

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 205/MP/ 2011

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

Date of Hearing: 19.1.2012

Date of Order : 9.10.2012

In the matter of

Appropriate directions to be passed on the Southern Regional Load Despatch Centre and Power System Operation Corporation Limited to recognize the 1000 MW project being developed by the petitioner as an independent generating station and to treat the thermal power projects developed by the petitioner and by Simhapuri Energy Private Limited as separate and independent generating stations for the purpose of scheduling and dispatch, metering, energy accounting including UI computation.

And in the matter of

Meenakshi Energy Private Limited, Hyderabad

Applicant

Vs

1. Southern Regional Load Despatch Centre, Bangalore
2. Power Systems Operation Corporation Ltd, New Delhi
3. Power Grid Corporation of India Limited, Gurgaon
4. Southern Regional Power Committee, Bangalore
5. Simhapuri Energy Private Limited, Hyderabad
6. PTC India Ltd, New Delhi

Respondents

Present:

1. Shri Sitiesh Mukherjee, Advocate for the petitioner
2. Shri Sakia Choudhery, Advocate for the petitioner
3. Miss Anuish, Advocate for the petitioner
4. Shri N.P.Hanagoov, MEPL
5. Shri S.K.Kathuria, MEPL
6. Shri V. K. Agarwal, NLDC
7. Shri S. S. Barpanda, NLDC
8. Ms Joyti Prasad, NRLDC
9. Miss Vaishally Bhardwaj, NLDC
10. Shri Nripen Mishra, NLDC
11. Shri Gaurav Verma, NLDC
12. Miss Joyti Prasad, NRLDC
13. Shri Dilip Rozekar, PGCIL



14. Shri V. Suresh, SRPC
15. Shri Amit Kapoor, Advocate, SEPL
16. Shri Aproova Mishra, Advocate, SEPL
17. Shri K. C. Middha, SEPL
18. Shri Ravi Prakesh, Advocate, PTC India
19. Shri Varun Pathak, Advocate, PTC India

ORDER

Aggrieved by the decision of the first and second respondents to treat the generating stations owned by the petitioner and the fifth respondent as a single entity for the purposes of scheduling, dispatch, metering and energy accounting (including UI), the petitioner has filed the present petition with the following prayers, namely -

“(i) Appropriate directions be passed on the first and second respondents to recognize the 1000 MW project being developed by the petitioner as an independent generating station and to treat the thermal power projects developed by the petitioner and the fifth respondent as separate and independent generating stations for the purpose of scheduling and dispatch, metering, energy accounting including UI computation in line with the recommendation made by SRTS-II, PGCIL in the 16th meeting of the Commercial Sub Committee Southern Region Power Committee dated 21.6.2011, and to take all necessary steps to facilitate such arrangement by providing necessary metering, etc. to ensure the treatment of the petitioner’s project as a separate and independent generating station;

(ii) Appropriate directions be passed on the first and second respondents to adopt the metering arrangement as circulated by PGCIL as noted in the minutes of the meeting of the Commercial Sub Committee Southern Region Power Committee dated 21.6.2011, for the purpose of treating the thermal power projects of petitioner and Simhapuri Energy Private Limited as two separate and independent entities for the purpose of scheduling and dispatch, metering, energy accounting including UI computation, or such other arrangement as may be found appropriate for such purpose;

(iii) In the interim, allow the petitioner to sign the connectivity Agreement and the amended annexure to the BPTA with the third respondent for ensuring connectivity to the grid, without prejudice to its rights and contentions under the present petition;

(iv) In the interim, allow the first and second respondents to carry out accounting of commissioning and start-up power drawn by the petitioner’s project and prepare UI accounts and energy accounts of the petitioner separately as an independent generating station, till the final disposal of the present petition;

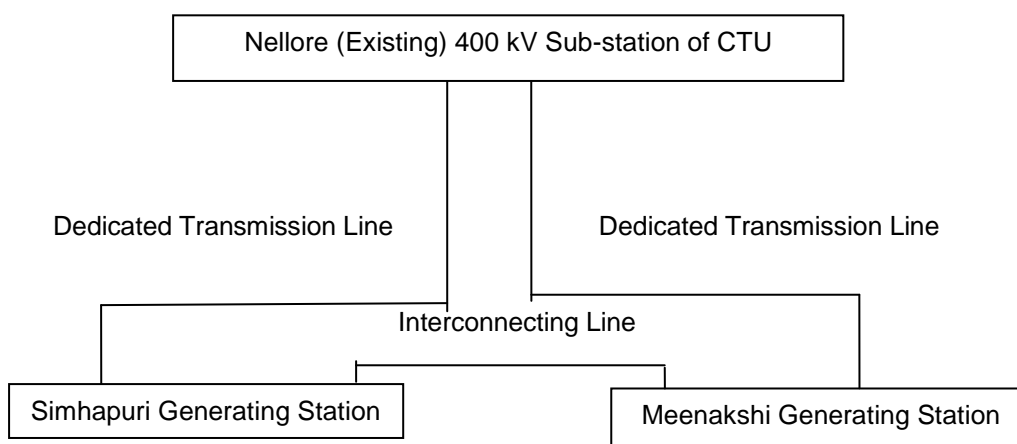
(v) In the interim direct the Respondent Nos 1 and 2 to carry out accounting of commissioning and start-up power drawn by the Petitioner’s Project and thereafter to schedule and dispatch the power generation from such Project and prepare UI

accounts and energy accounts of the Petitioner separately as an independent generating station till the final disposal of the present petition;

(vi) To pass such other and further orders which may be deemed necessary in the interest of justice?"

Case of the Petitioner

2. The petitioner has submitted that it is developing coal-based thermal generating station with a total capacity of 1000 MW (hereinafter referred to as ‘the generating station’) near Krishnapatnam Port, Nellore District, Andhra Pradesh and has proposed to supply power to the States in Southern, Northern and Western Regions. The fifth respondent has also established a 600 MW coal-based generating station at close proximity of the generating station of the petitioner. The petitioner as also the fifth respondent made applications to the third respondent (the Central Transmission Utility) for long-term open access for evacuation of the power generated from their projects. The petitioner has submitted that the third respondent after conducting system studies granted long term open access to the petitioner and the fifth respondent at its Nellore (Manabolu) sub-station. The petitioner has further submitted that the third respondent advised the petitioner and the fifth respondent to jointly develop the 400 kV Quad D/C transmission line (the transmission line) to the point of connection at Nellore sub-station as a dedicated line and share the transmission charges in proportion to their installed capacity. Subsequently, the petitioner and respondent no. 5 mutually agreed between themselves to change the scheme of transmission line arrangement connecting their respective power stations to the CTU's sub-station at Manabolu (Nellore) and informed CTU about the changes. The petitioner has submitted that the revised transmission line was noted by CTU to be regularized in the BPTA at a later stage. The arrangement jointly worked out by the petitioner and the fifth respondent is depicted in the schematic diagram hereunder:



3. The petitioner has further submitted that as per the decision in the 12th meeting of Southern Region constituents regarding LTA and Connectivity applications, held on 8.6.2011, the petitioner was directed to work out the arrangement with the fifth respondent for sharing of the transmission charges and losses for the transmission line and also to sort out the issues pertaining to scheduling, metering, UI etc. in consultation with the first respondent. Based on the decision, the petitioner vide its letter dated 16.6.2011 requested the CTU to suggest suitable arrangement of Special Energy Meters (SEMs) for the two projects in order to facilitate energy accounting of the projects separately on standalone basis. In response, the CTU vide its letter dated 21.6.2011 informed the petitioner that the issue of finalization of meter location has been referred to the SRPC/ SRLDC. Simultaneously, the CTU asked the petitioner to forward the agreement between the petitioner and the fifth respondent regarding the modalities for sharing of the transmission charges and losses pertaining to the dedicated transmission system and also the mechanism for apportioning of energy and UI charges from the point of connectivity to ISTS in terms of the request of SRPC Secretariat. The petitioner has submitted that in the 16th meeting of the Commercial Sub-committee of the Southern Regional Power Committee held on 21.6.2011, the proposal of the petitioner for installation of the SEMs was discussed. The CTU

informed in the meeting that the petitioner and the fifth respondent had been granted connectivity and long-term open access as two separate and independent entities and accordingly suggested to Respondent No. 1 to treat the two projects as different entities. CTU indicated to SRLDC that it had circulated a schematic drawing of the metering system of the two projects and requested SRLDC to provide the exact details of SEM locations required for energy accounting. Further, CTU in its letter dated 5.7.2011 has informed the petitioner that SRPC has indicated to install SEMs in all locations suggested by the petitioner and as regards the UI accounting methodology, a separate meeting would be held by SRPC. The petitioner has submitted that despite the recommendations of CTU to treat them as two separate and independent projects, SRLDC has proceeded to treat the petitioner and the fifth respondent as a single entity with combined energy accounting.

4. The petitioner has submitted that in view of the decisions in the 12th Meeting of the SR constituents held on 8.6.2011, the petitioner arrived at an agreement with the fifth respondent on the following formula for sharing the transmission charges and losses for the purposes of individual energy accounting:

$$\begin{aligned} \text{"Accounting of Energy for MEPL} &= (\text{MEPL 1} + \text{MEPL 2}) \times (\text{PGCIL 1} + \text{PGCIL 2}) / \\ &(\text{MEPL 1} + \text{MEPL 2} + \text{SEPL 1} + \text{SEPL 2}) \\ \text{Accounting of Energy for SEPL} &= (\text{SEPL 1} + \text{SEPL 2}) \times (\text{PGCIL 1} + \text{PGCIL 2}) / \\ &(\text{MEPL 1} + \text{MEPL 2} + \text{SEPL 1} + \text{SEPL 2}) \text{"} \end{aligned}$$

The petitioner has submitted that the above formula was intimated to CTU to adopt the same for accounting of transmission charges and losses. Both the petitioner and respondent No.5 had also requested CTU to consider energy accounting at the respective switchyards of the two projects including recognition of the inter-connectivity

line between the two projects for the purpose of energy accounting. However, CTU vide its letter dated 1.9.2011 informed the petitioner that the issues pertaining to scheduling, metering, UI etc. would have to be sorted out in consultation with the SRLDC/SRPC. CTU in the said letter had enclosed a copy of the order dated 1.6.2011 in Petition No. 259/2009 advising that the said order would be helpful in resolving the issues. The petitioner has submitted that the said order was issued in the context where the transmission line of one generator was utilized by other generators situated in the same area for evacuation of power. However, on appeal Appellate Tribunal for Electricity in its order dated 10.6.2011 in Appeal No.81/2011 has directed NRLDC to separately schedule and dispatch and maintain UI accounting for the concerned generating stations. The petitioner requested the CTU to specify the switchyards of MEPL and SEPL as independent points of connections in view of the order passed by Appellate Tribunal for Electricity.

5. The petitioner has submitted that SRLDC, the second respondent, by its letter dated 24.8.2011 suggested the following locations to SRTS-I of PGCIL for installing the Special Energy Meters:

- | | |
|---|---------|
| (i) 400 kV SEPL line at Nellore (Main & Check) | - 2 Nos |
| (ii) 400 kV MEPL line at Nellore (Main & Check) | - 2 Nos |
| (iii) 400 kV Nellore line at SEPL (Standby) | - 1 No |
| (iv) 400 kV Nellore line at MEPL (Standby) | - 1 No |

According to the petitioner, the arrangement suggested by SRLDC is significantly different from the metering arrangement suggested by CTU and does not provide for recording of flow of power between the two projects and does not facilitate

separate and independent accounting between the two projects as they are treated as a single entity, contrary to the provisions of the Grid Code. The petitioner, vide letter dated 22.9.2011 requested POSOCO to treat the two generating stations as independent and distinct entities and recognize the switchyards of both the generating stations as point of inter-connection for the purpose of scheduling and energy accounting. POSOCO, however, vide its letter dated 4.10.2011 confirmed that scheduling and metering would be considered at the inter-connection point at Nellore sub-station and the issues regarding apportionment of UI between petitioner and the fifth respondent could be settled by them mutually by forming a coordination centre on the lines decided by this Commission in its order dated 1.6.2011 in Petition No. 259/2009.

6. The petitioner has submitted that treatment of two generating stations as a single entity for scheduling, dispatch, energy accounting and UI is completely unworkable since it makes imperative to establish a mechanism for settlement of the disputes in perpetuity for a period of 25 years or even more. The petitioner has further submitted that the arrangement proposed by POSOCO contravenes the provisions of the Electricity Act, 2003 and the Grid Code which require Independent Power Producers with different generating stations to be treated independent of each other for the purpose of scheduling, metering, energy accounting and UI accounting. The petitioner has brought out that the provisions of Part 6 of the Grid Code titled 'Scheduling and Despatch Code' is based on the principle that operations have to be carried out independently and separately for each generating station. The petitioner has further submitted that certain unwarranted and illegal actions like gaming and under-injection/over-injection, detrimental to the operation of the power system can be

effectively monitored and enforced against erring utilities only when they are mapped and treated separate and independent. According to the petitioner, in order to control and keep tab on UI, it is necessary to ascertain details of the exact generation and the scheduled generation in the relevant time block for each generating station which may be possible only when the generating station is scheduled separately. The petitioner has urged that the moment there is combined UI calculation for two generating stations at one injection point, the real objective of having UI mechanism is defeated as the impact of individual variation of energy injected may not be captured adequately when the combined variation of energy by both the power projects is reflected by the Special Energy Meters. Similarly, it has been urged, a deviation by one of the generating station would reflect on the performance of both the stations and in such a situation, the petitioner may be subjected to penal or coercive measures taken by appropriate authorities under the provisions of the Act for any non-compliances committed by the fifth respondent and *vice versa* since any non-compliance would be treated as a non-compliance by both the generating stations under the combined scheme of operation proposed by the first and second respondents . The petitioner has referred to the various functions of RLDC assigned under Section 28 of the Electricity Act and also the provisions of IEGC to contend that the Respondent is mandated to monitor and control every utility connected to the grid including generating stations. According to the petitioner, the control area of RLDC cannot be limited to the physical boundaries of the inter-State transmission system but it extends to any part of power system including generating stations, over which it exercises jurisdiction under the Act and the Grid Code .Therefore, according to the petitioner, the control area of the first respondent extends to its generating station as also that of the fifth respondent.

Reply of First Respondent (SRLDC)

7. SRLDC in its reply-affidavit dated 2.12.2011 has stated that in accordance with Section 28 of the Electricity Act, RLDCs are mandated to supervise and control only the inter-State transmission system in the region. By placing reliance on the definition of “inter-State transmission system” given in sub-section (36) of Section 2 of the Electricity Act, SRLDC has contended that the transmission line, which has been jointly laid by the petitioner and the fifth respondent does not form part of the inter-State transmission system. Further, according to SRLDC, under the Grid Code the jurisdiction of RLDC extends to the inter-State transmission system control area periphery and not to the periphery of the generating station. SRLDC has submitted that the point of interconnection suggested by the petitioner and the fifth respondent at the switchyard of the respective generating stations is outside its control area and hence outside its jurisdiction. Based on these, SRLDC has expressed its inability to agree to the installation of the Special Energy Meters at the switchyard of the respective generating stations and energy accounting, including UI computing at the periphery of the generating stations.

8. SRLDC has sought to justify its decision of combined scheduling and UI computation at the point of interconnection with the inter-State transmission system at Nellore. It has been submitted that as per the transmission network topology adopted by the petitioner and the fifth respondent, the power injection at the inter-State transmission system connection point is of combined flow. For this reason, there cannot be individual scheduling, dispatch or energy accounting for the two generating stations. The argument has been raised because of the interconnection line between

the switchyard of two generating stations. SRLDC does not envisage any operational difficulties in combined scheduling and UI accounting of the two generating stations.

9. SRLDC has further submitted that in the event of more than one generating station connected through a dedicated transmission network prior to the point of connectivity with the inter-State transmission system, the agencies concerned are required to have necessary coordination among themselves to facilitate discharge of duties by the Regional Load Despatch Centre of scheduling, collection and metering data on injection/drawl for UI computation at the point of connectivity with the inter-State transmission system for availing the long-term open access. It has been brought out that all embedded customers of a State network are following the principle of settling UI accounting within the control area of the State network and thus, the principle of settling UI among the generating stations within the control area is already well-settled. It has sought directions to the petitioner and the fifth respondent to set up a coordination centre for the purpose of scheduling, real time operation and accounting and in case this arrangement was not acceptable, they should obtain the transmission licence for the dedicated transmission lines jointly owned by the petitioner and the fifth respondent. In support of the averment, the first respondent has relied upon the order of this Commission dated 1.6.2011 in Petition No 259/2010.

Reply of Respondent No.2 (POSOCO/NLDC)

10. POSOCO (NLDC) in its affidavit dated 23.12.2011 has adopted the reply of SRLDC. NLDC has submitted that considering the definition of dedicated transmission lines as defined in section 2(16) of the Act and the Electricity (Removal of Difficulty) (Fifth) Order, 2005, NLDC in its communication dated 30.11.2011 to the Commission

has suggested two possible solutions to the problem of the petitioner and respondent No.5 i.e. either the dedicated transmission lines get converted to ISTS based on an application by the generating company or the parties connected to the dedicated transmission lines set up their own coordination centre. It has been submitted that the coordination centre model is already being practiced by wind farms where the state utility meters the combined generation at the interface point and the wind generator apportions the energy to individual wind turbines. Accordingly, NLDC has sought a direction to the petitioner and respondent No.5 to set up a coordination centre for the purpose of scheduling, real time operation and accounting or alternatively, to approach the Commission for a transmission licence for the dedicated transmission line owned by them.

Reply of Respondent No.5- (Simhapuri Energy Private Limited)

11. Respondent No.5 has submitted that the petitioner and respondent No.5 are similarly placed and accordingly, Respondent No.5 has adopted the submission made by the petitioner. Respondent No.5 has further submitted that in compliance with the directions of the Commission in the order dated 5.12.2011, it was availing stat up power by opening the inter-connection line between the projects of the petitioner and Respondent No.5 and by obtaining short term open access from SRLDC with effect from 12.12.2011.

Reply of Respondent No.6 (PTC India Limited)

12. During the hearing of the petition on 28.11.2011, PTC India Ltd, an inter-State trading licensee had sought impleadment in the petition as a party on the ground that the power from the generating stations of the petitioner and Respondent No.5 would be sold to it. The prayer was allowed. PTC India Limited in its reply vide affidavit dated

5.1.2012 has submitted that the Act and the Grid Code mandate that the Independent Power Producers should be treated as separate units especially for the purpose of scheduling, metering, energy accounting and UI accounting. PTC has further submitted that for the Load Despatch Centre to effectively carry out its duties under the Grid Code and the Act, it is necessary to treat different generating stations as separate and distinct units in order to affix responsibility and liability.

Rejoinders of the Petitioner to the replies of Respondent No.1 & 2

13. The petitioner has submitted that the case of SRLDC is premised on a misconceived notion of the control area. It has been submitted that under the Grid Code, Regional Load Despatch Centre is required to undertake scheduling and dispatch and energy accounting including UI accounting in respect of all inter-State generating stations fulfilling certain conditions and such generating stations fall within the control area of RLDC. The concept of control area as envisaged under Grid Code does not depend on the status of the transmission lines connecting a power station into ISTS. Therefore, SRLDC is required to undertake scheduling and dispatch and energy accounting including UI accounting and various other statutory functions for the generating stations of the petitioner and Respondent No.5 independently irrespective of the legal status of the transmission lines. In reply to the submissions of NLDC, the petitioner has submitted that the concept of coordination centre or lead generator has no legal basis under the Act. It has been submitted that under the Act and Grid Code, the functions of scheduling, operational planning on real time basis, prevention of gaming, system operation and control covering contingency analysis, system resoration, metering data collection, operation of UI pool account etc. may only be

discharged by the bodies such as Regional Load Despatch Centre or the State Load Despatch Centres which have the requisite statutory authority in this regard.

Interim directions

14. During the hearing of the petition on 28.11.2011, learned counsel for the petitioner made a prayer for directions to SRLDC for startup power for testing and commissioning of the generating stations of the petitioner and the respondent No.5.

The Commission in order dated 5.12.2011 had issued the following directions:

"11. Since the metering arrangement at Nellore end is already existing, we direct the first respondent to temporarily disconnect the inter-connection between the petitioner and fifth respondent and do the meter reading of start-up power at Nellore end in order to facilitate drawal of start-up power for commissioning of the generating station. With the inter-connection between generating stations removed, the transmission lines from Nellore to fifth respondent and petitioner generating station, respectively, would become dedicated lines connected at Nellore pooling station. This arrangement will be in force for a period not exceeding three months from the date of start of availing of start-up power or until further orders of the Commission, whichever is earlier."

.....

14. The first and fourth respondents are directed to facilitate the scheduling and energy accounting at Nellore end in accordance with the Grid Code after disconnection of the interconnection between the generating station of the petitioner and fifth respondent and receipt of the declaration from both parties in this regard."

The fifth respondent filed IA No.2/2012 seeking a clarification that the interim order dated 5.12.2012 is not confined to startup power only but extends to injecting infirm power from the generating station of the petitioner and respondent No.5. The Commission in its order dated 25.1.2012 had allowed the operation of the interim directions in order dated 5.12.2011 till further orders as under:

"8. We have considered the submissions made by the learned counsels for the petitioner, Fifth Respondent and representative of the SRLDC. In para 11 of our order dated 5.12.2011, we had allowed both the petitioner and Fifth Respondent, for drawal of the start-up power for the commissioning of their generating stations by directing temporary disconnection of the inter-connection between the petitioner and the Fifth Respondent. Since, the Fifth Respondent has prayed for extending the arrangement for injecting infirm power generated by its generating units as a consequence of testing and commissioning of the power plants which has also been supported by the learned counsel for the petitioner, we direct the SRLDC to allow injection of power during testing by both the generating stations, subject to the provisions of Central Electricity Regulatory Commission (Grant of Connectivity,

Long-Term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 amended from time to time. The other directions contained in our order dated 5.12.2011 shall remain in operation till further orders."

Analysis of the Case

15. We have heard the learned counsel/authorized representatives of the parties. We have very carefully considered the submissions made by the parties and have gone through the records. The main bone of contention between the petitioner and fifth respondent on the one side and first and second respondent on the other side is which point should be treated as the point of inter-connection i.e. point between the dedicated transmission line and the ISTS or the bus bar of the generating stations of the petitioner and fifth respondent. Beneath the dispute lies a more serious issue i.e. where two or more generators are developing common dedicated transmission line on the basis of cost sharing for evacuation of power from their generating stations till the point of interconnection with ISTS, how the scheduling, energy accounting and UI accounting should be carried out? The petitioner and respondents have submitted that the Commission may take a holistic view of the matter and decide the issues for not only resolving the problems involved in the petition but also for future guidance of the concerned parties.

16. In the light of above, the following issues arise for our decision:

- (a) Whether the scheduling, energy accounting and UI accounting of two or more generating stations connected to the ISTS through a common dedicated transmission line should be undertaken by RLDC at the point of inter-connection or at the bus bar of the generating stations?

- (b) Where two or more generators develop a common dedicated transmission line from their generating stations to the point of connection with ISTS, whether their scheduling, energy accounting and UI accounting should be carried out by RLDC separately for each generating station or it should be done through a coordination centre to be established by the generating stations?
- (c) Under the facts and circumstances of the case, how the scheduling, energy accounting and UI accounting should be undertaken in respect of the generating stations of the petitioner and the fifth respondent?
- (d) Reliefs to be granted to the petitioner and respondent No.5?

Issue No.1: Whether the scheduling, energy accounting and UI accounting of two or more generating stations connected to the ISTS through a common dedicated transmission line should be undertaken by RLDC at the point of inter-connection or at the bus bar of the generating station?

17. The first issue concerns the point of scheduling, energy accounting and UI accounting of two or more generating stations connected to the ISTS through a common dedicated transmission line i.e. whether at the point of inter-connection or at the bus bar of the generating stations. SRLDC and POSOCO (NLDC) have contended that the control area jurisdiction of RLDCs only extends to inter-State transmission network in the concerned region. It has been argued that considering the provisions of the section 2(36), section 79(1)(d) and section 28 of the Act, dedicated transmission lines do not fit into the category of ISTS. Moreover, in accordance with Clause 6.4.1 of the Grid Code, Regional Load Despatch Centre is responsible for scheduling and monitoring the interchange schedule at the boundaries of the control area viz. at the

point of connectivity to ISTS. Accordingly, Regional Load Despatch Centre is mandated for scheduling, collection of metering data on injection/drawal for UI computation only at the point of connectivity at the ISTS. POSOCO (NLDC) in its affidavit dated 23.9.2011 has submitted that in accordance with Section 2 (16) of the Act read with Electricity (Removal of Difficulty) Order 2005, a dedicated line is either the extension of generation station or the load centre as the case may be and therefore cannot be treated as an inter-State transmission system. The petitioner in its rejoinder has submitted that control area of RLDC is defined by the functions that the RLDC is required to perform under the Grid Code and all entities in respect of which RLDC is required to exercise supervision and control fall within the control area of RLDC.

18. “Dedicated transmission line” has been defined in section 2(36) of the Act as under:

“(16) “dedicated transmission lines” means any electric supply-line for point to point transmission which are required for the purpose of connecting electric lines or electric plants of a captive generating plant referred to in section 9 or generating station referred to in section 10 to any transmission lines or sub-stations or generating stations, or the load centre, as the case may be;”

Thus as per the above definition, dedicated transmission line connects the electric lines or electric plants of a generating station or captive generating plant to any transmission lines or sub-stations or generating stations or the load centre. Further Section 10 of the Act casts a duty on the generating station to establish, operate and maintain a dedicated transmission line. Electricity (removal of Difficulty) (Fifth) Order, 2005 provides that a generating company shall not be required to obtain a licence under the Act for establishing, operating or maintaining a dedicated transmission line if such company or person complies with the following:

(a) Grid Code and standards of grid connectivity;

- (b) Technical standards for construction of electrical lines;
- (c) System of operation of such a dedicated transmission line as per the norms of system operation of the concerned State Load Despatch Centre (SLDC) or Regional Load Despatch Centre (RLDC);
- (d) Directions of the concerned SLDC or RLDC regarding operation of the dedicated transmission line.

Since generation is a de-licensed activity under the Act, a generating company which establishes, maintains and operates a dedicated transmission line does not require a licence. However, it has to fulfill technical requirements for construction of the lines and compliance with the directions of concerned RLDCs regarding the operation of the dedicated transmission line. In other words, dedicated transmission line is a part of the generating station in so far as ownership and use is concerned. However, the system of operation of the dedicated lines shall be carried out as per the norms of system operations and directions of the concerned RLDC. Section 28(3)(d) of the Act provides that RLDC shall exercise supervision and control over the inter-State transmission system. Inter-State transmission system has been defined in section 2(36) of the Act as under:

“Inter-State transmission system” includes –

- (i) any system for the conveyance of electricity by means of main transmission line from the territory of one State to another State;*
- (ii) the conveyance of electricity across the territory of an intervening State as well as conveyance within the State which is incidental to such inter-State transmission of electricity;*
- (iii) the transmission of electricity within the territory of a State on a system built, owned, operated, maintained or controlled by a Central Transmission Utility.”*

In accordance with section 2(36)(ii), conveyance of electricity within the State which is incidental to inter-State transmission of electricity is considered as ISTS. Therefore, conveyance of electricity through dedicated transmission line which connects a generating station to the network of the CTU is incidental to inter-State transmission of electricity and is therefore, a part of the inter-State transmission system. Further, Section 29(2) provides that every licensee, generating company, generating station, sub-station and any other person connected to the power system shall comply with the directions of RLDC. Thus while a dedicated transmission line is an asset of the generating company which establishes, controls and maintains such line, it is incidental to the inter-State transmission system for operational purposes.

19. Regulation 6.4.1 of Grid Code provides for the jurisdiction of the RLDC over its control area as under:

"1. The national interconnected grid is divided into control areas, like Regional ISTS, States, DVC, etc. where the load dispatch centre or system operator of the respective control area controls its generation and/or load to maintain its interchange schedule with other control areas whenever required to do so and contributes to frequency regulation of the synchronously operating system. The Load Despatch Centre of a control area therefore is responsible for coordinating the scheduling of a generating station, within the control area, real-time monitoring of the station's operation, checking that there is no gaming (gaming is an intentional mis-declaration of a parameter related to commercial mechanism in vogue, in order to make an undue commercial gain) in its availability declaration, or in any other way revision of availability declaration and injection schedule, switching instructions, metering and energy accounting, issuance of UI accounts within the control area, collections/disbursement of UI payments, outage planning, etc. The following clause gives the criteria for demarcation of control area jurisdiction.

2. The following generating stations shall come under the respective Regional ISTS control area and hence the respective RLDC shall coordinate the scheduling of the following generating stations :

a) Central Generating Stations (excluding stations where full Share is allocated to host state),

b) Ultra-Mega power projects,

(c) In other cases, the control area shall be decided on the following criteria:

(i) **If a generating station is connected only to the ISTS, RLDC shall coordinate the scheduling, except for Central Generating Stations where full Share is allocated to one State.**

(ii) (iii)..... ”

20. Thus RLDC exercises control area jurisdiction over a generating station which is connected to ISTS. The concerned RLDC is responsible for coordinating the scheduling of the generating station within the control area, real time monitoring of station's operation, checking gaming in its availability declaration or revision of availability declaration and injection schedule, switching instructions, metering and energy accounting, issuance of UI accounts within the control area, collections/disbursement of UI payments and outage planning etc. In view of the above discussion, it emerges that a generating station connected to the ISTS including its dedicated transmission line fall within the jurisdiction of the concerned RLDC.

21. Having decided that a generating station connected to the ISTS and its dedicated transmission line fall within the operational control of RLDC, the next question arises whether the scheduling, energy accounting and UI accounting shall take place at the point of inter-connection with ISTS or at the bus bar of the generating station. This question has arisen on account of the following submission of the petitioner in para 24 of the petition:

"In this regard, the Petitioner has already proposed that in order to deal with these various inconsistencies, it would be advisable for the Respondents to treat the respective bus-bar of the Petitioner's Project and SEPL Project as the interconnection point for all practical purpose for treating the Project as an independent generating station. The Petitioner has already indicated to the Respondents that it is agreeable to the computation of injection for the purpose of

energy accounting being considered after deducting the transmission loss from the Project bus bar till the Nellore-substation i.e. the Petitioner is ready and willing to bear the transmission losses in supply of electricity from its bus-bar till the injection point at Nellore sub-station. The Petitioner is only claiming that its independent identity as a generating station should not be compromised on account of the unreasonable approach adopted by the Respondents No.1 and 2."

22. Regulation 8(4) of the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access, Medium Term Open Access and Short Term Open Access and related matters) Regulations, 2009 ("Connectivity Regulations") provides as under:

"(3). While granting connectivity, the nodal agency shall specify the name of the sub-station or pooling station or switchyard where connectivity is to be granted. In case connectivity is to be granted by looping-in and looping-out of an existing or proposed line, the nodal agency shall specify the point of connection and name of the line at which connectivity is to be granted. The nodal agency shall indicate the broad design features of the dedicated transmission line and the timeframe for completion of the dedicated transmission line."

Thus it is the responsibility of the CTU which is the nodal agency under Connectivity Regulations to specify the name of the pooling station or sub-station or switchyard where connectivity is to be granted. This is usually indicated in the approval for long term access granted by the CTU. Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 defines 'interface meters' as under:

"'Interface Meter' means a meter used for accounting and billing of electricity, connected **at the point of interconnection between electrical systems of generating company**, licensee and consumers, **directly connected to the Inter-State Transmission System** or Intra-State Transmission System who have to be covered under ABT and have been permitted open access by the Appropriate Commission;"

The above regulations provide that the interface meters used for accounting and billing of electricity shall be installed at the point of inter-connection between the electrical system of the generating company and the inter-State transmission system.

Where a generating station is connected through a dedicated transmission line with the inter-State transmission system, the point of inter-connection shall be the point for scheduling, energy accounting and UI accounting. If the inter-connection point between the ISTS and the generating station is the switchyard of the generating station, then the scheduling, energy accounting and billing will take place at that point. This happens where the dedicated transmission system is built and operated by the CTU as in the case of Central Generating Stations.

23. CTU in its letter No.C/ENG/SEF/TA/L/S/09/001 (revised) dated 9.10.2009 has granted Long Term Access for evacuation of power from the generating station of the petitioner. A perusal of the said approval reveals that point of injection of power is at Nellore. The approval further provides that “the developers shall ensure availability of identified dedicated scheme at its own cost before scheduled commissioning of the generating units”. Thus as per the LTOA approval, the injection point for the petitioner is Nellore and in accordance with the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, the interface meters shall be installed at Nellore point only. In case of the generating stations of the petitioner and Respondent No.5, the inter-connection point with ISTS being Nellore, scheduling, energy accounting and UI accounting of both generating stations would take place at Nellore only.

Issue No.2: Where two or generators develop a common dedicated transmission line from their generating stations to the point of connection with ISTS, whether the scheduling, energy accounting and UI accounting of the generating stations should be carried out by RLDC separately for each generating stations or it should be done through a coordination centre to be established by the generating stations?

24. The second issue is where two or more generators develop a common dedicated transmission line for the purpose of inter-connection with ISTS, whether the scheduling, energy accounting and UI accounting separately for each of the generating stations would be carried out by the RLDC or by the generating stations by forming a coordination centre. SRLDC and NLDC have submitted that in such case, there is a requirement to establish a coordination centre on behalf of concerned generators.

The submission of SRLDC is reproduced as under:

"In the event of more than one generating station connected through a dedicated transmission network within a control area prior to the point of connectivity of ISTS, the agencies within the specified control area are required to have necessary coordination among themselves facilitating the concerned Regional Load Despatch Centre to discharge its responsibility of scheduling, collection of metering data on injection/ drawal for UI computation at the point of connectivity with ISTS where the CTU accorded approval for LTOA."

The petitioner and respondent Nos. 5 have opposed the concept of coordination centre on the ground that it has no legal basis.

25. We have given our consideration to the issue. Under section 10 (2) of the Act, a generating company has the duty to establish, maintain and operate dedicated transmission line. There is no provision in the Act, which prevents two or more generators to develop a common dedicated transmission line for evacuation of power of their generating stations to the point of interconnection with ISTS. Where two or more generators develop a common dedicated transmission line, there will be combined injection of power by all generating stations at the point of interconnection. In such cases, it would not be possible for RLDCs to undertake separate scheduling, energy accounting and UI accounting for each of the generating stations. It is in this context that the concept of coordination centre assumes importance. The Commission in its order dated 1.6.2011 in petition No.259 of 2010 had directed the parties in said

petition to form a coordination centre for the purpose of scheduling and energy accounting. The petitioner and respondent No.5 have submitted that the Appellate Tribunal for Electricity (hereinafter "Appellate Tribunal") has directed the NRLDC in that case to do the scheduling and energy accounting at the bus-bar of the generating station and accordingly, similar directions should be issued in this case. The relevant portion of the order dated 10.6.2011 of the Appellate Tribunal in IA No. 141/2011 in Appeal No.81/2011 is extracted as under:

"iv) The Northern Region Load Despatch Centre will schedule and despatch the power generation and prepare UI accounts and energy accounts for both Allain Duhangan Hydro Power Station of the Appellant and Malana II Power Station of Respondent No.1 and will control the switching operation at 220/132 kV at Chhuhar sub-station of the Respondent No.1.

This order is without prejudice to the respective rights of the parties and without prejudice to the final outcome of this Appeal."

It is observed that the above directions of the Appellate Tribunal are interim in nature and have been issued in the facts of the said matter and are subject to the final outcome of the appeal. In our view, similar directions cannot be issued in this case since the issue has not attained finality and the facts of the present case stand on a different footing as both the petitioner and Respondent No.5 have been connected to ISTS through separate and independent circuits. However, considering the fact that in future, private generators may develop common dedicated transmission lines for optimisation of cost and in that event, the issue of separate scheduling, energy accounting and UI accounting of each of the generating station would arise, we direct the staff to examine long term solution to the problem including the concept of coordination centre and submit for consideration of the Commission. Till a long term solution is put in place through appropriate provisions in the regulations, the generators shall abide by the directions of the respective RLDC with regard to the scheduling,

energy accounting and UI accounting of the generating stations connected to the ISTS through a common dedicated transmission line.

Issue No.3: : Under the facts and circumstances of the case, how the scheduling, energy accounting and UI accounting should be undertaken in respect of the generating stations of the petitioner and the fifth respondent?

26. The third issue pertains to the manner of scheduling, energy accounting and UI accounting in respect of the generating stations of the petitioner and Respondent No.5. In the case of the petitioner and respondent No.5, CTU had initially planned for a common dedicated transmission line with interconnection point at Nellore. In the LTA approval, the scheme was approved as under:

"1. Simhapuri (540 MW) generation project

- a) Simhapuri – Nellore 400 kV Quad D/C line**.
- b) Two nos. of 400 kV bays each at Simhapuri generation switchyard & Nellore POWERGRID substation.

2. Meenakshi (540 MW) generation project

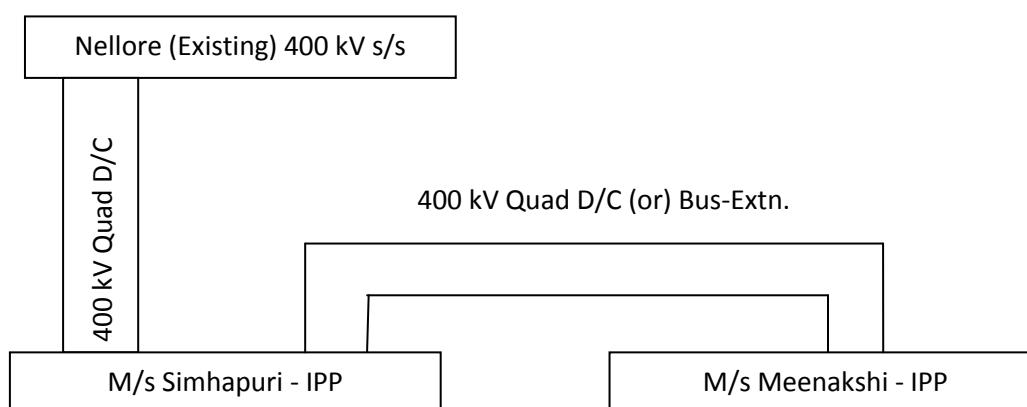
- a) Simhapuri switchyard – Meenakshi switchyard 400 kV D/C line or bus extension whichever is feasible.
- b) Two nos. of 400 kV bays each at Simhapuri generation switchyard & Meenakshi generation switchyard.

Note** - Power from Meenakshi generation project shall be evacuated through Simhapuri – Nellore 400 kV D/C quad line therefore its transmission charges shall be shared by the Meenakshi and Simhapuri generation developer in proportion to the installed capacity."

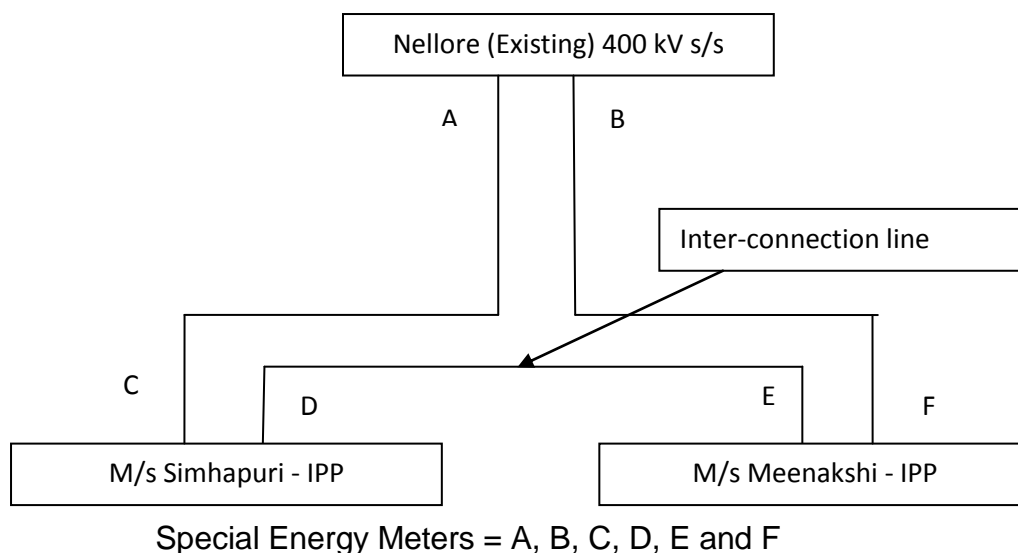
Admittedly both the petitioner and respondent No.5 have changed the above arrangement where under they have developed the 400 kV D/C Simhapuri-Nellore transmission line with one circuit of the transmission line connected to the generating station of the petitioner and the other circuit connected to the generating station of respondent No.5. There is an interconnection line between the two generating stations. Consequently, the petitioner and respondent No.5 have prayed that the interface meters should be installed at six points as indicated in the diagram below.

The line diagrams of the dedicated transmission system planned by the CTU in LTOA approval and the modified scheme agreed and constructed by the petitioner and fifth respondent are as under:

Dedicated transmission system suggested by CTU in LTOA approval to the petitioner and fifth respondent



Modified scheme agreed and constructed by the petitioner and fifth respondent



27. We have considered the submissions of the petitioner and respondent No.5. The issue of metering locations for energy accounting of the generating stations of the petitioner and respondent No.5 was discussed in the 16th meeting of the

Commercial Sub-Committee of SRPC held on 21.6.2011, the relevant extract of which is reproduced as under:

"21.2 In the meeting, CM (Comml.) SRTS-II informed that CTU had granted connectivity & LTOA to MEPL & SEPL as two separate and independent entities. Both the IPPs had constructed dedicated lines on each from their switchyards which were getting connected at Nellore CTU point. The stations are also interconnected by a line of about 700 meters. Both the IPPs had requested to finalize the metering locations for energy accounting. PGCIL had circulated the metering schematic (Annexure-XIII). He requested SRLDC to provide the exact details of SEMs locations required for energy accounting.

21.3 GM, SRLDC informed that both the IPPs would be scheduled and metered only at Nellore point. As decided in the Standing Committee, both the IPPs had constructed dedicated line by cost sharing. SRLDC would furnish the data of the SEMs installed at Nellore point only for accounting purpose.

21.4 GM (Comml.), SRTS-II said that SRLDC should schedule and account both IPPs as two different entities. The scheme had been approved by CTU with Nellore point as injection.

21.5 AGM(OS), SRLDC submitted that for both Meenakshi and Seemapuri, the common injection and scheduling point was at Nellore. Combined UI from total schedule and total injection at Nellore would be computed.

21.6 SE-I, SRPC said that the issues involved were SEMs locations and bifurcation of UI/actual of the IPPs. He opined that SEMs could be provided as per the metering schematic already circulated by SRTS-II. He suggested that another meeting of the Commercial Committee be convened to finalise methodology for UI accounting.

21.7 After deliberation the Committee decided to conduct a meeting to finalise the UI accounting methodology in respect of MEPL and SEPL. The meters could be provided as per the proposed schematic."

It is evident from the above minutes that both the petitioner and respondent No.5 have been granted connectivity and LTOA as separate and independent entities. They have constructed the 400 kV Quad D/C transmission lines as a dedicated transmission line from their respective generation switchyards to Nellore CTU point. The dedicated transmission line has two circuits, one circuit connects the generating station of the petitioner to ISTS at Nellore and the other circuit connects the generating station of

Respondent No.5 to the ISTS at Nellore. Even though the dedicated transmission line has been jointly developed by the petitioner and respondent No.5, their actual operation is independent of each other as each generating station is connected to the ISTS through a separate circuit. There is an interconnecting line of 700 meters between the two generating stations. Without the inter-connection line between the generating stations of the petitioner and the Respondent No.5, each circuit of the dedicated transmission lines would carry the power of the respective generating station to the ISTS or draw power from the ISTS. However, with the inter-connection line between the generating stations of the petitioner and the respondent No.5 in place, each circuit of the dedicated transmission line would not only carry the power from the generating station to which it is connected, it would also carry the power from the other generating station and in some situations the power from other sources in the grid. In other words, the 400 kV Quad D/C transmission lines developed by the petitioner and Respondent No.5 with the interconnection in place would become a part of the meshed network and lose the character of dedicated transmission lines. According to section 12 of the Act, no person shall transmit electricity without a licence from the appropriate Commission. Therefore, the circuit of the dedicated transmission line connecting the generating station of the petitioner to the ISTS cannot carry the power from the generating station of Respondent No.5 and vice versa since the petitioner and Respondent No.5 do not have the transmission licence. Therefore, the dedicated nature of the transmission line would be required to be maintained by opening the interconnection line between the generating stations of the petitioner and respondent No.5. After considering the mutually agreed transmission arrangement between the petitioner and respondent No.5, the Commission had directed in its order dated 5.12.2011 and 25.1.2012 to open the interconnection line and operate each circuit of

the 400 kV D/C transmission line as an independent dedicated transmission line. This has facilitated the operation of the petitioner and respondent No.5 as independent generation stations connected to the ISTS separately at Nellore point. Accordingly, their scheduling, energy accounting, UI accounting could be undertaken separately by SRLDC at Nellore point without any difficulty. The same arrangement is made absolute. Under this arrangement, both the petitioner and respondent No.5 are independently connected through a separate circuits to the ISTS. SRLDC shall undertake the scheduling, energy accounting and UI accounting separately for the generating station of the petitioner and Respondent No.5 at the interconnection point i.e. at Nellore only.

Issue No.4: Relief to be granted to the petitioner and Respondent No.5

28. The last issue is the relief to which the petitioner and Respondent No.5 become entitled to in the light of the above analysis. The reliefs listed by the petitioner at (iii), (iv) and (v) of its prayer were prayed as an interim measure. This Commission had passed two interim orders as extracted in para 14 above and therefore, the prayer for the interim reliefs does not survive. As regards the prayer for reliefs at (i) and (ii), the same have been addressed in our analysis of Issue Nos.1 and 3 above. The generating stations of the petitioner and Respondent No.5 shall be treated by SRLDC as separate and independent entities for the purpose of scheduling and despatch, metering, energy accounting including UI computation by opening the inter-connection line between the generating stations and installing separate meters at the interconnection points at Nellore. We order accordingly.

29. We intend to express our views on the planning of the interconnection line between the two generating stations. The Petitioner has claimed that the dedicated transmission lines including the interconnection line were designed on the advice of the CTU. We observe that the CTU, vide its letter dated 21.6.2011 has stated that the drawings submitted by the petitioner and Respondent No. 5 differ from the connectivity arrangement envisaged in the agreement dated 24.2.2010 and the same may be taken up with the concerned department of PGCIL for issuing necessary amendments to the Connectivity/LTA Agreements. We do not find anything on record which shows that the modified arrangement between the petitioner and respondent No.5 with regard to the dedicated transmission line including the interconnection line has been approved by the CTU. We express our concern about the manner in which the CTU has handled the issue. CTU after coming to know about the proposed interconnection line between the generating stations of the petitioner and Respondent No.5 could have advised against the same as the interconnection line converts the dedicated lines into part of the meshed network of ISTS for which the petitioner and respondent no. 5 do not have the transmission licence. We expect the CTU to be more circumvent in the matter of advising about the planning of dedicated transmission lines in future so that cases of the nature as involved in the present petition do not recur in future.

30. With the above, the petition stands disposed of.

sd/-
(M. Deena Dayalan)
Member

sd/-
(V.S.Verma)
Member

sd/-
(Dr. Pramod Deo)
Chairperson