CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 211/MP/2011

Coram: Shri V.S. Verma, Member Shri M. Deena Dayalan, Member

Date of Hearing: 16.05.2013 Date of Order : 20.11.2013

In the matter of:

Petition under Regulations 20 and 21 of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses), Regulations, 2010 and against the arbitrary action of Western Regional Load Despatch Centre by loading transmission losses on the 220 kV lines being used for transfer of power from the generating station of NSPCL to Bhilai Steel Plant.

And in the matter of:

Steel Authority of India Ltd Bhilai Steel Plant, Bhillai Bhillai- 490001 Chhattisgarh

Vs

Western Regional Load Despatch Centre **Power System Operation Corporation** F-3, MIDC Area, Marol Andheri (East) Mumbai-400 093

Parties Present

- 1. Shri M.G.Ramchandran, Advocate for the petitioner
- 2. Ms. Swapna Seshadri, Advocate for the petitioner
- 3. Shri S.Roy, SAIL
- 4. Shri P.Pentayya, WRLDC
- 5. Ms. S.Usha, WRLDC
- 6. Shri S.R.Narasimhan, NLDC
- 7. Shri V.K.Agarawal, NLDC
- 8. Shri S.C.Sexana, NLDC
- 9. Shri S.S.Barpanda, NLDC
- 10. Ms. Jyoti Prasad, POSOCO



Petitioner

Respondent

<u>ORDER</u>

This petition has been filed by Bhilai Steel Plant of Steel Authority of India Limited (SAIL-BSP) under Regulation 20 and 21 of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter "the Sharing Regulations"). The petitioner has prayed for the following reliefs, namely

reliefs, namely-

"(a) Clarify that Petitioner shall not be subject to sharing of the inter-state transmission losses and charges in regard to the transmission of power from the generating facility to the place of captive consumption;

(b) Direct the WRLDC not to levy the losses of 3 % - 4 % which is causing sustained monetary loss to the Petitioner due to which the Petitioner is compelled to draw more power from CSPDCL at substantially higher price;

(c) Direct the WRLDC to give suitable adjustment/compensation for the ISTS losses already deducted from NSPCL's power to SAIL-BSP;

(d) Grant ex-parte interim order on further deduction of ISTS losses by WRLDC;

(e) Award the cost of the present proceedings to the Petitioner; and

(f) Pass any such further order(s) as the Hon'ble Commission may deem fit in the facts and circumstances of the case."

- 2. The petitioner's case in brief has been discussed as under:
 - (a) NTPC-SAIL Power Company Ltd (NSPCL) is a joint venture company of SAIL and NTPC which has set up a 2 x 250 MW Captive Power Plant at Bhilai. NSPCL is connected to Bhilai Steel Plant (BSP) through 2x220 kV dedicated transmission lines which are installed, owned and operated by SAIL-BSP. One of the 220 kV D/C transmission lines connecting the generating station with the steel plant is under operation and another 220 kV D/C transmission line was said to be under commissioning when the petition was filed.

- (b) Bhilai Steel Plant (BSP) is also connected to 400/220 kV Bhilai sub-station of Chhattisgarh State Power Transmission Company Limited (CSPTCL) for supply of power from Chhattisgarh Power Distribution Company Limited (CSPDCL). NSPCL also supplies power to the Union Territories of Daman & Diu (DD) and Dadra Nagar Haveli (DNH) for which it is connected to the transmission network of Power Grid Corporation of India Ltd (PGCIL) at Raipur sub-station through 400 kV D/C transmission line.
- (c) Chhattisgarh State Load Despatch Centre (CSLDC)/Chhattisgarh State Power Transmission Company Limited was exercising control area jurisdiction over the NSPCL in terms of the principles laid down by this Commission vide order dated 7.5.2008 in Petition No. 58/2008 (suo motu). However after the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (Grid Code) came into force on 1.4.2010, the control area jurisdiction over the generating station (NSPCL) has been shifted from CSLDC to Western Regional Load Despatch Centre (WRLDC) with effect from 1.8.2011 in accordance with the provisions of the Grid Code. Accordingly, with effect from 1.8.2011, the scheduling of power, billing and energy accounting in respect of NSPCL is being carried out by WRLDC.
- (d) The Sharing Regulations came into force on 1.7.2011. WRLDC, vide its letter dated 29.7.2011, informed the petitioner that with the implementation of the Sharing Regulations, respective injection zonal loss and withdrawal zonal loss in accordance with the procedure approved by this Commission in the order dated

30.6.2011 would apply to every transaction scheduled by WRLDC. It was further informed by WRLDC that the loss applicability to various transactions from the generating station scheduled would be as follows:

- Loss applicability to DD: Injection loss of Chhattisgarh zone and withdrawal loss of DD zone;
- Loss applicability to DNH: Injection loss of Chhattisgarh zone and withdrawal loss of DNH zone;
- Loss applicability to CSPDCL and the petitioner: Injection and withdrawal loss of Chhattisgarh zone.
- (e) Aggrieved by the loss allocation as mentioned above, the petitioner by its letter dated 6.8.2011 informed WRLDC that the decision was contrary to the understanding which was arrived at in the meeting held on 25.4.2011 that the petitioner would not be liable for sharing of losses for the supply of power received from the generating station since the drawal of power was to be directly from the bus bar of the generating station through the dedicated transmission line installed by the petitioner. The petitioner pointed out that it could not be saddled with losses merely on transfer of control area from SLDC to WRLDC. The petitioner urged that it was not a Designated ISTS Customer (DIC) as defined under the Sharing Regulations since it was not the user of any segment or element of the inter-State transmission system and requested WRLDC to stop apportionment of losses as per the letter dated 29.7.2011 of WRLDC.

- (f) WRLDC by its letter dated 8.8.2011 clarified that NSPCL is not a User of WRLDC but an embedded customer of CSPDCL and therefore, power allocated to SAIL-BSP from the generating station is not directly scheduled to SAIL-BSP by WRLDC but to CSPDCL. Since CSPDCL was a Designated ISTS customer (DIC) in accordance with the Sharing Regulations, the losses are to be allocated to CSPDCL. WRLDC advised the petitioner to take up its grievances, if any, with CSPDCL.
- (g) The petitioner's grievance was discussed as one of the agenda items at the 59th Commercial Committee Meeting of WRPC held on 18.8.2011. On the basis of the discussion, WRPC by letter dated 26.8.2011 addressed to WRLDC informed about the deliberations in the Committee and suggested that the opinion of NLDC be sought again on the question of application of losses on the petitioner/CSPDCL transactions. NLDC, vide its letter dated 27.9.2011, informed the petitioner that the matter has been referred to this Commission for further directions in this regard.
- (h) The petitioner has submitted that levy of inter-State transmission charges or apportionment of losses of inter-State transmission system can apply for use of the inter-State transmission system and not for the conveyance of electricity through the dedicated transmission lines used by a captive consumer. Since both the generating station and the steel plant, are located within the State of Chhattisgarh, use of the dedicated transmission lines connecting them cannot be described as the use of inter-State transmission system. The petitioner has

claimed that the petitioner is not covered under the term 'Designated ISTS consumer' or user of deemed ISTS and therefore, transmission losses cannot be allocated to the petitioner.

3. The respondent, WRLDC in its affidavit dated 1.2.2012 has filed certain documents with regard to the background of the dispute. Further, WRLDC, vide its affidavit dated 10.5.2012 has filed a joint reply on behalf of NLDC and WRLDC. The submissions of WRLDC are discussed as under:

- (a) The 2x250 MW NSPCL generating station is connected to the ISTS at 400 kV Raipur (POWERGRID) sub-station through 400 kV D/C line and to Bhilai Steel Plant through 2x220 kV dedicated lines within Chhattisgarh State. NSPCL is connected to CSPTCL State network through the BSP network. According to WRLDC, 220 kV dedicated lines of BSP are parallel to the inter-State Transmission System and intra-State transmission system of CSPTCL and loses its point to point nature as seen from the definition of 'dedicated lines' in the Electricity Act,2003.
- (b) WRLDC informed vide its affidavit dated 1.2.2012 that PGCIL has vide its letter dated 8.11.2006 granted Long Term Open Access to NSPCL for transfer of 100 MW to DNH and 70 MW to DD. No open access was sought by NSPCL for balance capacity of 330 MW, out of which 280 MW would be transferred to BSP through the dedicated transmission lines and 50 MW to CSPDCL through exclusive CSPTCL system through tapping of 220 kV NSPCL-Bhilai to Gurur substation of CSPTCL. WRLDC has submitted that the tapping of 220 kV

NSPCL-Bhilai to Gurur substation of CSPTCL has not yet been commissioned and there is no direct connectivity of CSPDCL with the generating station and CSPDCL draws its 50 MW share from the generating station through the dedicated transmission lines of NSPCL. WRLDC has further submitted that due to less requirement of BSP, it has surrendered 145 MW to NSPCL out of which DD and DNH have availed 22 MW and 64 MW through MTOA. Moreover, MTOA has also been granted to SAIL, VISP, Karnataka for 10.92 MW out of the surrendered share of SAIL-BSP in the generating station.

- (c) Western Region beneficiaries, Daman and Diu (DD) and Dadra & Nagar Haveli (DNH) have been granted Long term Access (LTA) and Medium Term Open Access (MTOA) from NSPCL station, which has direct connectivity to the ISTS Network. On the other hand, State embedded entities viz., SAIL-BSP and Chhattisgarh avail power from the NSPCL (a joint venture company between NTPC-SAIL) under the status of captive power utilization by SAIL-BSP and power utilization by Chhattisgarh State respectively through agreements. SAIL-BSP is connected to NSPCL through its dedicated 220 kV network within the state from the NSPCL bus and further feeds to the Chhattisgarh STU system at Bhilai.
- (d) Prior to 1st August, 2011 the control area jurisdiction of NSPCL was with SLDC Chhattisgarh and scheduling, metering and energy accounting for the same were coordinated by the SLDC. Bhilai Steel Plant and CSPDCL were considered as embedded entities using intra-State transmission lines. No ISTS losses were



applicable for the same. However, for WR beneficiaries DD and DNH availing LTA and MTOA from NSPCL, inter-State transmission losses are applicable for scheduling transactions from NSPCL to DD and DNH.

- (e) After shifting of control area in respect of NSPCL from SLDC to WRLDC, it has become a regional entity requiring scheduling, boundary metering and energy accounting to be coordinated at the regional level. Since the generating station is supplying power to DD and DNH through ISTS network at Raipur sub-station, the generating station has become liable to share inter-State transmission losses for scheduling of transactions to these entities. BSP and CSPDCL are connected to NSPCL through the two 220 kV double circuit dedicated lines between NSPCL and SAIL-BSP as well as through the 220 kV Chhattisgarh State network and are using these lines for availing power from NSPCL. Therefore, the dedicated transmission lines are operating in parallel to the ISTS/STU system where the demand of BSP is met through the dedicated transmission lines as well as CTU/STU system and this influences the flows in the parallel network either when the line trips or is taken under outage by the owner of the line. Therefore, the power flow on the dedicated transmission lines would not be necessarily equal to BSP/CSPDCL's schedule from NSPCL.
- (f) NSPCL being a regional entity may sell power through long-term access, or medium-term open access or short-term open access. Therefore, the power supplied to the petitioner and CSPDCL from the generating station is deemed to be a long-term contract and is to be treated at par with other regional entities in

the matter of scheduling of long-term contracts. PoC losses are applicable on Long Term, Medium Term and Short Term contracts as per the procedure for sharing of inter-State transmission system losses approved by the Commission. Therefore, PoC ISTS losses shall be applied while scheduling the contracted quantum from NSPCL to SAIL-BSP and CSPDCL which are deemed to be long term contracts.

- (g) The inter-State transmission charges and losses are based on the zoning philosophy where the zonal charges and losses are computed as weighted average of the nodal charges and losses, respectively. The detailed computation of zonal withdrawal losses for the Chhattisgarh State shows that while nodal withdrawal loss for the generating station is zero, the zonal withdrawal loss for the generating station is zero, the zonal withdrawal loss for the State is the weighted average value of the nodes. Thus, while an individual node loss may be zero, the zonal loss is the weighted average of the nodes falling in that zone. Therefore, the zonal losses once worked out have to be applied in a generalized and non-discriminatory manner. Any deviation or application of such losses selectively to different transactions would lead to subjectivity and disputes. Therefore, sharing of losses has to conform to the procedure approved by this Commission vide order dated 30.6.2011.
- (h) In future, many IPPs will be synchronized with the regional grid and will also have the dedicated transmission lines constructed by them, which will be terminating in the State owned sub-stations and the sub-stations forming part of the inter-State transmission system. In such a situation, the State utility citing direct connectivity



with the power plant may not apply for long-term access from the generating station and would insist on RLDCs not to apply any transmission losses while scheduling power from their generating stations.

(i) NSPCL is connected to ISTS and BSP is connected to CSPTCL system and loop flow in either direction is possible. Based on the daily power flow on the 400 kV NSPCL-Raipur D/C section as well as 220 kV NSPCL-BSP section (on 11.9.2011, 30.11.2011 and 11.1.2012), WRLDC has sought to demonstrate through the following three scenarios that SAIL-BSP is utilising the ISTS both from the considerations of reliability and transfer of power:

(i) When only one unit is available at NSPCL, power flow takes place from Raipur to NSPCL and then onward to BSP implying use of ISTS.

(ii) When both units of NSPCL are in operation, power flow on 220 kV NSPCL-BSP section is much less than the share of BSP in NSPCL.

(iii) When only one BSP line is in service, maximum power is wheeled through 400 kV Raipur lines.

(j) According to the WRLDC, it would be difficult if RLDCs are required to carry out power flow simulation for each and every transaction and apply the transmission losses depending on the simulation results. WRLDC has further submitted that since it is impracticable, RLDCs are applying transmission losses in accordance with Regulation 6.5.7(ii) of the Grid Code to all transactions scheduled. If this Commission intended to have such a dispensation, a substantive provision would



have been made in the Regulations and the same cannot be a matter of negotiation between the parties involved and RLDCs/RPCs.

- (k) Many States draw power from ISGS through their own lines similar to BSP. If BSP/CSPDCL are exempted from transmission losses while scheduling from NSPCL, all the other entities would also request for a similar dispensation wherever they draw power directly from the Inter State Generating Stations (ISGS) through their own lines. This might not be justified always. In fact it would upset the entire loss administration mechanism in the scheduling process and render the system prone to mistakes as some transactions would be loss free while some would have the losses applied.
- (I) In the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access and Medium Term Open Access in inter-State transmission and related matters) Regulations, 2009, "long-term customer'" has been defined as "a person who has been granted long-term access and includes a person who has been allocated central sector generation that is electricity supply from a generating stations owned or controlled by the Central Government". SAIL-BSP has been allocated power from the power station by NSPCL and hence should be considered as a long-term customer.
- (m) During the hearing on 21.2.2012, there was a mention of scheduling of Vemagiri Complex in Southern Region. It was submitted that all the IPP's generating stations like GMR Vasavi, Konaseema, etc. are connected through dedicated lines with the AP pooling sub-station at Vemagiri. Since, these stations have

PPAs with AP DISCOMs, their scheduling and monitoring is being done by Andhra Pradesh, SLDC being within its control area jurisdiction.

4. The petitioner in its rejoinder filed vide affidavit dated 21.5.2012 has refuted the submissions of NLDC and WRLDC by stating that varying types of power flows are not justifications for levying the losses on the dedicated transmission lines. The petitioner has submitted that for the purpose of inclusion in the PoC charges, the lines are treated as dedicated transmission lines but for the purpose of calculating the losses they are treated as ISTS. The petitioner has also submitted that Regulation 6.5.7 of the Grid Code is not applicable in its case as it has not availed any long term access for supply of power for its captive consumption.

5. We have heard learned counsel for the petitioner and the representatives of the respondent and considered the pleadings of the parties.

6. The dispute pertains to allocation of losses consequent to implementation of the Sharing Regulations which incidentally coincides with the transfer of control area jurisdiction over the generating station from SLDC Chhattisgarh to WRLDC. Therefore, it is necessary to consider the relevant provisions of the Grid Code as well as the Sharing Regulations and the procedure issued thereunder in order to appreciate the dispute in question.

7. Prior to the notification of the Grid Code to be operative from 3.5.2010, the scheduling and energy accounting of NSPCL was being carried out by SLDC,



Chhattisgarh. Regulation 6.4.2 of the Grid Code defines the control area jurisdictions

over the generating stations. The said regulation is extracted as under:

"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) If a generating station is connected only to the State transmission network, the SLDC shall coordinate scheduling, except for the case as at (a) above.

(iii) If a generating station is connected both to ISTS and the State network, scheduling and other functions performed by the system operator of a control area will be done by SLDC,, only .if state has more than 50% Share of power ,The role of concerned RLDC, in such a case, shall be limited to consideration of the schedule for inter state exchange of power on account of this ISGS while determining the net drawal schedules of the respective states. If the State has a Share of 50% or less, the scheduling and other functions shall be performed by RLDC.

(iv) In case commissioning of a plant is done in stages the decision regarding scheduling and other functions performed by the system operator of a control area would be taken on the basis of above criteria depending on generating capacity put into commercial operation at that point of time. Therefore it could happen that the plant may be in one control area (i.e. SLDC) at one point of time and another control area (i.e. RLDC) at another point of time. The switch over of control area would be done expeditiously after the change, w.e.f. the next billing period."

According to the above provisions, Central Generating Stations except those

where full share has been allocated to the home State falls under the jurisdiction of

RLDC. Central Generating Station has been defined in the Grid Code as under:

"2(k) "Central Generating Station" means the generating stations owned by the companies owned or controlled by the Central Government;"



8. NSPCL is a joint venture of NTPC and SAIL which are the companies owned by the Central Government. By virtue of that, NSPCL is a Central Generating Station and the tariff of NSPCL is being determined by this Commission under section 79(1)(a) read with section 62(1)(a) of the Act. Being a Central Generating Station, the control area jurisdiction of NSPCL came to be vested in WRLDC in terms of regulation 6.4.2 (a) of the Grid Code. However, the actual transfer of the control area of NSPCL from the Chhattisgarh SLDC to WRLDC took place on 1.8.2011. The term "Inter-State generating station" or ISGS has been defined in the Grid Code as under:

"2(pp) "Inter-State Generating Station (ISGS)" means a Central generating station or other generating station, in which two or more States have shares;"

9. Further, Regional Entity has been defined in the Grid Code as under:

"2(kkk) "Regional Entity" means such persons who are in the RLDC control area and whose metering and energy accounting is done at the regional level;"

Since NSPCL is within the control area jurisdiction of WRLDC and its metering and energy accounting is taking place at the regional level by WRLDC, NSPCL is a Regional Entity. NSPCL is also an ISGS as the State of Chhattisgarh and UTs of DNH and DD have share in the generating station.

10. RLDCs are required to schedule the power from the generating stations within their jurisdiction in accordance with the provisions of the Grid Code. Regulations 6.5.3

and 6.5.7 of the Grid Code are extracted as under:

"3. By 8 AM every day, the ISGS shall advise the concerned RLDC, the station-wise expower plant MW and MWh capabilities foreseen for the next day, i.e., from 0000 hrs to 2400 hrs of the following day.

7. By 6 PM each day, the RLDC shall convey:



(i) The ex-power plant "despatch schedule" to each of the ISGS, in MW for different time block, for the next day. The summation of the ex-power plant drawal schedules advised by all beneficiaries shall constitute the ex-power plant station-wise despatch schedule.

(ii) The "net drawal schedule" to each regional entity, in MW for different time block, for the next day. The summation of the station-wise ex-power plant drawal schedules from all ISGS and drawal from /injection to regional grid consequent to other long term access, medium term and short-term open access transactions, after deducting the transmission losses (estimated), shall constitute the regional entity-wise drawal schedule."

It is clear from the above provisions that RLDC is required to deduct the

estimated transmission losses before drawing the regional entity-wise drawal schedule.

Since NSPCL is an ISGS, its despatch schedule shall be drawn by RLDC. Further for

preparing the net drawal schedule of Chhattisgarh, of which SAIL-BSP is an embedded

entity, estimated transmission losses shall be deduced.

11. Regulation 6 of the Sharing Regulations contains the substantive provision for

sharing of losses for the inter-State transmission system. Regulation 6 is extracted

hereunder:

"6. Mechanism of sharing of ISTS losses

(1) The schedule of electricity of Designated ISTS Customers shall be adjusted to account for energy losses in the transmission system as estimated by the Regional Load Despatch Centre and the State Load Despatch Centre concerned.

These shall be applied in accordance with the detailed procedure to be prepared by NLDC within 30 days of the notification of these regulations. The losses shall be apportioned based on the loss allocation factors determined using the Hybrid methodology.

(2) The sharing of ISTS losses shall be computed based on the information provided by various Designated ISTS Customers, ISTS Licensees, and any other relevant entity, including the NLDC, RLDCs and SLDCs and submitted to the Implementing Agency:

Provided that in the event of such information not being available within the stipulated timeframe or to the level of detail required, the Commission may authorise the Implementing Agency to obtain such information from alternate sources as may be approved for use by the Commission.

(3) The applicable transmission losses for the ISTS shall be declared in advance and shall not be revised retrospectively.



(4) The Implementing Agency may, after seeking approval of the Commission, conduct studies from time to time to refine the ISTS loss allocation methods."

12. Thus, as per the above regulation, losses of the Designated ISTS Customers shall be determined by the RLDC concerned. Designated ISTS Customer has been defined in the Sharing Regulations as under:

"(I) Designated ISTS Customers ('DIC's) means the users of any segments/elements of the ISTS and shall include all generators, State Transmission Utilities, SEBs or load serving entities directly connected to the ISTS including Bulk Consumer and any other entity/person."

13. The definition of "Designated ISTS Customers" is in two parts. The first of the definition is explanatory and second part of the definition is inclusive. According to the first part, the users of the inter-State transmission system are the designated ISTS customers. Under the second part of the definition, all generators, State Transmission Utilities, SEBs or load serving entities directly connected to the inter-State Transmission System including Bulk Consumers and other entities or persons, are also classified as the Designated ISTS Customers. Therefore, in order that an entity falls within the definition of the Designated ISTS Customers, the following conditions should be met, namely:

- (a) The entity should be the user of the inter-State Transmission System.
- (b) The entity should be a generator or a State Transmission Utility or a State Electricity Board or a load serving entity or any other entity or person who is directly connected to the inter-State Transmission System.



14. The term "user" which appears in the definition of the Designated ISTS Customers is not defined in the Sharing Regulations. Therefore, the term can be interpreted with the assistance of clause (2) of Regulation 2, according to which, the words and expressions used in these regulations and not defined therein but defined in the Act or (other) regulations made by this Commission, shall have the meanings assigned to them respectively in the Act, and regulations made by the Commission from time to time. The term "user" has been defined in clause (gggg) of Regulation 2 of the Grid Code as under:

"User" means a person such as a Generating Company including Captive Generating Plant or Transmission Licensee (other than the Central Transmission Utility and State Transmission utility) or Distribution Licensee or Bulk Consumer, whose electrical plant is connected to the ISTS at a voltage level 33 kV and above; "

Thus, a 'user' means a generating company including a captive generating plant

or a transmission licensee or a distribution licensee or a bulk consumer connected to

the inter-State Transmission System at a voltage level of 33 kV and above but excludes

the Central Transmission Utility and State Transmission Utility.

15. Regulation 3 of the Sharing Regulations provide for the scope of the said regulation as under:-

"3. Yearly transmission Charges, revenue requirement on account of foreign exchange rate variation, changes in interest rates etc. as approved by the Commission and Losses shall be shared amongst the following categories of Designated ISTS Customers who use the ISTS:-

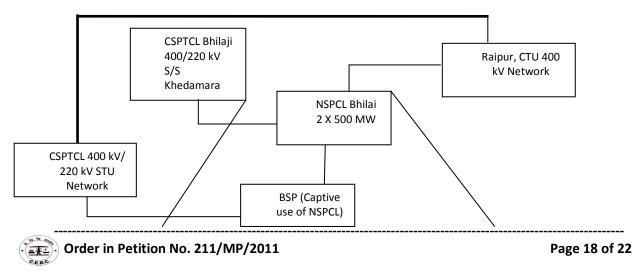
- a) Power Stations/Generating Stations that are regional entities as defined in the Indian electricity Grid code (IEGC);
- b) State Electricity Boards / State Transmission Utilities connected with ISTS (on behalf of distribution companies, generators ad other bulk customers connected to the transmission system owned by the SEB/STU/interstate transmission licensee);

c) Any bulk consumer directly connected with the ISTS, and

d) Any designated entity representing a physically connected entity as per clauses (a), (b) and (c) above."

16. Regulation 3 (b) of Sharing Regulation makes it clear that State Electricity Board /State Transmission Utility connected with ISTS shall be responsible for sharing of charges and losses on behalf of distribution companies, generator and others bulk customers connected to the transmission system owned by the SEB/STU/intrastate transmission licensee.

17. CSPTCL or CSPDCL are connected to ISTS and are liable to pay the transmission charges and losses. In present case SAIL-BSP which is connected on one side to NSPCL (an injection DIC which is connected with ISTS) through NSPCL-SAIL-BSP line and on other side to a drawee DIC i.e. CSPTCL. The point for consideration is whether the dedicated transmission lines of the petitioner will be covered under the definition of ISTS for the purpose of calculation of transmission losses. According to Section 2(36) (ii) of the Act, conveyance of electricity within the State which is incidental to inter-State transmission of electricity will be treated as ISTS. A block schematic of the connectivity of NSPCL and BSP is given below for ready reference:



NSPCL is connected to ISTS and through the dedicated transmission lines to SAIL-BSP and CSPTCL. Since the common bus bar of NSPCL is connected to ISTS and dedicated transmission lines, loop flow is possible. During hearing on 21.2.2012, the representative of WRLDC submitted as under:

"The representative of the WRLDC submitted that the four 220 kV transmission lines of the petitioner loose the character of dedicated transmission lines due to formation of loop in parallel to the transmission lines in the inter-State transmission network. These transmission lines not only draw 105 MW of power of BSP but also wheel the power of CSEB. Since the transmission lines wheel power of others, they no more remain dedicated transmission lines."

18. Further, NLDC made the following submission during the hearing on 21.12.2012:-

"The representative of the NLDC submitted that the issues raised in the present petition are of generic nature. He clarified that NSPCL is connected to both STU and CTU networks and hence these are loop flows. Once NSPCL has become inter-State Generating Station (ISGS), even if the NSPCL generation trips, the schedule would not be changed. They are connected both to the Chhattisgarh system and ISTS and are availing the benefit of increased reliability as power would flow to captive load even when the NSPCL generator trips."

19. From the above, it emerges that the dedicated transmission line connecting NSPCL with BSL is being used as ISTS line. WRLDC has also demonstrated on the basis of actual power flow under three scenarios that the ISTS lines are being used to carry power to SAIL-BSP. The schedule of SAIL-BSP (through CSEB) is not dependent on availability of NSPCL SAIL-BSP line. Once scheduled, SAIL-BSP can draw its power from meshed ISTS network and Chhattisgarh transmission system.

20. SAIL-BSP is an intra-State entity within CSEB/CSPDCL, therefore the power allocated to SAIL-BSP from NSPCL is scheduled to CSEB/CSPDCL by WRLDC. In other words, CSEB/CSPDCL is a 'DIC' as per Sharing Regulations. Hence, while scheduling the power to CSEB/CSPDCL for combined power drawl of CSPDCL and

SAIL-BSP, the ISTS losses are applied to CSEB/CSPDCL and the same get applied to the petitioner because SAIL- BSP is treated as an intra-State entity of Chhattisgarh. Only for the purpose for displaying data on WRLDC website, separate scheduling is being shown for SAIL-BSP under heading SAIL-BSP-CSEB. In view of the above discussion, we hold that WRLDC has allocated losses as per the Sharing Regulations and the procedure issued thereunder.

21. In accordance with the Sharing Regulations and procedure issued under it, transmission losses are allocated into two parts, namely injection losses and withdrawal losses. In so far as present case is considered, the injection losses are applicable on NSPCL as NSPCL is a DIC connected with ISTS, and once these losses are applied on total injection schedule to prepare drawal schedule (Ex -power plant) of drawee entity (CSEB), it will be uniformly applied on all long term and medium-term open access transactions and SAIL-BSP (under CSEB) shall also be treated accordingly. Now when CSEB schedule, at its periphery is considered, withdrawal losses of Chhattisgarh zone shall be applied. These withdrawal losses shall be applied on the total schedule of CSEB comprising of schedule of CSPDCL and SAIL-BSP.

22. In accordance with the procedure for sharing of Inter State Transmission System Losses for Long Term Access and Medium Term Open Access transactions, the PoC losses shall be applied on the drawee DIC for their own PoC losses as well as injection DIC's PoC losses for the purpose of scheduling. Relevant extracts of the above mentioned Procedure are given below: "6.2 Scheduling of Long-term Access and Medium-term Open access Transactions.

6.2.1 The PoC loss is applicable to injecting and withdrawal DICs separately for the purpose of scheduling. However, in line with the existing practice for all Long-term access and Medium-term Open access transactions, the PoC losses shall be applied on the drawee DICs for their own PoC losses as well as injecting DIC's PoC losses for the purpose of scheduling".

An illustrative example of application of losses in given below:

Let NSPCL injection schedule be 250 MW. Injection losses for NSPCL are injection losses for Chhattisgarh zone i.e. say 2%. However, for long term transactions while preparing EX-PP (Ex power plant) schedule this loss will not be applied.

For CSPDCL and BSP schedule: Withdrawal losses are Chhattisgarh Zone losses say 1.5%. For preparing Schedule at periphery, both injection and withdrawal losses shall be applied in accordance with clause 6.2.1 of procedure. So for the combined schedule of CSPDCL and SAIL-BSP, 3.5% losses (injection +withdrawal losses) shall be applicable. It is not possible that for one part i.e. CSPDCL part, losses are applied and for SAIL-BSP part, no losses are applied.

23. Further, if the contention of the petitioner is upheld, then the States or DICs who draw their share from the ISGS through their own lines may also seek similar exemption from transmission losses which will have to be borne by other or DICs.

24. In view of the foregoing discussion, we conclude that the petitioner, SAIL-BSP being an intra-State entity of CSEB, which is a Designated ISTS customer, is liable to share the transmission losses under the Sharing Regulations. The estimated zonal transmission losses are applied on net drawl schedule prepared for regional entity

CSEB as a whole and as SAIL-BSP is an intra-State entity under CSEB, the same shall become applicable on its schedule.

25. The petition stands disposed of accordingly.

sd/-(M. Deena Dayalan) Member sd/-(V.S. Verma) Member

