Case No.51/2007

24.05.2008 : Mr. U.K. Panda, Director (Finance) in charge, OPTCL and & Director (Finance & Company Affairs), GRIDCO, Mr. K.K. Nath, Director (Engg.), OPTCL & Mr. J.P. Das, Sr. GM (R&T), OPTCL are present for the petitioner. Mr. P.K. Pradhan, CEO, WESCO, Mr. S.K. Singh, CEO, NESCO, Mr. S.K. Choudhury, DGM (C), SOUTHCO, Mr. K.V. Durgaprasad, CCO, CESU, Mr. A.C. Mallick, Director (Com), GRIDCO and Mr. S.C. Mohanty, Law Officer, Department of Energy, Govt. of Orissa are present for the respondents. The filings made by the parties are taken into record.

Heard the parties at length.

2. Mr. P.K. Pradhan, CEO, WESCO stated that the licensee had already submitted its views on the matter on 10th December, 2007. As per submissions of WESCO, OPTCL has taken adequate steps for installation of 220 KV, 132 KV grid s/s. As per the submission of OPTCL in the business plan, there is no proposal for conversion of 132/11 KV s/s to 132/33 KV at Jharsuguda and Remja. WESCO stated that Jharsuguda grid should be converted from 132/11 KV to 132/33 KV. The Commission observed that WESCO should have appropriate 33 KV network for such contingency. Similar is the case for Remja. WESCO stated that the low voltage problem in Bolangir command area could be solved only after completion of the 220 KV line from Bargarh to Bolangir. It was also suggested that erection and commissioning of 132/33 KV s/s at Padmapur should be completed to avoid the problem of low voltage. However, WESCO stated that, for the present, establishment of Padmapur Grid S/S by OPTCL could be delayed to some extent. WESCO further submitted that since the associated 132 KV line in case of Bhawanipatna was deficient, the work should be taken up on priority basis and the same should be completed by 2009-10. The Theruvalli end voltage is low. It has been improved a little bit by diversion of Jayanagar load from Theruvalli. Because of low voltage at Theruvalli, Kesinga voltage is low and hence Bhawanipatna is facing low voltage. OPTCL should set up a Grid S/S at Bhawanipatna immediately to be completed by 2009-10 to cater to the need of increasing demand for power in the area. Rourkela grid is overloaded and hence another grid at Chhend should be set up. The Commission observed that establishment of 220/33 KV grid etc. should be avoided. However, there should be another 220/33 KV transformer at Barkote. The peak load of Katapalli Grid S/S is 37 to 38 MVA now. So the 20 MVA transformer should be up-graded. There should be a grid S/S at Patnagarh. Existing power transformers have reached 70% to 80% of their capacity. Therefore, WESCO pleaded that there should be adequate provision to upgrade capacity of existing 132/33 KV substations. Similarly, upgradation/replacement of conductors in old 132 KV and 220 KV lines was required to reduce transmission loss and regulate voltage. WESCO stated that single line diagram of 33/11 KV s/s,

length and size of conductors etc. was under preparation and the same would be submitted separately within 10 days. OPTCL stated that the demand of WESCO had been taken care of in the Business Plan except some upgradation work.

3. Mr. S.K. Singh, CEO, NESCO stated that the transmission projects required for smooth functioning of NESCO had been taken care of by OPTCL in its business plan. However, in the written submission, NESCO had indicated the additional bay requirements and justification for new grid s/s at Dhamara, Barbil and Tensa keeping in view the upcoming loads in those areas. Dhamara port is coming up along with number of industrial houses signing MOUs with the GOO for setting up their units at Dhamara. It is expected that Dhamara shall be a commercial hub like Paradeep in near future. As far as grid s/s at Barbil is concerned, the Commission has already directed OPTCL to construct a new grid s/s at that place in Case No.1/2006. NESCO suggested that while selecting the location of the proposed s/s, OPTCL might examine the existing 132 KV circuit, future demand, provision of 132 KV bay etc. so that load from existing Joda grid s/s could be offloaded. At Tensa, number of industries have applied for additional power on 132 KV. NESCO suggested that OPTCL should convert the existing 66 KV line to 132 KV with a new Grid Switching Station at Tensa. The licensee submitted the following additional grid wise bay requirements.

GRID Wise Additional Bay Requirements

Sl.No.	Name of Grid S/s	Name of Additional Bay	Length of Feeder in Km.	Load on the feeder in MVA (Appx.)
1.	Bhadrak	Dhamnagar-II	22.0	5.0
		Barpada	16.0	4.0
		Tihidi	20.0	4.0
2.	Baripada	Kostha	0.2	1.6
		NICCO	3.2	1.0
		Khunta	30.0	3.6
3.	Rairangpur	Kantabania	7.0	6.3
4.	Karanjia (under construction)	Karanjia	0.5	4.8
		Jashipur	0.3	3.2
		Thakurmunda	2.0	1.6
		Sujurili	28.0	4.8
		Chadheibhol	20.0	1.0
		Saharpada	2.0	1.6
5.	Duburi	Kalinganagar	2.0	10.0
		Daitary-II	25.0	6.0

NESCO has furnished written submission regarding the proposed addition of transformer capacity grid substation-wise at different 33 KV s/s, during

the period 2008-09 and 2011-12. Also the licensee has provided a power map indicating existing lines and s/s in the licensee's zone.

4. Mr. S.K. Choudhury, DGM (Commerce), SOUTHCO stated that the load of Berhampur Grid S/S had reached 68 MVA. He demanded that the 40+20 MVA Berhampur Grid S/S should be up-graded. The Commission observed that the nearby idle Narendrapur S/S should be utilized for the purpose. SOUTHCO stated that the 33 KV network from Narendrapur Grid S/S whould be ready within July'08. This is a line of around 5 to 6 Kms. Presently some loads are drawn from Narendrapur through 11 KV. The Commission stressed that there should be least shut-down while upgrading the Berhampur Grid S/S. At the same time upgradation of S/S capacity at Berhampur 132 KV GSS was also proposed. At present there are two transformers of 132/33 KV capacity (40+20 MVA) and 1 no. transformer of 132/11 KV (12.5 MVA). It is proposed to eliminate 11 KV load from Berhampur grid. Accordingly, SOUTHCO has availed supply on 33 kv side by constructing a 33/11 KV S/S adjacent to Berhampur GSS. Existing 60 MVA 132/33 KV capacity should be upgraded to 80 MVA to meet additional load. As the load points of SOUTHCO are very close to Berhampur grid, diversion of these loads to Narendrapur Grid may not be very much desirable. However, SOUTHCO stated that as requested by OPTCL it should draw the load from Narendrapur grid. SOUTHCO has filed a case in OERC vide Case No. 63/2006 to enhance the capacity of Berhampur 132/33 KV substation from 60 MVA to 80 MVA.

Most of the areas such as Kodala, Budambha, Geguniapada, Kholikote, Polasara in and around of Purushottampur area are experiencing acute low voltage problems. An estimate has been prepared by the Electrical Inspector, Berhampur (as per instruction of Collector, Ganjam) to install a 132 KV s/s at Purusottampur and accordingly a proposal has been submitted to the Collector and DoE. OPTCL should take steps for finalization of the project on top priority. It is proposed to install 2 x 12.5 MVA Transformers with four nos. of 33 KV outgoing feeders. The associated 132 KV line shall be drawn from Narendrapur.

Power supply to Boudh HQ has been fed through 33 KV feeder from Phulbani Grid which is situated at a distance of 60 Kms. The above 33 KV feeder is passing through dense forest and becomes faulty during the course of rain and whirlwind. Hence to eradicate the above problem one number 132 KV/22 KV grid s/s needs to be set up at Boudh in order to maintain uninterrupted power supply to the entire Boudh District areas. The 132 KV line may preferably be extended from Sonepur 132 KV grid s/s.

Presently the Bhanjanagar Grid s/s is having two 132/33/11 KV transformers (16 MVA and 12.5 MVA) which have become fully over loaded and thereby is forcing load shedding in course of maintenance of power transformers. So the existing capacity of the above transformers needs to be upgraded on priority. The maximum demand of the above transformers have reached to the range of 25 MW.

Previously there were two numbers of 100 MVA Auto Transformers available in 220/132 KV Grid s/s at Bhanjanagar. Presently one was upgraded to 160 MVA capacity. Load has increased in this important s/s and reliability of power has been reduced in the command areas of Bhanjanagar. Hence, it is requested to install additional Auto transformer over there.

During break down of 132 KV Bhanjanagar Phulbani feeder alternative 33 KV power supply has been availed of from Sonepur grid. But, due to inadequate capacity of the existing transformer at Sonepur grid, power supply can not be made available fully to Phulbani and Boudh HQs. As such necessary arrangements may kindly be made to upgrade the existing transformer capacity at Sonepur grid in order to tide over the above situation.

SOUTHCO also demanded the following:

- Jayanagar Grid S/S should be upgraded.
- There should be a substation at Dabugaon.
- There should be a regular Grid S/S at Akhusingh instead of the switching substation as it can supply to Gunpur. Presently, Gunpur is getting power supply from Paralakhemundi and Rayagada through very long lines.
- There should be a grid S/S at Laxmipur for meeting the load of Utkal Alumina.

Replying to a query of the Commission, SOUTHCO stated that the voltage situation in Jagannath Institute, Parlakhemundi had since been improved. SOUTHCO has submitted the 33 KV network diagram, loading pattern etc. to OPTCL.

5. Mr. K.V. Durgaprasad, CCO, CESU submitted the following:

- There should be a Grid S/S at Brahmagiri as the present area load of 9.5 MVA shall go up to 40 MVA.
- There should be a Grid S/S at Sakhigopal which can meet the loads of Kanas, Delanga and Pipili. Presently Kanas and Delanga are getting power supply through long lines from Khurda Grid. Thus, Khurda Grid can be off loaded.
- There should be a grid S/S at Khuntuni as the area load is increasing and the voltage is poor due to long input line from Nuapatna Grid.
- There should be a Grid S/S at Tangi-Choudwar to cater to increasing load growth and low voltage.
- There should be a Grid S/S at Aul, so that Jagatsingpur, Cuttack and Kendrapara grids are off loaded.

The Commission wanted to know whether there is any scheme for Rengali, Pallahada area as they are getting power through long lines from Chainpal grid. OPTCL stated that part of loads of these areas are being met from the 220/33 KV 20 MVA transformer of Rengali Grid.

CESU has planned to construct a 33/11 KV S/S at Orikanta.

CESU has also submitted the grid s/s wise load details with maximum and minimum voltage at 33 KV side to OPTCL along with the area map for the entire network of the licensee.

6. OPTCL in the written submission has furnished the revised demand forecast made by the DISTCOs for the period from 2007-08 to 2011-12. The DISTCOs have opposed the high transmission loss proposed by OPTCL and urged the Commission to revise the same as per their projections. In respect of demand, OPTCL had considered only the units to be sold to DISTCOs and wheeling of sterlite power, since no other IPP had started installation and commissioning of its generating units. OPTCL has submitted the details of lines and s/s to be constructed during the business plan period for each DISTCOs along with quantum of capital expenditure involved. Besides those augmentation programmes, OPTCL proposes for reconductoring/ upgradation of capacity of a number of important EHT lines during the business plan period.

7. Director (Commercial), GRIDCO stated that there was need for investment of Rs.5000 crore in transmission network in view of 13 MOUs signed by Govt. of Orissa with IPPs, which are expected to come by 2014.

The Commission wanted that instead of loading this investment on OPTCL, which in turn may burden the consumers, the evacuating lines should be planned to be linked with the Generating Stations. The Generating Stations should be involved in the transmission network. There can be public-private partnership on transmission capacity building. These can be based on build-own-operate-transfer arrangement. However, OPTCL should have absolute right over these lines.

GRIDCO stated that the PGCIL had already planned to draw many lines under public-private partnership. Among these were included Talcher-Narendrapur-Gajwaka and Talcher-Rourkela lines. The Commission wanted that there should be similar arrangements in Orissa also.

8. The representative of Govt. of Orissa stated that the State Govt. would not provide any amount towards equity for transmission network. However, the State Govt. agrees to provide Govt. guarantee on loans to be incurred by OPTCL for the purpose of project finance. To a query of the Commission, Govt. representative told that there has been no decision so far at Govt. level for separation of SLDC from OPTCL. The Commission advised that the process should be expedited.

9. OPTCL submitted the following:
   - OTPCL has taken up procurement of power transformers whose lead time is one year to one-half years.
   - However, the power transformers under repair shall be put into operation within 1 month of receipt from the repairing firm.

- As advised by GoO, the tender work for Bargarh-Bolangir line is to be taken up through three separate tenders, so that the work shall be completed quickly.
- The DPR of Boudh Grid S/S is ready.

Director (Finance), OPTCL stated that OPTCL would raise funds for transmission network through private placement of bonds where the licensee would not have to arrange for counterpart funding of the transmission projects. Moreover, the rates of interest would be cheaper than the borrowing from financial institutions like REC & PFC.

10. The Commission directed OPTCL to revise the Business Plan taking into consideration the latest developments in power sector and the modified business plans of the DISTCOs to be submitted to the Commission before 15th June, 2008. The CMD would take a meeting at his end between the concerned officers of all the distribution companies and OPTCL to reconcile and ensure that the latest projection of distribution licensees have been duly incorporated in the modified version of the present business plan of OPTCL.

11. The parties are further directed to file their written submissions within three weeks. The petitioner is directed to file its revised Business Plan by end of July, 2008 and specifically may examine the issues raised in para '7' about the mode of investment for the evacuation of power generated by the IPPs.

The matter is put up after such filings by the parties for final hearing.

Sd/-	Sd/-	Sd/-
K.C. BADU	**S.K. JENA**	**B.K. DAS**
MEMBER	**MEMBER**	**CHAIRPERSON**