

Performance Award Scheme for Distribution Companies (Consideration year 2010-11)

1.0 Preamble

This scheme has been formulated in which the awards are proposed to be given to the three best performing Distribution Companies in the country on the basis of predefined specific criteria.

2.0 Objective

The electricity distribution sector has been identified as a key area for the improvement of economy of the whole country. This Award scheme is intended to promote, encourage and recognise the efforts of the distribution companies to improve the efficiency of electricity distribution system in their area of supply.

3.0. Nature of Award

Three best performing distribution companies in the country will be awarded with shields (Gold, Silver and Bronze respectively) in recognition of their performance improvement as follows:

Their performance would be judged on the basis of the evaluation criteria laid down in **Annexure-I**. These parameters would be reviewed based on the progress made by the distribution company in respect of improvement of their electricity distribution system to make it viable. The parameters would be valid till the same are modified by Central Electricity Authority (CEA).

4.0 Eligibility

All the distribution companies having valid electricity distribution license by the Appropriate Electricity Regulatory Commission (ERC) engaged in the business of electricity distribution for consumers, are eligible for award. Further the Distribution Companies having AT&C losses 30% or less shall be eligible for award. For the eligibility of award a company must be supplying to at least 50% of their consumers at low voltage level.

5.0 Evaluation Criteria

5.1 The evaluation criteria shall be based on the following parameters:

<u>Parameter</u>	<u>Maximum Marks</u>
* AT&C loss reduction	50
* Financial turn around	20
* Metering of consumers	10
* Reliability of supply	15
* Functional performance	05
Total marks	100

- 5.2 In case partial data is received from any distribution company no marks shall be assigned to the parameter for which full data is not received.
- 5.3 These parameters have been further sub-divided into various factors as detailed in **Annexure-I**. The evaluation shall be made on the basis of the criteria given in **Annexure-I**.

6.0 Data Requirement

The distribution companies shall submit the data in the prescribed proforma as per **Annexure-II** to CEA by the specified date.

7.0 Time Schedule for Submission of Data

The year for which award is being considered shall be referred as the consideration year.

Last date for submission of data for award for the consideration year 2010-11 is 31th August, 2011 unless extended.

8.0 Nodal Division

All correspondence pertaining to the scheme shall be made to:

Chief Engineer (DP&D)
Central Electricity Authority
6th Floor (North Wing), Sewa Bhawan, R.K. Puram-I
New Delhi-110606
Tele Fax 011-26102793, FAX 011-26197267
011-29943257(R) , Mobile No.9868913762

Email cedpdcea@yahoo.co.in
award201011@gmail.com

ANNEXURE-I

Evaluation Criteria for Award Scheme for Best Performing Distribution Companies (Consideration year 2010-11)

Qualifying Bench Mark for the Award: -

- i) Only those distribution companies who have 30% (here in after termed as Maximum limit of AT&C losses) or less AT&C losses in the year 2010-11 shall qualify for the scheme
- ii) For the eligibility of award a company must be supplying to at least 50% of their consumers at low voltage level.

1. AT&C Losses: Maximum marks - 50

The marks shall be based on i) Percentage value of AT&C Losses ii) Percentage reduction in AT&C losses compared to previous year (i.e. in 2010-11 as compared to 2009-10).

1.1 Percentage AT&C Loss (in the consideration year 2010-11) Maximum marks - 25

Based on the eligible proposals received, their percentage AT&C losses would be listed. Utility having the minimum percentage AT&C loss would be awarded a maximum of 25 marks. Example is as under:

Utility	AT&C loss
A	16%
B	20%
C	14%
D	15%
E	25%

Utility C having the minimum AT&C loss of 14% would get 25 marks. Rest of the utilities would be awarded marks on proportionate basis as explained below:

Marks awarded = Max Marks x (Max Limit % AT&C Loss – Utility's %AT&C Loss)/ (Max Limit of % AT&C Loss – Minimum value of % AT&C loss in the range)

Example:	Utility	Marks
	A =	$25 \times (30-16)/(30-14)=21.875$
	B =	$25 \times (30-20)/(30-14)=15.625$
	D =	$25 \times (30-15)/(30-14)=23.438$
	E =	$25 \times (30-25)/(30-14)= 7.813$

1.2 Percentage AT&C Loss Reduction in Consideration Year as Compared to Previous Year

Under this criterion there shall be two categories as follows:

A: Distribution Company having AT&C loss 15% or below (in consideration year 2010-11)

- a) Company achieving maximum percentage loss reduction in consideration year over the previous year would get 25 marks. Rest to be awarded marks on proportionate basis in the range of 20-25.
- b) Utility with negative percentage point reduction up to 0.5% would get 10 marks

Example:

Utility	AT&C loss in 2009-10	AT&C loss in 2010-11	Percentage Point reduction in AT&C loss	% Reduction in AT&C loss
	(X ₁)	(X ₂)	(X ₁ - X ₂)	(X ₁ - X ₂) * 100 / (X ₁)
A	11	10	1	9.09
B	15	10	5	33.33
C	8.5	9	-0.5	-5.88
D	8	9.8	-1.8	-22.50
E	13	9.6	3.4	26.15
F	8.7	9	-0.3	-3.45

Utility B achieving highest percentage loss reduction in consideration year over the previous year will get full 25 marks, Utilities C and F with negative loss reduction, within the limit of 0.5 percentage point reduction will get 10 marks, Utility D will get zero marks as negative percentage point reduction is beyond 0.5 percentage point and other utilities would be awarded marks on pro-rata basis as under:

Marks awarded = 20 + 5 x (utility % loss reduction – minimum % loss reduction) / (maximum % loss reduction – minimum % loss reduction)

Example:

Utility	Marks
A	= 20 + 5x (9.09-9.09)/(33.33 -9.09) =20
E	= 20 + 5 x (26.15-9.09)/(33.33 -9.09)=23.52

B: Distribution Company having AT&C loss above 15% and upto 30% in consideration year 2010-11.

- (i) Distribution company achieving maximum percentage loss reduction in consideration year over the previous year would get 25 marks. Rest of

the utilities to be awarded marks on proportionate basis in the range of 20-25.

Utility	Percentage AT&C loss in 2009-10 (X_1)	Percentage AT&C loss in 2010-11 (X_2)	% Reduction in AT&C loss $(X_1 - X_2) * 100 / (X_1)$
A	18	18	0
B	25	20	20.00
C	18	15	16.67
D	19	16	15.79
E	30	25	16.67

Distribution company B achieving highest percentage loss reduction in consideration year over the previous year will get full 25 marks, marks for other utilities would be awarded on pro-rata basis as under:

Marks awarded = $20 + 5 \times (\text{utility \% loss reduction} - \text{minimum \% loss reduction}) / (\text{maximum \% loss reduction} - \text{minimum \% loss reduction})$

Utility	Marks
A	= $20 + 5 \times (0.00 - 0.00) / (20.00 - 0.00) = 20.00$
C,E	= $20 + 5 \times (16.67 - 0.00) / (20.00 - 0.00) = 24.16$
D	= $20 + 5 \times (15.79 - 0.00) / (20.00 - 0.00) = 23.95$

2. Financial Turn Around: Maximum marks = 20

2.1 The financial turnaround will be seen as a ratio of revenue earned to total expenditure (including power purchase cost, employees cost, Administrative & General and Repair & maintenance expenses, depreciation, ROE, interest etc) of the Distribution Company. The Distribution Company who has the highest ratio will get full marks (20) and other on pro-rata basis:

Example	Utility	Ratio
	A	1.05
	B	0.97
	C	0.95
	D	0.87

Utility A having the highest ratio as described above shall be awarded full 20 marks.

Marks awarded = Max marks x Utility's ratio / Max ratio in the range

Utility B would get $20 \times 0.97 / 1.05 = 18.48$

Utility C would get $20 \times 0.95 / 1.05 = 18.10$

Utility D would get $20 \times 0.87 / 1.05 = 16.57$

3. Metering: Maximum marks = 10

3.1 The marks for metering (distribution transformer metering and consumer metering) shall be awarded based on the percentage metering achieved over and above the cut-off level on pro-rata basis. This will exclude those consumers who are exempted by the appropriate regulatory commission in accordance with section 55 of the Electricity Act, 2003. The company who has achieved less than the cut-off level in a particular category shall get zero marks in that category.

(a) DT Metering Maximum Marks = 3

Cut-off level of DT metering at the end of consideration year: 80%

In this category utility having the highest percentage of metering shall be awarded full marks and marks of other utilities shall be awarded marks on pro-rata basis. Utility with less than 80% metering shall not be awarded any mark under this category.

Marks awarded = max marks x (Utility's % DT metering - cut-off level of % DT metering)/(Max value of % DT metering- cut-off level of % DT metering)

Example	Utility	DT Metering (%)
	A	87
	B	92
	C	94

Utility C having highest percentage of DT metering shall get full 3 marks and marks to other utilities shall be awarded marks on pro-rata basis as under:

Example:	Utility	Marks
	A	= $3 \times (87-80) / (94-80) = 3 \times 7 / 14 = 1.5$
	B	= $3 \times (92-80) / (94-80) = 3 \times 12 / 14 = 2.57$

(b) Consumer Metering Maximum Marks = 7

Cut-off level of consumer metering at the end of the consideration year: 90%

Consumer metering shall also include metering for agricultural consumers (This will exclude those consumers who are exempted by the appropriate regulatory commission in accordance with section 55 of the Electricity Act, 2003). In this category utility with highest percentage of metering shall be awarded full marks and marks to

other utilities shall be awarded on pro-rata basis. Utility with less than 90% metering shall not be awarded any mark under this category.

Marks awarded = max marks x (Utility's % consumer metering- cut-off level of % consumer metering)/(Max value of % consumer metering - cut-off level of % consumer metering)

Example:

Utility	Metering %
A	97
B	100
C	94

Utility B having highest percentage of consumer metering shall get full 7 marks and marks to other utilities shall be awarded on pro-rata basis as under:

Utility	Marks awarded
A	= $7 \times (97-90) / (100-90) = 4.9$
C	= $7 \times (94-90) / (100-90) = 2.8$

4. Reliability

Maximum marks = 15

4.1 Marks shall be awarded for the following:

Sl. No.	Particulars	Max Marks
A	Average duration of an outage in respect of 11 kV feeder (in hours)	5
B	Average number of outages of 11 kV feeder in consideration year	5
C	Distribution transformer failure rate (annual percentage, number of distribution transformer failed during the year over the No. of DTs at the end of the consideration year	5

Full marks in each category shall be awarded to utility having the least outages/failure. Marks to other utilities shall be awarded on pro-rata basis as explained below:

a) Average duration of outage of 11 kV feeders

Marks awarded = Max marks x (Max Outage duration – Utility Outage duration)/ (Max Outage duration – Min Outage duration)

Example:

Utility	Outage duration
A	3.0 hrs
B	5.5 hrs
C	7.0 hrs

Utility A having minimum outage duration would get full 5 marks and other utilities would get marks on pro-rata basis as given below:

Utility	Marks
B	$5 \times (7.0 - 5.5) / (7.0 - 3.0) = 1.875$
C	$5 \times (7.0 - 7.0) / (7.0 - 3.0) = 0$

b) Average No. of outages of 11 kV feeder in consideration year

Marks awarded = Max marks x (Max Average No. of outages – Utility's Average No. of outages)/(Max Average No. of outages – Min average No. of outages)

Example:

Utility	Average No. of outages
A	33.00
B	11.00
C	77.00

Utility B having minimum Average No. of outage would get full 5 marks and other utilities would get mark on pro-rata basis as given below:

Utility	Marks
A	$5 \times (77.00 - 33.00) / (77.00 - 11.00)$
C	$5 \times (77.00 - 77.00) / (77.00 - 11.00)$

c) Distribution transformer failure rate (annual %)

Marks awarded = Max marks x (Max % DT failure rate – Utility's % DT failure rate)/(Max % DT failure rate – Min % DT failure rate)

Example:

Utility	DT Failure (%)
A	12.53
B	5.12
C	0.23

Utility C having minimum value of DT failure rate (%) would get full 5 marks and other utilities would get marks on pro-rata basis as given below:

Utility	Marks
A	$5 \times (12.53 - 12.53) / (12.53 - 0.23) = 0$
B	$5 \times (12.53 - 5.12) / (12.53 - 0.23) = 3.01$

5. Functional Performance

Maximum Marks=5

(a) Open access

Implementation of open access in distribution system of the company in respect of consumer having a load of 1 MW and above (implemented for at least one consumer) will get 3 Marks.

(b) Consumer Indexing

GIS based consumer indexing completed in terms of percentage of consumers. Marks shall be awarded proportionate to % consumer indexing achieved. Utility having the maximum % consumer indexing will get a maximum of 2 marks. Marks to other utilities shall be awarded on pro-rata basis.

Marks awarded = Max marks x (Utility's consumer indexing,% - Min consumer indexing,%) / (Max consumer indexing,% - Min consumer indexing,%)

Example:

	Percentage of Consumer Indexing
Utility A	90.00
Utility B	85.00
Utility C	78.92

Utility A having Maximum % Consumer Indexing would get full marks and other utilities would get marks on pro-rata basis

Utility B would get $2 \times (85.00 - 78.92) / (90.00 - 78.92) = 1.10$

Utility C would get $2 \times (78.92 - 78.92) / (90.00 - 78.92) = 0$

ANNEXURE-II (1/6)

FORMAT FOR DATA REQUIREMENT (Consideration year 2010-11)

1. DATA FOR AT&C LOSSES

Sl.No.	Item	Unit	2009-10	2010-11
1.	Self generation	MU		
2.	Purchased from CPSU	MU		
3.	Purchased from other utilities	MU		
4.	Total input (U_T) (1 + 2 + 3)	MU		
5.	Units Traded with other utilities (U_T)	MU		
6.	Units utilized within licensed area (4 - 5) (U_I)	MU		
7.	Units Billed within utility licensed area (U_B)	MU		
8.	Amount Billed within utility licensed area (A_B)	Rs. crores		
9.	Amount realized within utility licensed area (A_R)	Rs. crores		
10.	Collection efficiency ($CE = 100 * A_R / A_B$)	%		
11.	Units realized (U_R) { ($U_B \times CE(\%)$) } / 100	MU		
12.	AT&C losses ($U_I - U_R$)	MU		
	AT&C losses { $1 - (U_R / U_I)$ } * 100	%		

Note : The amount at Sl.No.8 shall not include meter rent, wheeling and other charges and subsidy receivable from State Governments etc.

ANNEXURE-II (2/6)

B. FINANCIAL TURN AROUND

Sl.No.	Item	Unit	2010-11
1.	Energy Input	MU	
2	Total Revenue earned	Rs.crore	
2.1	Tariff income	Rs.crore	
2.2	Non-tariff Income	Rs.crore	
2.3	Other Income	Rs.crore	

3.	Total Expenditure	Rs.crore	
3.1	Employees Cost	Rs.crore	
3.2	A & G Expenses	Rs.crore	
3.3	Repair & Maintenance Expenses	Rs.crore	
3.4	Depreciation	Rs.crore	
3.5	ROE	Rs.crore	
3.6	Interest	Rs.crore	
3.7	Power Purchase cost	Rs.crore	

ANNEXURE-II (3/6)

C. METERING (As on 31.3.2011)

Sl.No.	Item	Unit	2010-11
1	Total No. of DTs	No.	
2	No. of DTs metered	No.	
3	Total No. of consumers including Agricultural consumers	No.	
4	No. of consumers metered (including Agricultural consumers but excluding those consumers who are exempted by the Appropriate Regulatory Commission)	No.	

ANNEXURE-II (4/6)

D. RELIABILITY

Sl.No.	Item	Unit	2010-11
1.	Total No. of 11 kV feeders (As on 31.3.2011)	No.	
2.	Total No. of outages of 11 kV feeders (in 2010-11)	No.	
3.	Summation of duration of outages of all the 11 kV feeders	Hrs	
4.	Total No. of distribution transformers (DT) (As on 31.3.2011)	No.	
5.	No. of distribution transformers failed (during 2010-11)	No.	

E. Open Access**ANNEXURE-II (5/6)**

SI No	Items	Unit	At the end of March 2011.
1	Open Access regulation notified by SERC (indicate date of notification)		
2	No. of consumers availing open access in distribution system for (consumers having load of 1 MW and above)*	Quantum of load (MW)	No. of consumers

* Break up of quantum of load wise No. of consumers to be furnished.

F. Geographical Information system (GIS)**ANNEXURE-II (6/6)**

SI No	Item	
1	Total No. of consumers served by the company (as on 31-03-2011)	
2	Total No. of consumers indexed under GIS mapping (as on 31-03-2011)	