
the works to be undertaken, the salient features and particulars demonstrating the need for investment;

- (b) The project cost together with the cost benefit analysis;
- (c) Whether the investment is in a new project or for expansion or up-gradation of an existing system;
- (d) Sanctions and statutory clearances required for execution of the project and status of such sanctions and statutory clearances;
- (e) Phasing of investment over the financial years and commissioning schedule;
- (f) The manner in which investments will be capitalised for the purposes of inclusion in the revenue requirements of the Licensee;
- (g) Constraints which the Licensee may face in making the investments or in implementing the project including constraints on information available;
- (h) Resource mobilisation and financial plans for meeting the investment;
- (i) Process for inviting and finalizing tenders for procurement of equipment, material and /or services relating to investment, in accordance with a transparent tendering procedure as may be approved by the Commission; and
- (j) Such other particulars as the Commission may from time to time direct.

The Commission would like to be satisfied that the aforesaid license conditions are fully complied with.

3. APDRP is a National programme launched to finance the upgradation and strengthening of sub-transmission and distribution network including energy accounting and metering so as to reduce outage and interruptions and reduce AT&C loss now confined to urban areas. Therefore, CESU has launched the scheme in its area for strengthening of infrastructure to reduce the distribution loss and ensure quality power supply. The scheme submitted by CESU is based on physical survey, study and analysis of its distribution network.

4. Govt. of Orissa has reportedly approved a project of Rs.296.73 crores during November'03 under APDRP Scheme for CESU in the 10th Plan period. But it has been reportedly reviewed later and the Steering Committee set up for the purpose has approved short closure of the Scheme limiting to total amount of Rs.206.73 crore which has been communicated to CESU vide ltr. dt.05.12.06 of PGCIL. PGCIL is the adviser for the APDRP Scheme. Out of the Rs.206.73 crores, the APDRP amount earmark for Bhubaneswar (Circle-I & II), Cuttack, Paradeep and Dhenkanal are Rs.83.74 crore, Rs.37.85 crore, Rs.47.21 crore and Rs.37.93 crore respectively.

5. Govt. of Orissa has reportedly released an amount of Rs.37.09 crore in favour of CESU and counterpart funding of Rs.35.52 crores obtained from PFC, totaling to Rs.72.61 crore. The APDRP Scheme for the 10th Plan period was open till March'07. However, CESU has requested for extension of time upto May'07

6. CESU has reportedly utilized Rs.41.793 crore from the APDRP fund the details of which are given below: -

A. Metering

- | | | |
|---|---|------------------|
| 1. 706 nos. of 33 KV & 11 KV feeder metering | - | Rs.1.143 crore |
| 2. 5104 nos. of distribution substations metering | - | Rs.11.7880 crore |
| 3. 40,000 nos. of single phase LT Electronic meter -
along with T.P. Box have been procured out of
which 15987 nos. have been installed so far. | - | Rs.1.216 crore |
| 4. 60 nos. of 11 KV & 20 nos. of 33 KV metering
unit. | - | Rs.1.1276 crore |
| 5. 8 nos. of 33 KV and 7 nos. of 11 KV metering
cubicle, out of which 6 nos. of 33 KV are yet
to be installed. | - | Rs.0.18 crore |

Sub-total: Rs.15.4546 crore

B. Strengthening and R&M of lines & S/Ss

- | | | |
|---|---|-------------------|
| 6. Re-conductoring of 682.972 Kms. LT line with
LT XLP AB Cable. | - | Rs.10.30982 crore |
|---|---|-------------------|

7. 115 nos. of new distribution substations, 166.1 Kms. - Rs.12.2399 crore
new line, 64 nos. of distribution substation
up-gradation and 57.76 Kms. line up-gradation.

Sub-total: Rs.22.54972 crore

C. Modernization

8. Computerization of Billing Cell - Rs.1.196 crore
9. Automatic meter reading - Rs.1.595 crore
10. Procurement of CMRI with LPR - Rs.0.1782 crore
11. Procurement of SBM - Rs.0.819 crore

Sub-total: Rs.3.7882 crore

TOTAL : Rs.41.793 crore

7. After utilization of Rs.41.793 crore available APDRP fund thus works out to 164.93 crore out of the sanctioned limit of Rs.206.73 crore. CESU has gone ahead with tendering process for procurement of certain materials worth Rs.33.275 crore as per the list below:

1. 3 Phase consumer meter (HTTV, LTCT & WC) - Rs.3.51 crore
2. 3 Phase D.T. meter & 1 phase meter - Rs.11.41 crore
3. 33 KV & 11 KV metering cubicle - Rs.2.8 crore
4. 33 KV & 11 KV metering unit - Rs.0.65 crore
5. LT XLPE Cable - Rs.6.5 crore
6. Hardware for ERMS - Rs.0.35 crore
7. Plastic and Paper seals - Rs.0.055 crore
8. Energy Audit - Rs.8 crore

Total: Rs.33.275 crore

8. This leaves a balance of Rs.131.66 crore for further utilisation. But, CESU has proposed to make an expenditure of Rs.108.01 crore only for 8 nos. of turnkey packages for strengthening of existing system. Out of this, Rs.48.61 crore is proposed to be spent for strengthening of existing distribution system, 11 KV line and HVDS etc. Balance Rs.59.40 crore is proposed to be spent for strengthening of existing primary substation and 33 KV line. The detail scope of work for Rs.108.01 crore is as below:

1.	New 33 KV line	122.8 Kms.
2.	New 11 KV line	119.85 Kms.
3.	New LT line	103.95 Kms.
4.	New Substation	214 Nos.
5.	New Transformer	31 Nos.
6.	Renovation of 33 KV line	88.5 Kms.
7.	Upgradation of S/S	311 Nos.
8.	Re-conductoring of 11 KV line	1087.73 Kms.
9.	Re-conductoring of LT to AB Cable	1012.6 Kms.
10.	11 KV VCB	99 Nos.
11.	33 KV VCB	67 Nos.

Survey work has apparently been done for load growth and CESU has found that certain power transformers are to be upgraded and in some place new power transformers are to be installed. They are -

1.	Upgradation to 8 MVA Transformers	19 Nos.
2.	Upgradation to 7.5 MVA Transformers	1 No.
3.	Upgradation to 5 MVA Transformers	14 Nos.
4.	Upgradation to 3.15 MVA Transformers	12 Nos.
5.	New 5 MVA Transformer	3 Nos.
6.	New 3.15 MVA Transformer	5 Nos.
7.	New 1.6 MVA Transformer	5 Nos.

At Annexure-5, the justification for upgrading the DTs and installing new DTs is given. Thus, CESU has apparently justified the need of the major investment.

9. At Annexure-6, CESU has given a rough estimate of the benefit to be accrued from (1) replacement of LT overhead to AB cable;

(2) upgradation of size of HT Conductors;

(3) capacity addition of primary S/S; and

(4) capacity addition of distribution S/S.

It has assumed that it can have benefit of Rs.50,000/- per year for every 100 meter AB cable. It also states to save Rs.5,300/- for each Km. every year for converting 80 mm² to 100 mm² , Rs.12,000/- for conversion from 55 mm² to 80

mm² and Rs.23,000/- for conversion from 34 mm² to 55 mm² conductors. CESU also expects to save technical loss by upgrading the transformers to the tune of Rs.41,472/- per MVA. In total, it expects benefit from the above investment in the following manner:

1.	Replacement of LT overhead line by AB Cable	Rs.6.67 crore
2.	Increase in conductor size (HT)	Rs.6.2961 crore
3.	Decrease in overall transformer loss due to capacity addition of primary substation	Rs.0.7303 crore
4.	Decrease in overall transformer loss due to capacity addition of distribution substation	Rs.0.295 crore
	TOTAL:	Rs.13.9914 crore per year

10. CESU has given details of such benefit with proposed investment of Rs.108.01 crore and make a cost benefit analysis so that it is getting return on investment in 8 years. Of course, CESU has not given the cost benefit analysis for its earlier investment amount of Rs.41.793 crore and Rs.33.275 crore (for which tendering has been done and supply of order is under process). Even if these two investments are allowed along with Rs.108.01 crore (details of which has been submitted by CESU and has been cited earlier), the total investment comes to Rs.41.793 cr. + Rs.33.275 cr. + Rs.108.01 cr. = Rs.183.078 cr. However, CESU has asked for investment approval for more than Rs.206.73 crore, which was sanctioned under the APDRP by Govt.

11. However, if the present application of CESU is analysed with reference to the distribution Licence Condition No. 11, following picture emerges.

- The submission has not been made in the form of a DPR for the entire investment asked for. The need and little bit techno-economic analysis of the part investment i.e., Rs.108.01 crore has been given, but not the environmental aspect of the investment.
- The project cost together the cost benefit analysis for only Rs.108.01 crore has been given. The cost for Rs.41.793 crore and Rs.33.275 crore have been given, but not in details.
- CESU has not furnished anything about the sanctions and statutory clearances about the execution of the project.

- CESU has not given the phasing of investment over the financial years and commissioning schedule.
- CESU has not intimated the manner in which the investment will be capitalized for the purpose of inclusion in the revenue requirement of the licensee.
- CESU has not given the complete picture of resource mobilization and financial plans for meeting the investment.
- CESU has not indicated whether it has or will invite and finalize tenders for procurement of equipment, material and/or services relating to investment in accordance with a transparent tendering procedure to be approved by the Commission.

12. CEO, CESU said that APDRP investment shall be in urban area and RGGVY works shall be carried out in rural areas. He further said that the APDRP amount which has been granted in the 10th Plan Period has been allowed by the Govt. to be spent by 31.03.2008. CESU has received around Rs.72 crores as counter fund guarantee from PFC, out of which it has already spent around Rs.41 crores. CESU has around Rs.35 crores at hand from APDRP account. It expects to spend it along with further Rs.15 crores to Rs.20 crores to improve the system in urban areas. The tendering and execution period shall be 7-8 months. He also stated that he has constraints in finalizing the process of procurement due to shortage of persons with requisite experience. Besides execution and their timely implementation may pose a problem on the aforesaid consideration as well.

13. The Commission noticed that central assistance for strengthening of distribution network should be fully utilized so that the component is availed. The proposed investment should lead to strengthening of distribution network, improve the quality of supply, reduce the technical and commercial losses. The servicing of loan should not be a burden on the consumers of the utility if appropriate loss reduction programme is conceptualized in the scheme itself.

14. Apart from strengthening distribution lines and s/s capacities, the utility should address the problem of metering following the guidelines prescribed by the Central Electricity Authority, shift the service connection to pillar boxes by

rearranging the service connections wherever required so that commercial losses could be contained and technical losses reduced.

15. Load growth is taking place in the utility from year to year. The scheme must keep a long term objective not only to meet the load growth but also improve the quality of supply and reduce the AT & C loss as stated earlier. The most important part is this has to be executed within the fixed time frame. For this purpose, CESU Management board, if necessary, may avail and utilize the expertise of professional firms for procurement, inspection and monitoring for speedy and timely execution so that the fund for expenditure approved by the steering committee is fully utilized to benefit the consumers of the utility. With these observations and stipulations the proposal of CESU for investment of Rs.206.73 crore under APDRP is approved.

Sd/-
(K.C. Badu)
Member

Sd/-
(S.K. Jena)
Member