

**ODISHA ELECTRICITY REGULATORY COMMISSION**  
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**No.DIR (T)-368/09/  
Dated- 27.06.2012**

From  
Secretary I/c.

To  
The CEO,  
CESU, Janpath  
Bhubaneswar.

Sub: **Review of Performance of CESU for April, 11 to March, 2012 held in OERC on 28.05.2012.**

Sir,

In inviting a reference to the subject cited above, I am directed to send herewith the aforesaid report for your information and necessary action.

Yours faithfully,

Encl : As above.  
Attendance Sheet

**SECRETARY**

**Copy to:**

- i) The Principal Secretary, Department of Energy, Govt. of Orissa along with copy of the enclosure for favour of information.
- ii) The CMD, GRIDCO, Janpath, Bhubaneswar along with copy of the enclosure for favour of information.
- iii) The CMD, OPTCL, Janpath, Bhubaneswar along with copy of the enclosure for favour of information.

**Minutes of Performance Review of CESU  
from April, 11 to March 2012 held in OERC on 28.05.2012.**

Date of Review : 28.05.2012 at 11.00 AM

Period of Review : From April, 2011 to March, 2012

Representative of CESU, GRIDCO and OPTCL present during the review is attached as annexure -1

1. Shri M K Singh, GM (AT&C), CESU, made a presentation before the Commission about the performance of CESU during the period from April, 2011 to March., 2012 as per the agenda items indicated by the Commission. Commission's Observations on Licensee's Performance in brief are as follows:

**Performance of CESU**

2. The Commission noted that during the period under review the energy purchased by the licensee was found to be 7232.60 MU compared to the energy input of 7069.31 MU during the FY 2010-11 resulting an increase of 163.29 MU compared to the previous year. During the period under review the revenue generated by the licensee was Rs.1916.25 Crore against Rs.1576.84 Crore generated during FY 2010-11. During the period under review the AT& C loss has decreased by 1.03% compared to the previous year. The reduction of AT&C loss was aided by decrease in overall loss by 0.11% and increase in billing efficiency by 0.11% compared to the previous year. Apart from that the licensee has achieved an excess collection of Rs.339.41 Crore over the previous year due to increased collection under one time settlement (OTS) Scheme. It has also resulted in an increased overall and LT Collection Per Input by 34.30 p/u and 20.01 P/U respectively. A brief overview of the revenue and loss parameters of CESU is as given below:

<b>REVENUE PERFORMANCE OF CESU</b>				
	<b>Actual 2010- 11</b>	<b>Actual for FY 11-12</b>	<b>Improvement over Previous Year</b>	<b>Approval for 2011- 12</b>
Energy input (MU)	7069.31	7232.60	163.29	7791
<b>SALE TO CONSUMERS (MU)</b>				
EHT	1397.23	1309.32	-87.91	1525.79
HT	852.22	863.46	11.24	1077.1
LT	2111.99	2297.01	185.02	3318.27
<b>TOTAL</b>	4361.44	4469.79	108.35	5921.16
<b>LOSS (%)</b>				
LT	51.63%	49.91%	-1.72%	
HT & LT	47.74%	46.64%	-1.10%	
<b>OVERALL</b>	38.30%	38.20%	-0.11%	24.00%
<b>BILLING EFFECIENCY (%)</b>				
HT	92.00%	92.00%	0.00%	
LT	48.37%	50.09%	1.72%	
HT & LT	52.26%	53.36%	1.10%	
<b>OVERALL</b>	61.70%	61.80%	0.11%	
<b>COLLECTION RECEIVED (CR.)</b>				
EHT	576.92	657.53	80.61	768.39
HT	371.75	458.73	86.98	573.91
LT	628.17	799.99	171.82	1042.49
<b>TOTAL</b>	1576.84	1916.25	339.41	2384.8

<b>AT &amp; C LOSS (%)</b>				
LT	56.55%	52.94%	-3.61%	
HT & LT	51.57%	48.26%	-3.31%	
<b>OVERALL</b>	41.00%	39.97%	-1.03%	24.76%
<b>Collection Per Input-LT</b>	143.87	163.89	20.01	222.43
<b>Collection Per Input-Overall</b>	223.05	257.36	34.30	306.10

### **BILLING Analysis of CESU**

3. While analyzing the billing pattern of CESU it is observed that the EHT consumption has decreased from 32.04% to 27% and HT consumption has increased from 19.54% to 27% during the FY 2011-12 compared to the previous year i.e. FY 2010-11. In case of LT consumption there is a marginal decrease in consumption from 48.42% to 47% during the same period. The CEO, CESU stated that the increased HT consumption has neutralized the effect of the decrease in EHT consumption resulting the net revenue inflow unchanged. The Commission expressed satisfaction for the higher level of billing from BPL consumers at Rs.78.25 per month during the current financial year. However, the billing figure from domestic consumer's i.e Rs.217.28 only per month is quite low and this needs to be improved. Similarly the per month billing from Specified Public Purpose consumer which is Rs.1448.86 only is quite low. The licensee is required to focus on the billing efficiency from such category of consumers. The Commission insisted for street vigilance measures to analyze the consumption pattern of LT general and high end consumers of the licensees. A brief over view of the consumption of CESU is as given below:-

<b>CONSUMPTION OF CESU-As on March-2012</b>						
<b>Category</b>	<b>No. of Consumer</b>	<b>Consumption (MU)</b>	<b>Realization Paise/Kwh</b>	<b>Billing per Consumer Rs. per Month(Rs)</b>	<b>% Consumption for 2011-12</b>	<b>% Consumption for FY 2010-11</b>
Domestic	1315948	1562.45	219.60	217.28	68.02%	67.37%
Kutir Jyoti	17579	9.91	166.12	78.04	0.43%	
L.T. General (Com)	124664	474.10	585.05	1854.12	20.64%	20.97%
Irrigation	10088	28.23	109.42	255.17	1.23%	1.38%
Agro	0	0.00			0.00%	
Allied Agro	0	0.00			0.00%	
Street Lighting	519	28.16	441.35	19955.68	1.23%	1.28%
PWW	3045	52.85	476.08	6885.80	2.30%	2.37%
Small Industry	7978	44.79	601.85	2815.75	1.95%	2.14%
Medium Industry	1530	64.67	719.52	25343.74	2.82%	3.04%
Specified Pub. Purpose (P.I.)	8795	31.87	479.74	1448.68	1.39%	1.44%
General Purpose	0	0.00			0.00%	0.00%
Large Industry	0	0.00			0.00%	0.00%
<b>TOTAL L.T.</b>	1490146	2297	327.20	420.31	100.00%	100.00%
<b>SUMMARY</b>						
<b>EHT</b>	21	1309.32			<b>27%</b>	32.04%
<b>HT</b>	1371	1309.32			<b>27%</b>	19.54%
<b>LT</b>	1,490,146	2,297			<b>47%</b>	48.42%
<b>CESU Total</b>	1491538	4,916			<b>100%</b>	100.00%

### Arrear Analysis of CESU

4. CESU has an arrear of Rs 1502.36 Cr as on 31<sup>st</sup> March 2012 against Rs 1447.47 Cr on 31<sup>st</sup> March 2011. The licensee has collected Rs 110.06 Cr only against the target of the Commission for collection of arrear by Rs 250 Cr while approving the ARR of CESU for FY 2011-12 vide para 640 of the RST order. Thus the reduction of net arrear is quite negligible compared to the target of the Commission. More over the arrear added during the period is Rs 164.95 Cr against the collection of arrear of 110.06 Cr. The increase of arrear is due to increase in EHT arrear from Rs 15.96 Cr to Rs 32.74 Cr as on 31<sup>st</sup> March 2012. The Commission expressed concern for the increase in arrear in EHT category and emphasized to focus on LT ghost consumers where a substantial amount of arrear has to be collected. A brief overview of the arrear position of the licensee is as given below:

STATUS OF ARREAR-CESU										
Category	Arrear as on 31-03-1999	Arrear as on 31.03.2011 (Rs. Cr.)	Arrear Added during 1st 6 Months	Billing for the 2011-12 (Rs. Cr.)	Collection against current dues for the fy 2011-12	Collection against arrear for the fy -2011-12	Total Collection for thr fy 2011-12	Arrear for the period (Rs. Cr.)	Arrear as on 31.03.2012	Arrear Added during Last 12 Months
	1	2		3	4	5	6=(4+5)	7=(3-4)	8=(2+7-5)	
<b>EHT</b>		15.96	5.51	657.53	637.46	3.29	640.75	20.07	32.74	16.78
<b>HT</b>		62.83	13.37	335.60	326.26	7.01	333.27	9.34	65.16	2.33
<b>LT</b>		1162.23	18.82	731.55	625.85	71.12	696.97	105.70	1196.81	34.58
<b>Govt. Dept. &amp; PSU -LT</b>		137.74	12.60	68.44	47.30	7.32	54.62	21.14	151.56	13.82
<b>Govt.-HT</b>		68.71	6.23	123.13	114.43	21.32	135.75	8.70	56.09	-12.62
<b>Grand Total</b>		<b>1447.47</b>	<b>56.53</b>	<b>1916.25</b>	<b>1751.30</b>	<b>110.06</b>	<b>1861.36</b>	<b>164.95</b>	<b>1502.36</b>	<b>54.89</b>

### Performance of CESU in Upgradation of System

5. Regarding the performance of CESU in improving the network system, it is observed that out of 114 no. of 33 KV feeders only 80 nos. of feeders are having metering facility. Out of those 80 nos. of feeders, energy audit of only 51 No of feeders could have been made possible by the licensee so far. Despite several instructions in the past the licensee is not showing seriousness to take up energy audits of its feeders. Similarly out of 647 no. of 11 KV feeders, 547 nos. of feeders are metered and the licensee is able to audit 188 nos. of feeders only. The licensee is directed to submit the energy audit report of those 11 No of feeders before the Commission by end of June 2012. The no of 33 KV and 11 KV breakers available with the licensee is only 327 and 654 against the requirement of 674 and 945 respectively. Similarly, so far Distribution Transformer metering system of the licensee is concerned out of 35171 nos. of DTRs only 9750 nos. are metered and Energy audit for only 853 nos. are so far have been made possible by the licensee. The Commission insisted to speed up the energy audit process for quicker turn around of the industry. Regarding the status of metering as submitted by the licensee the Commission is of opinion that the licensee should carefully assess the metering statistics provided to the Commission. Further the Commission vide para 6 of its letter no DIR(T)-336/08/2544 dated 13.01.2012 has insisted to install AMR with all high valued consumers in steps starting from 20 KW initially. The licensee has not submitted the no. of consumers having AMR metering out of 33238 nos. of consumers above 10 KW load. The Commission directed to

complete the 100% AMR metering for all high value consumers above 10 KW by end of this Financial year. A brief overview of the network system of the licensee is as given below:

<b>PERFORMANCE OF CESU-SYSTEM UPGRADATION AS ON MARCH-2012</b>				
	<b>As on 31<sup>st</sup> March 2010 (FY-09-10)</b>	<b>As on 31<sup>st</sup> March 2011(FY 10-11)</b>	<b>As on 30<sup>th</sup> Sept 2011</b>	<b>As on 31<sup>st</sup> March 2012(FY11- 12)</b>
No. of 33 KV feeders (excluding GRIDCO interface)	109	114	114	114
No. of 33 KV feeder metering	79	68	68	80
No. of 33 KV Group & Feeder Breakers Required	-	-	-	674
No. of 33 KV Group & Feeder Breakers Installed	-	-	-	327
Energy Audit Carried Out-33 KV	65	42	44	51
No. of 11 KV feeders	601	623	624	647
No. of 11 KV feeder metering	495	513	535	540
No. of 11 KV Group & Feeder Breakers Required	0	0	0	945
No. of 11 KV Group & Feeder Breakers Installed	0	0	0	654
Energy Audit Carried Out-11 KV	30	30	129	188
No. of distribution transformers (11/0.4 & 33/ 0.4 kv)	22796	25848	29624	35171
No. of distribution transformer metering position	8832	9421	9750	9750
Energy Audit Carried out- No of DTRs covered	225	275	550	853
Total number of meters	1107273	1259610	1330423	1458235
No. of working meters	999281	1135702	1188708	1287107
Percentage of working meters	87.39%	87.75%	89.35%	88.26%
No of 3 Phase Consumers	33963	36747	38545	39907
No of Consumers with TOD benefit	285	524	604	715
No of Consumers above 10 KW load	12117	14012	15211	33238
No of Consumer AMR metering	0	0	0	0

#### **Performance of CESU Vis-Vis the Sector as a whole**

- An insight to the performance of the all distribution companies in the state shows that the overall loss in the sector is found to be 38.55% for the FY 2011-12 against the OERC approval of 21.71%. The loss is highest in SOUTHCO at 46.42% and lowest at NESCO at 34.28%. The input to the energy sector has remained at 21242.59 MU for the period under review against the OERC approval of 22477 MU. The drawal of energy in all DISCOMs except SOUTHCO has remained less compared to the approval of the Commission. This proves that all the companies had tried to reduce loss by reducing the energy input to the system. The revenue generated in the system has remained at Rs.5564.74 cr, against the OERC approval of Rs.7109.57 cr. A brief overview of the overall performance of Odisha is as given below:

<b>Performance of DISCOMs (All Odisha)-Sales-As on March-2012</b>					
	<b>CESU</b>	<b>NESCO</b>	<b>WESCO</b>	<b>SOUTHCO</b>	<b>FY 2011-12</b>
<b>BULK SUPPLY</b>					
<i>Energy input (MU) Annual/ Half Yearly OERC APPROVAL</i>	7,791.00	5,323.00	6,630.00	2,733.00	22,477.00
Energy input (MU)	7,232.60	5,023.40	6,172.46	2,814.13	21,242.59
<b>SALE (MU)</b>					
EHT	1,309.32	1,672.56	1,345.51	383.93	4,711.32
HT	863.46	467.75	1,165.14	162.32	2,658.67
LT	2,297.01	1,161.22	1,264.36	961.42	5,684.02
<b>TOTAL</b>	<b>4,469.79</b>	<b>3,301.53</b>	<b>3,775.01</b>	<b>1,507.68</b>	<b>13,054.01</b>
<i>OERC APPROVAL</i>	5,921.16	4,343.57	5,323.89	2,008.76	17,597.38
<b>LOSS (%)</b>					
LT	49.91%	55.59%	61.40%	53.63%	54.71%
<b>OVERALL</b>	<b>38.20%</b>	<b>34.28%</b>	<b>38.84%</b>	<b>46.42%</b>	<b>38.55%</b>
<b>OERC APPROVAL</b>	<b>24.00%</b>	<b>18.40%</b>	<b>19.70%</b>	<b>26.50%</b>	<b>21.71%</b>
<b>COLLECTION RECEIVED (CR.)</b>					
EHT	640.75	842.76	736.33	195.90	2,415.74
HT	469.02	260.73	605.54	87.62	1,422.92
LT	751.59	354.22	335.76	284.51	1,726.08
<b>TOTAL</b>	<b>1,861.36</b>	<b>1,457.71</b>	<b>1,677.64</b>	<b>568.03</b>	<b>5,564.74</b>
<b>AT &amp; C LOSS (%)</b>					
LT	52.94%	55.67%	65.34%	55.91%	57.23%
HT & LT	48.26%	51.72%	51.92%	55.33%	51.08%
<b>OVERALL</b>	<b>39.97%</b>	<b>33.91%</b>	<b>40.60%</b>	<b>47.60%</b>	<b>39.73%</b>
<i>OERC APPROVAL</i>	24.76%	19.22%	20.50%	27.23%	
<b>Collection Per Input-LT</b>	163.89	135.46	102.50	137.21	<b>137.54</b>
<b>Collection Per Input-Overall</b>	257.36	290.18	271.79	201.85	<b>261.96</b>

## **COMPLIANCE TO THE DIRECTIVES OF THE COMMISSION**

### **Reduction of Theft**

7. The Commission vide para 14 of the minutes of meeting held during the month of December, 2011 had directed to take following measures to reduce theft of electricity
  - i. Verification of load and contract demand of all high valued consumers with CD > 20 KW.
  - ii. Regular cross checking of meter readings to be carried out and penalty should imposed on billing agencies.
  - iii. The target for the number of raids to be carried out by DISCOMs was 720, 540 for CESU and NESCO and 180 each for WESCO and SOUTHCO respectively.
  - iv. The revenue generated by conducting raids etc. with help of Energy Police Stations should be 10 times the expenditure incurred towards the same.

Against the above directives the no. of cases finalized under Section 126 and 135 by CESU was 2094 nos. and the amount finalized was Rs.2.60 crore during the current financial year. The amount collected by the licensee by regularizing 1852 nos. of

connection was Rs.0.60 cr. during the period under review. A brief overview of the anti-theft activities undertaken by the licensee is given below:

Anti Theft Measures	As on 31 <sup>st</sup> March 2010 (FY-09-10)	As on 31 <sup>st</sup> March 2011 (FY 10-11)	As on 30 <sup>th</sup> Sept 2011	As on 31 <sup>st</sup> March 2012 (FY 11-12)
No of cases Finalized under Section 126 & 135		11863	3125	2094
Amount Finalized		3.17	0.70	2.60
Amount Accessed during filing of case				2.60
No of new connections given		4745	1406	1852
No of Connection Regularized		4745	1406	1852
Amount Collected (Cr.)		0.55	0.16	0.60
No. of FIR Lodged	298	519	438	559
No. of illegal consumers prosecuted/Initiated in Court			312	
Number of disconnection made			752	
Revenue realized (Rs. Cr.)			0.16	

#### IMPLEMENTATION OF FRANCHISEE

8. While approving the ARR of DISCOMs for FY 2011-12 the DISCOMs were directed vide para 642 of RST order to spread franchisee activities by at least setting up of 3 nos. of Micro Franchisees per section by the end of the FY 2011-12. Thus the target for FY 201-12 was to cover at least 3,75,500 consumers of CESU, 187,500 consumers for WESCO and NESCO and 2,02,500 consumers for SOUTHCO by the end of the FY 2011-12. Against this the total no. of Micro Franchisees, Macro franchisees and Input base Franchisee as on 31.03.2012 in respect of CESU are given in the table below.

Franchisee Activity	As on 31 <sup>st</sup> March 2010 (FY-09-10)	As on 31 <sup>st</sup> March 2011 (FY 10-11)	As on 30 <sup>th</sup> Sept 2011	As on 31 <sup>st</sup> March 2012 (FY 11-12)
No of Micro-Franchisees	19	207	318	448
No of Consumers Covered	18473	120826	192799	274970
No of Macro-Franchisees	5	14	16	27
No of Consumers Covered	86646	218990	229836	322892
No of Input Based-Franchisees		1	3	3
No of Consumers Covered		25384	88347	94018
Total no of consumers covered under Franchisee	105119	365200	510982	691880

#### CONSUMER SERVICE

9. While analyzing the service provided by the licensee to the consumers, it is observed that CESU has not provided the nos. of interruptions in 33 KV and 11 KV feeders. During the period of review the no. of power transformers, nos. of distribution transformers failed are found to be 13 and 1909 nos. respectively against 421 nos. of power transformers and 35171 nos. of DTRs. The performance of CESU in compliance of GRF orders is not encouraging. It has only complied 951 nos. of cases so far against 1127 nos. of orders received. The CEO, CESU stated that they have taken several measures to improve quality of supply to the consumers. With their

intense effort the no. of transformers burnt has shown a sign of decline during last three years despite a significant increase in the number of distribution transformers. A brief overview of the consumers services provided by CESU is as given below:

<b>QUALITY OF SUPPLY</b>	<b>As on 31<sup>st</sup> March 2010 (FY-09-10)</b>	<b>As on 31<sup>st</sup> March 2011 (FY 10-11)</b>	<b>As on 30<sup>th</sup> Sept 2011</b>	<b>As on 31<sup>st</sup> March 2012 (FY 11-12)</b>
Failure of Power Transformers	23	25	13	13
No. of transformers burnt	2911	2589	1909	1909
Cost involved (Cr.) due to Transformer Burning	7.28	6.39	4.71	NA
No of Interruptions in 33 KV Feeders		34165	16763	16763
No of Interruptions in 11 KV Feeders		136565	105617	105617
No. of Grievances received through CHP			15,637	29274
Disposed through CHP including Bijuli Adalat			15,224	28343
No. of GRF Orders received			1,026	1127
No. of GRF Orders Complied			949	951

#### **SYSTEM IMPROVEMENT**

10. While approving the ARR of CESU for FY 2011-12 the Commission had given following targets vide para 634 of the RST Order.

- 1) Upgradation and installation of new transformers - 800 nos.
- 2) Load balancing in three phases of DTR - 1500 nos.
- 3) Conversion of single phase to three phase line - 100 KMs.
- 4) Strengthening of AB cables - 250 KMs.

Against this target the achievement of CESU is very poor. A brief overview of the system improvement provided by CESU is as given below:

<b>SYSTEM IMPROVEMENT WORKS DURING REVIEW PERIOD</b>	<b>As on 31<sup>st</sup> March 2010 (FY-09-10)</b>	<b>As on 31<sup>st</sup> March 2011 (FY 10-11)</b>	<b>As on 30<sup>th</sup> Sept 2011</b>	<b>As on 31<sup>st</sup> March 2012 (FY 11-12)</b>
Installation of New Transformers	540	413	265	583
Upgradation of Transformers	373	273	89	156
Installation of Pillar Box	1669	2619	2619	2619
Length of AB Cable Laid	213.38	258.42	69.44	98.47
Conversion of Single Phase to Three Phase Lines	52.34	93.31		32.50

#### **DIRECTIVES OF THE COMMISSION IN THE PRESENT REVIEW**

##### **Installation of pre-paid meters**

11. The Commission while approving the ARR of the DISCOMs for FY 2012-13 has categorically emphasized installation of pre-paid meters vide para 527 of the RST Order. In case any Govt. consumer defaults in payment of electricity bills thrice in a year, the said consumer has to install pre-paid meters and power supply should not be restored unless pre-paid meters are put in place. However, prior to the installation of pre-paid meters the licensee must adopt all necessary software, hardware and billing



measures etc. to cope of with the requirement for installation of pre-paid meters. Apart from that there are many consumers like retired officials who may show interest for installation of pre-paid meters to get benefit of hassle free payment of electricity dues. In order to achieve the same Commission directed CESU to put in place an appropriate advertisement in the Newspapers to get necessary feedback from such consumers.

### **Implementation of Smart Grid Solution (AMR/AMI) in DISCOMs under Boot Model**

12. Adoption of technology is the best solution to avoid theft of electricity. While the franchisee route is adopted in the rural areas to achieve pre-defined target Collection per unit Input by reducing AT&C loss, Boot model in revenue sharing basis should be extended in semi-urban areas of the State to achieve the same. The Commission has categorically directed to all the DISCOMs vide para 532 of ARR Order of the DISCOMs for FY 2012-13 to handover at least three divisions under their control to be managed by BOOT operators in accordance with the broad principles issued by the Commission in their Lr. No. DIR(T)-390/11/2457 dtd. 30.12.2011. The response by the licensee so far is not encouraging. Except CESU no other DISCOMs has come up with some sort of concrete proposals on progress on this issue. The Commission re-emphasized its decision on wide spread adoption of Smart Grid operation under “Boot Model” in the State for reduction of theft and turn around of the power sector within specified period. Further, the Commission directed that the dump terminals of AMR should be installed starting from the Office of the Executive Engineer to the Head Office of DISCOMs by the end of June, 2012.

### **Self Assessment of consumption**

13. In view of the growing nos. of consumers in urban and semi-urban areas it may not be possible to take meter reading regularly every month. To cope up with such a situation the distribution companies may initiate billing on the basis of self declaration on consumption of electricity by consumers. In such a situation the differential billing between the actual reading on the meter and declared reading by the consumer can be additionally billed even once in a year. This will reduce the billing and collection problem of the licensee.
14. The Commission directed that the meter rent should be utilized for purchase of meter only. In case it is not sufficient the balance amount should be invested from the own source of CESU.
15. The Commission directed that the revenue collection figure from 20<sup>th</sup> May to 31<sup>st</sup> May may be submitted weekly with corresponding figure from last year i.e. 2011-12.
16. Report of progress on installation of meters and smart grid operation should be submitted fortnightly by all DISCOMs.
17. The DISCOMs should identify the name of the sub-stations where excess VAR is drawn and should take remedial measures.
18. The Commission directed CESU to adopt punitive action against non-performing employees of the licensee by fixing responsibility starting from Section level to Circle heads.