

Q.No	Question	Response	Skip-To
1.	<p>What kind of problems did you generally face in electricity supply during the last one-year.</p> <p><i>(Multiple answers possible)</i></p>	<p>Power supply failure 1 →</p> <p>Load shedding/scheduled / unscheduled outages 2 →</p> <p>Voltage fluctuations 3 →</p> <p>Metering Problems..... 4 →</p> <p>Billing Problems..... 5 →</p> <p>Delay in giving new connection/ disconnection/ load enhancement/ reduction..... 6</p> <p>Any other problems 7 →</p> <p>No Problem..... 8</p>	<p>Q. 4</p> <p>Q. 4</p> <p>Q. 4</p> <p>Q. 2</p> <p>Q. 3</p> <p>Q. 12</p>
2.	<p>ASK IF 4 IS CIRCLED IN Q1 (Metering Problem)</p> <p>What specific problems did you face relating to meter during last one year. <i>(Multiple answers possible)</i></p>	<p>New electronic meter or the old electro-mechanical meter 1</p> <p>Suspected fast running of electronic meter 2</p> <p>The meter reading is too high and not as per our actual consumption..... 3</p>	
3.	<p>ASK IF 5 IS CIRCLED IN Q1(Billing problem)</p> <p>Please tell about the billing problem you faced during last one year</p>	<p>Meters are read by the Discom Meter Reader</p> <p>Regularly 1</p> <p>Alternate billing cycle 2</p> <p>Occasionally/Rarely 3</p> <p>Can't say 4</p> <p>Bills are received on</p> <p>Generally on actual reading basis..... 1</p> <p>Seldom on Actual reading basis..... 2</p> <p>Generally on provisional/average basis 3</p> <p>Seldom on provisional/Average basis ... 4</p> <p>Bills generated by the Discom always reflect the meter reading and bill amount</p> <p>Incorrectly 1</p> <p>Correctly 2</p> <p>Sometime correctly 3</p> <p>Mostly Correctly 4</p> <p>Bills are always</p> <p>Delivered by the Discom 1</p> <p>Generally to be obtained personally in</p>	

		duplicate 2 To be obtained personally at least 2-3 time in a year 3 Bills are always received leaving: Clear 15 days time to deposit the amount 1 Only leaving 5-10 days 2 Less than 5 days 3 Never received leaving clear 15 days notice 4 Satisfaction level with billing Highly satisfied 1 Reasonably satisfied 2 Dissatisfied 3	
3A.	How often you face bill related problem	Always 1 Sometimes 2 Never 3	
4.	Do you register complaint, if there is any problem in your electricity supply	Yes 1 No 2 → Q.12	
5.	IF YES IN Q4, where do you register your complaint	Centralized Call Center 1 Nearly consumer Helpdesk/ Customer Care Centre in the area 2 Other (SPECIFY) _____	
6. (a) (b)	Have you lodged any complaint in the last 6 months? Was your complaint redressed by the Discom authorities?	Yes 1 No 2 Yes 1 No 2 → Skip to Q14	
7.	What was the problem at the time of last complaint?	
8.	How much time did they take to address your complaint?	On the same day 1 Less than a week 2 Between 7-15 days 3 About one month 4 More than a month 5 They never addressed our complaints .. 6	

9.	How Seriously your Discom takes your complaint?	Address it on first complaint..... 1 We need to file complaint many times... 2 They don't take it seriously at all..... 3			
10.	How satisfied you are with the complaint redressal system of your Discom. READ OUT	Not at all satisfied 1 Not Satisfied 2 Somewhat Satisfied 3 Satisfied..... 4 Very Satisfied 5			
11.	Why do you say so?			
12.	How much satisfied you are with the behaviour of the staff with whom you had interaction?	Not Satisfied 1 Somewhat Satisfied 2 Satisfied..... 3			
13.	Why do you say so?			
14.	Have you heard about Consumer Grievance Redressal Forum (CGRF)?	Yes 1 No..... 2	→ Q 16		
15.	Have you or anybody known to you made use of the forum and whether satisfied?	Yes 1 No..... 2			
16.	How successful you feel that your private Discom is?	Not successful 1 Somewhat successful 2 Very Successful 3			
17.	Where would you grade the performance of Discom on a scale of 1-10 in terms of satisfaction you obtain from their services	<table border="1" style="margin: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>			
18.	Were you more satisfied with the services of the earlier electricity supplier DESU/DVB Or you are more satisfied with the services of present private Discom	Satisfied with DESU/DVB 1 Satisfied with Private Discom..... 2			

ANNEXURE 2

EXTRACTS FROM DRAFT FINAL REPORT ON THE ELECTRICITY BILL, 2000

Electricity supply: performance in individual cases

35. (1) The State -Commission may, after consultation with distribution companies and with persons or bodies appearing to the state commission to be representative of persons likely to be affected, make regulations specifying such standards of performance in connection with the provision by such distribution companies of electricity supply services to consumers as, in its opinion, ought to be achieved in individual cases.

(2) Regulations under this section may specify the following.

Circumstances in which distribution companies are to inform consumers of their rights under this section; such standards of performance in relation to any duty arising under clause (a) as, in the Commission's opinion, ought to be achieved in all cases; and Circumstances in which distribution companies are to be exempted from any requirements of the regulations or of this section and may make different provision for different distribution companies.

(3) If a distribution company fails to meet a specified standard, it shall make to any person who is affected by the failure and is of a specified description such compensation as may be determined by or under the Regulations.

(4) The making of compensation under this section in respect of any failure by a distribution company to meet a specified standard shall not prejudice any other remedy which may be available in respect of the act or omission which constituted that failure.

Electricity supply: overall performance

36. (1) The State Commission may, after consultation with distribution companies, and with persons or bodies appearing to it to be representative of persons likely to be affected from time to time, determine such standards of overall performance in connection with the provision of electricity supply

services as, in its opinion, ought to be achieved by such distribution companies determine such standards of performance in connection with the promotion of the efficient use of electricity by consumers as, in its opinion, ought to be, achieved by such distribution companies arrange for the publication in such form and in such manner as it considers appropriate, of the standards so determined.

(2) Different standards may be determined under this section for different distribution companies and for different areas.

Information with respect to levels of performance

37. (1) The State Commission shall from time to time collect information with respect to compensation made by distribution companies under section 35; . levels of overall performance achieved by such distribution companies in connection with the provision of electricity supply services; and levels of performance achieved by such distribution companies in connection with the promotion of the efficient use of electricity by consumers.

One of the key characteristics of the electricity distribution business is the universal service obligation, that is, distribution services have to be both accessible and affordable to all citizens. In addition, electricity distribution networks also constitute an important part of a society's infrastructure and have a high impact on many of its basic functions. In addition, the customers' expectations concerning the quality of the distribution services are becoming more and more demanding. In general, regulation should give incentives to investments that (1) minimize the total costs of network operation and (2) are necessary to ensure the quality of electricity supply. In addition, it is also important that regulation encourages innovations, both organizational and technological, in order to maintain investors' interest in the electricity distribution business.

ANNEXURE 3

SAIFI, SAIDI, MAIFI are some of the indices used to measure distribution system reliability. Before explaining them, a little on the subject of reliability. Reliability can be defined as the ability of the power system components to deliver electricity to all points of consumption, in the quantity and with the quality demanded by the consumer. Reliability is often measured by the outage indices defined in one international standard called IEEE 1366. (Reliability monitoring is discussed later) These outage indices are based on the duration of each power supply interruption and the frequency of interruptions. It is clear that all three major functional components of the power system – generation, transmission and distribution contribute to reliability. As far as the consumer is concerned, transmission and distribution outages are important. In fact, surveys (in developed countries) show that 80-90% of the outages experienced by consumers are caused by distribution outages.

A power supply outage is an unplanned event and can be described in terms of the frequency, duration and amount of load (or consumers) affected. **A momentary outage is defined as an outage lasting less than 5 minutes, corresponding to the time taken by automatic re-closure schemes to restore temporary faults; a sustained outage lasts longer than 5 minutes** (in many developed countries). IEEE standard 1366 gives the definition for outage indices. These indices are calculated using details of consumer interruptions collected from past year's or several year's data. Definitions of few of the indices are given below:

System Average Interruption Frequency Index (SAIFI)

SAIFI is a measure of how often an average customer loses supply during one year. SAIFI is the average number of sustained interruptions per consumer during the year. It is the ratio of the annual number of interruptions to the number of consumers.

SAIFI = (Total number of sustained interruptions in a year) / (Total number of consumers)

$$\text{SAIFI} = \sum P_i / P_{\text{total}}$$

(where P_i = Power interrupted)

SAIFI of 3 means that the average customers connected to the feeder or supply area being measured on average lost supply thrice during the past 12 months. In most of the enveloped countries the average SAIFI range from 0.5 to 5.0 interruptions per year.

System Average Interruption Duration Index (SAIDI)

SAIDI is the average duration of interruptions per consumers during the year. It is the ratio of the annual duration of interruptions (sustained) to the number of consumers. If duration is specified in minutes, SAIDI is given as consumer minutes.

SAIDI = Total duration of sustained interruptions in a year/ Total number of consumers

$$\text{SAIDI} = [\sum P_i \times T_i / P_{\text{total}}] \div 60$$

(where T_i = Duration of interruption in minutes)

A SAIDI of 200 minutes means that customers connected to the feeder or supply area being measured experience in average 200 minutes off supply in 12 months. A value of 120 minutes is generally the SAIDI figure for various countries.

A North American survey showed SAIFI figure of 1.1 (indicating 1.1 interruptions/ year/ consumer) and SAIDI of 1.5 hours. Singapore is reported to have a SAIDI of 3 minutes.

For comparison, the NDPL tariff submission for 2005-6 gives SAIDI figure of 38 hours for 2003-4 and a target of 30 hours for 2004-5. SAIFI and SAIDI are the most used pair of reliability indices.

Consumer Average Interruption Frequency Index (CAIFI)

CAIFI is the average number of interruptions for consumers who experience interruptions during the year. It is the ratio of the annual number of interruptions to the number of consumers affected by interruptions during the year. Consumer is counted only once regardless of the number of interruptions.

CAIFI = Total number of sustained interruptions in a year/ Total number of consumers affected

Consumer Average Interruption Duration Index (CAIDI)

CAIDI is the average duration of an interruption, calculated based on the total number of sustained interruptions in a year. It is the ratio of the total duration of interruptions to the total number of interruptions during the year.

CAIDI = Total duration of sustained interruptions in a year/ Total number of interruptions

It can also be seen that CAIDI = SAIDI/SAIFI

Momentary Average Interruption Frequency Index (MAIFI)

MAIFI is the average number of momentary (less than 5 minutes) interruptions per consumer during the year. It is the ratio of the annual number of momentary interruptions to the number of consumers.

MAIFI = (Total number of momentary interruptions in a year) / (Total number of consumers)