

ORISSA ELECTRICITY REGULATORY COMMISSION

BIDYUT NIYAMAK BHAWAN
UNIT-VIII, BHUBANESWAR - 751 012

Present : Shri B. K. Das, Chairperson
Shri K.C. Badu, Member
Shri B. K. Misra, Member

Case No. 134 of 2010

CESU, Bhubaneswar

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Applicant

In the matter of: An application under Condition-11 of the License Conditions of Central Electricity Supply Utility of Orissa (CESU) approved by the OERC.

And

In the matter of: Investment proposal of CESU for Infrastructure Development and Loss Control activities to be taken up during the period FY 2010-11 to FY 2013-14

Date of Hearing: 01.10.2010

Date of Order : 06.10 .2010

ORDER

Shri B.K. Lenka, COO and Shri B.P. Mohapatra, CFO, CESU are present.

2. Shri Mohapatra made a Power Point presentation and also submitted the hard copies of such presentation to the Commission. During the course of presentation and submission, Shri Mohapatra also submitted a copy of letter No.-I-06/2010(Pt.)/7991 dt.09.09.2010 of Energy Department addressed to four DISCOMs regarding preparation of Investment Plan for Capital Investment in the Distribution Sector. According to the aforesaid letter of the Dept. of Energy, the total investment envisaged is Rs.2400 crore during the period from 2010-11 to 2013-14 as per the table given below:

(Rs. in crore)

	2010-11	2011-12	2012-13	2013-14	Total
State Govt. (Out of Which)	300.00	400.00	250.00	250.00	1200.00
a. FC Grant	0.00	200.00	150.00	150.00	500.00
b. SS (*) to FC grant	0.00	66.67	50.00	50.00	166.67
c. Loan to GRIDCO for counterpart funding to FC grant	0.00	66.67	50.00	50.00	166.67
d. State's own contribution	300.00	66.66	0.00	0.00	366.66
DISCOMs (Out of Which)	0.00	200.00	400.00	600.00	1200.00
a. Counterpart DISCOM share for FC grant	0.00	66.67	50.00	50.00	166.67
b. DISCOMs contribution	0.00	133.33	350.00	550.00	1033.33
Total CAPEX:	300.00	600.00	650.00	850.00	2400.00

(*) SS – State Share

3. Out of Rs.2400 crore envisaged to be spent under CAPEX for upgradation and renovation of the Distribution network over a period of four financial years i.e. 2010-11 to 2013-14, Govt. of Orissa will provide Rs.1200 crore and DISCOMs will invest Rs.1200 crore from their own source or through market borrowing. Rs.1200 crore of budgetary support by the State Govt. would consist of as follows:
- (a) Grant of Rs.500 crore from 13th FC is to be initially passed on as loan with 0% interest
 - (b) Rs.166.67 crore of matching State share against 13th FC grant as loan with 0% interest.
 - (c) Rs.166.67 crore of Loan to GRIDCO for 1/3rd counterpart funding to FC Grant with 4% interest to be passed on to DISCOMs with same terms and conditions.
 - (d) Rs.366.66 crore as budgetary support in shape of soft loan with 4% interest.
4. In this connection, it is to be noted that the 13th Finance Commission in para 12.257 of their recommendation has recommended as under:

“12.257. The state has represented that it had not received adequate support in its pioneering effort in terms of a radical reform programme involving private sector participation in power distribution. Agricultural power consumption in Orissa is extremely low at only 2 per cent of the total power consumption in the state. The State Government has proposed an investment plan of Rs.1000 crore to strengthen its power distribution, to be shared between the State Government (Rs.200 crore), Gridco (Rs.147 crore) and the various Discoms (Rs.153 crore) and has requested a Finance Commission grant of Rs.500 crore towards this programme. Given the need to strengthen the distribution system in the State, we recommend the grant as sought by the State Government, on the condition that the remaining Rs.500 crore is contributed by the State Government, Gridco and the Discoms in equal proportion.”

Thus, though the grant of Rs.500 crore from the 13th Finance Commission and the State share of Rs.166.67 crore from the State Govt. and Rs.166.67 from GRIDCO should be invested as grant, the State Govt. have initially decided to pass the grant of Rs.500 crore from the 13th Finance Commission and the State's matching share of

Rs.166.67 crore as a loan with 0% interest. In respect of GRIDCO's share of Rs.166.67 crore for investment, this would be passed on to DISCOMs as a loan with 4% interest. Besides this, the State Govt. is contemplating budgetary support of Rs.366.66 crore in shape of soft loan with 4% interest.

5. In course of hearing, it was explained that loan of Rs.666.67 crore bearing 0% interest (Rs.500 crore pertaining to grant of 13th Finance Commission + Rs.166.67 representing State's proportionate matching share) may be considered for conversion to grant after full utilization of loan for the purpose of achievement of loss reduction target of 3% per annum.
6. Out of Rs.2,400 crore of investment to be made by the four DISCOMs, CESU has submitted investment proposal vide its petition dt.29.09.2010 for Rs.1092.72 crore (against Rs.1036.00 cr. proposed by State Govt.) seeking approval of the Commission to be undertaken during the period FY 2010-11 to FY 2013-14. We perused the petition filed by CESU and heard the submission made by CFO & COO, CESU. We hereby admit the case for hearing simultaneously.
7. As per the submission made, the Govt. of Orissa is to infuse investment to the extent of Rs.468 cr. in CESU (WESCO Rs.234.00 cr., NESCO Rs.252.00 cr. and SOUTHCO Rs.246.00 cr.) during the above years for system up-gradation to reduce AT & C loss and to improve quality of power supply. The Govt. of Orissa has desired that for making such an investment of Rs.468 Cr., CESU is required to bring a matching contribution of Rs.468 Cr. during the same period. In addition to the above, CESU has intimated that it shall make a self financing investment to the tune of Rs.156.72 Cr. (Rs.624.72 cr. – Rs.468.00 cr.) during the above years. The year-wise investments from different heads as detailed above is outlined in the following table.

Financial year	2010-11	2010-12	2012-13	2013-14	TOTAL
State Govt.	117.00	156.00	97.50	97.50	468.00
CESU (Matching contribution)	0.00	78.00	156.00	234.00	468.00
CESU (self financing)	87.12	18.64	21.85	29.11	156.72
Total Capex	204.12	252.64	275.35	360.61	1092.72

8. The highlights of the projects to be undertaken under the above investment are as below :
- New Primary S/S (33/11 KV)
 - Supply and installation of new bay extension in existing primary S/S premises along with required protection etc.
 - Renovation and Modernisation of primary Sub-station
 - Shifting of power transformer from the existing plinth/location and installing at desired S/S plinth/location
 - Supply and erection of Power Transformers
 - Supply and Installation of new HV overhead lines
 - Supply conductor and re-conductoring on existing HT support.
 - Supply and erection of AB conductor replacing LT old Over-head bare conductor
 - HVDS (LT less System)
 - Distribution S/S with all accessories, LTDB, earthing and safety equipment
 - Renovation and modernization of distribution S/S
 - Metering
 - System Metering(Energy Auditing)
 - Capacitor Banks – 11 KV
 - Utility equipments
 - Testing Equipments
 - Modernisation through IT implications
 - System quality, Reliability and Safety
 - (a) HT overhead line on tower,
 - (b) HT cabling and Capacitor bank
 - (c) Un-manned 33/11 KV S/S and
 - (d) Safety measures and training
9. The above investments shall be in the form of two packages, Package-1 for Rs.576.65 crore (FC grant Rs.195.00 cr. + SS to FC Rs.65.00 cr. + loan to GRIDCO Rs.65.00 cr. + State Govt. contribution Rs.143 cr. + CESU's counter funding for FC grant Rs.65 cr. + CESU's own contribution Rs.43.65 cr.) to be undertaken with State Govt. budgetary support along with matching contribution primarily for the urban units and Package -2 for Rs.516.07 crore (Rs.403.00 cr.+ Rs.113.07 cr.) shall be primarily for the rural areas out of CESU's own funding.
- CESU have submitted investment proposal for Rs.1092.72 crore (Rs.936.00 cr. + Rs.156.72 cr.) as per the breakup given below :

CESU CAPEX PROPOSAL

	Project Cost proposed by CESU (Cr.)	Investment proposed by GoO (Cr.)	Govt. Funding (Cr.)	CESU Funding (Cr.)	Total Investment Proposed by CESU (Cr.)
PACKAGE-1	576.65	468.00	468.00	108.65 (Rs.65+43.65)	576.65
PACKAGE-2	516.07	468.00	NIL	516.07 (Rs.403+113.07)	516.07
TOTAL	1092.72	936.00	468.00	624.72	1092.72

Package-1(Govt. Funding) covers infrastructure development of the areas coming under BCDD-1, BCDD-II, BED, KED, PED Puri, CDD-1, CDD-II, CED, DED, PED, Paradeep.

Package-2 (Own Resource) NED, Nimapara, NED, Nayagarh, BED, SED, AED Athagarh, AED, Angul, TED Chainpal, KED-1 Kendrapada, KED-11, Marshaghai and JED.

10. The detailed works under each package as per the investment scheme shall be as below :

INVESTMENT SUMMARY				
ABSTRACT OF INFRASTRUCTURE DEVELOPMENT & LOSS CONTROL ACTIVITIES		ESTIMATED COST (Rs crore)		
		Package 1	Package 2	TOTAL
[1]	New Primary substation	65.12	41.89	107.01
[2]	Upgradation of primary substation	57.38	40.10	97.48
[3]	Breakers (33 KV+ 11 KV)	10.92	6.45	17.37
[4]	Distribution transformer	77.85	94.06	171.91
[5]	Reconductoring of OH line conductor (33 KV+11 KV)	66.73	39.60	106.33
[6]	New OH line (33 KV+11 KV)	50.21	77.46	127.67
[7]	Energy accounting (Consumer metering + System metering)	42.59	27.24	69.83
[8]	A.B. Cable & HVDS (LT less System)	86.07	119.62	205.69
[9]	IT including centralized auto billing information flow through PNA/ SCADA etc. and Utility	38.58	15.69	54.27
[10]	Special R&M of sub-station	19.05	16.61	35.66
[11]	System Quality, Reliability & Safety	62.15	37.35	99.50
Total:		576.65	516.07	1092.72

11. CESU has submitted that, due to such investment in schemes under Package 1, the annual average decrease in T&D loss and AT&C loss is both calculated to be 4.5%. In other words, the distribution loss is expected to reduce from 39.43% in FY 2009-10 to 21.22% in FY 2013-14 and the AT&C loss is expected to reduce from 41.2% in FY 2009-10 to 23.58% in FY 2013-14. The total accrued benefit per year (after completion of the project) is computed to be Rs.129.23 crore which would be mainly realized through (a) reduction in input energy (purchase from GRIDCO); and (b) increase in billing energy sold to the consumers. Therefore, the simple pay-back period of the project is calculated to be 4.5 years on a project cost of Rs.576.65 crore.

In addition to the above, CESU has submitted that due to such investment in schemes under Package 2, the annual average decrease in T&D loss is calculated to be 3% and AT&C loss is calculated to be 3.75%. In other words, the distribution loss is expected to reduce from 43.65% in FY 2009-10 to 28.67% in FY 2013-14 and the AT&C loss is expected to reduce from 45.34% in FY 2009-10 to 30.81% in FY 2013-14. The total accrued benefit per year (after completion of the project) is computed to be Rs.90.83 crore which would be mainly realized through (a) reduction in input energy (purchase from GRIDCO); and (b) increase in billing energy sold to the consumers. Therefore, the simple pay-back period of the project is calculated to be 5.5 years on a project cost of Rs.516.07 crore.

CESU shall arrange fund for Rs.468 + Rs.156.72 Cr. i.e.Rs.624.72 Cr. of its own from financial institutions for which negotiation has been held. This is in addition to Rs.468.00 crore to be received from State Govt. which consists of as follows:

Grant of Rs.195.00 cr. from 13th FC to be initially passed on as loan with 0% interest, Rs.65.00 cr. state share against 13th FC grant as loan with 0% interest, Rs.65 cr. loan to GRIDCO for counterpart funding to FC with 4% interest and Rs.143 cr. as budgetary support of the State Govt. in shape of soft loan with 4% interest.

12. In view of the exigencies of the work to be undertaken for system improvement and loss control exercise, being supported by the state govt., the Commission accords in-principle approval of the investment proposal of CESU for infrastructure development and loss control activities to be taken up during the period FY 2010-11

to FY 2013-14 amounting to Rs.1092.72 Cr. under two packages as mentioned in para 10 above.

13. While approving the investment of Rs.1092.72 crore, we make it clear that this will have impact on tariff in as much as CESU has to service the loan to State Govt. and GRIDCO. However, the tariff impact would be reduced if they achieve the target of AT&C loss reduction which will enable them to claim conversion of loan to grant as stipulated by the State Govt. Hence, CESU must take timely action for implementation of the CAPEX from time to time by sticking to the pre-determined time schedule and placing appropriate experienced officers in place for day to day supervision and monitoring. The result of investment can be quantified only after the base line data are firmly worked out with due and proper care and scrutiny. Hence, for proper monitoring and evaluation of the result to be achieved from investment programme, CESU is directed to furnish the following for proper monitoring by the Commission as and when required during the course of implementation and thereafter.

- To furnish the base line data on commercial and technical information of each division for proper evaluation of the result achieved on such investment.
- Identify the predominantly low voltage area and furnish the input voltage at each 33/11 KV S/S and status of distribution elements in the area alongwith the input voltage at farthest 11 KV transformers where there is a proposal for such investment.
- To furnish number of HVDS transformer existing at present in that area.
- To furnish number and length of LT single phase line proposed to be converted to three phase line.

14. Before parting with this order, the Commission would like to appreciate the initiative taken by the State Govt. for investment in sagging distribution network in the State. In this connection, the Commission would like to refer to the Business Plan order dtd.20.03.2010 in which among other things it has been stressed that the distribution loss reduction target can be achieved only if investment is made for repair and renovation of the aging distribution network and system upgradation. Regarding loss ascribed to theft of electricity it has to be curbed by unqualified govt. support through strong police action to book the culprits who are indulging in the theft of electricity

being aided and abetted by some of the disorderly employees of the distribution companies. The Kanungo Committee in its report submitted in 2001 had recommended transitional support of Rs.3240 cores for system upgradation to reduce the loss and by now with inflation this would be equivalent to roughly Rs.5000 crore. Accordingly, Commission has directed that distribution companies and State Govt. should jointly invest Rs.5000 crore for system upgradation. While State Govt. being 49% share holder through GRIDCO should contribute Rs.2450 crore and the distribution companies should contribute Rs.2550 crore in proportion to the ratio of their consumers as indicated below:

Investment by DISCOMs & Government

(Rs in Crores)

Description	Ratio of consumers	Investment by DISCOMs	Investment by Govt.	Total
CESU	39.00%	995	955	1950
WESCO	19.50%	497	478	975
NESCO	21.00%	535	515	1050
SOUTHCO	20.50%	523	502	1025
TOTAL	100.00%	2550	2450	5000

The Commission expects that depending on the achievement of loss reduction target from the initial investment of Rs.2400 cr. as envisaged at present by Govt. vide their letter No.7991 dtd.09.09.2010 the quantum of investment may be increased to Rs.5000 cr. as stipulated in the Business Plan order in view of requirement of substantial investment in the distribution network which has been hither to neglected.

Further it is hereby made clear that the present and the future capital expenditure for system upgradation by State Govt. and the four DISCOMs towards their matching counterpart funding shall be over and above the normal O&M expenditure being incurred or to be incurred by the distribution companies as per the approval of the Commission in the respective ARR of the relevant years. The O&M expenditure shall not be taken as counterpart funding by the DISCOMs for capex programme for which the State Govt. is now proposing to provide or that may be provided in future in pursuance to the stipulations made in the business plan.

15. Further, the Commission would like to stress and reiterate that mere investment in the distribution network would not achieve the desired result of loss reduction unless it is

accompanied by strong administrative and police action to check theft of electricity by some unscrupulous consumers being aided and abetted by some of the employees of the distribution companies. Unruly behaviour and unpleasant situation are being faced by the employees of the distribution companies while going for disconnection of power supply or collection of revenue in case of default in payment of the electricity. This governance issue should be addressed effectively through strong administrative support by the State Govt. at different levels. Otherwise improvement in supply of power due to investment on system upgradation/renovation would not be accompanied by improvement in collection of revenue unless unlawful behaviour of some of the consumers/unauthorised consumers are severely dealt with. In this connection the Commission has brought to the notice of the State Govt. from time to time regarding the urgent need for making all the notified 34 energy police stations fully operational and effective. The specially designated courts for the trial of all electricity offences also suffer from the inadequate men and materials. This also needs to be addressed on priority basis.

16. The line of command and control of the Energy Police Station is currently an integral part of the general Police Administration as a result of which their special role gets diluted, amidst the competing needs of general law and order and crime control. They need to stand apart from the general run of police administration and act on a dedicated basis in tandem with the DISCOMs who are distributing and supplying electricity.
17. It may further be noted that in West Bengal a very senior police officer at the level of an IG works with the West Bengal State Electricity Distribution Company Ltd. (WBSEDCL) and is responsible for theft prevention, detection prosecution and liaison with the police. West Bengal though has only one DISCOM for the entire State while we have four (4) DISCOMs. GoO, therefore, may consider having one senior officer working with the Dept of Energy and being responsible for theft prevention and detection in all the four (4) DISCOMs. He could supervise and monitor the working of all the Energy Police Stations and ensure their effective functioning. As an officer of the State's police administration, he could liaise easily with the police and act as a bridge between the Electricity Utilities and the Police. If we can reduce the AT&C losses to a reasonable level and prevent theft fully, it would

not only mean huge revenue gains for the DISCOMs but also fairly large increases by way of Electricity Duty for the State Govt.

18. Theft is the most important cause for a humungous amount of the commercial losses, more often than not in connivance with the unscrupulous employees of the DISCOMs. This is a situation of unsustainable burden on the honest and paying consumers, overloading of lines and transformers, break down of supply, load shedding, increases in tariffs, indifferent service standards and huge problems in billing and collection. While the DISCOMs must systematically set about the curbing of losses by system upgradation and proper billing and collection, they need to be aided by the State and the machinery of the police in prevention and detection of theft, with penal action against the thieves. The DISCOMs need to be backed to the hilt by the State administration in curbing such losses. However, it is the primary responsibility of the concerned DISCOMs to take initiative for availing administrative support from the State Govt. No amount of Govt. support would succeed unless the DISCOMs are committed to bring about improvement through internal vigilance and strong administrative action against the unscrupulous employees and dishonest consumers who connive with each other for theft of electricity.
19. The other important aspect is that Government themselves must be model consumers. They must pay their bills in time and in full. The DISCOMs have informed that the outstanding dues payable by Govt., Govt. aided agencies and various semi-government institutions are around Rs.388.79 crore (CESU – Rs.138.60 cr. + NESCO - Rs.77.61 cr. + SOUTHCO – Rs.71.62 cr. + WESCO – Rs.100.96 cr.) as on 01.4.2010. These arrears are rather huge and reflects poorly on the Govt.
20. In addition to strong administrative support by the State Govt. at different levels and timely implementation of various upgradation and renovation work by the distribution companies there is also need for continuous flow of fund. This has to be ensured. There may be some initial difficulties in achieving 3% reduction of AT & C loss per annum in the first year because of delay in preparatory work and putting administrative support in place. While there should be sincere efforts to achieve the annual target of loss reduction conversion of loan to grant may be considered on achievement of AT & C loss reduction of 3% per annum on the average for the period

of 2 to 3 years. If there is some slippages in achieving the full target in the initial year this would be make good in the subsequent years and release of fund should not be withheld on the ground of some slippages in the initial year because it will ultimately affect the quality of supply and consequently achievement of reduction of AT & C loss target envisaged for the project period. The Commission, however, hereby make it clear that truing up exercise will be allowed by the Commission based on the normative target fixed by the Commission in the ARR of the respective years but not on the annual target of AT & C loss reduction in the project area expected by State Govt. with reference to the investment envisaged.

21. We further direct that a copy of this order be sent to State Govt., Dept. of Energy as well as to the three Reliance managed DISCOMs to take follow up action as directed in the preceding paragraphs.
22. With these observations and directions, the Commission accords in-principle approval of the investment proposal of CESU for Rs.1092.72 crore.
23. Accordingly the case is disposed off.

Sd/-
(B.K. Misra)
Member

Sd/-
(K.C. Badu)
Member

Sd/-
(B.K. Das)
Chairperson