

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 286/2010**

**Sub:** Determination of transmission tariff for 400 kV S/C Singurauli-Vindhyachal transmission line along with (2 x 250 MW ) HVDC back to back at Vindhyanchal between Northern Region and Western Region from 1.4.2009 to 31.3.2014.

Date of hearing : 7.6.2011

Coram : Shri S.Jayaraman, Member  
Shri V.S.Verma, Member  
Shri M.Deen Dayalam, Member

Petitioner : Power Grid Corporation of India Limited, Gurgaon

Respondents : Madhya Pradesh Power Trading Company Ltd. & others

Parties present : 1. Shri S.S Raju, PGCIL  
2. Shri R.R Patel, PGCIL  
3. Shri M.M Mondal, PGCIL  
4. Shri Manoj Dubey, MPPTCL

**Record of Proceedings**

This petition has been filed by the petitioner, Power Grid Corporation of India Limited for determination of transmission tariff of 400 kV S/C Singurauli-Vindhyachal transmission line along with (2 x 250 MW) HVDC back-to-back at Vindhyanchal between Northern Region and Western Region from 1.4.2009 to 31.3.2014, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as the 2009 regulations). He further submitted that the additional capital expenditure of ₹ 1532.03 lakhs projected to be incurred during 2012-13 on account of spare

Smoothing Reactor for 2x250 MW HVDC back-to-back at Vindhyanchal between NR and WR has been claimed in the petition.

2. The representative of MPPTCL submitted that it has filed its reply on 7.6.2011 with copy to the petitioner. The Commission observed that MPPTCL should file its reply well in advance in its own interest for meaningful discussion during the hearing.

3. The representative of MPPTCL submitted that additional capital expenditure for spare Smoothing Reactor has been claimed under Regulation 9(2)(v) of 2009 regulations whereas the expenditure is in the nature of R&M and should have been claimed under Regulation 10 of 2009 regulations.

4. In response to the Commission's observation regarding the necessity of claiming the expenditure in the present petition since spare Smoothing Reactor would be put into service after the tariff block 2009-14, the representative of the petitioner clarified that the existing two Smoothing Reactors have completed 21 years of service and would complete their useful life of 25 years in July 2014. The petitioner is proposing to purchase the spare Smoothing Reactor since the process of supply of the equipment would take almost two years. He further clarified that the expenditure would be incurred

during tariff block 2009-14 since the advance payments to the supplier would have to be released.

5. The Commission observed that the Smoothing Reactors usually run successfully for 40 years and enquired from the petitioner regarding the history of failures of Smoothing Reactor on completion of 25 years in operation. The petitioner clarified that the equipments are tailor-made for use in HVDC back-to-back station. Moreover, the convertor transformers have failed in Rihan-Dadri HVDC project, Smoothing Reactors have failed in some of the projects and air-core reactors have failed in Rihan-Dadri HVDC project. The petitioner further clarified that the Smoothing Reactors have been subject to electric faults during the operation and the stress might have built up inside the Smoothing Reactors which could cause failure of the equipment.

6. The Commission observed that the original equipment manufacturer M/s ABB has not conclusively established the fact that the HVDC would not run without the Smoothing Reactor. The Commission directed the petitioner to get the study done by M/s ABB. The Commission also directed the petitioner to explore the possibility of having air-core Smoothing Reactors in place of oil filled Smoothing Reactors keeping in view the current practice.

7. The petitioner is directed to submit the above information by 31.7.2011.

8. Subject to above, order in the petition was reserved.

Sd/-  
(T. Rout)  
Joint Chief (Law)