

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 44/TL/2012 with IA No.19/2012**

Sub: Application for grant of transmission licence under Section 14 read with Section 15 (1) of the Electricity Act, 2003 and Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009.

Date of hearing : 31.5.2012

Coram : Dr. Pramod Deo, Chairperson  
Shri S Jayaraman, Member  
Shri V.S.Verma, Member  
Shri M. Deena Dayalan, Member

Petitioner : Adani Power Limited, Ahmedabad

Respondents : National Load Despatch Centre and Others

Parties present : Shri Amit Kapur, Advocate for the petitioner  
Miss Poonam Verma, Advocate for the petitioner  
Shri Krishan S. Rani, Advocate for the petitioner  
Shri RK Madan, APL  
Shri V.K.Prasar, APL  
Shri Malav Deliwala, APL  
Shri J.D. Lanyalina, APL  
Shri V.K. Agarwal, NLDC  
Shri S.R. Narasimhan, NLDC  
Miss Joyti Prasad, POSOCO  
Shri Awdhesh Kumar Yadav, CEA  
Shri M.G.Ramachandran, Advocate, HPGCL & GETCO  
Shri Apoorva Karol, Advocate, HPGCL  
Shri Chirag Kher, Advocate, HPGCL  
Shri U.K. AGarwal, HPGCL  
Shri B.B. Mehta, SLDC, Gujarat  
Shri S.B. Moudgui, HVPNL  
Ms. Manju Gupta, PGCIL  
Shri V. Thiagarajam, PGCIL

**Record of Proceedings**

Learned counsel for the petitioner submitted that in compliance with the directions of the Commission during the last date of hearing, the petitioner has filed its reply.

POSOCO and CTU have also filed their replies. Learned counsel confirmed that mock trial for operation of the dedicated transmission line has been carried out successfully.

2. The Commission observed that as the HVDC line has been built as a dedicated transmission line, the petitioner does not require any permission from the Commission to operate the line as a dedicated line. In reply to a query of the Commission regarding the problems encountered by the petitioner to operate the line as a dedicated transmission line, the learned counsel for the petitioner submitted the following:

- (a) The petitioner has completed necessary System Protection Scheme (SPS) for Unit No. 8 & 9 and metering arrangement between Stage 2 and 3 have been completed and the same have been informed to CEA, POSCO, PGCIL, Gujarat, SLDC and HVPNL on 9.4.2012.
- (b) The HVDC system is not designed to start in the islanded mode, as informed by Siemens.
- (c) The petitioner has submitted all the documents to PGCIL regarding operation of HVDC system. On 24.4.2012, PGCIL conveyed to the petitioner that HVDC system has been designed to operate in integration with AC system under normal operation.
- (d) In order to ensure the functioning of dedicated nature of HVDC system, the petitioner confirmed that:
  - (i) Scheduled flow of power from unit(s) of Stage 3 over HVDC corridor for the quantum of open access granted would be ensured strictly, in line with the regulations of the Commission.
  - (ii) Power order on HVDC corridor shall be set as approved by concerned RLDCs.
  - (iii) In HVDC system control, exact power to be transmitted can be set and it will not change on its own.
  - (iv) Only minor variations over the scheduled power flow between Stage 3 and Stage 2 shall take place limited to the usual variations in the generation of the generating units.
  - (v) Power from other sources shall not be scheduled through the dedicated HVDC line, and to achieve this, APL confirms installation of protective relays(Reverse Power Relay) across the bus coupler

between Stage 2 and Stage 3 to prevent unintended power flow from unit No. 1 to 6 and from western region to Stage 3.

- (vi) In case of outage of HVDC pole, Stage 3 generating unit(s) generating closest to the power order on HVDC shall be tripped by Special Protection Scheme.
- (vi) Even with "Sectionalizer Breaker Closed", dedicated nature of HVDC line will be maintained during its operation in accordance with Regulation 5.2 of the Grid Code.
- (vii) The petitioner shall comply with the instructions of POSCO as well as the provisions of Grid Code all the time for the operation of HVDC system.

3. The Commission observed that even though the power from other sources is not scheduled through the dedicated HVDC corridor, the power can still flow through the line. The Commission emphasized that the petitioner should ensure that when any power from other sources flow through this line, the line is tripped. In response, learned counsel for the petitioner confirmed that protective relays have been installed across the bus coupler between Stage 2 and Stage 3 to prevent unintended power flow from Unit Nos. 1 to 6 and from western region to Stage 3. The learned counsel confirmed that if power from other sources flow through HVDC line, it will trip.

4. Learned counsel for Gujarat Energy Transmission Corporation Limited (GETCO) submitted that main concern of the respondent is the flow of power from Units 7,8 &9 to Gujarat system in case of tripping of HVDC line, which may cause damage to Gujarat power system. Learned counsel further submitted that there should be automatic control system to stop the flow of power from Unit Nos.7, 8 and 9 to the Gujarat system. The representative of GETCO submitted that as per NLDC report submitted to the Commission, setting of SPS systems and runback system are yet to be decided by RPC.

5. Replying to concern of GETCO, the representative of the petitioner submitted that bus-sectionaliser and reverse relays have been installed and tested to ensure that power from Unit Nos.1 to 6 will not flow in the HVDC line. He further submitted that out of the generating capacity of Unit Nos. 7, 8 and 9, only 600 MW is dedicated to Northern Region and only that much power would flow through HVDC line. He also clarified that power which is earmarked will only flow and the required special protection scheme and run-back arrangements are in place.

6. The representative of POSOCO submitted that as per the arrangement of Special Protection Scheme (SPS) put in place for HVDC line, the moment HVDC line trips, corresponding generation would also trip. Thus, there should not be any flow of extra power into Gujarat System on account of tripping of HVDC line. However, if SPS does not work, then there may be concern of additional power flow into the Gujarat system.

7. Replying to the observation of the Commission that this type of contingency of non-operation of protection system may happen anywhere, the representative of POSOCO submitted that SPS cannot replace the system planned, designed and built on the basis of N-1 contingency criterion. He submitted that POSOCO had already highlighted the technical issues like non-availability of both the poles etc., in their submission dated 29.05.2012 in response to directions in RoP for the hearing on 03.05.2012.

8. The Commission asked the representative of POSOCO to answer following specific points:

- a) Can the line be defined as a dedicated line? If it is a dedicated line what was the objection in operation of this line as a dedicated line?
- b) If the line is not covered under the definition of dedicated transmission line, why the point has not been raised at the stage of clearances and construction and why the connectivity etc. has been given?
- c) Whether the transmission line can be operated as a dedicated transmission line?
- d) How the issues raised by Gujarat have been taken care of?

9. The representative of POSOCO submitted that it is the responsibility of the Central Transmission Utility (CTU) to grant connectivity and hence any query regarding the clearances and construction can be clarified by CTU. He submitted that the issues arising out of the permission in cases of such dedicated transmission lines were brought to the notice of the Commission in September 2011 by the system operator. The Commission further desired to know whether the petitioner was subsequently advised to modify the configuration when the line was not going to function as a dedicated transmission line. The representative of POSOCO clarified that no such permission has been granted by RLDCs. In reply to another query as to whether without the protection scheme as provided at present, the transmission line did not have the nature of a

dedicated transmission line, the representative of POSCO clarified that due to compromises like non-availability of alternative AC system and non-bipolar operation, primary protection is weak. Hence, POSOCO in its report has raised the issue of proper operation of SPS system, which may fail sometime.

10. The Commission asked the representative of the CTU to confirm whether the HVDC line of the petitioner was approved as a dedicated transmission system. The representative of CTU clarified that when the petitioner first approached CTU for Long Term Access for 200 MW to Maharashtra, it did not have any plan for putting up additional LTA to the Northern Region. So the dedicated line of Mundra-Dehgam was planned at that time for Unit No.1 to 6 and there was no proposal for HVDC line to NR. Subsequently, the petitioner approached the CTU for LTA to NR with separate Units 7, 8, 9 and the dedicated HVDC line for NR. At the stage of grant of LTA, there was no interconnection proposed between these two stages and separate dedicated transmission lines along with separate units were planned for NR and WR. Now, at the stage of operation, the petitioner is saying that the HVDC line to NR is not designed for isolated operations and in support it has submitted the report from the OEM i.e. M/s Siemens that it cannot be operated without connecting the two systems of WR and NR.

11. The representative of the petitioner submitted that there was no mention of separate operation of Units Nos. 1 to 6 and Unit Nos. 7 to 9 as the bus bar is common for both the stages of generation. The HVDC line is connected to Unit Nos. 7 to 9 but the bus bar is common to other units. The Commission desired to know as to why the petitioner planned the transmission line in such a manner when the petitioner is aware of the scope of the dedicated transmission line as per the provisions of the Electricity Act, 2003. The representative of the petitioner submitted that approval under section 68 of the Act was given by Ministry of Power, Government of India with the condition that in case of surplus capacity of the line, other beneficiaries would be allowed to transmit their power. He further submitted that the generating station was developed in stages and at that time, the issue of dedicated operation of the transmission line could not have been considered.

12. The representative of the Central Electricity Authority submitted that the dedicated nature of the HVDC line can be maintained by controlling power flow through this line. He further submitted that at planning stage, the issues of bus-sectionaliser etc. were not raised and have been raised at the operation stage only. He clarified that the dedicated system is designed by the project developer and the criteria taken by the project developer do not concern CEA unless it is referred to CEA as part of the integrated planning system where the criteria/issues are taken into consideration.

13. The representative of POSOCO submitted that certain technical requirements like readiness of both poles, lines for Mohindergah etc. are to be in place to ensure safe operation of the grid as mentioned in its report submitted in response to RoP for hearing on 03.05.2012.

14. The Commission directed the Staff to examine the report of NLDC, the issues raised by GETCO and CTU during the hearing with regard to operation of the dedicated transmission line and submit the same for consideration of the Commission.

15. Subject to the above, the order in the IA 19/2012 was reserved.

**By order of the Commission**

Sd/-  
**(T. Rout)**  
**Joint Chief (Legal)**