

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. Dr. Pramod Deo, Chairperson
2. Shri Bhanu Bhushan, Member
3. Shri R.Krishnamoorthy, Member
4. Shri S.Jayaraman, Member

Petition No. 76/2008

In the matter of

Petition for revival of dormant inter-regional link of 220 kV Ujjain-Kota and Ujjain-Modak transmission line.

And in the matter of

Western Regional Load Despatch Centre, Mumbai

..Petitioner

Vs

1. State Load Despatch Centre, Jabalpur
2. Madhya Pradesh Power Transmission Company Ltd., Jabalpur
3. State Load Despatch Centre, Jaipur
4. Rajasthan Rajya Vidyut Prasaran Nigam Ltd. Jaipur
5. Northern Regional Load Despatch Centre, New Delhi
6. Western Regional Power Committee, Mumbai
7. Northern Regional Power Committee, New Delhi... **..Performa respondents**

Respondents

Following were present:

1. Shri G. Anbunesan, WRLDC
2. Shri V.Suresh, SRLDC
3. Shri A.P.Bharive, SLDC
4. Shri Dilip Singh, MPPTCL
5. Shri M.M.Dhoke, MPPTCL
6. Shri D.K.Jain, NRLDC
7. Shri S.R.Narasimhan, NRLDC

**ORDER
(DATE OF HEARING: 30.9.2008)**

Through this petition, petitioner, Western Regional Load Despatch Centre has sought revival of inter-regional links of 220 kV Ujjain-Kota and Ujjain-Modak transmission lines, said to be dormant at present. The petitioner has prayed to issue

necessary directions to the concerned authorities for utilization of the assets for deriving benefits such as increased transfer capability and reduced transmission losses in the grid operation.

2. Northern Regional Grid was synchronized with WR-ER-NER Grid w.e.f 26.8.2006 with the commissioning of 400 kV Muzaffarpur-Gorakhpur D/C transmission line. Thereafter, Power Grid Corporation of India Ltd (PGCIL) took up the issue of operationalising 220 kV D/C Ujjain-Morak/Kota transmission line with the second and fourth respondents. For this purpose, a meeting was also held on 6.11.2006. Subsequently, 765 kV Agra-Gwalior-Bina transmission line was charged at 400 kV and has been in operation since 31.3.2007. This has interconnected NR and WR systems directly.

3. While the commissioning of Agra-Gwalior transmission line (Ckt-I) has improved security level of both the regions during alert/emergency conditions in either region, the petitioner has submitted that at the times of sudden load crash in either region, power flow increases to high levels impacting on grid security. The petitioner, based on certain studies conducted by the fifth respondent, feels that synchronization of 220 kV D/C Ujjain-Morak/Kota transmission line will result in grid security improvement and thus help the integrated grid.

4. It has been stated that 220 kV S/C Auraiya (UP)-Malanpur(MP) and Auraiya (UP)-Mehgaon (MP) S/C transmission lines have been made operational in synchronous mode on 2.5.2007 which has helped in increasing transfer capability significantly in both directions.

5. The petitioner has pointed out that the Ujjain-Morak/Kota transmission line was originally constructed for utilization of shares for the State of Madhya Pradesh and Rajasthan from the hydro electric generating station in Chambal region and also Satpura TPS. Over the years, both the States are stated to have been involved in commercial disputes relating to despatch of generation from the shared generating stations, payment of capital cost and O&M charges. It has been submitted that these issues are coming in the way of operationalization of this transmission line, though occasionally it has been used in radial mode when either of the States had some contingency.

6. The petitioner has further stated that Secretary, Ministry of Power in a meeting held on 21.11.2007 had impressed the need to operationalize this transmission line and had decided to take up the matter with the two State Governments. This was followed up by communications from Chairman, CEA to Secretary, Department of Energy, Governments of Madhya Pradesh and Rajasthan wherein need for operationalizing this line was stressed pending resolution of commercial issues between the two States.

7. In support of the petition, the petitioner has relied upon past orders of the Commission. The Commission, by its order dated 7.11.2007 in Petition No. 117/2007 had urged the State utilities concerned to resolve all the issues expeditiously and close the 220 kV Ujjain-Kota link without further delay. The Commission by its earlier order dated 28.3.2007 in Petition No. 85/2007 also directed Regional Power Committees to identify the dormant inter-regional transmission lines and take necessary steps to convert them into synchronous links.

8. The petitioner carried out system studies and was satisfied about the technical feasibility of operation of the transmission line in synchronous mode. WRPC in its meeting held on 3.5.2008 is also said to have resolved to similar effect.

9. In order to obviate possibility of any commercial dispute, the petitioner has proposed that power-flow over 220 kV D/C Ujjain-Morak/Kota transmission line would be scheduled as a part of the WR-NR exchange. However, if the States of Madhya Pradesh and Rajasthan desired to schedule power of their shared generating stations over this transmission line, they could be permitted to do so.

10. The petitioner has also relied upon para 5.2 of IEGC, according to which no part of the grid can be kept isolated deliberately except under the specified conditions, which are not applicable to the transmission lines in question.

11. The respondent, SLDC, Jabalpur has filed its reply. From the reply, basically two contentions emerge.

12. The first contention is that the study carried out to support operationalisation of Ujjain-Morak/Kota transmission line is very old and it ignores one existing and one upcoming 220/132 kV sub-stations with 160 MVA transformer. It has been brought out that the load flow study over the intra-State transmission system shows that there will not be any margin for supply of additional load on Ujjain-Morak/Kota transmission line, except during monsoon period when the loading of this line will be less and there will be surplus power in Western Region. Load flow study carried out by the second respondent, it has been submitted, further shows that the parallel operation of Ujjain-Morak/Kota transmission line can be permitted only if flow on this

line is restricted to 150 MW (per circuit), during the monsoon period. It has been submitted that during the Rabi season, ICTs at Indore and Nagda are critically overloaded and paralleling of Ujjain-Morak/Kota transmission line may lead to further loading and tripping. The first respondent has questioned the petitioner's version that paralleling of this line would enhance redundancy and increase stability margins. It is further stated that State of Madhya Pradesh has not denied paralleling of the transmission line during monsoon season of July-August, 2008. However, no assurance has been given by the petitioner to open this line during Rabi season. It is stated that Government of Madhya Pradesh as well as the second respondent have conveyed readiness for parallel operation of the above transmission line, subject to following commercial safeguards, namely:

- (i) The transaction over 220 kV Ujjain-Kota transmission line between Madhya Pradesh and Rajasthan for utilization of their share in Chambal-Satpura hydro-electric generating station shall not be treated as part of inter-regional schedule and for the purpose of UI.
- (ii) The power flow from Chambal-Satpura Complex shall be scheduled by the first respondent and not by the petitioner. However, instructions received from the petitioner will be given due weightage so long as these are not contrary to bilateral arrangement.
- (iii) There will be no power export from Chambal-Satpura Complex during the Rabi season i.e. during November to March because of overloading of power transformers in Indore/Ujjain area. However, the transmission lines can be used for the purpose of importing power.

- (iv) Modalities for sharing of transmission charges between constituents of the Northern and Western Regions needs to be addressed first before the start of parallel operation.
- (v) An amount of Rs. 101.435 crore up to May 2007 was outstanding against the fourth respondent. Therefore, before giving final shape to the parallel operation arrangement, it is advisable to clear the outstanding amount.

13. The other contention of the first respondent is regarding perceived impact on commercial settlement. It is mentioned that the Commercial Committee of WRPC in its meeting held on 24.11.2006, had observed that inclusion of the transmission line as inter-regional link would have financial implication on other constituents of Western Region and transaction on this line in radial mode could not be treated as inter-regional exchange for UI purpose. The first respondent has stated that the payment of O&M charges, capital expenditure of Chambal-Satpura complex has not been ensured by the fourth respondent and even the petitioner has not deliberated on this issue in the petition. It is stated that the State of Madhya Pradesh would be deprived of its net monthly O&M charges/capital expenditure on scheduling of power in Chambal-Satpura complex by the fourth respondent which is presently being adjusted against cost of overdrawal from Chambal-Satpura complex by Madhya Pradesh as per agreed bilateral arrangement. The second respondent vide letter dated 25.6.2008 to the fourth respondent had requested for opening of LC for Rs.13 crore for payment of monthly O&M charges of Satpura TPS-I, but there has been no response.

14. The submissions made by second respondent which are generally similar to that made by first respondent, are summarised below:

- (i) The petitioner and fifth respondent may be advised not to insist on paralleling of 220 kV Ujjain-Morak/Kota transmission line during Rabi season. However, it has expressed its readiness for paralleling of these transmission lines during the months of July, August and September provided its commercial interests are safeguarded;
- (ii) Power flow from Chambal-Satpura complex shall be scheduled by the first respondent and schedule of such power will be done by the petitioner only when the States of Madhya Pradesh and Rajasthan furnish identical injection/drawal schedule;
- (iii) The second respondent will have right to open these transmission lines if transformer at Indore or Nagda 400 kV sub-station and loading of 220 kV Nagda-Ujjain or Indore-Ujjain or Ujjain-Morak/Kota feeder cross the prescribed limit;
- (iv) The fourth respondent shall open LC of the requisite amount towards O&M expenditure of Chambal-Satpura complex.

15. The petitioner by its affidavit dated 17.9.2008 has stated that according to its study, loading of 3 x 315 MVA ICTs at Indore and Nagda increased by 80 and 90 MVA respectively after parallel operation of these lines considering maximum of 900 MW drawal by Northern Region constituents from Western Region in 2007-08 peak. Even during Rabi season, when Madhya Pradesh would be meeting its peak, Indore

and Nagda ICTs would be loaded upto 750 MVA each and about 400 MVA of margin still exists. It has been pointed out that during Rabi season when MP is likely to meet its peak, power on Ujjain-Morak/Kota transmission line is likely to flow towards Madhya Pradesh only. Such profile of loading, therefore, may not lead to critical loading.

16. The petitioner has submitted that RLDCs are responsible for system operation and control including inter-state/inter-regional transfer of power, covering contingency analysis and operational planning on real time basis in line with para 2.2.2(1) of IEGC. It is evident that suitable corrective actions would be undertaken to control critical loading, if any, during Rabi season to terminate the criticality by the petitioner/fifth respondent at the earliest. The control actions would be similar to all other inter-regional links.

17. We have considered the matter in the face of rival contentions.

18. Improvement in security level, reliability and transmission loss reduction leading to economic and efficient operation of NEW grid demands unconditional concurrence for parallel operation of above transmission line. The transmission line is likely to be of considerable help in making synchronization of Western Region and Northern Region more secure, particularly during coming winter months when fog may cause tripping of other transmission lines in western Uttar Pradesh. The transmission line should, therefore, be revived as a synchronous link at the earliest. It is noted that the first and second respondents are still not agreeing with the ICT loading assessment of the petitioner. In case the ICT loading becomes excessive in

actual operation, disconnection of the link by the second respondent shall be allowed.

19. In case the Agra-Gwalior transmission line trips, and the 220 kV Ujjain-Morak/Kota transmission line gets excessively loaded, the protective relays would trip it out. Since this may happen only once in a blue moon, there is no reason for not utilizing the Ujjain-Morak/Kota transmission line for most of the time it would be available and benefiting through reduction of transmission losses, improvement of voltage profile and enhanced reliability.

20. One stumbling block is the past commercial disputes between the utilities in the States of Madhya Pradesh and Rajasthan. The second respondent may settle its past commercial disputes with the fourth respondent separately, as these cannot be allowed to prevent beneficial use of the transmission line in question. It is also noted that the scheduling of power from bilateral generating station should not be an issue. The Regional Load Despatch Centres shall ensure that while scheduling, agreements between the concerned parties are duly taken care of. Accordingly, we direct that the synchronization of the transmission line be done with immediate effect. If the first respondent desire fresh system studies, the petitioner will assist them in carrying out fresh studies to take care of their apprehensions.

21. With the above, Petition No. 96/2006 stands disposed of.

Sd/- **sd/-** **sd/-** **sd/-**
(S.JAYARAMAN) (R.KRISHNAMOORTHY) (BHANU BHUSHAN) (DR.PRAMOD DEO)
MEMBER MEMBER MEMBER CHAIRPERSON
New Delhi dated the 1st December 2008