

APPENDIX

REVIEW OF COMPLIANCE OF THE DIRECTIVES ISSUED BY THE COMMISSION

The Commission, in its earlier Tariff Orders and communications had issued several directives for compliance by the CESC. An analysis of such directives and their compliance is as under:

1. Directive on conducting Consumers' Interaction Meetings in the O & M sub-divisions for redressal of consumer complaints:

The Commission had directed that the CESC shall ensure that Consumer Interaction Meetings chaired by the Superintending Engineers, are conducted in each O&M sub-division according to a pre-published schedule, at least once in every three months. Further, the consumers shall be invited to such meetings in advance through emails, letters, notices on CESC's website, local newspapers etc., to facilitate participation of maximum number of consumers in such meetings. The CESC should ensure that the proceedings of such meetings are recorded and uploaded on its website, for the information of consumers. Compliance in this regard shall be reported once in three months to the Commission, indicating the date, the number of consumers attending such meetings and the status of redressal of their complaints.

If the CESC fails to ensure the conduct of the Consumer Interaction Meetings as directed, the Commission would consider imposing a penalty of upto Rs one lakh per O&M sub-division per quarter for each instance of non-compliance, and also direct that such penalty shall be recovered from the concerned Superintending Engineer who fails to conduct such meetings.

Compliance by the CESC:

The CESC is conducting Consumer Interaction Meetings chaired by the Superintending Engineers, in each O&M sub-division according to a pre-published schedule, once in every three months. The schedule has already been published on the CESC's website www.cescmysore.org for the benefit of the consumers.

Further, the consumers are being invited to such meetings in advance through emails, letters, notices on the CESC's website, local newspapers etc., to facilitate participation of maximum number of consumers in such meetings. The proceedings of such meetings are being recorded and uploaded on the CESC's website, for the information of consumers. Compliance in this regard for the first quarter and second quarter of FY18 has already been reported to the Commission, indicating the date, the number of consumers attending such meetings and the status of redressal of their complaints vide letters No. CESC/GM(Comml)/RA1/F-26/7/2017-18/10005/28-08-2017 and No. CESC/GM(Comml)/RA1/F-26/7/2017-18/15688/21-11-2017.

The details are as follows:

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 1st quarter of FY18 (April-June 2017)						
Division	sub-division	date	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
N R Mohalla	Central Zone	13.06.2017	14	1	13	50
	Chamundipuram	13.06.2017	18	10	8	22
	N R Mohalla	12.06.2017	1	1	0	2
	Jyothinagara	12.06.2017	7	2	5	6
V V Mohalla	Kuvempunagara	09.06.2017	2	0	2	7
	R K Nagara	09.06.2017	0	0	0	10
	V V Mohalla	08.06.2017	0	0	0	1
	Hootagally	08.06.2017	5	4	1	8
Nanjangud	Nanjangud Urban	24.05.2017	20	5	15	60
	Devanur	24.05.2017	10	4	6	40

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 1st quarter of FY18 (April-June 2017)						
Division	sub-division	date	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
	Rural					
	T Narasipura	23.05.2017	29	5	24	60
	Bannur	23.05.2017	29	4	25	95
Hunsur	Hunsur	17.06.2017	47	12	35	80
	Periyapatna	16.06.2017	16	0	16	30
	K R Nagara	20.06.2017	7	4	3	25
	H D Kote	26.05.2017	29	6	23	70
	Bilikere	17.06.2017	9	4	5	30
	Sargur	26.05.2017	32	11	21	50
	Bettadapura	16.06.2017	25	8	17	15
Chamarajanagara	Saligrama	20.06.2017	9	2	7	35
	Chamarajanagara	05.06.2017	2	2	0	10
	Santhemarahalli	17.06.2017	10	1	9	30
	Haradanahalli	27.05.2017	3	2	1	10
	Gundlupete	24.06.2017	10	5	5	30
Kollegal	Begur	24.06.2017	4	2	2	15
	Kollegal	24.05.2017	16	10	6	50
	Hanur	24.05.2017	12	3	9	25
Madikeri	Yalandur	20.06.2017	14	3	11	25
	Madikeri	16.05.2017	13	5	8	30
	Gonikoppal	19.05.2017	6	3	3	20
	Virajpete	19.05.2017	8	1	7	20
	Kushalnagara	13.06.2017	7	2	5	20
Mandya	Somavarapete	22.06.2017	10	3	7	25
	CSD Mandya	12.05.2017	4	4	0	15
	Kothathi	16.05.2017	5	5	0	10
Maddur	Keragudu	18.05.2017	4	4	0	14
	Maddur 1	20.05.2017	9	3	6	11
	Maddur 2	23.05.2017	40	4	36	10
	Malavalli 1	25.05.2017	14	4	10	9
Pandavapura	Malavalli 2	03.06.2017	11	3	8	12
	Pandavapura	06.06.2017	13	7	6	13
	S R Patna	08.06.2017	6	3	3	15

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 1st quarter of FY18 (April-June 2017)						
Division	sub-division	date	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
K R Pete	K R Pete 1	13.06.2017	29	10	19	90
	K.R.Pete 2	15.06.2017	31	2	29	35
Nagamangala	Nagamangala	20.06.2017	20	10	10	10
	Bellur	22.06.2017	26	8	18	18
Hassan	U S D Hassan	18.05.2017	3	3	0	3
	Dudda	18.05.2017	2	2	0	12
	KIADB Hassan	15.06.2017	1	1	0	2
Sakaleshpura	Sakaleshpura	27.05.2017	2	2	0	11
	Alur	19.06.2017	4	4	0	12
	Belur	26.05.2017	7	0	7	15
Channarayana	C R Patna	15.05.2017	3	3	0	15
	Nuggehalli	12.06.2017	5	5	0	14
Holenarasipura	H N Pura	24.06.2017	12	12	0	20
	Arakalagud	30.06.2017	6	6	0	15
	Ramanathpura	07.06.2017	8	8	0	25
	Hangarahally	09.06.2017	6	6	0	15
Arasikere	Arasikere	22.06.2017	7	7	0	50
	Banavara	24.05.2017	4	4	0	30
	Gandasi	24.05.2017	9	9	0	38
Total			715	264	451	1545

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 2nd quarter of FY18 (July - September 2017)							
Division	subdivision	date	opening balance	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
N R Mohalla	Central Zone	12.09.2017	13	7	18	2	20
	Chamundipuram	12.09.2017	8	4	11	1	12
	N R Mohalla	23.08.2017	0	9	2	7	23
	Jyothinagara	23.08.2017	5	10	14	1	15
V V Mohalla	Kuvempunagara	21.08.2017	2	1	3	0	6
	R K Nagara	21.08.2017	0	9	4	5	18
	V V Mohalla	17.08.2017	0	8	7	1	23
	Hootagally	17.08.2017	1	7	8	0	7
Nanj	Nanjangud Urban	22.07.2017	15	10	20	5	52

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 2 nd quarter of FY18 (July - September 2017)							
Division	subdivision	date	opening balance	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
Bangalore	Devanur Rural	22.07.2017	6	33	21	18	30
	T Narasipura	20.07.2017	24	9	28	5	16
	Bannur	20.07.2017	25	17	25	17	50
Hunsur	Hunsur	16.09.2017	35	16	41	10	65
	Periyapatna*	10.10.2017	16	10	22	4	40
	K R Nagara*	12.10.2017	3	3	6	0	25
	H D Kote*	17.10.2017	23	27	26	24	50
	Bilikere	16.09.2017	5	6	8	3	16
	Sargur*	17.10.2017	21	18	22	17	25
	Bettadapura*	10.10.2017	17	16	22	11	70
	Saligrama*	12.10.2017	7	15	10	12	09
Chamarajanagera	Chamarajanagera	05.08.2017	0	1	0	1	10
	Santhemarahalli	26.09.2017	9	1	6	4	4
	Haradanahalli	01.09.2017	1	1	1	1	12
	Gundlupete	28.09.2017	5	4	9	0	8
	Begur	28.09.2017	2	1	2	1	1
Kollegala	Kollegala	29.08.2017	6	6	3	9	23
	Hanur	29.08.2017	9	14	6	17	35
	Yalandur	26.09.2017	11	12	3	20	15
Madikeri	Madikeri	19.07.2017	8	0	5	3	0
	Gonikoppal	08.08.2017	3	17	0	20	25
	Virajpete	02.08.2017	7	6	6	7	28
	Kushalnagara	12.09.2017	5	5	4	6	10
	Somavarapete	23.09.2017	7	3	7	3	8
Mandya	CSD Mandya	14.08.2017	0	2	2	0	3
	Kothathi	16.08.2017	0	8	8	0	10
	Keragudu	18.08.2017	0	12	12	0	14
Maddur	Maddur 1*	17.10.2017	6	12	15	3	20
	Maddur 2	23.08.2017	36	7	7	36	8
	Malavalli 1	28.08.2017	10	6	6	10	6
	Malavalli 2	28.08.2017	8	0	0	8	6
Pandavapura	Pandavapura	07.09.2017	6	4	4	6	12
	S R Patna	11.09.2017	3	13	3	13	13
K R Pete	K R Pete 1	13.09.2017	19	4	4	19	5
	K.R.Pete 2	27.09.2017	29	7	2	34	15
Nagamangala	Nagamangala	18.09.2017	10	10	4	16	10
	Bellur	21.09.2017	18	5	2	21	5

Details of consumers' interaction meetings in the O & M sub-divisions for redressal of consumer complaints conducted for the 2 nd quarter of FY18 (July - September 2017)							
Division	subdivision	date	opening balance	No of complaints received	No of complaints resolved	balance to be attended	No. of consumers attended
Hassan	U S D Hassan	13.07.2017	0	1	1	0	3
	Dudda	21.08.2017	0	1	1	0	5
	KIADB Hassan	12.09.2017	0	1	1	0	1
Sakaleshpura	Sakaleshpura	27.09.2017	0	2	2	0	6
	Alur	28.08.2017	0	4	0	4	10
	Belur	23.09.2017	7	10	11	6	15
Channarayana	C R Patna	07.07.2017	0	4	3	1	10
	Nuggehalli	04.08.2017	0	7	7	0	7
Holenarasipura	H N Pura	22.08.2017	0	3	2	1	11
	Arakalagud	15.09.2017	0	2	1	1	8
	Ramanathpura	15.09.2017	0	6	3	3	15
	Hangarahally	22.08.2017	0	2	0	2	2
Arasikere	Arasikere	29.08.2017	0	7	5	2	25
	Banavara	26.07.2017	0	1	0	1	26
	Gandasi	26.07.2017	0	3	2	1	35
Total			451	450	478	423	1016

Note: *Due to Dasara lighting related works, the meetings in some of the subdivisions pertaining to Mysuru O & M Circle & Mandya O&M Circle have been rescheduled and held during October 2017.

Commission's Views:

The Commission notes that the CESC has not covered all the subdivisions while conducting consumer interaction meetings due to drafting of the concerned SEs to attend Dasara related lighting works and other important meetings. The Commission is of the view that the CESC should accord top priority to address the grievances of the consumers by conducting consumers' interaction meetings regularly, as directed.

Further, in the KPTCL and ESCOMs' Review Meeting held on 25.10.2017, the Commission had directed the ESCOMs to conduct the consumer interaction meetings once in a quarter in the subdivisions chaired by either the Superintending Engineer or the Executive Engineer in order to

effectively redress the consumer grievances. Given this direction, if the consumer interaction meetings are not held in the subdivisions or if such meetings are held without the participation of concerned SE or EE, then it will be construed that the ESCOMs are not serious in complying with the directives issued by the Commission.

Therefore, the Commission reiterates its directive to the CESC to conduct consumer interaction meetings chaired by either the jurisdictional SE or jurisdictional EE once in a quarter, to redress the consumer grievances relating to supply of electricity and submit compliance thereon to the Commission regularly.

- 2. Directive on preparation of energy bills on monthly basis by considering 15 minute's time block period in respect of EHT/HT consumers importing power through power exchange under Open Access.**

The Commission had directed the CESC to ensure preparation of energy bills on monthly basis by considering the 15 minute's time block period in respect of EHT/HT consumers importing power through power exchange under Open Access. The CESC shall implement the directive forthwith and the compliance regarding the same shall be submitted monthly from May, 2017 onwards, to the Commission, regularly.

Compliance by the CESC:

The CESC has ensured preparation of energy bills on monthly basis by considering the 15-minute time block period in respect of EHT/HT consumers importing power through power exchange under Open Access. The CESC has implemented this directive from November 2016 onwards and the compliance regarding the same is being submitted to the Commission regularly.

The details are furnished below:

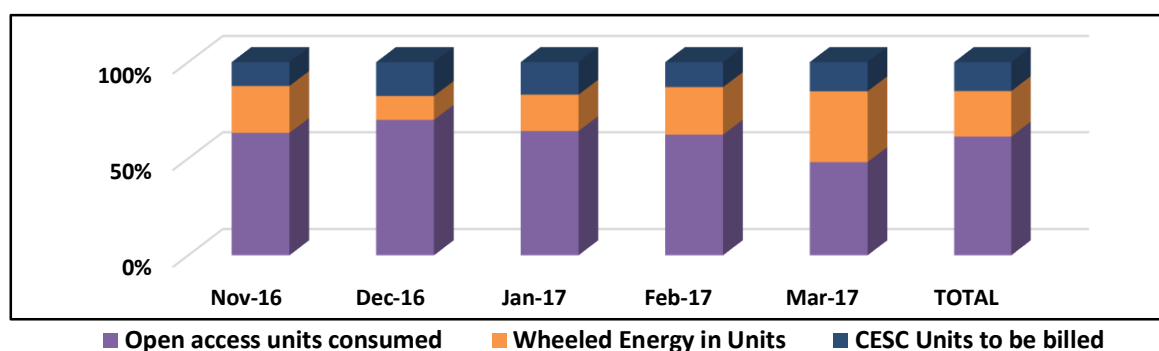
List of open access consumers importing power through power exchange

SL. No.	Name of the Firm	RR No	Contract Demand	Meter constant	Tariff	Voltage class (in kV)
1	M/s Nestle India Pvt Ltd.	EHTR-5	8000	42000	HT-2(a)	66
2	M/s Automotive Axels Limited	HT-83	3500	30000	HT-2(a)	66
3	M/s J.K.Tyres & Industries Ltd.	HT-57	9500	60000	HT-2(a)	66
4	M/s J.K.Tyres & Industries Ltd.	HT-138	9000	60000	HT-2(a)	66
5	M/s Khayathi Steels Industries	EHTR-2	19000	120000	HT-2(a)	66
6	M/s AT & S India Pvt Ltd.	EHTR-4	9000	54000	HT-2(a)	66
7	M/s Reid & Taylor(India) Ltd.	EHTR-3	6000	45000	HT-2(a)	66
8	M/s Jubliant Life Science Limited	NHT-32	5000	30000	HT-2(a)	33
9	TVS Motor Company	NREHT-1	5000	27000	HT-2(a)	66
10	M/s Balaji Malts Pvt. Ltd	MHT 77	2500	13000	HT-2(a)	11
11	M/s Siderforgerossi India Pvt. Ltd	VEHT-275	6000	36000	HT-2(a)	66
12	M/s New Minerva Mill	HR2HT-150	4000	36000	HT-2(a)	66
13	M/s Rishi FIBC solutions Pvt Ltd	HTR 119	1500	7500	HT-2(a)	11
14	M/s GRS Engineering Pvt. Ltd	VVHT-104	1475	7500	HT-2(a)	11
15	M/s Triton Valves Limited	BHT-2	1500	7500	HT-2(a)	11
16	M/s Triveni Engineering Ltd	HT-41	2300	12500	HT-2(a)	11

Details of consumption pattern of open access consumers pertaining to CESC for the month from November 2016 to March 2017

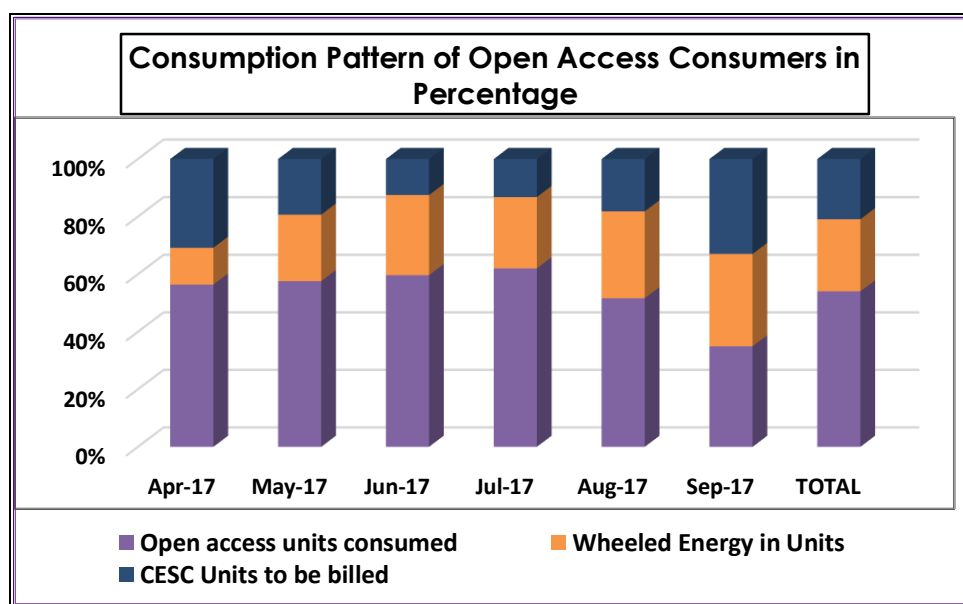
Particulars	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
No. of Open Access consumers	11	13	15	15	15
Total consumption in MU	30.92	32.30	35.37	33.40	35.65
Open Access units scheduled in MU	20.66	24.16	24.42	22.01	17.62
Open Access units consumed in MU	19.56	22.63	22.64	20.83	17.16
In % w.r.t. total consumption	63.26	70.06	64.00	62.36	48.13
Illegally banked energy in MU	1.097	1.53	1.71	1.18	0.463
Wheeled energy in MU	7.53	4.00	6.67	8.23	13.09
In % w.r.t. total consumption	24.35	12.38	18.86	24.64	36.71
CESC units to be billed in MU	3.83	5.68	5.98	4.34	5.40
In % w.r.t. total consumption	12.39	17.59	16.90	12.99	15.14
Total bill amount in Rs. crore	6.81	8.60	9.10	7.65	7.80

Consumption Pattern of Open Access Consumers in Percentages



Particulars	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
No. of Open Access consumers	16	16	16	16	16	16
Total consumption in MU	38.57	37.68	37.42	40.33	41.05	34.42
Open Access units scheduled in MU	22.67	22.85	23.07	25.50	21.51	12.61
Open Access units consumed in MU	21.76	21.81	22.33	25.03	21.22	12.03
In % w.r.t. total consumption	56.41	57.88	59.67	62.06	51.69	34.95

Illegally banked energy in MU	0.91	1.04	0.75	0.47	0.30	0.59
Wheeled energy in MU	4.93	8.74	10.42	9.98	12.37	11.05
In % w.r.t total consumption	12.78	23.20	27.85	24.74	30.13	32.10
CESC units to be billed in MU	11.88	7.31	4.67	5.33	7.46	11.34
In % w.r.t. total Consumption	30.81	19.40	12.49	13.21	18.17	32.95
Total Bill amount Rs in crore	14.60	11.00	9.10	10.28	11.28	12.16



Commission's Views:

The Commission notes that the CESC has complied with the directive by initiating preparation of energy bills on monthly basis considering 15 minute's time block in respect of EHT/HT consumers importing power through power exchange under Open Access from November 2016 onwards.

It is seen that due to introduction of 15 minute's billing has in fact resulted in correct billing of energy being utilized by the open access consumers otherwise a significant quantum of energy would have been forfeited for the ESCOMs vindicating the stand taken by the Commission in directing the ESCOMs to prepare monthly bills considering 15 minute's billing to prevent revenue loss to CESC by consumers who took advantage of its laxity in enforcing correct billing. Therefore, the CESC is required to

adhere to the directive and submit compliance regarding month-wise details of number of open access consumers, open access units scheduled/consumed and illegally or inadvertently banked energy if any regularly to the Commission.

The Commission reiterates its directive that the CESC shall continue to bill the EHT/HT consumers purchasing power through power exchanges under open access and submit quarterly compliance thereon regularly to the Commission.

3. Directive on Energy Conservation:

The Commission had directed the ESCOMs to service all the new installations only after ensuring that the BEE ***** (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant consumers' premises.

Similarly, the ESCOMs were directed to ensure that all new streetlight/high mast installations including extensions made to the existing streetlight circuits shall be serviced only with LED lamps/energy efficient lamps like induction lamps.

Further, the Commission had directed the ESCOMs to take up programmes to educate all the existing domestic, commercial and industrial consumers, through media and distribution of pamphlets along with monthly bills, regarding the benefits of using five-star rated equipment certified by the Bureau of Energy Efficiency in reduction of their monthly electricity bills and conservation of precious energy.

Compliance by the CESC:

- The Government of Karnataka vide No. EN/VSC, dated 14.07.2016, has mandated that all Government departments and Public Sector undertakings shall procure and use only BEE 5 star rated electrical equipment. A copy of the GoK circular is enclosed as Annexure-1.

- In respect of all new applications for power sanction the consumers are directed to use only BEE 5 star rated equipment and LED or energy efficient lights in the power sanction letter itself. A copy of the power sanction letter is enclosed as Annexure-2.
- The CESC has published advertisements in daily newspapers in English and Kannada version on 14.07.2017 for the information of the consumers to bring about public awareness in the use of 5 star rated equipment to conserve energy. A copy of the advertisement published in The Hindu and Prajavani is enclosed as Annexure-3.
- The CESC has issued a circular vide No. CESC/GM(T)/ EE(DSM)/ AEE(DSM)/2016-17/CYS-65 dated 20.04.16 for ensuring that the new installations use BEE 5 star rated equipment while servicing. A copy of the circular is enclosed as Annexure-4.
- The field staff have been directed to implement the above directive strictly. The same is being implemented mandatorily for servicing of installations of government and public sector.
- The CESC is encouraging the use of LED bulbs, LED tube lights and 5-star rated fans in domestic/commercial installations. Under "Hosa-Belaku" scheme, about 34 lakh LED bulbs, 28 thousand LED tube lights and 2 thousand 5-star rated fans have been distributed so far.

Commission's Views

It is observed from the CESC's compliance that; it has issued directions to all its officers to ensure that BEE 5-star rated energy efficient appliances are used while servicing of the consumer installations. It is not known whether such directions issued have fructified in ensuring service to all new installations only with the BEE 5-star rated Air Conditioners, Fans, Refrigerators, etc., in the applicant consumers' premises. Therefore, the CESC is directed to focus on effective implementation of this directive by reviewing periodically the progress/status of implementation of its circular instructions by its field officers and take corrective action wherever necessary.

Further, the CESC shall draw up a continuous awareness programme to educate the consumers about the benefit of using the energy efficient appliances in their premises and ensure that use of energy efficient appliances is increased to many fold from the current level.

The Commission reiterates that the CESC shall service all the new installations are serviced only after ensuring that the BEE *** (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant's /consumers' premises and the compliance thereon shall be reported to the Commission once in a quarter regularly.**

4. Directive on implementation of Standards of Performance (SoP):

The Directive issued was as follows:

“The CESC is directed to strictly implement the specified Standards of Performance while rendering services related to supply of power as per the KERC (Licensee's Standards of Performance) Regulations, 2004. Further, the CESC is directed to display prominently in Kannada the details of various critical services such as replacing the failed transformers, attending to fuse off call / line breakdown complaints, arranging new services, change of faulty energy meters, reconnection of power supply, etc., rendered by it as per Schedule-1 of the KERC (Licensee's Standards of Performance) Regulations, 2004 and Annexure-1 of the KERC (Consumer Complaints Handling Procedure) Regulations, 2004, on the notice boards in all the O & M sections and O & M sub-divisions in its jurisdiction for the information of consumers as per the following format.

Nature of Service	Standards of performance (indicative minimum time limit for rendering services)	Primary responsibility centres where to lodge complaint	Next higher Authority	Amount payable to affected consumer
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The CESC shall implement the above directive within one month from the date of the order and report compliance to the Commission regarding the implementation of the directives."

Compliance by the CESC:

The CESC has implemented the specified Standards of Performance while rendering services related to supply of power as per the KERC (Licensee's Standards of Performance) Regulations, 2004. The CESC has displayed prominently in Kannada the details of various services such as replacing of the failed transformers, attending to fuse off call / line breakdown complaints, arranging new services, change of faulty energy meters, reconnection of power supply, etc., rendered as per Schedule-1 of the KERC (Licensee's Standards of Performance) Regulations, 2004 and Annexure-1 of the KERC (Consumer Complaints Handling Procedure) Regulations, 2004, on the notice boards in all the O & M sections and O & M subdivisions for the information of consumers. The details have already been furnished to the Commission vide letter No: CESC/SEE (Coml.)/EE (Com)/2015-16/12661-66, dated 07.11.2015.

Implementation of Commission's Directive on SoP as on October 2017

Sl. No	Circle	No of O&M sub divisions existing	No of O&M sections existing	No of O&M sub divisions where the details of SoP are displayed	No of O&M sections where the details of SoP are displayed
		No	No	No	No
1	Mysuru circle	20	82	20	82
2	Chamraj nagar-Kodagu Circle	13	55	13	55
3	Mandya Circle	13	60	13	60
4	Hassan Circle	15	63	15	63
	Total	61	260	61	260

Commission's Views

The Commission while noting the compliance furnished, reiterates that the CESC shall continue to adhere to the specified standards of performance in rendering various services to consumers in a time bound manner.

Further, the Commission directs the CESC to carry out effective supervision over the functioning of field offices particularly in rendering services to the consumers, relating to supply of electricity.

The Commission reiterates that the CESC shall continue to strictly implement the specified SoP while rendering services related to supply of electricity as per the KERC (Licensee's Standards of Performance) Regulations, 2004. For this purpose, the SEEs and the EEs during their inspections to the sub-divisions, shall ensure that this directive is being complied with without any let up.

The compliance in this regard shall be submitted once in a quarter to the Commission regularly.

5. Directive on use of safety gear by linemen:

The directive issued was as follows:

"The Commission directs the CESC to ensure that all the linemen in its jurisdiction are provided with proper and adequate safety gear and also ensure that the linemen use such safety gear provided while working on the network. The CESC should sensitise the linemen about the need for adoption of safety aspects in their work through suitably designed training and awareness programmes. The CESC is also directed to device suitable reporting system on the use of safety gear and mandate supervisory/higher officers to regularly cross check the compliance by the linemen and take disciplinary action on the concerned if violations are noticed. The CESC shall implement this directive within one month from the date of this order and submit compliance report to the Commission."

Compliance by the CESC

- The CESC has provided proper and adequate safety gear to all the linemen in its jurisdiction and is also ensuring that the linemen use such safety gear provided while working on the distribution system.

- Considering the safety aspects, the CESC has also initiated action for procuring 3,500 sets of highly sophisticated tool kits and these tool kits will be supplied to the linemen during FY-2018.
- The CESC is conducting training programmes for the linemen wherein the absolute necessity of adoption of safety aspects in their work are constantly highlighted. Training on safety aspects has been imparted to 2,553 linemen during FY17.
- The CESC has also directed the field officers to monitor the proper up keep of the safety gear provided and keep in stock reasonable spare sets of safety gear and also monitor the use of the same by linemen and take disciplinary action on the concerned if violations are noticed.
- The details have been furnished below:

Implementation of the Commission's Directive on use of safety gear by linemen as on October 2017

SL. NO	Circle	No of linemen /Asst. linemen working	No of linemen/Asst. Linemen provided with safety gear	No of training and awareness programmes conducted	No of surprise inspections conducted regarding use of safety gear /uniform by linemen	No of notices given to the linemen for not using safety gear year
		No	No	No	No	No
1	Mysuru	834	834	38	521	2
2	Chamrajnagar-Kodagu	756	451	0	28	0
3	Mandya	835	632	2	69	0
4	Hassan	953	953	33	38	0
Total		3378	2870	73	656	2

Commission's Views

The Commission notes from the compliance furnished by the CESC that it has provided the safety gear to its linemen working on the distribution network. However, it has not given safety gear to all of its linemen working in Chamarajnagar-Kodagu and Mandya circles. The CESC is directed to provide adequate safety gear to all the linemen to ensure safety to them while working on the distribution network. Therefore, it is very important that the CESC should continue to focus its attention on safety aspects to

further reduce the electrical accidents occurring due to sheer negligence or non-adherence of safety procedures by the field staff while working on the distribution network.

Further, the Commission notes that to bring in awareness, the CESC has provided training to linemen working in all the divisions except in Chamrajnagar-Kodagu division. Also, the number of training programmes conducted in Mandya district is only two, which is totally inadequate. The Commission is of the view that all the linemen should be given training periodically on adherence to safety aspects to ensure that they effectively carry out their work on the distribution system, on attaining suitable training.

The Commission reiterates that the CESC shall ensure that, all the linemen in its jurisdiction are provided with proper and adequate safety gear and that they use such safety gear provided to them while working on the network. The compliance in this regard shall be submitted once in a quarter to the Commission regularly.

6. Directive on providing Timer Switches to Street lights by the ESCOMs

The directive issued was as follows:

“The Commission directs the CESC to install timer switches using own funds to all the street light installations in its jurisdiction wherever the local bodies have not provided the same and later recover the cost from them. The CESC shall also take up periodical inspection of timer switches installed and ensure that they are in working conditions. They shall undertake necessary repairs / replacement work, if required and later recover the cost from local bodies. The compliance regarding the progress of installation of timer switches to street light installations shall be reported to the Commission within three months of the issue of the Order.”

Compliance by the CESC

- Under “AMRUT Scheme” a proposal for providing 4,754 number of timer switches in AMRUT cities which includes Mysuru, Mandya and

Hassan was submitted to Urban Development Department, Bengaluru vide letter No. CESC / GM (T) /DGM (DSM) / AGM (DSM) /2016-17/16885 dated 21.12.2016. The CESC is awaiting the approval.

- Further, in the budget speech Hon'ble Chief Minister, GoK, has announced a programme called "Model Vidyuth Grama". The project relates to all-round development of the power sector for the selected 5 villages in each assembly constituency and one village each for every assembly constituency in the jurisdiction of every MP constituency, which includes the improvement works in distribution system and replacement of inefficient streetlight fitting by LED/energy efficient lights with timer switches and others. A provision of Rs 31 crore of budgetary support is made for the year 2017-18. A copy of the proceedings of the Govt. of Karnataka is enclosed as Annexure-5.
- The CESC has issued a circular for servicing of new streetlight installations/extension/ modification of existing streetlight installations only with timer switches, vide No. CESC/GM(T)/DGM(DSM)/AGM(DSM)/ 2017-18/cys-127 dated 08.05.2017. A copy of the circular is enclosed as Annexure-6 for kind information.
- A meeting was held in the office of the DC Mysuru, under the chairmanship of the ACS, Energy Department on 25.05.2017. It was decided in the meeting that the DC, Mysuru would issue directions for fixing of timer switches to the streetlights through Mysuru City Corporation and other local bodies, as per the meeting proceedings vide No. GM(T)/EE(T)/AEE(T-1)/2017-18/cys-289 dated 13.06.2017. A copy of the meeting proceedings is enclosed as Annexure-7 for kind information.
- As at the end of October17, the details of timer switches existing in Mysuru city are as follows:

Sl. No.	Circle	No. of existing timer switches (at the end of October 17)
1	Mysuru circle	480
2	Chamarajanagar & Kodagu circle	107
3	Mandya circle	97
4	Hassan circle	180
Total		834

Commission's Views

The Commission observes that the progress achieved in installation of timer switches is nil and when compared to the previous year the status is same. The CESC needs to take concrete measures for installation of timer switches by establishing proper coordination with the concerned local authorities. The inaction in this regard has only resulted in wastage of electricity by indiscriminate use of streetlights during day time.

Further, as regards providing timer switches to streetlight under AMRUTH scheme covering 4,754 streetlight installations, it is noted that there is no real progress in this regard. The CESC needs to pursue this with the concerned authorities so as to take the matter forward. The progress /status in this regard shall be reported to the Commission on a quarterly basis, regularly.

Further, it is observed that the CESC has not initiated any action to install timer switches at its cost and later recover the cost from the concerned local bodies, as directed by the Commission. Therefore, the CESC is directed to install timer switches at its cost and also persuade the local bodies to install timer switches at their cost availing funds / grants received from the Government and other agencies for such programmes.

The Commission directs the CESC to ensure that new streetlight installations and any extension/modification to be carried out to the existing streetlight installations are serviced only with timer switches.

7. Directive on Load shedding:

The Commission had directed that:

- (1) Load shedding required for planned maintenance of transmission / distribution networks should be notified in daily newspapers at least 24 hours in advance for the information of consumers.
- (2) The ESCOMs shall on a daily basis estimate the hourly requirement of power for each sub-station in their jurisdiction based on the seasonal conditions and other factors affecting demand.
- (3) Any likelihood of shortfall in the availability during the course of the day should be anticipated and the quantum of load shedding should be estimated in advance. Specific sub-stations and feeders should be identified for load shedding for the minimum required period with due intimation to the concerned sub-divisions and sub-stations.
- (4) The likelihood of interruption in power supply with time and duration of such interruption may be intimated to consumers through SMS and other means.
- (5) Where load shedding has to be resorted to due to unforeseen reduction in the availability of power, or for other reasons, consumers may be informed of the likely time of restoration of supply through SMS and other means.
- (6) Load shedding should be carried out in different sub-stations / feeders to avoid frequent load shedding affecting the same sub-stations / feeders.
- (7) The ESCOMs should review the availability of power with respect to the projected demand for every month in the last week of the previous month and forecast any unavoidable load shedding after consulting other ESCOMs in the State about the possibility of inter-ESCOM load adjustment during the month.

- (8) The ESCOMs shall submit to KERC their projections of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month for approval.
- (9) The ESCOMs shall also propose specific measures for minimizing load shedding by spot purchase of power in the power exchanges or bridging the gap by other means.
- (10) The ESCOMs shall submit to the Commission sub-station wise and feeder-wise data on interruptions in power supply every month before the 5th of succeeding month.

The Commission had directed that the ESCOMs shall make every effort to minimize inconvenience to consumers strictly complying with the above directions. The Commission had indicated to review the compliance of directions on a monthly basis for appropriate orders.

Compliance by the CESC

- (1) The CESC is submitting the projection of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month to the Commission. Projection of availability and demand for power and any unavoidable load shedding details for the months of April to October 17 which were submitted to the Commission are herewith enclosed as Annexure-8.
- (2) Application software Feeder-wise Data Analysis and outage Management developed through M/S Idea Infinity IT solutions, Bengaluru, has been implemented for generating load shedding protocol in case of loss of generation/ emergency and intimate the feeders to be shed by SLDC, to ease off loads.
- (3) The outage Management module is developed to send SMSs to MPs, MLAs and VIPs.

- (4) MoP has developed Urjamitra mobile application to establish links between DISCOM field staff and citizens for facilitation of outage dissemination information to all consumers through SMS at their cost.
- (5) The CESC has submitted the data base for 1,062 feeders out of which 763 are uploaded by the REC. The data for the balance feeders will also be submitted (Screen Shot enclosed as Annexure-9).
- (6) The scheduled outages are being disseminated from 11.04.2017 and unscheduled outages from August 2017.

Commission's Views:

The Commission observes that the CESC is not submitting its projections of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month to the Commission, regularly. The CESC shall henceforth, submit the same regularly to the Commission without fail.

The Commission notes from the compliance submitted by the CESC that it has not yet fully implemented the 'application software' for integration with the SCADA data to enable providing information to the consumers through SMS, in advance regarding the time and duration of probable interruptions. The progress is the same as last year. The CESC shall expedite development of necessary software and other process required to inform consumers through SMS regarding both scheduled and un-scheduled load shedding due to reasons such as system constraints, breakdowns of lines/equipment, maintenance etc. This would certainly address significantly the consumers' dissatisfaction on this issue and prevent inconvenience/disruption caused to industrial consumers.

The Commission reiterates that, the CESC shall comply with the directive on load shedding and submit monthly compliance reports thereon to the Commission regularly.

8. Directive on Establishing a 24x7 Fully Equipped Centralized Consumer Service Center for Redressal of Consumer Complaints.

The directive was as follows:

“The CESC is directed to put in place a 24x7 fully equipped Centralized Consumer Service Center at its Headquarters with state of the art facility/system for receiving consumer complaints and monitoring their redressal so that electricity consumers in its area of supply are able to seek and obtain timely and efficient services / redressal in the matter of their grievances. Such a Service Center shall have adequate number of desk operators in each shift so that consumers across the jurisdiction of the CESC are able to lodge their complaints directly with this Centre.

Every complaint shall be received on a helpline telephone number by the desk operator and registered with a docket number which shall be intimated to the consumer. Thereafter, the complaints shall be transferred online / communicated to the concerned field staff for resolving the same. The concerned O&M / local service station staff shall visit the complainant's premises / fault location at the earliest to attend to the complaints and then inform the Centralized Service Centre that the complaint is attended. In turn, the call Centre shall call the complainant and confirm with him whether the complaint has been attended to. The complaints shall be closed only after receiving consumer's / complainant's confirmation. Such a system should also generate daily reports indicating the number / nature of complaints received, complaints attended, complaints pending and reasons for not attending to the complaints.

The CESC shall publish the details of the complaint handling procedure / Mechanism with contact numbers in the local media periodically for the information of the consumers. The compliance of the action taken in the matter shall be submitted to the Commission within two months from the date of this Order.

Further, the Commission directs the CESC to establish/strengthen 24x7 service stations, equipping them with separate vehicles and adequate line crew, safety kits and maintenance materials at all its sub-divisions including rural areas for effective redressal of consumer complaints".

Compliance by the CESC:

- (1) A 24x7 fully equipped Centralized Consumer Service Centre for redressal of consumer complaints under R-APDRP project has been established in Mysuru from December 2011.
- (2) Customer Care Center is established to provide efficient service and to resolve customer grievances in minimum time.
- (3) Single window customer care center connected directly to data center for online user service.
- (4) Call center is equipped with IVRS server, 15 PCs, IP phones, Fax server etc.
- (5) Customers can call to telephone number 1912 to register their power supply related complains. The number 1912 is being published in all leading newspapers, Company web site and also printed at the back side of the monthly electricity bills of consumers so that they can utilize this facility for their queries.
- (6) An Assistant Engineer, 4 team leaders and 19 customer care representatives (CCR) are working at customer care center.
- (7) One team leader with 5 CCRs are working round the clock to address the customer complaints/requests.
- (8) Wide publicity has been given to the helpline number "1912" by publishing the same in newspapers both in English and Kannada. A caller tune has been implemented in all CUG Mobile Numbers of CESC officers' /Service stations to intimate public to use "1912" for registration of electricity complaints.

- (9) On 22.09.2015, Web based PGRS (Public Grievance Redress system) Software was installed successfully at the customer care centre. It is working satisfactorily, enabling fast complaint registration and redressal. Further, provision of consumer complaints' registration through various sources like; helpline, SMS, Email, Web, Facebook and retrieving of consumer history is available in the software.
- (10) A complaint received at customer care center will be registered immediately in the software and docket number is intimated simultaneously to the consumer and to the concerned sub divisional officer/ section officer or local service station automatically via SMS to their mobile numbers. Once the complaint is resolved, the status of complaint will be updated by the concerned sub divisional / section officer / local service station or customer care executive, closing the docket. The consumers can also track the status of their complaint online.
- (11) The complaints which are not solved as per SoP will be escalated to higher officers.
- (12) The CESC has taken action to establish full-fledged service stations by providing necessary vehicles, Mobile phones and necessary equipment.
- (13) Paper Notification regarding Helpline Number 1912 is being published in both Kannada and English regularly. Complaint handling procedure is published in the newspaper on 3.10.2017 (Copy enclosed as Annexure-10).
- (14) User Manuals are available at <http://www.cescmysorepgrs.com> to guide consumers to register complaints at the Centralized Customer Care Center and track the status of their complaints.
- (15) The CESC has implemented caller tune regarding "electricity helpline 1912" for all CUG Mobile Numbers of CESC officers (O&M/offices)/Service stations.
- (16) 1912 is toll free from 06.07.2016.

The CESC is taking all steps to ensure complaints of consumers are registered only through the centralized consumer service center for proper monitoring of disposal of complaints registered. The CESC has published the contact number of the Centralized Consumer Service Centre regularly in the local media and other modes like F. M. Radio periodically for the information of public to ensure that all the complaints of consumers are registered only through the Centralized Consumer Service Centre.

Commission's Views

The Commission while noting that the CESC has established the necessary infrastructure for effective redressal of consumer complaints directs CESC that it should continue its efforts in further improving the delivery of consumer services especially in reducing time required for resolving consumer complaints which on breakdowns of lines/equipment, failure of transformers etc., which resulting in interruptions in power supply should be given prompt and effective response. It is also imperative that necessary steps are taken to continuously sensitize field-staff about efficient handling of consumer complaints apart from improving their general efficiency.

The Commission reiterates its directive to the CESC to publish the complaint handling procedures / contact number of the Centralized Consumer Service Centre in the local media, host it on its website and also publish it through other modes periodically for the information of public and ensure that all the complaints of consumers are registered only through the Centralized Consumer Service Centre for proper monitoring of disposal of complaints registered. The compliance in this regard shall be furnished once in a quarter regularly, to the Commission.

9. Directive on Energy Audit:

The Commission had directed the CESC to prepare a metering plan for energy audit to measure the energy received in each of the Interface

Points and to account for the energy sales. The Commission had also directed the CESC to conduct energy audit and chalk out an Action Plan to reduce distribution losses to a maximum of 15 per cent wherever it was above this level in towns/ cities having a population of over 50,000.

The Commission had earlier directed all the ESCOMs to complete installation of meters at the DTCs by 31st December, 2010. In this regard the ESCOMs were required to furnish to the Commission the following information on a monthly basis:

- a) Number of DTCs existing in the Company.
- b) Number of DTCs already metered.
- c) Number of DTCs yet to be metered.
- d) Time bound monthly programme for completion of work.

Compliance by the CESC:

- (1) The energy audit of all the feeders as per the prescribed formats are being submitted to the Commission. So far the energy audit of 790 feeders and 8,144 DTCs for FY17 has already been submitted to the Commission. For FY18, as on June 2017, energy audit of 868 feeders and 6,728 DTCs has been submitted to the Commission.
- (2) The distribution loss calculation for FY17 for all the existing 1,522 feeders is calculated and already furnished to the Commission vide letter No: CESC/GM(Coml.)/ RA-1/2/17-18/13734/21.10.2017. The same has been enclosed as **Annexure 11**.

As on 30.09.2017:

- (1) 588 purely agricultural feeders have been commissioned. There are 48,458 transformers on these feeders. Metering is not required in respect of these transformers as the feeder consumption is being considered for calculation of IP set consumption.
- (2) 8,759 water supply installations have been serviced and all of them are in rural areas. Each of these water supply installations has been provided with an independent distribution transformer. As such metering is not required in respect of these transformers also.

- (3) 24,651 DTCs have to be provided with meters. The details are furnished below:

Particulars	Existing DTCs	Metered DTCs	DTCs where meters are not required	DTCs to be metered
Urban (non RAPDRP)	7,369	4,641	0	2,728
Urban (RAPDRP)	6,584	6,584	0	0
Rural	98,326	19,186	57,217	21,923
Total	1,12,279	30,411	57,217	24,651

Energy Audit of Towns under RAPDRP:

- 1) Tagging of consumers to feeders and tagging of consumers to towns is completed and the same has been made available in RAPDRP Portal.
- 2) Tagging of consumers to DTCs is in process. Therefore, DTC-wise energy audit will be made available after completion of tagging of consumers to DTCs.
- 3) Town-wise energy audit report of RAPDRP towns for FY17 as well as for FY18 up to September 2017 is enclosed as **Annexure-12 and Annexure 12a.**

Further, in respect of rural DTCs, the consumption of exclusive agricultural feeders is being obtained from the Sub-Stations, after completion of the works of bifurcation of agricultural and non-agricultural feeders under the NJY scheme. So far, as at the end of September 2017, 588 exclusive agricultural feeders are existing.

The metering of non-agricultural DTCs will be taken up at the earliest. The loss levels of distribution transformers (including those under RAPDRP) for which energy audit has been carried out for FY17 as well as FY-18 upto September 2017 are as given below:

DTC energy loss analysis from April-16 to March-17 (16-17)

Month / year	Total no. of DTCs for which energy audit has been carried out			DTC energy loss analysis				
	Urban	Rural	Total	<5%	5-10%	10-20%	20-30%	>30%
April--16	6383	385	6768	2501	2719	1252	261	35
May--16	6445	389	6834	2547	2723	1407	133	24
June--16	6477	314	6791	2645	2644	1383	109	10
July--16	6507	281	6788	2877	2435	1372	98	6
Aug--16	6935	309	7244	2938	2774	1390	137	5
Sep--16	6262	433	6695	3003	2387	1125	178	2
Oct--16	6204	849	7053	3005	2759	1220	69	0
Nov--16	6377	794	7171	3056	2710	1330	75	0
Dec--16	6825	953	7778	3044	2800	1843	81	10
Jan--17	6849	1585	8434	3232	3601	1478	94	29
Feb--17	6324	2139	8463	3373	3442	1532	105	11
Mar--17	6868	1505	8373	3004	3610	1600	139	20

DTC energy loss analysis from April to Sep-17 (17-18)

Month / year	total no. of DTCs for which energy audit conducted			DTC energy loss analysis				
	Urban	Rural	Total	<5%	5-10%	10-20%	20-30%	>30%
April--17	6594	1726	8320	3338	3003	1661	264	54
May--17	6724	1683	8407	3371	3073	1808	140	15
Jun--17	6826	1257	8083	3351	2968	1612	145	7
Jul--17	6837	1313	8150	3274	3105	1672	97	2
Aug--17	6561	1665	8226	3363	3491	1286	85	1
Sep--17	6426	1878	8304	3431	3533	1260	79	1

Action is being initiated to bring down the percentage of losses in respect of transformers where the losses are more than 10 per cent. The remedial measures initiated to reduce loss levels are indicated in **Annexure 13**.

Commission's Views

As regards energy audit of towns and cities, the Commission observes that there is inordinate delay in tagging of consumer details with the respective DTCs and without completion of this process, DTC-wise energy

audit conducted in respect of towns and cities is not accurate. The Commission directs the CESC to complete the tagging issues at least in respect of towns and cities immediately and conduct energy audit and initiate necessary measures on the basis of energy audit results to reduce the technical losses and improving collection efficiency in order to achieve the mandated A T & C loss of less than 15 per cent. The CESC is directed to submit compliance thereon regularly to the Commission.

The Commission further notes that the CESC despite providing meters to 30,411 DTCs, has failed to take up energy audit of all these DTCs. It is noted that out of 30,411 metered DTCs, only around 6,800 DTCs are being audited. This shows that the CESC is not serious in completing the tagging of consumer installations with the respective DTCs for conducting energy audit of the same and taking remedial measures to reduce energy losses. Further, it is observed that there is inordinate delay in providing meters to balance 24,651 DTCs.

The action taken by the CESC so far is not satisfactory and the Commission views with displeasure the delay in completing the tagging of consumer installations and taking up the energy audit of all the metered DTCs.

The CESC is directed to take up energy audit of 30,411 DTCs, which are metered and to take remedial measures for reducing energy losses in the high loss making distribution areas. The compliance in respect of DTC-wise energy audit conducted, with the details of analysis and the remedial action initiated to reduce loss levels shall be regularly submitted to the Commission on a quarterly basis.

Further, the CESC is directed to submit to the Commission, before 21st May, 2018 the consolidated energy audit report for the FY18, as per the formats prescribed by the Commission, vide its letter No. KERC/D/137/14/91 dated 20.04.2015.

10. Directive on Implementation of HVDS:

In view of the obvious benefits in the introduction of HVDS in reducing distribution losses, the Commission had directed the CESC to implement

High Voltage Distribution System in at least one O&M division in a rural area in its jurisdiction by utilizing the capex provision allowed in the ARR for the year.

Compliance by the CESC:

The CESC will abide by the directions of the Commission.

Commission's Views:

The Commission had constituted an expert committee to look into the other alternatives available to HVDS, in the wake of the suggestion of Sri B.S. Hanumanthappa, a member of the Advisory Committee of the Commission that implementation of the HVDS in the ESCOMs is not beneficial to the distribution system. The Committee after studying the various alternatives to HVDS, has recommended that HVDS is beneficial to the system and higher loss reduction could be achieved if implemented at a reasonable cost by utilizing the released materials such as conductors, poles, etc. Therefore, in view of the Committee's recommendations, the Commission is of the view that the HVDS should be implemented for the agricultural feeders segregated under NJY scheme, by following the revised guidelines issued by the Commission, only wherever it is techno-economically viable.

However, it is noted that the CESC has taken a stand from the last year that it would not implement HVDS in its jurisdiction contending that providing one DTC for every three IP-sets serviced under regularization scheme is akin to implementation of HVDS. Therefore, as the CESC itself has not proposed any HVDS project in its jurisdiction, the Commission directs it to not to submit any HVDS proposals until further orders.

11. Directive on Nirantara Jyothi – Feeder Separation:

The ESCOMs were directed to furnish to the Commission the programme of implementing taluk wise 11 KV feeders segregation with the following details

- a) Number of 11 KV feeders considered for segregation.

- b) Month wise time schedule for completion of envisaged work.
- c) Improvement achieved in supply after segregation of feeders.

Compliance by the CESC:

NJY Phase-1:

The CESC has taken the initiatives to commission the completed feeders on top priority and to complete and commission the feeders where the works are in progress. An action plan was made to construct 135 feeders for bifurcation and out of which 130 feeders have been commissioned under NJY Phase-1 as at the end of October 2017. The Commissioning of one feeder is pending as approval from Railway Department is awaited for Railway crossing works. Action will be taken to commission this feeder after the receipt of approval. Works are in progress in respect of 4 feeders and these feeder works will be completed before December 2017.

Progress of NJY Phase-1 as at the end of October 2017 and Action Plan for completing are as detailed below:

No. of taluks covered	Total feeders	Feeders			Action Plan		
		completed	commissioned	balance	Nov-17	Dec-17	Total
10	135*	131	130	4	2	2	4

*As per DPR, 161 numbers of NJY feeders were proposed. Due to field constraints, work on 26 feeders could not be taken up and the same is proposed to be taken up in DDUGJY for which the works have already been awarded.

NJY Phase -2:

Out of proposed 235 feeders under NJY Phase-2, works in respect of 224 feeders have been completed, out of which 222 feeders have been commissioned as at the end of October 2017. Further, action is being taken to commission the two completed feeders. Out of the remaining 11 feeders, works are in progress in 5 feeders and works on 6 feeders are to be taken up.

Progress of NJY Phase-2 works as at the end of October 2017 and Action Plan for completing are as detailed below:

No. of taluks covered	Total feeders	Feeders		
		completed	commissioned	balance
14	235	224	222	11
Action Plan				
Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
2	2	1	2	2

Further, in C.R. Patna two feeders are proposed from new Shettyhalli MUSS. The incomer 66kV line of this substation is pending completion and hence, the substation has not been commissioned. As such, works on these 2 feeders are not taken up and they are proposed to be dropped after obtaining approval from the Board of Directors of CESC.

The CESC is taking all measures to complete and commission the feeder works taken up under NJY scheme as per the action plan.

Further, the financial progress achieved as on October 2017 is as follows:

(Amount in Rs. crore)

Sl. NO.	Phase	Project cost	Expenditure	Balance	Remarks
1	Phase 1	248.47	198.32	50.15	
2	Phase 2	539.1	464.52	74.58	(including variations)
	Total	787.57	662.84	124.73	

Analysis of benefits of NJY

M/s CPRI has been entrusted with the works of analysing the benefits to the system post implementation of NJY scheme and the following is a summary of the report.

Details of work awarded to M/s CPRI								
Details of NJY Phase-I								
Sl. No.	Name of the division	Total NJY feeders	Commissioned feeders	Work awarded feeders	Remaining feeders to be awarded	CPRI Inspection Report Received	CPRI Evaluation Report Received	Feeder for which work is yet to be awarded
1	Chamaraj anagar	11	8	4	4	-	-	Madapura, Kelamballi, Madalavadi & Nallur
2	Pandavap	6	6	6	0	-	6	

	ura							
3	K.R. Pet	17	17	12	5	9	4	Jakkanally, Guduganahally, Chottanahally, Akkihebbal & Bommenahally.
4	Kollegala	22	22	12	10	2	7	Chowdahalli, Martalli, Ramapura, Bandalli, Ajjipura, CN Halli (Kannur), Doddinduwadi, Jakkalli, Gundegala and Byloor
5	H.N.Pura	16	16	16	0	-	-	
6	Nagamangala	8	8	8	0	-	4	
7	Hunsur (Hunsur+H. D.Kote)	26	26	17	9	12	2	Doddahejjur & Hejjandur, Gagenally & challally, Thenkanakoppalu & Manuganahalli, Savve & Chikkereyuru, Metikuppe & Naganahalli, Kattemalavadi & Kudlur, Bannikuppe (Somanahalli), Bheemanahalli and Alanahalli.
8	Arsikere	14	12	11	1	7	-	Madapura
9	Nanjanagud (T.N Pura)	15	15	14	1	-	-	Kolthur
Total		135	130	100	30	30	23	

NJY Phase -II								
Sl. No	Name of the division	Total NJY feeders	Commissioned feeders	Work awarded feeders	Remaining feeder to be awarded	CPRI inspection report received	CPRI evaluation report received	Feeders name of balance works awarded
1	Channarayapatna	42	40	36	4	6	-	M.Shivara, Bagur, Bhaktharahalli and Kothanaghatta
2	Hassan	22	22	22	0	-	-	
3	Nanjangud	22	22	16	6	-	-	Hanchipura, Malkundi, Thoravalli, Geemaralli, Shimalli and Haradanahalli
4	Maddur	21	21	21	0	-	-	
5	Hunsur (KR Nagar+Periyapatna)	26	26	26	0	14	1	
6	Sakleshpura (Alur+Belur)	13	13	12	1	-	8	Kanathur
7	Mandya	20	20	19	1	13	-	Bevukallu
8	Chamarajanagar (Gundlepet)	14	7	7	0	-	-	
9	Pandavapura	13	11	11	0	8	-	

NJY Phase -II								
Sl. No	Name of the division	Total NJY feeders	Commissioned feeders	Work awarded feeders	Remaining feeder to be awarded	CPRI inspection report received	CPRI evaluation report received	Feeders name of balance works awarded
	(S.R.Patna)							
10	H.N pura (Arakalgud)	16	16	16	0	-	-	
11	Kollegala (Yelandur)	4	4	1	3	-	-	Yargamballi, Maddur, Kesthur.
12	Mysore	22	20	16	4	-	-	Kalavadi, Dadadalli. Kiralu and Varuna
	Total	235	222	203	19	41	9	

An abstract of M/s CPRI's Evaluation Report for one feeder is illustrated below:

The rural feeder namely Attigodu was bifurcated into B Thunga NJY feeder and Attigodu IP feeder in Periyapatna taluk of Hunsur division. The details of analysis carried out are as follows;

- **Energy Analysis:** The average energy consumption and the total energy consumption (energy sales) during six months before and after NJY implementation is compared as detailed below:

Energy consumption in MU (Nov-14 to Apr-15)		
Before NJY (Rural Feeders)		
Month	Attigodu	Total
Average	0.4129	0.4129

Energy consumption in MU (May-15 to Oct-15)			
After NJY (IP & NJY Feeders)			
Month	Attigodu	B Thunga (NJY)	Total
Average	0.1945	0.178	0.3722

From above table, it is observed that there is decrease in the energy consumption after implementation of NJY.

- **Distribution Transformer failure rate:** The failure rate of distribution transformers during six months before and after implementation of NJY is compared is below:

Distribution transformer failure rate (%) (Nov-14 to Apr-15)			
Before NJY (Rural feeders)			
Month	No of DTCs		% failure of DTCs
	Attigodu		
Average	162		0.41

Distribution transformer failure rate (%) (May-15 to Oct-15)						
After NJY (IP & NJY feeders)						
Month	No of DTC		No. of DTCs failed		% DTCs failed	
	Attigodu	B Thunga (NJY)	Attigodu	B Thunga (NJY)	Attigodu	B Thunga (NJY)
Six month Total	168	78	2	0	1	0

Before implementation of NJY, the failure rate of transformers during six months is 0.41 per cent on Attigodu rural feeder. After NJY, the DT failure rate in six months is 1 per cent on Attigodu IP feeder and 0 per cent on NJY feeder.

- **Dist. Loss:** The average energy losses and the total energy losses during six months before and after implementation of NJY is compared as below:

Energy loss (dist. loss in %) (Nov-14 to Apr-15)			
Before NJY (Rural feeders)			
Month	Attigodu		
	Input energy (MU)	Energy consumption (MU)	Dist. loss in %
Average	0.4129	0.3478	15.65

Dist. loss in % (May-15 to Oct-15)						
After NJY (IP & NJY Feeders)						
Month	Attigodu (IP)			B Thunga (NJY)		
	Input energy (MU)	Energy consumption (MU)	Dist. loss in %	Input energy (MU)	Energy consumption (MU)	Dist. loss in %
Average	0.19	0.14	27	0.30	0.24	9.21

Before NJY, the average energy loss during six months is 15.65 per cent in the Attigodu rural feeder. After NJY, the average energy loss during six months is 27 per cent in Attigodu IP feeder and 9.21 per cent for B Thunga NJY feeder.

The energy loss in NJY feeder is reduced compared to the rural feeders. This is due to (i) new NJY feeder line - optimally loaded, (ii) use of new transformers on NJY feeder (iii) transformers located close to the load centers.

- **Peak Load:** The peak load during six months before and after implementation of NJY is compared as below:

Peak load in amps (NOV-14 TO APR-15)	
Before NJY (Rural Feeders)	
Month	Attigodu
Maximum	208

Peak load in amps (MAY-15 TO OCT-15)		
After NJY (IP & NJY Feeders)		
Month	Attigodu (IP)	B Thunga (NJY)
Maximum	212	43

Before NJY, the maximum peak load during six months is 208 Amps in the Attigodu rural feeder. After NJY, the maximum peak load during six months is 212 Amps for the Attigodu IP feeder and is 43A for B Thunga NJY feeder.

The maximum peak load on IP feeder has increased compared to the rural feeder. The peak load on NJY feeder is below the range of the Attigodu rural feeder. This may be due to gradual shifting of domestic consumers from rural to NJY feeder. The increase in maximum peak load on the IP feeder may be due to increase in number of IP sets.

- **AT & C loss:** The average AT&C losses and the total AT&C losses during six months before and after implementation of NJY is compared.

Before NJY, the average AT&C loss during six months is 23 per cent for the Attigodu rural feeder. After NJY, the average AT&C losses during six months is 20.9 per cent for the IP feeder and is 14.9 per cent for B Thunga NJY feeder. The AT&C losses of all IP feeders is reduced compared to the rural feeders. The AT&C loss of NJY feeder is less than 15 per cent which is a positive sign.

% AT & C Loss analysis (before Nov-14 to Apr-15, after May-15 to Oct-15)													
Before and after implementation of NJY													
Attigodu (IP)													
Six month average considered	No. of Consumers		Input Energy in MUs (EI)	Energy sales in MU		Energy Billed in MUs Eb=E1+E2	Amount Billed in Rs. Lakh (bg)	Gross Amount Collected in Rs. Lakh (Ag)	Arrears Collected in Rs. Lakh (Ar)	Amount Collected w/o Arrears (Ac=Ag-Ar)	Billing Efficiency (B.E.=Eb/EI*100)%	Collection Efficiency (C.E.=Ac/Ab*100)%	% AT & C Loss {(1 - B.E.*C.E.)*100}
	Metered	Unmetered		Metered (EI)	Unmetered (EI)								
Before NJY	-	-	0.4129	0.1093	0.2386	0.3478	1.9163	1.9650	0.2206	1.7444	84.35	90.86	23.40
After NJY	-	-	0.194	0	0.169	0.169	7.282	6.592	0	6.592	86.775	91.096	20.959
B Thunga (NJY)													
After NJY	-	-	0.1777	0.1613	0	0.1613	5.6002	7.6953	2.4408	5.255	90.7898	93.8540	14.7969

Voltage regulation: The maximum voltage regulation during six months before and after implementation of NJY is compared as below:

Voltage regulation in % (Nov-14 to Apr-15)			
Before NJY (Rural feeders)			
Month	Attigodu		
	Sending end voltage (Vs)	Receiving end voltage (Vr)	Vltg. Regulations
Average	11.20	10.50	5.31
Highest Voltage regulation in Jan-15			7.08

Voltage regulation in % (May-15 to Oct-15)						
After NJY (IP & NJY feeders)						
Month	Attigodu (IP)			B Thunga (NJY)		
	Sending end voltage (Vs)	Receiving end voltage (Vr)	Voltg. Regulations	Sending end voltage (Vs)	Receiving end voltage (Vr)	Voltg. Regulations
Average	11.10	10.90	1.80	11.10	10.90	1.80
Highest Voltage regulation in May-15						3.51

Before NJY, maximum voltage regulation during six months is 7.08 per cent for Attigodu rural feeders. After NJY, the maximum percentage voltage regulation during six months is 3.51 per cent for Attigodu IP feeder and is 3.51 per cent for B Thunga NJY feeder. The tail end voltage level of IP feeder has improved compared to the rural feeder.

The improvement in the voltage regulation is due to (i) new/augmented conductor (Rabbit), (ii) transformers located close to load centers & also not overloaded, (iii) segregation of domestic & IP loads.

Conclusion:

1. The data is evaluated for a period of six months before and after implementation of NJY.
2. The number of interruptions (both scheduled and unscheduled) has reduced on IP feeders (after NJY) compared to the rural feeder (before NJY). The average number of interruptions on NJY feeder is 30 and the duration of interruption is 22.44 hours.
3. The energy sale after NJY has reduced from 2.432 MU (on rural feeders) to 2.23 MU (IP feeder & NJY feeder).
4. The failure rate of distribution transformers on rural feeder is 0.41 per cent (before NJY) & on IP feeder it is 1 per cent (after NJY) & 0 per cent on NJY feeder. The transformer failure rate on NJY feeder is nil as compared to that of rural feeder.

5. The average energy losses on rural feeder is 15.65 per cent (before NJY). The average energy losses is 9.21 per cent for B Tunga NJY feeder. The energy loss on NJY feeder is reduced as compared to rural feeder, which is a positive sign.
6. The maximum peak load on rural feeders is 208 Amps (before NJY) and the maximum peak load on IP feeder is 212 Amps (after NJY). The maximum peak load on IP feeders has increased compared to that of rural feeder. The maximum peak load on NJY feeder is 43 Amps.
7. The average AT&C losses of rural feeders is 23 per cent before NJY. The AT&C loss on NJY feeder after bifurcation is 14.9 per cent which is below 15 per cent and is a positive sign.
8. The average voltage regulation of rural feeder is 5.31 per cent (before NJY) and the average voltage regulation of IP feeder is 1.8 per cent (after NJY) & is 1.8 per cent for B Tunga NJY feeder. The tail end voltage levels of IP feeder and NJY feeder have improved as compared to rural feeder after NJY which is a positive sign.
9. The scheme provides an equal opportunity for students / educationists in rural areas to improve their educational prospects and is indirectly contributing towards improved literacy.
10. In all, "Niranthara Jyothi Yojana" scheme has brought an overall socio-economical change in rural areas. There are various HT consumers, MS buildings, Brick factories and many small scale industries which have benefited through the scheme. It will take some more time before complete benefits of NJY is clearly visible.

A copy of the Evaluation Report of M/s CPRI for Pandavapura Taluk is enclosed as Annexure-17 and the brief details of the same are given below:

Evaluation Report on NJY scheme for Pandavapura Taluk NJY Feeders:

Niranthara Jyothi Yojana is implemented by the CESC by bifurcating the rural feeders into IP feeders and NJY (Domestic) feeders.

The effectiveness of the scheme in rural areas can be measured in the lines of following indicators like provision of continuous power supply to the non-agricultural loads in villages, voltage profile improvement, provision for better quality and reliability of power supply, changes in the loading pattern to cater to additional loads, reduction in failure rate of distribution transformers, increase in metered energy sales.

The detailed physical inspection / verification of the NJY feeder is carried out based on the relevant data (scheduled interruptions, unscheduled interruptions, peak load, energy consumption, energy loss, AT&C loss and voltage regulation from the substations and O&M sections which are evaluated for a period of six months (maximum practically possible) before and after NJY implementation to analyze the benefits of the scheme.

Benefits of NJY Scheme

The benefits of NJY scheme could be visualized based on the analysis of the data for NJY feeders for Pandavapura taluk. The evaluation is based completely on the data furnished by CESC. The parameters analyzed to study the benefits of NJY are as detailed below:

- 1) Scheduled Interruptions-numbers & duration
- 2) Unscheduled Interruptions-numbers & duration
- 3) Reliability percentage of number of consumers benefitted under NJY
- 4) Energy Consumption
- 5) Voltage Regulation
- 6) Increase in Energy Sales
- 7) Energy loss
- 8) I²R loss
- 9) Peak Load

➤ **Peak load segregation for NJY consumers and IP feeder:**

Though 80 per cent of the consumers are shifted to NJY feeders the peak load of NJY feeder are in the range of 20-40 per cent of the

feeder before NJY and the IP feeders are in the range of 70-90 per cent of the feeder peak load before NJY. The feeder-wise peak load data is as furnished in Table 1 of this report.

➤ **I²R Loss Benefits due to NJY:**

As the peak load of NJY feeder is in the range of 20-50A. The maximum I²R loss would be of 50²xR.

R - The resistance of 11kV rabbit conductor.

Accordingly, the I²R loss would be=50²x0.522=0.4346 approximating to 0.45% of loss per km.

The transformer loss at the maximum of 2000 watts per transformer shall lead to approximately 6 per cent for an average of 30 transformers per feeder. Hence, the peak load loss of NJY feeders will be 15-20 per cent even if the line length works out to 40 km.

Hence, through this scheme, the IP feeders which have around 200 Amps as the peak load could reach a higher technical loss which is segregated.

➤ **Voltage Regulation**

As the peak load of NJY feeder is reduced from approximately 200 Amps to a range of 20-50 Amps. The voltage regulation in NJY feeder will be having approximately 0.25 per cent drop per km and there would be a maximum of 2.5 per cent drop.

Feeder Name	Interruption Scheduled Numbers (No)		Interruption Scheduled Hours (HH:MM:SS)		Interruption Unscheduled Numbers (No)		Interruption Unscheduled Hours (HH:MM:SS)		Peak Load (AMPS)		Consumption (KWH)		Energy Loss (%)	
	Before NJY	After NJY	Before NJY	After NJY	Before NJY	After NJY	Before NJY	After NJY	Before NJY	After NJY	Before NJY	After NJY	Before NJY	After NJY
R.M.Halli NJY	82	71	247:25:00	57:23:00	59.33	41	20:26:00	41:76:00	186.66	45	1.1	1.3	13.39	14.52
K.Bettahalli NJY	77	72	224:36:00	60:39:00	41	46	28:02:00	24:21:00	186	30	0.29	0.52	15.76	10.87
Melukote NJY	34.33	75	18:37:00	38:42:00	43.33	78	22:39:00	35:31:00	186	168	0.9	1.38	14.62	10.57
Banangadi NJY	23	27	13:03:00	20:27:00	32	46	23:16:00	13:26:00	92.5	51	0.405	0.532	17.35	11.07

Hosakannambadi NJY	16.25	29	20:33:00	30:09:00	43.75	24	20:53:00	11:43:00	156.5	85	1.01	1.02	21.5	9.52
Manikyanahalli NJY	27.5	36	14:02:00	32:03:00	38.5	31	19:35:00	18:06:00	195	30	0.66	0.94	15.41	10.25

➤ **Increase in Energy Sales:**

The benefits due to NJY scheme on energy sale is indicate in the table. This also could be substantiated based on the increase in reliability and the reduction in interruption duration for NJY consumers.

Feeder name	Consumption (MU)`		Increase in energy sales /month (in kwh)
	Before NJY	After NJY	
R.M.Halli NJY	1.1	1.3	200000
K.Bettahalli NJY	0.29	0.52	230000
Melukote NJY	0.9	1.38	480000
Banangadi NJY	0.405	0.532	127000
Hosakannambadi NJY	1.01	1.02	10000
Manikyanahalli NJY	0.66	0.94	280000

➤ **Transformer Failure Rate:**

The failure rate of distribution transformers connected to NJY feeders is reduced which is a positive sign.

Conclusion:

The important benefit based on the above analysis is the percentage of number of consumers having reliable power supply with a drastic reduction in the interruptions duration from approximately 200 hours to around a range of 30-50 hours per month.

The second important benefit is again an associated factor due to reduction in interruption duration leading to energy sales by approximately 30 per cent which is also reflecting on the energy consumption data as below which proves the benefits.

The other salient benefits are reduction in I²R loss, failure rate of transformers and energy loss and improvement in voltage regulation. With

the implementation of NJY scheme in Pandavapura taluk, quality and reliable power distribution to the consumers is possible.

Inspection on NJY Lines

Regular inspections and patrolling are being conducted by the O&M staff to ensure that NJY feeders are not tapped illegally for running IP sets. 19 cases of unauthorized tapping of IP sets on NJY feeders have been booked during FY17. The details are furnished below:

2016-17 (April-16 To March -17) NJY Cases							
Sl. No	Date	Division	Name & address of the consumer	CL	Units	BBC raised	Compounding raised
1	25/07/2016	N.R. Mohalla	1)Krishna S/o Late Masannegowda 2)Somanna S/o Late Masannegowda 3)Mahadeva S/o Late Masannegowda 4)Rachaiah S/o Late Masannegowda Kuppegala elle ,	5 H.P.	6750	64584	10000
2	21/5/2016	Mandya	Shivaswamy s/o Late Nanjaiah,	3.782 (4kw)	8640	52070	6000
3	23/5/2016	Maddur	Devegowda s/o Chikkakarigowda,	5HP (Rounded 3.75 KW)	675	6588	10000
4	27/5/2016	Maddur	Basavaraju s/o Rajaiiah,	5HP	2686	26215	10000
5	3/6/2016	Mandya	Buragegowda s/o late Lingaiah,	5HP	2025	19764	10000
6	3/6/2016	Mandya	S.Siddaiah s/o late Thimmegowda,	7.5HP	4050	39528	10000
7	7/6/2016	P.Pura	Devegowda s/o Chikkakalegowda,	7.5 HP	2160	21082	8000
8	21/6/2016	Maddur	Shankaregowda s/o Sannegowda,	3.5 kw	2700	26352	10000
9	28/1/2017	Maddur	Dinesh s/o Basavegowda, Jogipura(V),	5Hp	4320	42163	10000
10	28/1/2017	Maddur	Basavaraju s/o Puttegowda,	5Hp	4320	42163	10000
11	28/1/2017	Maddur	Basavaraju s/o Sannegowda	5Hp	4320	42163	10000
12	21/5/2016	Kollegal	Siddamallappa S/o Late K.Basappa.	3.73 KW	8100	30348	10000
13	08/7/2016	Nanjangudu	Sri. Kariyappa S/o BetteGowda	3.73 KW	1343	6549	10000
14	24.11.2016	Kollegal	1) Sri. Shivamurthi S/o Late Kemapaiah 2) Basavaraju S/o Late Kemapaiah 3) Sri. Puttanajamma W/o Late Kemapaiah.	3.75KW	4050	35640	10000

Five cases of unauthorized tapping of IP sets on NJY feeders have been booked during FY18 (as at the end of Sep-17). The details are furnished below:

2017-18 (April-17 To September-17) NJY Cases							
Sl. No	Date	Division	Name & Address of the Consumer	CL	Units	BBC Raised	Compounding Raised
1	15/9/2017	Mandya	Basavaraju Heggade s/o Hotteborappa	3.83 kw	17280	186099	10000
2	15/9/2017	Mandya	Halegowda s/o Halegowda	3.83 kw	17280	186099	10000
3	15/9/2017	Mandya	Chikkanna s/o Chikkaputtaiah,	3.83 kw	17280	186099	10000
4	23/9/2017	Mandya	H.N Nagaraju s/o late Lingegowda,	5 Hp	3240	36816	6000
5	05/8/2017	Ch.nagar	Sri. Ravi S/o Shivanna Uthuvalli, Village, Kasaba Hoballi,	3.75 KW	448	35640	10000

Commission's Views:

The Commission observes that there has been an inordinate delay on the part of the CESC in completion of the NJY works, across its jurisdiction which has only resulted in non-realization of envisaged benefits set out in the DPR when the project was initiated. As could be seen from its compliance, it is yet to complete all the works taken up under both NJY phase 1&2. As at present the progress achieved by the CESC is not satisfactory as it has commissioned totally 352 feeders under both NJY phase 1&2, leaving 18 feeders still to be completed. The CESC needs to expedite total commissioning of the NJY works taken up in its jurisdiction.

Therefore, the CESC is hereby directed to complete and commission the remaining 18 feeders expeditiously and thereafter carry out the analysis of those feeders so as to ensure that the objectives set out as per the DPR are accomplished. Further, the CESC shall ensure that any illegal tapping of NJY feeders by the farmers for running their IP-sets should be stopped immediately. Failure to stop this illegal activity will defeat the very purpose of feeder segregation works undertaken at huge cost and therefore, the CESC needs to take stern action on any such offenders. Further, the field

officers/officials who fail to curb illegal tapping shall be personally held responsible for these irregularities.

Further, the Commission notes that the CESC has carried out the analysis of feeders already commissioned under NJY phase 1&2. The Commission notes that the analysis has indicated the various benefits accrued to the system in terms of reduction in failures of distribution transformers; reduction in energy losses; improvement in tail-end voltage; improvement in supply/reduction in interruptions and increase in metered consumption. It is also indicated by the analysis that the consumers are satisfied in the wake of increased number of hours of availability of quality power, post implementation of NJY.

Further, it is noted that the CESC has already segregated 352 feeders under NJY phase 1&2 works and consequent to this, agricultural feeders are exclusively used to supply power to rural IP loads and the energy consumed by the IP-sets could be more accurately measured at the 11 KV feeders at the sub-stations after duly allowing for distribution losses in 11 KV lines, distribution transformers and LT lines. The CESC is directed to continue to report every month, specific consumption and the overall IP-set consumption only on the basis of data obtained from agricultural feeders' energy meters as per the prescribed formats.

The Commission reiterates its directive to the CESC to continue to furnish the details of feeder-wise IP-set consumption based on the data of energy meters fixed to the 11 KV feeders, to the Commission, every month in respect of agriculture feeders segregated under NJY.

12. Directive on Demand Side Management in Agriculture:

In view of the urgent need for conserving energy for the benefit of the consumers in the State, the Commission had directed the CESC to take up replacement of inefficient pumps with energy efficient pumps approved by the Bureau of Energy Efficiency, at least in one sub-division in its jurisdiction.

Compliance by the CESC

- As per the Commission's Tariff Order of FY17, the CESC has been directed to extend the Agriculture DSM Project in T. Narasipura and Varuna taluks for 1,753 IP sets as already proposed earlier. Therefore, to take up this work, baseline data of each IP set consumer with details of monthly consumption is required. However, since the IP sets are not metered and the DTCs feeding to the IP sets are not also provided with meters, assessment of the accurate consumption of IP sets is not possible. To obtain the baseline data and to ascertain the actual savings achieved after replacing the existing IP set motors by energy efficient motors, metering of the distribution transformers and the individual IP set consumers is very essential.
- In CESC, to implement the Smart Grid Pilot Project at Mysuru covering the areas of V. V. Mohalla and Hootagalli subdivisions, the DWA was issued to M/s Enzen Global Solutions Pvt. Ltd., vide letter No. CESC/SEE(Projects)/EEE/AEE/14-15/Cys-07 dated 30.04.2014 covering around 24,532 installations including IP consumers.
- The major scope of this project is smart metering with AMI (Advanced Meter Infrastructure) compatibility, Peak Load Management, Demand Response, Feeder monitoring, etc.
- The smart grid area also includes 580 IP set consumers in Hosakote feeder of Hootagalli subdivision, Mysuru. The system integrator will implement the GIS based IP set monitoring and control system of every consumer to monitor the usage of electricity with remote on/off facility but there is no scope for replacing the inefficient pump sets in the project.
- So, instead of T.N. Pura and Varuna areas, the CESC is now planning to implement the project in Smart Grid area of Hosakote feeder due to following reasons:
 - No investment for monitoring and control system.
 - There will be no manual intervention for obtaining baseline data and such data will be accurate.

Hence, provision for an amount of Rs 5.00 crores has been made in the Capex for the year 2017-18 & Rs. 5.00 crores for the year 2018-19, to implement the project. The tender has been called to select a consultancy service for preparation of DPR under Agri-DSM project in smart grid area. Evaluation of technical bid is completed and opening of price bid is in process.

Commission's Views

The Commission notes that the CESC is implementing the agriculture-DSM project in Smart Grid area of Hosakote feeder instead of implementing it in T. Narasipura and Varuna areas as planned earlier, contending that no investment is required for monitoring and control system and also no manual intervention for obtaining baseline data. As the location for implementation of agriculture-DSM project is now confirmed, the CESC needs to focus on early implementation of the project without further delay and advancing any other reasons. The Commission is of the view that any project conceived to be beneficial and techno-economically viable, should be implemented in a time bound manner to derive the envisaged benefits. The CESC is directed to speed up the agriculture-DSM project in view of the obvious benefits it could accrue to the system. Further, while implementing this project, it is important to take necessary measures for coordination with all the stakeholders concerned to arrive at a consensus on crucial measurement and verification methodology.

The Commission directs the CESC to expedite implementation of agriculture DSM project in Hosakote feeder of Mysuru city where it is also implementing Smart Grid project and submit the compliance thereon to the Commission within three months from the date of this Order.

13. Directive on Lifeline Supply to Un-Electrified Households:

The Commission had directed the ESCOMs to prepare a detailed and time bound action plan to provide electricity to all the un-electrified villages, hamlets and habitations in every taluk and to every household therein. The action plan was required to spell out the details of additional

requirement of power, infrastructure and manpower along with the shortest possible time frame (not exceeding three years) for achieving the target in every taluk and district. The Commission had directed that the data of un-electrified households could be obtained from the concerned Gram Panchayaths and the action plan be prepared based on the data of un-electrified households.

Compliance by the CESC

Under RGGVY 12th Plan the electrification of un-electrified households was proposed to be taken up in all the 5 districts of CESC and the details are as follows:

Sl. No	District	No. of habitations covered	No. of BPL house holds	No. of rural house holds	Project cost in Rs crore	Sanctioned by MoP
1	Mysuru	1621	14274	33401	18.84	Yes
2	Mandya	1610	10824	23336	12.48	Yes
3	Chamaraj-nagara	681	10504	20099	19.69	No
4	Hassan	3515	23316	40157	30.35	No
5	Coorg	435	6287	21177	12.92	No
Total		7,862	65,205	1,38,170	94.30	

- Survey and preparation of DPR was entrusted to M/s RECPDCL, New-Delhi.
- Sanction from MoP for Mysuru & Mandya districts is obtained and Lol has been issued and works are in progress.
- Sanction for Chamarajnagar, Hassan and Coorg districts were pending. But, before sanction of these schemes, DDUYGJY scheme was launched.

Details of un-electrified rural households (RHH) identified and the progress achieved as on 31.10.2017 is as follows (only Mandya & Mysuru districts):

No. Of un-electrified households identified as at the end of Mar-2017 in RGGVY-12 th Plan	No. of un-electrified households electrified from April-17 to Oct-17	Balance to be electrified	Target date for completion
17,760	12,908	4,852	Dec-2017

Decentralized Distribution Generation (DDG)

- The CESC has identified 67 hamlets covering 2,772 BPL households and also BPL households under DDG scheme, for electrification. The following are the details:
 - a. 29 hamlets, covering 1,539 BPL households have been sanctioned by "REC". DWA was issued on 16.11.2015 for two packages and on 02.01.2016 for one package. As on October 2017, 11 hamlets covering 630 households are completed and balance works are in progress.
 - b. In Stand-alone, as on October 2017, 37 hamlets covering 1,233 households and 2 hamlets covering 11 households are completed and balance works are in progress.
 - c. In 6 un-electrified villages, covered in (a) & (b), works in 4 villages are completed namely Bedaguli, Palar, Bellaji Beat & Bajimane Estate and the works in Indiganatha - A & B are in progress.

Details of un-electrified rural households identified and the progress achieved as on 31.10.2017 is as follows:

No. of un-electrified households identified as at the end of Mar-2017	No. of un-electrified households electrified from April-17 to Oct-17	Balance to be electrified	Target date for completion
88,052	24,099	63,953	Mar-2019

It is proposed to cover the above un-electrified households under various schemes as detailed below:

Scheme	Area covered	No. of un-electrified rural households covered	Remarks
RGGVY 12 th Plan	Mysuru and Mandya districts	8,219	Work is in progress
DDG	67 hamlets of Mysuru, Kodagu and Chamarajanagar districts	2,163	609 households completed, balance Works is in progress

Scheme	Area covered	No. of un-electrified rural households covered	Remarks
DDUGJY	Mysuru, Mandya, Hassan, Chamarajanagar & Kodagu districts	48,768	DWA issued to all districts
Proposed under Sowbhagya scheme	Mysuru, Mandya, Hassan, Chamarajanagar & Kodagu districts	4,803	Proposal yet to be submitted.
Total		63,953	

Commission's Views:

The Commission observes that the work of electrification of un-electrified households in the jurisdiction of CESC is moving at a snail's pace. As could be seen from its compliance, even after lapse of so many years there are a large number of households remain without having electricity, which is a matter of serious concern.

The Commission notes that out of the total 2,03,375 number of un-electrified households to be electrified, electrification of only 38,881 households has been reported, leaving a balance of 1,64,494 households. However, it is observed that only 63,953 households are covered for electrification under various schemes, meaning that around one lakh households are not covered under any of the schemes. The CESC should focus its attention and electrify these balance households by covering them under any of the schemes so as to provide the basic need of electricity to every household.

Further, the Commission concerned with the very slow pace of progress of electrification, in its previous Tariff Orders had directed the CESC to cover electrification of 5 per cent of the total identified un-electrified households every month beginning from April, 2015, so as to complete electrification of all the households in about twenty months. However, despite of the directive, the CESC is yet to achieve substantial progress in respect of works taken up under DDUGJY, DDG and SAUBHAGYA schemes.

The Commission therefore directs the CESC to initiate action to provide electricity to the un-electrified households and cover all the remaining households, expeditiously and report compliance thereon to the Commission on the monthly progress achieved from May, 2018 onwards. The Commission, as already indicated in the earlier Tariff Orders, would be constrained to initiate penal proceedings under section 142 of the Electricity Act, 2003, against CESC, in the event of its continued non-compliance of the directive.

14. Directive on Implementation of Financial Management Framework:

The present organizational set up of the ESCOMs at the field level appears to be mainly oriented to maintenance of power supply without a corresponding emphasis on realization of revenue. This has resulted in a serious mismatch between the power supplied, expenditure incurred and the revenue realized in many cases. The continued inability of ESCOMs to effectively account the input energy and its sale in different sub-divisions of the ESCOM in line with the revenue realization rate fixed by the Commission, urgently calls for a change of approach by the ESCOMs, so that the field level functionaries are made accountable for ensuring realization of revenues vis-à-vis the input energy supplied to the jurisdiction of sub-division/ division.

The Commission had therefore directed the CESC to introduce a system of Cost-Revenue Centre Oriented sub-divisions at least in two divisions, on a pilot basis, in its operational area and report the results of the experiment to the Commission.

Compliance by the CESC

As directed by the Commission, the CESC has implemented the model suggested by the consultant i.e., M/s PWC, in its jurisdiction covering divisions & subdivisions to bring accountability to their performances in relation to the quantum of energy input, sold and its cost, in order to conduct the business on commercial principles.

The CESC has reviewed the performance of the divisions for the period from April to September 2017 in respect of energy received, sold, average revenue realization and average cost of supply using the financial framework as directed in the Tariff Order.

The following areas for each month and as well as cumulative performance of the divisions are being analyzed at corporate level.

- 1)
 - a) Target Losses fixed and achievement level at each stage.
 - b) Target revenue to be billed and achievement level at each category.
 - c) Targeted revenue to be collected and achievement level at all categories.
- 2) Targeted distribution loss reduction when compared to previous years' losses.
- 3) Comparison of high performance divisions in sales with low performance divisions.

Further divisional officers have been directed to implement the same model at their subdivision levels. In this regard workshops were also conducted at CESC's Corporate Office.

The following measures have also been taken to reach targeted ARR and also achieve 100 per cent collection efficiency.

1. Revenue Monitoring Cell has been created for exclusively monitoring the 100 per cent billing, collection along with dues of previous months, analyzing sub normal consumption pattern, ensuring correct metering constants in billing, age-wise arrears analysis to be collected and replacement of not recording meters.
2. Introducing Android Mobile Billing system.
3. Introducing Photo Billing system in order to ensure the correctness of meter reading.
4. SMS alerts to consumers regarding due date for electricity bill payment.

The CESC has achieved 94.86 per cent collection efficiency and 91.26 per cent billing efficiency from April to September 2017. The analysis of the performance of all the divisions during FY18 (up to September 17) using the financial framework is enclosed as **Annexure-14**.

Commission's Views:

The CESC has not submitted the compliance report in respect of implementation of Financial Management Framework Model, on quarterly basis as directed. The CESC is directed to submit the compliance regularly as directed.

The Commission notes that the CESC is monitoring the performance of divisions and subdivisions, using the financial framework Model suggested by the Consultants. The CESC is directed to continue to review the performance of the divisions & sub-divisions in relation to total energy received, sold, average revenue realization and average cost of supply using the Model.

Further, the CESC should continue to analyze the following parameters for each month to monitor the performance of the divisions/sub-divisions at corporate level.

- a) Target losses fixed and the achievement.
- b) Target revenue to be billed and achievement.
- c) Target revenue to be collected and achievement.
- d) Targeted distribution loss reduction when compared to previous years' losses.
- e) Comparison of high performance divisions in sales with low performance divisions.

Based on the analysis, the CESC shall take corrective measures to ensure 100 per cent meter reading, billing, and collection; analysis of sub-normal consumption; replacement of non-recording meters; etc.

The Commission reiterates its directive that the CESC shall review the performance of its divisions & sub-divisions using the Financial Management Framework model and regularly report compliance thereon on a quarterly basis to the Commission.

15. Directive on Prevention of Electrical Accidents:

The directive is as follows:

“The Commission has reviewed the electrical accidents that have taken place in the State during the year 2016-17 and with regret noted that as many as 402 people and 416 animals have died in the State due to these accidents.

From the analysis, it is seen that the major causes of these accidents are due to snapping of LT/HT lines, accidental contact with live LT/HT/EHT lines, hanging live wires around the electric poles /transformers etc., in the streets posing great danger to human lives.

Considering the above facts, the Commission had directed the CESC to prepare an action plan to effect improvements in the transmission and distribution networks and implement safety measures to prevent electrical accidents. Detailed division wise action plans shall be submitted by the CESC to the Commission.

Compliance by the CESC:

The details of electrical accidents occurred during FY17 and up to October 2017 are appended below:

Sl. No.	Year	No of accidents	Departmental		Non - departmental		Animals	Compensation paid in Rs lakh
			Fatal	Non-fatal	Fatal	Non-fatal		
1	FY17	151	3	16	54	15	63	75.98
2	FY18 (up to Oct-17)	119	1	14	32	21	51	3.59

The copy of the Safety Technical Manual prepared by a sub-Committee, constituted by the Commission, comprising of experts from the Advisory

Committee has been uploaded on CESC's website for the benefit of all employees as well as the consumers.

In order to prevent electrical accidents and spread awareness about safety and conservation of energy, following action plan has been initiated in CESC.

- Identifying and rectification of hazardous locations like providing intermediate poles to lengthy spans, replacement of deteriorated service wires/conductors/poles, replacement of lower size conductor by higher size, restringing of loose spans, shifting the transformers and lines which are close to buildings or in dangerous locations etc.
- Proper periodical and preventive maintenance of the distribution system and cutting of tree branches coming in contact with power lines.
- Providing all safety equipment to linemen and surprise inspection of works to check the use of safety equipment by them.
- Conducting safety meetings at section offices, to train the maintenance staff regarding use of safety equipment and adherence to safety procedures while working on lines like earthing on both sides of working zone, use of hand gloves, insulated tools etc.
- Issuing Notices to consumers constructing the buildings near distribution system and to ensure proper clearances before servicing of new installations.
- Educating the consumers regarding the safety precautions to be taken by them to avoid accidents, through media, interaction meetings, distributing pamphlets.
- Exhibiting the safety advertisements containing safety aspects in prime location during public programmes, to educate the general public regarding the safety precautions to be taken to avoid accidents.
- Safety awareness advertisement at Railway Stations, Chandana TV Programme, Vividabharati Radio Programme.

- Safety awareness through street plays.
- Highlighting the issues of conservation of energy and prevention of electrical accidents on the reverse of the monthly electricity bill.
- Displaying hoardings at all district Head Quarters and all offices of CESC.
- Conducting quiz program, essay competition and debates among students studying in High Schools, ITI and Diploma Institutions.

Progress regarding action taken for reduction of electrical accidents up to Oct-2017							
SI No	Details of action taken	Mysuru		Ch. Nagar-kodagu	Mandya	Hassan	Total
1	Replacement of damaged/ deteriorated RCC, PSC, I-Beam, Tubular, ladder, wooden poles	Nos	881	2010	1108	1842	5841
2	Replacement of deteriorated Aluminium conductor	Ck ms	23.01	5.45	112.95	0	141.41
3	Enhancement of size of conductor	Ck ms	1.5	0	11.65	0	13.15
4	Replacement of copper conductor	Ck ms	0	0	0	2.68	2.68
5	Providing intermediate poles	Nos	413	377	131	934	1855
6		Nos	358	349	106	677	1490
7	No of slanted poles set right	Nos	468	482	526	1585	3061
8	No of places where lines close to /above the buildings are shifted	Nos	165	44	14	138	361
9	No of places where the transformers are shifted to safe places	Nos	12	2	6	13	33
10	No of places where Jumbled service main connections are set right	Nos	1117	281	83	1665	3146
11	No of places where LT kits /MCCBs are provided	Nos	121	46	75	30	272

Progress regarding action taken for reduction of electrical accidents up to Oct-2017							
SI No	Details of action taken	Mysuru		Ch. Nagar-kodagu	Mandya	Hassan	Total
12	No of places where Aerial Bunched cables are provided	km	13.21	0	2.5	1	16.71
13	No of awareness programs for public is conducted	Nos	118	7	8	40	173
14	No of training programs to our field staff conducted	Nos	151	2	9	198	360
15	No of other preventive maintenance works like tree cutting, restringing of wires, providing proper fuses, replacement of Lead wires, providing proper earthing etc., is carried out	Nos	1755	836	150	5398	8139

Progress regarding action taken for reduction of electrical accidents up to March-2017							
SI. No	Details of Action Taken		Mysuru	CR Nagar-Kodagu	Mandya	Hassan	Total
1	Replacement of damaged/ deteriorated RCC, PSC, I-Beam, Tubular, ladder, wooden poles	Nos	1289	1551	876	1527	5243
2	Replacement of deteriorated Aluminium conductor	Ckms	18.36	0	35.4	0.1	53.86
3	Enhancement of size of conductor	Ckms	17.71	0	13.53	0	31.24
4	Replacement of copper conductor	Ckms	0	0	0.5	0	0.5
5	Providing intermediate poles	Nos	581	9239	122	932	10874

Progress regarding action taken for reduction of electrical accidents up to March-2017							
Sl. No	Details of Action Taken		Mysuru	CR Nagar-Kodagu	Mandya	Hassan	Total
6		Nos	522	6932	145	2180	9779
7	No of slanted poles set right	Nos	703	959	245	2066	3973
8	No of places where lines close to /above the buildings are shifted	Nos	319	287	29	151	786
9	No of places where the transformers are shifted to safe places	Nos	26	21	26	5	78
10	No of places where Jumbled service main connections are set right	Nos	2151	2359	104	2616	7230
11	No of places where LT kits /MCCBs are provided	Nos	114	142	107	2	365
12	No of places where Aerial Bunched cables are provided	km	10	0	1	0	11
13	No of awareness programs for public is conducted	Nos	193	32	19	85	329
14	No of training programs to our field staff conducted	Nos	95	57	14	73	239
15	No of other preventive maintenance works like tree cutting, restringing of wires, providing proper fuses, replacement of Lead wires, providing proper earthing etc., is carried out	Nos	2928	2033	203	7293	12457

Commission's Views:

The Commission notes that despite remedial measures including rectification of number of hazardous installations having been taken by

the CESC, the number of fatal electrical accidents involving both human and livestock has increased, which is a matter of serious concern.

The occurrence of electrical accidents indicates the existence of hazardous installations in the network and hence, proper identification and rectification of hazardous installations, should be regularly carried out without any let up. Therefore, the CESC should focus its attention for identification and rectification of all the hazardous installations, including streetlight installations / other electrical works under the control of local bodies, on a continuous basis to prevent electrical accidents. In addition, continuous awareness campaign through visual/print media about safety aspects among public should be taken up.

CESC should carry out more effective periodical maintenance works, provide and install LT protection to distribution transformers and also ensure use of safety tools & tackles by the field staff besides imparting necessary training to the field staff at regular intervals.

Also, the Commission notes that the hazardous installations in the distribution network is definitely because of the works carried out shabbily without adhering to the best construction practices as per the standards, while taking up construction/expansion of the distribution network. The CESC needs to conduct regular safety audit of its distribution system and to carryout preventive maintenance works as per the schedule following the guidelines from the Safety Technical Manual issued by the Commission in order to keep the network equipment in healthy condition.

The Commission, reiterates its directive that the CESC shall continue to take adequate measures to identify and rectify all the hazardous locations/installations existing in its distribution system under an action plan to prevent and reduce the number of electrical accidents occurring in its distribution system. The compliance thereon shall be submitted to the Commission every month, regularly.