

Tariff order for Tenughat Vidyut Nigam Limited for FY 2005-06

Jharkhand State Electricity Regulatory Commission (JSERC)

CHAPTER 3

COMPLIANCE OF DIRECTIVES

3.1 The Commission in its generation tariff order for TVNL for FY 2004-05 had identified several areas where the petitioner needed to make substantial efforts for improvement.

3.2 The directives of the Commission along with the status of compliance of all such directions are summarized below.

3.3 Loan refinancing option (Direction 6.1)

3.3.1 The Commission was of the opinion that the rate of interest payable for various loans was not clear from the 2004-05 petition. It directed TVNL to submit full details of the loans – source-wise along with rate of interest in the ARR for the year 2005-06.

TVNL's Response:

3.3.2 In the 2005-06 petition, TVNL has provided detailed information on its loans – source wise along with the interest rate details.

3.4 Coal Transportation (Direction 6.2)

3.4.1 Coal is transported to the Tenughat Thermal Power Station (TTPS), from the CCL mines through trucks. The Commission has observed that more than Rs 60 Crores has been spent on railway siding. However, the line was still not operational. Hence, the Commission directed TVNL to get the Railway construction completed (by RITES) by March 2005 and railway transportation should be available from April 2005.

TVNL's Response:

3.4.2 The petitioner has responded that the work is not yet complete. It stated that the entire work of track linking from

Dumri Bihar Station to Plant area has been entrusted to two agencies – East Central Railway and Rites Limited. The Railway Department is making the junction arrangement at Dumri Bihar Station. The petitioner stated that though the railway department had already completed most of the works, some work still remains incomplete.

According to the petitioner M/S Rites has been entrusted with the work of track linking including construction of culvert, steel bridge and R.O.B. These are being completed. The remaining work has been divided into five packages – Package A1, Package – A2, Package B, Package C and Package D. Of these Packages A1, package A2 and Package –D have already been awarded to the agencies. The work of Package A1 and A2 is related to the work of track linking of the alignment and the work on these packages is in full swing. The petitioner further stated that it had already incurred expenditure to the tune of Rs 3.5 Crore on these packages.

The petitioner further stated that the work on Package-D includes the work related to construction of road over bridge and maintenance work of entire alignment. The construction of road over bridge is nearly on the verge of completion and other remaining work of the package will be completed soon.

The petitioner however pointed out that Rites Limited has not finalized the contracts of Package B and C (the work is related to telecommunication and signaling work).

The petitioner stated that it hoped that the entire work of MGR system would be completed by end of March 2006.

3.5 Instrumentation (Direction 6.3)

3.5.1 On a thorough investigation of the TVNL thermal power plant, the Commission had found that the plant was supplied with extensive instrumentation. However, the Commission had observed that the plant was functioning only with basic minimum instrumentation. It had directed TVNL to get complete instrumentation done so that operation could be monitored efficiently.

TVNL's Response:

3.5.2 The petitioner has provided details of the various instrumentation equipments that it is in the process of procuring:

3.5.2.1 Furnace Temperature Measurement: The petitioner has stated that a portable furnace temperature-measuring instrument (0-1500°C) is being procured from M/s Unicontrol in Karnataka. The petitioner stated that initially the equipment was planned for purchase from BHEL In 2003-04 but BHEL expressed its inability to supply the instrument.

3.5.2.2 Steam and Water Analysis System (SWAS) –The petitioner has stated that SWAS is in advance stage of procurement (the technical offer after bidding is under consideration)

3.5.2.3 Sox, Nox, CO and O2 analyzers and Opacity Meters- The petitioner has stated that portable Sox, Nox and CO analyzers have been procured. It further stated that the purchase of Online Sox, Nox, CO and O2 analyzers and opacity meters is under advances stage and final consideration.

3.5.2.4 DM Plant- The petitioner has stated that a DM Conductivity meter has been installed at one final outlet point. The necessary pressure indicating instruments have also been installed. A purchase order for flow meters have been placed and the

offer of M/s Forbes Marshall for renovation of PH meter and conductivity of individual stream is under consideration.

3.6 Power Purchase Agreement (Direction 6.4)

3.6.1 The Commission had directed TVNL to sign a Power Purchase Agreement with JSEB. This agreement should clearly spell out the terms and conditions of power supply, penalty for non-evacuation of scheduled power by JSEB and penalty for non-supply of scheduled power by TVNL.

TVNL's Response:

3.6.2 The petitioner signed a Power Purchase Agreement with Jharkhand State Electricity Board on July 19, 2005.

3.7 Scheduled Maintenance Plan (Direction 6.5)

3.7.1 The Commission had observed that TVNL did not have a proper Scheduled Maintenance Plan nor did it have a proper, coded spares inventory management system. TVNL was incurring heavy operational losses due to this. The Commission had directed TVNL to have a well documented spares inventory management system and maintenance plan which clearly spells out each maintenance activity, personnel involved, tools, tackles, time schedule, shutdown, spares and action required to be performed. The Commission directed that TVNL should have its own self contained Workshop.

TVNL's Response:

3.7.2 The petitioner stated that Unit No II was taken out for maintenance in February 2004 and is back in function from November 2005. The petitioner has provided reasons for the long gap in getting unit 2 functional. Unit 1 was shut down for a month between mid November and Mid-December for some minor replacement and maintenance work. Both the Units are now in operation. The petitioner has however not provided a detailed maintenance plan with information on maintenance activity, personnel involved, tools, tackles, time schedule, shutdown, spares and actions required to be performed.

3.8 Auxiliary Consumption (Direction 6.6)

3.8.1 The Commission had observed that TVNL was supplying power to nearby villages as well as to their own colony and this supply was being clubbed with auxiliary consumption. The Commission directed TVNL to meter and list in the 2005-05 ARR; (a) the power used for auxiliaries only, (b) the power used for TVNL's own colony and (c) the power supplied to nearby villages.

TVNL's Response:

3.8.2 The petitioner has stated that the calibrated conventional energy meters were not functioning well. These conventional energy meters, the petitioner said, are being replaced by high accuracy class electronic meters from Secure Meters. Orders have already been placed to replace all meters of GTs, feeders and auxiliary transformers (STs & CWTs). These meters are likely to be delivered by the end of September 2005.

3.8.3 The petitioner has stated that Digital energy meter has been installed in the colony substation. It further stated that Colony power consumption would be communicated from January 2006.

3.8.4 The petitioner also stated that only Unit No 1 is in operation and that after commissioning of Unit No 2, auxiliary consumption will reduce to around 12%.

3.9 Water Charges and Proper Evacuation Facility (Direction 6.7)

3.9.1 The Commission had observed that TVNL's bill for water was exorbitant. TVNL did not have a modern MIS and a full-fledged instrumentation control system for assisting management. TVNL had highlighted evacuation problems frequently and that the plant was down frequently. The Commission had therefore directed TVNL to prepare and file for scrutiny and approval of the Commission, detailed investments plan highlighting activities to be carried out, investment required and time frame for completion of the intended work.

TVNL's Response:

3.9.2 The petitioner has stated that the concerned instrumentation wing has been asked to make provision for modern water metering system. The Jharkhand State Electricity Board has been requested for erection of additional 220 kV line from TTPS to Hatia.

3.10 Operational Efficiency (Direction 6.8)

3.10.1 The Commission had observed that TVNL had not carried out any audit to assess the operational efficiency of its plant since its inception. The Commission had therefore directed TVNL to get its plant audited for energy efficiency (both electrical and thermal) and to submit the findings of the energy audit to the Commission. Performance/efficiency test will be carried out on both the units when they are back in commercial operation after capital maintenance.

TVNL's Response:

3.10.2 The petitioner stated that it has engaged CENPEEP and NTPC for assessment of operational efficiency of unit 1 and 2.

3.11 Proper Data Recording System (Direction 6.9)

3.11.1 The Commission had observed that TVNL's operation was way below the normative levels and that their data recording system was extremely poor. The Commission directed TVNL to provide to the Commission an action plan for improved accuracy of data recording and improvement in operation to normative levels.

TVNL's Response:

3.11.2 TVNL has not submitted a compliance status on the above directive issued by the Commission during FY 2004-05.

3.12 Coal Inventory (Direction 6.10)

3.12.1 The Commission had observed that TVNL was keeping unduly large reserve of coal stock due to which working capital

was getting unnecessarily blocked. The Commission had directed TVNL to keep stock of coal and oil reserve as per norms of thermal power generation. The Commission had also directed TVNL to get itself registered with ERLDC and SLDC.

TVNL's Response:

3.12.2 The petitioner has stated that the usable stock of coal is almost nil due to huge dues of CCL. The petitioner stated that CCL is releasing only 10,000 MT coal when the previous quantity is consumed. The stock of oil is left at a minimum level of 500 KL