# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

## Petition No. 93/MP/2019

Coram:

Shri P. K. Pujari, Chairperson Shri I.S.Jha, Member

Date of Order: 8<sup>th</sup> March, 2021

#### In the matter of

Petition under Section 79(1)(c) & (f) of the Electricity Act, 2003 for resolution of disputes regarding payment of transmission charges for the Gadarwara ATS.

# And In the matter of

NTPC Limited NTPC Bhawan, Core – 7, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi – 110 003

...Petitioner

#### **Versus**

- Powergrid Warora Transmission Limited (Formerly Gadarwara (A) Transco Limited)
   B-9, Qutab Institutional Area,
   Katwaria Sarai, New Delhi 110 016
- 2. MP Power Management Company Limited Shakti Bhawan, Rampur, Jabalpur-482 008
- Chhattisgarh State Power Distribution Company Limited P.O Sunder Nagar, Dangnia, Raipur, Chhatisgarh-492013
- Gujarat Urja Vikas Nigam Limited Sardar Patel Vidyut Bhawan Race Course Road, Vadodra-390007



- Maharashtra state Electricity Distribution Company Limited Prakashgad, 4th floor Andheri (East), Mumbai-400 052
- Electricity Department, Government of Goa, Vidyut Bhawan, Panaji, Goa-403 001
- 7. Electricity Department, Administration of Daman& Diu, Daman-396210
- 8. Electricity Department Administration of Dadra & Nagar Haveli, UT, Silvassa-396230
- Central Transmission Utility
   Power Grid Corporation of India Limited,
   'Saudamini', Plot No. 2, Sector 29,
   Gurgaon 122001

...Respondent

# The following parties were present:

Ms. Swapna Seshadri, Advocate, NTPC Shri Parimal Piyush, NTPC Ms. Suparna Srivastava, Advocate, PGCIL Ms. Nehul Sharma, Advocate, PGCIL Shri Pallav Mongia, Advocate, PWTL Shri V. C. Sekhar, PWTL

#### **ORDER**

The present petition has been filed by the Petitioner, NTPC Limited (in short, NTPC) seeking approval for segregation of assets exclusively for the use of Gadarwara STPS (Super Thermal Power Station) from the remaining assets of system strengthening/ common use of the network as proposed by the Petitioner and to set aside the bills dated 13.8.2018 onwards raised by Respondent No. 1, Powergrid Warora Transmission Limited (PWTL) on the Petitioner for the Associated Transmission System of Gadarwara after deemed COD of Gadarwara-Warora 765 kV D/C line. The Petitioner has made the following prayers:

- i. Admit the petition;
- ii. Approve the segregation of assets exclusively for the use of Gadarwara STPS as proposed by the Petitioner at Para-26(i) from the remaining asset of system strengthening/common use of the network as per Para-26(ii);
- iii. Approve the AFC billable to the Petitioner as proposed at Para-30 of the instant Petition;
- iv. In the alternative, direct any other technical body including the CEA to examine the matter and report to this Hon'ble Commission the segregated AFC for the assets proposed at Para-26(i) of the instant petition;
- v. Set aside the bills dated 13.08.2018 onwards raised by CTU/PWTL on NTPC and direct PWTL to revise the bills as per the AFC of segregated assets;
- vi. Direct PWTL/CTU to refund the excess amount received from NTPC till date, with applicable interest;
- vii. Pass such other further order(s) as the Hon'ble Commission may deem just and proper.

# **Submissions of the Petitioner**

- 2. The Petitioner has submitted the following:
  - a) It is a generating company as defined in Section 2(28) of Electricity Act, 2003 and that PWTL (Respondent No. 1) is an inter-State transmission licensee having been granted a transmission license by the Commission.
  - b) The Respondents 2 to 8 are the distribution companies who are the beneficiaries (procurers of electricity) from the Gadarwara STPS (2 X 800 MW) being set up by NTPC in the Narsinghpur district of Madhya Pradesh. The Respondents 2 8 have entered into a Transmission Service Agreement (TSA) dated 09.02.2015 with PWTL.
  - c) It had applied for LTA on behalf of beneficiaries (Respondents 2-8) in terms of the PPAs entered into with them. The Respondent No. 9, Power Grid

Corporation of India Limited (hereinafter referred to as 'PGCIL/CTU') vide letter dated 27.12.2013 granted LTA for Gadarwara STPS.

- d) In line with the decisions taken in the CEA Meeting dated 12.01.2015 and further discussions in the 20<sup>th</sup> connectivity/ LTA Meeting for Western Region held on 17.2.2015, PGCIL/CTU vide letter dated 07.05.2015 issued a revised LTA intimation for 1507.99 MW for Gadarwara STPS.
- e) The scope of work in the revised LTA intimation is as under:

#### "1) Transmission system strengthening(s) for LTA

- Gadarwara STPS Jabalpur Pool 765kV D/C line
   (As per interim arrangement, LILO of existing Seoni- Bina 765kV Si c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni- Bina 765kV Sic line to restore the Seoni-Bina 765kV sic direct, and the LILO portion would be extended to the Jabalpur 7651400kV Pooling Station to form the proposed Gadarwara STPS Jabalpur Pool 765kV D/c line)
- Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
- Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora)
- LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora)"
- f) Subsequently, in the 38<sup>th</sup> Standing Committee Meeting for Power System Planning of Western Region (SCMPSPWR) dated 17.07.2015, the transmission system was segregated into Part-A and Part-B to be developed through Tariff Based Competitive Bidding (TBCB). The details, as recorded in the minutes of meeting of are as follows:

#### "23. Gadarwara STPS: Revision of Transmission System & LTA Quantum

23.1. Director (SP&PA), CEA stated that LTA was granted to Gadarwara STPP of NTPC with system strengthening in WR in the 36th Standing Committee Meeting of Western Region constituents / 18th Meeting on Connectivity and Long term Open Access applications of Western region held on 29.08.13 at NRPC, Delhi. In the 32nd meeting of the Empowered Committee on Transmission held on 06-02-2014, the transmission scheme was recommended for implementation through tariff based competitive bidding in two parts: Part (A) & Part (B) as detailed below.

#### Part (A)

(i)Gadarwara STPS - Jabalpur Pool 765kV D/c line



(As per interim arrangement, LILO of existing Seoni – Bina 765kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni – Bina 765kV S/c line to restore the Seoni – Bina 765kV s/c direct, and the LILO portion would be extended to the Jabalpur 765/400kV Pooling Station to form the proposed Gadarwara STPS – Jabalpur Pool 765kV D/c line)

(ii)Gadarwara STPS - Pooling Station (near Warora) 765 kV D/c line

(iii)Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora)

(iv)LILO of both circuits of Wardha - Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora).

#### Part (B):

- (i)Pooling Station (near Warora) Parli (new) 765 kV D/c line (ii)Parli (new) – Solapur 765 kV D/c line (iii)Establishment of 2x1500 MVA, 765/400 Substations at Parli (new) (iv)Parli (new) – Parli (PG) 400 kV D/c (Quad) line
- 23.2. Subsequently, in a meeting held at CEA on 12-01-2015 to discuss the phasing of transmission elements of the above transmission system, the following was decided:
  - Entire power from Gadarwara STPS may be evacuated through Part A of the transmission system identified with Gadarwara STPS of NTPC.
  - Part B of the Gadarwara STPS transmission system is now to be implemented as System Strengthening in Western Region (WRSS-XV) to facilitate dispersal of power beyond Warora pooling station.
- 23.3. Further, 2X80 MVAR switchable line reactor along with 500 ohm NGR at Warora Pool end of Parli (PG) Warora Pool 400 kV D/c quad line (formed after LILO of Wardha-Parli(PG) 400 kV D/C quad line at Warora Pool ) was included in the scope of works through Amendment III dated 14.02.2105 to the RFP of Gadarwara (Part A). Due to LILO of Parli (PG) Warora Pool 400 kV D/c line (quad) was without any reactor at Warora end.
- 23.4. NTPC vide letter dated 08-01-2015 has indicated revised LTA quantum of 1507.99 MW instead of earlier quantum of 1586.15MW. The revised quantum for beneficiaries is as given below:

CSPDCL: 60.32MW, MP: 754.00MW, Gujarat: 199.48MW, Maharashtra: 248.55MW, Goa: 9.95MW, DNH: 5.73MW, DD: 3.76MW, Unallocated: 226.20MW

Revised intimation for grant of LTA incorporating above modification i.e. LTA for Gadarwara to be made effective subject to commissioning of Part A of the transmission system as mentioned above was agreed in the 20th LTA meeting of WR constituents held on 17.02.2015 at POWERGRID.

23.5. Members agreed with changes made in the Gadarwara STPS transmission system."



- g) PWTL applied for transmission license by filing Petition No. 126/TL/2015 before the Commission. However, the Petitioner was not made a party in the petition. The Commission granted transmission license to PWTL vide Order dated 05.08.2015.
- h) PWTL also filed a petition No. 125/ADP/2015 for adoption of tariff for PWTL Gadarwara-A, and the Commission adopted the same vide order dated 23.06.2015. The Petitioner was again not made a party during the proceedings for adoption of tariff.
- i) As per meeting held at CEA on 12.01.2015 and minutes of meeting of 38<sup>th</sup> SCMPSPWR held on 17.07.2015, only Part-A of the transmission system is responsible for evacuation of power from Gadarwara STPS. From the above orders of the Commission (in Petition No. 126/TL/2015 and Petition No. 125/ADP/2015), only 2 bays at the Warora Pooling Station are for evacuation of the power from Gadarwara STPS. The balance 2 (two) bays each at Parli and Rajnandgaon are for evacuation of power from IPP in Chhattisgarh. Further, the Pooling station comprises various transmission assets, which are not dedicated for evacuation of power from Gadarwara STPS only, rather they are for the common use of the Western Region.
- j) As per TSA dated 09.02.2015 signed by NTPC with PWTL, 21% of the cost of the transmission system pertains to Gadarwara-Jabalpur D/c line while 79% is for the balance transmission system including the Warora Pooling Station.
- k) Gadarwara-Jabalpur 765 kV D/C line achieved COD on 31.05.2017 and the transmission charges for the same are being billed by PWTL to NTPC. The balance transmission system achieved COD on 10.07.2018 as informed by PWTL vide its letter dated 10.07.2018. PGCIL/CTU operationalised LTA for Gadarwara STPS on 10.07.2018.
- I) PGCIL/CTU on 13.08.2018 raised a bilateral bill levying the entire charges of transmission system on NTPC for the month of July 2018. Upon perusing the bill, NTPC discovered certain errors since PGCIL/CTU had billed

the tariff of several assets which were not towards the dedicated use for Gadarwara STPS, but were assets set up for system strengthening and evacuation of other power. For subsequent months also, PGCIL/CTU is raising the bills on the same basis.

- m) Vide letter dated 10.10.2018, it protested to the bills raised by PGCIL/CTU and categorised the assets which are for dedicated use of the Gadarwara STPS and other assets which are for the common use/ system strengthening. However, NTPC made the payment under protest and without prejudice to its rights to dispute the same and in anticipation of the revision in billing by PWTL based on the asset segregation proposed in the letter.
- n) Since PWTL and PGCIL/CTU continued billing without taking into account suggestions of the Petitioner, vide letter dated 25.01.2019, it once again requested PWTL to segregate the tariff of assets for common use at Warora Pooling Station and bill NTPC only for the assets pertaining to dedicated use of NTPC for Gadarwara STPS. In its reply dated 01.02.2019, PWTL expressed its inability to segregate the cost of the assets and suggested NTPC to approach the Commission.
- o) The Petitioner has submitted that in the above background, disputes have arisen between NTPC and PWTL on the bilateral bills of transmission charges being raised by PWTL and PGCIL/CTU on NTPC that have caused NTPC to file the present petition.
- p) The transmission system for LTA granted to the beneficiaries of Gadarwara STPS was revised and split into Part-A and Part-B with the sole intention that the beneficiaries of power from the Gadarwara STPS should only exclusively pay for ATS created for them. However, by bilateral billing of the assets pertaining to system strengthening (in Warora Pooling Station), PWTL has set at naught the entire principle for which the assets were split.
- q) The bills can be and are being raised by PWTL to the Petitioner only as per second proviso to Regulation 8(8) of CERC (Grant of Connectivity, Longterm Access and Medium-term Open Access in inter-State Transmission and

related matters), Regulations, 2009 (hereinafter referred to as "the 2009 Connectivity Regulations") which states as under:

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provided that, where the dedicated transmission lines have already been constructed/are under construction by CTU under coordinated transmission planning, the following shall apply:

- (a) the transmission charges for such dedicated transmission lines shall be payable by the concerned generating company to the transmission licensee (including deemed transmission licensee) from the date of COD of the dedicated line till operationalisation of LTA of the generating station of the generating company:
- (b) After operationalisation of the LTA, the dedicated transmission line shall be included in the POC pool and payment of transmission charges for the said dedicated transmission line shall be governed as per the CERC (Sharing of inter-State Transmission charges and losses) Regulation, 2010 as amended from time to time."
- r) It is the beneficiaries of power and grantees of LTA (Respondents 2-8) which would be required to pay for the charges pertaining to the transmission system. However, since this Commission has laid down a new dispensation for payment of transmission charges if the generating station gets delayed in the Order dated 06.11.2018 in Petition No. 261/MP/2016, the transmission charges are being billed to NTPC. This being the case, the intention of the Commission in the Order dated 06.11.2018 is to be gathered by the following findings rendered in the said Order:
  - "(v) However, Regulation 8(6) of the Sharing Regulations provides that for Long Term Transmission Customers availing power supply from inter- State generating stations, the charges attributable to such generation for long term supply shall be calculated directly at drawal nodes and such mechanism shall be effective only after commercial operation of the generator till which date it shall be the responsibility of the generator to pay transmission charges. This provision is specifically for cases of Long Term Transmission Customers availing power supply from inter-State generating stations under long term supply. We observe that NTPC Kudgi has long term supply Agreement with Southern Region beneficiaries. Its one unit was declared commercial operation as on date of start of LTA. Therefore, the issue for our consideration is bearing transmission charges liability for remaining 2 units till they are declared under commercial operation.
  - (vi) In the light of the above, as per Regulation 8(6) of the Sharing Regulations, the petitioner is liable to pay the transmission charges till COD of its delayed units. Hence, we direct that the annual transmission charges of the associated transmission system (i.e. Kudgi-Narendra, Narendra-Madhugiri and Madhugiri Bidadi and associated bays) as determined or adopted by the Commission shall be considered in PoC mechanism corresponding only to the unit declared under commercial operation i.e Unit-I (as per records available in this petition) and the balance transmission charges shall be recovered from NTPC till the remaining

units are declared under commercial operation. On COD of Unit-II & Unit-III, proportionate transmission charges corresponding to Unit-II & Unit-III, shall be considered in PoC from their respective CODs."

- s) The intention of this Commission for providing bilateral billing in case a generating station is delayed, is that the transmission assets which are not getting utilised due to the delay on the part of the generating company ought not to be fostered on the beneficiaries. This is evident from combined reading of Regulation 8(8) of the 2009 Connectivity Regulations and the order of the Commission dated 06.11.2018 in petition No. 261/MP/2016. However, the intention is not that even the transmission charges for such assets, which are not for the dedicated use of the generating station ought to be paid for by such generating station which gets delayed.
- t) The bilateral billing being carried out by PGCIL/CTU and PWTL is against the submissions of PWTL itself in Petition No. 126/TL/2015 and Petition No. 125/ADP/2015 that has been recorded by the Commission in the Order dated 05.08.2015 and 23.06.2015 respectively. PWTL's own representation to this Commission while obtaining the transmission license and also while adoption of tariff was that only 2 bays at the Warora Pooling station are for evacuation of power from Gadarwara STPS. The other 4 bays (2 no. for Parli-Warora D/C line and 2 no. for Rajnandgaon Warora PS D/c line were covered under additional system strengthening scheme for Chhattisgarh IPPs) and various assets installed in the Pooling station are for the common use of the transmission system and are not intended for the dedicated use of Gadarwara STPS.
- u) The scope for Warora substation, as per the tariff adopted by this Commission comprises many assets not pertaining to Gadarwara STPS and instead it includes assets of common use and in nature of system strengthening. The scope of work under Warora Pooling station was not known to the Petitioner and it was supposed to be consisting of 2 No. 765 KV bays only at Warora end.

- v) The liability for payment of transmission charges by NTPC to PWTL should be limited to two bays at Warora substation instead of payment of entire asset charges of the sub-station. This is in line with the intention of this Commission that those assets which are not being used because of non-availability of the generating station ought not to be recovered from the beneficiaries of the transmission system.
- w) A logical segregation of the assets to be billed to NTPC and for system strengthening ought to be as below:
  - (i) Dedicated transmission lines pertaining to Gadarwara STPS:
    - a) Gadarwara-Jabalpur 765 KV D/C lines
    - b) Gadarwara-Warora 765 KV D/C lines
    - c) 2 No. bays at Warora P.S. for Gadarwara-Warora line
  - (ii) Non-dedicated assets/ transmission assets for system strengthening:
    - (a) LILO of both circuits of Wardha-Parli 440 KV D/C line
    - (b) Balance Part of transmission assets at Warora pooling Station (excluding 2 No. bays for Gadarwara-Warora lines).
- x) Billing in respect of Gadarwara-Jabalpur 765 KV D/C line as well as the interim LILO for 400 KV Seoni-Bina D/C line at Warora is being done w.e.f. May 2017 and December 2016 respectively and that no issue/ dispute has been raised by the Petitioner for payment of the same.
- y) For billing of the assets a) Gadarwara-Warora 765 KV D/C lines, b) LILO of both circuits of Wardha-Parli 440 KV D/C line, and c) Balance Part of transmission assets at Warora pooling Station (excluding 2 No. bays for Gadarwara-Warora lines), it is now required to segregate the asset (i.e. 79% of total asset of ATS, as per TSA) further so that the bills presently being raised by PGCIL/CTU and PWTL to NTPC gets revised corresponding to the liability of NTPC.
- z) Apportionment of Annual Fixed Charges could be done as per the AFC per Circuit Km, based on the AFC of 21% of transmission asset i.e. Gadarwara-Jabalpur 765 KV D/C line. The Petitioner has given a representative computation as under: –

Yearly transmission charges: Rs 352.07 crore

Ckt km for Gadarwara-Jabalpur line: 204 ckm (21% of cost)

Ckt km for Gadarwara-Warora transmission line: 628 ckm (79% of cost)

For Gadarwara-Jabalpur transmission line: 352.07\*0.21= approx. Rs 74 crore (Yearly Transmission Charges)

i.e. approx. 74 crore/204 ckm= Rs 36 lakh/ckm

Thus, YTC for 628 ckm shall be = 0.36\*628= Rs 226 crore

Total = Rs 74 crore + Rs 226 crore = Rs 300 crore (For dedicated assets)

YTC of 2 no. bays at Jabalpur end: Rs 6 crore Approx. (constructed by PGCIL on cost plus basis)

Based on the same, approximate. YTC shall be Rs 306 Crore.

3. The Petition was admitted on 30.5.2019 and the Commission issued notice to the Respondents. In response, Respondent No. 1, PWTL filed its reply vide affidavit dated 20.6.2019; Respondent No. 2, MPPMCL filed its reply vide affidavit dated 18.7.2019; and Respondent No. 9, PGCIL/CTU filed its reply vide affidavit dated 23.8.2019. Petitioner has filed rejoinder to the replies of PWTL and MPPMCL.

#### **Submissions of the Respondents**

- 4. The Respondent No.1, Powergrid Warora Transmission Ltd. (PWTL) vide its reply dated 20.6.2019 has submitted as under:
  - a) PWTL has billed the transmission charges for "Transmission System associated with Gadarwara STPS (2X800 MW) of NTPC (Part-A)" on the Petitioner as per the directions given vide letters dated 19.09.2016 and 08.08.2018 by National Load Despatch Centre (NLDC) which is the implementing agency for POC sharing of transmission charges in line with directions of the Commission vide orders in Petition Nos. 43/MP/2016, 236/MP/2015, 155/MP/2016 and 201/TT/2015.
  - b) While undertaking the billing on NTPC, PWTL had already specifically intimated the same to the Petitioner vide its letter dated 01.02.2019 when the

Petitioner called for segregation of the assets for the purpose of billing. The bills raised upon the Petitioner by PWTL through PGCIL/CTU are its legitimate dues and are in accordance with the transmission charges adopted by the Commission vide Order dated 23.06.2015 in petition No 125/ADP/2015.

- c) As per its own submission of the Petitioner, it was a participant in 38<sup>th</sup> Meeting of the Standing Committee on Power System Planning in Western Region held on 17.07.2015 (minutes of meeting issued on 25.08.2015). Thus, the Petitioner was fully aware of the details of the transmission system. The contention of the Petitioner that orders dated 05.08.2015 and 23.06.2015 were passed by the Commission behind its back doesn't hold good ground in the eyes of law.
- d) The bills raised on the Petitioner and the subsequent actions are all within the scope of work envisaged under the RFP document, the TSA, 2010 Sharing Regulations, direction of NLDC as per various orders passed by this Commission and they conform to the entitled transmission charges of PWTL.
- e) With regard to prayer of the Petitioner i.e. to direct PWTL and PGCIL/CTU to refund the excess amount received from NTPC till date with applicable interest, it is to submit that bills raised on the Petitioner are legitimate and pertains to Part-A of the system implemented for evacuation of entire power from the Gadarwara STPS.
- f) While adjudicating the matter, it should be ensured that PWTL continues to receive its entitled transmission charges without any interruption and should also not be burdened with any refund/ interest. The reduced liability of transmission charges of NTPC, if any, should be collected from the PoC pool by PGCIL/CTU through billing on other DICs. PWTL should not be affected with the revised billing as it is legitimately entitled to receive full transmission charges for the system implemented by it. The transmission charges are the only stream of revenue for PWTL to service its debt obligations, statutory payments and also for undertaking Operation and Maintenance of the transmission system.

- 5. The Respondent No.2, Madhya Pradesh Power Management Company Ltd. (MPPMCL) vide its reply dated 18.7.2019 has submitted as under:
  - a) The dispute raised by the Petitioner relates to billing of transmission charges pertaining to Associated Transmission System of Gadarwara STPS of NTPC. The issue being raised by the Petitioner through this petition is regarding segregation of transmission charges for dedicated system and transmission charges for non-dedicated system for the purpose of billing.
  - b) The transmission system associated with Gadarwara STPS of NTPC has been considered in two parts as may be evident from minutes of meeting dated 25.08.2015 of 38<sup>th</sup> SCMPSPWR held on 17.07.2015 which clearly states as under:

"1.3.3 The cost of the transmission schemes already under implementation/ under bidding through tariff based competitive bidding route is as given below:

Name of scheme	Cost (₹ in Cr.)	YTC (₹ in Cr.)
Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- A)	4070	290.147
Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- B)	3684	256.7

- c) Thus, ATS of Gadarwara STPS has originally been conceived in two parts i.e. Part-A and Part-B involving a total cost of ₹ 7754 crore with levelized Yearly Transmission Charges of ₹ 546.847 crore and, therefore, the contention of the Petitioner is misconceived and is liable to be dismissed.
- d) Even after the said modification of ATS associated with Gadarwara STPS, it is still conceived to facilitate the dispersal of power evacuated from Gadarwara STPS beyond Warora pooling station alongwith installation of reactor at Warora and, therefore, it cannot be termed as non-dedicated asset.
- e) Even if some part of ATS of Gadarwara STPS as a scheme of system strengthening in Western Region for dispersal of power beyond Warora is taken into consideration as claimed by the Petitioner, the same cannot be put to use because of non-commissioning of the Gadarwara STPS. Therefore, the

Petitioner is liable to pay the total Yearly Transmission Charges of ATS of Gadarwara STPS during the period between COD of transmission system by PWTL till COD of generating units of Gadarwara STPS. Thereafter, the transmission charges for the ATS of Gadarwara STPS can be levied in accordance with CERC (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010 (hereinafter referred to as 'the 2010 Sharing Regulations').

- f) Non-commissioning of generating units of Gadarwara STPS is resulting in levy of transmission charges of entire ATS of Gadarwara STPS on the Petitioner in accordance with the provisions contained in 2010 Sharing Regulations and in accordance with orders of this Commission in various petitions.
- g) The Petitioner is liable to pay these transmission charges because of default on its part in achieving timely CoD of its generating units at Gadarwara STPS. Recovery from PoC pool is as per the general provisions of the 2010 Sharing Regulations. However, this is a special case as the Petitioner has failed to achieve CoD on time and therefore, is liable to pay the transmission charges during the intervening period and thus the imperative is that the same is required to borne by Petitioner through its own resources and cannot be burdened on the beneficiaries or the ultimate retail consumer of the electricity in any manner.

# Rejoinders of the Petitioner

- 6. The Petitioner, vide its rejoinder dated 22.8.2019 to the reply of PWTL, has submitted as under:
  - a) The reply filed by the Respondent No. 1 is only to justify the billing carried on by it for the Part-A of the transmission system instead of answering the issues raised by the Petitioner. The entire reply is on the basis of the billing carried out by PWTL being as per the letters dated 19.09.2016 and 08.08.2018 of NLDC instead of taking a position on the liability of NTPC to pay the transmission charges for the ATS. However, by bilateral billing of the assets

pertaining to system strengthening (in Warora Pooling Station), PWTL has set at naught the entire principle for which the assets were split in the first place.

- b) PWTL is not concerned with whether NTPC pays the transmission charges or is recovered from PoC pool for the system created by PWTL and is only concerned with recovery of its transmission charges.
- c) PWTL has made no effort to answer as to which portion of the system implemented by it is for evacuation of power from the Gadarwara STPS and thus not being utilized due to the delay in COD of the said station which is the entire purpose behind filing the petition.
- d) PWTL is also wrongly projecting that the contention of NTPC is that the Orders dated 05.08.2015 (Petition No. 126/TL/2015) and 23.06.2015 (Petition No. 125/ADP/2015) were passed by the Commission behind its back. The fact is that NTPC was not a party to these petitions simply because the system was not to be paid for by NTPC in the first place and was to be paid for by the beneficiaries.
- e) The pooling station comprises various transmission assets, which are not dedicated for evacuation of power from Gadarwara STPS only, rather they are for the common use of the Western Region. PWTL is contending that it has completed the scope of work given to it under the competitive bidding. However, the issue is whether there is any liability on NTPC to pay for those assets which have nothing to do with the evacuation of power from the Gadarwara STPS. It is also not understood as to how NTPC could know of the scope of this work when it was neither involved in the bidding nor a party in Petition No. 125/ADP/2015 and 126/TL/2015.
- 7. The Petitioner, vide its rejoinder dated 22.8.2019 to the reply of MPPMCL, has submitted as under:
  - a) MPPMCL has primarily relied on the 38<sup>th</sup> Minutes of Meeting of SCMPSPWR held on 17.07.2015 wherein the transmission system associated

with Gadawara STPS (Part-A and Part-B) were discussed. Paragraphs 23.1 to 23.3 of minutes of the meeting, do not indicate that all the assets forming part of Gadarwara STPS Part-A are for the purpose of evacuation of electricity from Gadarwara STPS. Moreover, scope of Warora Pooling Station was also not under the discussion and not known to the Petitioner. The system was primarily built for evacuation of power from Gadarwara STPS, but this does not mean that each and every asset was constructed only for Gadarwara STPS.

- b) The Orders dated 05.08.2015 (in Petition No. 126/TL/2015) and dated 23.06.2015 (in Petition No. 125/ADP/2015) passed by this Commission clarify that only 2 bays at the Warora Pooling Station are for evacuation of power from the Gadarwara STPS. The representation of PWTL before this Commission while obtaining transmission license and also while tariff adoption was that only 2 bays at the Warora Pooling Station are for evacuation of power from the Gadarwara STPS. The other 4 bays (2 no for Parli-Warora D/c line) and (2 no for Rajnandgaon-Warora PS) were for additional system strengthening scheme for the Chhattisgarh IPPs.
- c) The contention of MPPMCL that even after the modification in Part-A and Part-B of the transmission scheme, the power was to be evacuated beyond Warora Pooling Station by installation of reactor at Warora is not correct. The submission of MPPMCL is against the terms of the Orders dated 05.08.2015 and 23.06.2015 passed by this Commission.
- d) Contention of MPPMCL that even if part of the ATS planned for Gadarwara STPS is for the benefit of others, namely dispersal beyond Warora, it is not being put to use due to delay in commissioning of Gadarwara STPS is wrong. The liability of a generator to pay transmission charges when the commissioning of his generating stations gets delayed has been decided by this Commission in Order dated 06.11.2018 in Petition No. 261/MP/2017.
- e) There can be no question of NTPC being asked to pay the transmission charges of those transmission assets as well which are non-

dedicated assets with regard to the evacuation of power from Gadarwara STPS.

- f) The Order dated 21.09.2016 passed by this Commission in Petition No. 43/MP/2016 is for realisation of transmission charges due to a transmission licensee when the system was solely for evacuation of electricity for the generator and the generator got delayed. There is no dispute on this principle which has also been followed in the Order dated 06.11.2018 in Petition No. 261/MP/2017. However, the issue is when part of the transmission system is not for the purpose of transmission of electricity from the generating company, can the generating company still be called upon to pay the transmission charges for such part of the non-dedicated assets.
- g) It is wrong and denied that there is any default on the part of NTPC in achieving timely COD.

# Reply of PGCIL/CTU

- 8. PGCIL/CTU vide its reply dated 26.9.2019 has submitted as under:
  - On 04.12.2012, the Petitioner for evacuation of power from its Gadarwara STPS to the beneficiaries, on behalf of the said beneficiaries, applied to PGCIL/CTU for grant of connectivity of 1600 MW and thereafter on 1.1.2013, applied for grant of long-term access (LTA) of 1586.51 MW into the inter-State transmission system (ISTS). The said applications were discussed in 18<sup>th</sup> Meeting of Western Region constituents regarding connectivity/ longterm access held on 29.8.2013. Pursuant to the discussions, the connectivity and LTA as requested for was granted to the Petitioner vide intimation dated 27.12.2013. The Petitioner/ beneficiaries were requested to sign requisite with PGCIL/CTU for sharing agreements of transmission charges corresponding to 1586.51 MW power transfer [Chhattisgarh State Power Distribution Company Limited (Respondent No.3) for 63.46 MW; M.P. Power Management Company Limited (Respondent No.2) for 793.25 MW; Gujarat Urja Vikas Nigam Ltd. (Respondent No.4) for 209.86 MW; Maharashtra State

Electricity Distribution Company Ltd. (Respondent No.5) for 261.49 MW; Electricity Department of Goa (Respondent No.6) for 10.47 MW; Electricity Department of Daman & Diu (Respondent No.7) for 6.03 MW; and Electricity Department of Dadar & Nagar Haveli (Respondent No.8) for 3.96 MW. There was unallocated quota of 237.98 MW].

- b) The aforesaid LTA was granted for a period of 25 years and was to become effective from the date of availability of the identified transmission system as under:
  - "1) Transmission system strengthening(s) for LTA
    - Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
    - Pooling Station (near Warora) Parli (New) 765 kV D/c line
    - Parli (new) Solapur 765 kV D/c line
    - Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora) & Parli (new)
    - Parli (new) Parli (PG) 400 kV D/c (Quad) line
    - LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora)."
- c) The implementation of the following was to be under the scope of the Petitioner:
  - Generation step up at 765kV
  - 765kV line bays: 4 nos.
  - 765kV bus reactor: 1x330 MVAR
  - 765kV bus reactor bay: 1 No."
- d) The transmission system strengthening for connectivity was stated to be the Gadarwara STPS-Jabalpur Pool 765 kV D/c line. The Petitioner was also intimated vide the said LTA grant that the sharing of transmission charges was to be as per the provisions of the 2010 Sharing Regulations.
- e) In the 32<sup>nd</sup> Meeting of the Empowered Committee on Transmission held on 17.1.2014, it was decided to implement the transmission system strengthening for Gadarwara STPS through tariff based competitive bidding in two parts i.e. Part-A and Part-B.
- f) LTA agreements were signed with PGCIL/CTU by Respondent No.4 (on 22.4.2014), Respondent No.3 (on 5.5.2014), Respondent No.7 (on

- 7.7.2014), Respondent No.8 (on 14.8.2014), Respondent No.6 (on 7.10.2014) and Respondent No.2 (on 8.1.2016). Respondent No.5 is yet to sign an LTA Agreement with PGCIL/CTU. Subsequently, the Petitioner, vide its letter dated 8.1.2015 requested PGCIL/CTU for a revision in the LTA quantum granted to it from 1586.15 to 1507.99 MW [Respondent No.3 for 60.32 MW; Respondent No.2 for 754.00 MW; Respondent No.4 for 199.48 MW; Respondent No.5 for 248.55 MW; Respondent No.6 for 9.95 MW; Respondent No.8 for 5.73 MW; and Respondent No.7 for 3.76 MW. There was unallocated quota of 226.20 MW].
- g) In a Meeting dated 12.1.2015 with the Central Electricity Authority (CEA) to discuss the phasing of transmission elements of evacuation system of Gadarwara STPS, the following was agreed:
  - "2. Gadarwara STPS evacuation system consists of Part A and Part B. The study results for the 2017-18 time frame indicates that power from Gadarwara STPS (1600 MW) can be evacuated through Part A of the total transmission system identified with Gadarwara STPS. Part B of the Gadarwara STPS transmission system can be implemented as system strengthening in Western Region as it strengthens the east-west corridor (Raipur-Rajnandgaon-Warora-Parli) in southern part of western region and helps in dispersal of power from Gadarwara, Sipat, Chhattisgarh IPPs etc beyond Warora pooling station. The power flow results are enclosed at Annexure-II.
  - 3. For commissioning activities of Gadarwara STPS unit-I, LILO of existing Seoni Bina 765kV S/c line at Gadarwara STPP would be required with the synchronization of 1<sup>st</sup> unit of Gadarwara STPS i.e. by January 2017. Commissioning of Gadarwara Jabalpur 765 kV D/C line would be required with COD of Gadarwara STPS unit-I. Studies show that evacuation of power from Gadarwara STPS unit-I and commissioning activities of unit-2 could be carried out with Gadarwara Jabalpur 765 kV D/C line.
  - 4. The balance transmission elements of Para A of the Gadarwara STPS transmission system would be required in the matching time frame of COD of the 2<sup>nd</sup> unit of Gadarwara STPS.
  - 5. Part B of the Gadarwara STPS transmission system may be implemented as system strengthening in Western Region in the time frame of unit-2 of Gadarwara STPS to facilitate dispersal of power beyond Warora pooling station."
- h) Thus, it was decided in the meeting with CEA dated 12.01.2015 that the entire power from Gadarwara STPS could be evacuated using Part-A of the transmission system identified for Gadarwara STPS and Part-B of the

Gadarwara STPS transmission system was to be implemented as a system strengthening scheme in WR (WRSS-XV) to facilitate dispersal of power beyond Warora Pooling Station. It was further decided to include the LILO of existing Seoni-Bina 765 S/c line at Gadarwara STPS for the commissioning activities of Gadarwara STPS unit-I. The Petitioner was also present in the aforesaid meeting with CEA on 12.1.2015 wherein minimum transmission system with which power from Gadarwara STPS could be evacuated was identified and the system so identified included establishment of Warora pooling station and LILO of Wardha-Parli 400 kV D/c line at Warora pooling station.

- i) In line with the above decisions taken in the meeting with CEA and further discussions in the 20<sup>th</sup> connectivity/ LTA Meeting for Western Region held on 17.02.2015, PGCIL/CTU vide its letter dated 07.05.2015, issued a revised LTA intimation for 1507.99 MW to the Petitioner. The Supplementary Long-Term Access Agreement has been signed by Respondent No.2 on 08.01.2016, Respondent No.4 on 13.08.2015 and Respondent No.7 on 09.07.2015. Respondent No.3, Respondent No.5, Respondent No.7 and Respondent No.8 have not yet signed the supplementary LTAA. The transmission system as per the revised LTA intimation was as under:
  - "1) Transmission System Strengthening for LTA:
    - Gadarwara STPS Jabalpur Pool 765 kV D/c line (as per interim arrangement, LILO of existing Seoni Bina 765 kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni Bina 765 kV S/c line to restore the Seoni Bina 765 kV S/c direct and the LILO portion would be extended to the Jabalpur 765/400 kV Pooling Station to form the proposed Gadarwara STPS Jabalpur Pool 765 kV D/c line)
    - Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
    - Establishment of 2x1500 MVA, 765/400 kV Substations at Pooling Station (near Warora)
    - LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora)."
- j) Thus, while issuing the revised LTA intimation, PGCIL/CTU intimated to the Petitioner the above transmission system which included the LILO of

both circuits of Wardha-Parli 400 kV D/c quad line at the pooling station near Warora.

- k) A (pre-signed) Transmission Service Agreement (TSA) dated 9.2.2015 came into force between Respondent No.1 and the beneficiaries of the transmission system (being Respondents 2 to 8) for use of the said transmission system and for payment of transmission charges.
- I) The following elements were required to be commissioned in respect of the transmission system associated with Gadarwara STPS:

#### Part-A

- (i) LILO of existing Seoni-Bina 765 kV S/C line at Gadarwara STPS as an interim arrangement;
- (ii) Gadarwara STPS-Jabalpur Pool 765 kV D/C line;
- (iii) LILO of both circuits of Wardha Parli (PG) 400 kV D/C line at Warora Pooling Station (Quad);
- (iv) Establishment of 2x1500 MVA 765/400 kV (New Pooling Station within the jurisdiction/boundary Warora);
- (v) Gadarwara STPS-New Pooling Station within the jurisdiction/boundary of Warora 765 kV D/C line.
- m) Of the above elements, LILO of existing Seoni-Bina 765 kV S/c line at Gadarwara STPS was commissioned in November 2016; Gadarwara STPS-Jabalpur Pool 765 kV D/c line was commissioned in May 2017; LILO of both circuits of Wardha–Parli (PG) 400 kV D/c line at Warora Pooling Station (Quad) along with its bays at Warora was commissioned in May 2018; and establishment of 2x1500 MVA 765/400 kV (New Pooling Station Warora), all the bays and equipments at the station were progressively charged except for line bays, line reactor and associated equipment of Gadarwara Warora 765 kV D/c line. A notice was issued on 23.6.2018 regarding completion and readiness for charging Gadarwara-Warora 765 kV D/c line {sl.no. (v) above} and its associated line bays, line reactor and equipments {balance components of sl.no. (iv) above}. Owing to non-readiness of the inter-connection facilities at Gadarwara end even after the issuance of notice dated 23.6.2018, in terms of Article 6.2 of the TSA, COD for elements of the project i.e. Gadarwara-Warora

765 kV D/c line and its associated line bays, line reactor and equipments was declared on 10.7.2018. With COD of aforesaid elements, the COD of the transmission system was declared on 10.7.2018.

- n) After commissioning of the transmission system, PGCIL/CTU operationalized the LTA for Gadarwara STPS on 10.7.2018. However, neither of the units of the generation station of the Petitioner was ready at that stage and unit-I of Gadarwara STPS has achieved COD on 1.6.2019 while unit-II has not achieved COD till date. PGCIL/CTU raised invoices for the transmission charges on the Petitioner as per provisions of Regulation 8(5) of the 2009 Connectivity Regulations and orders of this Commission.
- o) The terminal bays at Gadarwara STPS end were not ready because of which the elements of PWTL could not be put to use. As such, vide letter dated 9.10.2018, PGCIL/CTU informed the Petitioner that the transmission charges could not be considered in PoC computation. The transmission charges as billed were payable by the Petitioner directly to PWTL in line with the Order of this Commission in Petition No.43/MP/2016. A perusal of the bills showed that the four elements for which transmission charges had been raised, were all part of the LTA grant made to the Petitioner and were duly incorporated in the LTA Agreements entered into with its beneficiaries. The Petitioner is, therefore, unjustified in contending that PGCIL/CTU had billed the tariff of several assets on it which were not towards the dedicated use of its generating station.
- p) The Petitioner, upon raising of the said bills, vide letters dated 10.10.2018 and 25.1.2019, requested the Respondent to modify the aforesaid bills raised on it after declaration of deemed COD of Gadarwara-Warora 765 kV D/C lines.
- q) In response to the aforesaid letters of the Petitioner, PGCIL/CTU, vide its letter dated 1.2.2019, refuted the claim of the Petitioner by stating, inter alia, that it had raised the bills on basis of directions of National Load Despatch Center (NLDC) and that since determining of transmission charges for various elements or altering the sharing of charges was not under the purview of

PGCIL/CTU, the Petitioner was suggested to approach this Commission for redressal of its grievance as regards determination of charges for elements and change of billing to include part billing on NTPC and remaining under POC. Accordingly, the Petitioner has approached this Commission seeking modification of all the bilateral bills of transmission charges raised by PGCIL/CTU upon the Petitioner for the month of July 2018 onwards to the extent the same include charges corresponding to LILO of both circuits of Wardha-Parli 400 kV D/C line and 4 nos. of 765 kV line bays at Warora PS (i.e. 2 nos. of line bays for Warora PS-Parli PS 765 kV D/c line under WRSS-XV scheme and 2 nos. of line bays for Warora PS-Rajnandgaon 765 kV D/c line).

- The Petitioner cannot contend that the LILO of both circuits of Wardhar) Parli line at Warora PS along with the establishment of Warora PS (except 2 nos. bays for Gadarwara-Warora PS D/c line) are part of system strengthening and not a part of the evacuation system of Gadarwara STPS and that the corresponding tariff should not be raised on the Petitioner. Moreover, the Gadarwara – Warora 765 kV D/c line cannot be seen in isolation since it is only the 765/400 kV ICTs and LILO of Wardha – Parli 400 kV D/c line at Warora PS which facilitate dispersal of power from the Gadarwara STPS. The Petitioner was present in the meeting with CEA dated 12.1.2015 where minimum transmission system with which power from Gadarwara STPS can be evacuated, has been identified and the system included establishment of Warora pooling station and LILO of Wardha-Parli 400kV D/c line at Warora pooling station. The Petitioner is liable to pay transmission charges bills raised bilaterally on it corresponding to Unit-I of its generating station till 30.5.2019 and corresponding to Unit-II till it achieves COD.
- 9. The Commission vide RoP of hearing dated 5.3.2020 directed PGCIL/CTU to file its computation for apportionment of AFC including the comments on the methodology proposed by the Petitioner by 24.3.2020.

- 10. PGCIL/CTU in response to query vide RoP of hearing dated 5.3.2020, has submitted the following reply vide affidavit dated 22.5.2020:
  - The Petitioner has contended that the LILO of both circuits of Wardha a) Parli (PG) 400kV D/c (quad) line at Warora PS along with the establishment of Warora PS (except 2 nos. bays for Gadarwara - Warora PS 765kV D/c line) are part of system strengthening and not a part of the evacuation system of Gadarwara STPS and, therefore, corresponding transmission charges should not be raised on it. With regard to the Petitioner perceiving Gadarwara STPS -Warora PS 765kV D/c line in isolation for evacuation of power from Gadarwara STPS, it is submitted that it is necessary to establish 2x1500MVA, 765/400kV Warora PS with minimum connectivity viz. LILO of Wardha - Parli (PG) 400kV D/c (quad) line at Warora PS for evacuation of power from Gadarwara STPS. No power can flow with establishment of only the Gadarwara STPS - Warora 765kV D/c line, without the Warora PS and its connectivity as mentioned above. The same was also agreed in the minutes of meeting held in CEA to discuss the study results of phasing of various transmission elements of evacuation system of Gadarwara STPS on 12.01.2015, wherein the Petitioner was also present.
  - b) The Petitioner has derived cost on Rs./ckm basis for Gadarwara STPS Jabalpur PS 765 kV D/c line considering 21% of AFC as per bidding documents. The cost of Gadarwara STPS Warora PS 765kV D/c line has been computed considering the suggested Rs/ckm cost. However, the cost of 2 nos. of 330 MVAR line reactors available at Warora PS end for Gadarwara STPS Warora PS 765 kV D/c line is not included in the above computation. Further, cost of 2 nos. 765 kV line bays at Warora PS has been considered the same as that of 2 nos. of 765 kV line bays at Jabalpur PS, the cost of which has been considered as Rs. 6 crore approximately.
  - c) Comments as regards computation for apportionment of Annual Fixed Charges (AFC) are as under:

- (i) For evacuation of power from Gadarwara STPS, apart from Gadarwara STPS Warora 765 kV D/c line, establishment of 2x1500MVA, 765/400kV Warora PS with minimum connectivity viz. LILO of Wardha Parli (PG) 400kV D/c (quad) line at Warora PS is required. Accordingly, 4 nos. of 765 kV line bays along with 2x330 MVAR switchable line reactors at Warora PS (i.e. 2 nos. of line bays along with 2x330MVAR switchable Line Reactors for Warora PS Parli PS 765 kV D/c line under WRSS-XV scheme and 2 nos. of line bays for Warora PS Rajnandgaon 765 kV D/c line under Additional System Strengthening for Chhattisgarh IPPs Part B) may not be considered as part of transmission system for evacuation of power from Gadarwara STPS.
- (ii) For this purpose, cost of individual elements in "Transmission System associated with 2x800 MW Gadarwara STPS of NTPC Ltd. (Part-A)", is required.
- (iii) The cost committee comprising of members from CEA, CTU & BPC (RECTPCL) had estimated the cost for the subject project and subsequently, tariff for the transmission project was discovered through TBCB process. At this stage, cost of 4 nos. of 765 kV line bays along with 2x330 MVAR switchable Line Reactors at Warora PS end from the amalgamated yearly tariff discovered through TBCB process will have to found out from the proportional cost of transmission elements as evolved by the cost committee before carrying out bidding. Therefore, the matter regarding calculation of tariff without the above elements may be referred to the aforesaid cost committee.

# Rejoinder of the Petitioner to submission of PGCIL/CTU

- 11. The Petitioner, vide its rejoinder dated 10.07.2020 has submitted its reply to the submission of PGCIL/CTU in response to directions vide ROP of hearing dated 05.03.2020:
  - a) PGCIL/CTU, in its capacity as CTU, had been directed by this Commission vide ROP of hearing dated 05.03.2020 to specifically file computation for the apportionment of annual fixed charges of the associated transmission system (ATS) of the Gadarwara STPS after deemed COD of the Gadarwara-Warora 765 kV D/c lines. This direction had been issued to decide corresponding transmission charges of the ATS that should not have been levied (and not levied) on NTPC.

- b) However, PGCIL/CTU instead of giving this computation/ apportionment of AFC has contended that this issue should be referred to a cost committee comprising of members from CEA, CTU and the BPC (RECTPCL). This is not compliance of the direction issued by this Commission.
- PGCIL/CTU and PWTL both agree that many of the assets at Warora Pooling Substation including the cost of 4 bays of 765 kV and reactors should not be billed to and recovered from NTPC since these are not dedicated assets for evacuation of power from Gadarwara STPS, but transmission charges for these assets still continue to be billed on NTPC. PGCIL/CTU wants to further delay the refund by referring the matter to the cost committee. The Petitioner has been bearing the financial implication for no fault and additional amount is being billed on it on monthly basis since 10.07.2018, though it is making payment 'Under Protest'.
- d) Another issue raised by PGCIL/CTU is that the LILO of both circuits of Wardha-Parli (PG) 400 kv D/c (quad) line at Warora PS along with establishment of Warora PS (except 2 nos. bays for Gadarwara Warora PS 765 kv D/c line) are not a part of system strengthening but part of the ATS for Gadarwara STPS. LILO of Wardha-Parli at 400 KV side of Warora pooling station was not exclusively required for Gadarwara STPS, but was required to strengthen the transmission network. This fact is clear from study report of Gadarwara STPS which was produced as Annexure to agenda note by PGCIL/CTU for 18<sup>th</sup> LTA meeting of Western Region, and same has been decided in the 18<sup>th</sup> LTA meeting dated 29.08.2013. The excerpt of study report is reproduced as below:
  - "...With Gadarwara generation & system strengthening NTPC has indicated that the existing Bina Seoni 765 kV S/c line is passing through the power plant vicinity. Therefore, it is proposed to provide connectivity to the power plant through LILO of Bina Seoni 765 kV S/c line thus the step up voltage of power plant shall be at 765 kV. Accordingly study was carried out considering generation stepped up at 765 kV.

As per the Load Generation scenario emerging out during 2016-17, it is estimated that Western Region (WR) shall be surplus in the order of 10,000 – 15,000 MW and similarly Southern Region (SR) is likely to be in deficit. Due to this, power has tendency to flow from eastern part of WR which has major

generation complexes to western part of Maharashtra which have major load centres as well as interconnections to SR.

Thus, besides above LILO for reliable evacuation of power from Gadarwara STPP, a 765 kV D/c corridor has been considered from Gadarwara to lower part of Maharashtra. A new 765/400 kV substation between Wardha &Bhadrawati has been proposed as the existing substations do not have adequate space for further connections. Also few generation projects in this area have applied for Connectivity. It is proposed to interconnect this new substation at Warora Pool to Solapur via a new 765/400 substation at Parli. The 400 kV interconnection to Warora Pool shall be provided through LILO of both circuits of Wardha-Parli 400 kV D/c quad line at this substation. Further, new substation at Parli shall be interconnected with existing Parli (POWERGRID) substation through 400 kV D/c (quad) line."

- e) The above report clearly indicates that the 400 KV sub-station as well as Wardha-Parli LILO have been decided at Warora pool to cater to the flow of power from other IPPs also and are for system strengthening, rather than for exclusive/ dedicated use of Gadarwara STPS. The connectivity was also granted to various IPPs in this area during the said meeting. These IPPs include Wardha Power Company Limited, Abhijeet MADC Nagpur Energy Private Ltd etc., which has been recorded in 24<sup>th</sup> WRPC meeting of Western Region held on 09.10.2013.
- f) The Wardha-Parli LILO has been decided under Gadarwara Transmission system, which is recorded in the minutes of meeting of 18<sup>th</sup> LTA meeting of WR held on 29.08.2013, and subsequently in Empowered Committee meeting held on 17.01.2014.
- g) As per the transmission system planning for evacuation of 1600 MW power from Gadarwara STPS, 765 KV D/C lines to Jabalpur were envisaged at the time of COD of Unit-1 of Gadarwara STPC. Further, the 765 kV D/C transmission system from Gadarwara to Warora Pool and subsequent system strengthening by joining Warora to Solapur & Rajanandgaon have also been conceptualised and planned for power evacuation from 765 kV network. In view of this 765 kV system envisaged for Gadarwara STPS, the Wardha-Parli LILO for power evacuation at 400 kV voltage level from Warora to Parli and Warora to Wardha cannot be considered as evacuation lines for Gadarwara STPS though they have come in the time frame of unit-2 of Gadarwara STPS. In other

words, the LILO may be considered as a common transmission carrier for evacuation of power not only from Gadarwara STPS but other generating stations also. The transmission lines at 765 kV side from Warora pooling station onward have been considered as system strengthening for evacuation/flow of power not only from Gadarwara STPS, but from other sources too. By virtue of its usage, the LILO is also serving the similar purpose and hence cannot be considered as dedicated asset for Gadarwara STPS, rather it is having the nature of common carrier.

- h) If, at all, the Wardha-Parli LILO was provided only for the power evacuation from Gadawara STPS at 400 kV level, the same would have been reinstated after the construction of 765 kV D/C transmission assets from Warora onwards, and thereby the financial burden on generator/Long Term beneficiaries of the station could have been avoided. But it has not been envisaged like that. Rather, the LILO has been kept as permanent transmission system at Warora end, which serves the purpose of common transmission asset. Therefore, the Wardha-Parli LILO may not be considered as the asset for exclusive use of power evacuation from Gadarwara STPS, and accordingly the transmission system excluding two 765 KV bays at Warora pooling station, should be considered as system strengthening (like ICTs, bays, reactors, buses etc.) and be excluded from the transmission charges being billed to the Petitioner.
- i) PGCIL/CTU in its submission, has stated that LILO was the minimum requirement for power flow from Gadarwara STPS, but nowhere it mentioned that the power flow through LILO shall take place exclusively from Gadarwara STPS and not from other sources. Moreover, 2 No. 765 kV D/C Gadarwara-Jabalpur lines were also scheduled to be in place before COD of its first unit.
- j) The Commission vide ROP of hearing dated 05.03.2020 had directed PGCIL/CTU to provide the methodology for segregation of cost. However, PGCIL/CTU has not provided any methodology or basis based on which the cost segregation may be decided. In this regard, in the absence of any clear methodology given by the CTU, the Commission may decide it on the basis of

the segregated cost detail pertaining to Gadarwara transmission system as considered and recorded in 32<sup>nd</sup> Empowered Committee meeting (ECM) dated 06.01.2014. The tentative capital cost segregation has been provided in the minutes of meeting of the 32<sup>nd</sup> ECM, wherein the Gadarwara-Jabalpur 765 kV D/C lines and rest of the system contribute for 21% and 79% respectively. These percentages of cost match with that considered in TSA for the system as per schedule and subsequent adoption of tariff by the Commission vide order dated 23.06.2015 in Petition no.125/ADP/2015. The tentative cost has been considered in ECM as Rs. 2,525 crore for the transmission system depicting the cost segregation of different assets/ elements. Considering the percentagewise cost contribution for these assets, AFC of the assets may be segregated in the same ratio. Accordingly, the AFC segregation based on the above methodology has been derived as under:

Estimated cost segregation for assets as per minutes of 32 <sup>nd</sup> ECM				
	Capital cost (in Rs. crore)	Percentage	AFC segregation (in Rs. crore)	
Gadarwara-Jabalpur 765 kV D/C lines	537	21.27%	74.86	
Gadarwara-Warora 765 kV D/C lines	1343	53.19%	187.22	
Wardha-Parli LILO of 400 kV	114	4.51%	15.89	
Warora 765/400 kV Pooling Station	531	21.03%	74.02	
Total	2525		352	
Cost of Gadarwara Jabalpur D/C lines and Gadarwara- Warora double circuit Rs.262.08 crore				
Cost of 2 No. bays of 765 kV at Warora (as per AFC of 2 No. bays at Jabalpur on cost-plus basis):				
Total AFC billable to NTPC		Approx.	Rs.268.08 crore	

k) Thus, Gadarwara-Jabalpur lines contribute for 21% and the remaining 79% is comprised of Gadarwara-Warora 765 D/C lines, LILO for Wardha-Parli and Warora Pooling Station contributing for 53%, 4.5% and 21% of the total cost respectively. The billable AFC to NTPC has been computed by apportioning the AFC of Rs. 352 crore in the ratio of capital cost of these assets first and then adding the AFC of Gadarwara-Jabalpur lines (Rs. 74.86 crore), Gadarwara-Warora lines (Rs. 187.22 crore) and further adding AFC of approx.

Rs. 6 crore for two 765 kV bays at Warora (total AFC = Rs. 74.86 crore + Rs. 187.22 crore + Rs. 6 crore = Rs. 268 crore approx.). Accordingly, AFC billable to NTPC comes out as Rs. 268 crore and AFC of non-dedicated assets or the assets not for exclusive use of Gadarwara STPS is Rs. 84 crore. AFC for two bays (approx. Rs. 6 crore) has been adopted based on order of the Commission dated 13.2.2018 in Petition No. 250/TT/2017 for 2 no. 765 kV bays at Jabalpur for Gadarwara-Jabalpur transmission lines.

- I) The Commission may decide the AFC segregation of assets for dedicated and non-dedicated use of Gadarwara STPS based on this methodoly or the methodology already proposed by the Petitioner.
- m) If at the instance of PGCIL/CTU, the matter is referred to the cost committee, PGCIL/CTU should be directed to provisionally refund the additional transmission charges pertaining to the non-dedicated assets already billed with interest and recovered till date subject to the final decision in the matter considering the difficulty being faced and financial implications being borne by NTPC.

#### **Analysis and Decision**

12. After considering the submissions of the Petitioner and the Respondents and having perused the documents on record, the following issue arises for our consideration:

What is the associated transmission system for Gadarwara STPS of NTPC in terms of Long Term Access granted to it?

What methodology should be adopted for segregation of AFC of assets which are for exclusive use of Gadarwara STPS and other assets which are for system strengthening?

13. The Petitioner had sought Long term Access (LTA) on behalf of beneficiaries from PGCIL/CTU for Gadarwara STPS. The Petitioner has submitted that total

associated transmission system (ATS) for Gadarwara STPS comprises of two parts, Part(A) and Part(B), wherein Part(A) is for power evacuation from the Gadarwara STPS and Part(B) is for common use of the Western Region transmission system.

- 14. The Petitioner has further submitted that as the COD of units of Gadarwara STPS got delayed, PGCIL/CTU, after COD of Gadarwara-Jabalpur 765 kV D/C line and the balance transmission system, has operationalised the LTA for Gadarwara STPS on 10.7.2018 and raised a bilateral bill levying the transmission charges of the Gadarwara ATS, including many system strengthening elements, on NTPC (the Petitioner). In view of this, the Petitioner has prayed for segregation of assets exclusively for the use of Gadarwara STPS from the remaining assets that are for system strengthening/ common use of the network so that bilateral billing is done only for those elements that are for exclusive use of Gadarwara STPS.
- 15. In this context, the Petitioner has raised disputes regarding liability of payment of transmission charges for (a) LILO of both circuits of Wardha-Parli 400 kV D/C quad line; (b) four number of bays at Warora 765/400 kV pooling station (two number of 765 kV bays for Warora-Parli D/C line and two number of 765 kV bays for Warora-Rajnandgaon line); and (c) Line Reactors, ICTs, Bus Reactors stating that the same are part of system strengthening and are not for evacuation system of Gadarwara STPS. As per the Petitioner, only two number of bays at Warora 765/400 kV pooling station are for dedicated use of Gadarwara STPS.
- 16. PWTL has submitted that it has billed the transmission charges for Part(A) on the Petitioner as per the directions given vide letters dated 19.09.2016 and 08.08.2018 by NLDC, the implementing agency under the 2010 Sharing Regulations.

PWTL has also submitted that it is eligible for the transmission charges for the assets and that it should not be asked to refund any amount to the Petitioner if it is decided that some elements of the transmission system should not be billed upon NTPC and should rather be collected from PoC pool.

- 17. MPPMCL has rejected the contention of the Petitioner for segregation of assets as dedicated system and non-dedicated system (system strengthening) for the purpose of billing. As regards claim of the NTPC that some part of ATS of Gadarwara is part of system strengthening system, MPPMCL has submitted that transmission system associated with Gadarwara STPS, was conceived to facilitate dispersal of power evacuated from Gadarwara STPS beyond Warora pooling station along with installation of reactor at Warora and, therefore, it cannot be termed as non-dedicated asset.
- 18. PGCIL/CTU has submitted that all the elements for which transmission charges had been raised, were part of the LTA grant made to the Petitioner and were duly incorporated in the LTA Agreements entered into with its beneficiaries. The Petitioner is, therefore, unjustified in contending that PGCIL/CTU had billed the tariff of several assets on it which were not towards the dedicated use of Gadarwara STPS. It has further submitted that the Petitioner cannot contend that the LILO of both circuits of Wardha-Parli line at Warora PS along with the establishment of Warora PS (except 2 number of bays for Gadarwara–Warora PS 765 kV D/c line) are part of system strengthening and not a part of the evacuation system of Gadarwara STPS. The Petitioner is liable to pay transmission charges bills raised bilaterally on it corresponding to Unit-I of its generating station till its COD of 30.5.2019 and corresponding to Unit-II till it achieves COD.

- 19. We have considered the rival contentions of the parties. We observe that Long term Access was granted to NTPC on 27.12.2013. The transmission system identified in the said LTA grant is listed below:
  - "1) Transmission system strengthening(s) for LTA
    - Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
    - Pooling Station (near Warora) Parli (New) 765 kV D/c line
    - Parli (new) Solapur 765 kV D/c line
    - Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora) & Parli (new)
    - Parli (new) Parli (PG) 400 kV D/c (Quad) line
    - LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora)."

#### Under the scope of NTPC Gadarwara:

- Generation step up at 765kV
- 765kV line bays: 4 nos.
- 765kV bus reactor: 1x330 MVAR
- 765kV bus reactor bay: 1 No."
- 20. The LTA grant was revised vide intimation dated 07.05.2015 which provides transmission system as follows (the same transmission system was indicated in the LTA agreements signed with the beneficiaries):

#### "1) Transmission system strengthening(s) for LTA

- Gadarwara STPS Jabalpur Pool 765kV D/C line (As per interim arrangement, LILO of existing Seoni- Bina 765kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni- Bina 765kV Sic line to restore the Seoni- Bina 765kV s/c direct, and the LILO portion would be extended to the Jabalpur 765/400 kV Pooling Station to form the proposed Gadarwara STPS - Jabalpur Pool 765kV D/c line)
- Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
- Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora)
- LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora.)"

21. Revised LTA intimation dated 07.05.2015 was based on discussions during

20<sup>th</sup> meeting of WR constituents held on 17.02.2015 where following was discussed:

## "16.0 Gadarwara STPS: Revision of Transmission System & LTA Quantum

CTU informed that LTA was granted to Gadarwara STPP of NTPC with system strengthening in WR in the 36th Standing Committee Meeting of Western Region constituents / 18th Meeting on Connectivity and Long term Open Access applications of Western region held on 29.08.13 at NRPC, Delhi.

In line with decisions taken in the 32nd meeting of the Empowered Committee on Transmission held on 06-02-2014, the above transmission system is being implementation through tariff based competitive bidding in two parts: Part (A) & Part (B) as detailed below.

#### Part (A):

• Gadarwara STPS - Jabalpur Pool 765kV D/c line

(As per interim arrangement, LILO of existing Seoni – Bina 765kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni – Bina 765kV S/c line to restore the Seoni – Bina 765kV s/c direct, and the LILO portion would be extended to the Jabalpur 765/400kV Pooling Station to form the proposed Gadarwara STPS – Jabalpur Pool 765kV D/c line)

- Gadarwara STPS Pooling Station (near Warora) 765 kV D/c line
- Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station (near Warora)
- LILO of both circuits of Wardha Parli (PG) 400 kV D/c quad line at Pooling Station (near Warora).

#### Part (B):

- Pooling Station (near Warora) Parli (new) 765 kV D/c line
- Parli (new) Solapur 765 kV D/c line
- Establishment of 2x1500 MVA, 765/400 Substations at Parli (new)
- Parli (new) Parli (PG) 400 kV D/c (Quad) line

Subsequently, in a meeting held at CEA to discuss the phasing of transmission elements of the above transmission system on 12-01-2015, the following was decided:

- Entire power from Gadarwara STPS may be evacuated through Part A of the transmission system identified with Gadarwara STPS of NTPC.
- Part B of the Gadarwara STPS transmission system is now to be implemented as System Strengthening in Western Region (WRSS-XV) to facilitate dispersal of power beyond Warora pooling station.

Further, NTPC vide letter dated 08-01-2015 has indicated revised LTA quantum of 1507.99 MW instead of earlier quantum of 1586.15MW. The revised quantum for beneficiaries is as given below: CSPDCL: 60.32MW, MP: 754.00MW, Gujrat: 199.48MW, Maharashtra: 248.55MW, Goa: 9.95MW, DNH: 5.73MW, DD: 3.76MW, Unallocated: 226.20MW 29

Revised intimation for grant of LTA incorporating above modification i.e. LTA for Gadarwara to be made effective subject to commissioning of Part A of the transmission system as mentioned above, proposed to be issued. Members agreed for the same."



- 22. Thus, it is noted from the above discussions that Part(B) of the associated transmission system of Gadarwara was to be implemented as system strengthening scheme in Western Region.
- 23. We observe that no dispute has been raised by the Petitioner with regard to payment for Gadarwara-Warora line and Gadarwara-Jabalpur line.
- 24. However, the Petitioner's contention is that it has no liability of payment of transmission charges for (a) LILO of both circuits of Wardha-Parli 400 kV D/C quad line; (b) four number of bays at Warora 765/400 kV pooling station (two number of 765 kV bays for Warora-Parli D/C line and two number of 765 kV bays for Warora-Rajnandgaon line); and (c) Line Reactors, ICTs, Bus Reactors stating that same are part of system strengthening and are not for evacuation system of Gadarwara STPS. The contentions of the Petitioner are analysed in following paragraphs.
- 25. LILO of both circuits of Wardha-Parli 400 kV D/C quad line: We note that the LILO of both circuits of Wardha-Parli 400 kV D/C quad line is part of LTA intimation dated 27.12.2013 as well as that of revised LTA intimation dated 07.05.2015. Therefore, the Petitioner cannot take a position that it was not aware of the same. Further, no dispute was raised by the Petitioner in the meetings of WRPC regarding inclusion of the same in Part(A) of the transmission system identified with Gadarwara STPS of NTPC. This asset also forms part of the LTA agreement that the beneficiaries of the Gadarwara STPS have signed with PGCIL/CTU. Therefore, in our view, the Petitioner cannot now contend that this asset is for system strengthening and not specifically for Gadarwara STPS and thereby raise dispute as regards payment of transmission charges for this asset. Accordingly, the liability to

pay transmission tariff of the asset "LILO of both circuits of Wardha-Parli 400 kV D/C quad line" remains with Petitioner in case of delayed COD of Gadarwara STPS.

26. Detailed scope of Warora sub-station provided in the Petition No. 125/ADP/2015 for adoption of tariff for the transmission licensee, for which Order dated 23.6.2015 has been issued by the Commission is as under:

Establishment of 2X1500 MVA 765/400 kV (New Pooling Station within the jurisdiction/boundary Warora)

32 months (November 2017)

765kV :

ICTs: 7X500 MVA 765/400kV (1 spare unit)

ICT bays: 2 no.

Line bays: 6 no. (2 no. bays for Gadarwara STPS – Warora PS D/c line; 2 no. bays for Warora PS – Parli (New) S/s D/c line covered under Transmission System Associated with Gadarwara STPS (2X800 MW) of NTPC (Part-B); 2 no. bays for Rajnandgaon – Warora PS D/c line covered under additional system strengthening scheme for Chhattisgarh IPPs)

Bus Reactor: 3X110 MVAR

Bus Reactor Bay: 1 no.

Line Reactors: 7X 110 MVAR (1 unit spare) along with associated NGR and its auxiliaries (for Gadarwara line)

Line Reactors switchable: 6X110 MVAR along with associated NGR and its auxiliaries (for Parli line)

 $2 \times 80$  MVAr switchable line reactor along with 500ohm NGR and Warora Pool end of Parli (PG) – Warora Pool

400 kV D/C line (quad) (one reactor at each ckt) (formed after LILO of Wardha – Parli (PG) 400 kV D/C quad line at Warora Pool sub-station)

Space for future Bays: 4 nos.

400kV

ICT Bays : 2 Nos. Line Bays : 4 Nos.

Provision for future Bays: 4 Nos.

NTPC to provide following at Gadarwara STPS switchyard

765 kV line Bay: 4 No. Bus Reactor Bay: 1 No. Bus

Reactor: 1X330MVAR

Switchable line reactor: 2X330MVAR along with associated NGR and its

auxiliaries (for Gadarwara- Warora 765 kV D/C line)

- 27. **Warora Pooling station:** The Warora Pooling station comprises of 6 number of 765 kV line bays, 2 number of 765 kV ICT bays and 2 number of ICTs under 765 kV level assets, apart from bus reactors and line reactors and 400 kV bays. The Petitioner has claimed that except for 2 number of 765 kV bays associated with Gadarwara-Warora D/C line, it has no liability for balance elements at Warora Pooling station. The Petitioner has contended that out of entire Warora Pooling substation, only 2 number of bays are for dedicated use of Gadarwara STPS, while remaining 4 number of line bays, ICTs and bus reactors are for use of other entities of the Western Region and as such, they are part of system strengthening. Therefore, it has prayed that the transmission charges in respect of assets other than the 2 number of bays for exclusive use of Gadarwara STPS the remaining assets at Warora PS i.e. 4 number of 765kV line bays, 400 kV bays, line reactors, ICTs and bus reactors should not be recovered from the Petitioner. These elements have been dealt with as under:
  - (i) 4 number of 765 kV Line bays: PGCIL/CTU has stated that 4 number of line bays (i.e. 2 number of line bays along with 2x330 MVAR switchable line reactors for Warora-Parli 765 kV D/c line under WRSS-XV scheme and 2 number of line bays for Warora-Rajnandgaon 765 kV D/c line under additional system strengthening for Chhattisgarh IPPs Part(B)) were for use of these two lines and, therefore, they may be considered as part of system strengthening and may not be considered as part of the transmission system required for immediate evacuation of power from Gadarwara STPS. We agree with this submission of PGCIL/CTU, since these 4 number of bays were not for use of Gadarwara STPS. In view of this, the Petitioner's claim that it is not responsible for payment of transmission tariff for 4 number of bays is accepted.
  - (ii) 2x1500 MVA ICTs: The contention of NTPC that it is responsible for payment of only 2 number of bays is also not correct as these two bays cannot

operate in isolation. Also, Warora Pooling station consists of various elements like ICTs and its bays, line reactors, bus reactors etc. We note that the LTA intimation dated 27.12.2013 as well as the revised LTA intimation dated 7.5.2015 has mentioned establishment of 2x1500 MVA, 765/400 substations at Pooling Station (near Warora) as one of the assets. This does not clearly mention the number of bays, line reactors, bus reactors that are to be established along with the Warora PS but in all the communications regarding LTA, "Establishment of 2x1500 MVA, 765/400 Substations at Pooling Station" is clearly mentioned. The other two lines (Warora-Rajnandgaon line and Warora-Parli line) already being 765 kV lines, these ICTs have not been associated with those lines. Hence, these are for exclusive use of Gadarwara-Warora line for Gadarwara STPS and liability of payment of transmission tariff of these 2x1500 MVA ICTs undeniably lies with the Petitioner.

- (iii) Line reactors and Bus reactors: Line reactors and bus reactors are essential part of a sub-station, and therefore, they are for use by Gadarwara STPS as well as for system strengthening. In case of line reactors and bus reactor, it is not possible to segregate specific assets for use of Gadarwara STPS and for system strengthening. Therefore, in our view, liability to pay proportionate tariff for Warora pooling station remains with the Petitioner. PGCIL/CTU has submitted that out of 2 sets of line reactors, one set is meant for Warora-Parli line which may be considered as part of system strengthening and the second set of line reactors is meant for Gadarwara-Warora line, whose tariff liability remains with the Petitioner.
- 28. Therefore, we are of the considered view that for the period of delay, the Petitioner is liable to bear transmission charges for LILO of both circuits of Wardha-Parli 400 kV D/C line at Warora and a part of transmission charges for Warora pooling station. Apart from this, no issue has been raised for Gadarwara-Warora and Gadarwara-Jabalpur line which is payable by NTPC for period of delay.

- 29. However, a consolidated tariff of the transmission system having been awarded under TBCB route, the issue that arises is transmission charges for LILO of both circuits of Wardha-Parli 400 kV D/c quad line and part of sub-station at Warora pooling station are required to be segregated from such consolidated tariff.
- 30. The Petitioner has proposed (and included a representative computation) that apportionment of annual fixed charges could be done as per AFC per circuit km, based on the AFC of 21% of transmission asset i.e. Gadarwara-Jabalpur 765 KV D/C line.
- 31. The Commission vide RoP of hearing dated 05.03.2020 had directed PGCIL/CTU to file its computation for apportionment of AFC including the comments on the methodology proposed by the Petitioner. PGCIL/CTU has pointed out flaws in the methodology proposed by the Petitioner. However, it has not been able to come up with any alternative methodology and has rather proposed that the matter may be referred to the cost committee consisting of CEA, CTU and BPC (RECTPCL).
- 32. The Petitioner has objected to the suggestion of PGCIL/CTU alleging that referring the matter to the cost committee is a delaying tactic and that the Petitioner should not be made to suffer on account of PGCIL/CTU not being able to apportion the transmission charges not payable by the Petitioner. The Petitioner has suggested that in the absence of any clear methodology proposed by PGCIL/CTU, one alternative is that the Commission may decide it on the basis of the segregated cost detail pertaining to Gadarwara transmission system as considered and recorded in 32<sup>nd</sup> Empowered Committee Meeting (ECM). The 32<sup>nd</sup> Empowered Committee Meeting (ECM) has considered the tentative cost of the transmission system as Rs.

2,525 crore, with details of cost segregation of different assets/elements. The Petitioner has suggested that considering the percentage-wise cost contribution of different assets/elements for these assets, AFC of the assets may be segregated in the same ratio. It has also enclosed the tentative cost details considered by ECM.

33. We have perused the minutes dated 06.02.2014 of the 32<sup>nd</sup> ECM held on 17.01.2014, which provides as follows:

SI. No.	Transmission Scheme	Estimate d Route Length (km)	Tentative Estimated Cost (Rs. crore)
1.	Gadarwara STPS-Jabalpur Pool 765 kV D/C line  As per the interim arrangement, LILO of existing Seoni-Bina 765kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni-Bina 765kV S/C line to restore the Seoni-Bina 765 S/c direct line, and the LILO portion would be extended to the Jabalpur 765/400 kV Pooling Station to form the proposed Gadarwara 765/400kV Pooling Station to form the proposed Gadarwara-Jabalpur Pool 765 kV D/C line	120	537
2.	Gadarwara STPS-New Pooling Station near Warora 765 kV D/C line	300	1343
3.	LILO of both circuits of Wardha-Parli (PG) 400 kV D/c line at Warora Pooling Station (Quad) line [2xD/C]	20	114
4.	Establishment of 2X1500 MVA 765/400 kV New Pooling Station (PS) near Warora  765kV  ICTs: 7X500 MVA 765/400kV (1 spare unit) ICT bays: 2 no. Line bays: 6 no. Bus Reactor: 3X110 MVAR Bus Reactor Bay: 1 no Line Reactors: 7X 110 MVAR (1 unit spare) (for Gadarwara line) Line Reactors switchable: 6X110 MVAR (for Parli line) Space for future Bays: 4 nos.  At Gadarwara STPP switchyard (under NTPC Scope*) T65 kV line bays: 4 no. Bus reactor: 1x 330 MVAR Switchable line reactor: 2 X330 MVAR 400 kV ICT Bays: 2 no. Line Bays: 4 no.		531
	Space for future bays: 4 no.     Estimated Cost		2525

<sup>\*</sup>As provided in minutes of 33<sup>rd</sup> Empowered Committee meeting



34. Thus, the tentative estimated cost for each element works out as under:

Element	Tentative Estimated Cost (Rs. crore)
Gadarwara-Jabalpur 765 KV D/C lines	537
Gadarwara-Warora 765 KV D/C lines	1343
Wardha-Parli LILO of 400 KV	114
Warora 765/400kV Pooling Station	531
Total	2525

35. Further, the relevant portion of TSA providing percentage of quoted transmission charges recoverable for each of transmission elements is as follows:

Sr. No	Name of the Transmission Elements	Scheduled CoD in months from Effective Date#	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Elements (s) which are pre required for declaring the commercial operation (COD)
				of the respective Element
1.	As per the interim arrangement, LILO of existing Seoni-Bina 765kV S/c line at Gadarwara STPP would be established. At a later date, LILO portion would be delinked from Seoni-Bina 765kV S/C line to restore the Seoni-Bina 765 S/c direct line, and the LILO portion would be extended to the Jabalpur 765/400 kV Pooling Station to form the proposed Gadarwara 765/400kV Pooling Station to form the proposed Gadarwara-Jabalpur Pool 765 kV D/C line	20 Months (Nov 2016)	21% (for elements at sr.no 1 & 2)  *- The percentage of transmission charges recoverable for interim arrangement mentioned at sr. no.1, shall be calculated on pro-rata basis of 21%.	-
2.	Gadarwara STPS-Jabalpur Pool 765 kV D/C line	26 Months (May 2017)		
3.	Gadarwara STPS-New Pooling Station within the jurisdiction/boundary of Warora 765 kV D/C line	32 Months (Nov 2017)	79%	Elements marked at Sr. No. 3, 4, 5 are required to be commissioned
4.	LILO of both circuits of Wardha-Parli (PG) 400 kV D/c line at Warora* Pooling Station (Quad)	32 Months (Nov 2017)		simultaneously as their utilization is dependent on commissioning of
5.	Establishment of 2X1500 MVA 765/400 kV (New Pooling Station within the jurisdiction/boundary Warora)	32 Months (Nov 2017)		other two elements

- 36. Thus, as can be seen from the table above, the consolidated transmission tariff for Gadarwara-Warora line, LILO of Wardha-Parli line at Warora and Warora Pooling station is 79% of the quoted transmission charges. Further, the Commission vide Order dated 23.6.2015 in Petition No. 125/ADP/2015 has adopted the quoted transmission charges of Rs.352.07 crore for the first 9 years. Hence, transmission charges for Gadarwara-Warora line, LILO of Wardha-Parli line at Warora and Warora Pooling station comes out as Rs.278.16 crore per year which is 79% of Rs.352.07 crore per year, for the first 9 years.
- 37. The analysis in the subsequent paragraphs has been done considering such transmission charges for first 9 years. We do not expect the commissioning of Gadarwara STPS to be delayed beyond this period of 9 years. However, in case calculations are required to be done for the period beyond 9 years, the same can be calculated as per the adopted transmission charges.
- 38. Considering the tentative estimated cost as per 32<sup>nd</sup> Empowered Committee, percentage of cost attributed to each element, namely, Gadarwara-Warora line, LILO of Wardha-Parli line at Warora and Warora Pooling station has been derived. The percentage so derived has been applied on the consolidated adopted Annual Transmission Charges of Rs.278.16 crore worked out in paragraph 36 above to arrive at the Annual Transmission Charges for each element. The details of the calculations are as under.

Element	Tentative estimated Cost (Rs. crore)	Percentage	Annual Transmission Charges (Rs. crore)
Gadarwara-Warora 765 kV D/C lines	1343	67.56%	187.91
Wardha-Parli LILO of 400 kV	114	5.73%	15.951

Warora 765/400 kV Pooling Station	531	26.71%	74.297
Total	1988		278.16

- 39. We, however, observe that neither from the minutes of the ECM nor from the TSA, it is possible to work out the cost of specific elements within the Warora Pooling station. Therefore, it is not possible to derive the Annual Transmission Charges for such elements within the Warora Pooling station, to be apportioned between Gadarwara STPS and the system strengthening.
- 40. In view of the fact that it is not possible to derive the Annual Transmission Charges for each element at the Warora 765/400 kV Pooling station, the Commission is of the view that instead of bench-marking the cost on the basis of other assets as suggested by the Petitioner, the Annual Transmission Charges for Warora Pooling station should be apportioned on proportionate basis to arrive at the charges attributable to NTPC.
- 41. From the perusal of single-line diagram and analysis of the components of Warora Pooling station, we observe that Warora Pooling station comprises of 6 number of 765 kV line bays, 2 number of 765 kV ICT bays and 2 number of ICTs under 765 kV level assets, out of which 2 number of 765 kV line bays, 2 number of ICTs and 2 number of ICT bays are to the account of NTPC. Thus, out of 10 parts in the Pooling station, 6 parts are to the account of NTPC. Hence, 60% of Annual Transmission Charges for Warora Pooling station is attributable to NTPC. Therefore, 60% of Annual Transmission Charges of Warora Pooling station is recoverable from NTPC for the period of delay. In other words, out of Annual Transmission Charges of Rs.74.297 crore for Warora Pooling station, Rs.44.58 crore is attributable to NTPC.

- 42. In sum, no dispute has been raised by the Petitioner with regard to payment for Gadarwara-Warora line. Further, as already decided in paragraph 25 of this order, the Annual Transmission Charges in respect of LILO of both circuits of Wardha-Parli 400 kV D/C quad line is payable by the Petitioner and as decided in the paragraph above, 60% of Annual Transmission Charges for Warora Pooling station is attributable to NTPC.
- 43. Accordingly, Annual Transmission Charges attributable to the Petitioner out of consolidated tariff for Gadarwara-Warora line, LILO of Wardha-Parli at Warora and portion of Annual Transmission Charges for Warora Pooling station, shall be as follows:

Asset	Annual transmission charges (Rs. crore)	Petitioner's Liability (Rs. crore)	
Gadarwara-Warora line	187.91	187.91	
LILO of Wardha-Parli at Warora	15.951	15.95	
Warora Pooling station (60%)	74.297	44.58	
Total	278.16	248.44	

44. We direct that the liability of the Petitioner shall be determined based on above-said apportionment of transmission charges of Rs 248.44 crore depending on period of delay and commercial operation of units of Gadarwara STPS. These charges have been calculated based on Annual Transmission Charges for the first year as per tariff adopted by the Commission vide Order dated 23.6.2015 in Petition No. 125/ADP/2015. It is clarified that this assessment of payment of transmission charges of Rs. 248.44 crore per year is tentative and is subject to actual calculation by CTU based on Annual Transmission Charges for corresponding year as applicable. Also the Annual Transmission Charges of Gadarwara-Jabalpur 765 KV

D/C lines, which is not the subject matter of this petition, is also payable by NTPC for the period of delay.

- 44. Accordingly, we direct that PGCIL/CTU shall raise revised bills within 2 months of issue of this order.
- 45. The Petitioner has prayed for setting aside of the bills dated 13.08.2018 onwards raised on it by PGCIL/CTU and PWTL. The Petitioner has also prayed for refund of the excess amount, with applicable interest. We note that the Petitioner has stated that it is paying the transmission charges under protest for the assets which are not for dedicated use of Gadarwara STPS. We also note that the Petitioner has raised the dispute right from the time the bills were raised on it in the year 2018. We direct that CTU shall calculate the excess transmission charges, if any, paid by the Petitioner to be refunded at the time of raising the revised bills. Such refund, if any, along with interest at the rate of 9% per annum shall be adjusted from the ISTS Transmission Charges pool.
- 46. Petition No. 93/MP/2019 is disposed of in terms of above.

sd/(I.S.Jha) (P.K.Pujari)
Member Chairperson