruption and the duration of such power supply interruption in minutes.

Form-5
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Guaranteed Standards - Time Frame for New Connections*
Sheet 5

Eligible consumer's new power supply connection requirements (voltage and load level specific)	Time limit for issuance of demand notice after receipt of application	Time limit for provision of connection after payment of demand notice	Total number of eligible consumers who applied for a new connection	Total number of eligible consumers who were issued demand notice within permitted time (OS 3)	Total number of eligible consumers who were not issued demand notice within permitted time (OS 3)	Total number of eligible consumers who made payment of demand notice	Total number of eligible consumers who paid demand notice and were connected within the maximum permitted time period of OS3	Total number of eligible consumers who applied paid demand notice but did not receive connection within the maximum permitted time period of OS3
Voltage level up to 400 V and load up to 15 kW (Urban)	10 days	20 days						
Voltage level up to 400 V and load up to 15 kW. (Rural)	10 days	20 days						
Voltage level up to 400 V and load above 15 kW but not exceeding 70 kW.	15 days	38 days						
Voltage level up to 400 V and load above 70 kW but not exceeding 500 kW.	15 days	58 days						
Voltage level 11 kV or 33 kV and load above 500 kW but not exceeding 5000 kW.	30 days	76 days						
Voltage level 66 kV and above for all loads.	45 days	451 days						

* Time shall be counted from the date of registration of the application for a new connection till such time the consumer is provided the electric power supply. However, the limits of this standard shall not include any time required that is beyond the control of a distribution company.]

Form-6
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Overall Standards - Nominal Voltages Sheet 6

Consumers supply voltage (OS4)	Maximum permitted voltage level deviations	Number of consumers who requested their power supply voltage levels to be checked	Number of times where a remedial action followed a consumer request about his power supply voltage level check
220 kV (if applicable)	+/- 5%		
132 kV	+/- 5%		
66 kV	+/- 5%		
33 kV	+/- 5%		
11kV	+/- 5%		
400/230 V Urban	+/- 5%		
400/230 V Rural	+/- 5%		

Form-7
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Overall Standards - Frequency Sheet 7

Consumers frequency	Maximum permitted frequency deviations	Total number of consumers who requested their frequency levels to be checked	Total number of times where a remedial action followed a consumer request about his frequency level check
50 Hertz.	± 1%		

Form-8
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Overall Standards - Load Shedding Sheet 8

Priority group of consumers	Number of instances of actuation of load shedding (OS6)	Average duration of load shedding period (Hours)	Maximum duration of load shedding period (Hours)	Number of consumers affected in each priority group	Load (MW) interrupted due to load shedding in each priority group
Supply to dedicated feeders serving residential or commercial consumers					
Supply to common feeders primarily serving residential and commercial consumers					
Supply to common feeders primarily serving agriculture consumers					
Supply to common feeders primarily serving industrial consumers					
Supply to dedicated feeders serving agriculture consumers					
Supply to dedicated feeders serving industrial consumers					
Supply to dedicated feeders serving schools and hospitals					
Supply to defense and strategic installations					

Each instance of load shedding shall be individually reported on an immediate basis giving the following information:

- a) Reason for load shedding (Generation Shortage, Transmission Constraints, Voltage Outside Limits etc.).
- b) Start time and date of load shedding.
- c) End time and date of load shedding.
- d) Priority group of consumers affected.
- e) Numbers of consumers and load (MW) affected in each priority group.
- f) Measures taken to prevent recurrence (if applicable).

Form-9
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Overall Standards - Safety
Sheet 9

Type of incident	Number of electrical incidents	Average duration of absence from work	Longest duration of absence from work
Electrical incident resulting in death or permanent serious injury/disability to member of staff.			
Electrical incident resulting in injury to member of staff requiring hospital treatment or absence from work for five days or more.			
Electrical incident resulting in injury to member of staff requiring absence from work for 1-5 days.			
Electrical incident resulting in injury to member of staff not requiring absence from work.			
Electrical incident resulting in death or permanent serious injury/disability to member of the public.			
Electrical incident injuring member of the public involving distribution company's plant or equipment.			
Electrical incident injuring member of the public not involving distribution company's plant or equipment.			
Safety reports received on toll free telephone number			

Each electrical incident shall be individually reported on an immediate basis giving the following information:
Time and date of electrical incident, FIR lodged or not, names and occupation of persons involved, number of fatalities, extent of injuries, names and contact details of witnesses, distribution company's inquiry held or not, immediate action taken, and remedial actions proposed and/or taken or to be taken.

Form - 10
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
Consumer Formal Complaints Report
Sheet 10

Nature of complaint	Received in person	Received by telephone	Received electronically	Received in writing	Average time in hours to resolve a complaint	Longest time in hours to resolve a complaint
Price of electricity						
Reliability of supply						
Planned interruptions						
Supply voltage level						
New connection						
Safety						
Other						

Form - 11
CONSUMER SERVICE AND SYSTEM PERFORMANCE ANNUAL REPORT
System Performance
Sheet 11

System voltage	Total length of distribution system in service (km)	Total number of distribution system faults	Faults / km of Distribution system
220 kV (if applicable)			
132 kV			
66 kV			
33 kV			
11 kV			
400/230 V			

Note: Faults at Grid Station or Substations shall be included in the voltage level corresponding to the primary voltage of the Grid Station or Substation

