
Heard the parties.

2. In obedience to the Commission's order, OPTCL have submitted the loading pattern of 2X100 MVA auto transformers at Balasore grid s/s from 3rd October, 2007 to 14th October, 2007. The full load current of 100 MVA auto transformer at 132 KV is 437.4 amp or 874.8 amp for both the transformers. A perusal of the loading details indicates that more or less during peak load hours i.e. from 18.00 hours upto 22.00 hours these transformers are delivering their full load current at a voltage level varying between 120-124 KV. The highest recorded off peak hour load is around 660 A at 130 KV. More or less this trend is observed on other days as well. The reading of Oil Temperature Indicator and Winding Temperature Indicator shows that the highest recording is around 70 ° C is 75 ° C respectively. During operation the fan and oil pumps are running continuously.
3. Therefore, Respondent No.1 (OPTCL) raised the apprehension that the Auto-transformers at Balasore which are running with full load may break-down if more load is allowed to FACOR. Further, he apprehended that the demand of the railways for meeting traction loads may not permit the additional burdening of this auto-transformers.
4. Respondent No.2 NESCO submitted that the minimum demand required to meet the area load in Balasore command area may be around 192 MVA. There could be rise in agricultural load to the extent of 5 to 6 MVA during the months of November to March. Likewise, there could be an additional demand for traction load to the extent of 10 MVA.
5. NESCO also pointed out that FACOR is a consumer getting the benefit of special tariff. Enhancement of contract demand means a loss of revenue for NESCO. He requested that clear instruction regarding classification of consumers' & other commercial terms may be given by the Commission.

6. NESCO also pointed out that no load shedding should be required to be imposed by NESCO in Balasore and Soro area due to release of additional load to the industries.
7. The petitioner, on the other hand, drew attention to the letter no.2183 dt.29.06.07 of OPTCL where in they were informed that their case for enhancement of contract demand from 25 MVA to 34 MVA shall be considered after commissioning of 160 MVA auto transformer at Kuchei (PGCIL) and completion/charging of 220 KV Kuchei (Balasore) line. Since, both these works are now completed raising the contract demand of the petitioner from 25 MVA to 34 MVA may be allowed immediately.
8. The petitioner is willing to reduce load to the extent required during the evening peak hours to prevent over loading of 2 X 100 MVA auto transformer at the Balasore grid s/s. Likewise, there should be no discrimination while extending power supply to the consumers.
9. The petitioner also submitted that M/s. Emami Industries may not draw any load during peak load hour. After having heard the parties, it is observed that spare capacity is available at Balasore grid s/s during hour other than the peak load hours to meet additional demand. Further, the OTI and WTI recording is below the permitted temperature rise of such kind of transformer as provided in the Indian Standard Guide for loading of oil immersed transformers. The CGM (Operation) has raised that this transformer is 11 to 12 years old. Continuous loading of the transformers and running of fans and pumps to maintain the temperature is a risky proposition and failure of a transformer will affect wide areas. Hence, additional load should not be allowed from this auto-transformer to meet any new load. The Commission emphasizes that proper maintenance of transformers with continuous monitoring of technical parameters including timely calibrations of measuring and protection equipments should be

carried out by OPTCL. These transformers should operate as per the prescribed norms and set in the Indian standards. In practice, uninterrupted continuous operation of at full rated KVA is unusual.

10. OPTCL, therefore, should quickly explore the possibility of charging 220 KV Khuchei at Balasore at 132 KV through Jharkhand bay at the earliest. This is necessary to utilize the spare capacity available at PGCIL at Kuchei s/s. Through this line they can draw additional load at 132 KV to meet the demands down stream of Balasore. In addition to the above, it is responsibility of the OPTCL to operate in accordance with Grid Code to develop the capacity in s/s to meet the security of supply standards as prescribed if necessary by installing additional transformers or by diverting load to unloaded s/s to meet the outage of transformer or a transmission line.
11. In this context, it is very relevant that the timely action taken by OPTCL for completion of 220 KV s/s at Bhadrak could have solved many of the problems being faced at Balasore command area.
12. The Commission finally orders that the spare capacity available at Balasore grid s/s may be effectively utilised by NESCO for extension of power supply which will yield additional revenue to the electricity power sector as well as the state which is one of the primary objective keeping in mind the safety of the equipments.
13. Therefore, the spare capacity indeed may be made available to supply additional power from the Balasore Auto-transformers to meet additional loads. NESCO is directed to prepare and furnish to the Commission a list of prospective consumers within 7 days & release additional power simultaneously.

14. OPTCL is directed to explore the possibility of extension of power from Kuchei to Soro and Bhadrak through the 220 KV Jharkhand bay at Kuchei, which may relieve the loading of Balasore Auto-transformers.
15. The commercial term, if any, between NESCO and FACOR may be decided separately by them as per the statutory provisions.

OPTCL shall intimate about the progress of diversion of balance capacity of Kuchei transformer within the next fortnight.

The case is accordingly disposed off.

Sd/-
(K. C. Badu)
Member

Sd/-
(S. K. Jena)
Member