

Office of the
Chairman Discoms
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No. Chairman(Discoms)/TA/F. /D. 36

JAIPUR

Dated: 20/6/16

STANDING ORDER 16/01
Measures for Loss Reduction

Pursuant to the Chairman-Discom's Task Force initiatives, DCF and Loss Reduction strategy discussed with all the field officers during VC on 11.06.16 wherein target is set for AT&C loss reduction to achieve 15% level by 2018. Following measures for loss reduction are suggested which needs to be implemented by the field officers in respect of selected feeders/substations :-

1. Deployment of Feeder In-charge for each feeder and its empowerment as already discussed. Separate orders to be issued for suitable empowerment and incentivizing the field functionaries down to the level of Feeder In-charge along with duties and responsibilities in line with Alwar & Jodhpur District and Sikar Circle.
2. Effective monitoring system is to be put in place along with adequate material management as suggested in the later part of this order.
3. The measures to be taken for Rural, Urban and Industrial areas are mentioned hereunder but not limiting to these only:


Rural Areas:

1. The 11KV rural feeder shall be smallest unit of management.
2. The Feeder In-charge should be appointed on each 11KV feeder independently as far as possible.
3. The duties and responsibilities of the feeder in-charge be issued in-advance in writing (as already issued in respect of Alwar, Jodhpur



district and Sikar Circle) with suitable modification, if any, duly in consultation with respective MD.

4. The details of technical interventions are given at Annexure-A.
5. The identification of technical interventions and corresponding material management and its implementation shall be completed in all the 11KV rural feeders of the rural areas of first phase by December, 2016 positively. This would give time of 18 months for completion of entire technical interventions.
6. Each circle shall identify 33KV sub-station for the 1st phase, 2nd phase and 3rd phase of technical intervention within next 7 days.
7. The feeder in charge and the JEN concerned shall complete the survey of the feeder of the 1st phase and come out clearly with the quantification of the material and physical work. The AEN concerned after making a sample verification of the requirement generated by the Feeder In-charge and JEN, shall submit the same through XEN for placement of the work order by the competent officer. The requirement of material shall be sent by the SE to the corporate office for arranging the material accordingly.
8. The circle officer will endeavor to ensure that at least one 33KV Substation and its rural feeder in each phase fall in the administrative jurisdiction of the JEN i.e. sub office. The worst 33 KV S/S in terms of distribution losses should be selected.
9. By doing so, the Feeder In-charge shall focus on the feeder for completion of the activity, the JEN shall be focusing on the sub-station allotted to him and the AEN shall be focusing on the 33KV sub-station of his area and likewise XEN and SE.
10. Single line diagram of the surveyed feeder should be available with Feeder In-charge and it should always be updated by him. This is essential part of the duty of each Feeder In-charge. The data collection of the surveyed feeder may be done in Annexure-B.



11. The Managing Directors shall ensure that appropriate and timely action are taken by the various field officers & employees to ensure completion of technical interventions as under:

- 1st Phase - December, 2016
- 2nd Phase - June, 2017
- 3rd Phase - December, 2017

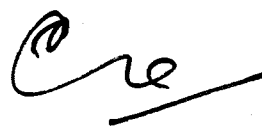
12. Once, after technical intervention, loss level of 15% is achieved in the rural feeders, strong vigilance activity may be resorted to for preventing attempts of damaging the system which gives rise to the theft of energy.

13. Since energy audit and the subsequent analysis involves consumer indexing and takes about one or two months for the identification of loss level, it is advised that for each rural feeder, the figures of normative consumption and normative drawl should be worked out as per methodology given below:

- i) For working out the normative consumption, one time information and details of the feeder in the area of AEN, shall be collected in the Annexure-C.
- ii) Load analysis of the same shall be collected by the Feeder In-charge in the Annexure-D
- iii) The basis on the details of the connected load on the agriculture and other consumers, normative consumption by the consumers shall be assessed by the AEN. This will consider a normative consumption of the 11KV feeder. Such exercise will be done every month.
- iv) The normative consumption shall be multiplied by 1.15 to arrive at the normative drawl of the 11KV feeder. Classification of the 11KV feeder shall be done at the end of the month indicating the normative consumption, normative drawl and actual drawl and the percentage by which the actual drawl is more than the normative drawl.



14. The vigilance activities should be focused on 33KV sub-stations of phase 2 and phase 3, on the basis of data of normative drawl and normative consumption for bringing down drawl on the 11KV feeder.
15. Extensive vigilance activity on specific feeders should be carried out to see the result and its impact and analysis of vigilance activities should be measured in terms of reduction of drawl on the 11KV feeder.
16. Feeder In-charge is also be made responsible for ensuring that the actual drawl does not exceed the normative drawl and he should always try to find out independently the reasons of high drawl and intimate to the Management for taking suitable vigilance and other action.
17. The meter reading work/bill collection work and consumer oriented work in the rural areas may be entrusted to the Feeder In-charge so as to make him responsible for lapses in the metering on the feeder. The Feeder In-charge should be provided with Mobile phone facility for better interaction by the senior officers. Incentive may be allowed to feeder In-charge.
18. Feeder Management committee should be formed on 11KV rural feeders making the Sarpanchs of the enroute villages as the Member and each month at least one meeting of Feeder management committee shall be called by JEN to explain new order/circular issued and the method of calculation of normative drawl to convince about need to control theft. Senior officers may also join such meetings in rotation.
19. It may be worthwhile to calculate financial losses of the Discoms pertaining to the rural areas separately and allocate the financial losses feeder-wise so that the same be shared with the feeder management committee to make people aware about the financial losses happening because of theft of energy. This might increase awareness in the villagers which may help in reduction of theft.

A handwritten signature in black ink, consisting of a stylized 'C' followed by a horizontal line.

20. Suitable web enabled programme would be designed at Corporate level by the Discoms to capture the data of the monitoring as per format duly updated timely and regularly.

Urban Area

1. The DT-wise energy audit should be completed in urban areas within one year positively for which Managing Directors shall submit action plan and the road map for completion of the work within time period.
2. High loss areas in the various pockets should be identified. Either undergrounding or overhead AB cable, system may be considered for such high loss areas wherever feasible, HVDS may be considered. Change of defective meters, replacement of burnt and obsolete service line by the armored cable and release of connection through a piercing connector wherever require, should be taken. DT-wise energy audit shall be the monitoring tool for maintaining the reduced level of losses.
3. Suitable scheme involving technical intervention / vigilance need, shall be made in the urban areas along with road map of loss reduction.
4. For these three things, XEN shall be primarily responsible. He will discharge these responsibilities with the help of supporting staff and by seeking necessary help from the SE and Corporate level.

Industrial Areas:

1. The feeder-wise industrial area-wise energy audit shall be carried; identification of high loss feeder and high loss industrial area may be done.
2. Necessary technical and vigilance intervention shall be made.
3. Wherever theft is suspected, installation of check meter out side the consumer's premises for individual consumer or group of consumer shall be considered.
4. XEN shall be primarily responsible for the work.

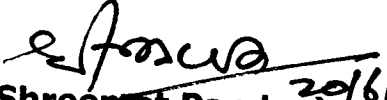


Monitoring

Monthly monitoring shall be done in the formats No. 1 to 11 enclosed herewith, to be prepared at various levels as mentioned in each format.

It may be clearly understood that apart from above measures other measures including undertaking effective enforcement activities and system improvement exercises covered under Central/State Government or otherwise under different schemes has to be carried as usual without any hindrance .

Encl: As above.


(Shreemat Pandey) 20/6/2018
Chairman-Discoms

Copy to the following for information and necessary action:-

1. CE (MM/DDUGJY/M&P/IT/PPM/Comml), Jaipur/ Ajmer/ Jodhpur Discom.
2. ZCE Jaipur/Ajmer/Jodhpur Discom.....
3. SE (O&M/Vig/Comml/M&P/TW/Plan), Jaipur/Ajmer/Jodhpur Discom with the request to send copy of the order to all concerned up to Feeder In-charge level with detailed guidelines.
4. ASP (Vig.), Jaipur/Ajmer/Jodhpur Discom with the request to inform concerned Dy.SP (Vig) & SHO (APTPS)
5. CAO (Cont./Revenue/FM)/Consultant (ATR), Jaipur/Ajmer/Jodhpur Discom.....
6. Secy, Admin, Jaipur/Ajmer/Jodhpur Discom.
7. Company Secretary, Jaipur/Ajmer/Jodhpur Discom
8. PS to Pr. Secy. Energy, GoR, Jaipur
9. PS to Advisor-Energy, GoR, Jaipur
10. TA to Chairman/MD Jaipur/Ajmer/Jodhpur Discom.
11. AO (O&M), Jaipur/Ajmer/Jodhpur Discom.....
12. PA to Dir. (Tech/Fin), Jaipur/Ajmer/Jodhpur Discom.
13. Media consultant/PRO, Jaipur/Ajmer/Jodhpur Discom.....


(Rajesh Mathur)

SE - TA to Chairman Discoms

Activity chart for improvement of the feeder

1. Checking of power factor on the feeder and action plan for the improvement of power factor.
2. Checking of maximum current on the feeder and action plan for suitable augmentation looking to the current carrying capacity of the conductor.
3. Checking of end point voltage regulation of the feeder and suitable augmentation strategy for improvement of VR.
4. Replacement of welding broken/defective meter / 3 phase agriculture transformers by healthy transformer. Healthy transformer will have MCCB of suitable size, LPR meters with connections intact, capacitors and complete body welding of the cubical.
5. Replacement of single phase transformers without MCCB/welding broken by healthy single phase transformer which will have MCCB and robust welding body of the cubical.
6. Installation of meters in the single phase transformers for self-finance schemes.
7. Installation of meters in the single phase transformers being used for Janta Jal Yojna.
8. Removal of GO & DO on the primary side of the 3 phase transformers and jumpering with the insulated cables from line direct to 11KV bushing.
9. Putting m-seal at the 11KV bushing on the open terminal connected with the jumpers.
10. Installation of GO switches at suitable locations on the 11KV feeders for isolation purposes to avoid shut down of entire 11KV feeder at a time.

11. Earthing of single phase transformers.
12. Installation of single phase transformers on the pole height.
13. Repair of cable/cuts on the AB cables or replacement of the cable where it has become obsolete.
14. Putting m-seal on the connection points of service line and the ariel bunch cable.
15. Tightening of AB cable wherever necessary.
16. Tightening of loose service line wherever necessary.
17. Replacement of service line by armoured cable.
18. Replacement of burnt/defective meters of other than Ag. Category.
19. Assessment of genuine load on the single phase transformers for augmentation of the capacity either by replacing it with higher capacity or by installation of additional transformer.
20. Release of genuine single phase domestic connections or other connections pending on the feeder in respect of Abadi area and Dhanies.
21. Release of service line connections through piercing connectors and to make it a practice.
22. Any other action as may be suggested by Feeder Managers for improving of the feeder and reduction of losses.
23. For updation of connected load details of Ag. consumers, Load Survey/checking of load must be done.
24. If domestic load is significantly higher as compared to Ag. Load on the feeder, separation of single phase domestic load be done.

* * *

One time Feeder wise Information to be obtained from Feeder Incharge

Name of Feeder Incharge : _____

Information upto: _____

Mobile No. : _____

Name of Feeder : _____

Name of 33KV S/S : _____

Name of S/O : _____

Name of S/D : _____

S. no.	Name of 11 KV Feeder	Name of Villages on the 11 KV Feeder	No. of Unsealed Points	No. of Cable Cuts.	No. of Stopped and Defective Meters			Transformers without MCCB & Welding Broken		No. of 1Ø Transformers at Low hieght.	No. of Unauthorized 1Ø Motor in Use.	No. of applications pending for Domestic Connections
					1Ø	3Ø	7	1Ø	3Ø			
1	2	3	4	5	6	7	8	9	10	11	12	
1												
2												

Signature of Feeder Incharge : _____
 Counter Sign. of JEN : _____

For AEN (One Time Information of Rural Feeders)

Name of AEN:

Mobile No. :

Name of S/D :

S. No.	Details of S/O		Name of 33/11 KV S/S	Name of 11 KV Feeder				Names of villages	Villages >5000 Population, if any	Loss level (upto March 16) %	Name of Feeder Incharge & Mobile No.
	S/O Name	JEN Name and Mobile No.		1	2	3	4				
			1	1							
			2	2							
				3							
				4							
				1							
				2							
				3							
				4							

Import Points :
Export Points :

Nos. :
Nos. :

Without Meters:
Without Meters:

Signature of AEN
Counter Sign. of XEN

One time Feeder wise Information to be obtained from Feeder Incharge

Name of Feeder Incharge : _____
 Mobile No. : _____
 Name of Feeder : _____
 Name of 33KVS/S : _____
 Name of S/O : _____
 Name of S/D : _____

S. No	No. Of 3 Q Transformers		No. of Category Wise Ag. Connection		Other Connections on Feeder		No. Of 1 Q Transformers			
	KVA	Nos.	HP	Nos.	Category	Nos.	KVA	General Public	Janta Jal Yojna	Self Finance Scheme
								Nos.	Nos.	Nos.
1	10		3		Domestic		5			
2	16		5		NDS		10			
3	25		7.5		SIP		16			
4	40		10				25			
5	63		12.5							
6	100		15							
7	150		20							

Signature of Feeder Incharge : _____
 Counter Sign. of JEN : _____

Status of distribution loss at a glance: As on 31.03.2016

Name of Month:

S. No.	Category	Unit*				
		Energy Available (in LU)	Energy Sold (in LU)	% Losses	% Contribution	
					In Distr. Loss	In the Unbilled Energy
1	Rural					
2	Urban					
3	Industrial					
Total Circle						

* To be prepared for :
 i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division

Road Map of Field Work

Name of Month: _____

SR. NO	Unit*	NO. OF 33/11 KV RURAL S/S	NO. OF 11 KV RURAL FEEDERS	1 st Phase		2 nd Phase		3 rd Phase	
				Rural S/S	Rural Feeders	Rural S/S	Rural Feeders	Rural S/S	Rural Feeders

Note:-

1. Work supposed to commence w.e.f-01.06.2016.
2. Each phase will take 6 months for completion.
3. Work in urban areas and industrial areas for loss reduction wherever necessary will be done simultaneously.
4. After completion of each phase in rural areas, approximately, 1/3rd of the component of loss above 15% shall reduce.

* To be prepared for :

- i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division, vi) Sub Office

Loss Reduction Targets

Name of Month

SR. NO	Unit*	CLOSING AT&C LOSSES AS ON 31.03.2016	Q 1 (16-17) UPTO JUNE		Q 2 (16-17) UPTO SEPT.		Q 3 (16-17) UPTO DEC.		Q 4 (16-17) UPTO MARCH		LOSS TARGET AS ON 31.03.2018
			LAST YEAR ACTUAL	THIS YEAR TARGET	LAST YEAR ACTUAL	THIS YEAR TARGET	LAST YEAR ACTUAL	THIS YEAR TARGET	LAST YEAR ACTUAL	THIS YEAR TARGET	

* To be prepared for :
 i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division

Suggested Measures for Loss Reduction

Name of Month

S. No.	Action	Status
1	Identification of one 33KV Sub-station for each sub-office for starting the loss reduction work.	
2	Nomination of Feeder Incharge for 11KV Rural feeder	
3	Issuing orders of duties of Feeder Incharge	
4	Issuing order for formation of Feeder Management committee	
5	Empowerment of SEs (order to be issued by CMD/MDS)	
6	Compilation of one time Information of 11KV feeder to be signed by Feeder Incharge in format 1a, 1b, 1c, 2a & 2b	
7	Completion of survey on the Model Feeder as per the Activity Chart	
8	Delivery of material as per above survey.	
9	Survey of 11KV feeder for identified 33KV Sub-stations	
10	Working out of requirement of material as per field survey	

To be prepared for :

- i).Discorn, ii).Zone, iii).Circle, iv).Division, v).Sub Division , vi) Sub Office

Information Format



Name of Month

S. No.	Loss level (as on March-16)	No. Of 3 Ø Transformers		No. of Category Wise Ag. Connection		Other Connections on Feeder		No. Of 1 Ø Transformers			
		KVA	Nos.	HP	Nos.	Category	Nos.	KVA	Public Nos.	Janta Jai Yojna Nos.	SFS Nos.

To be prepared for :

- i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division , vi) Sub Office, vii) Substation, viii) Feeder

Status of Work Completed

Name of Month _____

S. No	Activities	Unit	Total Work as per survey	Work done this Month	Balan ce Work
1	Replacement of welding broken/defective meter / 3 phase agriculture transformers.	Nos.			
2	Replacement of faulty single phase transformers.	Nos.			
3	Installation of meters in the single phase transformers for self-finance schemes	Nos.			
4	Installation of meters in the single phase transformers for Janta Jal Yojna.	Nos.			
5	Putting m-seal at the 11VK bushing on the open terminal connected with the jumpers	Nos.			
6	Installation of GO switches at suitable locations on the 11KV feeders for isolation purposes to avoid shut down of entire 11KV feeder at a time	Nos.			
7	Earthing of single phase transformers	Nos.			
8	Installation of single phase transformers on the pole height	Nos.			
9	Repair of cable/cuts on the AB cables or replacement of the cable where it has become obsolete	Nos.			
10	Putting m-seal at the 11VK bushing on the open terminal connected with the jumpers	Nos.			

To be prepared for :

- i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division , vi) Sub Office, vii) Substation, viii) Feeder

Status of Work Completed

Name of Month

S. No	Activities	Unit	Total Work as per survey	Work done this Month	Balanced Work
11	Tightening of AB cables	Mtrs.			
12.a	Installation of existing service line as per technical standards.	Nos.			
12.b	Replacement of non-armored service line by armored service line.	Nos.			
13	Replacement of burnt/defective meters of other than Ag. category.	Nos.			
14	Assessment of genuine load on the single phase transformers for augmentation.	Nos.			
15	Release of genuine single phase domestic connections or other connections pending on the feeder in respect of Abadi area and Dharies.	Nos.			
16	Release of service line connections through piercing connectors and to make it a practice.	Nos.			
17	Load Survey/checking of load of Ag. consumers.	Nos.			
18	If domestic load is significantly higher as compared to Ag. Load on the feeder, Separation of single phase domestic load where domestic load is significantly higher as compared to Ag. Load on the feeder.	No. of Feeders			

To be prepared for :

i). Discorn, ii). Zone, iii). Circle, iv). Division, v). Sub Division , vi) Sub Office, vii) Substation, viii) Feeder

Status of Normative Consumption

Name of Month

S. No.	Feeder Name	Distribution Losses		Avg. Daily Normative Consumption (KWh)						Actual Drawl (KWh)						Difference (KWh)							
		During the Month	Upto the Month	Avg. upto last Month		Avg. upto this Month		Last Month		This Month		Last Month		This Month		Last Month		This Month					
				1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours	1-Ø Hours	3-Ø Hours				
A																							
B																							
C																							

To be prepared for :
 i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division , vi) Sub Office, vii) Substation, viii) Feeder

Status of Technical Parameters

Name of Month

S. No.	No. of Feeder below 0.95 PF		No. of Feeder have Peak Load > Capacity of Conductor	
	Last Month	This Month	Last Month	This Month

To be prepared for :
 i). Discorn, ii). Zone, iii). Circle, iv). Division, v). Sub Division , vi) Sub Office

Vigilance Impact on 33 KV S/S of Phase 2 & 3

Name of Month

S. No.	Particulars	Before Vigilance	After Vigilance
1	Total No. of 11 KV Feeders selected for Intensive Vigilance		
2	Total Normative Consumption for selected Feeders		
3	Total Normative Drawl for selected Feeders		
4	% Excess Drawl		

To be prepared for :
 i). Discom, ii). Zone, iii). Circle, iv). Division, v). Sub Division

Progress of Loss Reduction in Industrial Areas

Name of Month

S. No.	Name of Industrial Area	Closing AT&C losses as on 31.03.16	Progress		Name of Industrial Feeder	Closing AT&C losses as on 31.03.16	Progress	
			During the Month	Upto the Month			During the Month	Upto the Month

To be prepared for :
 i).Discom, ii).Zone, iii).Circle, iv).Division, v).Sub Division

Progress of Loss Reduction in Municipal Towns & Distt. HQ

Name of Month

S. No.	Name of District HQ & Municipal Town	Closing AT&C losses as on 31.03.16	Progress	
			During the Month	Upto the Month

To be prepared for :

- i). Discom, ii). Zone, iii). Circle, iv). Division, v). Sub Division