

**BEFORE THE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI**

PETITION NO.____/MP/2021

IN THE MATTER OF:

Central Transmission Utility of India Limited ... Petitioner

Versus

Chenab Valley Power Projects Pvt. Ltd.& Ors. ... Respondents

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Filed by
CENTRAL TRANSMISSION UTILITY OF INDIA LTD.



Represented by
Chief General Manager (CTUIL)

Place : Gurugram
Date: 18.06.2021

**BEFORE THE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI**

PETITION NO.____/MP/2021

IN THE MATTER OF:

Central Transmission Utility of India Ltd.,
Through its General Manager,
“Saudamini”, Plot No.2,
Sector-29, Gurgaon (Haryana) - 122001.

... Petitioner

Versus

1. Chenab Valley Power Projects Pvt. Ltd.,
Chenab Jal Shakti Bhawan,
Opposite Saraswati Dham,
Rail Head Complex, Jammu - 180012,
Jammu & Kashmir,
Represented through its Managing Director.
2. Delhi Transco Ltd.,
Shakti Sadan, Kotla Road,
New Delhi -110002,
Represented through its Chairman.
3. BSES Yamuna Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi - 110019.
Represented through its Chief Executive Officer.
4. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi - 110019,
Represented through its Chief Executive Officer.
5. North Delhi Power Ltd.,
Power Trading & Load Dispatch Group,
Cennet Building, Adjacent To 66/11kV Pitampura-3,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi - 110034,
Represented through its Chief Executive Officer.

6. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
Vidyut Bhawan, Vidyut Marg,
Jaipur - 302005 (Rajasthan),
Represented through its Chairman.
7. Ajmer Vidyut Vitran Nigam Ltd.,
400kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur - 302024 (Rajasthan),
Represented through its Managing Director.
8. Jaipur Vidyut Vitran Nigam Ltd.,
400kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur - 302024 (Rajasthan),
Represented through its Managing Director.
9. Jodhpur Vidyut Vitran Nigam Ltd.,
400kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur - 302024 (Rajasthan),
Represented through its Managing Director.
10. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II
Shimla-171004 (Himachal Pradesh),
Represented through its Chairman.
11. Punjab State Power Corporation Ltd.,
(Formerly Punjab State Electricity Board),
Thermal Shed II, Near 22 Phatak,
Patiala-147001 (Punjab),
Represented through its Chief Engineer.
12. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula - 134109 (Haryana),
Represented through its Superintending Engineer (C & R-1).

13. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu -180001 (Jammu & Kashmir),
Represented through its Commissioner.
14. Uttar Pradesh Power Corporation Ltd.,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226001 (Uttar Pradesh),
Represented through its Chairman.
15. Chandigarh Administration,
Sector -9, Chandigarh - 160009,
Represented through its Chief Engineer.
16. Uttarakhand Power Corporation Ltd.,
Urja Bhawan, Kanwali Road,
Dehradun-248001 (Uttarakhand),
Represented through its Managing Director.
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002,
Represented through its Chairman. ...Respondents

PETITION UNDER SECTION 38(2) READ WITH SECTION 79(1)(C) AND SECTION 79(1)(K) OF THE ELECTRICITY ACT, 2003 AND REGULATIONS 3 AND 4 OF THE CENTRAL ELECTRICITY REGULATORY COMMISSION (GRANT OF REGULATORY APPROVAL FOR EXECUTION OF INTER-STATE TRANSMISSION SCHEME TO CENTRAL TRANSMISSION UTILITY) REGULATIONS, 2010, REGULATION 111 AND 114 OF THE CENTRAL ELECTRICITY REGULATORY COMMISSION (CONDUCT OF BUSINESS) REGULATIONS, 1999 AND THE CENTRAL ELECTRICITY REGULATORY COMMISSION (SHARING OF TRANSMISSION CHARGES AND LOSSES FOR INTER-STATE TRANSMISSION SYSTEM) REGULATIONS, 2020 FOR GRANT OF REGULATORY APPROVAL FOR EXECUTION OF TRANSMISSION SYSTEM FOR

**EVACUATION OF POWER FROM PAKALDUL HYDRO
ELELECTRIC POWER PROJECT IN CHENAB VALLEY IN
THE STATE OF JAMMU & KASHMIR.**

MOST RESPECTFULLY SHOWETH:

1. That the Petitioner is a Government of India undertaking within the meaning of Section 2(45) of the Companies Act, 2013 and has been notified as the Central Transmission Utility (CTU) under Section 38(2) of the Electricity Act, 2003 (hereinafter, "the 2003 Act"). The Petitioner-CTU has been vested with the function, inter alia, of planning and coordination in relation to inter-State transmission system (ISTS) in consultation with State Transmission Utilities, Central/State Governments, generating companies, Regional Power Committees, Central Electricity Authority, licensees and any other person that the Central Government may notify in that behalf for development of efficient, coordinated and economical system of transmission lines for smooth flow of electricity from the generating stations to load centers. The said function is performed by the Petitioner in accordance with the applicable Regulations of this Hon'ble Commission.

2. That by way of the present Petition, the Petitioner is seeking grant of regulatory approval from this Hon'ble Commission for implementation and development of "Transmission System for evacuation of power from Pakaldul HEP (1000 MW) in Chenab Valley" [hereinafter, "the subject transmission scheme"] for evacuation of power from the Pakaldul Hydro Electric Project [hereinafter, the "Pakaldul HEP"] being set up by Respondent No.1 in the State of Jammu & Kashmir, now Union Territory of Jammu & Kashmir [hereinafter, "J&K"]. The said approval is being sought under the Central Electricity Regulatory Commission (Grant of Regulatory Approval for execution of Inter-State Transmission Scheme To Central Transmission Utility) Regulations, 2010 [hereinafter, "the Regulatory Approval Regulations"]. It may be mentioned here that Respondent No.1 is also implementing two other major HEPs at Kiru (624 MW) and Kwar (540 MW) in J&K. The identified transmission system under the subject transmission scheme is detailed in **Annexure "P-1"** hereto.
3. That the Petitioner had separately received applications from Respondent No.1 for connectivity and long-term access (LTA) in ISTS for 1000 MW from the Pakaldul HEP on target region

basis (to the Northern Region) through injection at Kishtwar pooling station (proposed under ISTS).). The Connectivity application for 1000MW was deliberated in the 17th Meeting of Northern Region constituents for connectivity and LTA applications held on 26.11.2018 and the subsequent LTA application of 1000MW was deliberated in the 24th Meeting of Northern Region constituents for connectivity and LTA applications held on 26.6.2019, [Relevant extracts from the Minutes of 17th and 24th Meeting of NR Constituents respectively dated 26.11.2018 and 26.06.2019 are annexed hereto and marked as **Annexure “P-2 Colly.”**] wherein, it was deliberated that earlier, for catering to power evacuation requirement from Pakaldul, Kiru(660MW), Kavar(560MW), Kirthai-I(350MW) and Kirthai-II (990MW) HEPs in J&K and other hydro generations (about 1500 MW) in Himachal Pradesh, two high-capacity corridors through 400kV Triple HTLS and Quad HTLS D/c lines were planned. However, since it was later found that hydro projects in Himachal Pradesh were not likely to materialize and in view of limited space for laying the transmission line corridor in Chenab Valley, it was proposed for Respondent No.1 to lay a dedicated Pakaldul HEP-Kishtwar line which could be extended to Kavar and Kiru

HEPs in phases; suitable provisions in the dedicated line could be made so that power from Kirthai HEP could also be evacuated through the Pakaldul HEP - Kishtwar line which was to require 400 kV line with quad HTLS conductors instead of triple HTLS conductor, which was planned earlier. Accordingly, it was agreed to grant LTA to Respondent No.1 for 1000 MW from Kishtwar pooling station to Northern Region (target) from 1.2.2024 with the following transmission system:

Transmission System for LTA:

- a) Kishtwar - Kishenpur 400kV S/c (Quad) line (by utilizing towers of Kishenpur - Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) - under the scope of ISTS

Transmission system for Connectivity:

(Under the scope of Respondent No.1)

- a) 400 kV D/c (Quad HTLS Conductor) line from Pakaldul HEP-Kishtwar (GIS) pooling station along with associated bays at both ends.
- b) GIS switchyard equipment and XLPE cables and other associated equipment to be designed for carrying 4000 Amps current.
- c) 420 kV, 125 MVAR Bus Reactor at Pakaldul HEP.

- d) One and half breaker switching scheme for 400 kV
Generation switchyard.

(Under the scope of ISTS to be implemented through a transmission licensee)

- a) Establishment of 400 kV GIS pooling station at Kishtwar
by LILO one circuit of Kishenpur - Dulhasti 400kV D/c
(Quad) line (Single Circuit Strung).
- b) 420 kV, 125 MVAR Bus Reactor at Kishtwar (GIS)
pooling station

Subsequently Respondent No.1 informed that it was facing some difficulties in implementation of Pakaldul HEP-Kishtwar line with quad HTLS conductor and requested to plan a separate corridor for evacuation of power from Kirthai I and Kirthai II projects in J&K and for evacuation of power from Pakaldul, Kiru and Kwar HEPs, the dedicated line to Kishtwar could be implemented with triple HTLS conductor. After deliberations with the Central Electricity Authority (CEA) on 26.9.2019, it was agreed in-principle that Respondent No.1 would implement the Kiru - Kwar - Pakaldul to Kishtwar 400 kV D/c line with triple HTLS conductor instead of quad HTLS conductor and possibility of a 2nd corridor in the Chenab valley

for evacuation of power from Kirtahi HEPs would be discussed separately.

4. That thereafter, the above said comprehensive system was deliberated in the 1st Meeting of Northern Region Power Committee-Transmission Planning [NRPC(TP)] held on 24.1.2020 wherein the following transmission system for connectivity was agreed to be implemented in the following manner:

Under the scope of Respondent No.1:

- a) Implementation of Kiru-Kwar- Pakaldul-Kishtwar 400 kV D/C Triple HTLS connectivity line
- b) One and a half breaker switching scheme at 400kV generation switchyard.
- c) 2 nos GIS bays at each end of Kishtwar and Pakaldul
- d) 420 kV, 125 MVAR Bus Reactor at Pakaldul

Under the scope of ISTS:

- a) Establishment of 400 kV switching station at Kishtwar (GIS) by LILO one circuit of Kishenpur-Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)

- b) 420 kV, 125 MVAR Bus Reactor at Kishtwar switching station

The scope of works under ISTS in the above scheme were thereafter deliberated in the 3rd Meeting of National Committee of Transmission (NCT) held on 26.5.2020 and 28.5.2020 wherein the following system was agreed to be implemented as ISTS under the 'Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs':

- a) Establishment of 400 kV switching station at Kishtwar (GIS) by LILO one circuit of Kishenpur - Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) along with 420kV 125 MVAR Bus Reactor at Kishtwar Switching Station– connectivity system
- b) 2nd circuit of Kishenpur - Dulhasti 400kV D/c (Quad) line – LTA system

The scheme was again deliberated in the 48th Meeting of Northern Region Power Committee held on 2.9.2020 and was accordingly approved. A copy of the relevant extracts of the Minutes of 1st Meeting of Northern Region Power Committee-Transmission Planning held on 24.1.2020 is annexed hereto and marked as **Annexure "P-3"**. A copy of the relevant

extracts of the Minutes of 3rd Meeting of National Committee of Transmission held on 26.5.2020 and 28.5.2020 is annexed hereto and marked as **Annexure “P-4”**. A copy of relevant extracts of the Minutes of 48th Meeting of Northern Region Power Committee held on 2.9.2020 is annexed hereto and marked as **Annexure “P-5”**.

5. That in the 2nd Meeting of NRPC (TP) held on 1.9.2020, the Jammu & Kashmir Power Department requested for implementation of 315 MVA, 400/132kV transformer along with 132kV line bays at Kishtwar pooling station under ISTS to provide reliable power to the area. After deliberations, the following additional system strengthening scheme was agreed to be implemented matching with the time frame of Kishtwar switching station:

- a) 2x200 MVA, 400/132 kV transformer at Kishtwar pooling station along with 4 no. of 132 kV line bays

A copy of relevant extracts of the Minutes of the 2nd Meeting of Northern Region Power Committee (Transmission Planning) held on 1.9.2020 is annexed hereto and marked as **Annexure “P-6”**.

6. That pursuant to the approval granted for implementation of the subject transmission scheme by the NCT in its 3rd Meeting held on 26.5.2020, the Government of India, Ministry of Power vide its Gazette Notification dated 25.9.2020 and Office Memorandum dated 25.9.2020 directed the subject transmission system to be implemented in the following manner:
- a) Connectivity system under the scope of ISTS being establishment of 400 kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus reactor by LILO of one circuit of Kishenpur - Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) & associated 400kV line bays (3 nos) were decided to be implemented under the TBCB route in accordance with the Guidelines issued by the Central Government in that behalf under Section 63 of the 2003 Act;
 - b) LTA system under the scope of ISTS being 2nd circuit of Kishenpur - Dulhasti 400kV D/c (Quad) line (stringing of Kishtwar-Kishenpur Section) and 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur

section to be implemented by Power Grid Corporation of India Limited under the Regulated Tariff Mechanism (RTM) route.

Vide the above said Gazette Notification dated 25.9.2020, the Government of India, Ministry of Power also appointed M/s PFC Consulting Ltd. as the Bid Process Coordinator (BPC) for establishment of the above system. In furtherance thereto, M/s PFC Consulting Ltd. has issued a Request for Proposal (RfP) on 4.2.2021 inviting prospective bidders to participate in the process for selection of Transmission Service Provider (TSP) on the basis of international competitive bidding in accordance with the “Tariff Based Competitive Bidding Guidelines for Transmission Service” and “Guidelines for Encouraging Competition in Development of Transmission Projects” issued by Government of India, Ministry of Power under Section 63 of the 2003 Act. Copies of Gazette Notification dated 25.9.2020 and Office Memorandum dated 25.9.2020 issued by Government of India, Ministry of Power are annexed hereto and marked as **Annexure “P-7(Colly)”**. A copy of the relevant extracts of the Request for Proposal dated 4.2.2021 issued by

the Bid Process Coordinator is annexed hereto and marked as **Annexure “P-8”**.

7. That it may be mentioned here that the "National Committee on Transmission" (NCT) in its 4th Meeting held on 20.1.2020 and 28.01.2020 has approved the additional scheme being *“2x200 MVA, 400/132 kV transformer at Kishtwar pooling station along with 4 no. of 132 kV line(GIS) bays”* to be implemented as an ISTS scheme which has been agreed to be implemented as system strengthening scheme to provide reliable power and only for purpose of implementation, the above scheme has been agreed to be combined with subject transmission scheme, approval whereof is being sought by the Petitioner in the present petition. Further, this scheme is yet to be approved by MOP. However, the Petitioner craves leave to approach this Hon'ble Commission for the regulatory approval of the said ISTS scheme by filing a separate Petition. A copy of relevant extracts of Minutes of Meeting of the 4th meeting of the National Committee on Transmission held on 20.1.2020 is annexed hereto and marked as **Annexure “P-9”**.

8. That the Petitioner further submits that during the planning and implementation of the subject transmission scheme, it was observed that since the proposed location of the Kishtwar switching station was above Ratle location and towards Dulhasti, portion of Dulhasti - Ratle LILLO tap point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor, was required to be reconductored with quad moose conductor. This reconductoring of approx. 13 km section (LILLO tap point of Dulhasti - Kishenpur 400 kV line) was required to cater to power transfer requirement from Pakaldul, Kiru and Kwar HEPs including LTA of Pakaldul (1000 MW) HEP. The above proposal was placed before the NRPC (TP) in its 3rd Meeting held on 19.2.2021 as under:

8.3 For connectivity of Pakaldul HEP (1000 MW), LILLO of one circuit of Dulhasti – Kishenpur 400 kV line (quad) has been agreed at Kishtwar Pooling station. However, as location of proposed Kishtwar S/s is above Ratle location and towards Dulhasti, portion of Dulhasti-Ratle LILLO tap Point of Dulhasti (TW loc 10 indicated at Fig-1) - Kishenpur 400 kV line (TW loc 49-indicated at Fig-1) (approx. 13 kms) implemented through twin moose conductor, needs to be reconductored with Quad moose conductor. This reconductoring of approx. 13 km section (LILLO tap Point of Dulhasti - Kishenpur 400 kV line) would be needed to cater to power transfer requirement

from hydro projects (Pakaldul, Kiru & Kwar) including LT A of Pakaldul (1000 MW) HEP.....

8.4 Director (PSPA-1), CEA, further stated that during 2nd meeting of NRPC (TP) held on 01.09.2020, transmission System was agreed for transfer of 1000 MW power from Pakaldul HEP to NR on target region. However, due to unavailability of spare bay as well as space for new diameter in 400 kV switchyard for Kishenpur substation, POWERGRID has proposed to terminate 400kV Kishtwar-Kishenpur 400kV S/c (Quad) line (second ckt) [LTA system of Pakaldul HEP] in bus reactor bay (125 MVAR), for which bus reactor will be converted to switchable line reactor, at Kishenpur S/s.”

After due deliberations, implementation of the following elements was agreed as system strengthening scheme (in the context of reliable power transfer requirement of the hydro projects):

- a) Reconductoring of Dulhasti - Ratle LILO tap point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor with quad moose conductor in matching time frame of Pakaldul HEP generation;

It is submitted that implementation of the above system strengthening is yet to be approved by the NRPC in its ensuing Meeting which is to be scheduled in due course. However, Petitioner vide its letter dated 19.5.2021, has requested NRPC to give its necessary recommendations on the above additional element in the scheme. It is submitted that the above element is merely 2.5% of the total transmission system cost for which the present regulatory approval is being sought from this Hon'ble Commission. A copy of relevant extracts of Minutes of 3rd Meeting of Northern Region Power Committee (Transmission Planning) held on 19.2.2021 is annexed hereto and marked as **Annexure "P-10"**. A copy of letter dated 19.5.2021 of the Petitioner to the Northern Region Power Committee is annexed hereto and marked as **Annexure "P-11"**.

9. That it may be mentioned here that the Petitioner as the notified CTU is statutorily enjoined to plan and develop ISTS system in co-ordination with the entities/bodies mentioned in Section 38(2)(b) of the 2003 Act. The subject transmission system has accordingly been placed before, deliberated and approved by the Northern Region Power Committee, the National

Committee on Transmission, the Central Electricity Authority as well as the Government of India, Ministry of Power which has granted permission to undertake the process of competitive bidding for the elements to be implemented under the TBCB route. It is therefore respectfully submitted that implementation of the “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs” stands approved by entities/bodies mentioned in Section 38(2)(b) of the 2003 Act as well as the Government of India, Ministry of Power, except by the NRPC to the extent set out in para 7 above and for which the Petitioner has already requested vide letter 19.5.2021 for NRPC to give its recommendations. The Petitioner is now seeking the grant of regulatory approval by this Hon’ble Commission in terms of the Regulatory Approval Regulations for implementation of the ‘Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley’ comprising of the following:

Connectivity Transmission system under ISTS [to be implemented through TBCB route]:

1. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (LILO length : approx. 10 Km) (Single Circuit Strung)
2. 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station
3. 2 nos. of 400 kV bays at Kishtwar (GIS) to terminate LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line

4. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section

[Location of Kishtwar pooling station (GIS) is yet to be finalized. Line length is tentative.]

Future Scope: Space Provision at Kishtwar switching station:

- a) 765/400 kV ICT along with bays – 3 nos.
- b) 400/220/132 kV ICT along with bays – 3 nos.
- c) 765 kV line bays along with switchable line reactor- 6 nos.
- d) 400 kV Line bays – 8 nos.
- e) 220/132 kV line bays – 6 nos.
- f) 765kV Bus Reactor along with bay– 1 no.
- g) 400kV Bus Reactor along with bay– 1 no.

LTA Transmission System under ISTS [to be implemented through RTM route by POWERGRID]:

- a) Stringing of Second(2nd) circuit of Kishenpur - Dulhasti 400kV D/c (Quad) line (Kishtwar - Kishenpur Section) (approx 130km)
- b) 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section.

****Reconductoring of approx. 13 km Section (Dulhasti-Ratle LILLO tap Point of Dulhasti - Kishenpur 400 kV line) with Quad Moose conductor.**

(NOTE: The modality of implementation of the above asset including its mode of implementation (viz. RTM or TBCB) and/or implementing agency are yet to be decided by Government of India, Ministry of Power)

The above transmission system is to be implemented in matching timeframe of Pakaldul HEP, which was originally expected by February, 2024. However, subsequently, in the 17th Joint Coordination Committee meeting of Northern Region held on 26.3.2021, Respondent No.1 has revised the schedule of implementation of Pakaldul HEP progressively from April, 2025. Accordingly, the transmission system is also to be matched for the revised generation project schedule i.e. April, 2025. Further, the implementation of the LTA transmission system under ISTS [to be implemented under RTM route] is also to be matched with the connectivity transmission system under ISTS [to be implemented under TBCB route] for which the Request for Proposal has already been issued and currently bids are being invited by M/s PFC Consulting Ltd. as the bid process co-ordinator. A copy of schematic and line diagram of the 'Transmission System for evacuation of power

from Pakaldul HEP (1000 MW) in Chenab Valley is annexed hereto and marked as **Annexure “P-12(Colly)”**. A copy of inputs submitted by Respondent No.1 during 17th Joint Coordination Committee Meeting of Northern Region held on 26.3.2021 is annexed hereto and marked as **Annexure “P-13”**.

10. That it is submitted that in compliance of Regulation 4 of the Regulatory Approval Regulations, the Petitioner is also placing on record before this Hon’ble Commission as **Annexure “P-14(Colly)”**, the Project Inception Report outlining the scope and objective of the subject transmission scheme and its conformity with the applicable evaluation criteria, together with the estimated cost, cost-benefit analysis and time frame of implementation and study assumptions. The annual transmission charges for the subject scheme at an estimated cost of about Rs 384 Cr. would be about Rs.65 Cr.
11. That Regulation 4 also mandates that the scheme for which a regulatory approval is being sought for by the Petitioner should be planned in co-ordination with the entities/bodies mentioned

in Section 38(2)(b) of the 2003 Act. It is submitted that in compliance thereof, the scheme has been finalized in consultation with Central Electricity Authority, various State utilities in the Northern Region as well as Respondent No.1. As stated above, the system has been agreed and approved in:

- a) 1st Meeting of Northern Region Power Committee (Transmission Planning) held on 24.1.2020;
- b) 3rd Meeting of National Committee on Transmission held on 26.5.2020 and 28.5.2020;
- c) 2nd meeting of Northern Region Power Committee (Transmission Planning) held on 1.9.2020; and
- d) 48th Meeting of Northern Region Power Committee held on 2.9.2020.
- e)

However, one element of above scheme i.e. reconductoring of a portion of Dulhasti - Kishenpur 400 kV S/c line which has been recently approved in 3rd Meeting of NRPC(TP) held on 19.2.2021 is yet to be taken up for approval in ensuing NRPC meeting which is to be scheduled in the due course. However, vide its letter dated 19.5.2021, the Petitioner has already requested NRPC to give its recommendations on the above

additional element in the scheme. Pursuant to the above approval by NRPC, the same would be placed before the Government of India, Ministry of Power for finalization of its implementation modality i.e. through TBCB or RTM routes. It is submitted that since the above element is merely 2.5 % of the total transmission system cost, regulatory approval whereof is being sought by the Petitioner, it is requested the Petitioner may be granted the requisite approval pending final approval by NRPC for the above element.

12. That it is further submitted that as per clause 8(3) of CERC (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018, details of the scheme, justification, estimated cost and its tariff impact, results of the system studies, study assumptions, stakeholder consultation/approval details etc. have been uploaded on the website of the Petitioner on 12.3.2021 for obtaining necessary comments of stakeholders (generators, STUs, RLDCs, SLDC and distribution licensees) in compliance with Regulation 4(7) of the Regulatory Approval Regulations

inviting suggestions/ observations by 26.4.2021. However, no observations/ comments have been received in this regard.

13. That the Petitioner further respectfully submits that in compliance of Regulation 9.1 of the Central Electricity Regulatory Commission (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018,
 - (i) the recommendations on the subject scheme by the concerned Regional Power Committee have been duly obtained and relevant extract of Minutes of Meetings thereof are annexed with the present Petition at Annexure “P-3”, “P-5” and “P-6”;
 - (ii) The Results of the System Studies carried out by the Petitioner and Assumptions and Inputs considered in such system studies are part of the Project Inception Report annexed at Annexure P-14 (Colly); and
 - (iii) as stated above, full details of the scheme have been uploaded on the website of the Petitioner (<https://webapps.powergrid.in/ctu/docs/files/Transmission%20system%20for%20evacuation%20of%20power%20from%20NTPS%20to%20CTU>);

20from%20Pakaldul%20HEP(1000%20MW)%20in%20Chenab%20Valley.pdf) on 12.3.2021 seeking comments of stakeholders on or before 26.04.2021, however, no observations/ comments have been received in this regard. The webpage on which the scheme details were posted could be accessed at <https://webapps.powergrid.in/ctu/u/default.aspx>. This was also undertaken in compliance of Regulation 8 of the CERC (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018.

14. That in view of the above, the Petitioner respectfully prays that this Hon'ble Commission may be pleased to grant regulatory approval for implementation of the "Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs" in terms of Regulation 6(1)(a) of the Regulatory Approval Regulations.

PRAYER

In view of the aforesaid, it is respectfully prayed that the Hon'ble Commission may be pleased to:

- a) grant regulatory approval for taking up implementation of identified transmission systems in **Annexure “P-1”**;
- b) grant approval for recovery of transmission charges of the assets through Central Electricity Regulatory Commission (Sharing of Transmission charges and losses for ISTS) Regulations, 2020 or any other sharing mechanism notified by this Hon'ble Commission from time to time;
- c) pass such other relief as the Hon'ble Commission deems fit and appropriate under the circumstances of the case.

**Filed by
CENTRAL TRANSMISSION UTILITY OF INDIA LTD.**



**Represented by
Chief General Manager (CTUIL)**

**Gurgaon
Date: 18.06.2021**

**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION, NEW
DELHI**

PETITION NO.____/MP/2021

IN THE MATTER OF:

Central Transmission Utility of India Limited ... Petitioner

Versus

Chenab Valley Power Projects Pvt. Ltd.& Ors. ... Respondents

AFFIDAVIT

I, Atul Kumar Agarwal, S/o Shri Om Shankar Agarwal, aged about 56 years, working as Chief General Manager (CTUIL) in the Central Transmission Utility of India Ltd. a 100% wholly owned subsidiary of Power Grid Corporation of India Ltd., having its registered Office at 'Saudamini', Plot No. 2, Sector 29, Gurugram, Haryana 122001, do hereby solemnly affirm and state as under:

1. That I am the Chief General Manager (CTUIL) in the Petitioner Company – Central Transmission Utility of India Ltd. and I am authorized to swear the present Affidavit.
2. That the statements made in the petition affidavit herein are based on the Petitioner Company's official record maintained in the ordinary course of business and I believe that they are true and correct and that nothing material has been concealed therefrom.
3. That the documents attached are legible true copies of their respective originals.



DEPONENT

VERIFICATION:

I, the deponent above-named, do hereby verify the contents of the above affidavit to be true to the best of my knowledge, no part of it is false and nothing material has been concealed therefrom. Verified at on this 18th day of June, 2021.



DEPONENT

Transmission System for evacuation of power from Pakaldul Hydro Electric Power Plant (1000MW) in Chenab Valley

Proposed transmission system includes following elements:

1. Establishment of 400 kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)
2. LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line at Kishtwar Switching Station (LILO length :approx 10 Km)
3. Second(2nd) circuit(stringing) of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) (approx. 130km)
4. 2 nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line
5. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section
6. 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section
7. Reconductoring of approx. 13 km Section (LILO tap Point of Dulhasti - Kishenpur 400 kV line) with Quad Moose conductor

Location of Kishtwar pooling station (GIS) is yet to be finalized. Line length is tentative.

Future Scope : Provision at Kishtwar switching substation

765/400 kV ICT along with bays – 3 nos.
 400/220/132 kV ICT along with bays – 3 nos.
 765 kV line bays along with switchable line reactor- 6 nos.
 400 kV Line bays – 8 nos.
 220/132 kV line bays – 6 nos.
 765kV Bus Reactor along with bay– 1 no.
 400kV Bus Reactor along with bay– 1 no.

Note: Further following connectivity transmission system is to be implementation by CVPPL.

1. Implementation of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C (Triple HTLS) connectivity line to be implemented by M/s CVPPL. M/s CVPPL to phase the implementation of the connectivity line as per the implementation timelines of the three HEPs i.e. Kiru, Kwar & Pakaldul
2. 2 nos. GIS bays at each end of Kishtwar and Pakaldul
3. 420 kV, 1x125 MVAR Bus Reactor at Pakaldul HEP

However, for implementation of ISTS transmission System, scheme is further segregated in connectivity and LTA system as under:

Connectivity Transmission system under ISTS

1. Establishment of 400 kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)

Future Scope: Provision at Kishtwar switching substation

765/400 kV ICT along with bays – 3 nos
 400/220/132 kV ICT along with bays – 3 nos
 765 kV line bays along with switchable line reactor- 6 nos
 400 kV Line bays – 8 nos
 220/132 kV line bays – 6 nos
 765kV Bus Reactor along with bay– 1 no
 400kV Bus Reactor along with bay– 1 no

2. LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (LILO length : approx 10 Km)
3. 2 nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line
4. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section

LTA Transmission System under ISTS

1. Second(2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) (approx 130km)
2. 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section

**Reconductoring of approx. 13 km Section (LILO tap Point of Dulhasti - Kishenpur 400 kV line) with Quad Moose conductor*

Annex-P2
पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
 (भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
 (A Government of India Enterprise)



केन्द्रीय कार्यालय: "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुडगाँव-122 001, (हरियाणा) दूरभाष: 0124-2571700-719, फैक्स : 0124-2571762,
 "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, (Haryana) Tel. : 0124-2571700-719, Fax : 0124-2571762, Web.: www.powergridindia.com

CIN : L40101DL1989GOI038121

Ref: C/CTU/N/07/24th

19/07/2019

As per Distribution List

Sub: 24th Meeting of Northern Region Constituents regarding LTA and Connectivity applications in Northern Region – Minutes of meeting

Dear Sir,

Please find enclosed the minutes of the 24th meeting of Northern Region Constituents regarding LTA and Connectivity applications in Northern region held on 26/06/2019 at POWERGRID Corporate Centre, Gurugram.

The minutes are also available at our website (www.powergridindia.com >> CTU Open Access).

Thanking you,

Yours faithfully,

Ashok Pal.
(Ashok Pal)
CGM (CTU-Planning)

Encl : Minutes of Meeting

Distribution List: Northern Region

Chief Engineer (PSP&A – I) Central Electricity Authority Sewa Bhawan, R.K.Puram, New Delhi-110 066	Member Secretary Northern Regional Power Committee 18A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi – 110 016
Director (Power System) Solar Energy Corporation of India Ltd. D-3, 1 st Floor, A wing, Religare Building, District Centre, Saket, New Delhi-110017	Director Ministry of New and Renewable Energy, Block 14, CGO Complex, Lodhi Road, New Delhi-110003
Director (SO) Power System Operation Corporation Ltd. 9 th Floor, IFCI Towers, 61, Nehru Place, New Delhi-110 016	Executive Director Northern Regional Load Despatch Centre 18-A, Qutab Institutional Area, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi– 110 016
Director (Technical) HP Power Transmission Corporation Ltd. Barowalias, Khalini, Shimla-171002	Director(W&P) UP Power Transmission Company Ltd. Shakti Bhawan Extn, 3rd floor, 14, Ashok Marg, Lucknow-226 001
Director(Technical) Punjab State Transmission Corporation Ltd. Head Office, The Mall, Patiala 147001, Punjab	Director (Projects) Power Transmission Corporation of Uttarakhand Ltd. Vidyut Bhawan, Near ISBT Crossing, Saharanpur Road, Majra, Dehradun.
Development Commissioner (Power) Power Development Department Grid Substation Complex, Janipur, Jammu	Director (Technical) Rajasthan Rajya Vidyut Prasaran Nigam Ltd. Vidyut Bhawan, Jaipur, Rajasthan-302005.
Member(Power) Bhakra Beas Management Board Sector-19 B, Madhya Marg, Chandigarh - 160019	Chief Engineer (Operation) Ministry of Power Electricity (OP) Circle, 5 th Floor, UT Secretariat, Sector-9 D, Chandigarh - 161009
Director (Operations) Delhi Transco Ltd. Shakti Sadan, Kotla Road, New Delhi-110 002	Director (Technical) Haryana Vidyut Prasaran Nigam Ltd. Shakti Bhawan, Sector-6, Panchkula-134109, Haryana

Distribution List: Connectivity/Long-term Access Applicants

<p>Shri Angshuman Rudra Sr. Manager Avaada Energy Pvt. Ltd. C-11, Sector 65, Noida - 201307 Uttar Pradesh Ph : 7835004673, 8826099003 Email: angshuman.rudra@avaada.com deepesh.gupta@avaada.com</p>	<p>Shri Pratul Gupta Dy. General Manager Taranda Hydro Power Private Limited 2744, Second Floor, Sector 46, Gurgaon Ph : 9910408668, 9959099955 Email: tarandapower@gmail.com plnarayana@asthagreen.com</p>
<p>Shri Amrik Singh General Manager Chenab Valley Power Projects [P] Limited Chenab Jal Shakti Bhawan Opposite Saraswati Dham, Railhead Complex Jammu Ph : 9560455326, 9650193202 Email: amriksinghnhpc101@gmail.com pbjain1961@gmail.com</p>	<p>Shri Vivek Kodesia Eden Renewable Cite Private Limited Head Business Development 236 B & C, First Floor, DLF South Court, Saket, Delhi-110017 Ph : 9836039752, 9958982823 Email: edenrenewablesindia1lp@gmail.com eden-bid@eden-re.com</p>
<p>Shri Rajesh Kumar Gupta DGM Mahoba Solar (UP) Private Limited 4th Floor South Wing, Adani House, Shantigram SG Highway, Ahmedabad - 382421 Ph : 9099055681, 9099000618 Email: rajesh.gupta@adani.com dipak.panchal@adani.com</p>	<p>Shri Yogesh Kumar Sanklecha DGM - Business Development ACME Solar Holdings Limited Plot No. 152 Sector-44 Gurgaon-122002 Ph : 8744060601, 9662124315 Email: yogesh@acme.in nawneet.choudhary@acme.in</p>
<p>Shri Lakshmanraj Assistant Manager Rayachoty Renewable Private Limited The Futura Tech Park, 8 th Floor, No. 334, Rajiv Gandhi Salai, Sholinganallur, Chennai - 600119 Ph : 7358316465, 7869913518 Email: rakesh.chandra@siemensgamesa.com shukla.ashish@siemensgamesa.com</p>	<p>Shri Backiyaraj Assistant Manager Gangavathi Renewable Private Limited The Futura Tech Park, 8th Floor, No. 334, Rajiv Gandhi Salai, Sholinganallur, Chennai - 600119 Ph : 7358316465, 7869913518 Email: rakesh.chandra@siemensgamesa.com shukla.ashish@siemensgamesa.com</p>

Minutes for 24th meeting of Connectivity/LTA Applications in Northern region

- 1.0** The List of the participants is enclosed at **Annexure-I**.
- 2.0** Chief General Manager (CTU-Plg.), POWERGRID welcomed the participants to the 24th meeting of Northern Region constituents regarding Connectivity/LTA applications in Northern Region on 26th June'19 and after that the agenda was taken up for discussion.
- 3.0** It was informed that the minutes of 23rd meeting of Northern Region constituents regarding Connectivity/Long Term Access applications held on 28/05/2019 at POWERGRID office, Gurugram were issued vide letter no. C/CTU/N/07/23rd dated 24/06/2019. It was requested to forward comments/observations, if any, within a week. Subsequently, no comments have been received from the stakeholders and accordingly minutes of meeting held on 28/05/2019 were confirmed as circulated.
- 4.0 Proposal for grant of connectivity to the applications received from renewable energy sources**

A. Stage-I Connectivity applications

It was informed that two nos. of Stage-I Connectivity applications have been received in the month of May 2019 and after deliberations, Connectivity was agreed to be granted as below:

TABLE 1

Sl. No.	Application No.	Applicant	Location	Date of Application	Connectivity Sought (MW)	Nature of Applicant	Connectivity Point	Dedicated Tr. System
1.	1200002084	Rayachoty Renewable Private Limited	Bikaner, Rajasthan	09/05/2019	300	Generator (Solar)	Bikaner*	Rayachoty Renewable Pvt. Ltd. (Solar Power Project) – Bikaner 220kV S/C line
2.	1200002083	Gangavathi Renewable Private Limited	Bikaner, Rajasthan	09/05/2019	300	Generator (Solar)	Bikaner*	Gangavathi Renewable Pvt. Ltd. (Solar Power Project) – Bikaner 220kV S/C line

* For effecting the Connectivity at Bikaner S/s, 1x500MVA, 400/220kV ICT at Bikaner S/s is required. 765/400kV Bikaner S/s is under implementation which is in advance stage of commissioning.

It was informed that now the online facility for updation of monitoring parameters related to Stage-I Connectivity granted to Renewable Energy projects is available on CTU website at <https://webapps.powergrid.in/ctu/u/static-page.aspx?d=Gr2mcPYg99A=> and accordingly, Stage-I Connectivity grantee(s) are required to update the development of their generation project(s) and associated transmission infrastructure as per format RCON-I-M by 30th day of June and 31st December of each year, in accordance with CERC Regulations/Detailed Procedure.

Further Stage-I Connectivity grantee is required to secure the Stage-II Connectivity for physical connectivity with the ISTS grid within 24 months. The Stage-I Connectivity grantees who fail to apply for Stage-II Connectivity within 24 months from grant of Stage-I Connectivity shall cease to be Stage-I grantee and their Application fees shall be forfeited.

Further, grant of Stage-I Connectivity shall not entitle an applicant to inter-change any power with the grid unless it obtains LTA/MTOA/STOA for power transfer requirements, in case of LTA, it may require further transmission system strengthening. Therefore, the applicants are advised to apply for Stage-II Connectivity and LTA at the earliest to enable power transfer to its beneficiaries on long term basis.

B. Stage-II Connectivity applications

It was informed that four nos. of Stage-II Connectivity applications have been received during May 2019 for Stage-II Connectivity. Details of the same along with proposed Transmission system is as below:

TABLE 2

Sl. No.	Application No.	Applicant	Location	Date of Application	Quantum of Stage-I Sought/Granted (MW)	Stage-II Connectivity Sought (MW)/date	LOA / Land & Auditor Basis	Proposed location for Grant of Stage-II Connectivity	Proposed Dedicated Tr. System
1.	1200002125	Avaada Energy Private Limited	Bikaner, Rajasthan	29/05/19	600 (1200002030)	350 (30/04/2021)	MSEDCL (Phase-II)	Bikaner	Avaada Sunce Energy Private Limited - Bikaner PS 220kV S/c line(with minimum capacity of 350 MW at nominal voltage)
2.	1200002107	Mahoba Solar (UP) Private Limited	Jodhpur, Rajasthan	14/05/19	300 (1200001370) (St-II 1200001443-200 MW + Enh : 1200001654 - 50 MW)	50 (Addl. St-II enhancement) (01/05/2020)	Land & Auditor Certificate Basis	Bhadla PS	Mahoba Solar Power Plant Switchyard at Rawra-Bhadla 220kV S/c line(with minimum capacity of 300 MW at nominal voltage)
3.	1200002089	ACME Solar Holdings Limited	Jodhpur, Rajasthan	09/05/19	300 (1200002051)	300 (31/07/2020)	NTPC	Bhadla-II PS	ACME Bhadla II Solar Power Plant - Bhadla-II PS 220kV S/c line(with minimum capacity of 300 MW at nominal voltage)

Minutes for 24th meeting of NR for Connectivity & LTA Applications

4.	1200002090	ACME Solar Holdings Limited	Jodhpur, Rajasthan	09/05/19	300 (1200002052)	300 (31/07/2020)	NTPC	Bhadla-II PS	ACME Bhadla III Solar Power Plant - Bhadla-II PS 220kV S/c line(with minimum capacity of 300 MW at nominal voltage)
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For Avaada Energy Private Limited (Sl. No. 1), it was inquired that the applicant name mentioned in the Connectivity application is Avaada Energy Private Limited whereas power project name is mentioned as Avaada Sunce Energy Private Limited, on which Applicant informed that they plan to implement the generation project through Avaada Sunce Energy Private Limited which is 100% owned subsidiary company of Avaada Energy Private Limited and requested to grant the Connectivity to Avaada Sunce Energy Private Limited. It was discussed and agreed that as the application has been made by Avaada Energy Private Limited, therefore, Stage-II Connectivity shall be granted to them for 350 MW from 30th April'21. Applicant agreed for the same.

The applicant requested that as 600 MW Stage-I connectivity has already been granted to them through 400 kV S/c line at Bikaner PS, therefore, Stage-II connectivity for 350 MW may also be granted at 400 kV level instead of 220 kV level as proposed in the agenda. After deliberations, on the applicant's request for grant of connectivity at 400 kV level, the same was agreed. Applicant agreed for implementation of 400 kV line bays at both ends of the line.

Regarding application at Sl. No. 2, it was informed that earlier Stage-II connectivity has been granted for 200 MW to Mahoba Solar (UP) Private Limited through 220 kV S/c line (with minimum capacity of 300 MW at nominal voltage) from Mahoba Solar Power Plant Switchyard to Bhadla Pooling station (PS). Subsequently, 50 MW enhancement in Stage-II connectivity has also been granted to them through the aforesaid line. Now, Mahoba Solar (UP) Private Limited has sought additional enhancement of 50 MW in the Stage-II Connectivity granted to them through 220 kV S/c line (with minimum capacity of 300 MW at nominal voltage) from Mahoba Solar Power Plant Switchyard to Bhadla Pooling station (PS) for which land document has been submitted by Adani Renewable Energy (RJ) Limited.

During the meeting, the applicant informed that their 50% of land rights are with Adani Renewable Energy Limited which is 100 % subsidiary of Mahoba Solar (UP) Private Limited and requested that additional 50 MW enhancement in the connectivity may be granted/transferred in the name of Adani Renewable Energy (RJ) Limited. In this regard, it was explained to the applicant that as

per the Principal Regulations, Transfer of Connectivity or LTA from parent company to its 100% subsidiary and vice versa shall only be allowed one year after achieving commercial operation of Renewable Energy generating station(s).

Accordingly, it was explained that Connectivity shall be granted to the applicant (parent company) only. In view of this, applicant requested that as the Connectivity cannot be transferred, therefore, they want to withdraw their present Connectivity application, which was agreed. However, applicant was requested to confirm the same through formal communication. Subsequently, applicant vide letter dated 29/06/2019 has confirmed withdrawal of their Stage-II Connectivity application. Accordingly, on request of the applicant, their application for additional 50 MW enhancement in Stage-II Connectivity (Application No. 1200002107) is being closed.

For applications at Sl. No. 3 & 4, the applicant, ACME Solar Holdings Limited did not attend the meeting. Therefore, it was deliberated that the same shall be discussed in next LTA/Connectivity meeting of NR. In case applicant fails to attend the next meeting, these applications shall be closed thereafter.

In view of the above deliberations, Stage-II Connectivity grant has been agreed to Avaada Energy Private Limited as mentioned below:

TABLE 3

Sl. No.	Application No.	Applicant	Location	Date of Application	Quantum of Stage-I Sought/Granted (MW)	Stage-II Connectivity Sought (MW)/date	Quantum won / Land & Auditor Basis	Proposed location for Grant of Stage-II Connectivity	Dedicated Tr. System
1.	1200002125	Avaada Energy Private Limited	Bikaner, Rajasthan	29/05/19	600 (1200002030)	350/30 th April'21	MSEDCL (Phase-II)	Bikaner	Avaada Energy Private Limited - Bikaner PS 400 kV S/c line alongwith associated bays at both ends : under scope of applicant

It was informed that considering Right-of-Way constraints near substation for termination of number of 400kV/220 kV dedicated transmission lines, the lines may be implemented through multi-circuit tower near the substation entry for about 2-3 kms stretches. For this, applicants may coordinate among themselves.

Further, Stage-II Connectivity grantees are required to sign the Transmission Agreement within 30 days from the date of intimation of Grant of Stage-II Connectivity and shall furnish the applicable Connectivity Bank Guarantee (Conn-BG). Further, no extension shall be granted on any ground and in case of failure to sign the Agreement and / or to furnish the Conn-BG, Grant of Stage-II Connectivity shall be revoked without any prior notice.

It was also informed that now the online facility for updation of monitoring parameters related to Stage-II Connectivity granted to Renewable Energy projects is available on CTU website at <https://webapps.powergrid.in/ctu/u/static-page.aspx?d=Gr2mcPYg99A=> and accordingly, Stage-II Connectivity grantee(s) are required to update the development of their generation project(s) and associated transmission infrastructure as per format RCON-II-M by the last day of each quarter, in accordance with CERC Regulations/Detailed Procedure. Failure to update progress of the monitoring parameters shall be considered as adverse progress and in such case CTU shall approach the Commission for appropriate directions.

Further, the Stage-II Connectivity grantees shall be required to complete the dedicated transmission line(s) and pooling sub-station(s) within 24 months from the date of intimation of bay allocation at existing or new / under-construction ISTS sub-station. If the grantee fails to complete the dedicated transmission line within the stipulated period, the Conn-BG of the grantee shall be encashed and Stage-II connectivity shall be revoked.

The wind/solar generation project developers shall meet the requirements including LVRT/HVRT as stipulated in CEA Technical Standards for Grid Connectivity, IEGC & other applicable regulations & standards. In addition, progress of the generation project is required to be intimated on quarterly basis.

5.0 Proposal for grant of LTA to the applications received from generator using RE Energy Sources:

It was informed that three nos. of LTA applications, as given below, have been received during May, 2019.

TABLE 4

Sl. No	Application No./Date (Online)	Applicant	Connectivity/ Injection Point	Drawl Point	LTA (MW)/ Start & End Date (Sought)
1.	1200002109 (15/05/19)	Taranda Hydro Power Private Limited (Rala small Hydro Electric Project)	Wangtoo S/s of HPPTCL	Tata Power Delhi Distribution Limited	➤ 1-12 years (from 01.10.2019 to 30.09.2031) - 12.65 MW ➤ 13-19 years & 9 months (from 01.10.2031 to 29.06.2039) - 9.25 MW
2.	1200002119 (21/05/19)	Chenab Valley Power Projects [P] Limited	Kishtwar Pooling Station (proposed)	NR (Target)	1000 MW (Start : 01/02/24 End : 31/01/64)
3.	1200002058 (29/05/19)	Eden Renewable Cite Private Limited	Fatehgarh-II (new) PS, Rajasthan NR	NR-250+50 (Target)	300 MW (Start : 30/10/20 End : 02/12/45)

LTA application at Sl. No.1: It was informed that LTA has been applied by Taranda Hydro Power Private Limited for transfer of 13 MW from Rala Small Hydro Electric Project to Tata Power Delhi Distribution Limited (firm beneficiary) through injection at Wangtoo S/s of HPPTCL. NOC from HPPTCL (injection STU) from 30/06/19 to 29/06/39 and DTL (drawl STU) from 01/08/2019 to 30/06/2039 for the LTA application period was also submitted along with LTA application.

During the meeting, applicant confirmed that HPPTCL has granted Connectivity to Taranda Hydro Power Private Limited at 400/220/66kV Wangtoo S/s of HPPTCL.

CTU informed that in response to the proposed agenda, HPPTCL vide email dated 25.06.2019 has informed that 400/220/66 kV substation at Wangtoo is under implementation by them and shall be commissioned any time between mid of August & end of August, 2019. Applicant informed that Wangtoo Substation of HPPTCL is likely to be delayed from above schedule. In view of this,

applicant requested to defer the time frame of LTA from Aug'19 to Oct'19 and also communicated the same vide letter dated 27/06/2019.

Also applicant informed that as per the agreement with Himachal Pradesh (H.P.), free power @12% for first 12 years and @18% after 12 years is to be provided to H. P. and accordingly requested for LTA of 12.65 MW for first 12 years and 9.25 MW for remaining period. It was deliberated that LTA can be granted as required by the applicant for different quantum, however formal communication is required. Subsequently, applicant vide letter dated 27/06/19 has requested to provide the LTA quantum also as given below:

- 1-12 years (from 01.10.2019 to 30.09.2031) - 12.65 MW
- 13-19 years & 9 months (from 01.10.2031 to 29.06.2039) - 9.25 MW

Further, it was informed that for transfer of LTA quantum (12.65 MW), loading on ISTS system is in order. After deliberations, LTA was agreed to be granted with the revised quantum as mentioned above and start date as 01.10.2019 subject to the commissioning of Transmission system of HPPTCL mentioned below:

Transmission System for LTA

- Existing ISTS system

However, in addition to LTA system, following Transmission system of HPPTCL shall also be required for effecting LTA:

Transmission system for Connectivity:

Connectivity Point: 400/220/66kV Wangtoo S/s of HPPTC being established through LILO of Karcham Wangtoo – Abdullapur/Kala Amb 400kV D/c (Quad) line (one circuit via Sorang HEP).

Note: As applicant has been granted connectivity by HPPTCL, therefore, it was informed during the meeting that applicant/HPPTCL may update about completion of Wangtoo substation of HPPTCL to CTU for effectiveness of the LTA.

LTA application at SI. No.2: It was informed that LTA has been applied by Chenab Valley Power Projects [P] Limited for transfer of 1000 MW from Pakaldul HEP to NR (target region) through injection at Kishtwar Pooling Station (proposed under ISTS) for a period of about 40 years.

Regarding status of generation project, representative of Pakaldul HEP (1000MW) informed that GoI approval is available for the project and tendering for major works has already been done. They are in the process of finalising power allocation. Applicant informed that two more projects namely Kavar (520MW) and Kiru (600MW) HEPs are also planned to be developed by them in the vicinity of Pakaldul HEP. GoI approval for Kiru (600MW) project is available and tendering activities are at advanced stage. However, GoI approval for Kavar project is in process.

During the meeting, it was deliberated that earlier, to cater to power evacuation requirement from Pakaldul, Kiru, Kavar, Kithai-I & II HEPs in J&K and other hydro generations (about 1500 MW) in Himachal Pradesh, two high capacity corridors through Triple HTLS & Quad HTLS D/c lines were planned. However, during 3rd NRST meeting held on 24/05/19, it was discussed that hydro projects in H.P are not likely to materialise, therefore, in view of limited space for laying the transmission line corridor in Chenab Valley, it would be better that CVPPL lay a dedicated Pakal Dul HEP– Kishtwar line which could be extended to Kavar and Kiru HEPs in phases. Suitable provisions in the dedicated line can be made so that power from Kithai HEP could also be evacuated through the Pakal Dul HEP–Kishtwar line. This would require 400 kV line with quad HTLS conductors instead of triple HTLS conductor, which was planned earlier. Accordingly, applicant confirmed to implement dedicated Quad HTLS line from Pakal Dul HEP–Kishtwar which could be extended to other envisaged HEPs as given above, in phased manner.

Further, for transfer of 1000 MW to NR (Target), it was informed that studies were carried out and following augmentation of transmission system under ISTS is required. It is observed that loading with proposed transmission system is in order. Accordingly, it was agreed to grant LTA to M/s Chenab Valley Power Projects [P] Limited for 1000 MW from Kishtwar pooling station to NR (Target) from 01/02/24 to 31/01/64 subject to commissioning of ISTS system mentioned below:

Transmission System for LTA:

- Kishtwar - Kishenpur 400kV S/c (Quad) line (by utilizing towers of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) - **Under the scope of ISTS**

In addition, following ISTS System for Connectivity shall also be required for effecting the LTA:

Transmission system for Connectivity:

- Under the scope of Generation Developer**

- 400 kV D/c (Quad HTLS Conductor) line from Pakal Dul HEP – Kishtwar (GIS) Pooling station along with associated bays at both ends.
- GIS switchyard equipment and XLPE cables and other associated equipment to be designed for carrying 4000 Amps current.
- 420 kV, 125 MVAR Bus Reactor at Pakal Dul HEP.
- One and half breaker switching scheme for 400 kV Generation switchyard.

ii. Under ISTS – Proposed to be implemented through ISTS Transmission licensee

- Establishment of 400 kV GIS Pooling station at Kishtwar by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung).
- 420 kV, 125 MVAR Bus Reactor at Kishtwar (GIS) Pooling Station

Note: As connectivity has been granted at 400 kV GIS Pooling Station at Kishtwar, generation project may be taken up matching with Kishtwar pooling station.

LTA application at Sl. No.3: It was informed that LTA has been applied by Eden Renewable Cite Private Limited for transfer of 300 MW from Eden Cite ISTS Raj Power Plant to NR (target region) through injection at Fatehgarh-II Pooling Station (proposed under ISTS) for a period of about 25 years.

It was informed that evacuation of power from Solar Power projects in Western Rajasthan was envisaged with transmission system which includes augmentation of 765/400kV, 1x1500MVA transformer (3rd) at Moga S/s. However, due to constraints at Moga S/s, the transmission system was reviewed & discussed in 45th NRPC meeting held on 08/06/2019(MOM awaited) wherein it was agreed to delete 3rd 765/400kV, 1x1500MVA transformer (3rd) at Moga S/s.

Further, in the meeting held among PSTCL, CEA & CTU, it was decided that suitable mitigating measure to address the high short circuit level at Moga (PG) substation is to be explored. Same is under examination. For transfer of 300 MW to NR, studies were carried out and with the proposed augmentation of transmission system and bus split arrangement at Moga S/s, loading on transmission system is in order.

Accordingly, it was agreed to grant LTA to M/s Eden Renewable Cite Private Limited for 300 MW from Fatehgarh-II(PS) to NR (Target) from 30/10/20 to 02/12/45 subject to commissioning of following ISTS system (in addition, solution of constraints at Moga) mentioned below:

Transmission System for LTA

- Establishment of 765/400kV, 3X1500MVA ICT (2nd 3rd & 4th) pooling station at suitable location near Fatehgarh in Jaisalmer Dist(Fatehgarh-II PS)
- Establishment of 400/220kV, 1X500MVA, ICT (2nd) at Fatehgarh-II Pooling station
- Establishment of 765/400kV, 2x1500MVA pooling station at suitable location near Phalodi/ Bhadla in Jodhpur (Bhadla-II PS)
- Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Khetri
- Charging of Fatehgarh-II PS–Bhadla section at 765kV level
- LILO of both ckts of 765kV Ajmer – Bikaner D/c line at Bhadla-II PS
- Fatehgarh-II PS – Bhadla -II PS 765kV D/c line
- Bhadla-II PS – Bhadla (PG) 400kV D/c Line (Twin HTLS)
- Bikaner(PG) – Khetri S/s 765kV D/c line
- Khetri – Jhatikara 765kV D/c line
- Khetri – Sikar (PG) 400kV D/c line (Twin AL59)
- Augmentation with 1x1000MVA,765/400kV transformer (3rd) at Bhiwani (PG)
- Ajmer (PG)– Phagi 765kV D/c line
- 1x125 MVar (420kV), 2x240 MVar (765kV) Bus Reactor each at Fatehgarh-II PS, Bhadla-II PS & Khetri Substation
- 1x240 MVAR Switchable Line reactors for each circuit at Jhatikara end of Khetri – Jhatikara 765kV D/c line
- 1x240 MVar Switchable line reactor for each circuit at each end of Bikaner – Khetri 765kV D/c line
- 1x330 MVar Switchable line reactor for each circuit at Bhadla-II PS end for Ajmer - Bhadla-II PS 765kV line (after LILO)
- 1x240 MVar Switchable line reactor for each circuit at Bhadla-II PS end for Bikaner-Bhadla-II PS 765kV line (after LILO)
- Suitable bus splitting arrangement at 765/400/220 kV Moga S/s

In addition, following ISTS System for Connectivity shall also be required:

- Establishment of 1x1500MVA, 765/400kV, Fatehgarh-II Pooling station at suitable location near Fatehgarh.
- Establishment of 1x500 MVA, 400/220kV ICT at Fatehgarh-II Pooling station
- LILO of Fatehgarh (TBCB) – Bhadla (PG) 765kV D/c line (to be operated at 400kV) at Fatehgarh-II so as to establish Fatehgarh (TBCB) – Fatehgarh-II 400kV D/c line (765kV line operated at 400 kV) and Fatehgarh-II - Bhadla 765kV D/c line or Fatehgarh-II – Bhadla-II 765 kV D/c line

Also, it was agreed that intimation for grant of LTA may be issued only after finalization of suitable mitigating measure to control high short circuit level at Moga substation and submission of Bank Guarantee as per CERC Detailed Procedure. The applicant agreed for the same.

It was also informed that the LTA grantees are required to sign the Long Term Access Agreement within 30 days from the date of intimation of Grant of LTA and shall furnish the applicable Construction phase Bank Guarantee (CBG), no extension shall be granted on any ground and in case of failure to sign the Agreement and / or to furnish the CBG, Grant of LTA shall be revoked without any prior notice. The transmission charges shall be applicable from the date of commissioning of ISTS, irrespective of the status of commissioning of generation project.

The wind/solar generation project developers shall meet the requirements including LVRT/HVRT, stipulated in CEA Technical Standards for Grid Connectivity, IEGC & other applicable regulations & standards. In addition, progress of the generation project may be intimated on quarterly basis.

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Meeting of Northern Region Connectivity/Long term Access applications

Date: 26/06/2019, Venue- Ground Floor Conference Room, POWERGRID, Gurugram

S.No	NAME	DESIGNATION	ORGANIZATION
1.	Shri Amrik Singh	GM	Chenab Valley Power Project Ltd.
2.	Shri Deepesh Gupta	DGM	Avaada Energy Pvt. Ltd.
3.	Shri Angshuman Rudra	Sr. Manager	Avaada Energy Pvt. Ltd.
4.	Shri Pratul Gupta	DGM	Taranda Hydro Power Pvt. Ltd.
5.	Shri Vivek Kodesia	Head (BD)	Eden Renewable India Pvt. Ltd.
6.	Shri Alok Kumar	Head (O&M)	Eden Renewable India Pvt. Ltd.
7.	Shri Rakesh Chandra	GM	Rayachoty Renewable Pvt. Ltd.
8.	Shri Ashish Shukla	AGM	Gangavathi Renewable Pvt. Ltd.
9.	Vivek Kumar Gupta	CDE	POWERGRID
10.	Kashish Bhambhani	DGM	POWERGRID
11.	Sandeep Kumawat	CM	POWERGRID
12.	Ashok Pal	CGM (CTU-Plg)	POWERGRID
13.	Rajesh Verma	Sr. DGM (CTU-Plg)	POWERGRID
14.	Ankita Singh	Manager (CTU-Plg)	POWERGRID
15.	V.M.S Prakash	Manager (CTU-Plg)	POWERGRID

Annexure P3



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन -I प्रभाग

Power System Planning & Appraisal-I Division

To

-As per list enclosed-**Subject: 1st Meeting of Northern Regional Power Committee (Transmission Planning) (NRPCTP) – Minutes of Meeting**

Sir/ Madam,

The 1st meeting of Northern Regional Power Committee (Transmission Planning) (NRPCTP) was held on **24th January 2020** at **Jaisalmer, Rajasthan**.

Minutes of meeting are available on CEA website: www.cea.nic.in (path to access: Home Page - Wing - Power System - PSPA-I - Standing Committee on Power System Planning - Northern Region).

Yours faithfully,

(Goutam Roy)
Chief Engineer

List of Addressee:

1.	Member Secretary, NRPC, 18-A Shajeed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi - 110016 (Fax-011-26865206)	2.	Director (W & P) UPPTCL, Shakti Bhawan Extn,3rd floor, 14, Ashok Marg, Lucknow - 226 001 (Fax:0522-2287822)	3.	Director (Projects) PTCUL, Vidhyut Bhawan, Near ISBT -Crossing, Saharanpur Road, Majra, Dehradun-248002. Uttarakhand
4.	Director (Technical), Punjab State Transmission Corporation Ltd. (PSTCL) Head Office The Mall Patiala -147001	5.	Member (Power) BBMB, Sector-19 B Madhya Marg, Chandigarh-1 60019 (Fax-01 72-2549857)	6.	Director (Operation) Delhi Transco Ltd. Shakti Sadan, Kotla Marg, New Delhi-110002 (Fax-01123234640)
7.	Director (PP&D) RVPN, 3 rd Floor, Room no 330, Vidhyut Bhawan, Janpath, Jaipur-302005.	8.	Director (Technical) HVPNL Shakti Bhawan, Sector-6 Panchkula-134109	9.	Director (Technical) HPSEB Ltd. Vidut Bhawan, Shimla -171004 Fax-0177-2813554
10.	Managing Director, HPPTCL, Barowalias, Khalini Shimla-171002 Fax-0177-2623415	11.	Chief Engineer (Operation) Ministry of Power, UT Secretariat, Sector-9 D Chandigarh -161009 Fax-0172-2637880	12.	Development Commissioner (Power), Power Department, Grid Substation Complex, Janipur, Jammu, Fax: 191-2534284
13.	COO (CTU) POWERGRID, Saudamini, Plot no. 2, Sector -29, Gurgaon-122 001 (Fax-0124-2571809)	14.	Director (System operation), POSOCO B-9, Qutab Institutional Area, Katwaria Sarai New Delhi – 110010	15.	MD, SECI, Prius Platinum, D-3, District Centre, Saket, New Delhi -17
16.	CMD, NTPC, NTPC Bhawan, Core 7, Scope Complex-6, Lodhi Road. New Delhi	17.	CMD, NHPC, NHPC Office Complex, Sector-33, NHPC, Faridabad-121003 (Fax-0129-2256055)		

Minutes of 1st Meeting of Northern Regional Power Committee (Transmission Planning) (NRPCTP) held on 24.01.2020

List of participants is enclosed as Annexure-I.

Chairperson, CEA welcomed the participants and stated that Ministry of Power has recently constituted the Regional Power Committee (Transmission Planning) wherein, member from SECI, NTPC & NHPC has been included in the committee. Further, the terms of reference has also been changed along with the frequency of meeting (once in every quarter). He then requested CE (PSPA-I), CEA to take up the agenda item and also requested members to be specific in deliberation so that decisions could be arrived at through consensus.

Chief Engineer, CEA stated that the erstwhile Standing Committee of Transmission has now been renamed as Regional Power Committee for Transmission Planning and for Northern Region, it would now be NRPCTP. The reconstitution as well as the new TOR has been covered as a part of the agenda item. He further requested the participants to send their agenda items within one month from the last meeting. Since there would be adequate meetings so only limited nos. of agenda to be covered in a meeting so that sufficient time could be given to members to study the agenda and to have fruitful discussions during the meeting. He then requested Director, PSPA-I (CEA) to take up the agenda for discussions.

1.0 Confirmation of the Minutes of the 5th meeting of Northern Region Standing Committee on Transmission held on 13.09.2019.

- 1.1 Director PSPA-I (CEA) stated that the 5th meeting of Northern Region Standing Committee on Transmission (NRSCT) was held on 13.9.2019 and the minutes of the meeting were issued vide CEA letter no. File No.CEA-PS-11-21(19)/2/2019-PSPA-I Division dated 21.9.2019. She stated that POSOCO vide its letter NLDC/SO2/TS24/SCM/1404 dated 26.9.2019 has forwarded their observations on the Agenda item no. 3 of the minutes of the meeting. In the letter, POSOCO has mentioned that few suggestions provided by POSOCO in context of transmission planning studies of RE has not been incorporated in the minutes and requested to incorporate the same in the minutes of 5th meeting of NRSCT. The observations made by POSOCO were mainly regarding the decision for installation of the STATCOM at the generating end and its cost. POSOCO also raised that proper justification for preferring HVAC over HVDC may be incorporated in the minutes of the 5th meeting of NRSCT.

CEA clarified that the details regarding placing of STATCOM at the generating end were mentioned in the para no. 2.19 and 2.20 of the minutes of 5th NRSCT. The decision for the STATCOM at the generation end were taken, considering the stability issues in the Solar generation plants. Regarding the justification of preferring HVAC option over HVDC option, it had been mentioned in the minutes that the cost of HVDC system would be quite higher than the cost of HVAC system and since the transmission system would be required by Dec 2021 which would not be possible in case of HVDC system, therefore HVAC system has been preferred over HVDC system. The same has also been justified in the para no. 2.3 of the minutes of 5th NRSCT.

- 1.2 CEA further stated that regarding the cost of the STATCOM, CTU had informed that the cost of installing STATCOMs at above mentioned 03 locations is around INR 850 crores. The same may be incorporated in the minutes of 5th meeting of NRSCT.

evaluating the LTA system.

- 6.11. CEA stated that the fault level reduces significantly with opening of Singrauli- Anpara 400 kV line.
- 6.12. CTU enquired about the time schedule of the proposal regarding opening of Singrauli-Anpara 400 kV line. In this regard, POSOCO stated that the line may be opened with the coming of Anpara D –Unnao line, which is expected by June 2020 as informed by UP; subject to the condition that with the opening of the line, the adjacent system is not affected. In the meeting, it was agreed that 400kV Singrauli-Anpara may be kept opened after commissioning of 765kV Anpara D-Unnao to restrict high short circuit level in Singrauli-Anpara complex, however, in case of any contingency the line may be required to be taken in service.
- 6.13. After deliberations, following was agreed:
 - (i) The transmission system for evacuation of power from Singrauli III:
 - I. LILO of both circuits of Tie line (Vindhyachal Stage-IV to Vindhyachal Stage-V 400kV D/C Twin Moose line) at Singrauli Stage-III- under the scope of NTPC.
 - II. Reconductoring of Singrauli Stage-III - Vindhyachal stage-IV 400 kV D/C TM line (formed after above proposed LILO) with HTLS conductor - under the scope of NTPC
 - III. Singrauli-III–Rihand-III 400kV D/c line- under ISTS scope
 - IV. 2x125 MVAR Bus Reactor at Singrauli-III generation switchyard- under scope of NTPC
 - (ii) Singrauli- Anpara 400 kV line will be kept normally open (can be closed in emergency conditions) after commissioning of Anpara D –Unnao 765kV line to restrict high short circuit level in Singrauli-Anpara complex.
 - (iii) The short circuit level in Singrauli will again be studied by CEA and CTU and accordingly, would be discussed in the next NRPCTP meeting.

The above scheme may also be rectified in next NRPCTP meeting.

7.0 Transmission system for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL:

- 7.1 CEA stated that CVPPL is implementing three major HEPs viz Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEP in J&K. Works on various components of PakalDul HEP are in progress. Works of Kiru and Kwar HEPs are in advanced stage of tendering. The power from these projects was planned to be pooled to Kishtwar S/s. In the 2nd meeting of NRSCT, following was agreed in regard of the connectivity of PakalDul HEP (1000 MW):
 - i) 400 kV D/c (Triple HTLS Conductor) line from PakalDul HEP–Kishtwar Switching station along with associated bays at both ends – under scope of generation developer.

- ii) Establishment of 400 kV switching station at Kishtwar(GIS) by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) –under ISTS.
- iii) GIS switchyard equipment, XLPE cables and other associated equipment may be designed for current carrying capacity of 4000 Amps - under scope of generation developer.
- iv) 420 kV, 125 MVAR Bus Reactor at PakalDul HEP -under scope of generation developer.
- v) 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station - under ISTS.
- vi) One and a half breaker switching scheme for 400kV Generation switchyard - under scope of generation developer.

The matter was again deliberated in 3rd meeting of NRSCT wherein, it was suggested that, in view of limited space for laying the transmission line corridor in Chenab Valley, it would be better that CVPPL lay a dedicated line from PakalDul HEP to Kishtwar which could be extended to Kwar and Kiru HEPs, Kirthai I and Kirthai II HEP so that beside about 2400 MW power from Pakaldul, Kwar and Kiru HEPs additional 1420 MW power from Kirthai I and Kirthai II HEP could also be evacuated from the PakalDul HEP–Kishtwar corridor. CVPPL agreed with the suggestion given by CEA to use quad HTLS for PakalDul HEP–Kishtwar line instead of triple HTLS conductor.

Subsequently, CVPPL intimated that they are facing some difficulties in implementation of PakalDul HEP–Kishtwar line with quad HTLS conductor. If 1300 MW power from Kirthai I and Kirthai II projects in Jammu & Kashmir would also be evacuated through the PakalDul HEP–Kishtwar line, current would be of the order of 5000 Amps. CVPPL also mentioned that earlier it was agreed that the GIS switchyard equipment, XLPE cables and other associated equipment may be designed for current carrying capacity of 4000 Amps, therefore, the same has been mentioned in the tender documents and works of Pakaldul HEP switchyard has been awarded accordingly. The works on various components of PakalDul HEP are already under progress. CVPPL therefore requested to plan a separate corridor for evacuation of power from Kirthai I and Kirthai II projects in Jammu & Kashmir and for evacuation of power from CVPPL projects (i.e. Pakaldul, Kiru & Kwar HEPs), the dedicated line to Kishtwar may be implemented with triple HTLS conductor.

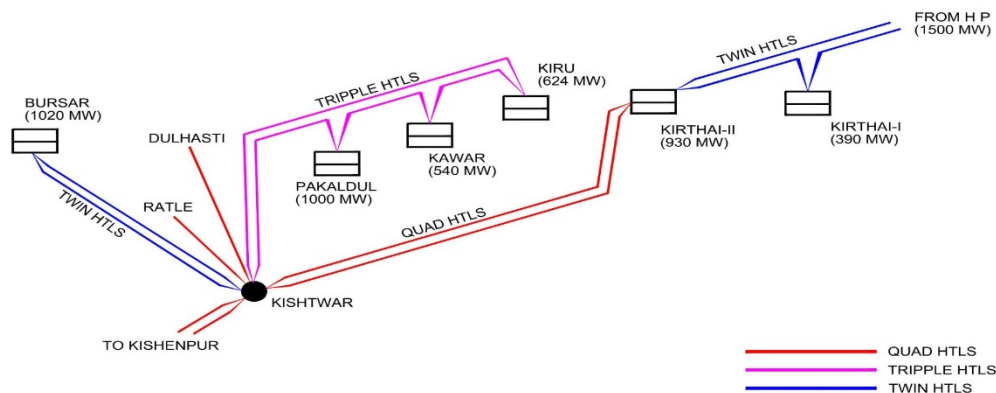
7.2 To deliberate on the issue further, a meeting was held in CEA on 26.09.2019, wherein, CTU informed that survey was conducted in the Chenab basin and it was found two corridor are possible in that valley and the same has accordingly been reflected in the master plan i.e one corridor for 1500 MW power coming from HP in addition to Kirthai I & II and 2nd corridor for Kiru, Kwar and Pakaldul projects. Accordingly, after deliberations, following was agreed in- principle:

- i. Implementation of Kiru-Kwar-Pakaldul to Kishtwar 400 kV D/c line with triple HTLS conductor instead of quad HTLS conductor was agreed subject to ratification from the NRSCT.
- ii. The possibility of 2nd corridor in Chenab basin need to be discussed with JKPDD.

7.3 CEA also mentioned that for grant of connectivity/LTA to Pakaldul HEP, the transmission system (mentioned at 7.1 above) was agreed, which involves establishment of 400 kV

switching station at Kishtwar(GIS) by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) as ISTS work and depending on the progress and requirement of the Generation developer, the system needs to be taken up for implementation through ISTS.

POWER EVACUATION ARRANGEMENT FROM PROJECTS IN JAMMU & KASHMIR



- 7.4 CTU enquired about the timeframe of all the three projects in order to take up with the implementation of Kishtwar S/s. In this regard, CVPPL informed that Pakaldul and Kiru are expected by Dec 2024 and the timelines for Kwar are not yet defined. Further, they have received the Cabinet Approval for Pakaldul and Kiru. Pakaldul has been awarded and construction is in process. PPA is yet to be signed between Govt. of J&K and NHPC wherein, 49% of the power will be purchased by J&K and the remaining power will be sold by NHPC. Kiru is expected to be awarded by April 2020.
- 7.5 CTU further enquired about the transmission line length. In this regard, CVPPL replied that line length from Kishtwar to Kiru is 30 kms and from Pakaldul to Kishtwar is 15 km. CTU expressed the concern that since timelines of Kwar is not defined and date of award of Kiru and Kwar are yet to be finalised, therefore there will be difficulty in getting the prior approval under Section -68 of the LILO of one circuit of Kiru-Kishtwar line at Pakaldul and Kwar. For this, CVPPL replied that LILO will be implemented only when the timelines of the generations are confirmed.
- 7.6 CTU opined that since Kishtwar S/s will be implemented as an ISTS S/s, therefore the transmission system pertaining to Kishtwar should match with the timeframe of the first generations project in the Chenab basin.
- 7.7 POSOCO suggested that the rating of switchgears as well as bays may be planned considering the plan of evacuation of Pakaldul, Kiru and Kwar (2164MW) as well as Kirthai I and II (1300MW) and other generation from Kishtwar Pooling substation. As the capacity of the Kishtwar S/s will be around 6000 MW, therefore for shutdown and maintenance purpose, possibility of providing bus sectionalizers at Kishtwar S/s may be explored. Also, instead of LILO of one circuit of Kiru - Kishtwar 400 kV D/c line at Pakaldul and Kwar, LILO of both circuits could be done for reliability purpose.

7.8 In this regard, CEA stated that since timelines for Bursar, Kirthai-I and Kirthai-II are not yet confirmed, therefore as of now, Kishtwar S/s is being planned only for about 2400 MW (considering 10% overload). POSOCO added that in near future, with the coming up of new upstream generations, a new substation could be planned in that area.

7.9 After deliberations, the following was agreed:

- i) Implementation of of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C Triple HTLS connectivity line to be implemented by M/s CVPPL. M/s CVPPL to phase the implementation of the dedicated line as per the implementation timelines of the three HEPs ie. Kiru, Kwar & Pakaldul
- ii) One and a half breaker switching scheme at 400kV Generation switchyard.
- iii) 2 bays at each end of Kishwar and Pakaldul - under the scope of generator.
- iv) 420 kV, 125 MVAR Bus Reactor at PakalDul HEP -under scope of generation developer
- v) Establishment of 400 kV switching station at Kishtwar (GIS) by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) –under ISTS

8.0 Establishment of 400 kV switching station at Kishtwar(GIS) under ISTS:

8.1 CEA stated that in the 2nd meeting of NRSCT, transmission system was agreed for grant of Connectivity/LTA to PakalDul HEP (1000 MW) which included establishment of Kishtwar GIS 400 kV switching station by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) and Stringing of second circuit from Kishtwar to Dulhasti on Kishenpur – Dulhasti 400kV D/c line(single circuit strung)

8.2 CEA enquired about the finalization of location for Kishtwar S/s. In this regard, CVPPL replied that POWERGRID is Consultant for preparation of DPR of the scheme and POWERGRID has identified a tentative location and for the finalization of location, a committee needs to be formed.

8.3 CTU opined that future provisions needs to be taken up adequately for Kishtwar S/s at both 765 kV and 400 kV end. After deliberations, it was decided that a committee will be formed consisting of CEA, CTU, JKPDD and CVPPL for finalizing the location of Kishtwar Pooling station and accordingly, the proposal would be deliberated in the next NRPCTP meeting.

9.0 RVPN's proposal regarding uprating, updating and strengthening intra-State transmission schemes for Renewable Energy Evacuation in Western Rajasthan to be implemented by RVPN:

9.1 Director CEA stated that RVPN vide letter no. RVPN/SE(P&P)/XEN-2(P&P)/AE-2/F/D/974 dated 22.10.2019 has submitted a proposal for the Transmission System regarding Uprating, Upgrading and Strengthening of Intra-State Transmission Schemes for



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन - I प्रभाग

Power System Planning & Appraisal - I Division

सेवा में / To

-As per enclosed list-

विषय: "ट्रांसमिशन पर राष्ट्रीय समिति" (एनसीटी) की तीसरी बैठक - बैठक के कार्यवृत्त

Subject: 3rd meeting of "National Committee on Transmission" (NCT) – Minutes of Meeting

Sir/Madam,

The 3rd meeting of the "National Committee on Transmission" (NCT) was held through Video Conferencing on 26th and 28th May, 2020 under the Chairmanship of Shri P. S. Mhaske, Chairperson, CEA. The Minutes of the meeting are enclosed herewith.

Yours faithfully,
Signature Not Verified

Digitally signed by GOUTAM

ROY

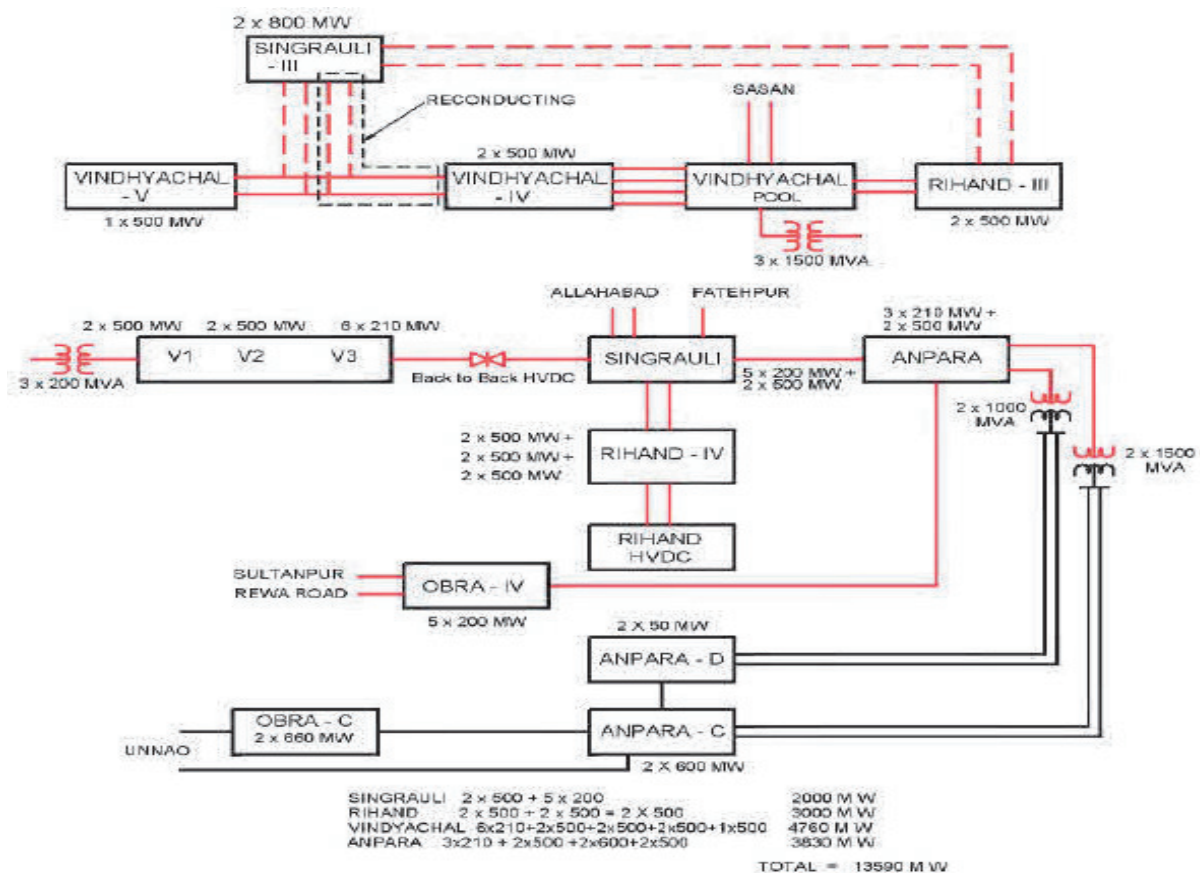
Date: 2020.07.17 17:16:05
IST

(Goutam Roy)

Chief Engineer (PSPA-I) & Member Secretary (NCT)

Copy to:

- (i) Joint Secretary (Trans), Ministry of Power, Shram Shakti Bhawan, New Delhi-110001
- (i) Chief Engineer (PSPA-II), CEA
- (ii) CMD (POSOCO), B-9, Qutub, Institutional Area, Katwaria Sarai, New Delhi - 110010
- (iii) CEO, RECTPCL, ECE House, 3rd Floor, Annexe - II, [28A, KG Marg, New Delhi - 110001](#)
- (iv) VP, PFC Consulting Ltd, First Floor, "Urjanidhi", 1, Barakhmba Lane, Connaught Place, New Delhi-110001



5.2.2. On query from Chairman, NCT regarding the timeframe of Singrauli Stage-III, CEA representative informed that the time frame of the project is Dec 2024.

5.2.3. CTU informed that no Connectivity or LTA application has been received yet from NTPC. CTU added that evacuation system of Singrauli Stage III would be connected to Western Region and the scheme has not yet been deliberated in the WRPC (TP).

5.2.4. Member (E&C), CEA stated that as the transmission system has been agreed in the NRPC(TP) meeting and not yet discussed in the WRPC(TP), the scheme may be given in-principle approval.

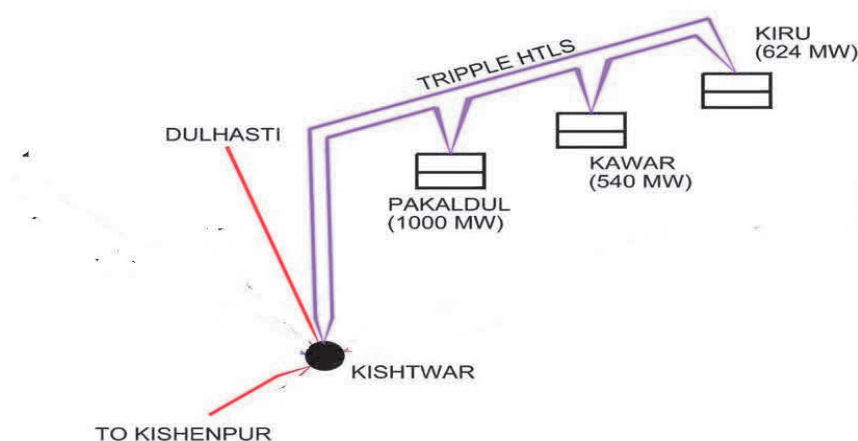
5.2.5. Expert member, NCT stated that the transmission system may be agreed in-principle for implementation under ISTS.

5.2.6. Although members were in agreement for in-principle approval of the scheme, it was agreed that the scheme may be deferred and may be put up to NCT after deliberations in WRPC(TP) and grant of connectivity/LTA to Singrauli stage-III TPS.

5.3. Name of Scheme: Establishment of 400 kV switching station at Kishtwar (GIS) under ISTS

5.3.1. CE (PSPA-1), CEA stated that CVPPL is implementing three major HEPs viz Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEP in J&K. In the 1st NRPCTP meeting held on 24.01.2020, following Connectivity system was agreed for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL :

- i. Implementation of Kiru-Kwar-Pakaldul - Kishtwar 400 kV D/C Triple HTLS connectivity line to be implemented by M/s CVPPL. M/s CVPPL to phase the implementation of the dedicated line as per the implementation timelines of the three HEPs ie. Kiru, Kwar & Pakaldul.
- ii. One and a half breaker switching scheme at 400kV Generation switchyard.
- iii. 2 bays at each end of Kishtwar and Pakaldul - under the scope of generator.
- iv. 420 kV, 125 MVAR Bus Reactor at Pakaldul HEP - under scope of generation developer
- v. 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station - under ISTS.
- vi. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) – under ISTS.



5.3.2. System at (i),(ii),(iii) and (iv) above are in the scope of generation developers and the location of Kishtwar pooling Station (GIS) is yet to be finalized.

5.3.3. CTU informed that Connectivity and LTA for Pakaldul HEP has already been granted. LTA has been granted alongwith stringing of 2nd circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line .But the LTA grant is yet to be deliberated in the NRPC-TP meeting. Further no Connectivity/LTA has been received for Kiru and Kwar HEPs. CTU added that it was agreed that CVPPL would first connect Pakaldul to Kishtwar PS and subsequently extend the same transmission line to Kiru and Kwar HEP as per matching time frame.

5.3.4. NCT Members agreed and approved the following system to be implemented as ISTS under Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs:

- i) Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)-Connectivity system
- ii) 2nd circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (NRPC-TP to ratify in its next meeting) – LTA system

5.4. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II-Part B1 and Part G1

5.4.1. CE (PSPA-1), CEA stated that the transmission scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) was agreed in the 6th meeting of NCT and is being taken up in various parts. Ministry of Power vide OM dated 23/01/2020 has allocated Part B1 and G1 of the overall scheme to POWERGRID for implementation under RTM.

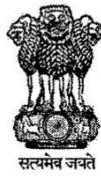
Part B1

5.4.2. He stated that Part B1 of the scheme inter alia includes \pm 600 MVAR STATCOM along with 4x125 MVAR MSC & 2x125 MVAR MSR each at Fatehgarh-II & Bhadla-II S/s. CTU had requested to split the total STATCOM capacity into two equal set of STATCOM (\pm 300MVAR STATCOM; 2x125MVAR MSC; 1x125MVAR MSR) one on each side of 400kV Bus Section for both Fatehgarh-II & Bhadla-II S/S and was agreed in the 1st NRPC (Transmission Planning) meeting held on 24.01.2020.

Part G1

5.4.3. He further stated that Part G1 of the scheme includes Removal of LILO of Bawana – Mandola 400kV D/c (Quad) line at Maharani Bagh (LILO of Maharani Bagh- Bawana section at Gopalpur S/s has also been agreed) and Extension of above LILO section upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c (Quad) and Maharani Bagh- Gopalpur-Narela 400kV D/c (Quad) lines.

5.4.4. CE (PSPA-I), CEA stated that in the 1st NRPC (Transmission Planning) meeting held on 24.01.2020, CTU has intimated that LILO of Bawana-Mandola 400kV D/c (Quad) at Maharani Bagh is under implementation using Twin HTLS conductor on Multicircuit tower. Considering that LILO is already being constructed with twin HTLS conductor, it was agreed during the 1st NRPC (Transmission Planning) to construct extension of LILO section with Twin HTLS conductor instead of Quad conductor. Further, considering RoW issues in Delhi area, it was also agreed to construct extension of LILO section too on multi-circuit towers.



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
उत्तर क्षेत्रीय विद्युत समिति
Northern Regional Power Committee

सं. उक्षेविस/ वाणिज्यिक/ 209/ आर पी सी (48 वीं)/2020/10967-11061
No. NRPC/ Comml/ 209/ RPC (48th)/2020/

दिनांक : 20 नवंबर, 2020
Dated: 20 November, 2020

सेवा में / To,

उ.क्षे.वि.स. के सभी सदस्य
Members of NRPC/TCC

विषय: उत्तर क्षेत्रीय विद्युत समिति की 48वीं तथा तकनीकी समंवय उप-समिति की 45वीं बैठक कार्यवृत्त।

Subject: 48th meeting of Northern Regional Power Committee and 45th meeting of TCC – Minutes.

महोदय / Sir,

उत्तरी क्षेत्रीय विद्युत समिति की 48^{वीं} बैठक दिनांक 2 सितम्बर, 2020 को तथा तकनीकी समंवय उप-समिति की 45^{वीं} बैठक दिनांक 27 व 28 अगस्त, 2020 को विडियो कॉन्फ्रेंसिंग द्वारा आयोजित की गयी थी। इन बैठकों के कार्यवृत्त की प्रति आपकी सूचना व आवश्यक कार्यवाही हेतु इस पत्र के साथ संलग्न है।

The 48th meeting of Northern Regional Power Committee was held on 2nd September, 2020 and 45th meeting of TCC was held on 27th and 28th August, 2020 via video-conferencing. A copy of the minutes of the meetings is enclosed herewith for your information and necessary action.

भवदीय/Yours faithfully,

-sd-
(नरेश भण्डारी)
(Naresh Bhandari)
सदस्य सचिव
Member Secretary

उत्तर क्षेत्रीय विद्युत समिति
NORTHERN REGIONAL POWER COMMITTEE

MINUTES
FOR
45th MEETING OF TECHNICAL COORDINATION SUB-COMMITTEE
&
48th MEETING OF NORTHERN REGIONAL POWER COMMITTEE

Time & Date of TCC meeting: 11:00 Hrs. on 27.08.2020 & 28.08.2020

Time & Date of NRPC meeting: 11.00 Hrs. on 02.09.2020

Venue: Via Videoconferencing

PROCEEDINGS OF 45TH TCC MEETING

Shri Naresh Bhandari welcomed all the members of Technical Coordination Committee and other delegates to the 45th TCC meeting of NRPC held virtually through video conferencing.

He highlighted that at the time of this Pandemic, even the Power Sector has been hit with the overall energy demand of the region plummeting by up to almost **40%** on 27th March 2020 as compared to 27th March 2019 due to the countrywide imposed lockdown.

He further stated that apart from the reduction in power demand, various maintenance and construction activities were also impacted due to the lockdown, delaying the upcoming projects in the region. In order to cater to the impact of lockdown NRPC Secretariat has held 20th LGBR meeting through video-conferencing to revise the LGBR.

It was highlighted that due to the prevailing social distancing norms and quarantine guidelines significant quantum of preventive and annual maintenance could not be carried out. He urged all the generating companies to prepare a short-term schedule for outage of generating units requiring annual maintenance and submit request for approval of shutdown to NRPC Secretariat as and when the situation becomes conducive for the same.

He further briefed the committee about the two significant events of power sector which occurred on 05th April 2020 (switching off of lights at 09 PM for 09 minutes) and annular

B.9.4 CTU informed that 4th ICT of 800MVA is to be covered as part of transmission system associated with Tehri PSP along with Tehri PSP – Tehri Pooling Stn. 400 kV (Quad) line and augmentation of 765/400 transformation capacity by 1x1500 MVA at Meerut.

B.9.5 **TCC recommended the scheme for approval of NRPC.**

NRPC Deliberations

B.9.6 NRPC approved the scheme as per the deliberations held in TCC.

B.10 Charging of Fatehgarh-II – Bhadla Section (After LILO of Fatehgarh – Bhadla 765kV D/c line (to be operated at 400kV) at Fatehgarh-II) under ISTS (agenda by POWERGRID)

TCC Deliberations

B.10.1 POWERGRID representative stated that Fatehgarh – Bhadla 765kV D/c line (to be operated at 400kV) is under implementation by Fatehgarh Bhadla Transmission Ltd. (FBTL) under TBCB and expected to be completed by December, 2020. Further, LILO of this line at Fatehgarh-II PS along with charging of Fatehgarh-II - Bhadla Section at 765 kV is also under implementation with completion schedule as March, 2021.

B.10.2 Initially, Fatehgarh – Bhadla 765kV line will be terminated at 400kV switchyard of Bhadla S/s and later on it would be required to terminated at 765kV switchyard of Bhadla S/s. However, 400kV Switchyard and 765kV Switchyard are at two extreme ends of the substation. Thus, to facilitate charging of Fatehgarh-II – Bhadla Section at 765kV re-routing of the line for about 2-3 km shall be required. The proposal was agreed during 1st NRPCTP meeting held on 24.01.2020 at Jaisalmer, Rajasthan.

B.10.3 POWERGRID informed that to facilitate charging of Fatehgarh-II – Bhadla section at 765kV, re-routing of the line for about 2-3 km shall be required.

B.10.4 TCC recommended the scheme for approval of NRPC.

NRPC Deliberations

B.10.5 NRPC approved the scheme as per the deliberations held in TCC.

B.11 Transmission system for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL (agenda by POWERGRID)

TCC Deliberations

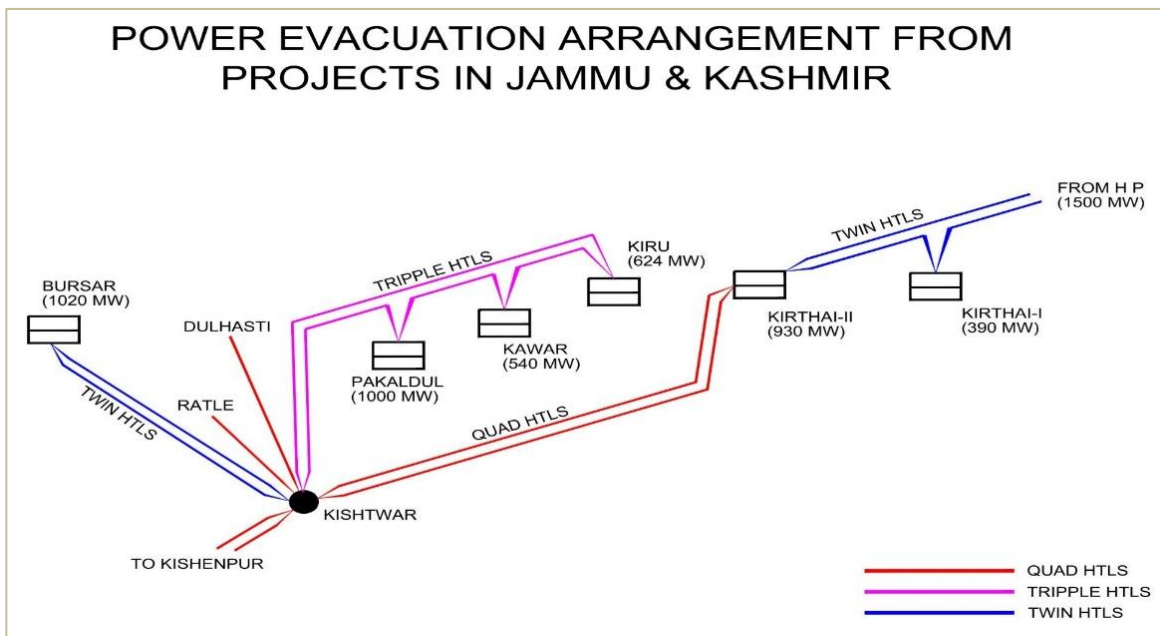
B.11.1 POWERGRID representative stated that Transmission system for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL was discussed during 1st Northern Region Power Committee (Transmission Planning) held on 24/01/2020 at Jaisalmer, Rajasthan & following system was agreed.

B.11.2 **Connectivity Transmission system**

- i) Implementation of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C Triple HTLS connectivity line to be implemented by M/s CVPPL. M/s CVPPL to phase the implementation of the dedicated line as per the implementation timelines of the three HEPs ie. Kiru, Kwar&Pakaldul.
- ii) One and a half breaker switching scheme at 400kV Generation switchyard- under the scope of M/s CVPPL:
- iii) 2 bays at each end of Kishwar and Pakaldul- under the scope of M/s CVPPL
- iv) 420 kV, 125 MVAR Bus Reactor at PakalDul HEP- under the scope of M/s CVPPL.
- v) Establishment of 400 kV switching station at Kishtwar (GIS) by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) – **under ISTS**

B.11.3 Further, CVPPL had applied for LTA for transfer of 1000 MW from Pakaldul HEP to NR (target region). The application was discussed in 24th Meeting of Northern Region Constituents regarding Connectivity and LTA applications in NR held on 26.06.2019 wherein following transmission system for LTA was agreed:

- Kishtwar - Kishenpur 400kV S/c (Quad) line (by utilizing towers of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) - **Under the scope of ISTS**



B.11.4 NRLDC highlighted that considering reliability of the system, LILO of both circuits may be envisaged, as outage of LILO line in current scheme may lead to generation loss at Pakaldul and Kwar.

B.11.5 CTU stated that option was explored; however, limitation of space for towers in hilly region and huge RoW issue were found during site visit by CEA, CVVPL,

CTU, J&K officials. Hence, LILO of only one line is feasible.

B.11.6 TCC recommended the scheme for approval of NRPC.

NRPC Deliberations

B.11.7 NRPC approved the scheme as per the deliberations held in TCC.

B.12 Connectivity to Luhri St-I, II and Sunni Dam HEPs of SJVNL (agenda by POWERGRID)

TCC Deliberations

B.12.1 CTU representative informed that 3 nos. of Hydro Projects viz. Luhri HEP St-I (210 MW), Luhri HEP St-II (207 MW) and St-III (363 MW) are proposed to be developed by SJVNL in Kullu & Mandi District of Himachal Pradesh. Connectivity to Luhri HEP Stage-I was discussed in 2nd meeting of SCT held on 13.11.2018, wherein it was informed that a team of officers from CEA, SJVNL HPPTCL, HPSEB and CTU visited 3 sites of Luhri-I, II and III on 14-06-2018. The team proposed that power from all the three stages of Luhri HEP would be evacuated at 220 kV level and would be pooled at 400/220 kV proposed ISTS pooling station tentatively identified at a place 'Nange' located near Luhri-II HEP and further evacuated to Koldam through 400 kV D/C line. System beyond Koldam sub-station shall be finalized after system studies. For taking up the implementation of the associated transmission system, SJVNL was advised to apply for Connectivity/LTA at the earliest for all the three stages. During the meeting, it was also informed that SJVN has applied for grant of Connectivity for all the three stages.

B.12.2 It was further informed that the following transmission system was agreed for connectivity to Luhri St-I, II and Sunni Dam HEPs subject to confirmation from NTPC Ltd. for availability of space at Koldam switchyard for construction of 2 nos. of 400kV bays:

B.12.3 Connectivity System:

a. Connectivity system for Luhri Stage-I 210MW: Under the scope of Generation Developer – w.e.f. 15.06.2025 or availability of following system whichever is later:

Luhri Stage-I – 400/220kV Nange Pooling Station 220kV D/c line along with associated bays at both ends

b. Connectivity system for Luhri Stage-II 172MW: Under the scope of Generation Developer- w.e.f. 31.10.2026 or availability of following system whichever is later:

Luhri Stage-II – 400/220kV Nange Pooling Station 220kV D/c line along with associated bays at both ends

I/12271/2020



Annexure P6

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन-I प्रभाग

Power System Planning & Appraisal-I Division

To

-As per list enclosed-

Subject: 2nd Meeting of Northern Regional Power Committee (Transmission Planning) (NRPCTP) – Minutes of Meeting

Sir/ Madam,

The 2nd meeting of Northern Regional Power Committee (Transmission Planning) (NRPCTP) was held on 1st September, 2020 through Video Conferencing.

Minutes of meeting are available on CEA website: www.cea.nic.in (path to access: Home Page - Wing - Power System - PSPA-I - Standing Committee on Power System Planning - Northern Region).

Yours faithfully,

(Goutam Roy) 14/11/20
Chief Engineer

1.	Member Secretary, NRPC, 18-A ShajeedJeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi - 110016	2.	Director (W &P), UPPTCL, Shakti Bhawan Extn,3rd floor, 14, Ashok Marg, Lucknow - 226 001	3.	Director, (Technical), THDCIL, Pragatipuram, Bypass Road, Rishikesh-249201
4.	Director (Technical), Punjab State Transmission Corporation Ltd. (PSTCL) Head Office The Mall Patiala - 147001	5.	Member (Power), BBMB, Sectot-19 B Madhya Marg, Chandigarh-1 60019	6.	CMD, NHPC, NHPC Office Complex, Sector-33, NHPC, Faridabad-121003
7.	Director (PP&D) RVPN, 3 rd Floor, Room no 330, Vidhyut Bhawan, Janpath, Jaipur-302005.	8.	Director (Technical), HVPNL, Shakti Bhawan, Sector- 6 Panchkula-134109	9.	Director (Technical), HPSEB Ltd. VidutBhawan, Shimla -171004
10.	Managing Director, HPPTCL, Barowalias, Khalini Shimla-171002 Fax-0177-2623415	11.	Chief Engineer (Operation) Ministry of Power, UT Secretariat, Sector-9 D Chandigarh -161009	12.	Development Commissioner (Power), Power Department, Grid Substation Complex, Janipur, Jammu,
13.	COO (CTU) POWERGRID, Saudamini, Plot no. 2, Sector -29, Gurgaon-122 001 (Fax-0124-2571809)	14.	Director (System Operation), POSOCO B-9, Qutab Institutional Area, Katwaria Sarai New Delhi – 110010	15.	MD, SECI, Prius Platinum, D-3, District Centre, Saket, New Delhi -17
16.	CMD, NTPC, NTPC Bhawan, Core 7, Scope Complex-6, Lodhi Road. New Delhi	17.	GM (GMR), Bajoli Holi Hydro Power Private Limited, Airport Building, 302, 1 st Floor, New Shakti Bhawan, Near Terminal 3 IGI Airport, New Delhi -37	18.	General Manager (Planning), Delhi Transco Ltd, Shakti Sadan, Kotla Marg, New Delhi-110002
19.	General Manager (Planning), Chenab Valley Power Projects (P) Limited, Chenab Jal Shakti Bhawan, Rail Head Complex, Jammu				

Minutes of 2nd Meeting of Northern Region Power Committee (Transmission Planning) (NRPCTP) held on 1.09.2020

List of participants is enclosed as **Annexure-I**.

Member (PS), CEA, the Chairman of RPC (TP) welcomed the participants and stated that as per the terms of reference of Region Power Committee (Transmission Planning), the meeting of NRPCTP was supposed to be conducted once in every quarter. The 1st meeting of NRPCTP was held on 24.01.2020; however the 2nd meeting could not be scheduled on time due to prevailing conditions of COVID-19. He then requested Chief Engineer (PSPA-I), CEA to take up the agenda item.

CE, PSPA-1 welcoming the members to the 2nd Meeting of Northern Region Power Committee (Transmission Planning) (NRPCTP) stated as mentioned by the Chairman the meeting is delayed from its schedule due the ongoing pandemic. We have been waiting for the pandemic to go, however, as the wait was becoming too long, as such, decision was taken to conduct the meeting through Video Conference. He apologised to the participants as it could be strenuous for sitting so long for the VC. He stated that to shorten the duration of the meeting we tried to reduce the agenda item, however, many participating organisation has send their agenda during the last two to three days and requested this office to include the same. He stated that as per the TOR the meeting is to be held after every three months' time so until it is almost urgent the agenda can be deferred for the next meeting. He requested the constituents to send their agenda items within one month from the last meeting, so that sufficient time could be given to members to study the agenda and to have fruitful discussions on it during the meeting. He, further emphasised, that as far as possible, issue need to be settled first with CEA, CTU and other organisation before coming to the NRPCTP meeting so that the RPC (TP) can deliberate on the same from a broader prospective. This would avoid longer unnecessary deliberations and disagreement. He then requested Director, PSPA-I (CEA) to take up the agenda for discussions.

1.0 Confirmation of the Minutes of the 1st meeting of Northern Region Power Committee (Transmission Planning) (NRPCTP) held on 24.01.2020

- 1.1** Director, PSPA-1 stated that the minutes of the 1st meeting of (NRPCTP) were issued vide CEA letter dated 26.02.2020 and no comments have been received from the constituents and requested the members to confirm the minutes.
- 1.2** Members confirmed the minutes of 1st meeting of NRPCTP.

2.0 Creation of 400/220 kV, 2x315 MVA S/S at Akhnoor/Rajouri as ISTS

- 2.1** Director, PSPA-1 stated that the issue was also deliberated in 37th meeting of Standing Committee on Power System Planning held on 20th Jan 2016, wherein, it was decided that proposal of new substation at Akhnoor/Rajouri may be considered only after the utilization of 220 kV downstream from Samba, New Wanpoh and Amargarh are taken up for implementation by JKPDD. JKPDD had submitted a proposal during the 1st NRPCTP meeting for the establishment of 400/220 kV, 2x315 MVA S/s at Akhnoor/ Rajouri under ISTS. However, due to absent of any participants from J&K the issue could not be discussed. Now, JKPDD has again submitted the proposal and has requested for the following downstream transmission system for the implementation of 400/220 kV Akhnoor/Rajouri ISTS S/s:

Works proposed under ISTS:

- i) Establishment of 2x315MVA, 400/220kV Akhnoor/Rajouri S/s with 4nos. of 400kV line bays and 6nos. of 220kV line bays

- ii) LILO of 400 kV D/c Amargarh (Kunzer)- Samba line at 400/220 kV Akhnoor/ Rajouri S/s

Works proposed under Intra-State Transmission works:

- iii) 220 kV D/c line from 400/220 kV Akhnoor/ Rajouri to 220/132 kV Akhnoor-II
- iv) 220 kV D/c line from 400/220 kV Akhnoor/ Rajouri to 220/132 kV Rajouri
- v) 220 kV D/c line from 400/220 kV Akhnoor/ Rajouri to 220/132 kV Katra-II

- 2.2** She further stated that as per the system studies carried out by CEA, it has been observed that the load flow study seems to be in order except the line from Akhnoor to Katra-II remains floating. She then requested Chief Engineer, Jammu to put some light into the matter.
- 2.3** CE, JKPDD stated that Rajouri is a border area and is at a distance of 150 km from Jammu, wherein 132 kV network is present. In that same corridor, there is resentment amongst people that a 400 kV line is passing in the vicinity and they are not getting quality power due to the interruptions on the 132 kV network because of long distance, plus the downstream network of capacity 320 MVA is having a loading of 500 MVA, feeding grids are getting overloaded and load shedding is being enforced. Therefore, in order to improve the system profile in that area, 400/220 kV Akhnoor/Rajouri S/s is proposed with the LILO of Amargarh – Samba 400 kV D/c line passing through the same corridor.
- 2.4** CE, PSPA-1 enquired about the distance of the proposed ISTS S/s from 220/132 kV Akhnoor-II(Jammu), Rajouri, Katra-II S/s. With this, JKPDD stated that for 400/200 kV ISTS, land is available at Siot (mid way between Akhnoor and Rajouri) which is at a distance of approx. 60 km from Akhnoor-II, 60 km from Rajouri and 40 km from Katra-II. Regarding the connectivity of Katra-II, JKPDD stated that instead of LILO of Salal-Kishenpur at Katra-II, 220kV D/c line from Nagrota-Katra-II may be considered. This would create a 220 kV ring around Jammu region, which will also serve the reliability purpose. The same proposal will be sent to CEA for approval under Intra-State works.
- 2.5** Chairperson, CEA enquired about the timeframe considered in the studies. In this regard, CEA stated that 2023-24 timeframe is considered. With this, Chairperson, CEA stated that longer timeframe could have been taken as the construction activities in J&K usually takes a lot a time.
- 2.6** COO, CTU agreed that revised studies needs to be done with the demand requirement along with the confirmation of 220 kV outlets from this substation. Further, he stated that usually there is mismatch in the timeframe of substation and transmission lines, therefore first the 200 kV outlets needs to be confirmed, then substation could be planned. Also, he suggested to plan 500 MVA transformers instead of 315 MVA at the proposed Akhnoor/Rajouri S/s.
- 2.7** Member Secretary, NRPC stated the downstream system is always delayed in case of J&K, particularly in Kashmir. Therefore, while confirming the ISTS Works, first the downstream system needs to matched with the timeframe of ISTS Transmission system, for proper absorption of power.
- 2.8** Chairperson, CEA suggested that revised studies could be done for J&K by CEA and CTU and accordingly, the proposal would be deliberated in the next NRPCTP meeting. Members agreed with the same.
- 3.0 Transmission system for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs:**
- 3.1** Director, PSPA-1 stated that the transmission system for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL was discussed during 1st

Northern Region Power Committee (Transmission Planning) held on 24.01.2020 & following system was agreed:

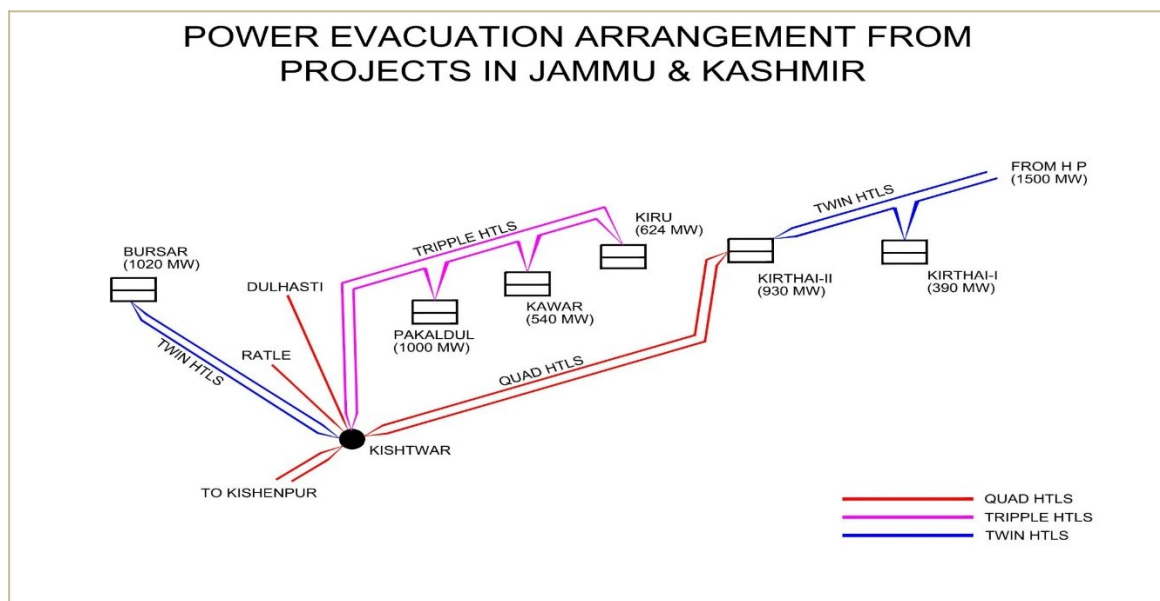
a) Connectivity Transmission system

1. Implementation of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C Triple HTLS connectivity line to be implemented by M/s CVPPL. M/s CVPPL to phase the implementation of the connectivity line as per the implementation timelines of the three HEPs ie. Kiru, Kwar & Pakaldul.
2. One and a half breaker switching scheme at 400kV Generation switchyard- under the scope of M/s CVPPL
3. 2 GIS bays at each end of Kishtwar and Pakaldul- under the scope of M/s CVPPL
4. 420 kV, 125 MVAR Bus Reactor at Pakaldul HEP- under the scope of M/s CVPPL:
5. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) –under ISTS
6. 420 kV, 125 MVAR Bus Reactor at Kishtwar switching station- under ISTS

b) LTA system for Pakaldul HEP:

CVPPL has also applied for LTA for transfer of 1000 MW from Pakaldul HEP to NR (target region). The application was discussed in 24th Meeting of Northern Region Constituents regarding Connectivity and LTA applications in NR held on 26.06.2019 wherein following transmission system for LTA was agreed:

1. Kishtwar switching station - Kishenpur 400kV S/c (Quad) line (stringing of second circuit of Dulhasti–Kishenpur 400kV from Kishtwar upto Kishenpur) along with bays at both ends - **Under ISTS**



c) Connectivity Transmission system for Kiru HEP:

CVPPL has also applied on 25.06.2020 for grant of Connectivity to Kiru HEP (624MW) w.e.f. 01.04.2024 and was discussed and agreed in 36th NR LTA/Connectivity meeting with the following transmission system:

1. 400 kV D/c (Triple HTLS Conductor –Equivalent to about 2400MW-considering 10% overload) line from Kiru HEP – Pakaldul generation switchyard along with bays at both ends, forming one direct 400 kV ckt. from Kiru – Kishtwar PS(GIS) and other 400 kV ckt. LILOed at Kwar & Pakaldul HEP.

2. Switchyard Capacity must be able to handle about 2400MW power generated by the generation projects located in downstream of the Kiru HEP. GIS switchyard equipment and XLPE cables provided may be designed for carrying 4000 Amps current.
3. 400 kV, 125 MVAR Bus Reactor at Kiru generation switchyard.

She further stated that the transmission system to be implemented under ISTS has been discussed in the 3rd meeting of the "National Committee on Transmission" (NCT) held on 26th and 28th May, 2020 and has been agreed for taking up for implementation.

- 3.2** CE, CEA asked CTU to intimate the present status and the timeframe of the stringing of second circuit from Kishenpur to Kishtwar. On that CTU replied that the length of the line is approx. 130 km, which will take around 18-24 months considering the hilly region and would be done matching with the timeframe of the generation at Pakaldul, i.e February, 2024. CTU also stated that in the 1st meeting of NRPCTP, it was decided to finalise the location of Kishtwar S/s with the committee consisting of CEA, CTU, JKPDD and CVPPL, along with the confirmation of space. In this regard, CE, CEA stated that the same could not be planned due to COVID, however site visit will be planned soon.

- 3.3** Members noted the same.

- 3.4** CVPPL stated that as per the connectivity system CVPPL has to construct two number of bays at Kishtwar S/s for termination of their 400kV lines. However, as agreed in the earlier Standing Committee, the two circuits of the line is required should not be terminated in the same dia for reliability consideration and in the GIS S/s, the complete dia is to be implemented in the beginning itself. Therefore, CVPPL has to implement two complete dia with 6 circuit breaker bays out of which two bays are in their scope. CVPPL purposed that these 2 nos. of 400kV bays at the Kishtwar S/s may be implemented under ISTS and cost of two nos. of 400kV bays(CVPPL scope) shall be reimbursed by CVPPL.

- 3.5** *After deliberations, it was agreed that a separate meeting would be convened among CEA, CTU and CVPPL to discuss the issue of providing two numbers of 400kV bays at Kishtwar Switching Station.*

4.0 Implementation of 400/132kV transformer at Kishtwar Pooling Station:

- 4.1** Director, PSPA-1 stated that JKPDD has requested to take up the implementation of 315 MVA, 400/132kV transformer at 400kV pooling station at Kishtwar. JKPDD has intimated that they have existing 132kV line network at Kishtwar and 132kV RKKTL line from Ramban S/s is under construction. At present, they have three no. of 132/33kV GSS in vicinity i.e. 40MVA Kishtwar JKPDD, 20 MVA Kishtwar (NHPC) and 70 MVA Khellani S/S with further connectivity at sub- transmission level. In order to provide reliable power to the area, JKPDD has requested for implementation of 315 MVA, 400/132kV transformer along with 132kV line bays at Kishtwar pooling station under ISTS.

- 4.2** Chairperson, CEA suggested to plan 220 kV network instead of 132 kV considering the load growth. CE, JKPDD replied that there is no 220kV network in that area. At present, the local 132 kV load is being fed through the 132 kV line of NHPC. Two 50 MVA substations are proposed at Bhaderwah and Patan area under intra-state transmission works which will be sufficient for reliability purpose for the next 10-15 years. Considering that, the proposed 400/132 kV transformer along with along with 132kV line bays at Kishtwar pooling station under ISTS would be adequate.

- 4.3** CTU stated that minimum two transformers would be required in order to meet n-1 criteria. Therefore, 2x200 MVA transformation capacity may be considered instead of 1x315 MVA.
- 4.4** CE, CEA enquired about the 132 kV network with the Kishtwar PS. In this regard, JKPDD replied total 4no. of 132 kV bays are required, two each for their 132/33 kV Khellani and local Kishtwar S/s. The same would be implemented matching with timeframe of Kishtwar ISTS.
- 4.5** CTU stated that this work has to be proposed in the strengthening scheme as when this project would be implemented under TBCB, for 400 kV LTTC will be generators and for 400/132 kV system, LTTC's will be Discoms. Therefore for the same bidding, two separate TSA would be signed. Also, regarding the timeframe of the scheme, JKPDD stated that the scheme may be implemented in matching timeframe of Kishtwar S/s.
- 4.6** *After deliberations, members agreed with the implementation of 2x200 MVA, 400/132 kV transformer at Kishtwar Pooling Station along with 4 no. of 132 kV line bays to be taken up as system strengthening scheme.*
- 5.0 Transmission works to be implemented in Jammu and Kashmir Region under Intra – State transmission system**
- 5.1** Director, PSPA-1 stated that JKPDD has submitted the DPR for the transmission projects in Jammu region to CEA, which are required to be implemented during the 13th/14th plan. The same have been agreed technically in the 1st meeting of Northern Region Power Committee (Transmission Planning) held on 24.01.2020. Apart from these works, JKPDD has also submitted some additional intra-state works to be included along with this DPR. The details of the additional transmission works proposed by PDD, Jammu is listed as **Annexure-II**. JKPDD has also submitted DPR for Kashmir region in January, 2020 to be implemented during 13th and 14th plan period. The same is under examination.
- 5.2** She further stated that following works proposed by JKPDD in the DPR's requires interconnection with the ISTS elements:

a) Jammu Region

1	Laying of 220 kV D/c Jatwal-Chawdhi line (45 kms)	Two no. of bays are required at Samba(Jatwal) (to be implemented by JKPDD)
2	Thickening of S/C 220KV Jatwal-Gladni Trans. Line from ACSR Zebra to HTLS conductor(40 kms)	Jatwal-Gladni Trans. Line is an ISTS line. Therefore work required to be taken up under ISTS

b) Kashmir Region

1	LILO of 220kV Wagoora - Kishenganga line at Khansahib (Beerwah)	Kishanganga - Wagoora 220kV D/C line is an ISTS line
2	LILO of one ckt of Alusteng- Leh 220kV S/c line on D/c towers at Gangangeer (Sonamarg) (5km)	Alusteng- Leh 220kV S/c line is an ISTS line
3	220kV Kunzer - Gulmarg S/C line (15 km)	Amargarh (Kunzer) is an ISTS S/s, Out of 6 no.s of 220kV bays, 4 bays have been utilized for LILO of
4	220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri (40km)	Delina –Zeinkote at Amargarh (Kunzer), 2 nos. of bays are proposed to be utilized through Amargarh –Sheeri 220kV D/c line, space for additional 2 nos.
5	220kV Amargarh (Kunzar) - Lollipora S/C line (4 kms)	of bays are required. Implementation of bays is proposed to be taken up by JKPDD.

Annexure P7



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EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

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अधिसूचना

नई दिल्ली, 23 सितम्बर, 2020

का.आ. 3313(अ).—विद्युत अधिनियम, 2003 (2003 की सं. 36) की धारा 63 के अधीन परिचालित दिशा-निर्देशों के पैरा 3 के उप-पैरा 3.2 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्र सरकार एतद्वारा पारेषण स्कीमों के नामों के समक्ष दर्शाई गई पारेषण स्कीम के लिए निम्नलिखित बोली प्रक्रिया समन्वयकर्ताओं (बीपीसी) को नियुक्त करती है:

क्र.सं.	पारेषण स्कीमों के नाम एवं कार्यक्षेत्र	बोली प्रक्रिया समन्वयकर्ता						
1.	<p>चिनाव घाटी एचईपी की पकलदुल एचईपी में विद्युत निकासी हेतु पारेषण प्रणाली- कनेक्टिविटी सिस्टम:</p> <p>कार्य क्षेत्र:</p> <table border="1"> <thead> <tr> <th>क्र.सं.</th><th>पारेषण स्कीम का कार्य क्षेत्र</th><th>क्षमता/किमी</th></tr> </thead> <tbody> <tr> <td>1</td><td>420 केवी के साथ किशतवार (जीआईएस) में 400 केवी स्विचिंग स्टेशन स्थित, किशनपुर- दुलहस्ती 400 केवी (क्वाड) लाइन (एकल सर्किट स्ट्रिंग) के एकल सर्किट की लीलो द्वारा किशतवार स्विचिंग स्टेशन पर 125 एमवीएआर बस रिएक्टर की स्थापना</td><td>420 केवी सहित 400 केवी स्विचिंग स्टेशन, 125 एमवीएआर बस रिएक्टर-1 रिएक्टर वे-1</td></tr> </tbody> </table>	क्र.सं.	पारेषण स्कीम का कार्य क्षेत्र	क्षमता/किमी	1	420 केवी के साथ किशतवार (जीआईएस) में 400 केवी स्विचिंग स्टेशन स्थित, किशनपुर- दुलहस्ती 400 केवी (क्वाड) लाइन (एकल सर्किट स्ट्रिंग) के एकल सर्किट की लीलो द्वारा किशतवार स्विचिंग स्टेशन पर 125 एमवीएआर बस रिएक्टर की स्थापना	420 केवी सहित 400 केवी स्विचिंग स्टेशन, 125 एमवीएआर बस रिएक्टर-1 रिएक्टर वे-1	पीएफसी कंसल्टिंग लिमिटेड
क्र.सं.	पारेषण स्कीम का कार्य क्षेत्र	क्षमता/किमी						
1	420 केवी के साथ किशतवार (जीआईएस) में 400 केवी स्विचिंग स्टेशन स्थित, किशनपुर- दुलहस्ती 400 केवी (क्वाड) लाइन (एकल सर्किट स्ट्रिंग) के एकल सर्किट की लीलो द्वारा किशतवार स्विचिंग स्टेशन पर 125 एमवीएआर बस रिएक्टर की स्थापना	420 केवी सहित 400 केवी स्विचिंग स्टेशन, 125 एमवीएआर बस रिएक्टर-1 रिएक्टर वे-1						

	<div>भावी प्रावधान:</div> <div>बे सहित 765/400 केवी आईसीटी - 3 बे सहित 400/220/132 केवी आईसीटी - 3 स्विचबल लाइन रिएक्टर सहित 765 केवी लाइन बे - 6 400 केवी लाइन बे - 8 220/132 केवी लाइन बे - 6 बे सहित 765 केवी बस रिएक्टर - 1 बे सहित 400 केवी बस रिएक्टर - 1 के लिए स्थान</div>			
	2	किशनपुर- दुलहस्ती 400 केवी डी/सी (क्वाड) लाइन के एकल सर्किट का लीलो	लीलो की लंबाई-10 कि. मी.	
	3	किशनपुर- दुलहस्ती 400 केवी डी/सी (क्वाड) लाइन के एकल सर्किट का लीलो हेतु किशनवार (जीआईएस) में दो 400 केवी बे।	400 केवी लाइन बे-2	
	4	किशनवार-किशनपुर खंड के दूसरे सर्किट स्ट्रिंगिंग हेतु किशनवार (जीआईएस) में एक 400 केवी लाइन बे।	400 केवी लाइन बे-1	
	#किशनवार पुलिंग स्टेशन के स्थान को अंतिम रूप दिया जाना बाकी है। (जीआईएस)लाइन की लंबाई अस्थायी है। कार्यान्वयन की समय-सीमा: पाकलदुल एचईपी (फरवरी, 2024) से मिलती-जुलती समय-सीमा में लागू की जाएगी।			
2.	चरण-I के अधीन खावड़ा पी.एस. में 3 जीडब्ल्यू आरई अंतर्क्षेपण के निकासी हेतु पारेषण स्कीम: कार्य क्षेत्र:			पीएफसी कंसल्टिंग लिमिटेड
	क्र.सं.	पारेषण स्कीम का कार्य क्षेत्र	क्षमता/किमी	
	1	1x330 एमवीएआर 765 केवी बस रिएक्टर तथा 1x125 एमवीएआर 420 केवी बस रिएक्टर सहित खावड़ा (जीआईएस) में 3x1500 एमवीए 765/400 केवी की स्थापना। भावी प्रावधान: बे सहित 765/400 केवी आईसीटी : 5 बे सहित 400/220 केवी आईसीटी:4 स्विचबल लाइन रिएक्टर सहित 765 केवी लाइन बे : 6 400 केवी लाइन बे : 9 220 केवी लाइन बे : 8 बे सहित 765 केवी रिएक्टर : 2 बे सहित 400 केवी रिएक्टर : 1 765 केवी बस सेक्शनलाईजर -1	765/400 केवी, 1500 एमवीए आईसीटी -3 765 केवी आईसीटी बे-3 400 केवी आईसीटी बे -3 330 एमवीएआर 765 केवी बस रिएक्टर-1 125 एमवीएआर 420 केवी बस रिएक्टर-1 765 केवी रिएक्टर बे-1 765 केवी लाइन बे-1 400 केवी रिएक्टर बे-1 400 केवी लाइन बे-1 500 एमवीए, 765/400 केवी स्पेयर आईसीटी-1 110 एमवीएआर, 765 केवी, 1-पीएच रिएक्टर (स्पेयर यूनिट)	

पीएफसी
कंसल्टिंग
लिमिटेड

	400 केवी बस सेक्शनलाईजर -1 के लिए स्थान		
2	खावड़ा पी.एस.(जीआईएस)- भुज पीएस 765 केवी डी/सी लाइन	60	
3	खावड़ा पी.एस.(जीआईएस)- भुज पीएस 765 केवी डी/सी लाइन की समाप्ति हेतु भुज पीएस में प्रत्येक दो लाइन बे	765 केवी एआईएस लाइन बे-2	
4	400/220 केवी का सृजन, खावड़ा (जीआईएस) पी.एस. में 2x500 एमवीए रूपांतरित क्षमता (कार्यान्वयन 220 केवी स्तर पर दी गई कनेक्टिविटी/एलटीए के अनुसार किया जाएगा)	400/220 केवी, 500 एमवीए आईसीटी-2 400 केवी आईसीटी बे -2 220 केवी आईसीटी बे -2 220 केवी लाइन बे-4 (220 केवी स्तर पर कनेक्टिविटी हेतु आरई जनरेटरों की समाप्ति के लिए)	
कार्यान्वयन की समय-सीमा: आरई परियोजनाओं हेतु मिलती-जुलती समयसीमा तथा 24 माह जो भी बाद में हो।			
<p>नोट:</p> <p>(i) अब तक, अदानी ग्रीन एनर्जी फोर लिमिटेड को 400 केवी स्तर पर प्रस्तावित खावड़ा पी.एस. में 500 मेगावाट हेतु चरण-II कनेक्टिविटी तथा 2500 मेगावाट के लिए चरण-I कनेक्टिविटी प्रदान की गई है। तदनुसार, खावड़ा पी.एस. के कार्यों के कार्यक्षेत्र के अंतर्गत समर्पित लाइन के समाप्ति हेतु एक 400 केवी जीआईएस लाइन बे शामिल की गई है।</p> <p>(ii) खावड़ा में प्रस्तावित 220 केवी स्तर का कार्यान्वयन केवल तभी किया जाएगा जब कनेक्टिविटी/एलटीए 220 केवी स्तर पर दी गई हो और जिन्होंने 220 केवी स्तर या 24 महीनों में कनेक्टिविटी/एलटीए की मांग की हो, जो भी बाद में हो, उसे आरई परियोजनाओं की मिलती-जुलती समय सीमा में लागू करने की आवश्यकता हो।</p>			
3.	चरण-II के अधीन खावड़ा पी.एस. में 4.5 जीडब्ल्यू आरई अंतर्क्षेपण की निकासी हेतु पारेषण स्कीम-भाग क	आरईसी पारेषण परियोजना कंपनी लिमिटेड	
	कार्य क्षेत्र:		
	क्र.सं.	पारेषण स्कीम का कार्य क्षेत्र	क्षमता/किमी
	1	द्वितीय 765 केवी तथा 400 केवी बस पर 1x330 एमवीएआर 765 केवी बस रिएक्टर तथा 1x125 एमवीएआर 420 केवी बस रिएक्टर के साथ 4x1500 एमवीए, 765/400 केवी आईसीटी द्वारा खावड़ा पी.एस. (जीआईएस) में वृद्धि।	765/400 केवी, 1500 एमवीए आईसीटी - 4 765 केवी आईसीटी बे-4 765 केवी आईसीटी बे -2 400 केवी आईसीटी बे -4 1x330 एमवीएआर 765 केवी बस रिएक्टर-1 125 एमवीएआर, 420 केवी बस रिएक्टर-1 765 केवी रिएक्टर बे-1

		400 केवी रिएक्टर बे-1 765 केवी बस सेक्शनलाईजर -1 400 केवी बस सेक्शनलाईजर -1	
2	खावड़ा पी.एस. (जीआईएस) में 2x500 एमवीए रूपांतरित क्षमता, 400/220 केवी की वृद्धि ((कार्यान्वयन 220 केवी स्तर पर दी गई कनेक्टिविटी/एलटीए के अनुसार किया जाएगा)	400/220 केवी, 500 एमवीए आईसीटी – 2 400 केवी आईसीटी बे-2 220 केवी आईसीटी बे-2 220 केवी लाइन बे-4	
3	खावड़ा पी.एस. (जीआईएस)-खावड़ा छोर पर 330 एमवीएआर लाइन रिएक्टरों सहित लकाड़िया पी.एस. 765 केवी डी/सी लाइन	160 कि मी	
4	खावड़ा पी.एस. (जीआईएस) - लकाड़िया पी.एस. 765 केवी डी/सी लाइन हेतु लकाड़िया पी.एस. पर प्रत्येक 2 765 केवी लाइन बे।	765 केवी एआईएस लाइन बे- 2	
5	खावड़ा छोर पर स्थित खावड़ा पी.एस. (जीआईएस) - लकाड़िया पी.एस. 765 केवी डी/सी लाइन के प्रत्येक सर्किट हेतु 1x330 एमवीएआर स्विचबल लाइन रिएक्टर	1x330 एमवीएआर, 765 केवी स्विचबल लाइन रिएक्टर-2 765 केवी रिएक्टर हेतु स्विचिंग उपकरण-2 खावड़ा पी.एस. (जीआईएस) में उपलब्ध 1x110 एमवीएआर स्पेयर बस रिएक्टर को स्पेयर की तरह उपयोग करना।	
कार्यान्वयन की समय-सीमा: आरई परियोजना हेतु मिलती-जुलती समयसीमा तथा 24 माह जो भी बाद में हो।			
नोट:			
(i) खावड़ा में 3 जीडब्ल्यू आरई अंतर्क्षेपण की निकासी हेतु पारेषण प्रणाली चरण-1 के अंतर्गत शुरू किया जा रहा है। खावड़ा में 4.5 जीडब्ल्यू आरई अंतर्क्षेपण की निकासी हेतु इस आरई स्कीम का दूसरा चरण खावड़ा पूलिंग स्टेशन से 3 जीडब्ल्यू से अधिक निकासी आवश्यकता के लिए शुरू किया जाना है।			
(ii) खावड़ा में प्रस्तावित 220 केवी स्तर का कार्यान्वयन केवल तभी किया जाएगा जब कनेक्टिविटी/एलटीए 220 केवी स्तर पर दी गई हो और जिन्होंने 220 केवी या 24 महीनों में कनेक्टिविटी/एलटीए की मांग की हो, जो भी बाद में हो, उसे आरई परियोजनाओं की मिलती-जुलती समय सीमा में लागू करने की आवश्यकता हो।			
(iii) चरण-II (भाग क से भाग ड) के अंतर्गत खावड़ा पी.एस. में 4.5 जीडब्ल्यू आरई अंतर्क्षेपण की निकासी हेतु प्रस्तावित सभी पारेषण पैकेजों का कार्यान्वयन एकसमान समयावधि में किए जाने की आवश्यकता है।			
4.	चरण-II के अधीन खावड़ा पी.एस. में 4.5 जीडब्ल्यू आरई अंतर्क्षेपण की निकासी हेतु पारेषण स्कीम:भाग ख		आरईसी पारेषण परियोजना कंपनी लिमिटेड
कार्य क्षेत्र:			
क्र.सं.	पारेषण योजना का कार्य क्षेत्र	क्षमता/किमी	
1	लकाड़िया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन	250 कि मी	

	<table><tr><td>2</td><td>लकाडिया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन के लिए लकाडिया पी.एस. में दो 765 केवी बे लाइन</td><td>765 केवी लाइन बे-2</td></tr><tr><td>3</td><td>लकाडिया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन के प्रत्येक छोर पर प्रत्येक सर्किट के लिए 240 एमवीएआर, 765 स्विचेबल लाइन रिएक्टर</td><td>1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के अहमदाबाद छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (अहमदाबाद छोर के लिए) 1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के लकाडिया छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (लकाडिया छोर के लिए)</td></tr></table>	2	लकाडिया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन के लिए लकाडिया पी.एस. में दो 765 केवी बे लाइन	765 केवी लाइन बे-2	3	लकाडिया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन के प्रत्येक छोर पर प्रत्येक सर्किट के लिए 240 एमवीएआर, 765 स्विचेबल लाइन रिएक्टर	1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के अहमदाबाद छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (अहमदाबाद छोर के लिए) 1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के लकाडिया छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (लकाडिया छोर के लिए)	
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3	लकाडिया पी.एस.-अहमदाबाद 765 केवी डी/सी लाइन के प्रत्येक छोर पर प्रत्येक सर्किट के लिए 240 एमवीएआर, 765 स्विचेबल लाइन रिएक्टर	1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के अहमदाबाद छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (अहमदाबाद छोर के लिए) 1x240 एमवीएआर, 765 केवी स्विचेबल लाइन रिएक्टर-2 (लकाडिया पी.एस.-अहमदाबाद का 765 केवी डी/सी लाइन के लकाडिया छोर पर प्रत्येक सर्किट के लिए) 765 केवी लाइन रिएक्टर हेतु स्विचिंग उपकरण -2 1x80 एमवीएआर स्पेयर रिएक्टर-1 (लकाडिया छोर के लिए)						
कार्यान्वयन की समय-सीमा: आरई परियोजनाओं हेतु मिलती-जुलती समय-सीमा तथा 24 माह जो भी बाद में हो।								
नोट: चरण-II (भाग क से भाग ड) के अंतर्गत खावड़ा पी.एस. में 4.5 जीडब्ल्यू आरई के अंतर्भेपण की निकासी हेतु प्रस्तावित सभी पारेषण पैकेजों का कार्यान्वयन एक समान समयावधि में किए जाने की आवश्यकता है।								
5.	चरण-II के अधीन खावड़ा पी.एस. में 4.5 जीडब्ल्यू आरई अंतर्भेपण की निकासी हेतु पारेषण स्कीम:भाग ग कार्य क्षेत्र:	आरईसी पारेषण परियोजना कंपनी लिमिटेड						
<table><tr><th>क्र.सं.</th><th>पारेषण योजना का कार्य क्षेत्र</th><th>क्षमता/किमी</th></tr><tr><td>1</td><td>2x1500 एमवीए, 765/400 केवी अहमदाबाद सब स्टेशन में 1x330 एमवीएआर 765 केवी बस रिएक्टर तथा 1x125 एमवीएआर 420 केवी बस रिएक्टर की स्थापना भावी प्रावधान: बे सहित 765/400 केवी आईसीटी-2 बे सहित 400/220 केवी आईसीटी-4 765 केवी लाइन बे-8 400 केवी लाइन बे-8 220 केवी लाइन बे-7 बे सहित 765 केवी रिएक्टर-1 बे सहित 400 केवी रिएक्टर-1 के लिए स्थान</td><td>765/400 केवी, 1500 एमवीए आईसीटी-2 765 केवी आईसीटी बे-2 400 केवी आईसीटी बे-2 765 केवी लाइन बे-4 (लकाडिया-अहमदाबाद के लिए 2 तथा अहमदाबाद से बड़ोदरा के लिए 2) 400 केवी लाइन बे-4 (अहमदाबाद में लीलो का पिराना (पीजी)-पिराना (टी)) 400 केवी डी/सी लाइन हेतु) 330 एमवीएआर 765 केवी बस रिएक्टर 125 एमवीएआर 420 केवी बस रिएक्टर-1 765 केवी रिएक्टर बे-1 400 केवी रिएक्टर बे-1 500 एमवीए, 400/220 केवी स्पेयर आईसीटी-1</td></tr></table>			क्र.सं.	पारेषण योजना का कार्य क्षेत्र	क्षमता/किमी	1	2x1500 एमवीए, 765/400 केवी अहमदाबाद सब स्टेशन में 1x330 एमवीएआर 765 केवी बस रिएक्टर तथा 1x125 एमवीएआर 420 केवी बस रिएक्टर की स्थापना भावी प्रावधान: बे सहित 765/400 केवी आईसीटी-2 बे सहित 400/220 केवी आईसीटी-4 765 केवी लाइन बे-8 400 केवी लाइन बे-8 220 केवी लाइन बे-7 बे सहित 765 केवी रिएक्टर-1 बे सहित 400 केवी रिएक्टर-1 के लिए स्थान	765/400 केवी, 1500 एमवीए आईसीटी-2 765 केवी आईसीटी बे-2 400 केवी आईसीटी बे-2 765 केवी लाइन बे-4 (लकाडिया-अहमदाबाद के लिए 2 तथा अहमदाबाद से बड़ोदरा के लिए 2) 400 केवी लाइन बे-4 (अहमदाबाद में लीलो का पिराना (पीजी)-पिराना (टी)) 400 केवी डी/सी लाइन हेतु) 330 एमवीएआर 765 केवी बस रिएक्टर 125 एमवीएआर 420 केवी बस रिएक्टर-1 765 केवी रिएक्टर बे-1 400 केवी रिएक्टर बे-1 500 एमवीए, 400/220 केवी स्पेयर आईसीटी-1
क्र.सं.	पारेषण योजना का कार्य क्षेत्र	क्षमता/किमी						
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आरईसी
पारेषण
परियोजना
कंपनी लिमिटेड

		110 एमवीएआर, 765 केवी, 1 पीएच रिएक्टर (स्पेयर यूनिट)-1													
2	अहमदाबाद-वडोदरा 765 केवी डी/सी लाइन	112 कि.मी													
3	अहमदाबाद-वडोदरा 765 केवी डी/सी लाइन हेतु वडोदरा के लिए प्रत्येक 2 765 केवी लाइन बे	765 केवी जीआईएस लाइन बे-2 (वडोदरा)													
कार्यान्वयन की समय-सीमा: आरई परियोजना हेतु मिलती-जुलती समय-सीमा तथा 24 माह जो भी बाद में हो।															
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8.	<p>नांगलबीबरा स्थित नए 220/132 केवी सब-स्टेशन की स्थापना:</p> <p>कार्य क्षेत्र:</p> <table><tr><th>क्र.सं.</th><th>पारेषण स्कीम का कार्य क्षेत्र</th><th>क्षमता/किमी</th></tr><tr><td>1</td><td><p>नांगलबीबरा में नए 220/132 केवी, 2x160 एमवीए सब-स्टेशन की स्थापना</p><p><u>भावी विस्तार के लिए अतिरिक्त स्थान:</u></p><p>220/132 केवी 200 एमवीए आईसीटी-1 (दोनों स्तरों पर संबद्ध वे सहित)</p><p>400/220 केवी 500 एमवीए आईसीटी-3 (दोनों स्तरों पर संबद्ध वे सहित)</p><p><u>400 केवी उन्नयन हेतु स्थान:</u></p><p>स्विचवेल लाइन रिएक्टर के लिए स्थान से संबद्ध लाइन वे: 8 [बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) और अन्य लाइनों के लिए 6 के 400 केवी प्रचालन हेतु 2]</p><p>बस रिएक्टर 420 केवी, 125 एमवीएआर-3 बस रिएक्टर वे-3</p><p>भावी 220 केवी लाइन वे हेतु स्थान: 6 [एमईपीटीसीएल की मॉनगप (मेघालय) – नांगलबीबरा 220 केवी डी/सी लाइन की समाप्ति के लिए 2 और भावी लाइनों के लिए 4]</p><p>भावी 132 केवी लाइन वे हेतु स्थान: 6 (भावी लाइनों हेतु)</p></td><td><p>220/132 केवी, 160 एमवीए आईसीटी-2</p><p>220 केवी आईसीटी वे- 2</p><p>132 केवी आईसीटी वे- 2</p><p>220 केवी लाइन वे: 2 [बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) की समाप्ति के लिए इस – स्कीम के अंतर्गत]</p><p>132 केवी लाइन वे: 2 [एमईपीटीसीएल की नांगलबीबरा मौजूदा नांगलबीबरा – (एमईपीटीसीएल) 132 केवी डी/सी (सिंगल मूज) की समाप्ति के लिए]</p><p>बस रिएक्टर 31.5 एमवीएआर- 2</p><p>बस रिएक्टर वे: 2</p></td></tr><tr><td>2</td><td><p>बोंगाईगांव (पावरग्रिड) एस/एस में विस्तार: बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) की समाप्ति के लिए 2 लाइन वे</p></td><td><p>220 केवी लाइन वे- 2</p></td></tr></table>		क्र.सं.	पारेषण स्कीम का कार्य क्षेत्र	क्षमता/किमी	1	<p>नांगलबीबरा में नए 220/132 केवी, 2x160 एमवीए सब-स्टेशन की स्थापना</p> <p><u>भावी विस्तार के लिए अतिरिक्त स्थान:</u></p> <p>220/132 केवी 200 एमवीए आईसीटी-1 (दोनों स्तरों पर संबद्ध वे सहित)</p> <p>400/220 केवी 500 एमवीए आईसीटी-3 (दोनों स्तरों पर संबद्ध वे सहित)</p> <p><u>400 केवी उन्नयन हेतु स्थान:</u></p> <p>स्विचवेल लाइन रिएक्टर के लिए स्थान से संबद्ध लाइन वे: 8 [बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) और अन्य लाइनों के लिए 6 के 400 केवी प्रचालन हेतु 2]</p> <p>बस रिएक्टर 420 केवी, 125 एमवीएआर-3 बस रिएक्टर वे-3</p> <p>भावी 220 केवी लाइन वे हेतु स्थान: 6 [एमईपीटीसीएल की मॉनगप (मेघालय) – नांगलबीबरा 220 केवी डी/सी लाइन की समाप्ति के लिए 2 और भावी लाइनों के लिए 4]</p> <p>भावी 132 केवी लाइन वे हेतु स्थान: 6 (भावी लाइनों हेतु)</p>	<p>220/132 केवी, 160 एमवीए आईसीटी-2</p> <p>220 केवी आईसीटी वे- 2</p> <p>132 केवी आईसीटी वे- 2</p> <p>220 केवी लाइन वे: 2 [बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) की समाप्ति के लिए इस – स्कीम के अंतर्गत]</p> <p>132 केवी लाइन वे: 2 [एमईपीटीसीएल की नांगलबीबरा मौजूदा नांगलबीबरा – (एमईपीटीसीएल) 132 केवी डी/सी (सिंगल मूज) की समाप्ति के लिए]</p> <p>बस रिएक्टर 31.5 एमवीएआर- 2</p> <p>बस रिएक्टर वे: 2</p>	2	<p>बोंगाईगांव (पावरग्रिड) एस/एस में विस्तार: बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) की समाप्ति के लिए 2 लाइन वे</p>	<p>220 केवी लाइन वे- 2</p>	पीएफसी कंसल्टिंग लिमिटेड
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3	हृतसिंधमारी (असम) एस/एस में विस्तार: हृतसिंधमारी (असम) – अमपती (मेघालय) 132 केवी डी/सी लाइन की समाप्ति के लिए 132 केवी डी/सी 2 लाइन वे	132 केवी लाइन वे- 2
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5	बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित)	140 कि.मी.
6	हृतसिंधमारी (असम) – अमपती (मेघालय) 132 केवी डी/सी लाइन	30 कि.मी.

कार्यान्वयन समयावधि: 24 माह

नोट:

- (क) बोंगाईगांव (पावरग्रिड) एस/एस में विस्तार के लिए पावरग्रिड द्वारा स्थान उपलब्ध कराना: बोंगाईगांव (पावरग्रिड) – नांगलबीबरा 400 केवी डी/सी लाइन (220 केवी पर प्रारंभिक रूप से प्रचालित) की समाप्ति के लिए 220 केवी 2 लाइन वे।
- (ख) हृतसिंधमारी (असम) एस/एस में विस्तार के लिए एईपीटीसीएल/असम द्वारा स्थान उपलब्ध कराना: हृतसिंधमारी (असम) – अमपती (मेघालय) 132 केवी डी/सी लाइन की समाप्ति के लिए 132 केवी 2 लाइन वे।
- (ग) अमपती (मेघालय) एस/एस में विस्तार के लिए एमईपीटीसीएल/मेघालय द्वारा स्थान उपलब्ध कराना: हृतसिंधमारी (असम) – अमपती (मेघालय) 132 केवी डी/सी लाइन की समाप्ति के लिए 132 केवी 2 लाइन वे।
- (घ) इस आईएसटीएस स्कीम की मिलती-जुलती समयावधि में अंतरा-राज्यीय स्कीम के अंतर्गत एमईपीटीसीएल, मेघालय द्वारा कार्यान्वित किया जाना।
- (i) दोनों छोरों पर 220 केवी डी/सी लाइन से संबद्ध मॉनगप (मेघालय) – नांगलबीबरा (आईएसटीएस) 220 केवी डी/सी लाइन (एमईपीटीसीएल को लाइसेंसधारक द्वारा उपलब्ध कराए जाने के लिए नांगलबीबरा (आईएसटीएस) में दो 220 केवी लाइन के निर्माण के लिए स्थान)।
- (ii) नांगलबीबरा (आईएसटीएस) – मौजूदा नांगलबीबरा (एमईपीटीसीएल) 132 केवी डी/सी (सिंगल मूज) लाइन (एमईपीटीसीएल द्वारा नांगलबीबरा (एमईपीटीसीएल) में दो 132 केवी लाइन वे कार्यान्वित की जानी हैं, तथापि, इस आईएसटीएस स्कीम के कार्यक्षेत्र के अंतर्गत नांगलबीबरा (आईएसटीएस) में दो 132 केवी लाइन वे हैं)।

2. बोली प्रक्रिया समन्वयकर्ताओं की नियुक्ति दिशा-निर्देशों में निर्धारित शर्तों के अधीन है।

[फा.सं.15/3/2018-पारेपण-भाग(2)]

तन्मय कुमार, संयुक्त सचिव (पारेपण)

MINISTRY OF POWER

NOTIFICATION

New Delhi, the 23rd September, 2020

S.O. 3313(E).—In exercise of the powers conferred by sub- para 3.2 of Para 3 of the Guidelines circulated under Section 63 of the Electricity Act, 2003 (no. 36 of 2003), the Central Government hereby appoints the following Bid-Process Coordinators (BPCs) for the Transmission Schemes, as shown against the name of the Transmission Schemes: -

Sl. No.	Name & Scope of the Transmission Scheme	Bid Process Coordinator															
1	<p>Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System.</p> <p>Scope:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> </thead> <tbody> <tr> <td>1</td><td> <p>Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)</p> <p>Future Scope: Space for</p> <p>765/400 kV ICT along with bays – 3</p> <p>400/220/132 kV ICT along with bays – 3</p> <p>765 kV line bays along with switchable line reactor - 6</p> <p>400 kV Line bays - 8</p> <p>220 /132 kV Line bays – 6</p> <p>765 kV Reactor along with bays-1</p> <p>400 kV Reactor along with bays – 1</p> </td><td> <p>400 kV switching station with 420 kV, 125 MVAR Bus Reactor – 1</p> <p>Reactor Bay-1</p> </td></tr> <tr> <td>2</td><td>LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line</td><td>LILO Length- 10 km</td></tr> <tr> <td>3</td><td>2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line</td><td>400 kV line bays – 2</td></tr> <tr> <td>4</td><td>1 No. of 400 kV line bay at Kishtwar (GIS) for 2nd circuit stringing of Kishtwar- Kishenpur section</td><td>400 kV line bay-1</td></tr> </tbody> </table> <p><i>#Location of Kishtwar pooling Station (GIS) is yet to be finalized. Line length is tentative.</i></p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	<p>Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)</p> <p>Future Scope: Space for</p> <p>765/400 kV ICT along with bays – 3</p> <p>400/220/132 kV ICT along with bays – 3</p> <p>765 kV line bays along with switchable line reactor - 6</p> <p>400 kV Line bays - 8</p> <p>220 /132 kV Line bays – 6</p> <p>765 kV Reactor along with bays-1</p> <p>400 kV Reactor along with bays – 1</p>	<p>400 kV switching station with 420 kV, 125 MVAR Bus Reactor – 1</p> <p>Reactor Bay-1</p>	2	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line	LILO Length- 10 km	3	2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line	400 kV line bays – 2	4	1 No. of 400 kV line bay at Kishtwar (GIS) for 2 nd circuit stringing of Kishtwar- Kishenpur section	400 kV line bay-1	PFC Consulting Ltd.
Sl. No.	Scope of the Transmission Scheme	Capacity /km															
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4	1 No. of 400 kV line bay at Kishtwar (GIS) for 2 nd circuit stringing of Kishtwar- Kishenpur section	400 kV line bay-1															

	Implementation Timeframe: To be implemented in matching timeframe of Pakaldul HEP (Feb'2024)																
2	<p>Transmission scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I.</p> <p>Scope:</p> <table><tr><th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr><tr><td>1</td><td><p>Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor.</p><p>Future Scope: Space for 765/400 kV, ICT along with bays-5 400/220 kV, ICT along with bays-4 765 kV Line bays along with switchable line reactor- 6 400 kV Line bays – 9 220 kV Line bays - 8 765 kV reactor along with bays - 2 400 kV reactor along with bays – 1 765 kV bus sectionalizer- 1 400 kV bus sectionalizer- 1</p></td><td><p>765/400 kV, 1500 MVA ICT- 3 765 kV ICT bays- 3 400 kV ICT bays- 3 330 MVAR 765 kV bus reactor-1 125 MVAR 420 kV bus reactor-1 765 kV reactor bay- 1 765 kV line bay- 1 400 kV reactor bay- 1 400 kV line bay- 1</p><p>500 MVA, 765/400 kV Spare ICT-1</p><p>110 MVAR, 765 kV, 1-ph reactor (spare unit)-1</p></td></tr><tr><td>2</td><td>Khavda PS(GIS) – Bhuj PS 765 kV D/c line.</td><td>60</td></tr><tr><td>3</td><td>2 Nos. of line bays each at Bhuj PS for termination of Khavda PS(GIS) – Bhuj PS 765 kV D/c line.</td><td>765 kV AIS line bays – 2</td></tr><tr><td>4</td><td>Creation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (<i>implementation to be taken as per connectivity/LTA granted at 220 kV level</i>)</td><td><p>400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4 (for termination of RE generators seeking connectivity at 220 kV level)</p></td></tr></table> <p>Implementation Timeframe: Matching timeframe of RE projects or 24 months whichever is later</p> <p>Note: (i) As on date, Adani Green Energy Four Limited has been granted Stage-I connectivity for 2500 MW and Stage-II Connectivity for 500 MW at proposed Khavda PS at 400 kV level. Accordingly, 1 no of 400 kV GIS line bay for termination of the dedicated line has been included under the scope of works of Khavda P.S.</p> <p>(ii) Implementation of proposed 220 kV level at Khavda to be taken up only if connectivity/LTA is granted at 220 kV level and needs to be implemented in</p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	<p>Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor.</p> <p>Future Scope: Space for 765/400 kV, ICT along with bays-5 400/220 kV, ICT along with bays-4 765 kV Line bays along with switchable line reactor- 6 400 kV Line bays – 9 220 kV Line bays - 8 765 kV reactor along with bays - 2 400 kV reactor along with bays – 1 765 kV bus sectionalizer- 1 400 kV bus sectionalizer- 1</p>	<p>765/400 kV, 1500 MVA ICT- 3 765 kV ICT bays- 3 400 kV ICT bays- 3 330 MVAR 765 kV bus reactor-1 125 MVAR 420 kV bus reactor-1 765 kV reactor bay- 1 765 kV line bay- 1 400 kV reactor bay- 1 400 kV line bay- 1</p> <p>500 MVA, 765/400 kV Spare ICT-1</p> <p>110 MVAR, 765 kV, 1-ph reactor (spare unit)-1</p>	2	Khavda PS(GIS) – Bhuj PS 765 kV D/c line.	60	3	2 Nos. of line bays each at Bhuj PS for termination of Khavda PS(GIS) – Bhuj PS 765 kV D/c line.	765 kV AIS line bays – 2	4	Creation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (<i>implementation to be taken as per connectivity/LTA granted at 220 kV level</i>)	<p>400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4 (for termination of RE generators seeking connectivity at 220 kV level)</p>	PFC Consulting Ltd.
Sl. No.	Scope of the Transmission Scheme	Capacity /km															
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4	Creation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (<i>implementation to be taken as per connectivity/LTA granted at 220 kV level</i>)	<p>400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4 (for termination of RE generators seeking connectivity at 220 kV level)</p>															

	matching timeframe of RE projects who have sought connectivity/LTA at 220 kV level or 24 months whichever is later.																			
3	<p>Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part A</p> <p>Scope:</p> <table><tr><th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr><tr><td>1</td><td>Augmentation of Khavda PS (GIS) by 4X1500 MVA, 765/400 kV ICTs with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor on 2nd 765 kV and 400 kV bus respectively</td><td>765/400 kV, 1500 MVA ICT-4 765 kV ICT bays- 4 765 kV line bays- 2 400 kV ICT bays- 4 1X330 MVAR 765 kV bus reactor-1 125 MVAR ,420 kV bus reactor-1 765 kV Reactor bay-1 400 kV reactor bays- 1 765 kV bus sectionalizer-1 400 kV bus sectionalizer-1</td></tr><tr><td>2</td><td>Augmentation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (implementation to be taken as per connectivity/LTA granted at 220 kV level)</td><td>400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4</td></tr><tr><td>3</td><td>Khavda PS (GIS) – Lakadia PS 765kV D/c line with 330 MVAR line reactors at Khavda end.</td><td>160 km</td></tr><tr><td>4</td><td>2 nos. of 765 kV line bays each at Lakadia PS for Khavda PS (GIS) – Lakadia PS 765kV D/c line</td><td>765 kV AIS line bays – 2</td></tr><tr><td>5</td><td>1x330 MVAr Switchable line reactor for each circuit of Khavda PS (GIS) – Lakadia PS 765kV D/c line at Khavda end</td><td>1x330 MVAr, 765 kV switchable line reactor – 2 Switching equipments for 765 kV reactor – 2 1x110 MVAr spare bus reactor available at Khavda PS (GIS) to be used as spare</td></tr></table> <p>Implementation Timeframe: Matching timeframe of RE projects or 24 months whichever is later</p> <p>Note: (i) <i>Transmission system for evacuation of 3 GW RE injection at Khavda is being taken up under Phase-I. This Phase-II RE scheme for evacuation of 4.5 GW RE injection at Khavda needs to be taken up for evacuation requirement beyond 3 GW from Khavda pooling station.</i></p> <p>(ii) <i>Implementation of proposed 220 kV level at Khavda under Ph-II to be</i></p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	Augmentation of Khavda PS (GIS) by 4X1500 MVA, 765/400 kV ICTs with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor on 2 nd 765 kV and 400 kV bus respectively	765/400 kV, 1500 MVA ICT-4 765 kV ICT bays- 4 765 kV line bays- 2 400 kV ICT bays- 4 1X330 MVAR 765 kV bus reactor-1 125 MVAR ,420 kV bus reactor-1 765 kV Reactor bay-1 400 kV reactor bays- 1 765 kV bus sectionalizer-1 400 kV bus sectionalizer-1	2	Augmentation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (implementation to be taken as per connectivity/LTA granted at 220 kV level)	400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4	3	Khavda PS (GIS) – Lakadia PS 765kV D/c line with 330 MVAR line reactors at Khavda end.	160 km	4	2 nos. of 765 kV line bays each at Lakadia PS for Khavda PS (GIS) – Lakadia PS 765kV D/c line	765 kV AIS line bays – 2	5	1x330 MVAr Switchable line reactor for each circuit of Khavda PS (GIS) – Lakadia PS 765kV D/c line at Khavda end	1x330 MVAr, 765 kV switchable line reactor – 2 Switching equipments for 765 kV reactor – 2 1x110 MVAr spare bus reactor available at Khavda PS (GIS) to be used as spare	REC Transmission Projects Company Limited
Sl. No.	Scope of the Transmission Scheme	Capacity /km																		
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2	Augmentation of 400/220 kV, 2X500 MVA transformation capacity at Khavda (GIS) P.S. (implementation to be taken as per connectivity/LTA granted at 220 kV level)	400/220 kV, 500 MVA ICT-2 400 kV ICT bays- 2 220 kV ICT bays- 2 220 kV Line bays- 4																		
3	Khavda PS (GIS) – Lakadia PS 765kV D/c line with 330 MVAR line reactors at Khavda end.	160 km																		
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	<p><i>taken up only if connectivity/LTA is granted at 220 kV level and needs to be implemented in matching timeframe of RE projects who have sought connectivity/LTA at 220 kV level or 24 months whichever is later.</i></p> <p><i>(iii) Implementation of all the transmission packages proposed for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II (Part A to Part E) needs to be taken up in similar timeframe.</i></p>													
4	<p>Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part B</p> <p>Scope:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> </thead> <tbody> <tr> <td>1</td><td>Lakadia PS – Ahmedabad 765kV D/c line</td><td>250 km</td></tr> <tr> <td>2</td><td>2 nos. of 765 kV line bays at Lakadia PS for Lakadia PS – Ahmedabad 765kV D/c line</td><td>765 kV line bays – 2</td></tr> <tr> <td>3</td><td>240 MVar, 765 kV switchable line reactor for each circuit at each end of Lakadia PS – Ahmedabad 765kV D/c line)</td><td> 1x240 MVar, 765 kV switchable line reactor – 2 (for each circuit at Ahmedabad end of Lakadia PS – Ahmedabad 765kV D/c line) Switching equipments for 765 kV line reactor – 2 1x80 MVar spare reactor – 1 (for Ahmedabad end) 1x240 MVar, 765 kV switchable line reactor – 2 (for each circuit at Lakadia end of Lakadia PS – Ahmedabad 765kV D/c line) Switching equipments for 765 kV line reactor – 2 1x80 MVar spare reactor – 1 (for Lakadia end) </td></tr> </tbody> </table> <p>Implementation Timeframe: Matching timeframe of RE projects or 24 months whichever is later.</p> <p><i>Note: Implementation of all the transmission packages proposed for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II (Part A to Part E) needs to be taken up in similar timeframe.</i></p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	Lakadia PS – Ahmedabad 765kV D/c line	250 km	2	2 nos. of 765 kV line bays at Lakadia PS for Lakadia PS – Ahmedabad 765kV D/c line	765 kV line bays – 2	3	240 MVar, 765 kV switchable line reactor for each circuit at each end of Lakadia PS – Ahmedabad 765kV D/c line)	1x240 MVar, 765 kV switchable line reactor – 2 (for each circuit at Ahmedabad end of Lakadia PS – Ahmedabad 765kV D/c line) Switching equipments for 765 kV line reactor – 2 1x80 MVar spare reactor – 1 (for Ahmedabad end) 1x240 MVar, 765 kV switchable line reactor – 2 (for each circuit at Lakadia end of Lakadia PS – Ahmedabad 765kV D/c line) Switching equipments for 765 kV line reactor – 2 1x80 MVar spare reactor – 1 (for Lakadia end)	<p>REC Transmission Projects Company Limited</p>
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5	<p>Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part C</p> <p>Scope:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> </thead> <tbody> <tr> <td>1</td><td>Establishment of 2X1500 MVA, 765/400 kV, Ahmedabad S/s with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor. Future Scope: Space for 765/400 kV, ICT along with bays- 2 400/220 kV, ICT along with bays- 4 765 kV Line bays- 8 400 kV Line bays- 8 220 kV Line bays- 7 765 kV reactor along with bays- 1 400 kV reactor along with bays- 1</td><td>765/400 kV, 1500 MVA ICT- 2 765 kV ICT bays- 2 400 kV ICT bays- 2 765 kV line bays-4 (2 for Lakadia-Ahmedabad and 2 for Ahmedabad to Vadodara) 400 kV line bays – 4 (for LILO of Pirana (PG) – Pirana (T) 400kV D/c line at Ahmedabad 330 MVAR 765 kV bus reactor-1 125 MVAR 420 kV bus reactor-1 765 kV reactor bay- 1 400 kV reactor bay- 1 500 MVA, 400/220 kV Spare ICT-1 110 MVAR, 765 kV, 1-ph reactor (spare unit)-1</td></tr> <tr> <td>2</td><td>Ahmedabad – Vadodara 765kV D/c line</td><td>112 km</td></tr> <tr> <td>3</td><td>2 nos. of 765 kV line bays each Vadodara for Ahmedabad – Vadodara 765kV D/c line</td><td>765 kV GIS line bays – 2 (Vadodara)</td></tr> </tbody> </table> <p>Implementation Timeframe: Matching timeframe of RE projects or 24 months whichever is later.</p> <p><i>Note: Implementation of all the transmission packages proposed for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II (Part A to Part E) needs to be taken up in similar timeframe.</i></p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	Establishment of 2X1500 MVA, 765/400 kV, Ahmedabad S/s with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor. Future Scope: Space for 765/400 kV, ICT along with bays- 2 400/220 kV, ICT along with bays- 4 765 kV Line bays- 8 400 kV Line bays- 8 220 kV Line bays- 7 765 kV reactor along with bays- 1 400 kV reactor along with bays- 1	765/400 kV, 1500 MVA ICT- 2 765 kV ICT bays- 2 400 kV ICT bays- 2 765 kV line bays-4 (2 for Lakadia-Ahmedabad and 2 for Ahmedabad to Vadodara) 400 kV line bays – 4 (for LILO of Pirana (PG) – Pirana (T) 400kV D/c line at Ahmedabad 330 MVAR 765 kV bus reactor-1 125 MVAR 420 kV bus reactor-1 765 kV reactor bay- 1 400 kV reactor bay- 1 500 MVA, 400/220 kV Spare ICT-1 110 MVAR, 765 kV, 1-ph reactor (spare unit)-1	2	Ahmedabad – Vadodara 765kV D/c line	112 km	3	2 nos. of 765 kV line bays each Vadodara for Ahmedabad – Vadodara 765kV D/c line	765 kV GIS line bays – 2 (Vadodara)	<p>REC Transmission Projects Company Limited</p>
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6	<p>Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part D</p> <p>Scope:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> </thead> <tbody> <tr> <td>1</td><td>LILO of Pirana (PG) – Pirana (T) 400kV D/c line at Ahmedabad S/s with twin HTLS along with</td><td>LILO length – 22 km (Total length of 400 kV D/c line – 44 km)</td></tr> </tbody> </table>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	LILO of Pirana (PG) – Pirana (T) 400kV D/c line at Ahmedabad S/s with twin HTLS along with	LILO length – 22 km (Total length of 400 kV D/c line – 44 km)	<p>REC Transmission Projects Company Limited</p>						
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7	<p>Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part E.</p> <p>Scope:</p> <table> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> <tr> <td>1</td><td>Ahmedabad – Indore 765kV D/c line</td><td>370 km</td></tr> <tr> <td>2</td><td>2 nos. of 765 kV line bays each at Ahmedabad and Indore for Ahmedabad – Indore 765kV D/c line</td><td>765 kV line bays – 4</td></tr> <tr> <td>3</td><td>1x330 MVar Switchable line reactor for each circuit at each end of Ahmedabad – Indore 765kV D/c line</td><td>1x330 MVar, 765 kV switchable line reactor – 4 Switching equipments for 765 kV reactor – 4 (2 switching equipments each at Ahmedabad and Indore) 1x110 MVar spare reactor – 1 at Indore end (1x110 MVar spare reactor available at Ahmedabad)</td></tr> </table> <p>Implementation Timeframe: Matching timeframe of RE projects or 24 months whichever is later</p> <p>Note: Implementation of all the transmission packages proposed for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II (Part A to Part E) needs to be taken up in similar timeframe.</p>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	Ahmedabad – Indore 765kV D/c line	370 km	2	2 nos. of 765 kV line bays each at Ahmedabad and Indore for Ahmedabad – Indore 765kV D/c line	765 kV line bays – 4	3	1x330 MVar Switchable line reactor for each circuit at each end of Ahmedabad – Indore 765kV D/c line	1x330 MVar, 765 kV switchable line reactor – 4 Switching equipments for 765 kV reactor – 4 (2 switching equipments each at Ahmedabad and Indore) 1x110 MVar spare reactor – 1 at Indore end (1x110 MVar spare reactor available at Ahmedabad)	REC Transmission Projects Company Limited
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2	2 nos. of 765 kV line bays each at Ahmedabad and Indore for Ahmedabad – Indore 765kV D/c line	765 kV line bays – 4												
3	1x330 MVar Switchable line reactor for each circuit at each end of Ahmedabad – Indore 765kV D/c line	1x330 MVar, 765 kV switchable line reactor – 4 Switching equipments for 765 kV reactor – 4 (2 switching equipments each at Ahmedabad and Indore) 1x110 MVar spare reactor – 1 at Indore end (1x110 MVar spare reactor available at Ahmedabad)												

8	<p>Establishment of new 220/132kV substation at Nangalbibra</p> <p>Scope:</p> <table border="1"> <thead> <tr> <th>Sl. No.</th><th>Scope of the Transmission Scheme</th><th>Capacity /km</th></tr> </thead> <tbody> <tr> <td>1</td><td> <p>Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra.</p> <p><u>Additional space for future expansion:</u></p> <p>220/132kV 200MVA ICT-1 (along with associated bays at both levels)</p> <p>400/220kV 500MVA ICT-3 (along with associated bays at both levels)</p> <p>Space for 400kV upgradation: Line bays along with space for switchable line reactor: 8 No. [2 No. for 400kV operation of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) and 6 No. for other lines]</p> <p>Bus reactor 420kV, 125MVar -3 Bus reactor bays-3.</p> <p>Space for future 220 kV line bays: 6 No. [2 No. for termination of Mawngap (Meghalaya) – Nangalbibra 220 kV D/c line of MePTCL and 4 No. for future lines]</p> <p>Space for future 132 kV line bays: 6 No. (for future lines)</p> </td><td> <p>220/132kV, 160 MVA ICT-2 220 kV ICT bays- 2 132 kV ICT bays- 2 220 kV Line bays: 2 [for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) – under this scheme]</p> <p>132 kV Line bays: 2 [for termination of Nangalbibra – existing Nangalbibra (MePTCL) 132kV D/c (Single Moose) line of MePTCL]</p> <p>Bus reactor 31.5 MVar- 2 Bus reactor bays: 2 No.</p> </td></tr> <tr> <td>2</td><td>Extension at Bongaigaon (POWERGRID) S/s: 2 No. of line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initiated operated at 220kV)</td><td>220 kV line bays - 2</td></tr> <tr> <td>3</td><td>Extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.</td><td>132 kV line bays - 2</td></tr> <tr> <td>4</td><td>Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.</td><td>132 kV line bays - 2</td></tr> </tbody> </table>	Sl. No.	Scope of the Transmission Scheme	Capacity /km	1	<p>Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra.</p> <p><u>Additional space for future expansion:</u></p> <p>220/132kV 200MVA ICT-1 (along with associated bays at both levels)</p> <p>400/220kV 500MVA ICT-3 (along with associated bays at both levels)</p> <p>Space for 400kV upgradation: Line bays along with space for switchable line reactor: 8 No. [2 No. for 400kV operation of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) and 6 No. for other lines]</p> <p>Bus reactor 420kV, 125MVar -3 Bus reactor bays-3.</p> <p>Space for future 220 kV line bays: 6 No. [2 No. for termination of Mawngap (Meghalaya) – Nangalbibra 220 kV D/c line of MePTCL and 4 No. for future lines]</p> <p>Space for future 132 kV line bays: 6 No. (for future lines)</p>	<p>220/132kV, 160 MVA ICT-2 220 kV ICT bays- 2 132 kV ICT bays- 2 220 kV Line bays: 2 [for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) – under this scheme]</p> <p>132 kV Line bays: 2 [for termination of Nangalbibra – existing Nangalbibra (MePTCL) 132kV D/c (Single Moose) line of MePTCL]</p> <p>Bus reactor 31.5 MVar- 2 Bus reactor bays: 2 No.</p>	2	Extension at Bongaigaon (POWERGRID) S/s: 2 No. of line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initiated operated at 220kV)	220 kV line bays - 2	3	Extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.	132 kV line bays - 2	4	Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.	132 kV line bays - 2	PFC Consulting Ltd.
Sl. No.	Scope of the Transmission Scheme	Capacity /km															
1	<p>Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra.</p> <p><u>Additional space for future expansion:</u></p> <p>220/132kV 200MVA ICT-1 (along with associated bays at both levels)</p> <p>400/220kV 500MVA ICT-3 (along with associated bays at both levels)</p> <p>Space for 400kV upgradation: Line bays along with space for switchable line reactor: 8 No. [2 No. for 400kV operation of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) and 6 No. for other lines]</p> <p>Bus reactor 420kV, 125MVar -3 Bus reactor bays-3.</p> <p>Space for future 220 kV line bays: 6 No. [2 No. for termination of Mawngap (Meghalaya) – Nangalbibra 220 kV D/c line of MePTCL and 4 No. for future lines]</p> <p>Space for future 132 kV line bays: 6 No. (for future lines)</p>	<p>220/132kV, 160 MVA ICT-2 220 kV ICT bays- 2 132 kV ICT bays- 2 220 kV Line bays: 2 [for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV) – under this scheme]</p> <p>132 kV Line bays: 2 [for termination of Nangalbibra – existing Nangalbibra (MePTCL) 132kV D/c (Single Moose) line of MePTCL]</p> <p>Bus reactor 31.5 MVar- 2 Bus reactor bays: 2 No.</p>															
2	Extension at Bongaigaon (POWERGRID) S/s: 2 No. of line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initiated operated at 220kV)	220 kV line bays - 2															
3	Extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.	132 kV line bays - 2															
4	Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.	132 kV line bays - 2															

5	Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV)	140 km
6	Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line	30 km

Implementation Timeframe: 24 months

Note:

- (a) POWERGRID to provide space for extension at Bongaigaon (POWERGRID) S/s: 2 No. of 220kV line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV)
- (b) AEGCL/Assam to provide space for extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.
- (c) MePTCL/Meghalaya to provide space for extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line.
- (d) To be implemented by MePTCL, Meghalaya under intra-state scheme in matching timeframe of this ISTS scheme
- (i) Mavngap (Meghalaya) – Nangalbibra (ISTS) 220kV D/c line alongwith 220kV line bays at both ends(space for construction of 2 No. 220kV line bays at Nangalbibra (ISTS) to be provided by licensee to MePTCL)
- (ii) Nangalbibra (ISTS) – existing Nangalbibra (MePTCL) 132kV D/c (Single Moose) line (2 No. 132kV line bays at Nangalbibra (MePTCL) is to be implemented by MePTCL, however, 2 No. 132kV line bays at Nangalbibra (ISTS) is under the scope of this ISTS scheme)

2. The appointment of the Bid-Process Coordinators is subject to the conditions laid down in the Guidelines.

[F. No. 15/3/2018-Trans-Pt(2)]

TANMAY KUMAR, Jt. Secy. (Trans)

No. 15/3/2018-Trans-Pt(2)
Government of India
Ministry of Power
Shram Shakti Bhawan, Rafi Marg, New Delhi - 110001

Dated 25th September 2020

OFFICE MEMORANDUM

Subject: New Transmission schemes to be taken up through regulated tariff mechanism (RTM) route.

The undersigned is directed to inform that the Hon'ble MoSP(IC) has approved the implementation of following transmission schemes by Power Grid Corporation of India Limited (PGCIL) under regulated tariff mechanism (RTM):

S. No.	Name of Scheme
1.	Transmission system for evacuation power from Pakaldu HEP in Chenab Valley HEPs -LTA System
2.	Augmentation of ICTs at Western Region (WR)- in Morena 400/220 kV S/stn of M/s CWRTL
3.	Augmentation of ICTs at Western Region (WR)- in Wardha and Seoni 400/220 kV S/stn of M/s PGCIL
4.	Conversion of 50MVAR fixed line reactor at Bina (PG) end of Sagar (MP)- Bina(PG) 400kV line into switchable line reactor
5.	Development of common facilities at Tuticorin-II GIS for RE Integration
6.	Transmission system for power evacuation from Arun-3 (900MW) HEP, Nepal of M/s SAPDC Indian Portion
7.	Shifting of 400/220kV ICT from section A to section B at Durgapur (POWERGRID) S/s
8.	Installation of line reactor at Imphal (POWERGRID) S/s
9.	Augmentation of transformation capacity at Salakati (POWERGRID) S/s
10.	Reconductoring of ISTS lines of Powergrid
11.	Upgradation of switching scheme at POWERGRID substations at Nirjuli and Imphal
12.	400kV connectivity to Surajmaninagar (TSECL) 400/132kV S/s

2. The above schemes were recommended in the 3rd meeting of the National Committee on Transmission (NCT) held on 26th & 28th May, 2020. Detailed scope of works for the above schemes are at **Annexure**.

3. It is requested that necessary action may be taken accordingly.

4. This issues with the approval of Competent Authority.

(Signature)
25/9/2020
(Bihari Lal)

Under Secretary (Trans)
Telefax: 23325242
Email: transdesk-mop@nic.in

To

Member (PS),
Central Electricity Authority
Sewa Bhawan, R.K. Puram, New Delhi-110066

Copy to: CMD, PGCIL, Gurugram, for information and necessary action.

Annexure

Detailed scope of works**1) Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs – LTA System**

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	2 nd circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar - Kishenpur Section)	Line length- 120 km
2.	1 no of 400 kV line bay at Kishenpur for 2 nd circuit stringing of Kishtwar Kishenpur section	400 kV line bay-1

* Implementation Timeframe: To be implemented in matching timeframe of Pakaldul HEP (Feb' 2024)

2) Augmentation of ICTs at Western Region (WR) in Morena 400/220 kV S/stn of M/s CWRTL

Sl. No.	Scope of the Transmission Scheme	Substation ownership	Capacity / line length km
1.	Augmentation of 1x500 MVA, 400/220 kV ICT (3 rd) at Morena 400/220 kV S/s	M/s CWRTL	400/220 kV, 500 MVA ICT-1 400 kV ICT bay- 1 220 kV ICT bay- 1

* Implementation Timeframe: 15 months

3) Augmentation of ICTs at Western Region (WR) in Wardha and Seoni 400/220 kV S/stn of M/s PGCIL

Sl. no.	Scope of the Transmission Scheme	Substation ownership	Capacity / line length km
1.	Augmentation of 1x500 MVA, 400/220 kV ICT (3 rd) at Wardha 400/220 kV S/s	M/s PGCIL	400/220 kV, 500 MVA ICT-1 400 kV ICT bay- 1 220 kV ICT bay- 1
2.	Augmentation of 1x500 MVA, 400/220 kV ICT (3 rd) at Seoni 400/220 kV S/s	M/s PGCIL	400/220 kV, 500 MVA ICT-1 400 kV ICT bay- 1 220 kV ICT bay- 1

* Implementation Timeframe: 15 months

4) Conversion of 50MVar fixed line reactor at Bina (PG) end of Sagar (MP)-Bina(PG) 400kV line into switchable line reactor

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Conversion of 50MVar fixed line reactor at Bina (PG) end of Sagar (MP)- Bina(PG) 400kV line into switchable line reactor	

* Implementation Timeframe: 12 months

5) Development of common facilities at Tuticorin-II GIS for RE Integration

25/9/2020

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Extension of indoor GIS bus upto the gantry before bay no. 210 to the outdoor AIS bus bar of 230 kV Hybrid switchyard using GIB arrangement and necessary associated common infrastructure works at Tuticorin -II GIS S/stn as part of associated works with augmentation of ICT-3	

* Implementation Timeframe: In matching timeframe of RE project

6) Transmission system for power evacuation from Arun-3 (900MW) HEP, Nepal of M/s SAPDC- Indian Portion

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Sitamarhi (POWERGRID) - Dhalkebar (Nepal) 400kV D/c (Quad) line (Indian portion)	40 km
2.	Extension of Sitamarhi (PG) S/stn: 2 no. of 400kV line bays at Sitamarhi (POWERGRID) for termination of Sitamarhi (POWERGRID) - Dhalkebar (Nepal) 400kV D/c (Quad) line	400 kV line bays - 2

* Implementation Timeframe: In matching timeframe of Arun-3 HEP

Note: Cost of this project would be borne by M/s SJVN Arun-3 Power Development Company (Pvt.) Ltd. (SAPDC Ltd., subsidiary of M/s SJVN Ltd.). Necessary agreement for recovery of transmission charges may be signed between (i) transmission licensee and (ii) M/s SJVN Ltd. and/or M/s SAPDC Ltd.

7) Shifting of 400/220kV ICT from section A to section B at Durgapur (POWERGRID) S/s

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Shifting of 400kV side of 400/220kV, 315MVA ICT-1 from Durgapur-A section to Durgapur-B section without physical shifting of ICT such that all three ICTs are on same 400kV bus section (if required, GIS bus duct could be used).	

* Implementation Timeframe: 12 months

8) Installation of line reactor at Imphal (POWERGRID) S/s

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Installation of 400kV, 2x63MVAR switchable line reactors, one in each circuit of Silchar (POWERGRID) - Imphal (POWERGRID) 400kV D/c line at Imphal end	400 kV, 63MVAR switchable reactor - 2 Switchable reactor bay - 2

* Implementation Timeframe: 15 months

9) Augmentation of transformation capacity at Salakati (POWERGRID) S/s

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
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25/9/2020

1.	Installation of 3 rd ICT of 220/132kV, 1x100MVA at Salakati alongwith associated bays at both levels	220/132kV, 1x100MVA ICT – 1 220 kV ICT bay – 1 132 kV ICT bay – 1
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* Implementation Timeframe: 15 months

10) Reconductoring of ISTS lines of Powergrid

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Reconductoring of Siliguri – Bongaigaon 400kV D/c line with Twin HTLS conductor (<i>ampacity of single HTLS shall be 1596A, which is equivalent to Twin ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature</i>) along with requisite modifications in the line bay equipment at both ends.	218km
2.	Upgradation of 400 kV bay equipments at Siliguri and Bongaigaon S/s	Upgradation of 400 kV bay equipments – 4 nos.
3.	Reconductoring of Alipurduar – Salakati (Bongaigaon) 220kV D/c line with single HTLS conductor (<i>ampacity of single HTLS shall be 1596A, which is equivalent to Twin ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature</i>) along with requisite modifications in the line bay equipment at both ends.	101km
4.	Upgradation of 220 kV bay equipments at Alipurduar and Salakati (Bongaigaon) S/s	Upgradation of 220 kV bay equipments – 4 nos.
5.	Reconductoring of BTPS – Salakati 220kV D/c line with single HTLS conductor (<i>ampacity of single HTLS shall be 1596A, which is equivalent to Twin ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature</i>) along with requisite modification in bay equipment at both ends.	3km
6.	Upgradation of 220 kV bay equipments at BTPS and Salakati S/s	Upgradation of 220 kV bay equipments – 4 nos.
7.	Re-conductoring of Dimapur – Imphal 132kV S/c line with single HTLS conductor (<i>ampacity of single HTLS shall be 798A, which is equivalent to Single ACSR Moose conductor for 45°C ambient and 85°C maximum conductor temperature</i>) along with upgradation of terminal equipment and strengthening of tower, wherever required.	169km
8.	Upgradation of 132 kV bay equipments at Dimapur and Imphal S/s	Upgradation of 132 kV bay equipments – 2 nos.
9.	Re-conductoring of Loktak – Jiribam 132kV S/c line with single HTLS conductor (<i>ampacity of single HTLS shall be 798A, which is equivalent to Single ACSR Moose conductor for 45°C ambient</i>	83km

Ans
25/9/2020

	and 85°C maximum conductor temperature) along with upgradation of terminal equipment and strengthening of tower, wherever required.	
10.	Upgradation of 132 kV bay equipments at Loktak and Jiribam S/s	Upgradation of 132 kV bay equipments – 2 nos.

* Implementation Timeframe: 30 months

11) Upgradation of switching scheme at POWERGRID substations at Nirjuli and Imphal

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Conversion of 132kV level of 132/33kV Nirjuli S/s to Double Main Transfer Bus Scheme preferably with Bus Sectionalisation on AIS depending on layout or alternatively on GIS/ Hybrid GIS if layout does not permit AIS Bus sectionalisation	
2.	Conversion of 132kV level of 400/132kV Imphal S/s to Double Main Transfer Bus Scheme preferably with Bus Sectionalisation on AIS depending on layout or alternatively on GIS/ Hybrid GIS if layout does not permit AIS Bus sectionalisation	

* Implementation Timeframe: 24 months

12) 400kV connectivity to Surajmaninagar (TSECL) 400/132kV S/s

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	LILO of Palatana – Surajmaninagar (ISTS) 400kV D/c line at 400/132kV Surajmaninagar (TSECL) S/s along with associated 4 no. 400kV line bays – <i>In matching timeframe of upgradation of 400/132kV Surajmaninagar (TSECL) substation</i>	LILO length - 1.5km (Total length – 3km)
2.	400 kV line bays at Surajmaninagar for LILO of Palatana – Surajmaninagar (ISTS) 400kV D/c line at 400/132kV Surajmaninagar (TSECL) S/s	400 kV line bays – 4 nos

* Implementation Timeframe: In matching timeframe of upgradation of 400/132kV Surajmaninagar (TSECL) substation. Timeframe of implementation not available.

25/5/2020.

**SINGLE STAGE
REQUEST FOR PROPOSAL DOCUMENT**

**FOR
SELECTION OF TRANSMISSION SERVICE PROVIDER
THROUGH
TARIFF BASED COMPETITIVE BIDDING PROCESS**

**TO
ESTABLISH TRANSMISSION SYSTEM
FOR
“Transmission System for Evacuation of Power from Pakaldul HEP in Chenab
Valley HEPs -Connectivity System”**

ISSUED BY



**Registered Office:
1st Floor, “Urjanidhi”, 1, Barakhamba Lane,
Connaught Place, New Delhi-110001**

February 04, 2021

PFC CONSULTING LIMITED
(A wholly owned subsidiary of Power Finance Corporation Ltd.)

Corporate Office:
9th Floor, A-Wing, Statesman House
Connaught Place, New Delhi-110001

Request for Proposal (RfP) Document for selection of Bidder as Transmission Service Provider through tariff based competitive bidding process to establish “Transmission System for Evacuation of Power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System” is issued by PFC Consulting Limited for the benefit of Long Term Transmission Customer(s) as named in Annexure 19.

This RfP document is issued to -

M/s. _____

Signature:

General Manager

PFC Consulting Limited

9th Floor, A-Wing, Statesman House

Connaught Place, New Delhi-110001

Email: pfcl.itp@pfcindia.com

Place: New Delhi

Date: _____

REQUEST FOR PROPOSAL NOTIFICATION

PFC Consulting Limited
(A wholly owned subsidiary of Power Finance Corporation Ltd.)

Corporate Office:

9th Floor, A-Wing, Statesman House
 Connaught Place, New Delhi-110001

1. The Ministry of Power, Government of India, vide its **letter no. 15/3/2018-Trans-Pt(2) dated 01.10.2020 forwarding Gazette Notification No. CG-DL-E-28092020-222045 dated 25.09.2020** has appointed PFC Consulting Limited to be the Bid Process Coordinator (BPC) for the purpose of selection of Bidder as Transmission Service Provider (TSP) to establish **“Transmission System for Evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System”** through tariff based competitive bidding process.
2. PFC Consulting Limited(hereinafter referred to as BPC) hereby invites all prospective Bidders to participate in Request for Proposal (RfP) process for selection of Transmission Service Provider (TSP) on the basis of international competitive bidding in accordance with the “Tariff Based Competitive Bidding Guidelines for Transmission Service” and “Guidelines for Encouraging Competition in Development of Transmission Projects” issued by Government of India, Ministry of Power under Section – 63 of The Electricity Act, 2003 and as amended. The responsibility of the TSP would be to establish **“Transmission System for Evacuation of Power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System”** (hereinafter referred to as 'Project') on build, own, operate & maintain basis and to provide transmission service to the Long Term Transmission Customers, as listed out in **Annexure – 19** of this RfP. The BPC reserves the right to add, delete or replace any Long Term Transmission Customer(s) to the list.

Transmission System for Evacuation of Power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System		
S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date
1.	Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILLO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) i. 400 kV switching station with 420 kV, 125 MVAR Bus Reactor – 1 Nos. ii. Reactor Bay-1 Nos. Future Scope: Space for	Matching timeframe of Pakaldul HEP (Feb'2024)

	i. 765/400 kV ICT along with bays – 3 Nos. ii. 400/220/132 kV ICT along with bays – 3 Nos. iii. 765 kV line bays along with switchable line reactor – 6 Nos. iv. 400 kV Line bays – 8 Nos. v. 220 /132 kV Line bays – 6 Nos. vi. 765 kV Reactor along with bays-1 Nos. vii. 400 kV Reactor along with bays – 1 Nos.	
2.	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line at Kishtwar	
3.	2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line 400kV line bays – 2 Nos.	
4.	1 No. of 400 kV line bay at Kishtwar (GIS) for 2nd circuit stringing of Kishtwar- Kishenpur section 400kV line bay – 1 No.	

3. The TSP shall ensure that design, construction and testing of all equipment, facilities, components and systems of the Project shall be in accordance with Indian Standards and Codes issued by Bureau of Indian Standards and only in case they are not available under certain conditions, the other equivalent internationally recognized Standards and Codes shall be followed, with prior approval of CEA.
4. **Transmission License:** The TSP shall obtain the Transmission License from the Appropriate Commission on such terms and conditions as specified by the Appropriate Commission. Bidders shall ensure that they comply with all the requirements of Appropriate Commission for grant of Transmission License.
5. **Bidding Process:** PFC Consulting Limited seeks to select a Transmission Service Provider through tariff based competitive bidding process for the Project based on meeting stipulated Qualification Requirements prescribed in Clause 2.1 of Section 2 of RFP and the lowest Levelised Transmission Charge derived from Final Offers quoted during the e-reverse bidding. The selection of the TSP shall be subject to it obtaining Transmission License from the Appropriate Commission which after expiry may be further extended by such period as deemed appropriate by the Appropriate Commission under power vested with it to amend the conditions of Transmission License. The entire bidding process shall be conducted on electronic platform created by MSTC Limited.

The Bidder shall also make physical submission of the Technical Bid in addition to online submission through the electronic bidding platform. There should be no physical submission of the Financial Bid.

6. The objective of the bidding process is to select a Successful Bidder pursuant to this RFP, who shall acquire one hundred percent (100%) of the equity shares of SPV [which is under

incorporation] along with all its related assets and liabilities as per the provisions of the Share Purchase Agreement, at the Acquisition Price to be intimated by the BPC, twenty (20) days prior to the Bid Deadline.

The **SPV [which is under incorporation]**, of which one hundred percent (100%) equity shares has been acquired by the Selected Bidder, shall be responsible as the TSP, for ensuring that it undertakes ownership, financing, development, design, engineering, procurement, construction, commissioning, operation and maintenance of the Project, and to provide Transmission Service to the Long Term Transmission Customers as per the terms of the RFP Project Documents.

7. **Commencement of Transmission Service:** The Selected Bidder shall have to commence Transmission Service in accordance with the provisions as may be specified in the TSA.
8. **Transmission Charges:** The Transmission Charges shall be payable by Long Term Transmission Customer(s) in Indian Rupees. Bidders shall quote the Transmission Charges as per the pre-specified structure, as mentioned in RFP.
9. **Issue of RFP document:** The detailed terms and conditions for qualification and selection of the Transmission Service Provider for the Project and for submission of Bid are indicated in the RFP document. All those interested in purchasing the RFP document may respond in writing to **General Manager, Tel. +91 11 23443996, Fax +91 11 23443990, Email: pfcl.itp@pfclindia.com**, PFC Consulting Limited at the address given in Para 12 below with a non-refundable fee of **Rs. 5,00,000/- (Rupees Five Lakh Only)** or **US\$ 7000/- (US Dollars Seven Thousand Only)** plus 18% GST, in the form of a demand draft or banker's cheque in favour of "**PFC Consulting Limited**" payable latest by 09.04.2021 at New Delhi or through electronic transfer in the following Bank Account:

Account No. : 000705036117
Bank Name : ICICI Bank
IFSC : ICIC0000007
Branch : Connaught Place, New Delhi-110001

The RFP document shall be issued to the Bidders on any working day from 04.02.2021 to 09.04.2021 between 10:30 hours (IST) to 16:00 hours (IST). BPC, on written request and against payment of the above mentioned fee by any Bidder shall promptly dispatch the RFP document to such Bidder by registered mail/ air mail. BPC shall, under no circumstances, be held responsible for late delivery or loss of documents so mailed.

10. **Receipt and opening of Bid:** Scanned Copy of the Technical Bid must be uploaded online through the electronic bidding platform on or before 11:00 hours (IST) on 12.04.2021. In addition to the above, the Technical Bid in one (1) original plus one (1) copy, must be delivered to the address as given in Para 12 below on or before 11:00 hours (IST) on 12.04.2021 and Technical Bid will be opened on the same day at 11:30 hours (IST) at PFC

Consulting Limited, 9th Floor, A-Wing, Statesman House, Connaught Place, New Delhi - 110001, India in the presence of Bidders' representatives who wish to attend. If the Bid Deadline is a public holiday at the place of submission of Bid, it shall be received and opened on the next working day at the same time and venue. Bidders meeting the Qualification Requirements, subject to evaluation as specified in Clause 3.2 to 3.4 shall be declared as "Qualified Bidders" and eligible for opening of Initial Offer.

11. The RFP document is not transferable. BPC reserves the right to reject all Bid and/or annul the process of tariff based competitive bidding for selection of TSP to execute the Project without assigning any reason. BPC shall not bear any liability, whatsoever, in this regard.

12. Nodal person for enquiries and clarifications

All correspondence, clarification in respect of RFP document and submission of Technical and Financial Bid shall be addressed to:

General Manager
PFC Consulting Limited
9th Floor, A-Wing, Statesman House
Connaught Place, New Delhi - 110001, India
Tel. + 91-11-23443996
Fax + 91-11-23443990
Email: pfcl.itp@pfcindia.com

DISCLAIMER

1. This Request for Proposal (RFP) document is not an agreement or offer by the BPC to the prospective Bidders or to any other party. The purpose of this RFP document is to provide interested parties with information to assist the formulation of their Bid. The RFP document is based on material and information available in public domain.
2. This RFP, along with its Annexures, is not transferable and the information contained therein are to be used only by the person to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors). In the event that the recipient does not continue with its involvement in the Project in accordance with this RFP, this RFP must be kept confidential.
3. While this RFP has been prepared in good faith, neither the BPC nor its employees or advisors/consultants make any representation or warranty express or implied as to the accuracy, reliability or completeness of the information contained in this RFP. The Bidders shall satisfy themselves, on receipt of the RFP document, that the RFP document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within ten (10) days from the date of issue of this RFP document on or before the date & time mentioned in this RFP, it shall be considered that the issued document, complete in all respects, has been received by the Bidders.

This bidding process is in accordance with the Bidding Guidelines issued by Ministry of Power, Government of India under Section 63 of the Electricity Act, 2003. Revisions or amendments in these Bidding Guidelines may cause the BPC to modify, amend or supplement this RFP document, including the RFP Project Documents to be in conformance with the Bidding Guidelines.

4. This RFP document includes statements, which reflect various assumptions arrived at by BPC in order to give a reflection of current status in the RFP. These assumptions should not be entirely relied upon by Bidders in making their own assessments. This RFP document does not purport to contain all the information each Bidder may require and may not be appropriate for all persons. It is not possible for BPC to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP document. Certain Bidders may have a better knowledge of the Project than the others. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and obtain independent advice from appropriate sources.
5. Neither BPC nor their employees or consultants make any representation or warranty as to the accuracy, reliability or completeness of the information in this RFP document.
6. Neither BPC, its employees nor its consultants will have any liability to any Bidder or any

other person under the law of contract, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise from or be incurred or suffered in connection with anything contained in this RFP document, any matter deemed to form part of this RFP document, the award of the Project, the information supplied by or on behalf of BPC or its employees, any consultants or otherwise arising in any way from the qualification process for the said Project.

7. By participating in the bidding process, each of the Bidder shall have acknowledged and accepted that he has not been induced to enter into such agreement by any representation or warranty, express or implied, or relied upon any such representation or warranty by or on behalf of BPC or any person working in the bidding process.
8. BPC may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement this RFP document. Such updations, amendments or supplements, if any, will however be circulated to the Bidders not later than 7days prior to the last date for submission of Bid.
9. Each Bidder unconditionally agrees, understands and accepts that the BPC reserves the rights to accept or reject any or all Bids without giving any reason. Neither the BPC nor its advisers shall entertain any claim of any nature, whatsoever, including without limitations, any claim seeking expenses in relation to the preparation of Bids.
10. This RFP may be withdrawn or cancelled by the BPC at any time without assigning any reasons thereof. BPC further reserves the right, at its complete discretion to reject any or all of the Bids without assigning any reasons whatsoever.

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DEFINITIONS

Any capitalized term, used but not defined in this RFP, shall have the meaning ascribed to such term in the RFP Project Documents, or the Bidding Guidelines, in that order. In absence of availability of definitions in the foregoing references, the capitalized terms shall be interpreted in accordance with the Electricity Act 2003, the CERC (Terms and Conditions of Tariff) Regulations 2019, Grid Code or any other relevant electricity law, rule or regulation prevalent in India, as amended or re-enacted from time to time, in that order.

The following terms are defined for use in this RFP:

“Acquisition Price” shall have the same meaning as defined in the Share Purchase Agreement;

“Affiliate” shall mean a company that either directly or indirectly

- i. controls or
- ii. is controlled by or
- iii. is under common control with

a Bidding Company (in the case of a single company) or a Member (in the case of a Consortium) and **“control”** means ownership by one company of at least twenty six percent (26%) of the voting rights of the other company. As an illustration a chart is annexed hereto as **Annexure – 12**;

“Allocated Project Capacity” shall mean, for each Long Term Transmission Customer, the sum of the generating capacities allocated to such Long Term Transmission Customer from the ISGS and the contracted power, if any, as adopted by CERC from time to time in determining sharing of transmission charges between the Long Term Transmission Customers;

“Appropriate Commission” shall mean the Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Electricity Act, or the State Regulatory Commission referred to in Section 82 of the Electricity Act, 2003 or the Joint Commission referred to in Section 83 of the Electricity Act, as the case may be;

“Appropriate Government” shall mean the Central Government in case of any Inter-State Transmission System and the appropriate State Government in case of an Intra-State Transmission System;

“Bid” shall mean Technical Bid and Financial Bid submitted by the Bidder, in response to this RFP, in accordance with the terms and conditions thereof;

“Bidder” shall mean either a single company (including its permitted successors and legal assigns) or a Consortium of companies (including its permitted successors and legal assigns) submitting a Bid in response to this RFP. Any reference to the Bidder includes Bidding Company, Bidding Consortium/ Consortium, Member in a Bidding Consortium and Lead Member of the Bidding Consortium jointly and severally, as the context may require;

“Bidding Company” shall refer to such single company (including its permitted successors and legal assigns) that has submitted a Bid for the Project;

“Bidding Consortium/ Consortium” shall refer to a group of companies (including their permitted successors and legal assigns) that has collectively submitted a Bid for the Project;

“Bidding Guidelines” shall mean the “Tariff Based Competitive-Bidding Guidelines for Transmission Service” and “Guidelines for Encouraging Competition in Development of Transmission Projects” issued by Government of India, Ministry of Power dated 13th April 2006 under Section – 63 of Electricity Act and as amended from time to time;

“Bid Bond” shall mean the unconditional and irrevocable bank guarantee, to be submitted along with the Technical Bid by the Bidder under Clause 2.11 of this RFP, as per the format prescribed in **Annexure-14**;

“Bid Deadline” shall mean the last date and time for submission of Bid in response to this RFP, specified in Clause 2.7.1;

“Bid Process Coordinator or BPC” shall mean a person or its authorized representative as notified by the Government of India/concerned State Government, responsible for carrying out the process for selection of Transmission Service Provider;

“CEA” shall mean the Central Electricity Authority constituted under Section - 70 of the Electricity Act, 2003;

“CERC” shall mean the Central Electricity Regulatory Commission of India constituted under Section-76 of The Electricity Act, 2003 and any successors and assigns;

“Conflict of Interest” A Bidder shall be considered to be in a Conflict of Interest with one or more Bidders in the same bidding process if they have a relationship with each other, directly or through a common company, that puts them in a position to have access to information about or influence the Bid of another Bidder;

“Commercial Operation Date (COD)” shall mean the date of charging the Project or part thereof to its rated voltage level or seven (7) days after the date on which it is declared ready for charging by the Transmission Licensee, but is not able to be charged for reasons not attributable to the Transmission Licensee, its suppliers or contractors;

Provided that the date of commercial operation shall not be a date prior to the Scheduled Date of Commercial Operation mentioned in the TSA, unless mutually agreed to by all parties;

“Consents, Clearances, Permits” shall mean all authorizations, licenses, approvals, registrations, permits, waivers, privileges, acknowledgements, agreements, or concessions required to be obtained from or provided by any concerned authority for the development, execution and performance of Project including without any limitation on the construction, ownership,

operation and maintenance of the transmission lines and/or sub-stations;

“Contract Performance Guarantee” shall have the meaning as per Clause 2.12 of this RFP;

“Contract Year” shall mean the period beginning on the Scheduled COD, and ending on the immediately succeeding March 31 and thereafter each period of 12 months beginning on April 1 and ending on March 31 provided that:

- (i) the last Contract Year shall end on the last day of the term of the TSA;

Provided that for the purpose of payment, the Contract Year shall be the applicable Contract Year as per **Annexure-22** of this RFP;

“CTU/Central Transmission Utility” shall mean the utility notified by the Central Government under Section-38 of the Electricity Act, 2003;

“Effective Date” shall have the meaning as ascribed thereto in the TSA;

“Element” shall mean each Transmission Line or each circuit of the Transmission Lines (where there are more than one circuit) or each bay of the Sub-station or switching station or HVDC terminal or inverter station of the Project, which has a separate scheduled COD as per Schedule 3 of the TSA and has a separate percentage for recovery of Transmission Charges on achieving COD as per Schedule 6 of the TSA;

“Final Offer” shall mean the Quoted Escalable Transmission Charges and Quoted Non-Escalable Transmission Charges, required to be submitted as part of the Financial Bid on the electronic bidding platform during the e-reverse bidding stage. In case, no Final Offer is received during the e-reverse bidding stage then the lowest “Initial Offer” shall be deemed to be the Final Offer;

“Financial Bid” shall mean the Initial Offer and Final Offer, containing the Bidder’s Quoted Transmission Charges, as per the format at **Annexure-22** of this RFP;

“Financially Evaluated Entity” shall mean the company which has been evaluated for the satisfaction of the financial requirement set forth in Clause 2.1.3 hereof;

“Grid Code” / “IEGC” or “State Grid Code” shall mean the Grid Code specified by the Central Commission under Clause (h) of sub-section (1) of Section 79 of the Electricity Act, 2003 and/or the State Grid Code as specified by the concerned State Commission referred under Clause (h) of sub-section (1) of Section 86 of the Electricity Act, 2003 as applicable;

“Initial Offer” shall mean the Quoted Escalable Transmission Charges and Quoted Non-Escalable Transmission Charges, required to be submitted as part of the Financial Bid on the electronic bidding platform along with the Technical Bid;

“Inter State Generating Station” or “ISGS” shall mean a Central / other generating station in which two or more states have shares and whose scheduling is to be coordinated by the

Regional Load Despatch Centre;

“Inter-State Transmission System” shall include

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

“Intra-State Transmission System” shall mean any system for transmission of electricity other than an Inter-State Transmission System;

“Lead Member of the Bidding Consortium” or “Lead Member” shall mean a company who commits at least 26% equity stake in the Project, meets the technical requirement as per Clause 2.1.2 and so designated by other Member(s) in Bidding Consortium;

“Lead Long Term Transmission Customer” shall have the meaning as ascribed thereto in the TSA;

“Letter of Intent” or “LoI” shall mean the letter to be issued by the BPC to the Bidder, who has been identified as the selected Bidder, for award of the Project to such Bidder;

“Levelized Transmission Charges” shall mean the Transmission Charges calculated in accordance with the provisions of Clause 3.5.2 in this RFP;

“Long Term Transmission Customer(s)” shall mean a person availing or intending to avail access to the Inter-State Transmission System for a period up to twenty-five (25) years or more, and for the purposes of this Project, shall refer to entities listed in **Annexure – 19** of this RFP or any such other person who executes a supplementary agreement for availing transmission service as per the provisions of the TSA;

“Member in a Bidding Consortium/Member” shall mean each company in the Bidding Consortium;

“MOP” shall mean the Ministry of Power, Government of India;

“MOEF” shall mean the Ministry of the Environment and Forests, Government of India;

“National Committee on Transmission” shall mean the committee constituted by the Ministry of Power, Government of India in terms of "Guidelines for Encouraging Competition in Development of Transmission Projects", as notified from time to time;

“Parent Company” shall mean a Company that holds at least twenty six percent (26%) of the

paid - up equity capital directly or indirectly in the Bidding Company or in the Member in a Bidding Consortium, as the case may be;

“Qualification Requirements” shall mean the qualification requirements as set forth in Section-2, Clause 2.1 of this RFP;

“Quoted Transmission Charges” shall mean the sum of the Quoted Escalable Transmission Charges and Quoted Non-Escalable Transmission Charges submitted online through the electronic bidding platform by the Bidder as part of its Financial Bid as per the format in **Annexure– 22** of this RFP;

“Quoted Escalable Transmission Charges” shall mean the column 5 of Financial Bid quoted online through the electronic bidding platform by the Bidder as per **Annexure– 22**;

“Quoted Non-Escalable Transmission Charges” shall mean the Column 4 of Financial Bid quoted online through the electronic bidding platform by the Bidder as per **Annexure– 22**;

“RFP” shall mean Request for Proposal document along with all schedules, formats, annexure and RFP Project Documents attached hereto, issued by BPC for tariff based competitive bidding process for selection of TSP to execute the Project, and shall include any modifications, amendments or alterations or clarifications thereto;

“RFP Project Documents” shall mean the following documents to be entered into in respect of the Project, by the parties to the respective agreements:

- a. TSA,
- b. Share Purchase Agreement and
- c. Any other agreement, as may be required;

“Scheduled COD” shall have the meaning as ascribed hereto in Clause 2.6 of this RFP;

“Statutory Auditor” shall mean the auditor appointed under the provisions of the Companies Act, 1956 or under the provisions of any other applicable governing law;

“Share Purchase Agreement” shall mean the agreement amongst PFC Consulting Limited, **SPV [which is under incorporation]** and the Successful Bidder for the purchase of one hundred (100%) per cent of the shareholding of the **SPV [which is under incorporation]** for the Acquisition Price, by the Successful Bidder on the terms and conditions as contained therein;

“Short Term Transmission Customer(s)” shall mean a transmission customer other than the Long Term Transmission Customer;

“Successful Bidder” or **“Selected Bidder”** shall mean the Bidder selected pursuant to this RFP to acquire one hundred percent (100%) equity shares of **SPV [which is under incorporation]** along with all its related assets and liabilities, which will be responsible as the TSP to establish the Project on build, own, operate and maintain basis as per the terms of the TSA and other RFP

Project Documents;

"Survey Report" shall mean the report containing initial information regarding the Project and other details provided as per the provisions of Clause 1.6.2.1.a of this RFP;

"Technical Bid" shall mean the scanned copy of the bid submitted online through the electronic bidding platform and hard copy of the Bid in one (1) original and one (1) copy, containing the documents as listed out in Clause 2.5.2 of this RFP;

"Technically Evaluated Entity" shall mean the company which has been evaluated for the satisfaction of the technical requirement set forth in Clause 2.1.2 hereof;

"Transmission Charges" shall mean the charges payable to TSP by Long Term Transmission Customer(s) pursuant to the TSA, as adopted by the Appropriate Commission;

"Transmission License" shall mean the license granted by the Appropriate Commission in terms of the relevant regulations for grant of such license issued under the Electricity Act, 2003;

"Transmission Licensee" shall mean a licensee authorized to establish and operate Transmission Lines by the Appropriate Commission;

"Transmission Lines" shall mean all high pressure cables and overhead lines (not being an essential part of the distribution system of a licensee) transmitting electricity from a generating station to another generating station or a sub-station, together with any step-up and step-down transformers, switch-gear and other works necessary to and used for the control of such cables or overhead lines, and such buildings or part thereof as may be required to accommodate such transformers, switchgear and other works;

"Transmission Service Agreement" or "TSA" shall mean the agreement entered into between Long Term Transmission Customer(s) and the TSP pursuant to which TSP shall build, own, operate and maintain the Project and make available the assets of the Project to Long Term Transmission Customer(s) on a commercial basis and a draft of which is attached hereto and marked as **Format 1 of Annexure-21**, including all its schedules, annexures and all amendments or modifications;

"Transmission Service Provider" or "TSP" shall mean **SPV [which is under incorporation]** which has executed the Transmission Service Agreement and has been/shall be acquired by the Selected Bidder;

"Transmission System" shall mean a line with associated sub-stations or a group of lines interconnected together along with associated sub-stations and the term includes equipment associated with transmission lines and sub-stations;

"Ultimate Parent Company" shall mean a company which owns at least twenty six percent (26%) equity in the Bidding Company or Member of a Consortium, (as the case may be) and in

the Technically Evaluated Entity and/or Financially Evaluated Entity (as the case may be) and such Bidding Company or Member of a Consortium, (as the case may be) and the Technically Evaluated Entity and/or Financially Evaluated Entity (as the case may be) shall be under the direct control or indirectly under the common control of such company.

SECTION – 1

INTRODUCTION

SECTION-1**1. INTRODUCTION**

1.1 The **Ministry of Power, Government of India, vide its letter no. 15/3/2018-Trans-Pt(2) dated 01.10.2020 forwarding Gazette Notification No. CG-DL-E-28092020-222045 dated 25.09.2020** has appointed PFC Consulting Limited to be the Bid Process Coordinator (BPC) for the purpose of selection of Bidder as Transmission Service Provider (TSP) to establish **“Transmission System for Evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System”** through tariff based competitive bidding process.

The BPC hereby invites Bids from all prospective Bidders in accordance with this Request for Proposal (RFP) to select prospective Transmission Service Provider (TSP) in accordance with the “Tariff Based Competitive-Bidding Guidelines for Transmission Service” and “Guidelines for Encouraging Competition in Development of Transmission Projects” issued by Government of India, Ministry of Power under Section-63 of the Electricity Act. The BPC shall select the Bidder having the prescribed technical and financial capability to become TSP and be responsible for establishing the Project in the **Union Territory(s) of Jammu and Kashmir**. The TSP will make the Project available for use by the Long Term Transmission Customer(s) for Transmission Charges, as adopted by Appropriate Commission, payable to TSP by Long Term Transmission Customer(s), pursuant to a Transmission Service Agreement (TSA) to be signed between the TSP and the Long Term Transmission Customer(s).

1.2 The TSP will be required to establish the **“Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System”** (hereinafter referred to as ‘Project’) on build, own, operate and maintain basis, and to provide transmission service to the Long Term Transmission Customers, as listed out in **Annexure – 19** of this RFP. The BPC reserves the right to add, delete or replace any Long Term Transmission Customer(s) to the list.

Transmission System for Evacuation of Power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System		
S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date
1.	Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)	Matching timeframe of Pakaldul HEP (Feb’2024)
	i. 400 kV switching station with 420 kV, 125 MVAR Bus Reactor – 1 Nos.	

Transmission System for Evacuation of Power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System		
S. No.	Name of Transmission Element	Scheduled COD in months from Effective Date
	ii. Reactor Bay-1 Nos. Future Scope: Space for i. 765/400 kV ICT along with bays – 3 Nos. ii. 400/220/132 kV ICT along with bays – 3 Nos. iii. 765 kV line bays along with switchable line reactor – 6 Nos. iv. 400 kV Line bays – 8 Nos. v. 220 /132 kV Line bays – 6 Nos. vi. 765 kV Reactor along with bays-1 Nos. vii. 400 kV Reactor along with bays – 1 Nos.	
2.	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line at Kishtwar	
3.	2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line 400kV line bays – 2 Nos.	
4.	1 No. of 400 kV line bay at Kishtwar (GIS) for 2nd circuit stringing of Kishtwar- Kishenpur section 400kV line bay – 1 No.	

1.3 Project Description

- i. Chenab Valley Power Projects Limited (CVPPL) is implementing three Hydro Electric Projects (HEP) viz Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) in J&K. In the 1st Northern Region Power Committee- Transmission Planning (NRPC (TP)) meeting held on 24/01/2020, Comprehensive system for connectivity was agreed for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL. It was also agreed that the above projects would be connected to a common pooling station through 400kV dedicated transmission line to be implemented by developer of these projects. Further, establishment of common pooling station at Kishtwar by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) was also agreed to be implemented under ISTS to provide connectivity to above projects.
- ii. Subsequently, during 2nd meeting of NRPC (TP) held on 01/09/2020, transmission System was also agreed for transfer of 1000MW from Pakaldul HEP to NR on target

region on Long-term Access (LTA) basis. Above Transmission system for evacuation of Power from Pakaldul HEP in Chenab valley was also agreed in 48th Northern Region Power Committee (NRPC) meeting held on 02/09/2020 & 3rd National Committee on Transmission (NCT) held on 26th and 28th May, 2020.

1.4 Transmission Grid Map

Transmission Grid Map indicating the location of the Project is enclosed as **Annexure-18** of this RFP, for information and reference of the Bidders.

- 1.5 The objective of the bidding process is to select a Successful Bidder pursuant to this RFP, who shall acquire one hundred percent (100%) of the equity shares of **SPV [which is under incorporation]** along with all its related assets and liabilities as per the provisions of the Share Purchase Agreement, at the Acquisition Price to be intimated by the BPC, twenty (20) days prior to the Bid Deadline.

The **SPV [which is under incorporation]** of which one hundred percent (100%) equity shares has been acquired by the Selected Bidder, shall be responsible as the TSP, for ensuring that it undertakes ownership, financing, development, design, engineering, procurement, construction, commissioning, operation and maintenance of the Project, and to provide Transmission Service to the Long Term Transmission Customers as per the terms of the RFP Project Documents.

1.6 Brief Scope of Work

1.6.1 Scope of Transmission Service Provider

The TSP's scope of work for the Project shall comprise, but not necessarily be limited to the following:

- 1.6.1.1 Establishment, operation and maintenance of the Project on build, own, operate and maintain basis and completion of all the activities for the Project, including survey, detailed project report formulation, arranging finance, project management, necessary Consents, Clearances and Permits (way leave, environment & forest, civil aviation, railway/ road/ river/ canal/ power crossing/ PTCC, etc.), land compensation, design, engineering, equipment, material, construction, erection, testing & commissioning.
- 1.6.1.2 The TSP shall ensure that design, construction and testing of all equipment, facilities, components and systems of the Project shall be in accordance with Indian Standards and Codes issued by Bureau of Indian Standards and only in case they are not available under certain conditions, the other equivalent internationally recognized Standards and Codes shall be followed, with prior approval of CEA.
- 1.6.1.3 The TSP shall ensure timely completion of entire scope of Project in all respects and its operation and maintenance, as shall be specified in the RFP documents.

1.6.1.4 The TSP shall seek Transmission License from the Appropriate Commission, as per the provisions of the Electricity Act and regulations made thereunder, if it is not a deemed licensee.

1.6.2 Scope of Bid Process Coordinator (BPC)

BPC's scope of work is briefly outlined hereunder:

1.6.2.1 The BPC has initiated development of the Project and shall be responsible for the tasks in this regard as specified hereunder:

- a) Provide to the Bidders a Survey Report for the Project at least thirty (30) days prior to the Bid Deadline. The Survey Report will contain information regarding the transmission line, i.e. voltage level, line configuration (i.e., S/C or D/C), indicative route alignment, conductor type conductor configuration and type of terrain likely to be encountered.

Provided that neither the BPC, its authorized representative, any of the Long Term Transmission Customer(s), nor their directors, employees or advisors/consultants make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions made in the Survey Report, or the accuracy, completeness or reliability of information contained therein, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of such Survey Report, even if any loss or damage is caused to the Bidders by any act or omission on their part.

- b) To obtain approval for laying of overhead transmission lines under Section 68 of Electricity Act, from Appropriate Government at least twenty (20) days prior to the Bid Deadline.
- c) To initiate acquisition of land for location specific substations, switching stations or HVDC terminal or inverter stations, if required.
- d) To initiate process of seeking forest clearance, if required.
- e) Intimate the Bidders at least twenty (20) days prior to the Bid Deadline, the name of the BPC for the purpose of issue of the Bid Bond and the place where the Bid Bond shall be payable by the Guarantor Bank.
- f) Any addition, deletion or replacement to the list at **Annexure-19**, will be communicated at least 20 (twenty) days prior to the Bid Deadline. Further, the entities which are legally permitted to sign the TSA on behalf of the Long Term Transmission Customer(s) shall also be intimated to the Bidders at least twenty (20) days prior to the Bid Deadline.

- g) The BPC shall intimate the Bidders, the Acquisition Price payable by the Selected Bidder to the PFC Consulting Limited for the acquisition of one hundred percent (100%) of the equity shareholding of **SPV [which is under incorporation]**, along with all its related assets and liabilities at least twenty (20) days prior to the Bid Deadline.
- h) The BPC shall ensure issuance of all finalized RFP Project Documents duly executed, except for the Share Purchase Agreement, at least seven (07) days prior to the Bid Deadline.

Provided that for any delay in meeting the above obligations of the BPC within the specified time period above, the Bid Deadline as per Clause 2.7.1 shall be extended on a day for day basis.

- i) The details and documents as may be obtained by the BPC in relation to the Project shall be handed over to the TSP on as-is-where-is basis, so that it may take further actions to obtain Consents, Clearances and Permits.
- 1.7 All costs (including direct and indirect) incurred by the BPC in connection with the activities concerning the Project shall be recovered from the TSP, which shall be included in the Acquisition Price.
 - 1.8 The Project is required to be completed progressively in accordance with the schedule prescribed in this RFP.
 - 1.9 A company under the Companies Act 2013 by the name **SPV [which is under incorporation]** has been incorporated to initiate the activities for execution of the Project. The said company shall be acquired by the successful Bidder as per terms and conditions as may be prescribed in RFP.
 - 1.10 The Ministry of Power and the appropriate State Government(s) have agreed to provide their support to the TSP, on best endeavor basis, in enabling the TSP to develop the Project.
 - 1.11 All Bidders are required to submit their Bid in accordance with the instructions set forth in this RFP.
 - 1.12 Once the Successful Bidder is selected, the details and documents as may be obtained by the BPC in relation to the Project, shall be handed over to the Successful Bidder on as is where basis, so that it may take further actions to obtain all necessary Consents, Clearances and Permits and the TSP shall not be entitled for any extensions in the Scheduled COD of the Project except as provided for in the TSA.
 - 1.13 The assets of the Project shall be made available on a commercial basis to the Long Term Transmission Customer(s) as per the terms and conditions of the TSA.

SECTION - 2

INFORMATION AND INSTRUCTIONS FOR BIDDERS

SECTION – 2**2. INFORMATION AND INSTRUCTIONS FOR BIDDERS****2.1 Qualification Requirements****2.1.1**

- i. The Bidder should be a company duly incorporated under the relevant laws (Bidding Company) or a Consortium of companies (Bidding Consortium) with one of the companies acting as the Lead Member of the Bidding Consortium. The Bidder shall be selected on meeting the Qualification Requirements specified in Section 2 of this RFP, as demonstrated by the Bidder's Technical Bid and the lowest Levelised Transmission Charge derived from Final Offers quoted during the e-reverse bidding. A Bidding Consortium can participate in the bidding process for the Project if any Member of the Consortium has purchased the RFP document for such Project.

- ii. Bidder who agree and undertake to procure the products associated with the Transmission System as per provisions of Public Procurement (Preference to Make in India) orders issued by Ministry of Power vide orders No. 11/5/2018 - Coord. dated 28.07.2020 for transmission sector, as amended from time to time read with Department for Promotion of Industry and Internal Trade (DPIIT) orders in this regard, shall be eligible hereunder. Further, it is clarified that Procuring Entity as defined in orders shall deemed to have included Selected Bidder and/ or TSP.

Besides, Department of Expenditure, Ministry of Finance vide Order (Public Procurement No 1) bearing File No. 6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No 2) bearing File No. 6/18/2019-PPD dated 23.07.2020 and Order (Public Procurement No. 3) bearing File No. 6/18/2019-PPD, dated 24.07.2020, as amended from time to time, have issued directions regarding public procurement from a bidder of a country, which shares land border with India are also applicable.

2.1.2 Technical requirement to be met by the Bidding Company or Lead Member of Bidding Consortium

The Bidder must fulfill following technical requirements:

Experience of development of projects (not necessarily in the power sector) in the last five(5) years with aggregate capital expenditure of not less than **Rs. 500 Crore (Rupees Five Hundred Crore Only)** or equivalent USD (calculated as per provisions in Clause3.4.1). However, the capital expenditure of each project shall not be less than **Rs. 3,50,00,000/- (Rupees Three Crore and Fifty Lakh only)** or equivalent USD (calculated as per provisions in Clause3.4.1).

- i. For this purpose, capital expenditure incurred on projects that have been commissioned/ completed at least seven (7) days prior to the Bid Deadline shall be considered. The capital expenditure discussed above shall be as capitalized and reflected in the audited books of accounts of the Technically Evaluated Entity. In case a clearly identifiable part of a project has been put into commercial operation, the capital expenditure on such part of the project shall be considered. The Technically Evaluated Entity must have either executed such projects itself or must own at least 26% of the shareholding in the company that has executed the project(s) and must have held such shareholding from the date of financial closure of the project(s) till the time of commissioning/completion of such project(s). The Technically Evaluated Entity may be the Bidding Company or the Lead Member of a Consortium or an Affiliate or Parent of such Bidding Company or the Lead Member, as the case may be.
- ii. In case of a Bidding Consortium, the technical requirement should be met by the Lead Member of the Consortium or its Affiliate/Parent.
- iii. Bidders shall furnish documentary evidence duly certified by any whole-time Director/Manager¹ of the company (supported by a specific Board Resolution) and the Statutory Auditor in support of their technical capability as defined in Clause 2.1.2 of this RFP.

2.1.3 Financial requirement to be met by the Bidding Company/Bidding Consortium

2.1.3.1 The Bidder must fulfill following financial requirements:

A. Networth:

Networth shall not be less than **Rs.250 Crore (Rupees Two Hundred Fifty Crore Only)** or equivalent USD (calculated as per provisions in Clause 3.4.1) computed as the Networth based on unconsolidated audited annual accounts (refer to Note below) of any of the last three (3) financial years as provided in Clause 2.2.3, immediately preceding the Bid Deadline.

Note: Audited consolidated annual accounts of the Bidder may be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of

¹ a. The company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.
b. The Company Secretary also certifies that the company does not have a Managing Director.

the Technical Bid. Bidders shall furnish documentary evidence duly certified by any whole-time Director/Manager² of the company (supported by a specific Board Resolution) and the Statutory Auditor in support of their financial capability as defined in Clause 2.1.3 of this RFP.

2.1.3.2 Above financial parameters shall be computed in following manner by the Bidder:

A. Networth

=	Equity share capital
Add:	Reserves
Subtract:	Revaluation Reserves
Subtract:	Intangible Assets
Subtract:	Miscellaneous expenditures to the extent not written off

2.1.3.3 If the Technical Bid is submitted by a Bidding Consortium the financial requirement shall be met individually and collectively by all the Members in the Bidding Consortium. The financial requirement to be met by each Member of the Bidding Consortium shall be computed in proportion to the equity commitment made by each of them for investment in the Project.

2.1.4 The Bidder may seek qualification on the basis of technical and financial capability of its Parent and/ or its Affiliate(s) for the purpose of meeting the Qualification Requirements. However, in the case of the Bidder being a Consortium, the Lead Member has to meet the technical requirement on its own or by seeking the technical capability of its Parent and/or its Affiliate(s). Authorization for use of such technical or financial capability shall have to be provided from its Parent and/or Affiliate(s) as per **Annexure-9**. The technical and financial capability of a particular company, including its Parents and/or Affiliates, shall not be used by more than one Bidder/ Member of a Bidding Consortium/ Bidding Company.

The determination of the relationship of Parent or Affiliate with the Bidding Company or with the Member of the Bidding Consortium, including the Lead Member, shall be on the date seven (7) days prior to the last date of submission of the Bid. Documentary evidence to establish such relationship shall be furnished by the Bidder along with the Technical Bid.

If the Technically Evaluated Entity and/or Financially Evaluated Entity is an entity other than the Bidding Company or a Member in a Bidding Consortium, the Bidding Company or Member relying on such Technically Evaluated Entity and/or Financially Evaluated

² a. The company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.
b. The Company Secretary also certifies that the company does not have a Managing Director.

Entity will have to submit a legally binding undertaking supported by a board resolution from the Technically Evaluated Entity and/or Financially Evaluated Entity or its Ultimate Parent Company, that all the equity investment obligations of the Bidding Company or the Member of the Consortium shall be deemed to be equity investment obligations of the Technically Evaluated Entity and/or Financially Evaluated Entity or its Ultimate Parent Company, and in the event of any default the same shall be met by such evaluated entity or by or the Ultimate Parent Company. Moreover, the Bidding Company or the Consortium Member shall have to provide information and documents relating to its relationship with such Technically Evaluated Entity and/or Financially Evaluated Entity including details about the equity shareholding between them as per **Annexure-7C**.

- 2.1.5 A Bidder shall submit only one Bid in the same bidding process, either individually as Bidding Company or as a Member of a Bidding Consortium (including the Lead Member). It is further clarified that any of the Parent/ Affiliate/Ultimate Parent of the Bidder/ Member in a Bidding Consortium shall not separately participate directly or indirectly in the same bidding process. Further, if any Bidder is having a Conflict of Interest with other Bidders participating in the same bidding process, the Bids of all such Bidders shall be rejected.
- 2.1.6 Notwithstanding anything stated above, BPC reserves the right to verify the authenticity of the documents submitted for meeting the Qualification Requirements and request for any additional information and documents. BPC reserves the right at its sole discretion to contact the Bidder's bank and project references and verify the Bidder's information and documents for the purpose of bid evaluation.
- 2.1.7 The Qualified Bidder(s) will be required to continue to maintain compliance with the Qualification Requirements throughout the bidding process and till execution of TSA. Where the Technically Evaluated and/or the Financially Evaluated Entity is not the Bidding Company or a Member in a Bidding Consortium, as the case may be, the Bidding Company or Member shall continue to be an Affiliate of the Technically Evaluated and/or Financially Evaluated Entity till the execution of the TSA. Failure to comply with the aforesaid provisions shall make the Bid liable for rejection at any stage.

2.2 Submission of Bid by the Bidder

- 2.2.1 The information and documents in Technical Bid will be submitted by the Bidder as per the formats specified in Section – 4 (Formats for RFP) of this document
- 2.2.2 Strict adherence to the formats wherever specified, is required. Wherever, information has been sought in specified formats, the Bidder shall refrain from referring to brochures/ pamphlets. Non-adherence to formats and/ or submission of incomplete information may be a ground for declaring the Technical Bid as non-responsive. Each format has to be duly signed and stamped by the authorized signatory of Bidder.

- 2.2.3 The Technical Bid shall contain unconsolidated/consolidated audited annual accounts (consisting of unabridged Balance Sheet, Profit and Loss Account, profit appropriation account, Auditors Report, etc.), as the case may be, of Bidding Company or each Member in Consortium including Lead Member for the last three (3) financial years immediately preceding the last date for submission of Bid for the purpose of calculation of Networth.

In case the annual accounts for the financial year immediately preceding the Bid Deadline is not audited, the Bidder shall give an undertaking to this effect duly certified by its statutory auditor. In such a case, the Bidder shall provide the audited annual accounts for 3 (three) years preceding the financial year as above for which the annual accounts have not been audited.

2.2.4 Bid submitted by a Bidding Consortium:

- 2.2.4.1 The Technical Bid shall contain a legally enforceable Consortium Agreement entered amongst the Members in the Bidding Consortium, designating one of the Members to be the Lead Member (as per **Annexure-6**). There shall be only one Lead Member which shall continue to hold twenty six percent 26% equity in the TSP and cannot be changed for five (5) years from the Commercial Operation Date (COD) of the Project. Each Member in Bidding Consortium shall duly sign the Consortium Agreement making it liable for raising the required funds for its respective equity investment commitment as specified in the Consortium Agreement. In absence of Consortium Agreement, the Technical Bid will not be considered for evaluation and will be rejected.

Provided that the Lead Member of the Bidding Consortium will be required to be liable to the extent of 100% of the total proposed commitment of equity investment of the Bidding Consortium i.e. for both its own liability as well as the liability of other Members.

Provided further that the Consortium Agreement shall not be amended without the explicit approval of the BPC.

The Lead Member of the Consortium will be the single point of contact for the purposes of the bid process before the date of signing of last of the RFP Project Documents. Settlement of any dispute amongst the Consortium Members shall not be the responsibility of the BPC and/or the Long Term Transmission Customer(s) and the BPC and/or Long Term Transmission Customer(s) shall not bear any liability whatsoever on this account.

- 2.2.4.2 The Lead Member should designate one person to represent the Consortium in its dealings with the BPC. The person designated by the Lead Member should be authorized through a Power of Attorney (as per **Annexure-3**) to perform all tasks including, but not limited to providing information, responding to enquiries, signing of Technical Bid on behalf of the Consortium, etc. The Bidding Consortium shall submit board resolutions

from Consortium Members committing 100% of equity requirement for the Project, in its Technical Bid.

- 2.2.4.3 The Technical Bid should also contain signed Letter of Consent (as per **Annexure-2**) from each Member in Consortium confirming that the entire Technical and Financial Bids has been reviewed and each element of the Technical and Financial Bids is agreed to by them including investment commitment for the Project.

2.2.5 Bid submitted by a Bidding Company

- 2.2.5.1 The Bidding Company should designate one person to represent the Bidding Company in its dealings with BPC. The person should be authorized to perform all tasks including, but not limited to providing information, responding to enquiries, signing of Technical and Financial Bids etc. The Bidding Company should submit, along with Technical Bid, a Power of Attorney (as per **Annexure-3**), authorizing the signatory of the Technical and Financial Bids. The Bidding Company shall submit the board resolution committing 100% of equity requirement for the Project, in the Technical Bid.

2.3 Clarifications & Pre Bid Meeting

- 2.3.1 The Bidders may seek clarifications or suggest amendments to the RFP by sending an email to the BPC at the email id indicated in Clause 2.14 within the date and time mentioned in Clause 2.7.2. For any such clarifications or amendments, the Bidders should adhere to the format as per **Annexure-20**.
- 2.3.2 Only those Bidders or their authorized representatives, who have purchased the RFP documents are invited to attend the pre-bid meeting(s), which will take place on date as specified in Clause 2.7.2, or any such other date as notified by the BPC. The time and address of this would be intimated later.
- 2.3.3 The purpose of the pre-bid meeting will be to clarify any issues regarding the RFP, including in particular, issues raised in writing by the Bidders as per the provisions of Clause 2.3.1.
- 2.3.4 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.
- 2.3.5 The BPC is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.
- 2.3.6 In case Bidders need any further clarifications not involving any amendments in respect of final RFP, they should ensure that written request for such clarification is delivered to the BPC at least ten (10) days prior to the Bid Deadline as mentioned in Clause 2.7.1. The BPC may issue clarifications only, as per its sole discretion, which is considered reasonable by it. Any such clarification issued shall be sent to all the Bidders to whom the

RFP has been issued. Clarifications sought after this date shall not be considered in any manner and shall be deemed not to have been received. There shall be no extension in Bid Deadline on account of clarifications sought as per this Clause 2.3.6.

2.4 Amendment of RFP

- 2.4.1. At any time, not later than 7 (seven) days prior to the last date for submission of Bid, the BPC may, for any reason, whether at its own initiative or in response to clarifications requested by any Bidder modify or amend the RFP, including the timelines specified in Clause 2.7.2 by issuance of addendum/ modification/ errata and/ or revised document. Such document shall be notified in writing through a letter or fax or e-mail to all the entities to whom the RFP has been issued and shall be binding on them. In order to ensure that Bidders have reasonable time to take the modification into account in preparing their Bid, or for any other reasons, BPC may at its discretion, extend the due date for submission of Bid. Late receipt of any addendum/ modification/ errata and/ or revised document will not relieve the Bidder from being bound by that modification.
- 2.4.2. All modifications shall become part of the terms and conditions of this RFP. No interpretation, revision or communication regarding this RFP is valid, unless made in writing.
- 2.4.3. The amendment to the RFP shall be notified to all the Bidders through the electronic bidding platform and shall be binding on them.

2.5 The Bidding Process

- i. The entire bidding process shall be conducted on electronic bidding platform created by MSTC Limited. The Bid shall comprise of the Technical Bid and the Financial Bid. The Bidders shall submit the Technical Bid & Financial Bid through the electronic bidding platform. In addition to the online submission, the Bidders must make physical submission of the Technical Bid in one (1) original and one (1) copy. There should be no physical submission of the Financial Bid.
- ii. Evaluation of Technical Bid will be carried out considering the information and documents furnished by the Bidders as required under this RFP. This step would involve responsiveness check, technical and financial evaluation of the details/ documents furnished by the Bidding Company/ Bidding Consortium in support of meeting the Qualification Requirements. Bidders meeting the Qualification Requirements, subject to evaluation as specified in Clause 3.2 to 3.4 shall be declared as “Qualified Bidders” and eligible for opening of Initial Offer.
- iii. The Financial Bid will comprise of two rounds. In the first round the Initial Offer (submitted online along with the Technical Bids) of the responsive bids would be

opened and Levelised Transmission Charges of Initial Offer shall be ranked on the basis of ascending order for determination of the Qualified Bidders as provided in Section-III of RFP. The Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or four Qualified Bidders, whichever is higher, shall be considered to be the qualified for participating in the electronic reverse auction stage and submit their Final Offer.

Provided however, in case only one Bidder remains after the evaluation of Technical Bid as per Clause 3.2, 3.3 and Clause 3.4, the Initial Offer of such Bidder shall not be opened and the matter shall be referred to the Government.

Provided that in the event the number of qualified Technical Bids is between two and four, then each of the qualified Bidder shall be considered as "Qualified Bidders".

Provided that in the event of identical Levelised Transmission Charges derived from the Initial Offer having been submitted by one or more Bidders, all such Bidders shall be assigned the same rank for the purposes of determination of Qualified Bidders. In such cases, the fifty per cent shall stand enhanced to fifty per cent (with any fraction rounded off to higher integer) or four Qualified Bidders, whichever is higher, plus the number of Qualified Bidders, whose Levelised Transmission Charges derived from Initial Offer are identical minus the number of such identical Initial Offer.

- iv. The applicable ceiling Levelised Transmission Charges for electronic reverse bidding shall be the lowest levelised Transmission Charges derived from the Initial Offer received from the Qualified Bidders. The Qualified Bidders shall be permitted to place their Final Offer on the electronic bidding platform, which is lower than zero point twenty five (0.25) % of the prevailing lowest Levelised Transmission Charges.
- v. The initial period for conducting the e-reverse bidding should be at least 2 hours which will be extended by 30 minutes from the last received bid time, if the bid is received during the last 30 minutes of the scheduled or extended bid time. Subsequently, it will be extended again by 30 minutes from the latest received bid time.
- vi. The technical details with respect to access to such electronic platform are provided in **Annexure-A** (Technical Details with respect to electronic auction).
- vii. In case of any technical clarification regarding access to the electronic auction platform or conduct of the auction process, the Bidders may contact MSTC Limited directly at the address provided in **Annexure-A**.

2.5.1 Bid Formats

The Bids in response to this RFP will be submitted online through the electronic bidding platform by the Bidders in the manner provided in Clause 2.9. The Bids shall comprise of the following:

2.5.2 Technical Bid comprising of:

1. Covering Letter (as per prescribed format enclosed as **Annexure-1**);
2. Letter of Consent from Consortium Members in **Annexure-2**;
3. Original power of attorney issued by the Bidding Company or the Lead Member of the Consortium, as the case may be, in favour of the person signing the Bid, in the form attached hereto as **Annexure-3**.

Additionally, in case of a Bidding Consortium, the power of attorney in favour of the Lead Member issued by the other Members of the Consortium shall be provided in Original as per format attached hereto as **Annexure-4**.

Provided that in the event the Bidding Company or the Lead Member of the Consortium or any Member of the Bidding Consortium, as the case may be, is a foreign entity, it may issue Board resolutions in place of power of attorney for the purpose of fulfilling these requirements.

4. Bidder's composition and ownership structure in **Annexure-5**
5. Format for Authorization submitted in Non-Judicial stamp paper duly notarized as per **Annexure-5** from the Bidding Company / each Member of the Consortium authorizing the BPC to seek reference from their respective bankers & others.
6. In case of Bidding Consortium, the Consortium Agreement shall be provided in Original as per format attached hereto as **Annexure-6**
7. Format of Qualification Requirement (**Annexures-7A, 7B, 7C and 7D**)
8. Bidders Undertakings and details of equity investment in Project (as per prescribed formats 1 and 2 of **Annexure-8**);
9. Authorization from Parent / Affiliate of Bidding Company / Member of Bidding Consortium whose technical / financial capability has been used by the Bidding Company / Member of Bidding Consortium (**Annexure-9**).
10. Undertaking from the Technically / Financially Evaluated Entity(ies) **OR** Undertaking from the Ultimate Parent Company, for total equity investment commitment, in

the prescribed format in **Annexure-10**, to meet any shortfall in the equity investment by the Selected Bidder in the **SPV [which is under incorporation]**.

Note: The effective Equity holding of the Selected Bidder in the **SPV [which is under incorporation]**, as specified in Clause 2.5.8.1 shall be computed as per the provisions of Clause 2.5.8.3 of this RFP.

Provided further, in case the Bidding Company or Member of a Consortium, (as the case may be) holds at least twenty-six percent (26%) equity in such Technically/ Financially Evaluated Entities, whose credentials have been considered for the purpose of meeting the Qualification Requirements as per the RFP, no such Undertaking shall be required from the Technically / Financially Evaluated Entities.

11. Board resolutions, as per prescribed formats enclosed as **Annexure-11**, duly certified by the Company Secretary or Whole-time Director/ Manager (supported by a specific Board Resolution), as applicable to the Bidder and mentioned hereunder,
 - (a) Board resolution from the Bidding Company (and any investing Affiliate/ Parent Company/ Ultimate Parent Company) committing one hundred percent (100%) in aggregate of the equity requirement for the Project - Format-1 of **Annexure-11**;
 - (b) Board resolutions from each of the Consortium Member of the Bidding Consortium (and any investing Affiliate/ Parent Company/Ultimate Parent Company) together committing to one hundred percent (100%) in aggregate of equity requirement for the Project, in case Bidder is a Bidding Consortium - Format-1 of **Annexure-11**;
 - (c) In either of the cases as in (a) or (b) above as applicable, Board resolutions as per Format-2 of **Annexure-11** for total equity investment commitment from the Technically / Financially Evaluated Entity(ies) whose technical/ financial credentials had been considered for the purpose of meeting Qualification Requirements as per the RFP

OR

Board resolutions as per Format-2 of **Annexure-11** from the Parent Company or the Ultimate Parent Company for total equity investment commitment.

Provided that such Board resolutions, as specified in (a) or (b) or (c) above, in case of a foreign entity, shall be supported by an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective

jurisdictions of the issuing company and the authorizations granted therein are true and valid.

For clarity sake, illustrations identifying which Board Resolution shall be applicable in typical cases are provided in **Annexure-11A**.

12. Format for Illustration of Affiliates as on seven (7) days prior to Bid Deadline, duly certified by Company Secretary and supported by documentary evidence (**Annexure-12**).

Certified copy of the Register of Members/ Demat Account Statement, Share Certificate, Annual Return filed with ROC etc. submitted as documentary evidence along with **Annexure-12**.

13. Disclosure as per **Annexure-13** regarding participation of any related companies in this bidding process.
14. Bid Security Declaration in lieu of Bid Bond, as per the prescribed format at **Annexure-14**;
15. Contract Performance Guarantee, as per the prescribed format at **Annexure-15**;
16. Checklist for Technical Bid submission requirements as per **Annexure-16**.
17. Last three (3) financial years' unconsolidated/ consolidated audited annual accounts/ statements, as the case may be, of the Financially Evaluated Entity/ Technical Evaluated Entity
18. Unconsolidated audited annual accounts of both the TEE and the Bidding Company/Lead member, as applicable, for the financial years in which financial closure was achieved and the financial year in which the said project was completed/ commissioned.
19. Copy of the Memorandum and Articles of Association and certificate of incorporation or other organizational document (as applicable), including their amendments, certified by the Company Secretary of Bidding Company or each Member in case of a Consortium including Lead Member.
20. For each project listed in **Annexure-7D**, certified true copy of the certificates of final acceptance and/ or certificates of good operating performance duly issued by owners or clients for the project, duly signed by any whole time Director/Manager (supported by a specific Board resolution).

In addition to the online submission of above formats through the electronic platform, the Bidder is also required to submit the Technical Bid, in one (1) original plus one (1) copy, to the office of BPC by the date and time mentioned in this RFP.

2.5.3 Financial Bid (as per prescribed format at Annexure-22)

Financial Bid shall comprise of: (i) the Initial Offer; and (ii) the Final Offer. The Initial Offer is required to be submitted along with the Technical Bid. It is hereby clarified that the Financial Bid will comprise of two rounds. In the first round the Initial Offer of the responsive bids would be opened and Levelised Transmission Charges of Initial Offer shall be ranked on the basis of ascending order for determination of the Qualified Bidders as provided in Section-III of RFP.

In accordance with Clause 2.5 of this RFP, the qualified Bidders shall be eligible to participate in the electronic auction and submit their Final Offer.

The applicable ceiling Levelised Transmission Charges for electronic reverse bidding shall be the lowest Levelised Transmission Charges derived from the Initial Offer received from the Qualified Bidders. The Qualified Bidders shall be permitted to place their Final Offer on the electronic bidding platform, which is lower than zero point twenty five (0.25) % of the prevailing lowest Levelised Transmission Charges.

The initial period for conducting the e-reverse bidding should be at least 2 hours which will be extended by 30 minutes from the last received bid time, if the bid is received during the last 30 minutes of the scheduled or extended bid time. Subsequently, it will be extended again by 30 minutes from the latest received bid time.

The Bidders shall inter-alia take into account the following while preparing and submitting the Initial Offer and Final Offer of Financial Bid:-

- a. The Bidders shall quote Transmission Charges having two components, namely:
 - i Quoted Escalable Transmission Charges, and
 - ii Quoted Non-Escalable Transmission Charges
- b. In case of Quoted Escalable Transmission Charges, the Bidders shall quote charges only for the first Contract Year after Scheduled COD of the Project, subject to S. No. (f) below.
- c. Ratio of minimum and maximum Quoted Transmission Charges during the term of TSA shall not be less than zero point seven (0.7) and this ratio shall be applied only at the Bid evaluation stage on the Quoted Transmission Charges after duly escalating the Quoted Escalable Transmission Charges on the basis of the escalation rates specified in Clause 3.5.1.3. The Escalable Transmission Charges (after duly escalating the Quoted Escalable Transmission Charges on the basis of

the escalation rates specified in Clause 3.5.1.3 for any Contract Year should not exceed fifteen percent (15%) of the corresponding Quoted Non-Escalable Transmission Charges for that Contract Year, and this percentage shall be applied only at the Bid evaluation stage.

- d. The Quoted Transmission Charges as per the format at **Annexure-22** shall be inclusive of all charges and no exclusions shall be allowed. The Bidders shall take into account all costs including capital and operating, statutory taxes, duties, levies. Availability of the inputs necessary for operation and maintenance of the Project should be ensured by the TSP at the Project site and all costs involved in procuring the inputs (including statutory taxes, duties, levies thereof) at the Project site must be included in the Quoted Transmission Charges.
- e. Bidders are required to quote Transmission Charges for the Contract Years, for a period of 35 years commencing from the Scheduled COD of the Project, as per the format at **Annexure-22**.
- f. Bidders shall have the option to quote firm Quoted Transmission Charges for the period of 35 years commencing from the Scheduled COD of the Project i.e., where the Quoted Escalable Transmission Charges shall be 'nil' for all the Contract Years.
- g. **Annexure-22** duly signed by authorized signatory.

2.5.4 Wherever information has been sought in specified formats, the Bidders shall fill in the details as per the prescribed formats and shall refrain from referring to any other document for providing any information required in the prescribed format.

2.5.5 Transmission Charges

2.5.5.1. The Transmission Charges shall be as specified in the TSA and shall be payable to the TSP in Indian Rupees only. The Bidders shall quote Transmission Charges for each Contract Year during the term of the TSA as per the format at **Annexure-22**.

2.5.5.2. The Quoted Transmission Charges of the Selected Bidder shall be inserted in Schedule-6 of the TSA.

2.5.6 Bidders may note that:

- a) All the information and documents in Bid shall be submitted in English language only.
- b) Bidders shall mention the name, designation, telephone number, fax number, email address of the authorized signatory and complete address of the Bidder in the covering letter.
- c) All pages of the Bid submitted shall be initialed and stamped by the authorized

signatory on behalf of the Bidder.

- d) A Bidder shall submit only one Bid in the same bidding process, either individually as Bidding Company or as a Member of a Bidding Consortium.
- e) The technical and financial capability of a particular company (Parent and/ or Affiliate) shall not be used by more than one Bidder/ Member of a Bidding Consortium including Lead Member/ Bidding Company.
- f) This RFP document is not transferable. The RFP document and the information contained therein is for the use only by the Bidder to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors). In the event that the recipient does not continue with its involvement in the Project, this RFP document must be kept confidential.
- g) Though adequate care has been taken while preparing this RFP document, the Bidder shall satisfy himself that the document is complete in all respects. Intimation of any discrepancy shall be given to the BPC immediately. If no intimation is received from any Bidder within ten (10) days from the date of issue of RFP document, it shall be considered that the RFP document is complete in all respects and has been received by the Bidder.
- h) Bids submitted by the Bidder and opened on scheduled date and time as stipulated in this RFP shall become the property of the BPC and the Long Term Transmission Customer(s) and shall not be returned to the Bidders.
- i) If any Bidder conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in its Bid, in any manner whatsoever, the BPC reserves the right to reject such Bid or cancel the Letter of Intent, if issued. If such event is discovered after the Effective Date, consequences specified in TSA shall apply.
- j) If for any reason the Bid of the Bidder with the lowest evaluated Levelized Transmission Charges is rejected or Letter of Intent issued to such Selected Bidder is cancelled, the BPC may:-
 - i. Invite best reduced financial bids from those Bidders whose Bids are responsive and valid; or
 - ii. Annul the bid process; or
 - iii. Take any such measure as may be deemed fit in the sole discretion of the BPC³.
- k) The BPC may, at its sole discretion, ask for additional information/ document and/or seek clarifications from a Bidder after the Bid Deadline, inter alia, for the purposes of

³ BPC shall record reasons for the same.

removal of inconsistencies or infirmities in its Bid. However, no change in the substance of the Quoted Transmission Charges shall be sought or permitted by the BPC.

- l) Non submission and/or submission of incomplete data/ information required under the provisions of RFP shall not be construed as waiver on the part of BPC of the obligation of the Bidder to furnish the said data/ information unless the waiver is in writing.
- m) Bidders shall familiarize itself with the procedures and time frames required to obtain all Consents, Clearances and Permits.
- n) All Bidders are required to ensure compliance with the standards and codes mentioned in Clause 1.6.1.2.
- o) BPC reserves the right to reject all Bids and/or annul the process of tariff based competitive bidding for selection of TSP to execute the Project without assigning any reason. BPC shall not bear any liability, whatsoever, in this regard.

2.5.7 Bidders to inform themselves fully

2.5.7.1. The Bidders shall make independent enquiry and satisfy themselves with respect to all the required information, inputs, conditions and circumstances and factors that may have any effect on his Bid. Once the Bidders have submitted their Bids, the Bidders shall be deemed to have inspected and examined the site conditions (including but not limited to its surroundings, its geological condition and the adequacy of transport facilities to the site), the laws and regulations in force in India, the transportation facilities available in India, the grid conditions, the adequacy and conditions of roads, bridges, railway sidings, ports, etc. for unloading and/or transporting heavy pieces of material and has based its design, equipment size and fixed its price taking into account all such relevant conditions and also the risks, contingencies and other circumstances which may influence or affect the transmission of power. Accordingly, each Bidder acknowledges that, on being selected as Successful Bidder and on acquisition of one hundred percent (100%) of the equity shares of the **SPV [which is under incorporation]**, the TSP shall not be relieved from any of its obligations under the RFP Project Documents nor shall the TSP be entitled to any extension in Scheduled COD mentioned in this RFP or financial compensation for any reason whatsoever.

2.5.7.2. In their own interest, the Bidders are requested to familiarize themselves with all relevant laws of India, including without limitation, the Electricity Act 2003, the Income Tax Act 1961, the Companies Act, 1956 / Companies Act, 2013, Environment Protection Act 1986 and Forest (Conservation) Act, 1980, the Customs Act, the Foreign Exchange Management Act, Land Acquisition Act, 1894, the Indian Telegraph Act 1885, Labour & Employment Laws of India, [Insurance Act] the regulations/standards framed by Appropriate Commissions and CEA, all other related acts, laws, rules and regulations

prevalent in India, as amended from time to time.

In addition to the above, the Bidders are required to familiarize themselves with all relevant technical codes and standards, including but not limited to the Grid Code / State Grid Code, Central Electricity Authority (Installation and Operations of Meters) Regulations, 2006, Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, Central Electricity Regulatory Commission (Open Access in Inter-State Transmission) Regulations, 2008, Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-state Transmission and related matters) Regulations, 2009 along with related amendments brought in from time to time.

The BPC shall not entertain any request for clarifications from the Bidders regarding the above laws / acts / rules / regulations / standards. Non-awareness of the same shall not be a reason for the Bidder to request for extension in Bid Deadline. The Bidders undertake and agree that, before submission of their Bid, all such factors as generally brought out above, have been fully investigated and considered while submitting their Bids.

- 2.5.7.3. Bidders may visit the route of the Transmission Lines associated with the Project and the surrounding areas and obtain / verify all information which they deem fit and necessary for the preparation of their Bid.
- 2.5.7.4. The BPC has carried out a survey of the Transmission Lines associated with the Project and shall provide each Bidder with its Survey Report of the Project. Bidders in their own interest should carry out required surveys and field investigation for submission of their Bid.
- 2.5.7.5. Failure to investigate the route of the Transmission Lines associated with the Project and to examine, inspect site or subsurface conditions fully shall not be grounds for a Bidder to alter its Bid after the Bid Deadline nor shall it relieve a Bidder from any responsibility for appropriately eliminating the difficulty or costs of successfully completing the Project.
- 2.5.7.6. The Selected Bidder shall obtain all necessary Consents, Clearances and Permits as required. The Bidders shall familiarize itself with the procedures and time frame required to obtain such Consents, Clearances and Permits.
- 2.5.7.7. The technical requirements of integrated grid operation are specified in the Indian Electricity Grid Code (IEGC). The Bidders should particularly acquaint themselves with the requirements of connection conditions, operating code for regional grids, scheduling and dispatch instructions/codes, etc. The Bidders are also advised to fully familiarize themselves with the real time grid conditions in the country. Information regarding grid parameters such as voltage and frequency is available on the websites of

Regional/ State Load Despatch Centers.

2.5.8 Minimum Equity holding/Equity Lock-in

2.5.8.1.

- (a) The aggregate equity share holding of the Selected Bidder, in the issued and paid up equity share capital of **SPV [which is under incorporation]** shall not be less than Fifty one percent (51%) up to a period of (1) one year after COD of the Project;
- (b) In case the Selected Bidder is a Bidding Consortium, then any Member (other than the Lead Member) of such Bidding Consortium shall be allowed to divest its equity as long as the other remaining Members (which shall always include the Lead Member) hold the minimum equity specified in Clause 2.5.8.1 (a) above.
- (c) If equity is held by the Affiliates, Parent Company or Ultimate Parent Company, then subject to the second proviso of this Clause 2.5.8.1 (c), such Affiliate, Parent Company or Ultimate Parent Company shall be permitted to transfer its shareholding in **SPV [which is under incorporation]** to another Affiliate or to the Parent Company/ Ultimate Parent Company. If any such shareholding entity, qualifying as an Affiliate/ Parent Company/ Ultimate Parent Company, is likely to cease to meet the criteria to qualify as an Affiliate/ Parent Company/ Ultimate Parent Company, the shares held by such entity shall be transferred to another Affiliate/ Parent Company/ Ultimate Parent Company.

Provided that in case the Lead Member or Bidding Company is holding equity through Affiliate/s, Ultimate Parent Company or Parent Company, such restriction shall apply to such entities.

Provided further, that the aggregate equity share holding of the Bidding Consortium or a Bidding Company in the issued and paid up equity share capital of **SPV [which is under incorporation]** shall not be less than fifty one percent (51%) up to a period of one (1) year after COD of the Project and the lead Member of the Consortium shall have the equity share holding not less than twenty six percent (26%). The Lead Member shall continue to hold equity of at least twenty six percent (26%) up to a period of one (1) year after COD of the Project. In case the Selected Bidder is a Bidding Consortium, then any Member (other than the Lead Member) of such Bidding Consortium shall be allowed to divest its equity as long as the other remaining Members (which shall always include the Lead Member) hold the minimum equity specified in Clause 2.5.8.1 (a) above.

- (d) All transfer(s) of shareholding of **SPV [which is under incorporation]** by any of the entities referred to above, shall be after prior written permission from the Lead Long Term Transmission Customer.

2.5.8.2. The Selected Bidder may invest in the equity share capital of **SPV [which is under incorporation]** through its Affiliate(s) or Ultimate Parent Company or Parent Company. Details of such investment will have to be specified in the Technical Bid as per Format 2 of **Annexure-8** of the RFP. If the Selected Bidder so invests through any Affiliate(s) or Ultimate Parent Company or Parent Company, the Selected Bidder shall be liable to ensure that minimum equity holding/lock-in limits specified in Clause 2.5.8.1 and as computed as per the provisions of Clause 2.5.8.3 are still maintained.

2.5.8.3. For computation of effective Equity holding, the Equity holding of the Selected Bidder or its Ultimate Parent Company in such Affiliate(s) or Parent Company and the equity holding of such Affiliate(s) or Ultimate Parent Company in **SPV [which is under incorporation]** shall be computed in accordance with the example given below:

If the Parent Company or the Ultimate Parent Company of the Selected Bidder A directly holds thirty percent (30%) of the equity in **SPV [which is under incorporation]** then holding of Selected Bidder A in **SPV [which is under incorporation]** shall be thirty percent (30%);

If Selected Bidder A holds thirty percent (30%) equity of the Affiliate and the Affiliate holds fifty percent (50%) equity in **SPV [which is under incorporation]**, then for the purposes of ascertaining the minimum equity/equity lock-in requirements specified above, the effective holding of Bidder A in **SPV [which is under incorporation]** shall be fifteen percent (15%), (i.e., $30\% \times 50\%$);

2.5.8.4. The provisions as contained in this Clause 2.5.8 and Article 18.10 of the TSA shall override the terms of the Consortium Agreement submitted by the Bidder as part of the RFP.

2.6 Project Schedule

2.6.1. All Elements of the Project are required to be commissioned progressively as per the schedule given in the following table;

S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre-required for declaring the commercial operation (COD) of the respective Element
1.	Establishment of 400kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)	Matching timeframe of Pakaldul HEP (Feb'2024)	19.01	Elements marked at S. No. 1, 2 & 3 are required to be commissioned simultaneously as their utilization is dependent on commissioning of each other.
2.	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line at Kishtwar		46.38	
3.	2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line (Single Circuit Strung)		23.19	
4.	1 No. of 400 kV line bay at Kishtwar (GIS) for 2 nd circuit stringing of Kishtwar - Kishenpur section		11.42	Element marked at S. No. 4 is required to be Commissioned for 2nd circuit stringing of Kishtwar - Kishenpur section - being implemented by POWERGRID.

The payment of Transmission Charges for any Element irrespective of its successful commissioning on or before its Scheduled COD shall only be considered after successful commissioning of the Element(s) which are pre-required for declaring the commercial operation of such Element as mentioned in the above table.

Scheduled COD for overall Project: Matching timeframe of Pakaldul HEP (Feb'2024).

2.7 Due Dates

2.7.1. The Bidders should submit the Bids online through the electronic bidding platform before the Bid Deadline and submit the Technical Bids, in one (1) original plus one (1) copy so as to reach the address specified in Clause 2.9.4 by 11:00 hrs (IST) on 12.04.2021.

2.7.2. Important timelines are mentioned below:

S. No.	Date	Event
1.	04.02.2021	Issuance of RFP
2.	24.02.2021	Submission of written clarifications/amendments, if any, on the RFP / RFP Project Documents by Bidders so as to reach BPC by 17:00 hours. Such written clarifications/amendments shall be in the format provided in Annexure-20 .
3.	26.02.2021	Pre-Bid meeting(s)
4.	15.03.2021	Issue of written clarifications and revised RFP documents
5.	05.04.2021	Issue of final RFP Project Documents
6.	12.04.2021	Submission of Bid (Online submission of Bid through electronic bidding portal and physical submission of Technical Bid))
7.	12.04.2021	Opening of Technical Bid
8.	20.04.2021	Shortlisting and announcement of Qualified Bidders
9.	22.04.2021	Opening of Financial Bid - Initial Offer
10.	23.04.2021	Electronic auction (Financial Bid – Final Offer) for the Qualified Bidders.
11.	03.05.2021	Selection of Successful Bidder and issue of Lol
12.	13.05.2021	Signing of RFP Project Documents and transfer of SPV [which is under incorporation]

2.7.3. To enable BPC to meet the schedule, all Bidders are expected to respond expeditiously during the bidding process. If any milestone/activity falls on a day which is not a working day or which is a public holiday, then the milestone/activity shall be achieved/completed on the next working day.

2.8 Validity of the Bid

2.8.1. The Bid shall remain valid for a period of one hundred and eighty (180) days from the Bid Deadline.

2.8.2. The BPC may solicit the Bidders' consent for an extension of the period of validity of the Bid. The request and the response, thereafter, shall be in writing. In the event any Bidder refuses to extend its Bid validity as requested by the BPC, the BPC shall not be entitled to invoke the Bid Bond. A Bidder accepting the BPC's request for validity extension shall not be permitted to modify its Bid and such Bidder shall, accordingly,

extend the validity of the Bid Security Declaration as requested by the BPC within seven (7) days of such request, failing which the Bid shall not be considered as valid.

2.9 Method of Submission

- 2.9.1. Both the Technical and Financial Bids duly filled in, all formats and supporting shall be scanned and uploaded online through electronic bidding platform in the manner specified in **Annexure-A**.
- 2.9.2. Envelope containing the hard copy of Technical Bid in one (1) original plus one (1) copy to be submitted by Bidders, should be packed in a single closed envelope, with the following superscript:

“Technical Bid for selection of Transmission Service Provider to establish Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System”

Due for opening on 12.04.2021

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,
Connaught Place, New Delhi - 110001

“Name of the Bidder”

- 2.9.3. The Bidders have the option of sending their Technical Bids either by registered post; or speed post; or courier; or by hand delivery, so as to reach the BPC at the specified address by the Bid Deadline. Bids submitted by telex/ telegram/ fax/ e-mail shall not be considered under any circumstances. The BPC shall not be responsible for any delay in receipt of the Bids. Any Bid received by the BPC after the Bid Deadline shall be returned unopened.
- 2.9.4. Hard copies of Technical Bids shall be submitted at the following address by the Bid Deadline specified in Clause 2.7.1. Non submission of the hard copies of Technical Bid post uploading in the electronic bidding platform or vice versa shall not be considered for evaluation purpose.

General Manager,

PFC Consulting Limited,

9th Floor, Wing-A, Statesman House,
Connaught Place, New Delhi - 110001

Tel. + 91 11 23443996

Fax + 91 11 23443990

Email: pfccl.itp@pfcindia.com

- 2.9.5. It may be noted that Technical Bid shall not contain any information/document relating to Financial Bid. If Technical Bid contains any such information/documents, the BPC shall not be responsible for premature opening of the Financial Bid.

All pages of the Bid, except for the ~~Bid Bond (Annexure 14)~~ and any other document executed on non-judicial stamp paper, forming part of the Bid and corrections in the Bid, if any, must be signed by the authorized signatory on behalf of the Bidder. It is clarified that the same authorized signatory shall sign all pages of the Bid. However, any published document submitted in this regard shall be signed by the authorized signatory at least on the first and last page of such document.

- 2.9.6. Bidders shall submit the Technical Bid in one (1) original plus one (1) copy, duly signed by the authorized signatory of the Bidder. The original Bid shall be clearly marked "ORIGINAL", and all other copies are to be clearly marked "COPY OF BID". In the event of any discrepancy between the online submission, original and the accompanying copy, only the online submission shall prevail.
- 2.9.7. No change or supplemental information to a Bid will be accepted after the Bid Deadline, unless the same is requested for by the BPC as per Clause 2.5.6 (k).

Provided that a Bidder shall always have the right to withdraw/ modify its Bid before the Bid Deadline. In cases where the Technical Bid is withdrawn by the Bidder, then such Bid shall be returned unopened. No Technical Bid or Initial Offer shall be modified, substituted or withdrawn by the Bidder on or after the Bid Deadline.

- 2.9.8. If the outer cover envelope (Technical Bid) is not closed and not transcribed as per the specified requirement, the BPC will assume no responsibility for the Bid's misplacement or premature opening.

2.10 Preparation cost

- 2.10.1. The Bidders shall be responsible for all the costs associated with the preparation of the Bid and participation in discussions and attending pre-bid meetings, and finalization and execution of the Share Purchase Agreement, etc. The BPC shall not be responsible in any way for such costs, regardless of the conduct or outcome of this Bid process.
- 2.10.2. The cost of this RFP is **Rs.5,00,000/- (Rupees Five Lakhs Only) or US\$ 7000/- (U.S. Dollar Seven Thousand Only)** plus 18% GST, which shall be non-refundable. This amount shall be payable latest by 09.04.2021 by a crossed demand draft or banker's cheque drawn in favour of **"PFC Consulting Limited"**, payable at New Delhi or through electronic transfer in the following Bank Account:

Account No. : 000705036117
Bank Name : ICICI Bank
IFSC : ICIC0000007

Branch : Connaught Place, New Delhi-110001

2.11 Bid Bond

2.11.1. Each Bidder shall submit the Bid accompanied by Bid Security Declaration in lieu of Bid Bond as per the format at **Annexure-14**. The Bid Security Declaration shall be valid for a period of thirty (30) days beyond the validity of the Bid.

2.11.2. Subject to the provisions of Clause 2.15.5, the Bid Bond may be invoked by the BPC or its authorized representative, without any notice, demure, or any other legal process upon occurrence of any of the following:

- i. Bidder withdraws during the period of Bid Validity as specified in this RFP or as extended by mutual consent of the respective Bidder(s) and the BPC
- ii. Failure to execute the Share Purchase Agreement as per the provisions of Clause 2.15.2; or
- iii. Failure to furnish the Contract Performance Guarantee as per Clause 2.12; or
- iv. Failure to acquire one hundred percent (100%) equity shares of **SPV [which is under incorporation]**, along with all its related assets and liabilities, in accordance with the provisions of Clause 2.15.2; or
- v. Failure to apply for grant of Transmission License as per Clause 2.15.4; or
- vi. Failure to comply with the provisions of Clause 2.15.5, leading to annulment of the award of the Project.
- vii. Bidders submitting any wrong information or making any misrepresentation in their Bid as mentioned in Clause 2.5.6.

Intimation of the reasons of the invocation of the Bid Bond shall be given to the Selected Bidder by the BPC within three (3) working days after such invocation.

~~2.11.3. The Bid Bond of the Selected Bidder shall be returned on submission of the Contract Performance Guarantee as per Clause 2.12 and the relevant provisions of the TSA.~~

~~2.11.4. The Bid Bond of all the Bidders, whose Bids are declared non-responsive, shall be returned within a period of thirty (30) days after the date on which the Financial Bids are opened.~~

~~2.11.5. The Bid Bond of all unsuccessful Bidders shall be returned and released by the BPC on the same day on which the [SPV, which is under incorporation] is transferred to the Selected Bidder. The Bid Bond of the Successful Bidder shall be returned on submission of Contract Performance Guarantee as per Clause 2.12 of this RFP and the provisions of the TSA.~~

2.12 Contract Performance Guarantee

2.12.1. Within ten (10) days from the date of issue of the Letter of Intent, the Selected Bidder, on behalf of the TSP, will provide to the Long Term Transmission Customers the Contract Performance Guarantee for an aggregate amount of **Rs. 1,35,00,000/- (Rupees One Crore and Thirty Five Lakh Only)**, which shall be provided separately to each of the Long Term Transmission Customers for the amount calculated pro-rata in the ratio of their Allocated Project Capacity, as on the date seven (7) days prior to the Bid Deadline (rounded off to the nearest Rupees one lakh (Rs. 100,000) with the principle that amounts below Rupees Fifty Thousand (Rs. 50,000) shall be rounded down and amounts of Rupees Fifty Thousand (Rs. 50,000) and above shall be rounded up). The Contract Performance Guarantee shall be initially valid for a period up to three (3) months after the Scheduled COD of the Project and shall be extended from time to time to be valid for a period up to three (3) months after the COD of the Project and thereafter shall be dealt with in accordance with the provisions of the TSA. The Contract Performance Guarantee shall be issued by any of the banks listed in **Annexure-17**.

2.12.2. In case the Selected Bidder is unable to obtain the Contract Performance Guarantee for the total amount from any one bank specified in **Annexure-17**, the Selected Bidder may obtain the same from not more than three (3) banks specified in **Annexure-17**, subject however to the apportionment as provided in Clause 2.12.1.

2.13 Opening of Bids

2.13.1. Technical Bid will be opened as per the following time schedule and at the venue where the Bids are required to be submitted, as specified in Clause 2.9.4, in the presence of one representative from each of such Bidders who wish to be present:

Opening of Envelope (Technical Bid): 11:30 hours (IST) on 12.04.2021.

Opening of Initial Offer: Initial Offer shall be opened by the Bid Process Coordinator in presence of the Bid Evaluation Committee at **11:00 hours (IST) on 22.04.2021.**

In the event of any of above dates falling on a day which is not a working day or which is a public holiday, then the Bids shall be opened on the next working day at the same venue and time.

2.13.2. The following information from each Bid will be read out to all the Bidders at the time of opening of Technical Bid:

- i. Name of the Bidding Company/ Consortium Members in case of Bidding Consortium only, from **Format-2 of Annexure-8** (Technical Bid)
- ii. Details of Bid Security Declaration submitted in lieu of Bid Bond (Technical Bid)

Information to be provided after opening of Initial Offer:

Only the lowest Initial Offer (s) shall be communicated to all the Qualified Bidders to participate in the e-reverse bidding process. During the e-reverse bidding process only the lowest prevailing levelised bid should be visible to all the Bidders on the electronic platform.

2.14 Enquiries

Written clarifications on the RFP and other RFP Project Documents as per Clause 2.3 and 2.4 may be sought from:

General Manager**PFC Consulting Limited**

9th Floor, Wing-A, Statesman House,
Connaught Place, New Delhi - 110001
Tel. + 91 11 23443996
Fax + 91 11 23443990
Email: pfcl.itp@pfcindia.com

2.15 Other Aspects

2.15.1. The drafts of the following RFP Project Documents have been attached to this RFP:

- a) Draft TSA as per Format-1 of **Annexure-21**
- b) Share Purchase Agreement as per Format-2 of **Annexure-21**

When the drafts of the above RFP Project Documents are provided by the BPC, these RFP Project Documents shall form part of this RFP as per **Formats- 1 & 2 of Annexure-21**.

Upon finalization of the RFP Project Documents after incorporating the amendments as envisaged in Clause 2.4 of this RFP, all the RFP Project Documents, except for the Share Purchase Agreement, shall be duly executed by the **SPV [which is under incorporation]** and the Long Term Transmission Customers, and copies delivered to the Bidders at least 07 (seven) days prior to the Bid Deadline.

The RFP Project Documents shall be signed in required number of originals so as to ensure that one original is retained by each party to the Agreement(s).

2.15.2. Within ten (10) days of the issue of the Letter of Intent, the Selected Bidder shall:

- a) provide the Contract Performance Guarantee in favour of the Long Term Transmission Customers as per the provisions of Clause 2.12;
- b) execute the Share Purchase Agreement and all other RFP Project Documents as listed in **Annexure-21**;

- c) acquire, for the Acquisition Price, one hundred percent (100%) equity shareholding of **SPV [which is under incorporation]** from PFC Consulting Limited, who shall sell to the Selected Bidder, the equity shareholding of **SPV [which is under incorporation]**, along with all its related assets and liabilities;

Stamp duties payable on purchase of one hundred percent (100%) of the equity shareholding of **SPV [which is under incorporation]**, along with all its related assets and liabilities, shall also be borne by the Selected Bidder.

- d) make an application to the Appropriate Commission for the adoption of Transmission Charges, as required under Section 63 of the Electricity Act 2003.
- e) execute the RFP Project Documents in required number of originals so as to ensure that one original is retained by each party to the Agreement(s).

Provided further that, if for any reason attributable to the BPC, the above activities are not completed by the Selected Bidder within the above period of ten (10) days as mentioned in this Clause, such period often (10)days shall be extended, on a day for day basis till the end of the Bid validity period.

All stamp duties payable for executing the RFP Project Documents shall be borne by the Successful Bidder.

2.15.3. After the date of acquisition of the equity shareholding of **SPV [which is under incorporation]**, along with all its related assets and liabilities, by the Selected Bidder:

- i. the authority of the BPC in respect of this Bid Process shall forthwith cease and any actions to be taken thereafter will be undertaken by the Lead Long Term Transmission Customer,
- ii. all rights and obligations of **SPV [which is under incorporation]**, shall be of the TSP,
- iii. any decisions taken by the BPC prior to the Effective Date shall continue to be binding on the Long Term Transmission Customers and
- iv. contractual obligations undertaken by the BPC shall continue to be fulfilled by the TSP.

2.15.4. Within ten (10) days of the issue of the Letter of Intent, the TSP shall apply to the Appropriate Commission for grant of Transmission License.

2.15.5. If the Selected Bidder/ TSP fails or refuses to comply with any of its obligations under Clauses 2.15.2, 2.15.3 and 2.15.4, and provided that the Long Term Transmission Customer(s) and/or other parties to the respective RFP Project Documents are willing to

execute the Share Purchase Agreement and PFC Consulting Limited is willing to sell the entire equity shareholding of **SPV [which is under incorporation]**, along with all its related assets and liabilities, to the Selected Bidder, such failure or refusal on the part of the Selected Bidder shall constitute sufficient grounds for cancellation of the Letter of Intent. In such cases, the BPC/ its authorized representative(s) shall be entitled to invoke the Bid Bond of the Selected Bidder.

- 2.15.6. If the TSP fails to obtain the Transmission License from the Appropriate Commission, it will constitute sufficient grounds for-annulment of award of the Project.
- 2.15.7. The annulment of award, as provided in Clauses 2.15.4 and 2.15.6 of this RFP, will be done by the Government on the recommendations of National Committee on Transmission. However, before recommending so, National Committee on Transmission will give an opportunity to the Selected Bidder/ TSP to present their view point.

2.16 Confidentiality

- 2.16.1. The parties undertake to hold in confidence this RFP and RFP Project Documents and not to disclose the terms and conditions of the transaction contemplated hereby to third parties, except:
- a) to their professional advisors;
 - b) to their officers, contractors, employees, agents or representatives, financiers, who need to have access to such information for the proper performance of their activities;
 - c) disclosures required under Law, without the prior written consent of the other parties of the concerned agreements.

Provided that the TSP agrees and acknowledges that any of the Long Term Transmission Customers may at any time, disclose the terms and conditions of the RFP and RFP Project Documents to any person, to the extent stipulated under the Law or the Bidding Guidelines.

2.17 Right of the BPC to reject any Bid

BPC reserves the right to reject all or any of the Bids/ or cancel the RFP without assigning any reasons whatsoever and without any liability.

- 2.18 Non submission and/or submission of incomplete data/ information required under the provisions of RFP shall not be construed as waiver on the part of BPC of the obligation of the Bidder to furnish the said data/ information unless the waiver is in writing.

2.19 Fraudulent and Corrupt Practices

- 2.19.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bid process and subsequent to the issue of the Lol Notwithstanding anything to the contrary contained herein, or in the Lol, the BPC

shall reject a Bid, withdraw the Lol, as the case may be, without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bid process. In such an event, the BPC shall forfeit the Bid Bond, without prejudice to any other right or remedy that may be available to the BPC hereunder or otherwise.

2.19.2. Without prejudice to the rights of the BPC under Clause 2.19.1 hereinabove and the rights and remedies which the BPC may have under the Lol, if a Bidder is found by the BPC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bid process, or after the issue of the Lol, such Bidder & its Affiliates shall not be eligible to participate in any tender or RFP issued by the BPC during a period of 10 (ten) years from the date such Bidder is found by the BPC to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.

2.19.3. For the purposes of this Clause 2.19, the following terms shall have the meaning hereinafter respectively assigned to them:

- a. **“Corrupt practice”** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bid process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the BPC who is or has been associated or dealt in any manner, directly or indirectly with the Bid process or the Lol or has dealt with matters concerning the TSA or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the BPC, shall be deemed to constitute influencing the actions of a person connected with the Bid Process); or (ii) engaging in any manner whatsoever, whether during the Bid Process or after the issue of the Lol or after the execution of the TSA, as the case may be, any person in respect of any matter relating to the Project or the Lol or the TSA, who at any time has been or is a legal, financial or technical adviser of the BPC in relation to any matter concerning the Project;
- b. **“Fraudulent practice”** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bid process;
- c. **“Coercive practice”** means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person’s participation or action in the Bid process;

- d. **"undesirable practice"** means (i) establishing contact with any person connected with or employed or engaged by the BPC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bid process; or (ii) having a Conflict of Interest; and
- e. **"Restrictive practice"** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bid process.

SECTION - 3

EVALUATION OF THE TECHNICAL AND FINANCIAL BID

SECTION-3

1. EVALUATION OF BID

3.1. The evaluation process of Technical Bid comprises the following five steps:

- Step I – Responsiveness check
- Step II- Compliance with submission requirements
- Step III– Evaluation of Technical Bids
- Step IV– Evaluation of Financial Bids
- Step V – Bidder Selection

3.2. STEP I – Responsiveness check

The Technical Bid submitted by the Bidder shall be initially scrutinized to establish “Responsiveness”. Subject to Clause 2.5.6 (k), any of the following conditions shall cause the Technical Bid to be “Non-responsive”:

- a) Technical Bid that is incomplete.
- b) Technical Bid (both online submission through electronic bidding platform and physical submission of one (1) original and one (1) copy) not received by the scheduled date and time.
- c) Technical Bid not signed by authorised signatory and/ or stamped in the manner indicated in this RFP.
- d) All pages of the Technical Bid submitted but not initialed by the authorised signatories on behalf of the Bidder.
- e) Technical Bid not including the covering letter as per **Annexure-1**.
- f) Technical Bid submitted by a Bidding Consortium not including the Consortium Agreement.
- g) Technical Bid contains material inconsistencies in the information and documents submitted by the Bidder, affecting the Qualification Requirements.
- h) Bidder submitting or participating in more than one Bid either as a Bidding Company or as a Member of Bidding Consortium.
- i) More than one Member of the Bidding Consortium or a Bidding Company using the credentials of the same Parent/Affiliate.
- j) Information not submitted in formats specified in the RFP.
- k) Applicable Board resolutions, or any other document, as provided in Clause 2.5.2, not being submitted;
- l) Bid not accompanied by a valid Bid Security Declaration in lieu of Bid Bond;
- m) Non submission of power of attorney, supported by a Board Resolution;
- n) Bid validity being less than that required as per Clause 2.8 of this RFP;
- o) Bid not containing Format-1 (Bidders' Undertakings) of **Annexure-8**;
- p) Bidder having Conflict of Interest
- q) The Bidder has not submitted a disclosure as per **Annexure-13**.
- r) Bidders delaying in submission of additional information or clarifications sought by

the BPC.

- s) If the Bidder makes any misrepresentation as specified in Clause 3.7.
- t) Bid being conditional in nature;

3.3. STEP II - Compliance with submission requirements

Each Bidder's Technical Bid shall be checked for compliance with the submission requirements set forth in this RFP before the evaluation of Response to RFP is taken up. **Annexure-16** and **Annexure-11A** shall be used to check whether each Bidder meets the stipulated requirements.

3.4. STEP III -Evaluation of Technical Bid

Evaluation of Technical Bid will be carried out considering the information and documents furnished by the Bidders as required under this RFP. This step would involve technical and financial evaluation of the details/ documents furnished by the Bidding Company/ Bidding Consortium in support of meeting the Qualification Requirements

3.4.1. Interpolation of financial data

For the Qualification Requirements data provided by the Bidders in foreign currency, equivalent rupees of Networth will be calculated using bills selling exchange rates (card rate) USD/INR of State Bank of India prevailing on the date of closing of the accounts for the respective financial year as certified by their Banker.

For the purpose of calculating the aggregate capital expenditure of the projects completed/ commissioned where such projects are executed outside India and capital expenditure is denominated in foreign currency, bills selling exchange rates (card rate) USD/INR of State Bank of India prevailing on the date of closing of the financial year in which the projects were completed and as certified by their Banker shall be considered.

For the projects executed in the current financial year bills selling (card rate) USD/INR of State Bank of India prevailing on seven (7) days prior to the last date of submission of Technical Bid and as certified by their Banker shall be considered.

For currency other than USD, Bidders shall convert such currency into USD as per the exchange rates certified by their Banker prevailing on the relevant date and used for such conversion.

If the exchange rate for any of the above dates is not available, the rate for the immediately available previous day shall be taken into account.

3.4.2. Bidders meeting the Qualification Requirements, subject to evaluation as specified in Clauses 3.2 to 3.4 shall be declared as Qualified Bidders and eligible for opening of Initial Offer.

3.5. STEP IV - Evaluation of Financial Bids

3.5.1. General

3.5.1.1. The Bids which has been found Qualified by the BPC, based on the Steps I to III as specified above in Clauses 3.2.to 3.4, shall be opened and Levelised Transmission Charges of such Initial Offer shall be ranked on the basis of the ascending Initial Offer submitted by each Qualified Bidder.

Based on such ranking of the Qualified Bidders, holding first fifty per cent of the ranks (with any fraction rounded off to higher integer) or four Qualified Bidders, whichever is higher, shall be considered to be the qualified for participating in the electronic auction.

Provided however, in case only one Bidder remains after the Evaluation of Technical Bid (Steps 1 to III) as per Clause 3.2 to 3.4, the Initial Offer of such Bidder shall not be opened and the matter shall be referred to the Government.

Provided that in the event the number of Qualified Bidders is between two and four, then each of the responsive Bidder shall be considered as Qualified Bidders.

Provided that in the event of identical Levelised Transmission Charges derived from the Initial Offer having been submitted by one or more Bidders, all such Bidders shall be assigned the same rank for the purposes of determination of Qualified Bidders. In such cases, the fifty per cent shall stand enhanced to fifty per cent (with any fraction rounded off to higher integer) or four Qualified Bidders, whichever is higher, plus the number of Qualified Bidders, whose Levelised Transmission Charges derived from Initial Offer are identical minus the number of such identical Initial Offer.

3.5.1.2. The Financial Bids submitted by the Bidders shall be scrutinized to ensure conformity with the provisions of Clause 2.5.3 of this RFP. Any Bid not meeting any of the requirements as per Clause 2.5.3 of this RFP may cause the Bid to be considered "Non-responsive", at the sole decision of the BPC. Financial Bid not in conformity with the requirement of S. No. (c) and (g) of Clause 2.5.3 of this RFP shall be rejected.

3.5.1.3. The Bidders shall quote the different components of Transmission Charges as specified in the format at **Annexure-22**. Based on the Quoted Transmission Charges provided by the Bidders, the Levelized Transmission Charges (only in Rupees per year) of each Bid shall be calculated for the term of the TSA as per the methodology mentioned below:

- (a) For the purposes of comparison of the Financial Bids, the Quoted Escalable Transmission Charges of each Bidder shall be uniformly escalated as per the escalation rate mentioned below. However, for the purpose of actual payment of Transmission Charges, such escalation rate shall be applied as per the provisions of the TSA.

S. No.	Head	Value
1.	Annual escalation rate applicable to Quoted Escalable Transmission Charges	This shall be as per the rate notified by the CERC, applicable on the seventh day prior to the Bid Deadline
2.	Discount rate for computation of Levelized Transmission Charges	This shall be as per the rate notified by the CERC as applicable for generation projects, applicable on the seventh day prior to the Bid Deadline

- (b) The factor at S. No. 1 in the above table shall be applied from the Scheduled COD of the Project, and shall be applied as at the midpoint of each Contract Year.

3.5.2. Computation of Levelized Transmission Charges

- 3.5.2.1. The computed Quoted Transmission Charges (in Rupees per year) of each of the Bidders for each Contract Year for the term of TSA, calculated as per provisions of Clause 3.5.1.3, shall then be discounted up to the Scheduled COD of the Project mentioned in Clause 2.6 of this RFP, by applying the discount factors (based on the discount rate as mentioned at serial no. 2 of the table in Clause 3.5.1.3 above) and such aggregate discounted value for the term of the TSA shall be divided by the sum of such discount factors so as to calculate the Levelized Transmission Charge of each Bidder.
- 3.5.2.2. The Levelized Transmission Charges shall be calculated by assuming uniformly the following for all the Bidders
- Grant of Transmission License within 6 months from the date of Letter of Intent to the Selected Bidder by the BPC as per the timelines in Clause 2.7.2 above.
 - Project to be commissioned on the date which is approx. 12 months from the assumed date of grant of Transmission License as enumerated above.
 - Transmission Charges shall be levelized over a period from the Scheduled COD of the Project, up to 35 years.
- 3.5.2.3. The methodology of computation of Levelized Transmission Charges is explained in the example provided in **Annexure-23**.

3.6. STEP V - Bidder Selection

- 3.6.1. The prevailing lowest Levelised Transmission Charges derived from Final Offers calculated as per Clause 3.5.2 shall be displayed during the e-reverse bidding. The Bidder with the prevailing lowest Levelised Transmission Charges derived from Final Offer at the close of the scheduled or extended period of e-reverse bidding as mentioned in Clause 2.5 shall be declared as the Successful Bidder and the Letter of Intent shall be issued to such Successful Bidder in two (2) copies.

However, if no bid is received during the e-reverse bidding stage then the Bidder with lowest quoted initial Levelised transmission charges ("Initial Offer") during e-bidding stage shall be declared as the Successful Bidder.

- 3.6.2. The Selected Bidder shall unconditionally accept the Lol, and record on one (1) copy of the Lol, "Accepted unconditionally", under the signature of the authorized signatory of the Successful Bidder and return such copy to the BPC within seven (7) days of issue of Lol.
- 3.6.3. If the Successful Bidder, to whom the Letter of Intent has been issued, does not fulfill any of the conditions specified in Clauses 2.15.2, 2.15.3 and Clause 2.15.4, then subject to Clause 2.15.5, the BPC reserves the right to annul the award of the Project and cancel the Letter of Intent. Further, in such a case, the provisions of Clause 2.5.6 (j) shall apply.
- 3.6.4. The BPC, in its own discretion, has the right to reject all Bids if the Quoted Transmission Charges are not aligned to the prevailing market prices.

3.7. Misrepresentation by the Bidder

If the Bidder conceals any material information or makes a wrong statement or misrepresents facts or makes a misleading statement in the Technical Bid or Bid, as the case may be, in any manner whatsoever, in order to create circumstances for the acceptance of its Technical Bid/Bid, the BPC reserves the right to reject such Technical Bid/Bid, and/ or cancel the Letter of Intent, if issued. Further, in case Letter of Intent is cancelled, consequences as per provisions of the RFP shall follow.

3.8. Disposition of Technical Bid

- 3.8.1 Technical Bid found to be Non-responsive as per Clause 3.2, due to any of the following conditions, shall be liable for rejection.
 - i. Technical Bid that is incomplete.
 - ii. Technical Bid not signed by authorised signatory and/ or stamped in the manner indicated in this RFP.
 - iii. All pages of the Technical Bid submitted but not initialed by the authorised signatories on behalf of the Bidder.
 - iv. Technical Bid not including the covering letter as per **Annexure-1**.
 - v. Technical Bid contains material inconsistencies in the information and documents submitted by the Bidder, affecting the Qualification Requirements.
 - vi. Information not submitted in formats specified in the RFP.
 - vii. The Bidder has not submitted a disclosure as per **Annexure-13**.
 - viii. Bidders delaying in submission of additional information or clarifications sought by the BPC.
- 3.8.2 Technical Bid found to be Non-responsive as per Clause 3.2, due to any of the following conditions, shall be rejected.

- i. Technical Bid not received by the scheduled date and time.
- ii. Technical Bid submitted by a Bidding Consortium not including the Consortium Agreement.
- iii. Bidder submitting or participating in more than one response either as a Bidding Company or as a Member of Bidding Consortium.
- iv. More than one Member of the Bidding Consortium or a Bidding Company using the credentials of the same Parent/Affiliate.
- v. Technical Bid having Conflict of Interest.
- vi. If the Bidder makes any misrepresentation as specified in Clause 3.2.

3.9. BPC reserves the right to interpret the Bid in accordance with the provisions of this RFP document and make its own judgment regarding the interpretation of the same. In this regard, BPC shall have no liability towards any Bidder and no Bidder shall have any recourse to BPC with respect to the qualification process.

BPC shall evaluate Bid using the process specified in Clause 3.1 to 3.6, at its sole discretion. BPC's decision in this regard shall be final and binding.

SECTION - 4

ANNEXURES FOR BID

SECTION – 4**I. Formats for Technical Bid**

The following formats are required to be included in the Bidder's Technical and Financial Bid. These formats are designed to demonstrate the Bidder's compliance with the Qualification Requirements set forth in Clause 2.1 of Section – 2.

Technical Bid

1. Format for the Covering Letter
2. Format for Letter of Consent from Consortium Members
3. Format for evidence of authorized signatory's authority (Power of Attorney)
4. Format for Power of Attorney from to be provided by each of the other Members of the Consortium in favor of the Lead Member
5. Format for Bidder's composition and ownership structure and Format for Authorisation
6. Format for Consortium Agreement
7. Formats for Qualification Requirement
8. Format of Bidders Undertaking and details of Equity Investment
9. Authorization from Parent/Affiliate of Bidding Company/Member of Bidding Consortium whose technical/financial capability has been used by the Bidding Company/Member of Bidding Consortium.
10. Undertaking from the Technically/ Financially Evaluated Entity (ies) or from Ultimate Parent Company for equity investment
11. Format of Board Resolutions
12. Format for Illustration of Affiliates
13. Format for Disclosure
14. Format for Bid Security Declaration
15. Format for Contract Performance Guarantee
16. Checklist for Technical Bid submission requirements

Financial Bid

22. Format for Financial Bid

II. The following formats are for the information to the Bidders to enable them to submit their Bid:

- 11A. Illustration for Applicable Board Resolution Requirements under Clause 2.5.2
17. List of Banks
18. GRID Map of the Project
19. List of Long Term Transmission Customers
20. Format for clarification/amendments on the RFP/RFP Project Documents
21. Formats for RFP Project Documents
23. Illustration of Bid Evaluation/Computation of Levelized Transmission Charges

Bidder may use additional sheets to submit the information for its detailed Bid.

Annexure-1

COVERING LETTER

(The covering letter should be on the Letter Head of the Bidding Company/ Lead Member of the Consortium)

Date:
 From:

 Tel. No.:
 Fax No.:
 E-mail address:.....

To,

PFC Consulting Limited

9thFloor, Wing-A, Statesman House,
 Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bid for selection of Bidder as Transmission Service Provider to establish “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System” through tariff based competitive bidding process.

1. Being duly authorized to present and act on behalf of M/s (insert name of Bidding Company / Bidding Consortium) (hereinafter called the “Bidder”) and having read and examined in detail the Request for Proposal (RFP) document, the undersigned hereby submit our Technical Bid with duly signed formats in one (1) original + one (1) copy and Financial Bid (Initial Offer) as stipulated in RFP document for your consideration.
2. It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFP document and subsequent clarifications/amendments as per Clause 2.3 and 2.4 of RFP.
3. The information submitted in our Bid is complete, is strictly as per the requirements stipulated in the RFP document and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid.
4. We hereby agree and undertake to procure the products associated with the Transmission System as per provisions of Public Procurement (Preference to Make in India) orders issued by Ministry of Power vide orders No. 11/5/2018 - Coord. Dated 28.07.2020 for transmission sector, as amended from time to time read with Department for Promotion of Industry and Internal Trade (DPIIT) orders in this regard.

We hereby also agree and undertake to comply with Department of Expenditure, Ministry of Finance vide Order (Public Procurement No. 1) bearing File No. 6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 2) bearing File No. 6/18/2019-PPD dated 23.07.2020 and Order (Public Procurement No. 3) bearing File No. 6/18/2019-PPD, dated 24.07.2020, as amended from time to time, regarding public procurement from a bidder of a country, which shares land border with India.

5. We hereby agree to comply with Ministry of Power order no. 25-11/6/2018 – PG dated 02.07.2020 as amended from time to time.
6. We are herewith submitting legally binding board resolution for the total equity requirement of the Project.
7. We hereby confirm that in accordance with Clause 2.1.4 of the RFP, we are herewith submitting legally binding undertaking supported by a board resolution from the (Insert name of Technically Evaluated Entity and/or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be) that all the equity investment obligations of (Insert name of the Bidding Company) shall be deemed to be equity investment obligations of the (Insert name of Technically Evaluated Entity and/or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be) and in the event of any default by (Insert name of the Bidding Company), the same shall be met by (Insert name of Technically Evaluated Entity and/or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be).

[S. No. 7 to be inserted only in case the Bidder is a Bidding Company/ Lead Member of a Consortium and has sought qualification on the basis of technical and financial capability of its Affiliate(s) and/or its Parent]

8. We confirm that there are no litigations or disputes against us, which materially affect our ability to fulfill our obligations with regard to the Project.
9. We hereby confirm that we shall continue to maintain compliance with Qualification Requirements till the execution of the TSA.
10. We confirm that we have studied the provisions of relevant Indian laws and regulations required to enable us to build, own, operate and maintain the said Project and to prepare this Bid.
11. We hereby confirm that we shall abide unreservedly with BPC's decision in the qualification process for selection of Qualified Bidder and further warrant that under no circumstances we shall challenge either the BPC's decision or its right to make such decision at any time in the future.

12. We confirm that all the terms and conditions of the Bid are valid for acceptance for a period of one eighty (180) days from the Bid Deadline.

13. The details of contact person are furnished as under:

Name:
 Designation:
 Name of the Company:
 Address of the Bidder:
 Phone Nos.:
 Fax Nos.:
 E-mail address:

14. Bid Bond

We have enclosed a Bid Security Declaration as per your proforma (**Annexure-14**) in terms of Clause 2.11 of the RFP.

15. Acceptance

We hereby unconditionally and irrevocably agree and accept that the decision made by the BPC on any matter regarding or arising out of the RFP shall be binding on us. We hereby expressly waive any and all claims in respect of Bid process.

16. Familiarity with Relevant Indian Laws & Regulations

We confirm that we have studied the provisions of relevant Indian laws and regulations as required to enable us to submit this Bid and execute the Share Purchase Agreement, in the event of our selection as the Successful Bidder. We further undertake and agree that all such factors as mentioned in Clause 2.5.7 of RFP have been fully examined and considered while submitting the Bid.

It is confirmed that our Bid is consistent with all the requirements of submission as stated in the RFP and subsequent communications from BPC.

The information submitted in our Bid is complete, strictly as per the requirements stipulated in the RFP and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our Bid.

We confirm that we have not taken any deviation so as to be deemed non-responsive with respect to the provisions stipulated at Clause 2.5.1, of this RFP.

Thanking you,
 Yours sincerely,

.....

(Signature and Seal)*

Name:

Designation:

Address:

Date:

Place:

*To be signed by any whole-time Director/ Manager (supported by a specific Board Resolution) of the Bidding company or Lead Member in case of Consortium.

* Provided that, in case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question and the Company Secretary also certifies that the Company does not have any Managing Director.

Annexure-2

LETTER OF CONSENT FROM CONSORTIUM MEMBERS
(On the letter head of each Member of the Consortium including Lead Member)

Date:
 From:

 Tel. No.:
 Fax No.:
 E-mail address:

To,

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,
 Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bid for selection of Bidder as Transmission Service Provider to establish “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System” through tariff based competitive bidding process.

We, the undersigned Member of (Insert name of the Bidding Consortium) have read, examined and understood the RFP document for the short-listing of Bidders as prospective TSP to establish “**Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System**” through tariff based competitive bidding process. We hereby confirm our concurrence with the Bid including in particular the Consortium Agreement submitted by (Insert name of the Lead Member) in response to the RFP document.

We hereby confirm our commitment to participate in the said Bidding Consortium and invest % of the total equity requirement for the Project as per the terms of the Consortium Agreement dated and board resolution for such investment commitment is enclosed herewith.

We hereby confirm that in accordance with Clause 2.1.4 of the RFP, we are enclosing legally binding undertaking supported by a board resolution from the (Insert name of Technically Evaluated Entity and/ or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be) that all the equity investment obligations of (Insert name of the Member) shall be deemed to be equity investment obligations of the (Insert name of Technically Evaluated Entity and/ or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be) and in the event of any default by (Insert name of the Member), the same shall be met by (Insert name of Technically Evaluated

Entity and/ or Financially Evaluated Entity or its Ultimate Parent Company, as the case may be).
[Insert if applicable]

[To be inserted by the Lead Member only] We are also enclosing legally binding board resolution for the total equity requirement of the Project in case of any breach of any of the equity investment commitment by any of the Consortium Members, in line with the provisions of the Consortium Agreement dated [Bidder to insert date of Consortium Agreement].

The details of contact person are furnished as under:

Name:

Designation:

Name of the Company:

Address:

Phone Nos.:

Fax Nos.:

E-mail address:

Dated the day of of 20...

Thanking you,

Yours faithfully,

.....

(Signature)

Name: **(Affix Company's Seal)**

Designation: **(Affix Company's Seal)**

(Signature, Name, Designation of Authorised Signatory of Consortium Member and Company's Seal)

Annexure-3

**FORMAT FOR EVIDENCE OF AUTHORIZED SIGNATORY'S AUTHORITY
(POWER OF ATTORNEY)**

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign companies submitting bids are required to follow the applicable law in their country)

Know all men by these presents, We(name and address of the registered office of the Bidder) do hereby constitute, appoint and authorize Mr./ Ms. (name and residential address) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Bid for selection of Bidder as Transmission Service Provider to establish **“Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs-Connectivity System”** through tariff based competitive bidding process in the country of India, including signing and submission of all documents related to the Bid, including, undertakings, letters, certificates, acceptances, clarifications, guarantees, etc, making representations to the BPC, and providing information/ responses to the BPC, representing us in all matters before the BPC, and generally dealing with the BPC in all matters in connection with our Bid for the said Project till the completion of the bidding process in accordance with the RFP and signing of the Share Purchase Agreement by all the parties thereto.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

For [Insert name of the Bidder on whose behalf PoA is executed]

.....
(Signature)

Name:
Designation:

Accepted

.....
(Signature of the Attorney)

Name:
Designation:
Address:

.....
(Name, Designation and Address of the Attorney)

Specimen signatures of attorney attested by the Executant

.....

(Signature of the Executant)

Common Seal of
has been affixed in my/our
presence, pursuant to the
Board of Director's
resolution dated

.....

(Signature)

[To be signed by the person(s) authorized by the Board in whose presence the Common Seal can be affixed]

.....

(Signature of Notary Public)

Place:

Date:

Notes:

- 1) To be executed by Bidding Company or the Lead Member, in the case of a Bidding Consortium, as the case maybe.
- 2) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the required procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.
- 3) Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a Board resolution/ power of attorney, in favour of the Person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

Annexure-4

**FORMAT FOR POWER OF ATTORNEY TO BE PROVIDED BY EACH OF THE OTHER MEMBERS OF
THE CONSORTIUM IN FAVOUR OF THE LEAD MEMBER**

POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign companies submitting bids are required to follow the applicable law in their country)

KNOW ALL MEN BY THESE PRESENTS THAT M/s....., having its registered office at, and M/s having its registered office at, (Insert names and registered offices of all Members of the Consortium), the Members of Consortium, have formed a Bidding Consortium named (insert name of the Consortium) (hereinafter called the **“Consortium”**) vide Consortium Agreement dated and having agreed to appoint M/s..... as the Lead Member of the said Consortium do hereby constitute, nominate and appoint M/s..... a company incorporated under the laws of and having its Registered / Head Office at as our duly constituted lawful Attorney (hereinafter called as **“Lead Member”**) which is one of the Members of the Consortium, to act as the Lead Member and our true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of Consortium's Bid for the Project **“Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System”** Project, including signing and submission of the Bid and all documents related to the Bid, including, undertakings, letters, certificates, acceptances, clarifications, guarantees, etc, making representations to the BPC, and providing information / responses to the BPC, representing us and the Consortium in all matters before the BPC, and generally dealing with the BPC in all matters in connection with our Bid for the said Project, till completion of the bidding process in accordance with the RFP and signing of the Share Purchase Agreement by all the parties thereto.

It is expressly understood that in the event of the Consortium being selected as Successful Bidder, this Power of Attorney shall remain valid, binding and irrevocable until the Bidding Consortium achieves execution of all RFP Project Documents.

We, as the Member of the Consortium, agree and undertake to ratify and confirm all whatsoever the said Attorney/Lead Member has done on behalf of the Consortium Members pursuant to this Power of Attorney and the same shall bind us and deemed to have been done by us.

IN WITNESS WHEREOF M/s, as the Member of the Consortium have executed these presents on this day of under the Common Seal of our company.

Common Seal of
has been affixed in my/our
presence pursuant to the
Board of Director's resolution
dated

For and on behalf of
Consortium Member
M/s.....

.....
(Signature of the Authorized Signatory)

Name:
Designation:
Place:
Date:

.....

(Signature)

[To be signed by the person (s) authorized
by the Board in whose presence the
Common Seal can be affixed]

Name:
Designation:
Place:
Date:

Accepted

Specimen signatures of attorney attested

.....

(Signature)

.....

.....

.....

(Signature of Notary Public)

**(Name, Designation and Address
of the Attorney)**

Place:

Date:

Notes:

1. The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be

provided on the power of attorney shall be duly authorized by the executant(s) in this regard.

2. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a Board resolution / power of attorney, in favour of the Person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

FORMAT FOR BIDDER'S COMPOSITION AND OWNERSHIP STRUCTURE**1. Corporate Details:**

Please provide the following information for the Bidder. If the Bidder is a Consortium, please provide this information for each Member including the Lead Member:

a. Company's Name, Address, and Nationality:

Name:

Address:

.....

.....

Website Address:

Country of Origin:

b. Year Organized:**c. Company's Business Activities:**

.....

d. Status as a Bidder:

- i. Bidding Company
- ii. Lead Member of the Bidding Consortium
- iii. Member of the Bidding Consortium

Note: tick the applicable serial number

e. Company's Local Address in India (if applicable):

.....

.....

.....

f. Name of the Authorised Signatory:**g. Telephone Number:****h. Email Address:****i. Telefax Number:****j. Please provide the following documents:**

- i. Copy of the Memorandum and Articles of Association and certificate of incorporation or other equivalent organizational document (as applicable), including their amendments, certified by the Company Secretary as **Attachment 1** for Bidding Company/ each Member of Bidding Consortium including Lead Member.
- ii. Authority letter (as per format for authorization given below) in favour of BPC from the Bidder/every Member of the Consortium authorising BPC to seek reference from their respective bankers & others as **Attachment 2** as per Clause 2.1.6 of the RFP.

2. Details of Ownership Structure:

Equity holding of Bidding Company/ each Member of Bidding Consortium including Lead Member owning 10% or more of total paid up equity.

Name of the Bidding Company/ Consortium Member:

Status of equity holding as on

Name of the Equity Holder	Type and No. of Shares owned	Extent of Voting Control (%)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
....		

Notes:

1. The above table is to be filled in separately for each Consortium Member.
2. Status of equity holding should be provided not earlier than thirty (30) days prior to Bid Deadline.

For and on behalf of Bidding Company/ Lead Member of the Bidding Consortium

M/s.....

.....

(Signature of authorized representative)

Name:

Designation:

.....

(Stamp)

Date:

Place:

FORMAT FOR AUTHORISATION

(In case of Bidding Consortium, to be given separately by each Member)

(On Non – judicial stamp paper duly attested by notary public. Foreign companies submitting bids are required to follow the applicable law in their country)

The undersigned hereby authorize(s) and request(s) all our Bankers, including its subsidiaries and branches, any person, firm, corporation or authority to furnish pertinent information deemed necessary and requested by **PFC Consulting Limited** to verify our Bid for selection of Transmission Service Provider to establish “**Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System**” through tariff based competitive bidding process or regarding our project development experience, financial standing and general reputation.

For and on behalf of M/s..... (Insert Name of Bidding Company or Member of the Consortium)

.....

(Signature)

Name of Authorised Signatory:

(Signature and Name of the authorised signatory of the Company)

Place:

Date:

.....

(Company rubber stamp/seal)

.....

(Signature of Notary Public)

Place:

Date:

Annexure-6

FORMAT FOR CONSORTIUM AGREEMENT

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution. Foreign companies submitting bids are required to follow the applicable law in their country)

THIS CONSORTIUM AGREEMENT, executed on this..... day ofTwo thousand.....betweenM/s....., a company incorporated under the laws of and having its Registered Office at (hereinafter called the "Party 1", which expression shall include its successors, executors and permitted assigns) and M/s.....a Company incorporated under the laws of and having its Registered Office at (hereinafter called the "Party n", which expression shall include its successors, executors and permitted assigns) and for the purpose of submitting the Bid, acquisition of **SPV [which is under incorporation]** (in case of award) and entering into other Agreement(s) as specified in the RFP (hereinafter referred to as "Agreements") as may be entered into with the Long Term Transmission Customers.

WHEREAS, the Long Term Transmission Customers desired to procure transmission service through a tariff based competitive bidding process.

WHEREAS, the BPC had invited Response to RFP issued to (insert the name of purchaser of RFP) for selection of the Bidder as the Transmission Service Provider to establish **"Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System"**.

AND WHEREAS, Clause 2.2.4 of the RFP document stipulates that the Bidders qualifying on the strength of a Bidding Consortium will have to submit a legally enforceable Consortium Agreement in a format specified in the RFP document wherein the Consortium Members have to commit equity of a specific percentage in the Project.

AND WHEREAS, Clause 2.2.4 of the RFP document also stipulates that the Bidding Consortium shall provide along with the Response to RFP, a Consortium Agreement as per prescribed format whereby the Consortium Members undertake to be liable for raising the required funds for its respective equity investment commitment as specified in Consortium Agreement.

NOW THEREFORE, THIS INDENTURE WITNESSTH AS UNDER:

In consideration of the above premises and agreement all the parties in this Consortium do hereby mutually agree as follows:

1. In consideration of the selection of the Consortium as the selected Bidder by the BPC, we the Members of the Consortium and parties to the Consortium Agreement do hereby unequivocally agree that M/s..... (Insert name of the

Lead Member), shall act as the Lead Member as defined in the RFP for self and agent for and on behalf of,,, (the names of all the other Members of the Consortium to be filled in here).

2. The Lead Member is hereby authorized by the Members of Consortium and parties to the Consortium Agreement to bind the Consortium and receive instructions for and on behalf of the Members.
3. Notwithstanding anything contrary contained in this Consortium Agreement, the Lead Member shall always be liable for the equity investment obligations of all the Consortium Members, i.e., for both its own liability as well as the liability of other Members.
4. The Lead Member shall be liable and responsible for ensuring the individual and collective commitment of each of the Members of the Consortium in discharging all their respective equity obligations. Each Consortium Member further undertakes to be individually liable for the performance of its part of the obligations without in any way limiting the scope of collective liability envisaged in this agreement.
5. Subject to the terms of this agreement, the share of each Member of the Consortium in the "issued equity share capital of the project company" shall be in the following proportion: (if applicable)

Name	Percentage of equity holding in the Project
Party 1
.....
Party n
Total	100%

[**Note:** The percentage equity holding for any Consortium Member in the Project cannot be zero in the above table]

6. The Lead Member shall inter alia undertake full responsibility for liaising with lenders and mobilizing debt resources for the Project and achieving financial closure.
7. In case of any breach of any of the equity investment commitment by any of the Consortium Members, the Lead Member shall be liable for the consequences thereof.
8. Except as specified in the Agreement, it is agreed that sharing of responsibilities as aforesaid and equity investment obligations thereto shall not in any way be a limitation of responsibility of the Lead Member under these presents.
9. It is further specifically agreed that the financial liability for equity contribution of Lead Member shall, not be limited in any way so as to restrict or limit its liabilities. The Lead Member shall be liable irrespective of their scope of work or financial commitments.

10. It is expressly understood and agreed between the Members that the responsibilities and obligations of each of the Members shall be as delineated as annexed hereto as **Appendix-I**, forming integral part of this Agreement. It is further agreed by the Members that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint and several responsibilities and liabilities of the Members, with regards to all matters relating to the Project.
11. It is clearly agreed that the Lead Member shall ensure performance under the Agreements and if one or more Consortium Members fail to perform its /their respective obligations under the Agreement(s), the same shall be deemed to be a default by all the Consortium Members.
12. This Consortium Agreement shall be construed and interpreted in accordance with the Laws of India and courts at **New Delhi** alone shall have the exclusive jurisdiction in all matters relating thereto and arising there under.
13. It is hereby agreed that if the Bidding Consortium is qualified to submit a Bid, the Lead Member shall furnish the Bid Security Declaration in lieu of Bid Bond, as stipulated in the RFP, on behalf of the Consortium Members.
14. It is hereby agreed that in case of selection of Bidding Consortium as the selected Bidder, the parties to this Consortium Agreement do hereby agree that they shall furnish the contract performance guarantee on behalf of the TSP in favor of the Long Term Transmission Customers, as stipulated in the RFP and TSA.
15. It is further expressly agreed that the Consortium Agreement shall be irrevocable and shall form an integral part of the RFP Project Document and shall remain valid till the execution of the TSA and the Share Purchase Agreement, unless expressly agreed to the contrary by the Long Term Transmission Customers. Over the term of the TSA, the provisions of TSA shall apply on the Consortium Members.
16. The Lead Member is authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the Consortium Members respectively from time to time in response to the RFP and for the purposes of the Project.
17. It is hereby expressly agreed between the parties to this Consortium Agreement that neither party shall assign or delegate its rights, duties or obligations under this Agreement except with the prior written consent of Long Term Transmission Customers.

This CONSORTIUM AGREEMENT:

- a. has been duly executed and delivered on behalf of each party hereto and constitutes the legal, valid, binding and enforceable obligation of each such party,

- b. sets forth the entire understanding of the parties hereto with respect to the subject matter hereof;
- c. may not be amended or modified except in writing signed by each of the parties and with prior written consent of Long Term Transmission Customers.

IN WITNESS WHEREOF, the parties to the Consortium Agreement have, through their authorized representatives, executed these present and affixed Common Seals of their respective companies on the Day, Month and Year first mentioned above.

Common Seal of M/s
(Insert name of Consortium Member 1) has been affixed in my/our presence pursuant to the Board of Director's resolution dated.....

.....

(Signature)

[To be signed by the person (s) authorized by the Board in whose presence the Common Seal can be affixed]

For and on behalf of Consortium
Member 1 (Party 1)
M/s.....

.....

(Signature of authorized signatory)

Name:

Designation:.....

Place:

Date:

WITNESS⁴:

1.

.....

.....

(Signature)

Name:

Designation:.....

Common Seal of M/s
(Insert name of Consortium Member "n") has been affixed in my/our presence pursuant to the Board of Director's resolution

2.

.....

.....

(Signature)

Name:

Designation:

For and on behalf of Consortium
Member n (Party n)
M/s.....

⁴ Separate witness for each Consortium Member should fill in the details

dated.....

.....

(Signature of authorized
signatory)

.....

(Signature)

[To be signed by the person (s)
authorized by the Board in whose
presence the Common Seal can be
affixed]

Name:

Designation:

Place:

Date:

WITNESS:

1.

.....

.....

(Signature)

Name:

Designation:

2.

.....

.....

(Signature)

Name:

Designation:

Attested:

.....

(Signature)

(Notary Public)

Place:

Date:

Appendix 1 to the Consortium Agreement:

Name of the Consortium Member	Responsibilities under the Consortium Agreement
M/s (Party 1)	
M/s	
M/s (Party n)	

FORMAT FOR QUALIFICATION REQUIREMENT**NET WORTH**

To,

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,

Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bid for selection of Bidder as Transmission Service Provider to establish “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System” through tariff based competitive bidding process

1. [Note: Applicable in case of Bidding Company]

We certify that the Financially Evaluated Entity(ies) had a Networth of Rs. Crore or equivalent USD* computed as per instructions in this RFP based on unconsolidated audited annual accounts (refer Note-2 below) of any of the last three (3) financial years, as provided in Clause2.2.3, immediately preceding the Bid Deadline.

Name of Financially Evaluated Entity(ies)	Relationship with Bidding Company**	Networth (Rs. Crore)
1.		
2.		
3.		
....		
Total Network		

*Equivalent USD shall be calculated as per provisions of Clause3.4.1.

** The column for “Relationship with Bidding Company” is to be filled in only in case financial capability of Parent/Affiliate has been used for meeting Qualification Requirements.

2. [Note: Applicable in case of Bidding Consortium]

We certify that the Financially Evaluated Entity(ies) had a minimum Networth of Rs. Crore or equivalent USD* computed as per instructions in the RFP and based on unconsolidated audited annual accounts (refer Note-2 below) of any of the last three (3) financial years, as provided in Clause2.2.3, immediately preceding the Bid Deadline.

Name of Consortium Member	Equity Commitment in the Project (%)	Networth of Member (Rs. Crore)	Networth Requirement to be met by Member in proportion to the Equity Commitment (Rs. Crore)	Whether the Member meets the Networth Requirement
(1)	(2)	(3) (As per table below)	(4 = 2 x Total Networth requirement for the Project)	(5)
1.				Yes / No
2.				Yes / No
..				Yes / No
Total Networth for financial requirement				

Member – I (Lead Member)

[Note: Similar particulars for each Member of the Consortium is to be furnished, duly certified by the Member's Statutory Auditors]

- i. Name of Member:
- ii. Total Networth requirement: Rs Crore
- iii. Percentage of equity commitment for the Project by the Member:%
- iv. Networth requirement for the Member***: RsCrore
- v. Financial year considered for the Member:

Name of Financially Evaluated Entity(ies)	Relationship** with Member of Consortium	Networth (Rs. Crore)
1.		
2.		
3.		
Total Networth		

- * Equivalent USD shall be calculated as per provisions of Clause 3.4.1;
- ** The column for "Relationship with Member of Consortium" is to be filled in only in case the financial capability of Parent/ Affiliate has been used for meeting Qualification Requirements;
- *** Networth requirement to be met by Member should be in proportion to the equity commitment of the Member for the Project.

Yours faithfully

.....

(Signature and stamp of any whole-time Director/ Manager (supported by a specific Board Resolution) [refer Note-3 & 4 below] of Bidding Company/ each Member of Consortium)

Name:

Date:

Place:

.....

(Signature and Stamp of statutory Auditors of Bidding Company/ each Member of Consortium)

Name:

Date:

Place:

Please also affix common seal of Bidding Company/each Member in a Bidding Consortium

Common Seal of

has been affixed in my/our

presence, pursuant to the

Board of Director's

resolution dated

.....

(Signature)

[To be signed by the person (s) authorized by the Board in whose presence the Common Seal can be affixed]

Date:

Notes:

1. Along with the above format, in a separate sheet, please provide details of computation of Networth duly certified by Statutory Auditor.
2. Audited consolidated annual accounts of the Bidder may be used for the purpose of financial criteria provided the Bidder has at least 26% equity in each company whose accounts are merged in the audited consolidated accounts and provided further that the financial capability of such companies (of which accounts are

being merged in the consolidated accounts) shall not be considered again for the purpose of evaluation of the Bid.

3. Any whole-time Director/Manager of the Bidding Company / Lead Member in case of a Consortium (supported by a specific Board Resolution).
4. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.
5. The Company Secretary also certifies that the Company does not have any Managing Director.
6. In case Bidder or a Member of Consortium takes recourse to its Parent/Affiliate for meeting technical/ financial requirements, then the financial years considered for such purpose should be same for the Bidder / Member of Consortium and their respective Parent / Affiliate.

Annexure-7B

FORMAT FOR TECHNICAL REQUIREMENT

To,
PFC Consulting Limited
 9th Floor, Wing-A, Statesman House,
 Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bid for selection of Bidders as Transmission Service Provider to establish “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System” through tariff based competitive bidding process

We certify that M/s. (Insert name of Technically Evaluated Entity(ies)) have experience of development of projects (not necessarily in the power sector) in the last five (5) years whose aggregate capital expenditure is Rs. Crore or equivalent USD*. We further certify that the capital expenditure of each project considered for meeting the technical Qualification Requirement is not less than Rs. Crore or equivalent USD*. For this purpose, capital expenditure incurred on projects which have been either wholly completed/ commissioned or partly completed projects put under commercial operation and for which operation has commenced till at least seven (7) days prior to the Bid Deadline has been considered.

The project(s) considered for the purpose of technical experience (as per table given below) have been executed and owned to the extent as indicated in the table below (to be not less than twenty six (26%) percent) by the Bidding Company/ Lead Member of the Consortium/ our Parent/ our Affiliate(s) [strike off whichever is not applicable] on operation of the projects.

This technical requirement has been calculated as per the instructions provided in the RFP on the basis of following projects:

Name of Company whose technical capability has been used for Qualification Requirement	Relationship* * with Bidding Company / Lead Member	Project name	Nature of Project	Date of Completion/ Commissioning / Commercial Operation of partly completed projects	Project cost (Rs. Crore)	Percentage Equity Holding of Company at (1) in Completed project(s)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
.....					

(Signature and Stamp of statutory Auditors of Bidding Company/ Lead Member of Consortium)

Name:

Date:

Place:

Please also affix common seal of Bidding Company/ Lead Member in a Bidding Consortium

Common Seal of

has been affixed in my/ our

presence pursuant to the

Board of Director's

resolution dated

.....

(Signature)

[To be signed by the person (s) authorized by the Board in whose presence the Common Seal can be affixed]

Date:

Notes:

1. Along with the above format, in a separate sheet, please provide details of computation of capital expenditure of projects duly certified by Statutory Auditor.
2. Whole time Director/ Manager of the Biding Company/each Member in case of a consortium (supported by a specific board resolution)
3. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.
4. The Company Secretary also certifies that the Company does not have any Managing Director.
5. The unconsolidated audited annual accounts of both the TEE and the Bidding Company/ Lead Member for the respective financial years (financial years in which financial closure was achieved to the financial year in which the said project was completed/ commissioned) should be submitted.

Annexure-7C

FORMAT FOR TECHNICAL & FINANCIAL REQUIREMENT – RELATIONSHIP & DETAILS OF EQUITY SHAREHOLDING

[To be filled by Bidding Company/ each Member of the Bidding Consortium including Lead Member if credentials of Parent and/ or Affiliates have been used by them]

To,

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,

Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bid for selection of Bidder as Transmission Service Provider to establish “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System” through tariff based competitive bidding process

We certify that M/s. (insert name of the **Bidding Company/ Consortium Members**) have considered the technical and financial capability of its Parent and / or Affiliates, for the purpose of meeting Qualification Requirements as per the instructions provided in the RFP. The name of Parent and/ or Affiliate, nature of relationship(s) with such Parent and/ or Affiliate and details of equity holding are as follows:

Name of Company whose credentials considered	Type of credentials considered (technical and/ or financial)	Relationship with Bidding Company/ Consortium Member (Parent/ Affiliate)	Details of equity shareholding (refer notes below)
Company 1			
.....			
.....			
.....			
.....			

NOTES:

- In case of Parent, the equity holding of the Parent in the Bidding Company / Member of the Bidding Consortium, including the Lead Member of the Consortium, need to be specified.
- In case of Affiliate under direct control of Bidder, the equity holding of the Bidding Company/ Member of the Bidding Consortium, including the Lead Member of the Consortium in the Affiliate, needs to be specified.

- iii. In case of Affiliate under common control of Parent, the equity holding of the Parent in the Affiliate of the Bidding Company/ Member of the Bidding Consortium, including the Lead Member of the Consortium, needs to be specified.
- iv. Relationship of Parent/ Affiliate with Bidding Company/ Member of Consortium to be as on seven (7) days prior to the Bid Deadline (as per Clause 2.1.4 of RFP)

Yours faithfully

.....

(Signature and stamp of any whole-time Director/ Manager (supported by a specific Board Resolution) (refer Note 1& 2 below) of Bidding Company/ each Member of Consortium)

Name:

Date:

Place:

Notes:

1. Whole- time Director/ Manager of the Bidding Company/ each member in case of a Consortium (supported by a specific Board Resolution)
2. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.

The Company Secretary also certifies that the Company does not have any Managing Director.

.....

(Signature and Stamp of statutory Auditors of Bidding Company/ each Member of Bidding Consortium)

Name:

Date:

Place:

Please also affix common seal of Bidding Company/ Member in a Bidding Consortium

Common Seal of

has been affixed in my/ our

presence, pursuant to the

Board of Director's

resolution dated

.....

(Signature)

[To be signed by the person (s) authorized by the Board in whose presence the Common Seal can be affixed]

Date:

Annexure-7D

**ADDITIONAL INFORMATION FOR VERIFICATION OF FINANCIAL AND TECHNICAL
CAPABILITIES OF BIDDERS**

.....

(Name of Bidder (Bidding Company/ Bidding Consortium or Technically/Financially Evaluated Entity(ies))

(Note: In case of Consortium, details to be filled in by Lead Member for each Member of the Consortium including the Lead Member and in case of the qualification requirements of Technically/ Financially Evaluated Entity(ies) being used, to be filled by each of such entity(ies)

i. Financial capability (Attachment-1):

- a. Bidders shall attach unconsolidated/ consolidated audited annual accounts, statements, as the case may be, (refer Clause2.1.3) for the last three (3) financial years as Attachment 1. Such unconsolidated audited annual accounts shall include a Balance Sheet, Profit and Loss Account, Auditors Report and profit appropriation account.

ii. Technical capability (Attachment-2):

- a. This attachment shall include details of projects completed/commissioned or partly completed projects for which commercial operation has commenced to be considered for the purpose of meeting Qualification Requirements.

S. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
1.	Name(s) of project(s)					
2.	Location(s) including country(s) where project was set up					
3.	Nature of Project					
4.	Voltage level (if any)					
5.	Capital cost of project(s) Rs. in Crore					
6.	*Status of the project					
7.	% of equity owned in the project(s)					

***Note 1:** Date of completion/commissioning/commercial operation to be mentioned

Note 2: For each project listed in the table, the Bidder shall furnish an executive summary including the following information:

1. Project model, i.e., BOO, BOOT, BOOM;
2. Debt financing and equity raised and provided by Bidder/Bidder's Parent/Bidder's Affiliate for the project, including names of lenders and investors;
3. Size and type of installation;
4. Technical data/information on major equipment installed
5. Description of role performed by the Bidder/Bidder's Parent/Bidder's Affiliate on the project
6. Clearances taken by the Bidder/Bidder's Parent/Bidder's Affiliate including but limited to right-of-way (RoW), forest clearance and other statutory/ Govt. clearances.
7. Cost data (breakdown of major components)
8. Name of EPC and/or other major contractor
9. Construction time for the project
10. Names, addresses and contact numbers of owners of the projects
11. Operating reliability over the past five (5) years or since date of commercial operation
12. Operating environmental compliance history
13. Names of supervisory entities or consultant, if any
14. Date of commercial operation
15. Total duration of operation

iii. Attachment-3 :

- a. For each project listed in Attachment-2 above, certificates of final acceptance and/or certificates of good operating performance duly issued by owners for the project and the same shall be certified as true by any whole time Director/ Manager (supported by a specific Board resolution) of the Bidding Company or the Lead Member of Consortium).

For and on behalf of Bidding Company/Consortium
M/s.....

.....

(Signature of Authorised Signatory)

Name:

Designation:

Date:

Place:

Annexure-8**UNDERTAKING AND DETAILS OF EQUITY INVESTMENT****Format 1: Bidders' Undertakings***[On the Letter Head of the Bidding Company/Lead Member of Bidding Consortium]***Date:****To,****PFC Consulting Limited**

9th Floor, Wing-A, Statesman House,

Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Bidders' Undertakings in respect of Bid for selection of TSP to establish "Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System"

We hereby undertake on our own behalf and on behalf of the TSP, that if selected as the Successful Bidder for the Project:

1. The Project shall comply with all the relevant electricity laws, codes, regulations, standards and Prudent Utility Practices, environment laws and relevant technical, operational and safety standards, and we shall execute any agreements that may be required to be executed as per law in this regard.
2. We confirm that the Project shall also comply with the standards and codes as per Clause 1.6.1.2 of the RFP and the TSP shall comply with the provisions contained in the Central Electricity Regulatory Commission (Open Access in Interstate Transmission) Regulations, 2008, Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-state Transmission and related matters) Regulations, 2009 and the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 made pursuant to section 177(2) of the Electricity Act, 2003.
3. We give our unconditional acceptance to the RFP dated March 06, 2020 issued by the BPC and the RFP Project Documents, as amended, and undertake to ensure that the TSP shall execute the Share Purchase Agreement as per the provisions of this RFP.
4. We have submitted the Bid on the terms and conditions contained in the RFP and the RFP Project Documents. Further, the Financial Bid submitted by us is strictly as per the

format provided in **Annexure-22** of the RFP, without mentioning any deviations, conditions, assumptions or notes in the said Annexure.

5. Our Bid is valid up to the period required under Clause 2.8 of the RFP.
6. Our Bid has been duly signed by authorized signatory and stamped in the manner and to the extent indicated in this RFP and the power of attorney/ Board resolution in requisite format as per RFP has been enclosed in original with this undertaking.
7. We have assumed that if we are selected as the Successful Bidder, the provisions of the Consortium Agreement, to the extent and only in relation to equity lock in and our liability thereof shall get modified to give effect to the provisions of Clause 2.5.8 of this RFP and Article 18.2 of the TSA. **(Note: This is applicable only in case of a Bidding Consortium)**
8. We confirm that our Bid meets the Scheduled COD of each transmission Element and the Project as specified below:

S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre-required for declaring the commercial operation (COD) of the respective Element
1.	Establishment of 400kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)	Matching timeframe of Pakaldul HEP (Feb'2024)	19.01	Elements marked at S. No. 1, 2 & 3 are required to be commissioned simultaneously as their utilization is dependent on commissioning of each other.
2.	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line at Kishtwar		46.38	
3.	2 Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line (Single Circuit Strung)		23.19	
4.	1 No. of 400 kV line bay at Kishtwar (GIS) for 2 nd circuit stringing of Kishtwar - Kishenpur section		11.42	Element marked at S. No. 4 is required to be Commissioned for 2nd circuit stringing

S. No.	Name of the Transmission Element	Scheduled COD in months from Effective Date	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project	Element(s) which are pre-required for declaring the commercial operation (COD) of the respective Element
				of Kishtwar - Kishenpur section - being implemented by POWERGRID.

We agree that the payment of Transmission Charges for any Element irrespective of its successful commissioning on or before its Scheduled COD shall only be considered after the successful commissioning of Element(s) which are pre - required for declaring the commercial operation of such Element as mentioned in the above table.

Scheduled COD for the Project: Matching timeframe of Pakaldul HEP (Feb'2024).

9. We confirm that our Financial Bid conforms to all the conditions mentioned in this RFP, and in particular, we confirm that:
 - a. Ratio of minimum and maximum Quoted Transmission Charges during the term of the TSA for which Transmission Charges have been quoted in the format at **Annexure-22** of the Bid is not less than zero point seven (0.7) as provided in Clause2.5.3.
 - b. Further, the Quoted Escalable Transmission Charges (after duly escalating the Quoted Escalable Transmission Charges on the basis of the escalation rates specified in Clause3.5.1.3) for any Contract Year does not exceed fifteen percent (15%) of the corresponding Quoted Non-Escalable Transmission Charges for that Contract Year, for the entire term.
 - c. Financial Bid in the prescribed format of **Annexure-22** has been submitted duly signed by the authorized signatory.
 - d. Financial Bid is unconditional.
 - e. Only one Financial Bid has been submitted.
10. We have neither made any statement nor provided any information in this Bid, which to the best of our knowledge is materially inaccurate or misleading. Further, all the confirmations, declarations and representations made in our Bid are true and accurate. In case this is found to be incorrect after our acquisition of **SPV [which is under incorporation]**, pursuant to our selection as Selected Bidder, we agree that the same would be treated as a TSP's Event of Default under TSA, and relevant provisions of TSA shall apply.

11. We confirm that there are no litigations or other disputes against us which materially affect our ability to fulfill our obligations with regard to the Project as per the terms of RFP Project Documents.
12. Original power of attorney/ Board resolution as per Clause 2.5.2 is enclosed.

Signature and stamp of any Whole-time Director/ Manager (supported by a specific Board Resolution)

[refer Note 1 and 2 below] of Bidding Company or Lead Member of Consortium.

Please also affix common seal of Bidding Company/ Member in a Bidding Consortium

Common seal ofhas been affixed in my/ our presence pursuant to Board of Director's Resolution dated.....

WITNESS

1.
(Signature)
Name
Designation.....
2.
(Signature)
Name
Designation.....

Note:

1. To be signed by any Whole-time Director/ Manager (supported by specific board resolution) of the Bidding Company/ Lead Member in case of a Consortium.
2. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.

The Company Secretary also certifies that the Company does not have a Managing Director.

Format 2: Details of equity investment in Project

1.1.a Name of the Bidding Company/ Bidding Consortium:

1.1.b Name of the Lead Member in the case of a Bidding Consortium:

1.2 Investment details of the Bidding Company/Member of the Bidding Consortium investing in SPV [which is under incorporation] as per Clause 2.5.8.2.

S. No.	Name of the Bidding Company/ Member in case of a Bidding Consortium	Name of the Company investing in the equity of the SPV [which is under incorporation]	Relationship with Bidding Company /Member of the Bidding Consortium	% of equity participation in the SPV [which is under incorporation]
(1)	(2)	(3)	(4)	(5)
TOTAL				100%

* In case the Bidder proposes to invest through its Affiliate(s) / Parent Company/ Ultimate Parent Company, the Bidder shall declare shareholding pattern of such Affiliate(s)/ Parent Company / Ultimate Parent Company and provide documentary evidence to demonstrate relationship between the Bidder and the Affiliate(s)/ Parent Company/ Ultimate Parent Company. These documentary evidences could be, but not limited to, demat account statement(s)/ Registrar of Companies' (ROC) certification/ share registry book, etc. duly certified by Company Secretary.

Members of the Consortium or the Bidding Company making investment in the equity of the SPV [which is under incorporation] themselves to fill in their own names in the column (3)

Signature and Name of authorized signatory in whose name power of attorney has been issued

Signature of authorized signatory

Name:

Designation:

Date.....

Company rubber stamp

Annexure-9

AUTHORISATION FROM PARENT/ AFFILIATE OF BIDDING COMPANY/ MEMBER OF BIDDING CONSORTIUM WHOSE TECHNICAL/ FINANCIAL CAPABILITY HAS BEEN USED BY THE BIDDING COMPANY/ MEMBER OF BIDDING CONSORTIUM.

[On the Letter Head of the Parent/Affiliate]

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/ No.:

To

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,
Connaught Place, New Delhi - 110001

Dear Sir,

Sub: Authorization for use of Technical/ Financial Capability of M/s (Insert name of Parent/ Affiliate) by M/s (Insert name of Bidding Company/ Member of Bidding Consortium).

We refer to the RFP dated ('RFP') issued by you for selection of Transmission Service Provider for establishing **"Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System"**.

We confirm that M/s. (Insert name of Bidding Company/ Consortium Member) has been authorized by us to use our technical and/or financial capability [strikeout whichever is not applicable] for meeting the Qualification Requirements for "Selection of Transmission Service Provider for establishing **"Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System"**".

We have carefully read and examined in detail the RFP including in particular, Clause 2.1.4 of the RFP, and we are also submitting legally binding undertaking supported by a board resolution that all the equity investment obligations of M/s..... (Insert Name of Bidding Company/ Consortium Member), shall be deemed to be our equity investment obligations and in the event of any default the same shall be met by us.

For and on behalf of M/s..... (Insert Name of Parent/ Affiliate)

.....

(Signature and stamp of Any Whole-time Director/ Manager (supported by a specific Board Resolution) (refer Note 1 & 2 below) of Parent / Affiliate)

Name:

Date:

Place:

Please also affix common seal of Parent/Affiliate

Common Seal of

has been affixed in my/our

presence, pursuant to the

Board of Director's

resolution dated

.....

(Signature)

[To be signed by the person (s) authorized by the Board in whose presence the Common Seal can be affixed]

Notes:

1. Any whole-time Director/ Manager of the Parent/Affiliate (supported by a specific Board Resolution).
2. In case of Manager, the Parent/Affiliate should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.

The Company Secretary also certifies that the Parent/ Affiliate does not have any Managing Director.

3. The above undertaking can be furnished by Ultimate Parent of Technically Evaluated Entity or Financially Evaluated Entity, as the case maybe, if legally binding undertaking shall be furnished by the Ultimate Parent at the RFP stage on behalf of such Financially Evaluated Entity/Technically Evaluated Entity.

Annexure-10

FORMAT OF UNDERTAKING BY TECHNICALLY/ FINANCIALLY EVALUATED ENTITY/ ULTIMATE PARENT COMPANY

[On the Letter Head of the Technically/ Financially Evaluated Entity/ Ultimate Parent Company]

Name:

Full Address:

Telephone No.:

E-mail address:

Fax/No.:

To:

PFC Consulting Limited

9th Floor, Wing-A, Statesman House,

Connaught Place, New Delhi - 110001

Sub: Undertaking for equity investment

Dear Sir,

We refer to the Request for Proposal dated _____, 2020('RFP') issued by you regarding setting up of **“Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System”** Project on build, own, operate and maintain basis.

We have carefully read and examined in detail the RFP and the RFP, including in particular, Clause 2.1.4 of the RFP and Clauses 2.5.2 and 2.5.8 of the RFP, regarding submission of an undertaking regarding the investment in the equity share capital of **SPV [which is under incorporation]** and provisions for minimum equity holding and equity lock-in. We have also noted the amount of the equity investment required to be made in **SPV [which is under incorporation]** by the [Insert the name of the Bidder or the Consortium Member or investing Affiliate] for the Project.

In view of the above, we hereby undertake to you and confirm that in the event of failure of [Insert the name of the Bidder or the Consortium Member or investing Affiliate] to invest in full or in part, in the equity share capital of **SPV [which is under incorporation]** as specified in the Bid, we shall invest the said amount not invested by [Insert the name of the Bidder or the Consortium Member or investing Affiliate] in **SPV [which is under incorporation]** by purchase of existing shares or subscribing to the new shares of **SPV [which is under incorporation]**, as stipulated by you.

We have attached hereto certified true copy of the Board resolution whereby the Board of Directors of our Company has approved issue of this Undertaking by the Company.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the RFP.

Signature of any Whole-time Director/ Manager (supported by a specific Board Resolution

The above undertaking should be signed and certified as true by any Whole-time Director/Manager (supported by a specific Board Resolution) (refer Note below) of the Bidding Company or of the Member, in case of a Consortium).

Common seal of.....has been affixed in my/our presence pursuant to Board of Director's Resolution dated

WITNESS:

1.
(Signature)
Name.....
Designation.....
2.
(Signature)
Name.....
Designation.....

Note:

1. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act 2013 (as the case may be) for the purpose in question.
2. The Company Secretary also certifies that the Company does not have a Managing Director.
3. Wherever required, extract of the charter documents and documents such as a Board resolution should be submitted for verification.

Annexure-11

FORMATS FOR BOARD RESOLUTIONS

Format-1

**Format of the Board resolution for the Bidding Company/ each Member
of the Consortium/ investing Affiliate/ Parent Company/ Ultimate
Parent Company, where applicable**

[Reference Clause 2.5.2 of the RFP and the illustrations in **Annexure-11A**]

[Note: The following resolution no.1 needs to be passed by the Boards of each of the entity/(ies) making equity investment]

The Board, after discussion, at the duly convened Meeting on [Insert date], with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 2013, passed the following Resolution:

1. **RESOLVED THAT** pursuant to the provisions of the Companies Act, 1956 and compliance thereof and as permitted under the Memorandum and Articles of Association of the company, approval of the Board be and is hereby accorded for investment of.....% (..... percent) of the total equity share capital of **SPV [which is under incorporation]** representing the entire amount proposed to be invested by the company for “**Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System**”, partly by acquisition of the existing equity shares from PFC Consulting Limited and/ or partly by subscribing to the new equity shares, as per the terms of the RFP.

[Note: Equity investment obligations by the Bidding Company/each Member of the Bidding Consortium/investing Affiliate or Parent or Ultimate Parent should add up to 100%.]

[Note: In the event the Bidder is a Bidding Consortium, the following Board resolution no. 2 also needs to be passed by the Lead Member of the Bidding Consortium]

2. **RESOLVED THAT** approval of the Board be and is hereby accorded to contribute such further amount over and above the said percentage limit to the extent becoming necessary towards the total equity share in the **SPV [which is under incorporation]**, obligatory on the part of the company pursuant to the terms and conditions contained in the Consortium Agreement datedexecuted by the company as per the provisions of the RFP.

[Note: In the event, the investing entity is an Affiliate or Parent or Ultimate Parent of the Selected Bidder, the following Board resolution no. 3 shall also be passed by the Selected Bidder]

3. **FURTHER RESOLVED THAT** the Board hereby acknowledges the Board Resolution(s) passed by the..... [Name of the Affiliate(s)/ Parent / Ultimate Parent] regarding the investment of..... (....%) of the equity share capital requirements of **SPV [which is under**

incorporation], which is to be invested by the[Name of the Affiliate(s)/ Parent / Ultimate Parent] for the **SPV [which is under incorporation]**, partly by acquisition of the existing equity shares from PFC Consulting Limited and partly by subscribing to the new equity shares, as per the terms of the RFP.

[Note: The following resolution no. 4 is to be provided by the Bidding Company/ Lead Member of the Consortium only]

4. FURTHER RESOLVED THAT MR/MSbe and is hereby authorized to take all the steps required to be taken by the Company for submission of the Bid, including in particular, signing of the Bid, making changes thereto and submitting amended Bid, all the documents related to the Bid, certified copy of this Board resolution or letter or undertakings etc., required to be submitted to BPC as part of the Bid or such other documents as may be necessary in this regard.

Certified True Copy

Company rubber stamp to be affixed

[Notes:

- 1) This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary or Whole Time Director/ Manager (supported by specific board resolution) of the Bidding Company or the Lead Member of Consortium.

In case it is signed by the Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013(as the case may be) for the purpose in question. The Company Secretary also certifies that the Company does not have a Managing Director.

- 2) The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution, i.e., the Bidding Company, each Member of the Bidding Consortium.
- 3) This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956/ Companies Act 2013 (as the case may be) may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.]

Format 2**Format for the Board resolution of Technically/ Financially Evaluated
Entity/ Parent Company/ Ultimate Parent Company**

The Board, after discussion, at the duly convened Meeting on [Insert date], with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 2013, passed the following Resolution:

RESOLVED THAT pursuant to the provisions of the Companies Act, 2013 and compliance thereof and as permitted under the Memorandum and Articles of Association of the company, approval of the Board be and is hereby accorded for issuing an Undertaking to the BPC, in the format specified in the RFP issued by the BPC, draft of which is attached hereto and initialed by the Chairman whereby the company undertakes to investpercent (.... %) of the total equity share capital of **SPV [which is under incorporation]** representing the entire amount proposed to be invested by[insert the name of the Bidder or Member or investing Affiliate] for the said Project, in case of failure of[Insert the name of the Bidder or Member or investing Affiliate] to make such investment".

FURTHER RESOLVED THAT,be and is hereby authorized to take all the steps required to be taken by the Company, including in particular, signing the said Undertaking, submitting the same to the BPC through[Insert name of Bidding Company/Lead Member of the Consortium] of all the related documents, certified copy of this Board resolution or letter, undertakings etc., required to be submitted to BPC as part of the Bid or such other documents as may be necessary in this regard.

Certified True Copy**Company rubber stamp to be affixed****Note:**

1. This certified true copy should be submitted on the letterhead of the Company, signed by the Company Secretary or Whole-time Director/Manager (supported by specific board resolution) of Technically/ Financially Evaluated Entity/ Parent Company/ Ultimate Parent Company, as the case may be.

In case it is signed by the Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question. The Company Secretary also certifies that the Company does not have a Managing Director.

2. The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.
3. This format may be modified only to the limited extent required to comply with the local regulations and laws applicable to a foreign entity submitting this resolution. For example, reference to Companies Act 1956/ Companies Act 2013 (as the case may be) may be suitably modified to refer to the law applicable to the entity submitting the resolution. However, in such case, the foreign entity shall submit an unqualified opinion issued by the legal counsel of such foreign entity, stating that the Board resolutions are in compliance with the applicable laws of the respective jurisdictions of the issuing company and the authorizations granted therein are true and valid.

Annexure-11A

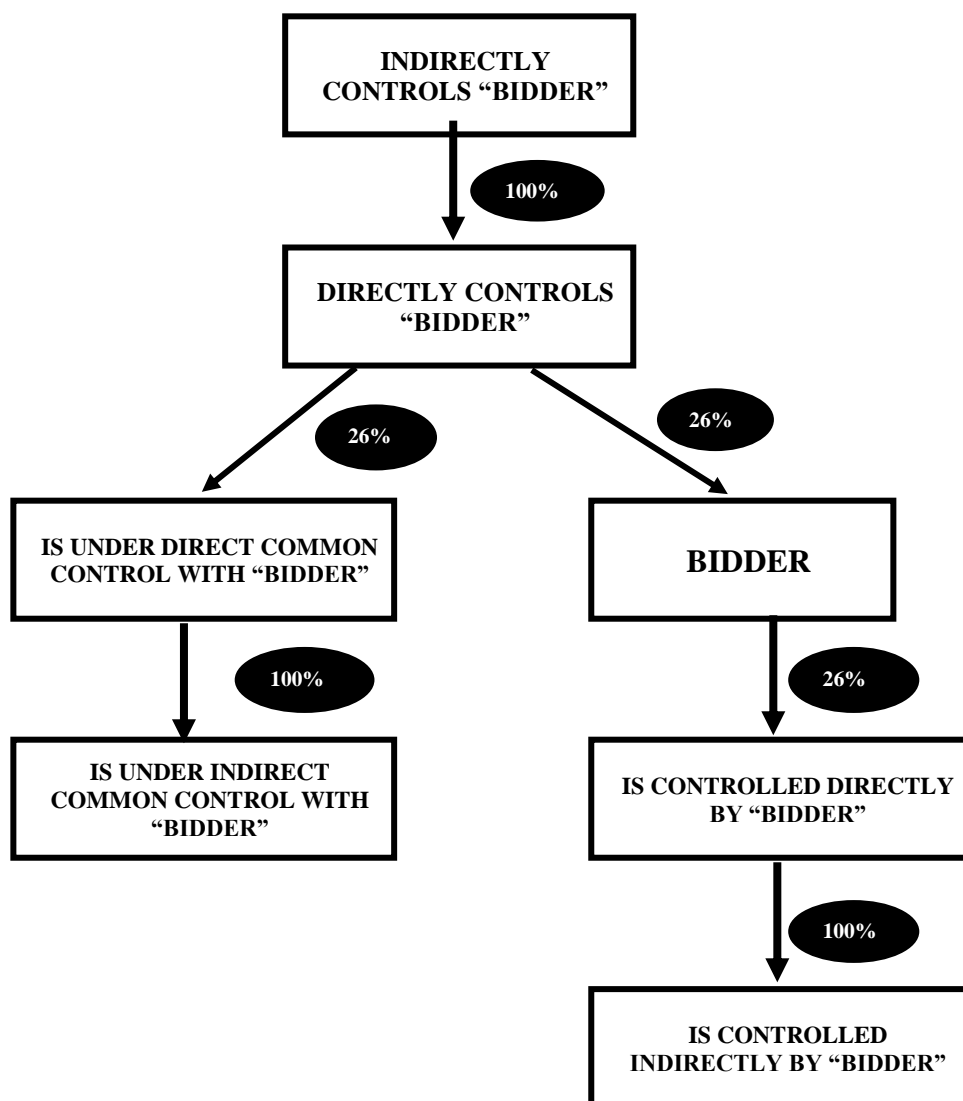
ILLUSTRATION FOR APPLICABLE BOARD RESOLUTION REQUIREMENTS UNDER CLAUSE 2.5.2

Investor in the TSP	Entities (other than Bidder) whose credentials (financial and/or technical) used by the Bidder for meeting RFP criteria	Applicable Board Resolutions	Requirement of Undertaking (Annexure 10)
Bidder himself for 100% equity	None	a) Format 1 of Annexure-11 - Resolution: 1, 2 and 4 from the Bidder	None
Bidder himself for 100% equity	Affiliate and/or Parent Company and/or Ultimate Parent	<p>a) Format 1 of Annexure-11 - Resolution: 1, 2, and 4 from the Bidder</p> <p>b) Format 2 of Annexure-11 by either Technically/ Financially Evaluated Entity(ies) whose credentials have been used, or Ultimate Parent.</p> <p>Provided, if the Bidder himself is the Ultimate Parent, then Format 2 need not be provided.</p>	<p>Yes, by either Technically/ Financially Evaluated Entity(ies) Affiliate(s) whose credentials have been used, or Ultimate Parent.</p> <p>Provided, if the Bidder himself is the Ultimate Parent, then the undertaking need not be provided.</p>
Bidder himself + others (Affiliate and/or Parent)	None	a) Format 1 of Annexure-11 - Resolution: 1, 2,	None

Investor in the TSP	Entities (other than Bidder) whose credentials(financial and/or technical) used by the Bidder for meeting RFP criteria	Applicable Board Resolutions	Requirement of Undertaking (Annexure 10)
Company and/or Ultimate Parent) in aggregate holding 100% equity		3 and 4 from the Bidder. b) Format 1 of Annexure-11 - Resolution: 1 from the Affiliate and /or Parent and/or Ultimate Parent investing in the equity	
Bidder himself + others (Affiliate and/or Parent Company and/or Ultimate Parent) in Aggregate holding 100% equity	Affiliate and/or Parent Company and/or Ultimate Parent	a) Format 1 of Annexure-11 - Resolution: 1, 2, 3 and 4 from the Bidder. b) Format 1 of Annexure-11 - Resolution: 1 from the Affiliate and/or Parent and/or Ultimate Parent investing in the equity c) Format 2 of Annexure-11 by either Parent/ Affiliate(s) whose credentials have been used and/or Ultimate Parent investing in the equity	Yes, by either Parent/ Affiliate(s) whose credentials have been used, or Ultimate Parent

FORMAT FOR ILLUSTRATION OF AFFILIATES

Date: (should be as on 7 days prior to submission of Bid)



NOTE: Bidder to provide the illustration, as applicable in their case, duly certified by the Company Secretary and supported by documentary evidence in this regard.

Annexure-13

FORMAT FOR DISCLOSURE**[On the letter head of Bidding Company/ Each Member in a Bidding Consortium]
DISCLOSURE**

We hereby declare that the following companies with which we/ have direct or indirect relationship are also separately participating in this Bid process as per following details

S. No.	Name of the Company	Relationship
1.		
2.		
3.		

In case there is no such company please fill in the column “name of the company” as Nil.

Further we confirm that we don't have any Conflict of Interest with any other company participating in this bid process.

Certified as True

.....

(Signature)

Name:

Signature & Name of any whole-time Director/ Manager (supported by a specific Board Resolution)

The above disclosure should be signed and certified as true by the any whole-time Director/ Manager (supported by a specific Board Resolution) (refer Note below) of the Bidding Company or of the Member, in case of a Consortium).

Note:

1. In case of Manager, the Company should confirm through a copy of Board Resolution attested by Company Secretary that the concerned person is appointed as Manager as defined under the Companies Act, 1956/ Companies Act, 2013 (as the case may be) for the purpose in question.

The Company Secretary also certifies that the Company does not have any Managing Director.

Annexure-14

ANNEXURE 14 - FORMAT OF THE BID SECURITY DECLARATION

[On the Letter Head of the Bidding Company/Lead Member of Bidding Consortium]

Date:

To,

PFC Consulting Limited

9th Floor, A-Wing, Statesman House

Connaught Place, New Delhi-110001

Dear Sir,

Sub: Bidders' Declaration in lieu of Bid Bond in respect of Bid for selection of TSP to establish "Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System"

Being duly authorized to present and act on behalf of M/s (insert name of Bidding Company / Bidding Consortium) (hereinafter called the "Bidder") and having read and examined in detail the Request for Proposal (RFP) document, the undersigned hereby agree the following:

1. We,(insert name of Bidding Company / Bidding Consortium) are submitting the Bid for establishing the **"Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System"** on build, own, operate and maintain basis, in response to the RFP dated _____, 2020 issued by PFC Consulting Limited, as per the terms of the RFP.
2. We, (insert name of Bidding Company / Bidding Consortium) are submitting this Bid Security Declaration in lieu of the Bid Bond.
3. We, (insert name of Bidding Company / Bidding Consortium) have read the terms & conditions of RFP in particular regarding invocation/ forfeiting of the Bid Bond by the BPC under various circumstances.
4. We agree that, (insert name of Bidding Company / Bidding Consortium) shall be suspended from participation in the bidding process for future Inter-State transmission projects of Ministry of Power, GoI to be developed through tariff based competitive bidding route for a period of two (02) years from the bid submission date upon occurrence of a situation that otherwise would have led to revocation/forfeiture of Bid Bond as per provisions of RFP.

For and on behalf of Bidding Company/ Consortium

M/s

.....

(Signature of authorised signatory)

Name:

Designation:

Date:

Place:

Annexure-15

FORMAT FOR CONTRACT PERFORMANCE GUARANTEE

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution)
(Foreign entities submitting Bids are required to follow the applicable law in their country)
(To be provided separately in the name of each of the Long Term Transmission Customers,
in proportion to their Allocated Project Capacity as provided in Clause 2.12 of this document)

In consideration of the [Insert name of the Selected Bidder or Lead Member in case of the Consortium, with address] agreeing to undertake the obligations under the TSA dated and the other RFP Project Documents and PFC Consulting Limited, agreeing to execute the Share Purchase Agreement with the Selected Bidder, regarding setting up the Project, the.....[Insert name and address of the bank issuing the guarantee and address of the head office] (hereinafter referred to as "Guarantor Bank") hereby agrees unequivocally, irrevocably and unconditionally to pay to [Insert Name of the Long Term Transmission Customer] at.....Insert the Place from the address of the Long Term Transmission Customer indicated in the TSA] forthwith on demand in writing from [Name of the Long Term Transmission Customer] or any officer authorized by it in this behalf, any amount up to and not exceeding Rupees..... Crores (Rs) only [Insert the amount of the bank guarantee in respect of the Long Term Transmission Customer as per the terms of TSA separately to each Long Term Transmission Customer in the ratio of Allocated Project Capacities as on the date seven (7) days prior to the Bid Deadline] on behalf of M/s..... [Insert name of the Selected Bidder].

This guarantee shall be valid and binding on the Guarantor Bank up to and including and shall not be terminable by notice or any change in the constitution of the Bank or the term of the TSA or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.

Our liability under this Guarantee is restricted to Rupees Crores (Rs.....) only. Our Guarantee shall remain in force until..... [Insert the date of validity of the Guarantee as per Clause 2.12.1 of the RFP]. The Long Term Transmission Customer shall be entitled to invoke this Guarantee up to three hundred sixty five (365) days of the last date of the validity of this Guarantee.

The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand from the Long Term Transmission Customer, made in any format, raised at the above mentioned address of the Guarantor Bank, in order to make the said payment to the Long Term Transmission Customer.

The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by **SPV [which is under incorporation]**, [Insert name of the Selected Bidder] and/or any other person. The Guarantor Bank shall not require the Long Term Transmission Customer to justify the invocation of this BANK GUARANTEE,

nor shall the Guarantor Bank have any recourse against the Long Term Transmission Customer in respect of any payment made hereunder.

This BANK GUARANTEE shall be interpreted in accordance with the laws of India.

The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.

This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring, liquidation, winding up, dissolution or any other change in the constitution of the Guarantor Bank.

This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly the Long Term Transmission Customer shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against **SPV [which is under incorporation]** or the Selected Bidder, to make any claim against or any demand on **SPV [which is under incorporation]** or the Selected Bidder or to give any notice to **SPV [which is under incorporation]** or the Selected Bidder or to enforce any security held by the Long Term Transmission Customer or to exercise, levy or enforce any distress, diligence or other process against **SPV [which is under incorporation]** or the Selected Bidder.

The Guarantor Bank acknowledges that this BANK GUARANTEE is not personal to the Long Term Transmission Customer and may be assigned, in whole or in part, (whether absolutely or by way of security) by Long Term Transmission Customer to any entity to whom the Lead Long Term Transmission Customer is entitled to assign its rights and obligations under the TSA.

The Guarantor Bank hereby agrees and acknowledges that the Long Term Transmission Customer shall have a right to invoke this Bank Guarantee either in part or in full, as it may deem fit.

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to RupeesCrores (Rs) only and it shall remain in force until [Date to be inserted on the basis of Article 3.1.2 of TSA], with an additional claim period of three hundred sixty five (365) days thereafter. This BANK GUARANTEE shall be extended from time to time for such period, as may be desired by..... [Insert name of the Selected Bidder or Lead Member in case of the Consortium]. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if the Long Term Transmission Customer serves upon us a written claim or demand.

In witness where of:

Signature.....

Name:

Power of attorney No.:

For:

..... [Insert Name of the Bank]

Banker's Seal and Full Address, including mailing address of the Head Office

Notes:

1. The Stamp Paper should be in the name of the Executing Bank.

Annexure-16

FORMAT OF CHECKLIST FOR TECHNICAL BID SUBMISSION REQUIREMENTS

[This format needs to be duly filled in, signed by the Authorised Signatory of the Bidder (Bidding Company/ Lead Member in case of a Bidding Consortium) and submitted along with the Bidder's Technical Bid]

S. No.	Technical Bid Submission Requirements	Response (Yes/ No)
1.	Format for the Covering Letter on the letterhead of Bidding Company or Lead Member of the Consortium, as applicable;	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.	Format for Letter of Consent from each Consortium Member, including Lead Member, on their respective letterheads;	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.	Format for evidence of authorized signatory's authority (Power of Attorney to be submitted in original);	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.	Board resolution from the Bidding Company/ Lead Member of the Consortium in favor of the person executing the Power of Attorney as per Annexure-3 ;	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.	Power of Attorney from each Consortium Member in favour of Lead Member to be provided by each of the other Members of the Consortium (to be submitted in original) as per Annexure-4 ;	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	Board Resolution from each Member of the Consortium, other than the Lead Member, in favor of their respective authorized representatives for executing the POA, Consortium Agreement and signing of the requisite formats;	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	Format for Bidder's composition and ownership structure, along with status of equity holding (owning ten percent or more of the total paid up equity) not earlier than thirty (30) days prior to the Bid Deadline as per Annexure-5 ;	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.	Consortium Agreement duly signed as per Annexure-6 (to be submitted in original), along with Appendix-1, indicating the responsibilities and obligations of each Member of the Consortium;	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.	Format for Qualification Requirement:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	a. Calculation sheets, detailing computation of Networth considered for meeting Qualifying Requirements, duly signed and stamped by the Statutory Auditor of the Bidding Company/ each Member in case of a Bidding Consortium/ FEE in cases where credentials of FEE is taken;	<input type="checkbox"/> Yes <input type="checkbox"/> No

S. No.	Technical Bid Submission Requirements	Response (Yes/ No)
	b. Calculation sheets, detailing computation of capital expenditure of projects considered for meeting Qualification Requirements, duly signed and stamped by the Statutory Auditor of the Bidding Company/ Lead Member in case of Bidding Consortium/ TEE in cases where credentials of TEE is taken;	<input type="checkbox"/> Yes <input type="checkbox"/> No
	c. Last three (3) financial years' unconsolidated/ consolidated audited annual accounts/ statements, as the case may be, of the Financially Evaluated Entity/ Technical Evaluated Entity	<input type="checkbox"/> Yes <input type="checkbox"/> No
	d. Unconsolidated audited annual accounts of both the TEE and the Bidding Company/Lead member, as applicable, for the financial years in which financial closure was achieved and the financial year in which the said project was completed/ commissioned.	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.	Copy of the Memorandum and Articles of Association and certificate of incorporation or other organizational document (as applicable), including their amendments, certified by the Company Secretary of Bidding Company or each Member in case of a Consortium including Lead Member.	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.	Attachment of Annexure-7D , detailing projects completed/ commissioned and for which commercial operation has commenced including Executive Summary for each project.	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.	For each project listed in the attachment above, certified true copy of the certificates of final acceptance and/ or certificates of good operating performance duly issued by owners or clients for the project, duly signed by any whole time Director/Manager (supported by a specific Board resolution) in support of technical capability as defined in Clause 2.1.2 of RFP.	<input type="checkbox"/> Yes <input type="checkbox"/> No
13.	Authorization from Parent/ Affiliate of Bidding Company/ Member of Bidding Consortium whose technical/ financial capability has been used by the Bidding Company/ Member of Bidding Consortium.	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.	Undertaking from Technically Evaluated/ Financially Evaluated Entity (ies) or from Ultimate Parent for Equity Investment	<input type="checkbox"/> Yes <input type="checkbox"/> No
15.	Initialling of all pages of Technical Bid by the Authorized Signatory in whose favour the POA (Annexure-3) has been	<input type="checkbox"/> Yes <input type="checkbox"/> No

S. No.	Technical Bid Submission Requirements	Response (Yes/ No)
	executed.	
16.	Format for Illustration of Affiliates as on seven (7) days prior to the Bid Deadline, duly certified by Company Secretary and supported by documentary evidence.	<input type="checkbox"/> Yes <input type="checkbox"/> No
17.	Certified copy of the Register of Members/ Demat Account Statement, Share Certificate, Annual Return filed with ROC etc. submitted as documentary evidence along with Annexure-12 .	<input type="checkbox"/> Yes <input type="checkbox"/> No
18.	Format for Disclosure by Bidding Company/ each Member of the Consortium.	<input type="checkbox"/> Yes <input type="checkbox"/> No
19.	Format for Authorisation submitted in Non-Judicial stamp paper duly notarized as per Annexure-5 from the Bidding Company/ each Member of the Consortium authorizing the BPC to seek reference from their respective bankers & others.	<input type="checkbox"/> Yes <input type="checkbox"/> No
20.	Bidders Undertaking and details of Equity Investment	<input type="checkbox"/> Yes <input type="checkbox"/> No
21.	Proof of Payment of RFP Fees	<input type="checkbox"/> Yes <input type="checkbox"/> No
22.	Bid Security Declaration in lieu of Bid Bond as per Annexure-14	<input type="checkbox"/> Yes <input type="checkbox"/> No
23.	Board Resolution as per Annexure-11 (If required)	<input type="checkbox"/> Yes <input type="checkbox"/> No

[**Note:** The checklist is not exhaustive. Bidders are required to submit all the information/documents as per requirement of RFP]

For and on behalf of Bidder

M/s.

.....

(Signature of authorised signatory)

LIST OF BANKS**1. Scheduled Commercial Banks****Nationalised Banks**

1. State Bank of India
2. Allahabad Bank
3. Andhra Bank
4. Bank of India
5. Bank of Maharashtra
6. Bank of Baroda
7. Canara Bank
8. Central Bank of India
9. Corporation Bank
10. Dena Bank
11. Indian Bank
12. Indian Overseas Bank
13. Oriental Bank of Commerce
14. Punjab National Bank
15. Punjab and Sind Bank
16. Syndicate Bank
17. Union Bank of India
18. United Bank of India
19. UCO Bank
20. Vijaya Bank

2. Foreign Banks

1. Banks of America NA
2. Bank of Tokyo Mitsubishi Ltd.
3. BNP Paribas
4. Calyon Bank
5. Citi Bank N.A.
6. Deutsche Bank A.G.
7. The Hongkong and Shanghai Banking Corporation Ltd.
8. Standard Chartered Bank
9. Sumitomo Mitsui Banking Corporation
10. Societe Generale
11. Barclays Bank
12. ABN Amro Bank N.V.
13. Bank of Novascotia

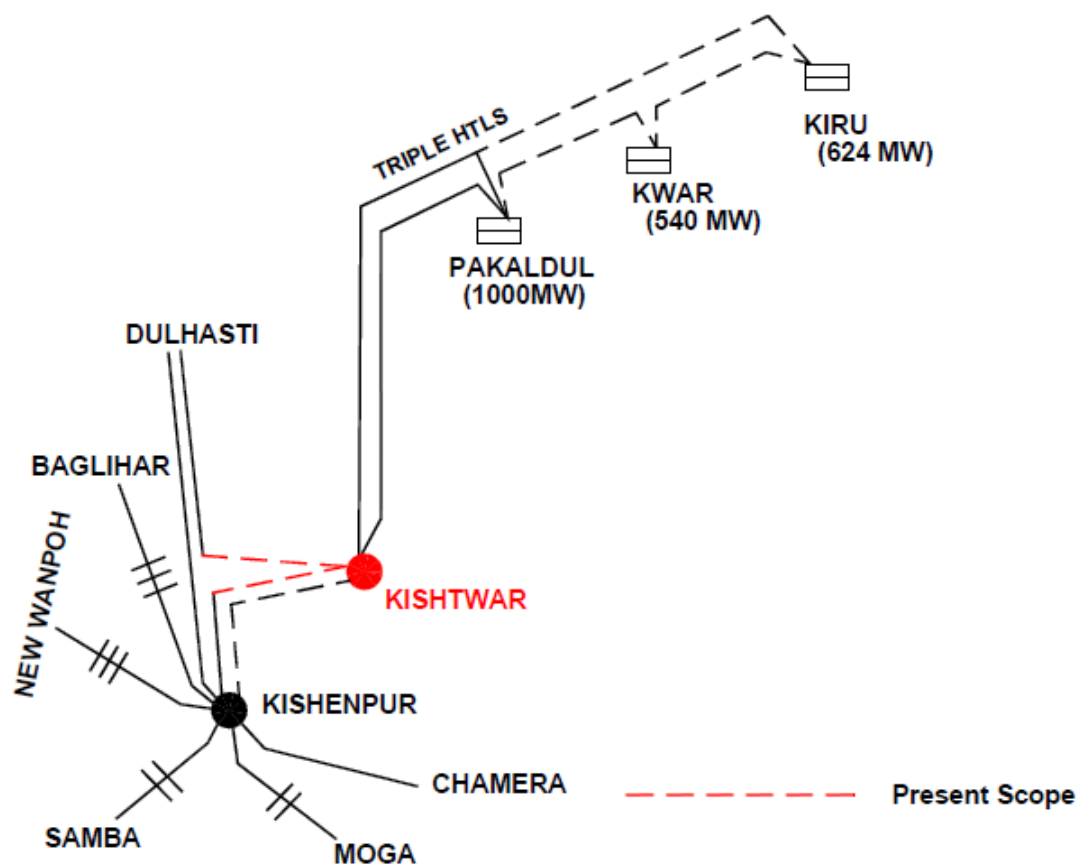
14. Mizuho Bank Ltd.
15. DBS Bank Ltd.

3. Scheduled Private Banks

1. ING Vysya Bank Ltd.
2. ICICI Bank Ltd.
3. HDFC Bank Ltd.
4. IDBI Bank Ltd
5. Axis Bank
6. Kotak Mahindra Bank
7. IndusInd Bank
8. IDFC Bank

GRID MAP OF THE PROJECT

Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEP - Connectivity System



Annexure-19

LIST OF LONG TERM TRANSMISSION CUSTOMERS

S. No.	Name of the Long Term Transmission Customer	Address of Registered Office	Law under which incorporated	Allocated Project Capacity (in MW)*
1.	Chenab Valley Power Projects [P] Limited	Chenab Jal Shakti Bhawan, Opposite Saraswati Dham, Rail Head Complex, Jammu – 180012, J&K (UT)	The Companies Act, 1956	1000

* While the bidding is being done on the basis of existing Standard Bidding Documents (SBDs), and the list of LTTC is being provided as per the format of the existing SBDs. It is clarified that the transmission charges will be shared and recovered as per the applicable CERC regulation.

Note: The above list of Long Term Transmission Customers subject to change. Any addition or deletion in this list after the award of Lol shall be duly notified to the parties to the TSA.

The new Long Term Transmission Customers shall become a party to the TSA after agreeing to the terms and conditions of the TSA and signing a Supplemental Agreement as annexed in Schedule 12 to the TSA.

Annexure-20

FORMAT FOR CLARIFICATIONS/ AMENDMENTS ON THE RFP/ RFP PROJECT DOCUMENTS

S. No.	Name of the Document	Clause No. and Existing provision	Clarification required	Suggested text for the amendment	Rationale for the Clarification or Amendment

Signature

Name.....

For

Bidder's Rubber Stamp and Full Address:

(Note: This format shall be used for submission of requests for clarifications/ amendments on the draft RFP Project Documents as per the provisions of Clause2.3.1)

Annexure-21**FORMATS FOR RFP PROJECT DOCUMENTS**

ENCLOSURE 1: - DRAFT TRANSMISSION SERVICE AGREEMENT (Provided separately)

ENCLOSURE 2: - SHARE PURCHASE AGREEMENT (Provided separately)

FORMAT FOR FINANCIAL BID

Quoted Transmission Charges

Year (Term of License)	Commencement Date of Contract Year	End Date of Contract Year	Quoted Non-Escalable Transmission Charges (in Rupees Millions)	Quoted Escalable Transmission Charges (in Rupees Millions)
(1)	(2)	(3)	(4)	(5)
1	Scheduled COD Feb'2024 (Refer note 7 and 9)	31-March		
2	1-April	31-March		
3	1-April	31-March		
4	1-April	31-March		
5	1-April	31-March		
6	1-April	31-March		
7	1-April	31-March		
8	1-April	31-March		
9	1-April	31-March		
10	1-April	31-March		
11	1-April	31-March		
12	1-April	31-March		
13	1-April	31-March		
14	1-April	31-March		
15	1-April	31-March		
16	1-April	31-March		
17	1-April	31-March		
18	1-April	31-March		
19	1-April	31-March		
20	1-April	31-March		
21	1-April	31-March		
22	1-April	31-March		
23	1-April	31-March		
24	1-April	31-March		
25	1-April	31-March		
26	1-April	31-March		
27	1-April	31-March		
28	1-April	31-March		
29	1-April	31-March		
30	1-April	31-March		

31	1-April	31-March		
32	1-April	31-March		
33	1-April	31-March		
34	1-April	31-March		
35	1-April	31-March		
36	1-April	35 th anniversary of the Scheduled COD (Refer note 8 and 9)		

Notes:

1. The Bidders are required to ensure compliance with the provisions of Clause 2.5.3 of this RFP.
2. Quotes to be in Rupees Millions and shall be up to two (2) decimal points.
3. The contents of this format shall be clearly typed.
4. All pages of this format shall be signed by the authorized signatory in whose name power of attorney as per Clause 2.5.2 is issued.
5. Ensure 36 values of the Quoted Non-Escalable Transmission Charges and only 1 value for Quoted Escalable Transmission Charges, unless firm Transmission Charges are quoted.
6. In the likely situation of Bidders quoting firm Transmission Charges, the single value for the Quoted Escalable Transmission Charges should be filled as Nil.
7. Charges quoted for the first Contract Year would be the charges applicable for the period from the immediately preceding 1 April from the Scheduled COD till the immediately succeeding 31 March.
8. Charges quoted for the last Contract Year would be the charges applicable from immediately preceding 1 April to the date of thirty-fifth anniversary of the Scheduled COD till the immediately succeeding 31 March.
9. However, in cases of both (7) and (8) above, total Transmission Charges payable to the TSP will be computed proportionately for the total number of days in the first and the last Contract Year respectively.

Name and signature of authorized signatory in whose name power of attorney / Board resolution as per Clause 2.5.2 is issued.

Signature of authorized signatory

Name:

Designation:

Date:

Company rubber stamp

Annexure-23**ILLUSTRATION OF THE BID EVALUATION/COMPUTATION OF LEVELIZED TRANSMISSION
CHARGES**

PROVIDED AS EXCEL FILE SEPARATELY

ANNEXURE-A

Technical Details with respect to electronic bidding

Registration Methodology

In order to submit online bids in the e-bidding process for selection of Transmission Service Provider, interested Bidders are required to register themselves with the e-procurement website of MSTC Limited namely www.mstcecommerce.com/eprochome/tsp/index.jsp. To register with the website, the Bidder is required to fill up the online form available under the link Register as Vendor in the above website and fill up the same and click on Submit.

During this process, the Bidder shall create his user id and password and keep note of the same. The Bidder shall ensure that the secrecy of his user id and password is maintained at all time and he/she shall alone be responsible for any misuse of the user id and password.

The Bidder may check the details entered by it before final submission. On successful submission of the online registration Form, the Bidder shall receive a confirmation mail in the registered email address advising the Bidder to submit the following documents.

- i. Self attested Income Tax PAN Card. In case of a registered Company or Firm, the Firm's PAN card and in case of a proprietorship firm, proprietor's personal PAN card is required. In case of partnership firm, PAN of the firm and that of the authorized partner are to be submitted.
- ii. Copy of the confirmation email Letter received from MSTC after successful completion of on-line registration.
- iii. A non-refundable registration fee of Rs.10,000/- plus GST as per applicable rate to be paid online. The account details will be available in the System generated email sent by MSTC post registration.

Please provide details of payment made like UTR No, remitting bank name, date of payment and amount in the covering letter.

The Bidder shall have to submit all the above documents to MSTC Limited for verification and activation of their login ids. The Bidders should send scanned copies of the above documents to the designated email id only which is given below.

tsp@mstcindia.co.in

It may be noted that Bidders need not visit any of the offices of MSTC Limited for submission of the documents.

Contact persons of MSTC Limited:

Mr. Chirag Sindhu

9830336290

Mr. Setu Dutt Sharma

7878055855

Once the complete set of documents and requisite registration fee are received from a Bidder, MSTC shall activate the Bidder's login after verification / scrutiny of the documents. MSTC Limited reserves the right to call for additional documents from the Bidder if needed and the Bidder shall be obliged to submit the same.

On completion of the above stated registration process, a Bidder shall be able to login to MSTC's website.

ANNEXURE-B**Technical Specifications of Transmission System****SPECIFIC TECHNICAL REQUIREMENTS FOR TRANSMISSION LINE**

1. The design, routing and construction of transmission lines shall be in accordance with Chapter V, Part A of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2010, as amended from time to time.
2. Selection of tower type shall be made as per CEA Regulations, however in case lattice type towers are used, the following shall also be applicable:
 - 2.1 Steel section of grade E 250 and/or grade E 350 as per IS 2062, only are permitted for use in towers, extensions, gantry structures and stub setting templates. For towers in snowbound areas, steel sections shall conform to Grade-C of IS-2062.
 - 2.2 Towers shall be designed as per IS-802:2015, however the drag coefficient of the tower shall be as follows:

Solidity Ratio	Drag Coefficient
Up to 0.05	3.6
0.1	3.4
0.2	2.9
0.3	2.5
0.4	2.2
0.5 and above	2.0

3. Transmission Service Provider (TSP) shall adopt any additional loading/design criteria for ensuring reliability of the line, if so desired and /or deemed necessary.
4. Transmission line shall be designed considering wind zones as specified in wind map given in National Building Code 2016, Vol.1. The developer shall also make his own assessment of local wind conditions and frequent occurrences of high intensity winds (HIW) due to thunderstorms, dust-storms, downburst etc. along the line route and wherever required, higher wind zone than that given in wind map shall be considered for tower design for ensuring reliability of line.
5. The Transmission Line may encounter snowbound areas and may also pass through elevations of above 1000 m above mean sea level (MSL). Necessary correction factor for live metal clearance shall be considered as per clause no. 13.3.1 of IS-5613(Part-2/Sec-1).
6. For line in snowbound area, suitable ice loading on conductor & earth wire shall be considered.
7. Triple and quadruple circuit towers and towers with more than two sub-conductors per phase up to 400 kV shall be designed for reliability level 2.

8.

- A. For power line crossing of 400 kV or above voltage level, large angle & dead end towers (i.e. D/DD/QD) shall be used on either side of power line crossing.
- B. For power line crossing of 132 kV and 220 kV voltage level, angle towers (B/C/D/DB/DC/DD/ QB/QC/QD) shall be used on either side of power line crossing depending upon the merit of the prevailing site condition and line deviation requirement.
- C. For power line crossing of 66 kV and below voltage level, suspension/tension towers shall be provided on either side of power line crossing depending upon the merit of the prevailing site condition and line deviation requirement.
- D. For crossing of railways, national highways and state highways, transmission line with large angle & dead end towers (i.e. D/DD/QD) shall be used on either side of crossing.

9. The relevant conductor configuration shall be as follows:-

Transmission line	ACSR Conductor specified	Equivalent AAAC conductor based on 53.5% conductivity of Al Alloy	Equivalent AL59 conductor based on 59% conductivity of AL Alloy	Sub-conductor Spacing
400kV D/C (Quad Moose) transmission lines	Moose : Stranding 54/3.53mm-Al + 7/3.53 mm- Steel, 31.77 mm diameter 528.5 sq mm, Aluminium area, Maximum DC Resistance at 20°C (Ω/km):0.05552 Minimum UTS : 161.20 kN	Stranding details: 61/3.55mm 31.95mm diameter; 604 sq. mm Aluminium alloy area Maximum DC Resistance at 20°C (Ω/km) : 0.05506 Minimum UTS : 159.80 kN	Stranding details: 61/3.52 mm 31.7 mm diameter; 593 sq. mm Aluminium alloy area Maximum DC Resistance at 20°C (Ω/km) : 0.0501 Minimum UTS : 135.40 kN	457 mm

Note: The transmission lines shall have to be designed for a maximum operating conductor temperature of 85 deg C for ACSR as well as AAAC and AL59.

10. The required phase to phase spacing and horizontal spacing for 400kV line shall be governed by the tower design as well as minimum live metal clearances for 400kV voltage level under different insulator swing angles. However, the phase to phase spacing for 400kV lines shall not be less than 8m.

11. All electrical clearances including minimum live metal clearance, ground clearance and minimum mid span separation between earth wire and conductor shall be as per Central Electricity Authority (Measures Relating to Safety & Electric Supply) Regulations as amended from time to time and IS:5613.

a) Minimum live metal clearances for 400 kV line: (Elevations up to 1000 m above MSL).

(i) Under stationary conditions

From tower body: 3.05m

(ii) Under swing conditions

Wind pressure Condition	Minimum electrical clearance
a) Swing angle (22°)	3.05 mtrs
b) Swing angle (44°)	1.86 mtrs

- b) Minimum ground clearance: 8.84 m
- c) Minimum mid span separation between earthwire and conductor: 9.0 m
12. Shielding angle shall not exceed 20deg for 400kV D/C Line transmission line.
13. The Fault current for design of line shall be 63kA for 1 sec for 400kV.
14. Two no. earth wires shall be used by TSP if OPGW requirement is not mentioned in communication section. Earth wire shall be either of galvanized standard steel (GSS) or AACSR or any other suitable conductor type depending upon span length and other technical consideration.
15. Each tower shall be earthed such that tower footing impedance does not exceed 10 ohms. Pipe type or Counterpoise type earthing shall be provided in accordance with relevant IS. Additional earthing shall be provided on every 7 to 8 kms distance at tension tower for direct earthing of both shield wires. If site condition demands, multiple earthing or use of earthing enhancement compound shall be used.
16. Pile type foundation shall be used for towers located in river or creek bed or on bank of river having scourable strata or in areas where river flow or change in river course is anticipated, based on detailed soil investigation and previous years' maximum flood discharge of the river, maximum velocity of water, highest flood level, scour depth & anticipated change in course of river based on river morphology data of at least past 20 years to ensure availability and reliability of the transmission line.
17. Transmission line route shall be finalized, in consultation with appropriate authorities so as to avoid the habitant zones of endangered species and other protected species. Bird diverters, wherever required, shall be provided on the line.

SPECIFIC TECHNICAL REQUIREMENTS FOR SUBSTATION

The proposed new 400kV switching station at Kishtwar substation shall be **Gas Insulated Switchgear (GIS) type** generally conforming to the requirements of CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2010, as amended from time to time.

The technical parameters indicated in this document are applicable for installations up to an altitude of 1000m above mean sea level. For altitude exceeding 1000m, necessary altitude correction factor as per relevant standard shall be considered by the TSP.

1.0 Salient features of Substation Equipment and Facilities

The design and specification of substation equipment are to be governed by the following factors:

1.1 Insulation Coordination

The system design parameters for substations/switchyards shall be as given below:

S. No.	Description of parameters	400kV Kishtwar (GIS) s/s
1.	System operating voltage	400kV
2.	Maximum voltage of the system (rms)	420kV
3.	Rated frequency	50Hz
4.	No. of phase	3
5.	Rated Insulation levels	
i)	Impulse withstand voltage for (1.2/50 micro sec.) - Transformer and Reactors - for Other Equipment - for Insulator String	1300kVp 1425kVp 1550kVp
ii)	Switching impulse withstand voltage (250/2500 micro sec.) dry and wet	1050kVp
iii)	One minute power frequency dry withstand voltage (rms)	630kV
iv)	One minute power frequency dry and wet withstand voltage (rms)	-
6.	Corona extinction voltage	320kV
7.	Max. radio interference voltage for frequency between 0.5 MHz and 2 MHz	1000 micro-volts at 266kV rms
8.	Minimum creepage distance for insulator string/ longrod insulators/ outdoor bushings	13020 mm (31mm/kV)
9.	Minimum creepage distance for switchyard equipment	10500mm (25mm/kV)
10.	Max. fault current	50kA
11.	Duration of fault	1 Sec

1.2 Switching Scheme

The switching schemes, as mentioned below, shall be adopted at various voltage levels of substation/switchyard:

Substation	400kV side
400kV Kishtwar (GIS) S/s	One & half breaker (GIS)

Notes:

- i) Each circuit of 400kV double circuit transmission line shall be terminated in different diameters.
- ii) In case of GIS substation where the bus scheme is One & Half breaker scheme, the diameters (diameter is a set of 3 circuit breakers with associated isolators, earth switches, current transformers etc. for controlling of 2 numbers feeders) shall be complete with feeder/line side isolator to be used for any future line with switchable line reactor bay and GIS duct of the future bay shall be brought outside the GIS hall/building with extension/interface module suitably.

2.0 Substation Equipment and facilities:

The switchgear shall be designed and specified to withstand operating conditions and duty requirements. All equipment shall be designed considering the transmission line capacity.

S. No	Description of bay	400kV Kishtwar (GIS) S/s
		400kV
1.	Bus Bar	5000A
2.	Line bay	3150A
4.	Bus Reactor bay	3150A

2.1 Shunt Reactors

2.1.1 420kV, 3-Phase, Shunt Reactor

Reactor shall conform to IEC 60076-6 in general. The reactor shall be designed to withstand the over-voltages repeatedly without risk of failure at 1.05 Ur continuously, 1.25 Ur for 1 minute and 1.50 Ur for 5 seconds (where Ur is 420kV). The reactors shall be designed for switching surge overvoltage of 2.5 p.u. and temporary overvoltage of 2.3 p.u. for few cycles followed by power frequency overvoltage up to 1.5 p.u. The reactor must withstand the stress due to above transient dynamic conditions which may cause additional current flow as a result of changed saturation characteristics/slope beyond 1.5 p.u. voltage.

The reactor shall be of gapped core type construction. The impedance ratio (X_0/X_1) specified shall be achieved by adopting either single phase construction in separate tanks or three phase with 3 limb or 5 limb core construction. Core shall be constructed from

non-ageing, cold rolled grain oriented silicon steel laminations with requisite BIS certification.

Shunt Reactors shall be capable of operating continuously at a voltage 5% higher than their rated voltage without exceeding winding and tank hot spot temperature 140 Deg and 110 Deg Celsius respectively, considering maximum ambient temperature as 50 Deg C.

The reactor shall be complete with all required accessories, Bushing CTs, marshalling box etc as required for satisfactory operations of reactor. HV and Neutral bushings shall be RIP (resin impregnated paper condenser) with composite insulator type.

The Technical Particulars / Parameters of 3-phase, 125 MVAR, 420 kV Shunt Reactor are given below:

S. No.	Description	Unit	Technical Parameters
1.	Rated Capacity at 420kV	MVAR	125
2.	Rated Voltage (Ur) (1.0 pu)	kV	420
3.	Number of phases		3 (three)
4.	Connection		star
5.	Cooling type		ONAN
6.	Frequency	Hz	50
7.	Reference standard		IEC 60076-6
8.	Service		Outdoor
9.	Permissible unbalance current among phases	%	±2%
10.	Crest value of third harmonic content in phase current at rated voltage with sinusoidal wave form	%	≤ 3% of the crest value of fundamental
11.	Range of constant impedance		Up to 1.5 p.u voltage (However, complete saturation characteristics of the Reactors up to 2.5 p.u. Voltage shall be furnished)
12.	Tolerance on current	%	0 to +5%
13.	Ratio of zero sequence reactance to positive reactance (X0/X1)		Between 0.9 & 1.0
14.	Temperature rise over 50 °C Ambient Temp. at 420 kV		
i)	Top oil measured by thermometer	°C	40
ii)	Average winding measured by	°C	45

S. No.	Description	Unit	Technical Parameters
	resistance method		
15.	Winding hot spot temperature rise over yearly weighted average temperature of 32 °C	°C	61
16.	Max. tank surface temperature	°C	110
17.	Max design ambient temperature	°C	50
18.	Windings		
a)	Lightning Impulse withstand Voltage		
i)	Line end	kVp	1300
ii)	Neutral	kVp	550
b)	Chopped Wave Lightning Impulse Withstand Voltage		
i)	Line end	kVp	1430
c)	Switching Impulse withstand Voltage at Line end	kVp	1050
d)	One Minute Power Frequency withstand Voltage		
i)	Neutral	kVrms	230
19.	Tan-delta of windings		< 0.005
20.	Neutral earthing		Solidly Earthed
21.	Whether neutral brought out		Yes (through 145kV class bushing)
22.	Bushing		
a)	Rated voltage		
i)	Line bushing	kV	420
ii)	Neutral bushing	kV	145
b)	Rated current		
i)	Line bushing	A	800
ii)	Neutral bushing	A	800
c)	Lightning Impulse withstand Voltage		
i)	Line bushing	kVp	1425
ii)	Neutral bushing	kVp	650
d)	Switching Impulse withstand Voltage of Line bushing	kVp	1050
e)	1minute power frequency withstand of bushings (dry)		
i)	Line bushing	kV rms	695

S. No.	Description	Unit	Technical Parameters
ii)	Neutral bushing	kV rms	305
f)	Minimum creepage distance		
i)	Line bushing	mm	13020
ii)	Neutral bushing	mm	7595
g)	Partial discharge of bushings at U_r (line end and neutral)	pC	< 10
23.	Maximum partial discharge level at $1.58U_r/\sqrt{3}$	pC	100
24.	Vibration and tank stress at rated voltage		Max ≤ 200 microns peak to peak Average ≤ 60 microns peak to peak Tank stress: ≤ 2.0 kg/sq.mm at any point of tank
25.	Maximum noise pressure level at rated voltage & frequency	dB	80
26.	Maximum Permissible Losses of Reactor at rated current and frequency and at 75°C		
a)	Total loss	kW	160
b)	I^2R Loss	kW	90
27.	Insulating oil		Unused inhibited or uninhibited transformer oil conforming to IEC- 60296:2012

2.2 400kV GIS Substation equipment

GIS (Gas Insulated Switchgear) shall be Indoor type in accordance to IEC: 62271-203. The switchgear shall be designed and specified to withstand operating conditions and duty requirements. All the switchgear such as Circuit Breaker, isolator, earth switch including CT, PT etc. shall be GIS type. The Surge Arrestor and Voltage Transformer shall be either GIS or outdoor AIS type.

The GIS assembly shall consist of separate modular compartments e.g. Circuit Breaker compartment, Bus bar compartment filled with SF_6 Gas and separated by gas tight partitions so as to minimize risk to human life, allow ease of maintenance and limit the effects of gas leaks failures & internal arcs etc. These compartments shall be designed to minimize the risk of damage to adjacent sections and protection of personnel in the event of a failure occurring within the compartments. Rupture diaphragms with suitable deflectors shall be provided to prevent uncontrolled bursting pressures developing within the enclosures under worst operating conditions, thus providing controlled pressure relief in the affected compartment. The arrangement of gas sections or compartments shall be

such as to facilitate future extension of any make without any drilling, cutting or welding on the existing equipment. To add equipment, it shall not be necessary to move or dislocate the existing switchgear bays. The layout of Gas Insulated Bus Ducts shall be properly planned to optimize the length of bus ducts and for easy accessibility for maintenance. The length of bus bars, bus ducts, isolator sections shall be optimized considering effects of fast transient voltage due to isolator operations.

The bus bar modules including auxiliary bus modules (wherever applicable) shall be provided with suitable End Piece (Interface) module with the test link facility for future extension as per provisions of future requirement. The end piece module shall be designed in such a way so that future GIS module may be tested without extending test voltage to existing bus and vice-versa by removing the test link.

TSP shall make available the complete details for the design of interface module such as cross section, enclosure material, enclosure dimensions (inner & outer), Flange diameter (inner & outer), conductor cross-section & connection arrangement, bolt spacing & dimension, rated gas pressure, Gasket detail etc. Further, adequate space for GIS bus bar interface module shall be taken into account for future scope.

Each section shall have plug-in or easily removable connection pieces to allow for easy replacement of any component with the minimum disturbance to the remainder of the equipment. Inspection windows (View Ports) shall be provided for Disconnect Switches and both type of earth switches i.e. Maintenance and fast operating.

Local control cabinets (LCC) shall be provided as per requirement. The alarm & annunciation of GIS equipment shall be wired to SCADA System.

The material and thickness of the enclosures shall be such as to withstand an internal flash over without burns through for a period of 300 ms at rated short time withstand current. The material shall be such that it has no effect of environment as well as from the by-products of SF₆ breakdown under arcing condition. This shall be validated with Type Test.

Service continuity requirement for GIS:

The GIS equipment with the given bus switching arrangement shall be divided into different gas compartments. During the work such as a fault repair or major maintenance, requiring the dismantling of a gas compartment for which more than one compartments may need to be de-gassed.

TSP shall meet following Service continuity conditions (to the extent possible) with ensuring equipment and operating personnel's safety:

- For One & half breaker bus switching scheme, during a fault in Circuit Breaker compartment, no bus bar and feeder is permitted out of service during maintenance and repair/replacement.

- During a fault in GIS compartment other than Circuit Breaker compartment, maximum one bus bar and/or one feeder is permitted out of service during maintenance and repair/replacement.

UHF sensors in GIS for PD (Partial Discharge) detection:

Adequate number of UHF sensors shall be provided in the offered GIS along with suitable portable type PD measuring instrument for detection of Partial discharge (of 5 pC and above as per IEC 60270). The number and location of these sensors shall be based on laboratory test on typical design of GIS as per recommendations of CIGRE Document No. 654 (Application Guide for sensitivity verification for UHF Partial discharge detection system for GIS).

2.2.1 Circuit Breakers (GIS)

GIS Circuit breakers shall in general be of C2-M2 class and comply with IEC-62271-100. The rated break time shall not exceed 40 ms for 400kV. Circuit breakers shall be provided with single phase and three phase auto reclosing. The Circuit breakers controlling 400kV lines wherever required shall be provided with pre insertion closing resistor of about 400 ohms with 8 ms insertion time or Controlled Switching Device (CSD) for lines longer than 200 km. The short line fault capacity shall be same as the rated capacity and this is proposed to be achieved without use of opening resistors. Control switching device shall be provided in Circuit Breaker of switchable line reactor bay and in Main & Tie bay circuit breakers of line with non-switchable line reactors, Bus reactors.

2.2.2 Isolators (GIS)

The isolators shall comply with IEC 62271-102 in general. Isolators shall be motor (DC powered) operated. Earth switches are provided at various locations to facilitate maintenance. Main blades and earth blades shall be interlocked and interlock shall be fail safe type. All isolators and earth switches shall be motor operated type.

Isolator shall be of extended mechanical endurance class-M2 and suitable for Bus Transfer Current Switching duty as per IEC standard. High speed earthing switches shall be provided for grounding purpose at overhead line terminations & cable terminations & cable terminations and shall have fault making capability as specified. Earth switch for line isolator shall be of earthing switch class E1 and shall be suitable for induced current switching duty as defined for Class-B as per relevant standard.

2.2.3 Current Transformers (GIS)

Current Transformers shall comply with IEC 61869 in general. All ratios shall be obtained by secondary taps only. Generally, Current Transformers (CT) shall have five cores (four for protection and one for metering) whereas; CT in Tie bays shall have six cores (four for protections & two for metering) suitably distributed on both sides of CB (for 400kV and

above voltage class). The burden and knee point voltage shall be in accordance with the requirements of the system including possible feeds for telemetry. Accuracy class for protection core shall be PX and for metering core it shall be 0.2S. The rated burden of cores shall be closer to the maximum burden requirement of metering & protection system (not more than 20VA for metering core) for better sensitivity and accuracy.

The instrument security factor shall be less than 5 for CTs up to 400 kV voltage class.

2.2.4 Voltage Transformer (GIS)

The voltage transformers shall conform to IEC-61869. Voltage transformers shall be of electromagnetic type with SF₆ gas insulation. The earth end of the high voltage winding and the ends of the secondary winding shall be brought out in the terminal box. The voltage transformers shall be located as a separate bay module and will be connected phase to ground and shall be used for protection, metering and synchronization. The voltage transformers shall be of inductive type, nonresistant and shall be contained in their own-SF₆ compartment, separated from other parts of installation. The voltage transformer shall be effectively shielded against high frequency electromagnetic transients. The voltage transformer shall have three secondary windings. The voltage transformer should be thermally and dielectrically safe when the secondary terminals are loaded with the guaranteed thermal burdens. The accuracy class for protection cores shall be 3P. The accuracy of 0.2 on metering core should be maintained throughout the entire burden range on all the three windings without any adjustments during operation. The rated burden of cores shall be closer to the maximum burden requirement of metering & protection system (not more than 50VA for metering core) for better sensitivity and accuracy.

2.2.5 SF₆ to Air Bushing

Outdoor bushings, for the connection of conventional external conductors to the SF₆ metal enclosed switchgear, shall be provided. Bushings shall generally be in accordance with the requirements of IEC -60137. The creepage distance over the external surface of outdoor bushings shall not be less than 31 mm/kV. SF₆ to air Bushing shall be of Polymer / composite type and shall be robust and designed for adequate cantilever strength to meet the requirement of seismic condition. The electrical and mechanical characteristics of bushings shall be in accordance with IEC 60137. Polymer / composite insulator shall be seamless sheath of silicon rubber compound. The housing & weather sheds should have silicon content of minimum 30% by weight. It should protect the bushing against environmental influences, external pollution and humidity. The hollow silicon composite insulators shall comply with the requirements of IEC 61462 and the relevant parts of IEC 62217.

2.3 400kVAIS Substation equipment

2.3.1 Capacitor Voltage Transformers (AIS)

Capacitive Voltage transformers shall comply with IEC 61869 in general. These shall have three secondaries out of which two shall be used for protection and one for metering. Accuracy class for protection cores shall be 3P and for metering core it shall be 0.2. The Capacitive voltage transformers on lines shall be suitable for Carrier Coupling. The Capacitance of CVT for 400kV shall be of 4400/8800 pF depending on PLCC requirements. The rated burden of cores shall be closer to the maximum burden requirement of metering & protection system (not more than 50VA for metering core) for better sensitivity and accuracy.

2.3.2 Surge Arresters (AIS)

336kV Station class, heavy duty gapless type Surge arresters conforming to IEC 60099-4 in general shall be provided for 420kV systems respectively. Other characteristics of Surge arrester shall be chosen in accordance with system requirements. Surge arresters shall be provided near line entrances, transformers & Reactor so as to achieve proper insulation coordination. Surge Arresters shall be provided with porcelain/ polymer housing fitted with pressure relief devices. A leakage current monitor with surge counter shall be provided with each surge arrester.

2.4 Protection Relaying & Control System

The protective relaying system proposed to be provided for transmission lines, auto-transformers, reactors and bus bars to minimize the damage to the equipment in the events of faults and abnormal conditions, is dealt in this section. All main protective relays shall be numerical type with IEC 61850 communication interface. All numerical relays shall have built in disturbance recording feature.

The protection circuits and relays of transformer and reactor shall be electrically and physically segregated into two groups each being independent and capable of providing uninterrupted protection even in the event of one of the protection groups failing, to obtain redundancy, and to take protection systems out for maintenance while the equipment remains in service.

a) Transmission Lines Protection

400kV lines shall have Main-I numerical three zone distance protection scheme with carrier aided inter-tripping feature. 400kV lines shall also have Main-II numerical distance protection scheme like Main-I but from different make that of Main-I. The Main-I and Main-II protection relays of same make may be provided only if they are of different hardware & manufacturing platform or different principle of operation.

However, Line Current Differential relay (with back up distance protection feature) as Main-I and Main-II shall be considered at both ends for short lines (line length below 30kM) having Fibre Optic communication link. Differential relay at remote end shall be provided by the TSP. Associated power & control cabling and integration with SAS at remote end shall be provided by respective bay owner.

In case of loop in loop out of transmission lines, the existing protection scheme shall be studied and suitable up-gradation (if required) shall be carried out.

Further, all 400kV lines shall be provided with single and three phase auto-reclosing facility to allow reclosing of circuit breakers in case of transient faults. These lines shall also be provided with distance to fault locators to identify the location of fault on transmission lines.

All 400kV lines shall also be provided with two stages over voltage protection. Over voltage protection & distance to fault locator may be provided as in-built feature of Main-I & Main-II protection relays. Auto reclose as built in function of Bay Control Unit (BCU) is also acceptable.

The Main-I and Main-II protection relays shall be fed from separate DC sources and shall be mounted in separate panels.

For 400kV transmission lines, directional IDMT earth fault relay should be provided as standalone unit or in-built feature of Main-I and Main -II feature.

b) 400kV Reactor Protection

Reactor shall be provided with the following protections:

- i) Numerical Differential protection.
- ii) Numerical Restricted earth fault protection
- iii) Numerical Back-up impedance protection

Besides these, reactors shall also be provided with Buchholz relay, MOG with low oil level alarm, protection against oil and winding temperatures & pressure relief device, etc.

c) Bus bar Protection

The highspeed low impedance type bus bar differential protection, which is essential to minimize the damage and maintain system stability at the time of bus bar faults, shall be provided for 400kV buses. Duplicated bus bar protection is envisaged for 400kV bus-bar protection. Bus bar protection scheme shall be such that it operates selectively for each bus and incorporate necessary features required for ensuring security. The scheme shall have complete bus bar protection for present as well as future bays envisaged i.e. input / output modules for future bays shall also be provided.

Bus Bar protection system for new substation shall be de-centralized (distributed) type.

In case, the bus section is provided, then each side of bus section shall have separate set of bus bar protection schemes.

For existing substations, the existing bus bar protection shall be augmented as per requirement.

d) Local Breaker Back up Protection

This shall be provided for each 400kV circuit breakers and will be connected to de-energize the affected stuck breaker from both sides.

Notes:

1. *LBB relay may also be provided as built-in protection function of distributed bus bar protection scheme; however in such case separate LBB relay shall be provided for tie bays (in case of One and Half breaker scheme).*
2. *Over fluxing & overload protection can be provided as built-in feature of differential relay.*
3. *In 400kV switchyard, if spare bay of half diameter is identified as future, Tie CB relay panel shall be with Auto-reclosure feature.*

2.5 Substation Automation System

- a) For all the new substations, state of art Substation Automation System (SAS) conforming to IEC-61850 shall be provided. The distributed architecture shall be used for Substation Automation system, where the controls shall be provided through Bay control units. The Bay control unit is to be provided bay wise for voltage level 220kV and above. All bay control units as well as protection units are normally connected through an Optical fibre high speed network. The control and monitoring of circuit breaker, dis-connector, re-setting of relays etc. can be done from Human Machine Interface (HMI) from the control room.

The functions of control, annunciation, disturbance recording, event logging and measurement of electrical parameters shall be integrated in Substation Automation System.

At new substations, the Substation Automation System (SAS) shall be suitable for operation and monitoring of the complete substation including proposed future bays/elements.

In existing substations with Substation automation system (SAS), augmentation of existing SAS shall be done for bays under present scope.

In existing Substations where Substation automation is not provided, control functions shall be done through control panels.

Necessary gateway & modems (as required) shall be provided to send data to RLDC/SLDC as per their requirement. Any augmentation work at RLDC/SLDC is excluded from TSP's scope. However, all the configuration work at substation end required to send data to RLDC/SLDC shall be in the scope of TSP.

b) Time synchronisation equipment

Time synchronization equipment complete in all respect including antenna, cable, processing equipment required to receive time signal through GPS or from National Physical Laboratory (NPL) through INSAT shall be provided at new substations. This equipment shall be used to synchronize SAS & IEDs etc.

3.0 Substation Support facilities

Certain facilities required for operation & maintenance of substations as described below shall be provided at new substation. In existing substation, these facilities have already been provided and would be extended/ augmented as per requirement.

3.1 AC & DC power supplies

For catering the requirements of three phase & single phase AC supply and DC supply for various substation equipment, the following arrangement is envisaged:-

- (i) For LT Supply at each new Substation, two (2) nos. of LT Transformers (minimum 630kVA for substations with highest voltage rating as 400kV) shall be provided shall be connected with two different SEB/DISCOM sources.
- (ii) 2 sets of 220V battery banks for control & protection and 2 sets of 48V battery banks for PLCC/ communication equipment shall be provided at each new Substation. Each battery bank shall have a float-cum-boost charger. Battery shall be of VRLA type.
- (iii) Suitable AC & DC distribution boards and associated LT Switchgear shall be provided at new substation.

For new substation, following switch boards shall be considered with duplicate supply with bus coupler/ sectionalizer and duplicate outgoing feeders except for Emergency lighting distribution board which shall have only one incoming feeder:

- (a) 415V Main Switch board – 1 nos.
- (b) AC distribution board – 1 nos.
- (c) Main lighting distribution board – 1 no.
- (d) Emergency lighting distribution board – 1 no.
- (e) 220 Volt DC distribution board – 2 nos.
- (f) 48 Volt DC distribution board – 2 nos.

Sizing of LT Switchgear shall be suitable to cater the requirement for all present and future bays. AC & DC distribution boards shall have modules for all the feeders (including future as specified).

- (iv) At new Substation, one no. of DG set (minimum 250kVA for substations with highest voltage rating as 400kV) shall be provided for emergency applications.
- (v) At new substation, sizing of battery and battery charger shall be done based on the number of bays specified (including future bays).
- (vi) For substation extensions, existing facilities shall be augmented as required.

3.2 Fire Fighting System

Fire-fighting system for substation including transformer & reactor shall conform to CEA (Measures Relating to Safety & Electric Supply) Regulations.

Further, adequate water hydrants and portable fire extinguishers shall be provided in the substations. The main header of firefighting system shall be suitable for extension to bays covered under the future scope; necessary piping interface in this regard shall be provided.

Optical Beam type heat detection for GIS hall fire protection system shall be provided for all the GIS halls.

At existing substations, the fire-fighting systems as available shall be extended to meet the additional requirements.

3.3 Oil evacuating, filtering, testing & filling apparatus

To monitor the quality of oil for satisfactory performance of transformers, shunt reactors and for periodical maintenance necessary oil evacuating, filtering, testing and filling apparatus would be provided at new substations. Oil storage tanks of adequate capacities for storage of transformer oil would be provided.

3.4 Illumination

Normal & emergency AC & DC illumination shall be provided adequately in the control room & other buildings of the substation. The switchyard shall also be provided with adequate illumination.

Lighting of the entire control room building, fire-fighting pump house, other building (if any) and switchyard shall be done by LED based low power consumption luminaries.

3.5 Control Room

For new substation, substation control room shall be provided to house substation work stations for station level control (SAS) along with its peripheral and recording equipment,

AC & DC distribution boards, DC batteries & associated battery chargers, Fire Protection panels, Telecommunication panels & other panels as per requirements. Air conditioning shall be provided in the building as functional requirements. Main cable trenches from the control room shall have adequate space provision for laying of cables from control room for all the future bays also.

At existing substations, the adequacy of size of control room shall be ascertained and the same shall be augmented as per requirement.

3.6 GIS hall

The Gas Insulated Switchgear (GIS) of each voltage along with other associated equipment shall be housed inside the GIS building separately. The panels i.e. Bay level units, bay mimic, relay and protection panels, RTCC panels, PLCC panels etc. are to be placed in a separate room in the GIS building. The size of the room shall be such that all the panels for the bays under present scope shall be accommodated. The panel room shall be air-conditioned. Further, the temperature of the room shall be monitored through substation automation system by providing necessary temperature transducers. Ventilation system of suitable capacity shall be provided for each GIS hall.

One EOT Crane of suitable capacity for erection & Maintenance of largest GIS component/assembly and all plant installed in the GIS switchgear room shall be provided in each GIS hall. The crane shall be capable of fulfilling all special requirements for erection & maintenance of GIS equipment. The capacity of the crane shall be sized to lift the heaviest GIS switchgear component.

For extension of existing GIS, existing facilities shall be suitably augmented/ extended for GIS equipment under present scope.

3.7 Control Concept

All the EHV circuit breakers in substation/switching stations shall be controlled and synchronized from the switchyard control room/remote control center. Each breaker would have two sets of trip circuits which would be connected to separate DC supplies for greater reliability. All the isolators shall have control from remote/local whereas the earth switches shall have local control only.

3.8 Visual monitoring system (VMS) for watch and ward of substation premises:

Visual monitoring system for effective watch and ward of substation premises shall cover all the transformers and reactors, all other major AIS Equipment (such as CB, isolators, CT, CVT, SA etc. as applicable), GIS bays, panel room, all the gates of switchyard and all entry and exit points of control room building and accordingly the location of cameras shall be decided. The camera shall be high definition color CCD camera with night vision feature. The VMS data partly/completely shall be recorded (minimum for 15 days) at least @25fps

(or better) and stored on network video recorder. The system shall use video signals from various cameras installed at different locations, process them for viewing on workstations/monitors in the control room and simultaneously record all the cameras.

Mouse/keyboard controllers shall be used for pan, tilt, zoom and other functions of the desired camera. The Visual Monitoring System shall have provision of WAN connectivity for remote monitoring.

All camera recordings shall have Camera ID & location/area of recording as well as date/time stamp. The equipment should generally conform to Electromagnetic compatibility requirement for outdoor equipment in EHV substation.

At existing substations, the visual monitoring system if available shall be augmented as per existing or better specification as required.

4.0 General Facilities

- a) Line Gantry/Towers are envisaged for bays under present scope only. However, for adjacent future line bay, tower shall be designed for extension (considering Quad conductors for 400kV future lines and single conductor for 220kV future lines) wherever applicable.
- b) Bay extension works at existing substation shall be executed by TSP in accordance with the requirement/provisions mentioned above. However, interface points shall be considered keeping in view the existing design/arrangement at the substation.
- c) TSP has to arrange for construction power and water on its own.
- d) All outdoor steel structures including anchor/ foundation bolts shall be fully galvanized. The weight of the zinc coating shall be at least 610 gm/ sq. m.
- e) In 400kV switchyard, if spare bay of half diameter is identified as future, all the equipment for Tie & Future bay shall be designed considering the current rating of line bay i.e. 3150A.

5.0 PLCC & PBAX:

Power line carrier communication (PLCC) equipment complete for speech, tele-protection commands and data channels shall be provided on each transmission line. The protections for transmission line and the line compensating equipment shall have hundred percent back up communication channels i.e. two channels for tele- protection in addition to one channel for speech plus data for each direction. The PLCC equipment shall in brief include the following:-

- i) Coupling device, line traps, carrier terminals, protection couplers, HF cables, PABX (if applicable) and maintenance and testing instruments.

- ii) At new substation, a telephone exchange (PABX) of 24 lines shall be provided at as means of effective communication among various buildings of the substation, remote end substations and with control centers (RLDC/SLDC) etc.
- iii) Coupling devices shall be suitable for phase to phase coupling for 765kV & 400kV Transmission lines. The pass band of coupling devices shall have sufficient margin for adding communication channel in future if required. Necessary protection devices for safety of personnel and low voltage part against power frequency voltages and transient over voltage shall also be provided.
- iv) The line traps shall be broad band tuned suitable for blocking the complete range of carrier frequencies. Line Trap shall have necessary protective devices such as lightning arresters for the protection of tuning device. Decoupling network consisting of line traps and coupling capacitors may also be required at certain substation in case of extreme frequency congestion.
- v) The carrier terminals shall be of single side-band (SSB) amplitude modulation (AM) type and shall have 4 kHz band width. PLCC Carrier terminals and Protection couplers shall be considered for both ends of the line.
- vi) PLCC equipment for all the transmission lines covered under the scheme (consisting of one set of analog PLCC channel along with circuit protection coupler and one set of Digital protection coupler for both ends) shall be provided by TSP. CVT & Wave trap for all the line bays under present scope shall be provided by TSP.
- vii) TSP shall provide/ undertake necessary addition/ modification/ shifting/ re-commissioning etc. of PLCC equipment due to LILO of transmission lines (wherever applicable).
- viii) All other associated equipment like cabling, coupling device and HF cable shall also be provided by the TSP.

SPECIFIC TECHNICAL REQUIREMENTS FOR COMMUNICATION

In order to meet the requirement for grid management and operation of substations, Transmission Service Provider (TSP) shall conform to the following requirements.

1. **Establishment of 400 kV switching station at Kishtwar (GIS) along with 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)**
 - i) TSP shall provide one no. FODP (96 F) with panel and one (1) no. Approach Cables (48F) with all associated hardware fittings.
 - ii) TSP shall provide STM-16 (FOTE) base equipment (with STM-4 interfaces for Kishenpur & Dulhasti direction) with panel at 400kV Kishtwar GIS supporting minimum five (5) MSP (Multiplex Section Protection) at 400kV Kishtwar GIS with suitable DC Power Supply & necessary interfaces to meet the voice and data communication requirement between Kishtwar GIS, Kishenpur & Dulhasti S/s
 - iii) The integration of Communication equipment with centralized NMS at regional level shall be the responsibility of TSP. Configuration work in centralized NMS for integration of new Communication equipment is not in scope of TSP, however all necessary support to integrate new Communication equipment in the existing Centralized NMS shall be ensured by TSP.
 - iv) TSP shall install required no. of Phasor Measurement Units (PMUs) for all 400kV voltage line bays under the scope of this project at 400kV at Kishtwar GIS, these PMUs shall support latest IEEE C-37.118 protocols. These PMUs shall be integrated with the existing PDC (Phasor Data Concentrator) located at respective RLDC.
 - v) The maintenance of all the communication equipment including FOTE, FODP, approach cable, PMUs, DCPS along with suitable Battery Bank shall be the responsibility of TSP.
 - vi) Control Room or Relay panel room in case of GIS s/s, shall be designed/ planned to have enough space to accommodate the FOTE & FODP panels required for the line bays as mentioned in the future scope of this project.

Frequently Asked Queries:**1.0 Transmission Line:**

- 1.1 Please clarify that whether shutdowns for crossing of existing transmission lines of POWERGRID/STUs/ Power Evacuation Lines from Generation Plants/ Any other Transmission Licensee will be given to TSP on chargeable basis or free of cost.

Reply: Shutdowns for crossing of existing transmission lines of POWERGRID/ STUs/ Power Evacuation Lines from Generation Plants/ Any other Transmission Licensee will be given to TSP on chargeable basis.

- 1.2 We understand that the suggested swing angle criteria are applicable for Suspension Insulator in Suspension Tower. Further, you are requested to provide similar swing angle and clearance criteria for Pilot Insulator with Jumper & Jumper.

Reply: It is clarified that the swing angle criteria (as mentioned in RFP) for transmission lines is applicable for Suspension Insulator in Suspension Tower. Further, as per Clause 3.0 of Specific Technical Requirements for transmission lines, Transmission service Provider (TSP) shall adopt any additional loading/design criteria for ensuring reliability of the line, if so desired and /or deemed necessary.

- 1.3 We request you to kindly allow that use of diamond configuration at Power line crossings and the existing owner of the lines may be directed to allow the same for the successful bidders.

Reply: Power line crossing including Diamond configuration is responsibility of the TSP. TSP shall formally submit the profile of the crossing section to the owner of the existing line suggesting proposed crossing alternatives. The crossing will have to be carried out as per approval of owner of the existing line.

- 1.4 It is requested you to kindly provide present status of Forest Clearances if any transmission line corridor area falling in wildlife forest / reserve forest/ mangroves.

Reply: Based on the preliminary route survey, the process of initiation of forest clearance for the forest stretches, if any, enroute the proposed line alignment will be initiated by way of writing letters to the concerned authority (ies). However, it may be noted that it will be the responsibility of TSP for obtaining forest clearance for the forest stretches as provided in the survey report and also for any forest area encountered during detailed survey.

2.0 Substation

- 2.1 We understand that space for storage of O&M spare shall be provided by existing owner within the station boundary without any cost. Kindly confirm.

Reply: Space for storage of O&M spares shall be arranged by TSP on its own.

- 2.2 We presume that the O&M for the end Termination bays will be in the scope of the TSP and TSP shall not be liable for any payment towards O&M to the existing owner of the substation. Kindly confirm.

Reply: Operation and maintenance of the bays is solely responsibility of the TSP.

- 2.3 With reference to subject scheme of existing sub-station, we assumed following scope of work:
- (a) We assumed internal road is available and need not to consider in the present scope of work.
 - (b) Drainage is available and need not to consider in the present scope of work.
 - (c) Cable trench extension in adjacent to Main cable trench only under present scope of work.
 - (d) Levelled area being provided by developer for bay extension.

Reply: Regarding requirement of internal road, drainage, cable trench, leveling of the bay extension area, bidder is advised to visit site and acquaint themselves with the provisions/facilities available at substation.

- 2.4 Kindly provide the soil investigation report of soil parameters of existing substation.

Reply: Bidder is advised to visit the substation site and ascertain the requisite parameters.

- 2.5 Kindly confirm, energy accounting of aux. power consumption. Whether it will be on chargeable basis or part of transmission loss.

Reply: It will be on chargeable basis.

- 2.6 We understand that VMS requirement is for unmanned stations only. For Manned stations VMS is not compulsory.

Reply: VMS shall be provided in line with requirements of RfP document.

- 2.7 It is understood that Construction water and power shall be provided free of cost to TSP by respective substation owner for construction of new bays.

Reply: Arrangement of construction power & water is in the scope of TSP.

- 2.8 It is understood that existing fire hydrant system shall be extended by the TSP for bay extension.

Reply: Existing fire hydrant system shall be extended from existing system (if required)

- 2.9 Please clarify that Status of land acquisition for Substations. Whether the lands have

been acquired by BPC and will be transferred to TSP.

Reply: The acquisition of land for substation is in the scope of TSP.

- 2.10 We understood that no any dedicated metering CT & CVT required for Line/feeders. Further, we understood that requisite Energy meters for various 765kV, 400kV & 220kV Feeders shall be provided & installed by CTU free of cost to TSP.

Reply: Dedicated metering CT and CVT are not required for line/feeders. Metering core of existing CT/CVT can be used provided accuracy class is matching with metering requirement. Requisite Special Energy Meters shall be provided and installed by CTU at the cost of TSP in C&P panel subject to space availability, else, in separate metering panel (to be provided by TSP at its cost).

3.0 Communication

- 3.1 What is the usage of OPGW, FOTE, PMU etc. under communication requirement of RFP?

Reply: User shall be responsible for providing compatible equipment along with appropriate interface for uninterrupted communication with the concerned control center and shall be responsible for successful integration with the communication system provided by CTU.

Communication systems e.g. OPGW, FOTE, PMU etc. are required for grid operation through RLDC/SLDC, speech communication, tele-protection and tele-metering.

- 3.2 Is space for installation of communication panels are provided to TSP in existing Substations incase new bays are in the scope of TSP?

Reply: The space replated issues are deliberated in the RFP itself. TSP to carry out survey of the existing substation for physical space requirement. In case space is not available in the existing substation then TSP shall accommodate the same in the respective bay SPR (Switchyard Panel Room)/Bay Kiosk/ Relay panel room in case of GIS s/s. Further, TSP to connect and integrate the proposed FOTE with the existing FOTE in the control room.

In Case 132kV Substation TSP shall accommodate the said panels either by extension of existing control room or other arrangements.

- 3.3 How is the OPGW laying done in case of LILO lines?

Reply: In case LILO lines are on same towers (e.g. both Line in and Line Out portion are on same towers, generally done LILO of S/C lines). Then 2x24F OPGW shall be required to install by TSP on both earthwire peak on 400kV & 765kV lines where

two E/W peaks are available. On 220 & 133kV lines where only one E/W peak is available TSP to install one no. 48F OPGW.

Incase LILO lines are on different towers (e.g. both Line In and Line Out portion are on different towers, generally done LILO of D/C lines). Then 1x24F OPGW shall be required to install by TSP on one earthwire peak, on both Line In and Line Out portions of 400kV & 765kV lines. On 220 & 133kV lines where only one E/W peak is available TSP to install one no. 24F OPGW in place of conventional earthwire.

3.4 How is the OPGW laying done in case Multi circuit Towers?

Reply: In case two different lines are using common multi circuit portion for some distance (originating from different stations, may be terminating on same or on different stations). Two no. 24F OPGW to be installed on both E/W peaks for common M/C portion of 765kV & 400kV lines.

Incase 220/132kV lines using multi circuit portion where single E/W peak is available one no. 48F may be installed for common multi circuit portion.

I/14749/2021

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Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन - I प्रभाग

Power System Planning & Appraisal - I Division

Annexure P9

सेवा में / To

-As per enclosed list-

विषय: "ट्रांसमिशन पर राष्ट्रीय समिति" (एनसीटी) की 4th बैठक - मिनटSubject: Minutes of the 4th Meeting of "National Committee on Transmission" (NCT)

Sir/Madam,

The two sittings of the 4th meeting of the "National Committee on Transmission" (NCT) were held on 20.01.2020 and 28.01.2020 respectively under the Chairmanship of Shri P. S. Mhaske, Chairperson, CEA . The minutes of the meeting are enclosed herewith.

भवदीय,

(Ishan Sharan)

Chief Engineer (PSPA-I) &
Member Secretary (NCT)**Copy to:**

- (i) Joint Secretary (Trans), Ministry of Power, Shram Shakti Bhawan, New Delhi-110001.
- (ii) CMD (POSOCO), B-9, Qutub, Institutional Area, Katwaria Sarai, New Delhi – 110010

List of addressees:

1.	Chairperson, Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	2	Member (Power System), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.
3.	Member (Economic & Commercial), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	4	Director (Trans), Ministry of Power Shram Shakti Bhawan, New Delhi-110001.
5.	Sh. Dilip Nigam, Scientist 'G', MNRE, Block no. 14, CGO Complex, Lodhi Road, New Delhi – 110003	6	Chief Operating Officer, Central Transmission Utility POWERGRID, Saudamini, Plot No. 2, Sector-29, Gurgaon – 122 001.
7.	Sh. Rajnath Ram, Adviser (Energy), NITI Aayog, Parliament Street, New Delhi – 110 001.	8	Sh. P. K. Pahwa, Ex. Member (GO&D), CEA 428 C, Pocket -2, Mayur Vihar, Phase -1, Delhi – 110091.
9.	Shri Prabhakar Singh, Ex. Director (Projects), POWERGRID D 904, Tulip Ivory, Sector-70, Gurgaon – 122 001.		

Minutes of the 4th meeting of National Committee on Transmission held on 20.02.2021 & 28.01.2021

List of participants of the meeting is attached as **Annexure-A**

Chairman, NCT welcomed the participants to the meeting and requested Chief Engineer (PSPA-I), CEA to proceed with the meeting. Chief Engineer (PSPA-I), CEA stated that the 3rd meeting of NCT was held on 26.05.2020 and 28.05.2020. This 4th meeting is being convened after a lapse of around seven months. The delay can be attributed to the fact that on account of lockdown, conducting the regional Standing Committees on Transmission Planning could not be done as per their normal schedule. He requested Director (PSPA-I), CEA to take up the Agenda Items.

A. Review of the earlier meetings of NCT:

1. Confirmation of the minutes of 3rd meeting of National Committee on Transmission (NCT)

1.1. The minutes of 3rd meeting of National Committee on Transmission held on 26.05.2020 and 28.05.2020 were issued vide CEA letter No. File No.CEA-PS-11-15(11)/1/20-PSPA-I/10573/2020 dated 17.07.2020. The minutes of the meeting were confirmed by the members.

2. Status of the transmission schemes approved/noted in the 3rd meeting of Reconstituted NCT:

2.1. The details of the transmission schemes noted/approved in 3rd meeting of NCT is given below:

Sr. No	Name of the Transmission Scheme	Approved/ Noted	MoP approval	BPC
1.	Transmission system for evacuation of power from RE projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh Notified by MoP as a single scheme with PS at Rajgarh. The pooling station was proposed at Pachora and scheme was proposed to be implemented into two phases. 1. Transmission system for evacuation of power from RE projects in Rajgarh (1500 MW) SEZ in Madhya Pradesh. 2. Transmission system for evacuation of power from RE projects in Rajgarh (1000 MW) SEZ in Madhya Pradesh.	Noted	Intimated to MoP regarding phasing. Yet to be approved by MoP. Waiting for NCT Recommendation.	REC Amendment yet to be issued.
2.	Transmission system strengthening	Noted		REC

	<p>scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II –Part A</p> <p>Scheme notified by MoP as a single scheme with pooling station at Ramgarh.</p> <p>The Ramgarh PS shifted to Fatehgarh area to avoid GIB zone</p>			
3.	<p>Transmission Scheme for Evacuation of power from RE sources in Koppal Wind Energy Zone (Karnataka) (2500 MW)</p> <p>The ISTS PS relocated near the proposed Koppal Solar Park.</p>	Noted		PFC
4.	<p>Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II-Part B1 and Part G1</p> <p>Allotted to PGCIL by MoP. OM No: 15/3/2018-Trans-Pt(1) dated 23-01-2020. OM issued for ± 600 MVar STATCOM at Fatehgarh-II and Bhadla-II</p> <p>Splitting of ± 600 MVar STATCOM into two nos. of ± 300 MVar STATCOM was proposed.</p>	Noted		RTM PGCIL
5.	<p>Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II- Part G1</p> <p>Allotted to PGCIL by MoP. OM No: 15/3/2018-Trans-Pt(1) dated 23-01-2020. The OM issued for LILO section on DC towers with Quad conductor.</p> <p>Extension of LILO section with Twin HTLS conductor and on multi-circuit towers was proposed.</p>	Noted		RTM PGCIL
6.	<p>Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under</p>	Noted		PFCC L. Amend

	<p>Phase-II-Part D</p> <p>Scheme notified by MoP Gazette Notification dated 24-01-2020. The Notification did not include spare unit.</p> <p>Provision of spare reactor unit at Aligarh was proposed.</p>			ment issued
7.	<p>Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II- Part G</p> <p>Scheme notified by MoP Gazette Notification dated 24-01-2020</p> <p>Inclusion of 1x110 MVar spare reactor at Narela(GIS) to be used as spare for Khetri – Narela (GIS) 765 kV D/c line was proposed</p>	Noted		PFCC L. Amend ment issued
8.	<p>Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II- Part F</p> <p>Scheme notified by MoP Gazette Notification dated 24-01-2020.</p> <p>Correction in the scheme notified by MoP (provision of line reactors at both ends of Bikaner-II- Khetri lines instead of only at Khetri end) was proposed.</p>	Noted		PFCC L. Amend ment issued
9.	<p>Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs.</p> <p>The following packages of the approved scheme was recommended to MoP by CEA.</p>	Approve d	Approved	
	1. Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System (TBCB)		MoP Gazette Notification dated 23-09-2020	PFCC L

	2. Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs – LTA System		MoP OM No: 15/3/2018-Trans-Pt(2) dated 1025-09-2020	RTM PGCIL
10.	Transmission scheme for evacuation of 8 GW RE injection at Khavda P.S The following packages of the approved scheme was recommended to MoP by CEA.	Approved	Approved and notified vide Gazette Notification dated 23-09-2020	
	1. Transmission scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I (TBCB)			PFCC L
	2. Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part A (TBCB)			REC
	3. Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part B (TBCB)			REC
	4. Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part C (TBCB)			REC
	5. Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part D (TBCB)			REC
	6. Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part E (TBCB)			REC
11.	Augmentation of ICTs at Western Region (WR)	Approved	Approved	
	1. Augmentation of ICTs at Western Region (WR)- in Morena 400/220 kV S/stn of M/s CWRTL		MoP OM No: 15/3/2018-Trans-Pt(2) dated 25-09-2020	RTM PGCIL
	2. Augmentation of ICTs at Western Region (WR)- in Wardha and Seoni 400/220 kV S/stn of M/s PGCIL			RTM PGCIL
12.	Conversion of 50MVA fixed line reactor at Bina (PG) end of Sagar (MP)- Bina(PG) 400kV line into switchable line reactor	Approved	Allotted to PGCIL by MoP vide OM No: 15/3/2018-Trans-Pt(2) dated 25-09-2020	RTM PGCIL

7. New Inter-State Transmission Schemes in Northern Region:

7.1. Implementation of 400/132kV transformer at Kishtwar Pooling Station

7.1.1. Establishment of 400 kV switching station at Kishtwar (GIS) under ISTS was agreed in the 3rd meeting of NCT held on 26th and 28th May, 2020. Subsequently, JKPDD had requested to implement 2x200 MVA, 400/132 kV transformer at Kishtwar Pooling Station along with 4 no. of 132 kV line bays which was discussed and agreed as system strengthening scheme in the 2nd meeting of NRPCTP held on 1.09.2020.

Sl. No	Scope of the Transmission Scheme	Capacity / line length km
1.	2x200 MVA, 400/132 kV ICT along with associated bays at Kishtwar Pooling station	200 MVA, 400/132 ICT- 2 400 kV ICT bays – 2 132 kV ICT bays – 2
2.	4 no. of 132 kV bays	132 line bays- 4

7.1.2. Chief Engineer PSPA-I stated that establishment of 400 kV switching station at Kishtwar by LILO of one circuit of Kishenpur-Dulhasti 400 kV Quad line is part of “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System.” The scheme was approved by NCT in its 3rd meeting held on 26th and 28th May 2020. This scheme has already been notified by MoP in Gazette of India dated 25.09.2020 for implementation through TBCB with M/s PFCL as BPC. As the bidding of the scheme has not yet started, the proposed scope of works may be clubbed with the earlier notified scheme.

Regarding the query whether the 132 kV side would AIS or GIS, Chief Engineer (PSPA-1) clarified that the Kishtwar 400 kV switching station is to be established as GIS, therefore, 132 kV side would also be implemented as GIS to take care of space constraints, if any.

7.1.3. Member (E&C) stated that as per CERC’s recent Sharing Regulations, the transformer component has been segregated and its charges have to be borne by States. In this context, he enquired about the need to implement the 400/132 kV transformation capacity under ISTS.

CTU stated that in the present case, if the transformers would be utilized for the drawl requirement of J& K, the Yearly Transmission Charges for the transformers shall be apportioned to J& K only.

7.1.4. After detailed deliberations, NCT approved the following:

- Implementation of 400/132kV transformer at Kishtwar Pooling Station with scope of works as given below to be implemented as an ISTS scheme.

Sl. No	Scope of the Transmission Scheme	Capacity / line length km
1.	2x200 MVA, 400/132 kV ICT along with associated bays at Kishtwar Pooling station	200 MVA, 400/132 ICT- 2 400 kV ICT bays – 2 132 ICT bays – 2

2.	4no. of 132 kV bays	132 kV line bays (GIS)- 4
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- ii) Implementation of 400/132kV transformer at Kishtwar Pooling Station is recommended to be combined with “Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs -Connectivity System” which has already been notified by MoP in Gazette of India dated 25.09.2020 for implementation through TBCB.

7.2. Grant of 400kV bays to RE generators at Bhadla-II PS, Fatehgarh-II, & Fatehgarh-III (erstwhile Ramgarh-II) PS under ISTS

- 7.2.1.** The Transmission system for SEZ in Rajasthan under Phase-I & II were planning keeping in view that the RE generation projects would get connected to ISTS at 220 kV level. Subsequently, SECI has come out with manufacturing linked tenders with bulk capacities of RE generation projects. RE generators who have won bids under SECI manufacturing linked tender, have applied for stage-II connectivity at 400 kV level. These RE generators have been granted Stage-II Connectivity at 400 kV level instead of 220 kV level for optimum utilization of bays after deliberations in NR LTA & Connectivity meetings. The details are as below:

Status of on-going Transmission Projects on TBCB route as on 20.01.2021 with PFCCL as BPC

Sl.N o.	Name of ITP	Status of Bid Process	Present Status
1	Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1GW) under Phase-II Part-D	Bids under evaluation	<ul style="list-style-type: none"> • Single Stage RfP bid process (RfQ & RfP combined) initiated on 06.03.2020; • RfP bid submission was originally scheduled on 08.05.2020 which has been extended 9 times up to 28.12.2020; • 5 Bidders have submitted bids by due date i.e. 28.12.2020; • RfP evaluation is under process.
2.	Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1GW) under Phase-II Part-F	Bids under evaluation	<ul style="list-style-type: none"> • Single Stage RfP bid process (RfQ & RfP combined) initiated on 06.03.2020; • RfP bid submission was originally scheduled on 08.05.2020 which has been extended 9 times up to 28.12.2020; • 4 Bidders have submitted bids by due date i.e. 11.01.2021; • RfP evaluation is under process.
3.	Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1GW) under Phase-II Part-E	RfP Bid submission extended upto 11.02.2021	<ul style="list-style-type: none"> • Single Stage RfP bid process (RfQ & RfP combined) initiated on 06.03.2020; • RfP bid submission was originally scheduled on 08.05.2020 which has been extended 9 times up to 11.02.2021; • Regulatory Approval has been received on 12.05.2020; • List of LTTCs are not available.
4.	Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1GW) under Phase-II Part-G	On Hold	<ul style="list-style-type: none"> • Single Stage RfP bid process (RfQ & RfP combined) initiated on 06.03.2020; • RfP bid submission was originally scheduled on 08.05.2020 which has been extended 8 times up to 11.01.2021; • Regulatory Approval has been received on 12.05.2020; • List of LTTCs are not available.
5.	Evacuation of Power from RE Sources in Koppal Wind Energy Zone (Karnataka) (2500 MW)	02.02.2021	<ul style="list-style-type: none"> • Bid process was initiated with the issuance of RfQ documents on 21.10.2019 and RfP documents on 20.12.2019; • RfP bid submission was originally scheduled on 20.02.2020 which has been extended 12 times up to 02.02.2021; • During the meeting held on 16.10.2020, it was decided that submission of RfP

			bids shall be taken only after signing of TSA and receipt of regulatory approval; • Regulatory Approval is not available; • List of LTTCs are not available;
6.	Evacuation of Power from RE Sources in Karur/ Tiruppur Wind Energy Zone (Tamil Nadu) (2500 MW)	Bid Process kept in abeyance	• Bid process was initiated with the issuance of RfQ documents on 21.10.2019 and RfP documents on 20.02.2020; • RfP bid submission was originally scheduled on 24.04.2020 which has been extended 7 times up to 01.12.2020; • Further, on advice of CEA and MNRE, the bid process has been kept in Abeyance as no Connectivity/LTA applications are received; • Regulatory Approval is not available; • List of LTTCs are not available;
7.	Transmission scheme for Solar Energy Zone in Ananthapuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh	Bid Process kept in abeyance	• Single Stage RfP bid process (RfQ & RfP combined) initiated on 06.03.2020; • RfP bid submission was originally scheduled on 08.05.2020 which has been extended 6 times up to 01.12.2020; • Further, on advice of CEA and MNRE, the bid process has been kept in Abeyance as no Connectivity/LTA applications are received; • Regulatory Approval is not available; • List of LTTCs are not available;
8.	Transmission scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I	On Hold	• Gazette Notification from MoP received on 01.10.2020; • SPV under incorporation; • On the advice of MNRE and CEA no action are to be initiated till further advise;
9.	Transmission system for evacuation power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System	Bid process yet to be initiated	• Gazette Notification from MoP received on 01.10.2020; • SPV under incorporation; • RfP document will be issued shortly;
10.	Establishment of new 220/132kV substation at Nangalbibra	Bid process yet to be initiated	• Gazette Notification from MoP received on 01.10.2020; • SPV under incorporation; • RfP document will be issued shortly;



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विद्युत प्रणाली योजना एवं मूल्यांकन-I प्रभाग

Power System Planning & Appraisal-I Division

Annexure P10

सेवा में/To

-As per list enclosed-

विषय/Subject: Minutes of 3rd Meeting of Northern Regional Power Committee (Transmission Planning) [NRPC(TP)].

Sir/ Madam,

Please find enclosed the minutes of the 3rd meeting of Northern Regional Power Committee (Transmission Planning) [NRPC(TP)] held on 19.02.2021 through VC. The minutes are also available on CEA's website: www.cea.nic.in (path to access: Home Page - Wing - Power System-PSPA-I- Standing Committee on Power System Planning- Northern Region).

Yours faithfully,

Signature Not Verified
Digitally signed by ISHAN SHARAN
Date: 2021.05.09 22:26:37 IST

(ईशान शरण/ Ishan Sharan)

मुख्य अभियन्ता/ Chief Engineer

- ii. MPPTCL agenda would also be put up for the concurrence of NRPC (TP) as Auriya (UP) Mehgaon 220kV line is between WR and NR.

- 7.3 POSOCO stated that with LILO of Auraiya (UP) – Mehgaon 220 kV line at Bhind (TBCB) 220kV substation, there is possibility that 400/220 kV ICTs at Auraiya may get overloaded (400 kV to 220 kV side power flow) during high load at Bhind and low generation at Auraiya. Similarly, ICTs may get overloaded in opposite direction (220 kV to 400 kV side) in case of high generation at Auraiya and high solar injection expected in near future at Morena. This aspect may be studied and any augmentation in transformation capacity at Auraiya, if required, may be planned suitably.
- 7.4 As Auriya (UP) – Mehgaon 220 kV line is an ISTS line between UP and MP, UPPTCL enquired regarding the change of metering point after the LILO. CTU clarified that even after LILO of Auriya (UP) – Mehgaon 220kV line at Bhind (TBCB) 220kV substation, line will still remain as ISTS line. Therefore, normal protocol regarding metering of ISTS line will be followed.
- 7.5 After deliberations, members agreed to the proposal of LILO of Auriya (UP) – Mehgaon 220kV line at Bhind (TBCB) 220kV substation.

8.0 Reconductoring of portion of Dulhasti-Kishtwar- Kishenpur 400 kV (Quad) S/c:

- 8.1 Director (PSPA-I), CEA, stated that CTU vide email dated 08.01.2021 has proposed reconductoring of portion of Dulhasti-Kishtwar- Kishenpur 400 kV (Quad) S/c line. CTU has mentioned that in the 1st NRPC (TP) meeting held on 24.01.2020, comprehensive system for connectivity was agreed for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL. It was also agreed that the above projects would be connected to a common pooling station through 400kV dedicated transmission line to be implemented by developer of these projects. Further, establishment of common pooling station at Kishtwar by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) was also agreed to be implemented under ISTS to provide connectivity to above projects.
- 8.2 Director (PSPA-I), CEA, further stated that presently, power from Dulhasti HEP (390 MW) is being evacuated through 400 kV Dulhasti-Kishenpur S/c line & D/c (quad) line (one circuit strung). Ratle HEP (690 MW) was planned to be developed in the downstream of Dulhasti HEP and it was agreed that Dulhasti-Kishenpur D/c Quad (S/c strung) would be LILOed at Ratle HEP and 2nd quad circuit shall be strung from Kishenpur and terminated at Ratle matching with the commissioning of Ratle HEP. Further, it was also agreed during 35th NR Standing Committee Meeting held on 03.11.2014 that as outlet beyond Dulhasti is Dulhasti-Kishenpur 400kV line is a single circuit line, the amount of power that can be exported/imported is limited. Hence, Dulhasti-Ratle section would be optimized to the extent possible. Further, bay rating at Dulhasti is 2000 A which is further reduced to 700/800A due to reduced capacity of XLPE/OIL cable for connection of line to GIS bus at Dulhasti end.

Based on above considerations, POWERGRID implemented Dulhasti-Kishenpur 400kV S/c line (Quad) with Twin Moose conductor till Ratle LILO point. Beyond Ratle LILO point, line was implemented with Quad Moose conductor. However, LTA & Connectivity application for Ratle HEP was revoked at later stage due to non-signing of requisite agreements.

- 8.3 For connectivity of Pakaldul HEP (1000 MW), LILO of one circuit of Dulhasti - Kishenpur 400 kV line (quad) has been agreed at Kishtwar Pooling station. However, as location of

proposed Kishtwar S/s is above Ratle location and towards Dulhasti, portion of Dulhasti-Ratle LILO tap Point of Dulhasti (TW loc 10 indicated at Fig-1) - Kishenpur 400 kV line (TW loc 49-indicated at Fig-1) (approx. 13 kms) implemented through twin moose conductor, needs to be reconducted with Quad moose conductor. This reconducting of approx. 13 km section (LILO tap Point of Dulhasti - Kishenpur 400 kV line) would be needed to cater to power transfer requirement from hydro projects (Pakaldul, Kiru & Kwar) including LTA of Pakaldul (1000 MW) HEP. An exhibit depicting above arrangement is at Fig-1.

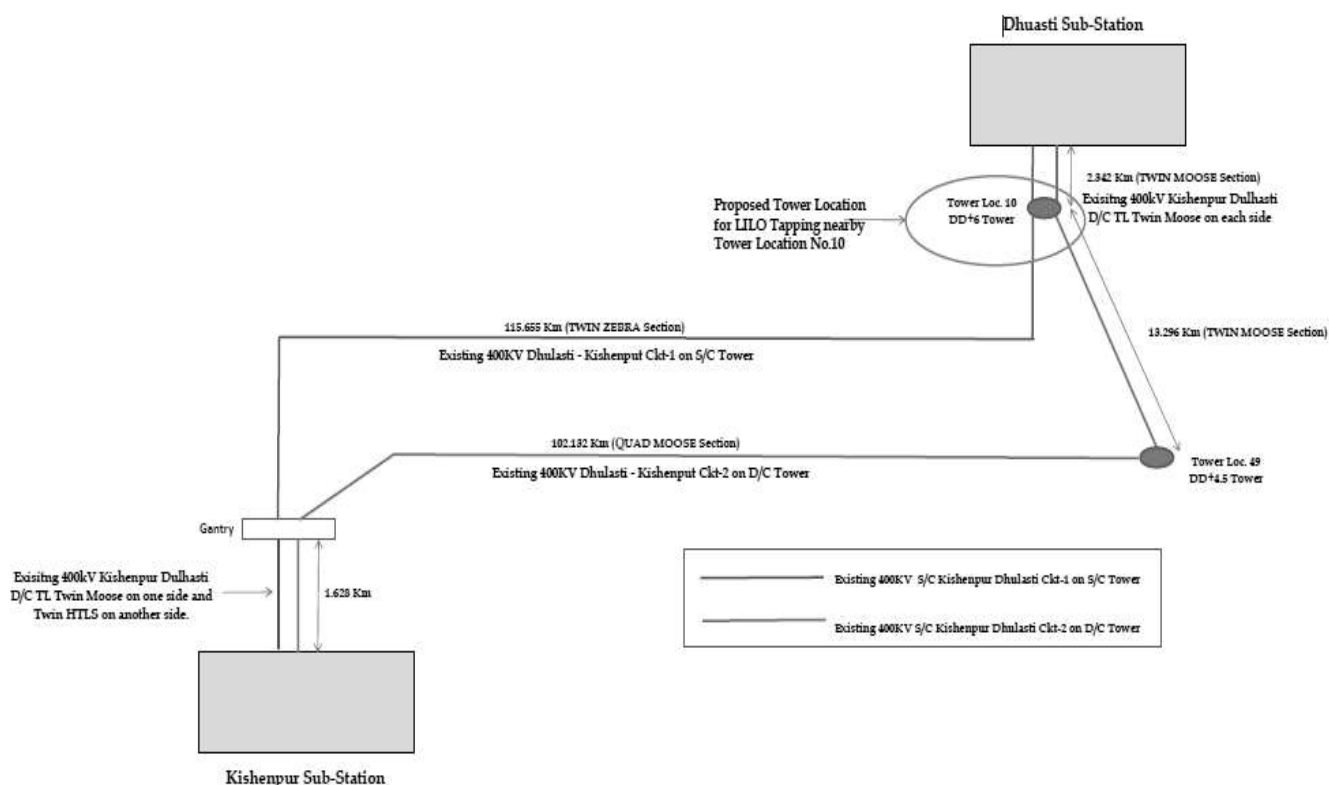


Fig-1

8.4 Director (PSPA-I), CEA, further stated that during 2nd meeting of NRPC (TP) held on 01.09.2020, transmission System was agreed for transfer of 1000 MW power from Pakaldul HEP to NR on target region on Long-term Access (LTA) basis. However, due to unavailability of spare bay as well as space for new diameter in 400 kV switchyard for Kishenpur substation, POWERGRID has proposed to terminate 400kV Kishtwar-Kishenpur 400kV S/c (Quad) line (second ckt) [LTA system of Pakaldul HEP] in bus reactor bay (125 MAVAR), for which bus reactor will be converted to switchable line reactor, at Kishenpur S/s.

8.5 After deliberations, following was agreed as system strengthening scheme:

- (i) Reconducting of Dulhasti-Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor with Quad moose conductor in matching time frame of Pakaldul HEP generation.
- (ii) Termination of 400kV Kishtwar- Kishenpur 400kV S/c (Quad) line (second ckt) [LTA system of Pakaldul HEP] in bus reactor bay (125 MAVAR) in view of unavailability of spare bay as well as space for new diameter in 400 kV switchyard for Kishenpur substation and conversion of bus reactor to switchable line reactor at Kishenpur S/s.

Ref:C/CTU/N/00/CVPPL-PD

19/05/2021

Shri Naresh Bhandari

Member Secretary

Northern Regional Power Committee

18-A Shajeed Jeet Singh Sansanwal Marg,

Katwaria Sarai, New Delhi – 110016

Sub: Transmission system for evacuation of Power from Pakaldul HEP (1000 MW)- reg.

Sir,

This is with reference to Transmission system for evacuation of power from proposed Pakaldul HEP (1000 MW) in Chenab Valley, J&K. Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley, J&K was approved in the 1stNRPC(TP) and 2ndNRPC(TP) meetings held on 21/01/20&01/09/20 respectively. The scheme was also agreed in the 48th NRPC meeting held on 02/09/20.

In the recent 3rdmeeting of NRPC (TP) held on 19/02/21,proposal for Reconductoring of Dulhasti-Rattle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) through Quad moose conductor, in matching time frame of Pakaldul HEP generation was deliberated & agreed. A brief proposal in this regard is also enclosed for your perusal at **Annex-I**.

In line with CERC (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018, the following actions were alreadyinitiated in reference to Transmission system for evacuation of power from Pakaldul HEP (1000 MW) in Chenab Valley, J&K having scope including above reconductoring proposal:

- Details of the above schemes, their justification, estimated cost, tariff impact, results of the system studies, study assumptions, approval details etc. was uploaded on CTU website on 12.03.21seeking comments from various stakeholders by 26.04.21. No observations/comment was received in this regard

Para 7(12) of the CERC (Planning, Coordination and Development of Economic and Efficient Inter-State Transmission System by Central Transmission Utility and other related matters) Regulations, 2018 stipulates that *RPC(s), on receipt of proposal from CTU, shall consider and convey its recommendations to CTU within 2 months of receipt of such proposal*.Accordingly, recommendation of NRPC issought in this regard.

It is requested to kindly arrange NRPC recommendation of the above transmission element as part of Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley at the earliest to facilitate in obtaining the regulatory approval from CERC for undertaking its implementation in a time bound manner.

Thanking You,

Yours faithfully,



(Ashok Pal)
Dy.Chief Operating Officer

Encl.: As above

Copy to:

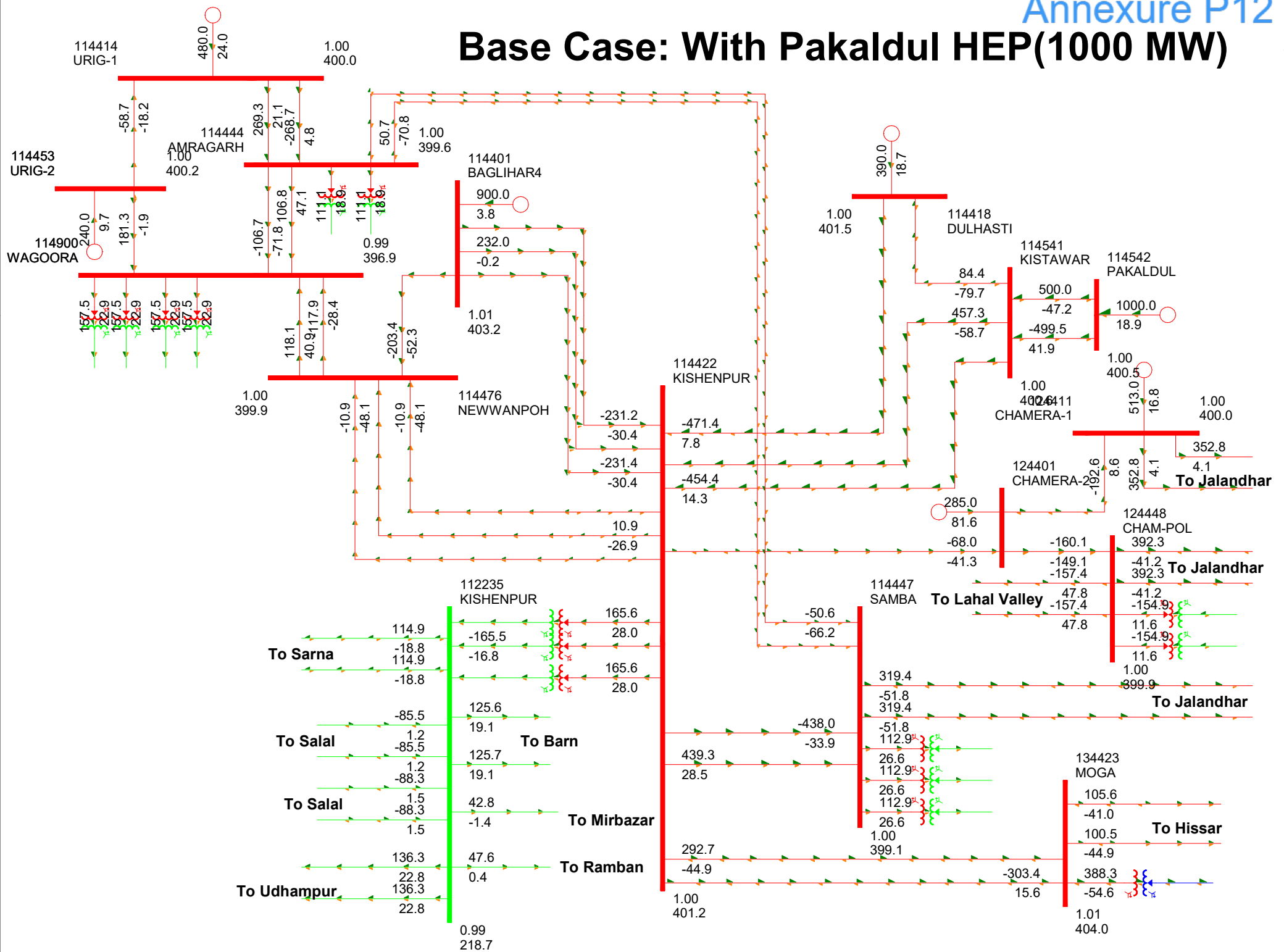
Chief Engineer (PSP&A – I)
Central Electricity Authority
Sewa Bhawan, R.K.Puram,
New Delhi-110 066

Annex-I**Brief Proposal on Reconductoring of Part Portion of Dulhasti-Kishtwar-Kishenpur 400 kV (Quad) S/c**

- In the 1st NRPC (TP) meeting held on 24.01.2020, comprehensive system for connectivity was agreed for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL. It was also agreed that the above projects would be connected to a common pooling station through 400kV dedicated transmission line to be implemented by developer of these projects. Further, establishment of common pooling station at Kishtwar by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) was also agreed to be implemented under ISTS to provide connectivity to above projects.
- Presently, power from Dulhasti HEP (390 MW) is being evacuated through 400 kV Dulhasti-Kishenpur S/c line & D/c (quad) line (one circuit strung). Ratle HEP (690 MW) was planned to be developed in the downstream of Dulhasti HEP and it was agreed that Dulhasti-Kishenpur D/c Quad (S/c strung) would be LILOed at Ratle HEP and 2nd quad circuit shall be strung from Kishenpur and terminated at Ratle matching with the commissioning of Ratle HEP. Further, it was also agreed during 35th NR Standing Committee Meeting held on 03.11.2014 that as outlet beyond Dulhasti is Dulhasti-Kishenpur 400kV line is a single circuit line, the amount of power that can be exported/imported is limited. Hence, Dulhasti-Ratle section would be optimized to the extent possible. Further, bay rating at Dulhasti is 2000 A which is further reduced to 700/800A due to reduced capacity of XLPE/OIL cable for connection of line to GIS bus at Dulhasti end. Based on above considerations, POWERGRID implemented Dulhasti-Kishenpur 400kV S/c line (Quad) with Twin Moose conductor till Ratle LILO point. Beyond Ratle LILO point, line was implemented with Quad Moose conductor. However, LTA & Connectivity application for Ratle HEP was revoked at later stage due to non-signing of requisite agreements.
- For connectivity of Pakaldul HEP (1000 MW), LILO of one circuit of Dulhasti - Kishenpur 400 kV line (quad) has been agreed at Kishtwar Pooling station. However, as location of proposed Kishtwar S/s is above Ratle location and towards Dulhasti, portion of DulhastiRatle LILO tap Point of Dulhasti (TW loc 10 indicated at Fig-1) - Kishenpur 400 kV line (TW loc 49-indicated at Figure below) (approx. 13 kms) implemented through twin moose conductor, needs to be reconducted with Quad moose conductor. This reconductoring of approx. 13 km section (LILO tap Point of Dulhasti - Kishenpur 400 kV line) would be needed to cater to power transfer requirement from hydro projects (Pakaldul, Kiru&Kwar) including LTA of Pakaldul (1000 MW) HEP. An exhibit depicting above arrangement is at Figure below.

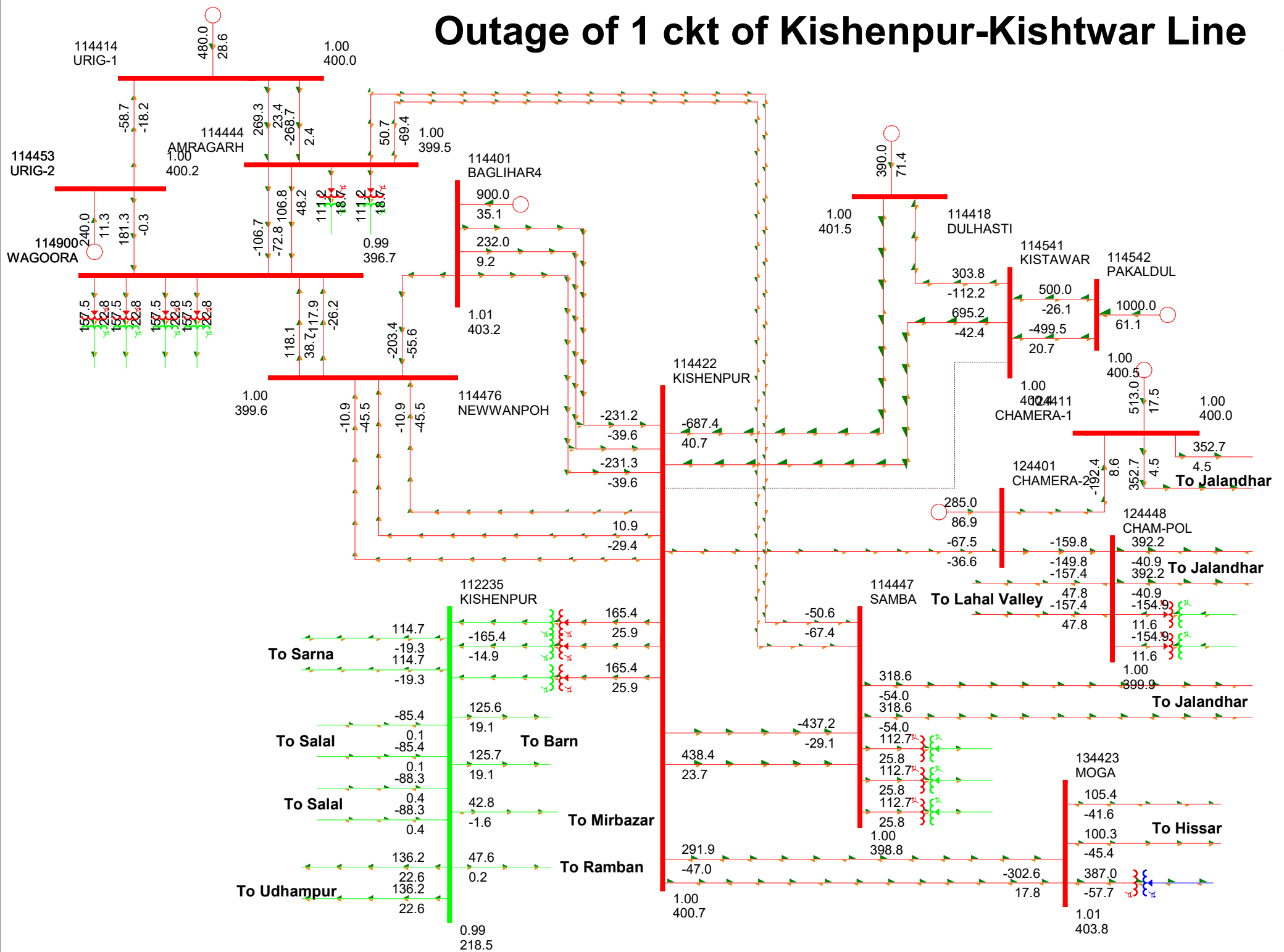
- Accordingly in the 3rd NRPC-TP meeting held on 19/02/21, after deliberations “Reconductoring of Dulhasti-Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor with Quad moose conductor” in matching time frame of Pakaldul HEP generation was agreed, as system strengthening scheme.

Base Case: With Pakaldul HEP(1000 MW)



Outage of 1 ckt of Kishenpur-Kishtwar Line

262

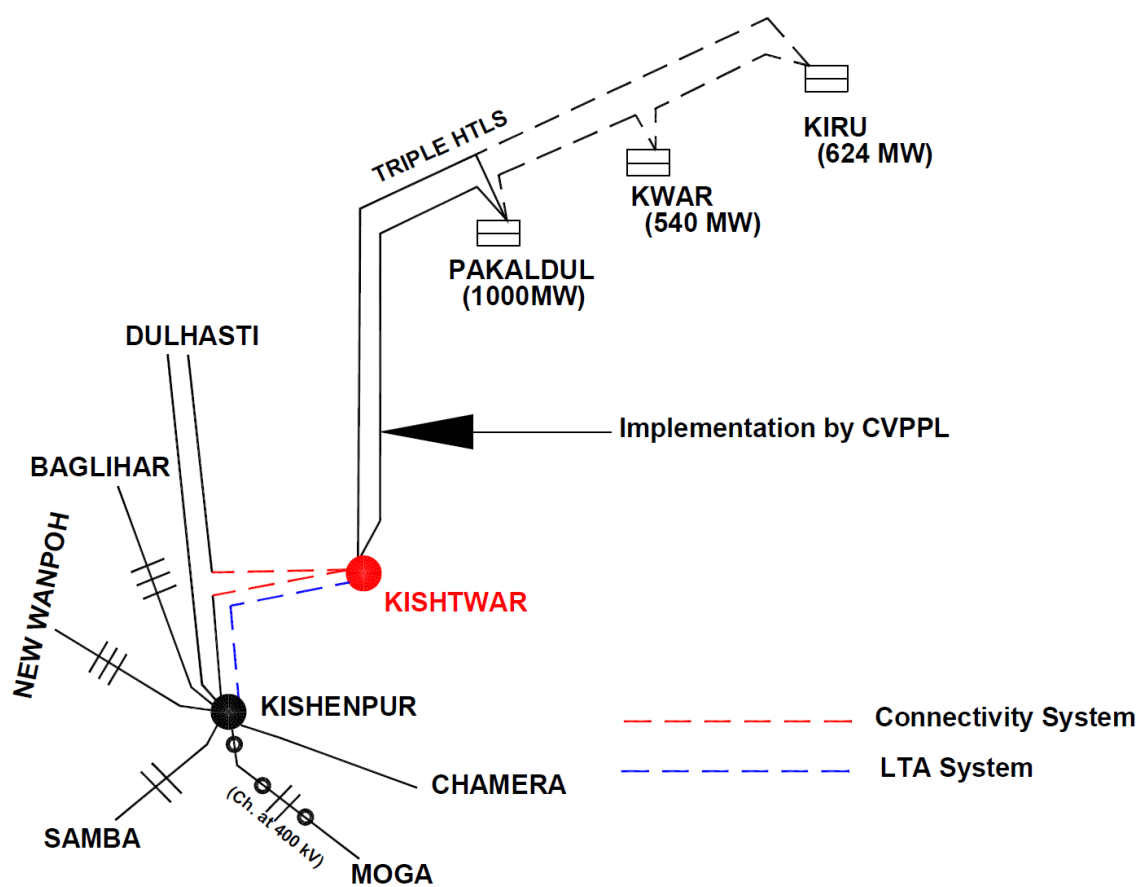


263



Exhibit-II

Transmission system for transfer of power from Pakaldul HEP in Chenab Valley



सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड
CENTRAL TRANSMISSION UTILITY OF INDIA LIMITED
(Wholly Owned Subsidiary of Power Grid Corporation of India Limited)
(A Government of India Enterprise)

Ref: C/CTU/NR/00/17JCC

24th May, 2021

As per Distribution List

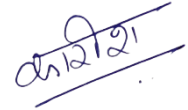
Sub: 17th Joint Co-ordination Committee Meeting for Generation Projects in Northern Region - Minutes of Meeting

Dear Sir,

The 17th meeting of Joint Co-ordination Committee for Northern Region was on **26th March 2021** through video conference to review the status of generation & transmission projects. In this regard, please find enclosed the minutes of meeting indicating the progress of generating projects and associated transmission system. The same is available on POWERGRID website (www.powergrid.in >> CTU Open Access >> Meetings >> Joint Coordination Committee Meetings >> Northern Region).

Thanking you,

Yours faithfully,



(Kashish Bhambhani)
Sr. DGM (CTU)

Copy to:

Shri Vijay Menghani

Chief (Engg.)

Central Electricity Regulatory Commission,
3rd & 4th floor, Chanderlok Building,
36, Janpath, New Delhi - 110 001

Shri Ishan Sharan

Chief Engineer (PSP & A-I)

Central Electricity Authority,
Sewa Bhawan, New Delhi – 110 066

Distribution List :

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3. ED (NR-II) Powergrid Corporation of India Limited Northern Region Transmission System-II OB-26, Grid Bhawan, Near Bahu Plaza, Jammu Email: rkumar1@powergrid.in	4. ED (NR-III) Powergrid Corporation of India Limited 12, Rana Pratap Marg, Lucknow, Uttar Pradesh - 226001 Email: sanjai.gupta@powergrid.in
5. Project Incharge POWERGRID Khetri Transmission System Ltd. POWERGRID Ajmer Phagi Transmission Ltd. POWERGRID Fatehgarh Transmission Limited (Subsidiary of Power Grid Corporation of India Ltd.) NRTS-I, Power Grid Corporation of India Limited SCO: 5-10, Beside Pollution Control Building Sector-16A, Faridabad, Haryana – 121002 Email: aloksharma99@powergridindia.com akbehera@powergridindia.com n.k.sharma@powergridindia.com	6. Sh. Bhavesh Kundalia Bikaner - Khetri Transmission Limited (Subsidiary of Adani Transmission Limited) C-105, Anand Niketan, New Delhi – 110021 Mob: 9099055681, 9545554934 Email: bhavesh.kundalia@adani.com vivek.singla@adani.com
7. Shri Anil Kumar Director(Projects) Power Transmission Corporation of Uttarakhand Limited (PITCUL) Vidyut Bhawan, Near ISBT Crossing, Saharanpur Road, Majra, Dehradun-248002 Mob: 7088117905 Email: director_project@ptcul.org shrawan_k_sharma@ptcul.org ce_candr@ptcul.org	8. Chief Superintendent RAPP 7&8, Rawatbhata Rajasthan Site, Nuclear Power Corporation of India Limited Anushakti, District Chittorgarh Rajasthan – 323303 Mob: 9409309734 Email: pradeepkgupta@npcil.co.in ssarwate@npcil.co.in
9. Director Lanco Mandakini Hydro Energy Pvt Ltd 14-H, Pushpanjali Enclave, General Mahadev Singh Road (GMS Road) Dehradun-248001, Uttarakhand Mob: 9971391418, 9818887963 Email: gyanesh.shukla@lancogroup.com rajesh.srivastav@lancogroup.com	10. Head Transmission GMR Bajoli Holi Hydropower Private Limited 1st Floor, Building No: 302, New Shakti Bhawan, Old Udaan Bhawan Complex, Opp. Terminal 3, IGI Airport, New Delhi-110037 Mob: 8826830027 Email: ajaya.nathani@gmrgroup.in gopendra.saraswat@gmrgroup.in
11. Sh. V.K. Sharma Head hydro (Projects) GMR (Badrinath) hydro power generation pvt ltd Old Udaan Bhawan, IGI Airport, PALAM New Delhi-110037	12. Shri Sameer Ganju AVP Fatehgarh Bhadla Transmission Limited Adani Corporate House, 4 th Floor- South Wing Shantigram, S G Highway, Ahmedabad- 382421, Gujarat, India. Ph.: 9711733252 Email: sameer.ganju@adani.com praveen.tamak@adani.in
13. Vice President Adani Renewable Energy Park Rajasthan Limited 4 th Floor, South Wing, Adani Corporate House, Shantigram, S G Highway, Ahmedabad- 382421, Gujarat, India. Mob: 9099005556 Email: mr.krishnarao@adani.com mehul.rupera@adani.com	14. Sh. Manoj Kumar Dinker, DGM NTPC Limited EOC Complex, A-8A, Sec-24, Noida, UP-201301 Mob: 9450962751 Email: mkdinker@ntpc.co.in subhashthakur@ntpc.co.in (For Tapovan Vishnugad, Tanda-II)

<p>15. Dy. General Manager (E&C) THDC India Limited Vishnugad Pipalkoti Hydro Electric Plant Alaknanda Puram Dist: Siyasain, Pipalkoti Uttarakhand-246472 Mob: 9411103520, 9412057804 Email: eandcthd@gmail.com</p>	<p>16. General Manager (PSP-EM&HM) THDC India Limited Tehri PSP Urja Sanchay Bhawan, Bhagirathipuram Tehri Garhwal Uttarakhand – 249124 Mob: 9411103675 Email: sspanwar@thdc.co.in; corpplanning@thdc.co.in</p>
<p>17. Shri Parish Gupta Authorised Signatory IB Vogt Solar Seven Private Limited 225-229, JMD Empire, Golf Course Ext Road, Sector 62, Gurugram, Haryana Ph.: 9871711445, 9811519257 Email: parish.gupta@ibvogt.com pushvinder.singh@ibvogt.com</p>	<p>18. Chief Executive Hydel Power Dev. & Head – Spl Initiatives (Const.) L&T Limited 12/4, Delhi Mathura Road, Near Sarai Metro Station, Faridabad - 121003 Haryana Mob: 9560856551, 01294312148 Email: vikas.khitha@larsentoubro.com yashobanta.rout@larsentoubro.com</p>
<p>19. Shri Sudip Dutta M/s Essel Saurya Urja Company of Rajasthan Limited G7, Ground Floor, Shree Mansion, Kamla Marg, C-Scheme, Jaipur, Rajasthan- 302001 Mob: 9650516244, 8888838900 Email: sudip.dutta@infra.esselgroup.com sundeep.rai@infra.esselgroup.com</p>	<p>20. Shri Yogesh Kumar Sanklecha General Manager - BD Acme Solar Holdings Limited Plot No. 152, Sector-44, Gurgaon-122002, Haryana Ph.: 8744060601, 9654819869 Email: yogesh@acme.in rahul.jeena@acme.in</p>
<p>21. Shri Rajesh Kumar Gupta DGM Mahoba Solar (UP) Pvt. Ltd. Rajas Rajan Acharya, 4th Floor- South Wing, Adani Corporate House, Shantigram, S G Highway, Ahmedabad- 382421, Gujarat, India. Ph.: 9099055681, 9545554934 Email: rajesh.gupta@adani.com rajasr.acharya@adani.com</p>	<p>22. Shri Neeraj Gupta General Manager ReNew Solar Power Pvt. Ltd. Commercial Block-1, Zone 6, Golf Course Road, DLF City, Phase-V, Gurugram, Haryana Ph.: 7389909907, 9542388443 Email: neeraj@renewpower.in rohit.singh@renewpower.in</p>
<p>23. Shri Gaurang Sethi Vice President (Bidding) Azure Power India Private Limited 3rd Floor, 301-304 And 307, Worldmark 3, Aerocity New Delhi-110037 Ph.: 9654649000, 7893733300 Email: gaurang.sethi@azurepower.com hariharan.k@azurepower.com</p>	<p>24. Shri Ashutosh Vyas Chief Manager- BD Solar Grid Hero Solar Energy Private Limited Plot no 201, First Floor, Okhla Industrial Estate Ph III, Delhi - 110020 Ph.: 9953314792, 7264851636 Email: ashutosh.vyas@herofutureenergies.com rahul.gupta@herofutureenergies.com</p>
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<p>27. Shri Saurabh Mehta Mahindra Susten Private Limited 7th Floor, WeWork, Raheja Platinum Sag Baug Road, off Andheri-Kurla Road Marol, Andheri East, Mumbai, Maharashtra-400059 Ph: 9930674683, 7838568948 Email:- mehta.saurabh2@mahindra.com khaitan.rakesh@mahindra.com</p>	<p>28. Sh. Ajay Sinha AGM (Schemes) Solar Energy Corporation of India Limited 1st Floor, D-3, A Wing, Prius Platinum Building, District Centre, Saket, New Delhi – 110017 Ph: 7042666263, 9810058966 Email - ajay.k.sinha@seci.co.in , sanjeev@seci.co.in</p>
<p>29. Shri Romesh Kapoor General Manager Commercial & System Operation Department SJVN Ltd SJVN Corporate Office Complex Shanan, Shimla – 171006, Himachal Pradesh (For Naitwar Mori, Devsari, Luhri-I,II, Sunni Dam) Ph: 9418088008, 9418045426</p>	<p>30. Shri Vivek Kodesia Head Business Development Eden Renewable Cite Private Limited Unit No. 236 B & C, First Floor, DLF South Court, Saket, Delhi-110017 Ph: 9717031091, 9958982823 Email: edenrenewablesindia@p@gmail.com</p>

Email: sjvn.cso@sjvn.nic.in gmcsosjvn@gmail.com	vivek.kodesia@eden-re.com
31. Shri Palaniappan Chockalingam Director SBSR Power Cleantech Eleven Pvt. Ltd SBE Renewables Private Limited 5 th Floor, Worldmark – 2, Asset Area – 8, Hospitality District, Aerocity, NH-8, Delhi – 110037 Ph: 9049339705, 8745085303 Email: chockalingam@sbenergy.com sumit@sbenergy.com	32. Shri Angshuman Rudra Sr. Manager Avaada Energy Private Limited C-11, Sector 65, Noida - 201307 Uttar Pradesh Ph: 7835004673, 8826099003 Email: angshuman.rudra@avaada.com deepesh.gupta@avaada.com
33. Shri S. R. Mahalda Director (Technical) Rajasthan Solar Park Development Co. Ltd. E-166, Yudhisthir Marg, C-Scheme, Jaipur – 302007 Ph: 9414004077, 7742222660 Email: solar.rrec@gmail.com rrec2016@gmail.com	34. Shri Purnendu Kumar Chaubey General Manager SBE Renewables Ten Pvt. Ltd 1 st Floor, Worldmark – 2, Asset Area – 8, Hospitality District, Aerocity, NH-8, Delhi – 110037 Ph: 9899780110, 9560690611 Email: purnendu@sbenergy.com prashant@sbenergy.com
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43. Shri Balakishore Kollabathula Authorized Signatory Avikiran Surya India Private Limited 12th Floor, Crescent No. 1, Prestige Shantiniketan, Hoodi, Bengaluru, Karnataka-560048 Ph.: 9810279841, 7899730301 Email: balakishore.kollabathula@enel.com norberto.cuencacandel@enel.com	

17th Joint Co-ordination Committee meeting of Generation Projects granted Connectivity/LTA in Northern Region (NR) on 26/03/2021 through Video Conference

1. The 17th Joint Coordination Committee meeting of generation projects granted Connectivity/LTA in Northern Region was held through video conference on 26.03.2021. The list of participants of the meeting is enclosed at **Annexure-I**.
2. After welcoming the participants by Dy.COO (CTU), it was informed that minutes of the 16th Joint Coordination Committee meeting of generation projects in Northern Region held through video conferencing on 29.12.2020, were circulated vide letter ref. no. C/CTU/NR/00/16JCC dated 16/02/2021. As no observations/comments are received, the minutes were confirmed as circulated. Further, provisions applicable in respect of grant of Connectivity for RE projects to the ISTS Grid is enclosed at **Annexure-Ia**. RE generators who have uploaded their status on "Status Monitoring Portal" on CTU website is enclosed at **Annexure-II**.

Status of the Generation Projects

Part A1. Status of the RE Generation Projects granted connectivity (St-II) and LTA

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						Under Applicant scope	Under ISTS Scope	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
1.	Adani Renewable Energy Park Rajasthan Limited (Jaisalmer/ Fatehgarh) (Stage-II: 1200000287) (LTA 1200000293 (250 MW) 1200000337	1000	12xxx293 250 MW Target(NR) 12xxx337 454 MW Target(NR)* 12xx2949* (296 MW) *Agreed for grant in NR	31.12.2017 or availability of ISTS whichever is later	150MW: 31/03/21 146MW: 30/04/21 448MW: 31/10/21 95MW: 30/11/21 158MW: 31/12/21	Generation: 300MW: 30/09/21 150MW: 31/10/21 150MW: 30/11/21 200MW: 31/12/21 200MW: 31/01/22	Connectivity system (TBCB scope) a. Fatehgarh Pooling Station - Bhadla (PG) 400kV D/c line along with line bay at Fatehgarh end. Line ready, CEA approval pending.	LTA Grant Date: 12xx0293- 31.12.2017 or system whichever is later 12xx337- 31.12.2017 or system whichever is later Connectivity transmission system yet to be	CON-4 received and under process. Bidding for generation has been carried out. Applicant informed about Hon'ble High Court of Rajasthan Land Status quo order issued on 08-09-2020. Petition(21/MP/2019) filed before CERC regarding Force Maejure &

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(454 MW) 1200002949 (296 MW)				(3MW balance)	Dedicated system: Adani generation switchyard – Fatehgarh Pooling Station 400kV D/c line along with line bays at both ends and 1x125 MVAR bus reactor at generation switchyard. – 30/04/2021 Pooling station : 30.04.21	Establishment of 400kV Fatehgarh Pooling Station and 1x125 MVAR Bus reactor (Dec'20) - Completed; Commissioning pending due to HC stay. POWERGRID scope a. 2 nos. of 400kV line bays at Bhadla (PG) for Fatehgarh- Bhadla 400kV line. (ready)	commissioned.LTA is likely to be operationalized upon commissioning of Transmission System	extension of LTA operationalization commencement with amended timeline, is currently pending for adjudication. CTU informed that transmission charges shall be payable by the applicant for the delayed generation capacity as per applicable CERC Regulations.
2.	Essel Saurya Urja Company of Rajasthan Limited Stage-II : (750 MW) 1200000270 LTA: (300 MW) 1200000271 (450 MW) 1200002846	750	12xxx271 PSPCL (300 MW) 12xxx2846 NBPDC (207 MW) SBPDCL (243 MW)	31.12.2018	300 MW- SB – 28.02.21 450MW 30/10/21 – SB Energy	Generation: 300 MW- SB – 30/04/21 450 MW-30/10/21 Dedicated system: Essel(MSS)- Bhadla 220kV D/c Essel ISS-2- Essel MSS 220kV S/c Essel ISS-1 -Essel MSS 220kV S/c	LTA System: • 765kV Bhadla- Bikaner D/c • 400kV Bhadla(PG)- Bhadla D/c • Establishment of Bhadla PS • 4 th ICT at Bhadla PS	12xxx271: 31.05.2019 or system whichever is later 12xx2846: 01.01.2021 or system whichever is later LTA shall be operationalized on 01.06.21 based on revised SCOD timeline	CON-6 signed. Sec-68 obtained. Bidding carried out by NTPC and SB Energy has signed PPA with NTPC for 600MW. It was informed that with the commissioning of ISTS system, LTA shall be operationalized. CTU informed that transmission charges shall be payable by the applicant for the delayed generation

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Line and bays are under the scope of applicant.-15/03/21 Generation PS 28/02/2021			capacity as per applicable CERC Regulations.
3.	ReNew Solar Power Pvt. Ltd. (Stage-II: 1200001432) (LTA 1200001640)	250	MSEDCL (250MW)	Commissioned	Commissioned	Connectivity System: Completed ReNew Solar – Bikaner 400 kV S/c line including bays at both ends	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga Split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	26.03.2020 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmissionsystem commissioning for ICT	MTOA operationalized
4.	Mahoba Solar (UP) Pvt. Ltd. Stage-II: 200 MW (1200001443) 50 MW (1200001654) LTA: 200 MW	250	MSEDCL (200MW) BYPL – (SECI) (50MW)	Commissioned	Commissioned	Connectivity System: Completed Mahoba Solar – Bhadla 220kV S/c line including bays at both ends	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at	1200001792: 27.01.2020 or sysyem whichever is later. 1200001793: 25.12.2020 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on	200MW MTOA operationalized 50 MW in STOA

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(1200001792) 50 MW (1200001793)						Section D (Status of ATS)	transmission system commissioning	
5.	ACME Solar Holdings Limited (Stage-II: 1200001494) LTA: 1200001653	250	MSEDCL (250MW)	Commissioned	Commissioned	Connectivity System: Completed ACME Bhadla Solar Power Plant – Bhadla 220kV S/c line including bays at both ends	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga Split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	16.02.2020 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	MTOA operationalized
6.	Tata Power Renewable Energy Limited (Stage-II: 1200001498) LTA: 1200001474	150	MSEDCL (150MW)	Commissioned	Commissioned	Connectivity System: Completed TPREL 500MW Solar Power Project – Bhadla 220kV S/c line including bays at both ends	LTA System: 1x500MVA, 400/220kV ICT (5th) [in addition to 4x500MVA, 400/220kV ICTs at Bhadla] Schedule of LTA System is given at Section D (Status of ATS)	16.01.2020 or system whichever is later. LTA likely to be operationalized on 01.06.2021 based on transmission system commissioning	MTOA operationalized
7.	Azure Power India Private Limited	130	MSEDCL (130MW)	Commissioned	Commissioned	Connectivity System: Completed	LTA System: 1x500MVA, 400/220kV ICT (5th)	30.01.2020 or system whichever is later.	MTOA operationalized

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(Stage-II: 1200001551) LTA: (1200001523)					Azure Power India Pvt. Ltd. – Bhadla 220kV S/c line including bays at both ends	[in addition to 4x500MVA, 400/220kV ICTs] at Bhadla Schedule of LTA System is given at Section D (Status of ATS)	LTA likely to be operationalized on 01.06.2021 based on transmission system commissioning	
8.	Azure Power India Private Limited (Stage-II: 250 MW (1200001600) 50 MW (1200001644) LTA: 50 MW (1200001574) 200 MW (1200002477) 50 MW (1200001651)	250+50	MPPMCL (300MW)	15.10.2020	23/12/21	Generation: 50 MW-31/07/21 250 MW-23/12/21 Dedicated system: Azure Solar PV Plant Bhadla II – Bhadla 220kV S/c line including bays at both ends – 17/03/21* Generation pooling station – 17/03/21* *(As per Status report Azure to review)	LTA System: For 50 MW (1200001574) & 200 MW (1200002477) LTA: 1x500MVA, 400/220kV ICT (5th) [in addition to 4x500MVA, 400/220kV ICTs] For 50 MW LTA (1200001651): Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021)	15.03.2021 or system whichever is later. LTA likely to be operationalized on 01.06.2021 (for 1200001574 & 1200002477) based on transmission system commissioning LTA (1200001651) LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	CON-4 not received.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
							Schedule of LTA System is given at Section D (Status of ATS)		
9.	Azure Power India Private Limited (Stage-II: 1200001601) LTA: 200 MW (1200001562) 100 MW (1200002476)	300	GRIDCO-200MW BRPL-100MW	15.10.2020	31/10/21	Generation: 50 MW-31/07/21 250 MW-01/11/21 Dedicated system: Azure Solar PV Plant Bhadla – Bhadla 220kV S/c line including bays at both ends – 11/03/21* Generation pooling station – 15/03/21*(As per Status report Azure to review)	LTA System: 1x500MVA, 400/220kV ICT (5th) [in addition to 4x500MVA, 400/220kV ICTs] Schedule of LTA System is given at Section D (Status of ATS)	15.03.2021 or system whichever is later. LTA likely to be operationalized on 01.06.2021 based on transmission system commissioning	CON-4 received. Under process. M/s Azure Power India Private Limited (APIPL) has filed Petition No. 628/MP/2020 (Azure Power India Private Limited & Ors. v. POWERGRID) before CERC on 03.09.2020 seeking, <i>inter alia</i> , extension of the deadline for completion of the Dedicated Transmission Line and Pooling Substation under the Transmission Agreement and extension of the date of operationalization/ start date of Long Term Access. The Petition is currently pending for adjudication.
10.	Hero Solar Energy Private Limited (Stage-II: 1200001575)	250	JBVNL (250MW)	30.06.2020	31/08/21	Generation: 31/12/21 Dedicated system: Hero Solar	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus	02.02.2021 or system whichever is later. LTA likely to be operationalized on	CON-4 not received.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	LTA: 250 MW (1200001663)					energy Pvt. Ltd. – Bhadla 220kV S/c line including bays at both ends – 30/04/21. Generation pooling station – 31/07/21	Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	01.07.21 based on transmission system commissioning	
11.	ACME Solar Holdings Limited (Stage-II: 1200001602) LTA: 300 MW (1200001664)	300	BRPL (300MW)	19.10.2020	17/02/22	Generation: 17/02/22 Dedicated system: Common pooling point of ACME Fatehgarh I Solar Power Plant & ACME Fatehgarh II Solar Power Plant – Fatehgarh 400 kV S/c line including bays at both ends – 16.02.22 (17/01/22 for 1200001603) Generation pooling station – 16.02.22	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	19.03.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	CON-4 not received. ACME was requested to coordinate with Fatehgarh Bhadla Transmission Ltd. (FBTL). Petition No. 108/MP/2019, Petition No. 109/MP/2019, Petition No. 483/MP/2020 and Petition No. 484/MP/2020 filed by applicant before CERC are currently pending for adjudication.
12.	ACME Solar Holdings Limited (Stage-II: 1200001603) LTA: 300 MW (1200001669)	300	BRPL (100MW) BYPL (100MW) TPDDL (100MW)	19.10.2020	17/02/22			19.03.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
13.	ACME Solar Holdings Limited (Stage-II: 1200001643) LTA (1200001737)	300	300 Target (NR)	26.10.2020	03/03/22	Generation: 03/03/22 Dedicated system: Pooling of power from ACME Fatehgarh III and IV Solar Power Plant at a common pooling station of ACME Fatehgarh I and II Solar Power Plant	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021)	26.03.2021 or system whichever is later. LTA likely to be operationalized on. 01.07.21 based on transmission system commissioning	
14.	ACME Solar Holdings Limited (Stage-II: 1200001642) LTA: (1200001742)	300	300 Target (NR)	26.10.2020	03/03/22	Common pooling point of ACME Fatehgarh I, II, III, IV Solar Power Plant – Fatehgarh 400kV S/c line along with terminal bays at both ends (already agreed with Fatehgarh I and II Solar Power Plant)(with min 1200 MW capacity at nominal voltage 02.03.22 Generation pooling station – 02.03.22	Schedule of LTA System is given at Section D (Status of ATS)	26.03.2021 or system whichever is later. LTA likely to be operationalized on. 01.07.21 based on transmission system commissioning	

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
15.	Azure Power India Private Limited (Stage-II: 1200001572) LTA: (1200001650)	300	GRIDCO (300MW)	Commissioned	150MW:15/12/20 Commissioned 150MW:31/01/21	Generation: Commissioned Dedicated system: Azure Bikaner 300MW Plant (application no. 1200001572) – Common Pooling Point of both Azure Bikaner 2x300MW Plants (application no. 1200001572 & 1200001573) 400 kV S/c line on D/c towers. Common Pooling Point – Bikaner PS 400 kV S/c line on D/c towers (with minimum capacity of 900 MW at nominal voltage) alongwith terminal bays at both ends – to be implemented by the applicant.– Commissioned	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	15.03.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	MTOA operationalised

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Generation pooling station – Commissioned			
16.	Azure Power India Private Limited (Stage-II: 1200001573) LTA: (1200001655)	300	100-HPPC (NR) 200-JBVNL (ER)	15.10.2020	150:30/04/21 150:31/05/21	Generation: 50 MW-30/04/21 50 MW-31/05/21 50 MW-30/06/21 150 MW-31/07/21 Dedicated system: Common Pooling Point of both Azure Bikaner 2x300MW Plants (application no. 1200001572 & 1200001573) – Bikaner PS 400 kV S/c line on D/c towers (with minimum capacity of 900 MW at nominal voltage) alongwith terminal bays at both ends – to be implemented by the applicant.- 24/11/20 Generation pooling station – 28/02/21	LTA System: Part of Rajsthan SEZ Phase-I Trasmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	15.03.2021 or system whichever is later. LTA likely to be operationalized on. 01.07.21 based on transmission system commissioning	Connection Agreement signed.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
17.	Mahindra Susten Private Limited (Stage-II: 1200001627) LTA: (1200001645)	250	CSPDCL (250MW)	01.06.2019	100 MW: 31.01.21 150 MW: 15.03.21	Generation: 100 MW: 30.04.21 150 MW: 30.05.21 Dedicated system: 250MW Solar Project – Bhadla 220kV S/c line along with bays at both ends – Completed Generation pooling station – Completed	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	01.02.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	Connection agreement signed.
18.	Mahoba Solar (UP) Pvt. Ltd. (Stage-II: 1200001941) LTA: (1200002161)	390	HPPC-390MW	01.12.2020 or system whichever is later	195 MW: 30/06/21 195 MW: 31/07/21	Generation: 50 MW-30/06/21 150 MW-31/07/21 150 MW-31/08/21 40 MW-30/09/21 Dedicated system: Mahoba Solar (UP) Private Limited Power Project – Fatehgarh-II(New) PS 220 kV D/c line – 28/02/21.	Connectivity System: 2 nos. of 220kV bays under Rajasthan SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation	03.05.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Generation pooling station – 30/04/21	(Moga split expected by 30.06.21) Schedule of LTA System is given at Section D (Status of ATS)		
19.	ReNew Solar Energy (Jharkhand Four) Pvt. Ltd. (Stage-II: 1200001967) LTA: (1200002014)	300	NBPDCL & SBPDCL-300MW	15.11.2020 or system whichever is later	30/07/21	Generation: 30/07/21 Dedicated system: 220kV S/c line (suitable for carrying 300MW at nominal voltage) each from Jaisalmer-I Project (1200001967) & Jaisalmer-II Project (1200001989) upto common pooling point. Common pooling point of Jaisalmer-I Project (1200001967) & Jaisalmer-II Project (1200001989) – Fatehgarh-II 220kV D/c line	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	03.05.2021 or system whichever is later. LTA likely to be operationalized on. 01.07.21 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						– 15/05/21 Generation pooling station – 15/05/21			
20.	ReNew Solar Energy (Jharkhand Four) Pvt. Ltd. (Stage-II: 1200001989) LTA (1200001991)	300	MSEDCL-300MW	15.06.2021 or system whichever is later	24/11/21	Generation: 24/11/21 Dedicated system: 220kV S/c line (suitable for carrying 300MW at nominal voltage) each from Jaisalmer-I Project (1200001967) & Jaisalmer-II Project (1200001989) upto common pooling point. Common pooling point of Jaisalmer-I Project (1200001967) & Jaisalmer-II Project (1200001989) – Fatehgarh-II 220kV D/c line – 30/08/21.	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	30.11.2021 or system whichever is later. LTA likely to be operationalized on 30.11.2021 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Generation pooling station – 15/09/21 provided			
21.	Eden Renewable Cite Pvt. Ltd (Stage-II: 1200002009) LTA: (1200002058)	300	BRPL (250MW) BYPL (50MW)	31.10.2020 or system whichever is later	26/05/21	Generation: 26/05/2021 Dedicated system: EDEN Cite ISTS Raj Power Plant – Fatehgarh-II(New) PS 220kV S/C line – 15/04/21 Generation pooling station – 15/04/21	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting and Moga bus Splitting: Under Implementation (expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	30.03.2021 or system whichever is later. LTA likely to be operationalized on 01.07.21 based on transmission system commissioning	CON-4 received and under process.
22.	Rajasthan Solar Park Development Company Ltd.	925	925 Target (NR)	01.10.2021 or system whichever is later	30/04/22	Generation: 30/04/22	Connectivity System: 4 nos. of 220kV bays under Rajasthan	01.05.2022 or system whichever is later.	CON-4 not received. Revised Section 68 recd from CEA.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(Stage-II: 1200002151) LTA: (1200000913)					Dedicated system: <ul style="list-style-type: none"> Nokh Solar Park (PS-1) - Bhadla-II Pooling Station 220 kV D/c Nokh PS-4- Bhadla-II 220kV D/c Nokh PS-1- Nokh PS-2 220kV D/c Nokh PS-3 – Nokh PS-4 220kV D/c Nokh PS-2- NOKh PS—3 220kV S/c Line along with associated bays at generation end: under the scope of applicant. – 26/08/21 Generation pooling station – 10/02/22	SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	LTA likely to be operationalized on 01.05.2022 based on transmission system commissioning	245MW generation capacity in 3 blocks is proposed to be taken up for development through EPC mode for which Tender has been floated. Remaining capacity of 190 MW is proposed to be developed through developer mode. Tender to be floated.
23.	Mahindra Susten Pvt. Ltd. (Stage-II: 1200002244) LTA: (1200002239)	250	HPPC-250 MW	31.03.2021 or system whichever is later	23/02/22	Generation: 25/02/22 Dedicated system: Mahindra Susten Solar Power	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation	31.08.2021 or system whichever is later. LTA likely to be operationalized on 31.08.2021.	

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Project - Bhadla-II PS 220 kV S/c line (suitable to carry min 300MW power at nominal voltage) along with associated bays at generation end: under the scope of applicant. (01/12/21) Generation pooling station – 01/12/21	(expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)		
24.	ReNew Solar Energy (Jharkhand Three) Private Limited (Stage-II: 1200002229) LTA (1200002232)	300	MPPMCL-300MW	23.04.2021 or system whichever is later	23/09/21	Generation: 23/09/21 Dedicated system: Jaisalmer 3 Plant – Fatehgarh-II (new) PS 220kV S/c line (suitable to carry min 300MW power at nominal voltage) along with associated bays at generation end:	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation	23.09.2021 or system whichever is later. LTA likely to be operationalized on 23.09.2021 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						under scope of applicant. – 20/07/21 Generation pooling station – 20/07/21	(Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)		
25.	Avaada Energy Pvt. Ltd. (Stage-II: 1200002125) LTA (1200002185)	350	MSEDCL-350MW	30.04.2021	01/04/21 (50MW) 15/04/21 (50MW) 01/05/21 (50MW) 15/05/21 (50 MW) 1/06/21 (50 MW) 15/06/21 (50 MW) 24/06/21 (50 MW)	Generation: 01/05/21 (50MW) 15/05/21 (50MW) 31/05/21(50MW) 15/06/21(50 MW) 24/06/21(150 MW) Dedicated system: Avaada Energy Private Limited – Bikaner (PG) PS 400 kV S/c line along with bays at both ends– 15/04/21 Generation pooling station – 30/04/21.	LTA System: Part of Rajasthan SEZ Phase-I Trasmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	25.11.2021 or system whichever is later. LTA likely to be operationalized on 25.11.2021 based on transmission system commissioning.	CON-5 issued
26.	SBSR Power Cleantech Eleven Pvt. Ltd (Stage-II: 1200001980) LTA:	300	TPDDL (200MW) BYPL (100MW)	03.12.2020 or system whichever is later	04/06/21	Generation: 04/06/2021:100MW 04/08/21:200 MW	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under	03.06.2021 or system whichever is later. LTA likely to be operationalized on .01.07.21 based on	CON-4 received and under process

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(1200002238)					Dedicated system: SBSR Eleven Solar Power Project – Bikaner 220 kV S/c line – 15/04/21. Generation pooling station – 30/04/21	Implementation (expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	transmission system commissioning	
27.	Ayana Renewable Power One Private Limited (Stage-II: 1200002228) LTA: (1200002274)	300	MPPMCL-300MW	01.02.2021	Jun'21 (100MW) Aug'21 (100MW) Sep'21 (100MW)	Generation: 30 Jun'21 (100MW) 23 Aug'21 (100MW) 23 Sep'21 (100MW) Dedicated system: Ayana Renewable Power One Pvt. Ltd. Plant – Bikaner (PG) 400kV S/c line along	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	23.09.2021 or system whichever is later. LTA likely to be operationalized on 23.09.2021 based on transmission system commissioning	CON-4 received in Jan21.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u>	<u>Under ISTS Scope</u>	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						with bays at both ends – 15/05/21 Generation pooling station –31 May'21			
28.	SBE Renewables Ten Private Limited (Stage-II: 1200002321) LTA: (1200002422)	450	HPPC (NR)- 50 MW CSPDCL (WR)- 400 MW	04.05.2021 or system whichever is later	07/10/21	Generation: 07.11.21 Dedicated system: SBE Renewables Ten Private Ltd Power Project – Fatehgarh-II PS 220kV D/c line alongwith associated bays at both ends – 30/09/21 Generation pooling station -30/09/21	LTA System: Part of Rajasthan SEZ Phase-I Trasmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	07.10.2021 or system whichever is later. LTA likely to be operationalized on 07.10.2021 based on transmission system commissioning	CON-4 not received.
29.	ReNew Solar Urja Private Limited (Stage-II: 1200002370) LTA: (1200002368)	300	TSSPDCL- 91.715 MW TSNPDC- 38.285 MW TANGEDCO- 170 MW	23.08.2021 or system whichever is later	25/02/22	Generation: 25/02/22	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation	23.01.2022 or system whichever is later. LTA likely to be operationalized on 23.01.2022 based on	CON-4 not received (Hard Copy pending)

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Dedicated system: Jaisalmer 4 Project – Fatehgarh-II PS 220kV S/c line – 25/02/22 Generation pooling station – 25/02/22	(expected by 31.05.2021) LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	transmission system commissioning	
30.	Avaada Energy Private Limited (Stage-II: 1200002385) LTA: (1200002391)	300	TSSPDCL – 98.77 MW TSNPDCL- 41.23 MW TANGEDCO- 160 MW	20.08.2021	01/07/21-15/09/21 (in Six phases of 50MW after every 15 days)	Generation: 01/07/21-15/09/21 (in Six phases of 50MW after every 15 days) Dedicated system: Avaada Energy Private Limited – Bikaner 400 kV S/c line along with bays at	LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	23.01.2022 or system whichever is later. LTA likely to be operationalized on 23.01.2022 based on transmission system commissioning	CON-4 not received.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						both ends – 15/04/21 [400 kV line & 1 No. 400 kV bay already granted vide application no 1200002125 (350MW) and same shall be utilized for present connectivity of 300MW also] Generation pooling station –30/04/21			
31.	Adani Green Energy Seven Limited (Stage-II: 1200002225) LTA: (1200002442)	300	PSPCL (NR)-300 MW	01.02.2021 or system whichever is later	31/08/21 (150MW) 30/09/21 (150MW)	Generation: 100 MW: 30/9/21 100 MW: 31/10/21 100 MW: 30/11/21 Dedicated system: Adani Green Energy Seven Ltd Plant – Fatehgarh-II (new) PS 220kV S/c line– 15/03/21 Generation pooling station–30/04/21	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) 1x500MVA, (6 th) 400/220kV ICT at	02.01.2022 or system whichever is later. LTA likely to be operationalized on 01.10.22 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
							Fatehgarh-II (part of Part of Rajasthan SEZ Phase-II Transmission System): Under Bidding Schedule of LTA System is given at Section D (Status of ATS)		
32.	Adani Green Energy Nine Limited (Stage-II: 1200002226) LTA: (1200002443)	300	PSPCL-200 MW (NR) IPCL-100 MW (ER)	01.02.2021 or system whichever is alter	31/08/21 (150MW) 30/09/21 (150MW)	Generation: 30/11/21 100MW 31/12/21 200 MW Dedicated system: Adani Green Energy Nine Solar Power Project – Fatehgarh-II (new) PS 220kV S/c line – 15/03/21 Generation pooling station– 30/04/21	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-I: Under Implementation LTA System: Part of Rajasthan SEZ Phase-I Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) 1x500MVA (6 th), 400/220kV ICT at Fatehgarh-II (part of Part of Rajasthan SEZ Phase-II Transmission	02.01.2022 or system whichever is later. LTA likely to be operationalized on 01.10.22 based on transmission system commissioning	CON-4 received and under process.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
							System): Under Bidding) Schedule of LTA System is given at Section D (Status of ATS)		
33.	Tata Power Renewable Energy Limited (Enh Stage-II: 1200002390) LTA: (1200002454)	150	150 Target (WR)	01.06.2021	30/06/21	Generation: 30/06/21 Dedicated system: Tata Power Renewable Energy Limited – Bhadla 220kV S/c line completed (Above 220 kV line & 1 No. 220 kV bay already granted vide application no 1200001498 and same shall be utilized for present connectivity of 150MW)	LTA System: 1x500MVA, 400/220kV ICT (8 th) at Bhadla: Yet to be approved by MoP Part of Rajasthan SEZ Phase-I Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021) Schedule of LTA System is given at Section D (Status of ATS)	01.12.2021 or system whichever is later. LTA likely to be operationalized with 8 th Bhadla transformer commissioning	CON-5 issued
34.	Renew Surya Vihaan Private Limited (Stage-II: 1200002590) LTA:	200	200 Target (SR)	31.03.2022 or system whichever is later	31/03/2022	Generation: 30/10/22 Dedicated system: ReNew	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-II: Under	31.08.2022 or system whichever is later. LTA likely to be operationalized upon commissioning of part	CON-4 not received. SECI 8 ;PPA not signed with SECI

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	(1200002567)					Surya Vihaan Private Ltd.– Fatehgarh-III PS 220 kV S/c line 15/10/2022 Generation pooling station– 15/10/22	Implementation (expected by Sep'22) LTA System: Part of Rajasthan SEZ Phase-I & II Transmission System and Moga Bus Splitting: Under Implementation (Moga split expected by 30.06.2021 & Sep'22 (ph-II)) Schedule of LTA System is given at Section D (Status of ATS)	of Rajasthan SEZ Phase-II System i.e. Sep'22)	
35.	AltraXergiPower Private Limited (Stage-II: 1200002637) LTA: (1200002639)	380	MPPMCL- 380 MW (WR)	15.02.2022 or system whichever is later	15/02/22	Generation: 15/02/22 Dedicated system: AltraXergi Power Pvt. Ltd. solar power plant – Fatehgarh-III PS 220 kV S/c high capacity line on D/c tower – 01/02/22	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-II: Under Implementation (expected by Sep'22) LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Und	01.03.2022 or system whichever is later. LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Generation pooling station– 01/02/22	er Bidding (tentatively Nov'22) Schedule of LTA System is given at Section D (Status of ATS)		
36.	SBE Renewables Sixteen Private Limited (Stage-II: 1200002450) LTA: (1200002656)	180	180 MW (NBPDC & SBPDCL Bihar)	11.08.2021 or system whichever is later	16/11/21	Generation: 16/11/21 Dedicated system: SBE Renewables Sixteen Private Limited Power Plant – Fatehgarh-II PS 220kV S/c line – 31/10/21 Generation pooling station – 31/10/21	Connectivity System: 1 no. of 220kV bay under Rajasthan SEZ Phase-II: Under Bidding LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Bidding (tentatively Nov'22) Schedule of LTA System is given at Section D (Status of ATS)	17.11.2021 or system whichever is later. LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received.
37.	NTPC Auraiya Solar	20	20:UPPCL NR	Commissioned	8MW: COD 10/11/20 7MW: COD 04/12/20	Generation: 5 MW 20/02/21	LTA on existing system	LTA Operationalized	Connection agreement Signed CTU informed that transmission charges

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
					Balance: 5MW by 30/01/21	Dedicated system: Connectivity System: Through the electrical system of the Principal Generating station (Auraiya GPS) & existing ISTS connected from Auraiya GPS			shall be payable by the applicant for the delayed generation capacity as per applicable CERC Regulations.
38.	SBE Renewables Seventeen Private Limited (Stage-II1200002635) LTA: (1200002789)	600	MPPMCL (WR): 320MW JKPCL (NR): 280MW	01.03.2022 or system whichever is later	31/03/22	Generation: 31/03/22 Dedicated system: SBE Renewables Seventeen Private Limited solar power plant – Fatehgarh-III PS 220 kV D/c line- 31.03.22 Generation pooling station – 31.03.22	Connectivity System: 2 nos. of 220kV bays under Rajasthan SEZ Phase-II: Under Implementation (expected by Sep'22) LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (tentatively Nov'22) Schedule of LTA System is given at	01.03.2022 or system whichever is later. LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received.

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
							Section D (Status of ATS)		
39.	Avaada Energy Private Limited (St-II 1200002775) LTA (1200002941)	240	HPPC (NR)	31.12.21	31.12.21	Generation: 30/11/21 Dedicated system: 400 kV Common Pooling station of 300 MW (Appl. No. 1200002385), 350 MW (Appl. No. 1200002125) & 240 MW (Appl. No. 1200002775) of Avaada Energy Private Limited Solar Power Plant – Bikaner (PG) S/s 400 kV S/c line (suitable to carry min. 900 MW at nominal voltage) along with bays at both ends 15/04/2021 Generation PS – 30/04/2021	LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (by sep'22) Schedule of LTA System is given at Section D (Status of ATS)	05.01.2022 or system whichever is later. LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.10.22)	CON-4 not received.
40.	Tata Power Green Energy Ltd. (1200002728)	225	WR (Target)	31.12.2021 or availability of	31.12.21	Generation: 31/12/21	220 kV Bay at Bikaner (PG) S/s:	31.12.2021 or system whichever is later.	CON-4 not received

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
	LTA (1200002804)			Tr. Whichever is later		Dedicated system: Tata Power Green Energy Limited Solar Power Plant – Bikaner (PG) S/s 220 kV S/c line – 31/12/21 Generation PS – 31/12/21	Under implementation LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (sep'22) Schedule of LTA System is given at Section D (Status of ATS)	LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.10.22)	
41.	ReNew Surya Aayan Private Limited (St-ii 1200002692) LTA (1200002782)	300	ER (Target)	13/04/22 or availability of Tr. Whichever is later	30/10/22	Generation: 30/10/22 Dedicated system: ReNew Surya Aayan Private Limited solar power plant – Fatehgarh-III PS 220 kV S/c line on D/c tower 15/10/22 Generation PS – 15/10/22	1 no 220 kV Bay at Fatehgarh-III PS: Under implementation as a part of Rajasthan SEZ Phase-II (Sep'22) LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (tentatively by Nov'22) Schedule of LTA System is given at	30.04.2022 or system whichever is later LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received. Seci 9

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
							Section D (Status of ATS)		
42.	Eden Renewable Passy Private Limited (St-II : 1200002629) LTA (1200002890)	300	MPPMCL - 300 MW(WR)	31.03.2022 or availability of Tr. Whichever is later	28/02/22	Generation: 28/02/22 Dedicated system: Eden Renewable Passy Private Limited Power plant – Fatehgarh-II PS 220 kV S/c line on D/c tower –01/01/22 Generation PS – 01/01/22	1 no 220 kV Bay at Fatehgarh-II PS:Under bidding as a part of Rajasthan SEZ Phase-II LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (tentatively by Nov'22) Schedule of LTA System is given at Section D (Status of ATS)	28.02.2022 or system whichever is later LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received
43.	NTPC Limited (St-II 1200002340) TSSPDCL; 1200002904 (LTA)	176.375 MW (Granted) 73.63 (Received)	TSSPDCL (176.375MW)	01.09.2021 or availability of Tr. Whichever is later	01/09/21	Generation: 15/12/21 Dedicated system: NTPC Limited – Bhadla-II PS 400 kV S/c line – 15/12/21	400 kV bay at Bhadla-II PS: to be allotted by MOP LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under	12**2904- 29.09.2021 or system whichever is later LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System.	CON-4 not received. 400kV bay agreed in 4th NCT and to be allocated by MoP

S. No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from which connectivity required (as per St-II/connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		Deliberations/ Decision	
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under ISTS Scope</u> Connectivity / LTA System	LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Remarks
						Generation PS – 01/07/21	Implementation/Bidding (tentatively by Nov'22) Schedule of LTA System is given at Section D (Status of ATS)	(01.12.22) and 400kV bay	
44.	NTPC Limited (St-II 1200002339) LTA (150 MW) (TSSPDCL) 1200002903 (TSNPDCL) 1200003124	105.83 MW (Granted) 44.17 (received)	TSSPDCL - 105.83MW	29.07.2021	29/07/21	Generation: 15/10/21 Dedicated system: 150MW Solar Project at Devikoot – Fatehgarh-II PS 220kV S/c line – 15/10/21 220kV Bay at Fatehgarh-II PS shall also be under the scope of applicant – 01/06/21 (under order placement) Generation PS – 01/07/21	LTA System: Part of Rajasthan SEZ Phase-II Transmission System: Under Implementation/Bidding (tentatively by Nov'22) Schedule of LTA System is given at Section D (Status of ATS)	12**2903-29.09.2021 or system whichever is later LTA likely to be operationalized upon commissioning of part of Rajasthan SEZ Phase-II System. (01.12.22)	CON-4 not received.

Part A2. Status of the Conventional Generation Projects granted LTOA/ LTA

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						Under Applicant scope	Under Applicant scope		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
1.	GMR Bajoli Holi Hydropower Pvt. Ltd – Bajoli Holi HEP (180 MW)	155	155 Target(NR)	Connectivity system by HPPTCL	Unit-I: May '21* Unit-II: Jun'21 Unit-III: Jun'21 *As per MoM of Mtg held on 11/11/2020-Mar'22	Generation: Unit-I: May '21 Unit-II: Jun'21 Unit-III: Jun'21	Connectivity system by HPPTCL LTA system: a. Bajoli Holi- Lahal pooling Station (HPPTCL) 220 kV high capacity D/c line with twin moose conductor (being implemented by HPPTCL)- matching with generation b. Lahal Pooling Station- Chamera Pooling point (PG) 400 kV D/c line (being implemented by HPPTCL)-);)- Nov'21 as per GMR c. 400kV bays (GIS) at Chamera PS: under POWERGRID scope expected	Aug'2018 Availability of System to be implemented by HPPTCL	Applicant informed that 97% of generation project work is completed. As an interim measure, HPPTCL completed construction of 220kV Lahal- Budhil for part evacuation of power from Bajoli Holi HEP. SPS arrangement has to be implemented by M/s GMR during interim period to avoid ICT overloading at Chamera as per the MoM of meeting held on 22/01/2019 among CEA, HPPTCL, CTU & GMR. A meeting among CEA, POSOCO, CTU & HPPTCL was also held on 11/11/20 for charging of Lahal Plgstr of HPPTCL, wherein revised time schedule of Line & generator was provided.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
							to be completed by Sep'21 d. Existing ISTS system beyond Chamara PS		
2.	GMR (Badrinath) hydro power Generation Pvt. Ltd. – Alaknanda HEP (3x100 MW)	259	259 Target(NR)	Connectivity system by PTCUL	Matter Subjudice with Supreme Court	Matter Subjudice with Supreme Court	Connectivity system: (Under scope of PTCUL) a. 220 kV Alaknanda HEP(Joshimath) – Pipalkoti D/c line LTA system: (Under scope of PTCUL) a. Pipalkoti-Karanprayag-Srinagar-Kashipur 400 kV D/c line. b. Power shall be stepped up to 400 kV at PipalkotiPlg. Station.	Dec'2014/ Availability of System to be implemented by PTCUL	Applicant in earlier JCC informed that there is no change in status of project since 1 st JCC and matter regarding implementation of the project is sub-judice before Hon'ble Supreme Court on account of environmental concerns. The status remains same.
3.	NTPC - TapovanVishnugad HEP (4X130MW)	513.76	Haryana: 29.16 MW HP: 18.51 MW	13/03/2019 or the availability of Connectivity transmission system	130:Sep'22 130:Oct'22 130:Nov'22 130:Dec'22	Generation: Project being rescheduled on account of natural calamity. NTPC to	Connectivity System: Under scope of PTCUL: a. TapovanVishnugad HEP- Proposed	01/04/2019 or availability of ISTS network, whichever is later.	CON-4 received and under process. There is delay in getting NoC as per Forest Act,

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule	<u>Under Applicant scope</u> Gen Commissioning / Connectivity line schedule		
			J&K: 45.99 MW Punjab: 40.12 MW Rajasthan: 55.30 MW UP: 99.55MW Uttarakhand: 91.90 MW Chandigarh: 4.03 MW Delhi: 52.14 MW Unallocated NR— 77.06 MW	whichever is later.		revert on revised schedule.	site of Pipalkoti 400 kV D/c (Twin) line. Target – Dec' 21 b. Proposed site of Pipalkoti substation – Khandukhal (erstwhile Srinagar) 400kV D/c line with quad moose conductor. Awarded in 3 packages. Target – Dec'21. (To be implemented by PTCUL as deemed licensee) LTA System: Khandukhal-Rampura (erstwhile Srinagar) – Rampura(erstwhile Kashipur) 400 kV (Quad) D/c line		2006 and related approvals. Tripartite Transmission Agreement is yet to be signed by PTCUL and Beneficiaries. Sent draft to the beneficiaries. NTPC was requested to facilitate the signing of Tripartite LTA agreement with beneficiaries & PTCUL. In 3 rd NRPC-TP meeting held on 19/02/21, 400 kV Khandukhal-Rampura Transmission Line decided to be taken up in Central Sector. The scheme is to be taken up to NCT for approval.
4.	LancoMandakani Hydro Energy Pvt. Ltd. - Phata Byung HEP (76MW)	76	76 Target(NR)	30/09/2018 or availability of common ISTS network whichever is later	Dec'23 (tentative) Under NCLT	Generatiion Under NCLT DedicatedSystem Connectivity System: Phatabyung generation	Common transmission system required for Connectivity (under the scope of PTCUL as Deemed ISTS):	30/09/2018 or availability of ISTS network, whichever is later.	Project is stalled since July'17 on account of main EPC contractor (Lanco Infra) being referred to NCLT and subsequently going through liquidation process as per order of NCLT in 2018.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						switchyard – Baramwari (PTCUL) 220kV D/c line (Implementation under the Scope of applicant including 220kV bays at both ends) (Survey and Investigation completed, Forest Land of 0.44 Ha clearance obtained. Private Land of 7.074 Ha has to be acquired)	<p>a. Baramwari (PTCUL) – Khandukhal (erstwhile Srinagar) (PTCUL) 220kV D/c line along with associated bays at both ends.</p> <p>b. Establishment of Baramwari 220 kV Pooling station.</p> <p>Portion of Baramwari – Khandukhal line required to be implemented matching with L&T Singoli BhatwariHEP (commissioned)</p> <p>LTA System: Khandukhal-Rampura (erstwhile Srinagar) – Rampura(erstwhile Kashipur) 400 kV (Quad) D/c line</p> <p>PTCUL informed that work from Interconnection point</p>		<p>The company (LMHEPL) is under corporate insolvency resolution process under IBC.</p> <p>As per Lenders' Engineer assessment, the estimated time to complete the balance project works will be 24 months from the actual work restart.</p> <p>A supplementary LTA agreement is yet to be signed by LancoMandakani Hydro Energy Pvt. Ltd.</p> <p>In 3rd NRPC-TP meeting held on 19/02/21, 400 kV Khandukhal-Rampura Transmission Line decided to be taken up in Central Sector. The scheme is to being taken up to NCT for approval.</p>

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
							to 220 kV Baramwari S/s will be taken up after receiving commissioning schedule of 76 MW Phatabyung HEP of LANCO, which is under NCLT.		
5.	Nuclear Power Corporation of India Limited - RAPP-7&8 (2x700 MW)	1400	Haryana – 44.22MW, Himachal Pradesh – 26.54MW, J&K – 54.29MW, Punjab – 64.55MW, Rajasthan – 700MW, UP – 161.96MW, Uttarakhand – 32.53MW, Chandigarh – 4.8MW, Delhi – 101.11MW, Unallocated – 210MW	December'2015	RAPP-7: Feb'22 RAPP-8: Apr'22 Detailed Status not submitted.	Generation: RAPP-7: Feb'22 RAPP-8: Apr'22 Dedicated System: Connectivity System: From existing RAPP-5&6, 400 kV generation switchyard	LTA system: Commissioned <ul style="list-style-type: none"> 400kV Kota – Jaipur (South) D/c line Re-arrangement of lines at Kota (so as to restore the transmission system at Kota inline with original LTA intimation). Associated 400kV bays at Kota and Jaipur (South) S/s. 50 MVar line reactors at Jaipur (South) S/s 	Dec'15 or availability of ISTS network, whichever is later.	Connection agreement signed. Civil works completed, however, generation delayed. CTU informed that LTA system has been commissioned and LTA has been operationalized w.e.f. 12/04/19 and applicant is liable to bear applicable Transmission charges, till commissioning of generation units. NPCIL shall facilitate signing of LTA agreement with Beneficiaries. Signed – J&K, UP. Not Signed – Punjab, Haryana, Delhi, HP, Chandigarh, Rajasthan, Uttarakhand.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
6.	THDC – Tehri PSP (4x250MW)	1000	Delhi-600MW Haryana-100MW Rajasthan-100MW Uttarakhand-200MW	03/11/2017	U1: Jun'22 U2: Aug'22 U3: Oct'22 U4: Dec'22 Detailed Status not submitted.	Generation: U1: Jun'22 U2: Aug'22 U3: Oct'22 U4: Dec'22 Detailed Status not submitted.	Connectivity System: Through bus bar extension at Tehri Bus LTA system (Commissioned): a. Tehri Generation – Koteswar PS 400kV S/c (Quad) b. 765/400kV, 1x800MVA GIS S/s at Koteswar PS c. Augmentation of 765/400kV 1x1500 transformation capacity at Meerut-	03/11/2017 or availability of ISTS network, whichever is later. LTA operationalised	CON-4 not received. Excavation and Civil work completed in machine hall. Transmission charges shall be payable by the applicant for the delayed generation capacity as per applicable CERC Regulations. THDC to facilitate signing of LTA Agreement with the beneficiaries. Only Haryana and Uttarakhand have signed LTA agreement. To be signed by Delhi/Rajasthan.
7.	L&T Uttaranchal Hydro Energy Limited – SingoliBhatwariH EP(3x33MW)	99	66 Target (NR) 33 Target (SR)	31/10/2018 or availability of ISTS network for Connectivity whichever is later	U-1:12/11/20 U-2:18/12/20 U-3:25/12/20 Commissioned	Generation: Commissioned Dedicated system: SingoliBhatwari generation switchyard – Baramwari pooling station 220 kV D/c line, with the opening	Common inter-state transmission system required for Connectivity: 220 kV D/c line from point of interconnection of Baramwari-Khandukhal (erstwhile Srinagar) 220 kV	31/03/2019 or availability of ISTS network, whichever is later.	Generation Commissioned: Power is being transferred through exchange/STOA route. Availability of transmission system for LTA by PTCUL is critical. Tripartite LTA agreement signed on 10.08.20. Applicant informed that they have applied for PPA

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						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						<p>of LILO as mentioned above in interim arrangement (Implementation under the Scope of applicant including 220kV bays at both ends).</p> <p>Connectivity System:</p> <p>Interim Arrangement: 220 kV D/c line from generation switchyard to point of interconnection of Baramwari - Khandukhal (erstwhile Srinagar) 220 kV D/c line with SingoliBhatwari HEP (Implementation under the Scope of generation developer along with associated</p>	<p>D/c line with Singoli Bhatwari to Khandukhal (erstwhile Srinagar) S/s (Implementation under the Scope of PTCUL as deemed ISTS along with associated bays at Khandukhal). (commissioned in Jun'20)</p> <p>Final Arrangement: SingoliBhatwari generation switchyard – Baramwari pooling station 220 kV D/c line, with the opening of LILO as mentioned above in interim arrangement (Implementation under the Scope of applicant including 220kV bays at both ends).</p> <p>Common inter-state transmission system required</p>		<p>with State Government of Uttarakhand, who has first right of refusal. Discussions have been held at various level with State Government and they expect formalization of PPA with UPCL shortly.</p> <p>As informed, applicant is anticipating change of beneficiary (SR) as per the PPA with UPCL shortly.</p> <p>PTCUL stated that work from Interconnection point to 220kV Baramwari S/S will be taken up after receiving commissioning schedule of 76 MW Phatabyung HEP of LANCO.</p> <p>In 3rd NRPC-TP meeting held on 19/02/21, 400 kV Khandukhal-Rampura Transmission Line decided to be taken up in Central Sector. The scheme is to being taken up to NCT for approval.</p>

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						<p>bays at generating switchyard) (completed)</p> <p>Final Arrangement: SingoliBhatwari generation switchyard – Baramwari pooling station 220 kV D/c line, with the opening of LILO as mentioned above in interim arrangement (Implementation under the Scope of applicant including 220kV bays at both ends).</p> <p>Common inter-state transmission system required for</p> <p>Connectivity:Bara mwari pooling station (PTCUL) – Khandukhal (erstwhile</p>	<p>for</p> <p>Connectivity:Bara mwari pooling station (PTCUL) – Khandukhal (erstwhile Srinagar) (PTCUL) substation 220kV D/c line (Implementation under the Scope of PTCUL as deemed ISTS along with associated bays at both ends).</p> <p>LTA System: Khandukhal- Rampura (erstwhile Srinagar) – Rampura(erstwhile Kashipur) 400 kV (Quad) D/c line</p>		

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Srinagar) (PTCUL) substation 220kV D/c line (Implementation under the Scope of PTCUL as deemed ISTS along with associated bays at both ends).			
8.	SJVN Ltd – Naitwar Mori HEP (2x30MW)	60	60 Target (NR)	06/07/2021 or availability of ISTS for connectivity, whichever is later.	U1: 04/11/21 U2: 04/12/21	Generation: U1: 15/03/22 U2: 31/03/22 Dedicated system: To be implemented by SJVNL: Naitwar Mori HEP – Location of Mori 220/132kV PTCUL substation 220kV D/C (to be implemented by applicant along 220kV bays at generating end).	Connectivity System: (PTCUL) #Location of Mori 220/132kV (PTCUL) – Dehradun 220kV D/C (to be implemented by PTCUL) (NIT for detail survey and forest preparation work published on 15.06.2020, bid submission being extended) # Mori 220/132kV substation is not required in the time frame of Connectivity of Naitwar Mori HEP.	10/10/2021 or availability of ISTS network, whichever is later.	M/s PTCUL vide letter dated 12.1.2021 has conveyed that Board of Directors of PTCUL had accorded approval for handing over of construction of 220 kV Mori-Dehradun Line to Central Sector. The same was agreed during 3 rd NRPC(TP) meeting held on 19/02/2021 (MoM Awaited) The revised connectivity system was also discussed during 3 rd NRPC TP meeting held on 19/02/2021.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
							LTA System: Existing ISTS network		
9.	NTPC Ltd Tanda TPS Stage-II (2x660MW)	356.78	Uttarkhand-35.94MW Haryana-41.76MW Rajasthan-83.35MW J&K-65.75MW Ch'garh-4.91MW Unallocated-125.07MW	Connectivity system to be implemented by UPPTCL	U1: Commissioned U2: 31/03/21	Generation: U2: 31/03/21	Connectivity through UP STU system. LTA system for 2 nd unit [balance 178.39 MW (cumulative 356.78 MW LTA) with following UPPTCL transmission system: i) Establishment of 400/220/132 kV, 2x500 + 2x200 MVA GIS substation at Basti along with 125 MVAR Bus Reactor ii) Construction of Tanda TPS-Basti 400 kV D/C Quad line iii) LILO of two ckts (ckt. no. 3 rd & 4 th) of Gorakhpur (PG)-Lucknow(PG) 400 kV D/C (twin) existing PGCIL line at Basti by UPPTCL. (15/01/21)	01/01/2020 or availability of UP network, whichever is later.	Uttarakhand, J&K, Rajasthan have signed LTA Agreement. Chandigarh - in process. Haryana to sign. LTA for 1 st unit has been operationalized wef. 24/09/19. NTPC was requested to facilitate signing of LTA agreement with remaining beneficiaries. Upon commissioning of UP STU system, NTPC shall be liable to pay the applicable transmission charges till commissioning of 2 nd generation unit. UPPTCL was requested to confirm the status of ATS vide email. Subsequently, UPPTCL vide email dated 28/02/2021 confirmed the completion schedule of ATS as 15/03/21. However part LTA system is being completed by UPPTCL.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
10.	SJVN Ltd (2x33 MW Dhaulasidh HEP)	66	66 Target (NR)	Connectivity system to be implemented by HPPTCL	Unit-1- 28.02.25 Unit-2: 15.03.25	Generation: Unit-1- 30.06.25 Unit-2: 31.07.25 Dedicated system: 220kV Dhaulasidh HEP – Hamirpur (PG) D/c line including line bays at both ends	Connectivity System: being reviewed; Connectivity to be granted from HPPTCL. Under scope of Applicant: 220kV Dhaulasidh HEP – Hamirpur (PG) D/c line including line bays at both ends LTA System: Through Existing Transmission system.	30/11/2024	Land required 331.9 ha; land acquired 133.47ha, LTA agreement signed in Jul'20. A meeting was held among CEA, CTU, SJVNL & HPPTCL on 09/12/2020 wherein it was discussed & agreed to revise the Connectivity point as Sujampur (switching station of HPPTCL) & LTA Tr. System as 220 kV D/c line from Dhaulasidh HEP to Sujampur (HPPTCL). Accordingly, it was agreed that SJVN to approach HPPTCL for grant of connectivity and accordingly, LTA granted for Dhaulasidh HEP shall be revised. Based on grant of HPPTCL connectivity, SJVN will have to surrender the ISTS connectivity and LTA shall be revised accordingly by CTU.

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
11.	SJVN Ltd Luhri HEP Stage-I (2x80 + 2x25MW)	210		24/04/2025 or availability of common ISTS for connectivity, whichever is later.	U1: 24/04/25 U2: 09/05/25 U3: 24/05/25 U4: 19/05/25	U1: 24/04/25 U2: 09/05/25 U3: 24/05/25 U4: 19/05/25 Under the scope of Generation Developer • Luhri Stage-I – 400/220kV Nange GIS Pooling Station 220kV D/c line along with associated bays at both ends.	Common connectivity transmission system under ISTS • Establishment of 1x315MVA, 400/220kV Nange GIS Pooling Station (Tentatively Identified near Luhri Stage-II HEP). • Nange GIS Pooling Station – Koldam 400kV D/c line along with associated bays at both ends (GIS bays at Koldam). LTA System: • Existing ISTS transmission system beyond Koldam HEP (NTPC).1 No. 315 MVA 400/220 kV ICT (2 nd) at Nange Pooling Station	24/04/2025 or availability of ISTS network, whichever is later.	Total land required – 151.82 ha. Land acquired 10.74 ha. Land acquisition is in process. Detailed route survey for dedicated transmission line from project location to Nanje (25km) completed on 25/11/19. Environment clearance accorded by MoEF&CC on 17.03.2020. Applicant signed Transmission Agreement and submitted Conn-BG as per agreement.
12.	Chenab Valley Power Projects [P] Ltd. {PakalDul	1000		01/02/2024 or availability of ISTS for	U-I: Apr'2025	Generation: U-I: Apr'2025 U-II: May'2025	Connectivity System:		

S.No.	LTA Applicant	LTA Quantum (MW)	Target/ Firm Beneficiaries	Gen Comm. Schedule/Date from Connectivity required (connectivity Intimation)	Gen Comm. Schedule (As per 16th JCC)	Schedule as per 17 th JCC		LTA grant dates (as per intimation) / Likely LTA Operationalisation dates	Deliberations
						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
	HEP (4X250MW)}			connectivity, whichever is later.	U-II: May'2025 U-III: Jun'2025 U-IV: Jul'2025	U-III: Jun'2025 U-IV: Jul'2025 Dedicated system Connectivity System: <ul style="list-style-type: none"> 400 kV D/c (Triple HTLS Conductor) line from PakalDul HEP – Kishtwar (GIS) Pooling station along with associated bays at both ends. GIS switchyard equipment and XLPE cables and other associated equipment provided may be designed for carrying 4000 Amps current. 420 kV, 125 MVAR Bus Reactor at PakalDul HEP. One and half breaker switching scheme for 400 	Under ISTS(TBCB) – <ul style="list-style-type: none"> Establishment of 400 kV GIS Pooling station at Kishtwar by LILO one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung). 420 kV, 125 MVAR Bus Reactor at Kishtwar (GIS) Pooling Station LTA System: Kishtwar - Kishenpur 400kV S/c (Quad) line (by utilizing towers of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) - Under the scope of ISTS. In addition, Connectivity system shall also be required for effecting LTA.		

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						<u>Under Applicant scope</u>	<u>Under Applicant scope</u>		
						Gen Commissioning / Connectivity line schedule	Gen Commissioning / Connectivity line schedule		
						kV Generation switchyard.			

Part B: Renewable Generation Projects granted only Stage-II Connectivity

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC			Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope	ISTS	
1.	NTPC Limited (1200002497)	90	25/10/21	19/09/21	Generation: 15/10/21 Dedicated system: NTPC Ltd.90MW Powerplant–Common PS of NTPC's 150 MW & 90 MW Solar Project at Devikoot – Fatehgarh-II PS 220 kV S/c line (already granted for 150 MW plant)(Appl.No. 1200002339)- 15/10/21 Generation PS – 15/10/21			CON-4 not received.
2.	NTPC Limited (1200002483)	300	01.09.2021	01/09/21	Generation: 15/12/21	400 kV Bay already granted for 250 MW plant(Appl. No.		CON-4 not received.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
					Dedicated system: NTPC Ltd. 300 MW Power plant – Common PS of NTPC's 250MW & 300 MW Solar Project located at Kolayat through 220 kV S/c line and Common PS – Bhadla-II PS through 400 kV S/c line (already granted for 250 MW plant)- 15/12/21 Generation PS – 30/06/21	1200002340) at Bhadla-II PS: agreed in 4th NCT to be approved by MoP	
3.	ABC Solar (India) Private Limited (erstwhileTBEA Solar (India) Pvt Ltd.) (1200002359)	300	01.07.2021	19/12/21	Generation: 19/12/21 Dedicated system: ABC Solar (India) Private Limited (erstwhileTBEA Solar (India) Pvt Ltd.) Solar Power Plant –Bhadla-II PS 220kV S/c line – 01/10/21 Generation PS – 31/10/21	220kV Bay at Bhadla-II PS: Under implementation as part of Rajasthan SEZ Phase-I (expected by 31.05.2021)	CON-4 not received. NTPC REIA
4.	Adani Renewable Energy Park Rajasthan Limited (1200002410)	500	31.01.2022 or system whichever is later	31/01/22	Generation: 31/07/22 Dedicated system: Adani Renewable Energy Park Rajasthan Limited – Fatehgarh-II P.S 220 kV D/c line: Dec'21 Generation PS – Dec'21	2 nos. of 220 kV bays at Fatehgarh-II P.S as part of Rajasthan SEZ Phase-II: Under bidding	CON-4 not received.
5.	Azure Power India Private Ltd (1200002400)	500	07.04.2024 or system whichever is later	19/01/25	Generation: 30/10/25	400 kV Bay at Fatehgarh-II PS	400kV bay agreed in 4th NCT and to be

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC			Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope	ISTS	
					Dedicated system: Azure Power India Pvt. Ltd. Power plant – Fatehgarh-II PS 400 kV S/c line – 15/10/25			allocated by MoP
6.	Azure Power India Private Ltd (1200002401)	500	07.04.2022 or system whichever is later	19/01/23	Generation: 30/04/23 Dedicated system: Azure Power India Private Limited Power Plant – Bhadla-II PS 400kV S/c line – 15/04/23 Generation PS – 15/04/23	400kV Bay at Bhadla-II PS		400kV bay agreed in 4th NCT and to be allocated by MoP
7.	Azure Power India Private Ltd (1200002402)	500	07.04.2025 or system whichever is later	19/01/26	Generation: 30/10/26 Dedicated system: Azure Power India Private Limited Power Plant – Fatehgarh_III (Ramgarh-II PS) 400kV S/c line – 15/10/26 Generation PS – 15/10/26	400kV Bay at Fatehgarh-III		400kV bay agreed in 4th NCT and to be allocated by MoP
8.	Azure Power India Private Ltd (1200002403)	500	07.04.2023 or system whichever is later	19/01/23	Generation: 30/04/23 Dedicated system: Azure Power India Private Limited Power Plant – Bhadla-II PS 400kV S/c line – 15/04/23 Generation PS – 15/04/23	400kV Bay at Bhadla-II PS		400kV bay agreed in 4th NCT and to be allocated by MoP

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
9.	Adani Renewable Energy Holding Four Limited (erstwhile Adani Green Energy Four Limited) (1200002428)	500	31.01.2022 or system whichever is later	31 Jan 2022	Generation: 31 Dec'22 Dedicated system: Adani Renewable Energy Holding Four Limited Power Plant – Bhadla-II PS 400kV S/c line– 30/12/21	400kV Bay at Bhadla-II PS	CON-4 not received. 400kV bay agreed in 4th NCT and to be allocated by MoP
10.	Adani Renewable Energy Holding Four Limited (erstwhile Adani Green Energy Four Limited) (1200002432)	500	30.09.2022 or system whichever is later	30/09/22	Generation: 31/12/22 Dedicated system: Adani Renewable Energy Holding Four Limited Power Plant – Ramgarh-II PS 400kV S/c line (suitable to carry min 900MW power at nominal voltage) along with associated bay at generation end: under scope of applicant. -30/09/22	400kV Bay at Ramgarh-II PS Bay shall be implemented along with Phase-III system.	CON-4 not received.
11.	Adani Renewable Energy Holding Four Limited (erstwhile Adani Green Energy Four Limited) (1200002430)	500	01.07.2021 or system whichever is later	1 Jul 2021	Generation: 31/12/22 Dedicated system: Adani Renewable Energy Holding Four Limited Power plant – Fatehgarh-II PS 220 kV D/c line – 15/06/21	220 kV Bays at Fatehgarh-II PS: Under bidding as part of Rajasthan SEZ Phase-II System	CON-4 not received.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under ISTS Scope	
12.	ACME Solar Holdings Limited (1200002471)	300	21.06.2021 or system whichever is later	28/12/21	Generation: 28/12/21 Dedicated system: ACME Solar Holdings Limited Power Plant – Bhadla-II PS 220kV S/c line – 30.11.21 Generation PS – 30.11.21	220kV Bay at Bhadla-II PS: Under implementation as a part of Rajasthan SEZ Phase-I (expected by 31.05.2021)	CON-4 not received. MSEDCL project. Commissioning date likely to be revised by 5-6 months.
13.	NTPC Limited (1200002501)	300	01.09.2021 or system whichever is later	01/09/21	Generation: 31/12/21 Dedicated system: NTPC Limited Power Plant – Bhadla-II PS 220kV S/c line – 31/12/21 Generation PS – 31/12/21	220kV Bay at Bhadla-II PS: Under implementation as a part of Rajasthan SEZ Phase-I (expected by 31.05.2021)	CON-4 not received. (Under CPSU-II Scheme) Extension from SECI awaited.
14.	Eden Renewable Alma Private Limited (1200002554)	300	14.01.2022 or system whichever is later	30/07/22	Generation: 30/07/22 Dedicated system: Eden Alma-ISTS solar power plant - Bhadla-II PS 220 kV S/c line - 15/07/22 Generation PS – 15/07/22	220 kV Bays at Bhadla-II PS: Under implementation as a part of Rajasthan SEZ Phase-I (expected by 31.05.2021)	CON-4 not received. PPA yet to be signed
15.	SBE Renewables Fifteen Private Limited (1200002556)	600	31.12.2021 or system	30/06/22	Generation:	220 kV Bays at Bhadla-II	CON-4 not received.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
			whichever is later		30.10.22 Dedicated system: SBE Renewable fifteen Pvt. Ltd. solar power plant - Bhadla-II PS 220 kV D/c line- 31/05/22 Generation PS-30/06/22	PS:Under bidding as a part of Rajasthan SEZ Phase-II	PPA yet to be signed. SECI 8
16.	AMP Energy Green Private Limited (1200002559)	100	31.12.2021 or system whichever is later	31/12/21	Generation: 31/03/22 Dedicated system: Amp Energy Green Four solar power plant - Bhadla-II PS 220 kV S/c line- 15.02.22 Generation PS - 28.02.22	220 kV Bay at Bhadla-II PS: Under bidding as a part of Rajasthan SEZ Phase-II	CON-4 not received. PPA yet to be signed SECI 8
17.	AMP Energy Green Private Limited (1200002676)	100	11.04.2022 or system whichever is later	11/04/22	Generation: 11/04/22 Dedicated system: Common Pooling Station of Amp Energy Green Four & Five Solar Power Plant - Bhadla-II PS 220 kV S/c line (already granted for 100 MW plant)- (suitable to carry minimum 300 MW under nominal voltage) -18/02/22 Generation PS –28/02/22	220 kV Bay at Bhadla-II PS Under bidding as a part of Rajasthan SEZ Phase-II	CON-4 not received.
18.	Avaada Energy Pvt. Ltd. (1200002636)	320	31.12.2021 or system	01/01/22	Generation: 01/01/22	220 kV Bay at Bhadla-II PS: Under bidding	CON-4 not received.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
			whichever is later		Dedicated system: Avaada Energy Pvt. Ltd. solar power plant – Bhadla-II PS 220 kV S/c line-31/12/2021 Generation PS –31/12/21	as a part of Rajasthan SEZ Phase-II .	
19.	Avikiran Surya India Private Limited (1200002642)	300	01.09.2021 or system whichever is later	31/12/21	Generation: 100 MW-15/11/21 100 MW-10/12/21 100 MW-31/12/21 Dedicated system: Avikiran Surya India Pvt. Ltd. solar power plant – Bikaner PS 220 kV S/c line – 31/10/21 Generation PS – 31/10/21	220 kV Bay at Bikaner PS: Under implementation (expected by 31.05.2021).	CON-4 not received.
20.	SolarpackCorporacionTechnologica S.A. (1200002742)	300	31.12.2021	30/06/22	Generation: 30/06/22 Dedicated system: SolarpackCorporacionTechnologica S.A solar power plant – Bhadla-II PS 220 kV S/c line along with bay at ISTS pooling station –30/06/22 Generation PS –30/06/22		CON-4 not received. SECI 9
21.	Eden Renewable Bercy Private Limited (1200002688)	300	13.04.2022 or system whichever is later	Progress not uploaded in Status	Generation: 08/10/2022	220 kV Bay at Fatehgarh-II PS: Under	CON-4 not received.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under ISTS Scope	
				Monitoring Portal	Dedicated system: Eden Renewable Bercy Private Limited Power plant – Fatehgarh-II PS 220 kV S/c line 08/10/2022 Generation PS- 08/10/2022	bidding as a part of Rajasthan SEZ Phase-II	
22.	IB VOGT Solar Seven Private Limited (1200002700)	300	05.04.2022 or system whichever is later	15/07/22	Generation: 15/10/22 Dedicated system: IB VOGT Solar Seven Private Limited solar power plant – Fatehgarh-III PS 220 kV S/c line- 30/09/22 Generation PS –30/09/22	220 kV Bays at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III	CON-4 not received. PPA yet to be signed 220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
23.	Renew Surya Jyoti Private Limited (1200002746)	210	30.03.2022 or system whichever is later	15/04/22	Generation: 30/12/22 Dedicated system: Common Pooling Station of ReNew Surya Jyoti Pvt. Ltd. Solar Power Plant (210MW) & ReNew Surya Pratap Pvt. Ltd. Solar Power Plant (210MW) at ReNew Surya Jyoti – Fatehgarh-III PS 220 kV S/c line (suitable to carry 420 MW at nominal voltage) 30/11/21 Generation PS –30/11/21	220 kV Bay at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III	CON-4 not received. 220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
24.	Renew suryapratap private limited (1200002778)	210	30.03.2022 or system whichever is later	15/04/22	Generation: 30/03/23 Dedicated system: Common Pooling Station of ReNew Surya Jyoti Pvt. Ltd. Solar Power Plant (210MW) & ReNew Surya Pratap Pvt. Ltd. Solar Power Plant (210MW) at ReNew Surya Jyoti – Fatehgarh-III PS 220 kV S/c line (suitable to carry 420 MW at nominal voltage) 30/11/21 Generation PS –30/11/21	220 kV Bay at Fatehgarh-III PS:shall be implemented as a part of Rajasthan SEZ Phase-III	CON-4 not received. 220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
25.	ABC Renewable Energy Private Limited (1200002699)	400	31.01.2022 or system whichever is later	04/04/22 Progress not uploaded in Status Monitoring Portal	Generation: 04/03/22 Dedicated system: ABC Renewable Energy Private Limited solar power plant – Fatehgarh-III PS 220 kV S/c (High Capacity- suitable to carry minimum 400 MW at nominal voltage) line. 02/03/22 Generation PS –02/03/22	220 kV Bay at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III	CON-4 not received. 220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
26.	Azure Power India Pvt. Ltd. (1200002812)	500	19.01.2024 or system whichever is later	19/01/2024 Progress not uploaded in Status Monitoring Portal	Generation: 30/10/24	400 kV Bay (common for 1200002812 & 1200002813) at Fatehgarh-III PS shall be	400KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under ISTS Scope	
					Dedicated system: Common Pooling Station of Azure 500MW Solar Project (1200002812) & Azure 500MW Solar Project (1200002813) - Fatehgarh-III PS 400 Kv (High Capacity) -15/10/24	implemented as a part of Rajasthan SEZ Phase-III.	
27.	Azure Power India Pvt. Ltd. (1200002813)	500	19.01.2024 or system whichever is later	19/01/2024 Progress not uploaded in Status Monitoring Portal	Generation: 30/10/24 Dedicated system: Common Pooling Station of Azure 500MW Solar Project (1200002812) & Azure 500MW Solar Project (1200002813) - Fatehgarh-III PS 400 Kv (High Capacity) -15/10/24	400 kV Bay (common for 1200002812 & 1200002813) at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III.	400KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
28.	Azure Power India Pvt. Ltd. (1200002814)	500	19.01.2025 or system whichever is later	19/01/2025 Progress not uploaded in Status Monitoring Portal	Generation: 30/10/25 Dedicated system: Common Pooling Station of Azure 500MW Solar Project (1200002814) & Azure 500MW Solar Project (1200002815) - Fatehgarh-III PS 400 kV (High Capacity)-15/10/25	400 kV Bay (common for 1200002814 & 1200002815 at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III.	400KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
29.	Azure Power India Pvt. Ltd. (1200002815)	500	19.01.2026 or system whichever is later	19/01/2026 Progress not uploaded in Status Monitoring Portal	Generation: 30/10/26 Dedicated system: Common Pooling Station of Azure 500MW Solar Project (1200002814) & Azure 500MW Solar Project (1200002815) - Fatehgarh-III PS 400 kV (High Capacity)-15/10/26	400 kV Bay (common for 1200002814 & 1200002815 at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III.	400KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
30.	ReNew Surya Vihaan Private Limited (1200002695)	100	13.04.2022 or system whichever is later	13/04/22	Generation: 30/10/22 Dedicated system: 220 kV Common Pooling Station for 300 MW of ReNew Surya Vihaan Pvt. Ltd. (200MW) (1200002590) & ReNew Surya Vihaan Pvt. Ltd. (100MW) – Fatehgarh-III PS 220 kV S/c line 15/10/22 Generation PS –15/10/22	220 kV Bay (common for 1200002590 & 1200002695) at Fatehgarh-III PS: Under implementaion as a part of Rajasthan SEZ Phase-II (Sep'22)	CON-4 not received.
31.	XL Xergi Power Pvt. Ltd.(Stage-II: 1200002847)	400	31.05.2022 or system whichever is later	-	Generation: 31/05/22 Dedicated system:	220 kV Bay at Fatehgarh-III PS shall be implemented as a part of	220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
					XL Xergi Power Pvt. Limited Solar Power Project - Fatehgarh-III PS 220 kV S/c (high capacity) line. (suitable to carry minimum 400 MW at nominal voltage) along with associated bay at generation end: under the scope of applicant.- 31/05/22 Gen PS-31/05/22	Rajasthan SEZ Phase-III	
32.	Energizent power private limited. (Stage-II: 1200002907)	125	31.08.2022 or system whichever is later		Generation: 31/08/22 Dedicated system: Energizent Power Private Limited Hybrid Power Project - Fatehgarh-III PS 220 kV S/c line. (suitable to carry at least 300 MW at nominal voltage) along with associated bay at generation end: under the scope of applicant- 31/08/22 Gen PS-31/08/22	220 kV Bay at Fatehgarh-III PS shall be implemented as a part of Rajasthan SEZ Phase-III	220KV bay under ISTS agreed in 3 rd NRPC-TP. To be approved in 5 th NCT
33.	Adani Renewable Energy Holding Four Ltd. (erstwhile Adani Green Energy Four Limited) Stage-II: 1200002682	1500	30.12.2022 or system whichever is later		Generation: 31/12/22 500 MW 31/12/23 500 MW 31/12/24 500 MW Dedicated system:	220kV bay(2nos.) and 400kV Bays (1 no.) at Ramgarh shall be implemented as a part of	

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Gen Comm. Schedule//Date from which connectivity required (as per St-II/connectivity Intimation)	Generation Comm. Schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations/ Remarks
					Generation Comm. / Connectivity Line & Schedule	Under Scope ISTS	
					Adani Green Energy Four Limited Solar power plant (900 MW) – Ramgarh PS 400 kV S/c line & Adani Green Energy Four Limited Solar power plant (600 MW) – Ramgarh PS 220 kV D/c line along with associated bay at generation end: under the scope of applicant.-30/09/22	Rajasthan SEZ Phase-III.	
34.	Adani Renewable Energy Holding Four Ltd. (erstwhile Adani Green Energy Four Limited) Stage-II: 1200002683	1500	30.06.2022 or system whichever is later		<p>Generation : 31/12/22 500 MW 31/12/23 500 MW 31/12/24 500 MW</p> <p>Dedicated system : Adani Green Energy Four Ltd. Solar power plant (900 MW) – Fatehgarh-III PS 400 kV S/c line & Adani Green Energy Four Limited solar power plant (600 MW) – Fatehgarh-III PS 220 kV D/c line along with associated bay under the scope of applicant -30/09/22</p>	<p>400 kV bays (1 no) & 220KV bays (2 nos) at Fatehgarh-III PS shall be under ISTS as part of Rajasthan SEZ Phase-II</p> <p>1 no. of 220kV bay under Rajasthan SEZ Phase-II: Under Implementation (expected by Sep'22)</p>	400 kV (1 no) & 220KV bay (2* nos) at Fatehgarh-III PS under ISTS: agreed in 3 rd NRPC-TP. To be approved in 5 th NCT

Part C: Conventional Generation Projects granted only Connectivity

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Generation Comm. schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations
				<u>Under Applicant Scope</u>	<u>Under ISTS Scope</u>	
1	THDC – Vishnugad Pipalkoti HEP (4X111MW)	444	U1: June 23 U2: Aug 23 U3: Oct 23 U4: Dec 23	Generation: U1: June 23 U2: Aug 23 U3: Oct 23 U4: Dec 23 Detailed status report not submitted	Connectivity System: Under scope of PTCUL: <ol style="list-style-type: none"> Pipalkoti HEP– 400 kV Pipalkoti switching station 400kV D/c (Twin Moose) line (matching with generation project) Establishment of 400 kV Pipalkoti switching station Termination of Tapovan Vishnugad HEP– Proposed site of Pipalkoti (400 kV S/s) 400kV D/c (Twin Moose) line at Pipalkoti switching station (Dec'21) Termination of Proposed site of Pipalkoti (400 kV S/s)– Khandukhal (erstwhile Srinagar) 400kV D/c (Quad) line at Pipalkoti switching station (Dec'21) 	Applicant informed that IA is to be signed between PTCUL and THDC. LTA was granted recently vide intimation dated 17/03/2021. THDC to expedite signing of tripartite transmission agreement among PTCUL, CTU (POWERGRID) and THDC.
2	SJVN Ltd – Devsari HEP (3x84MW)	252	U1:- 28.02.27 U2: 30.03.27 (capacity under revision)	Generation: 31/12/27	Connectivity System: Under scope of PTCUL: <ul style="list-style-type: none"> Devsari HEP generation switchyard – Karanprayag 400/220 kV Substation 220 kV D/c (Twin Zebra) line. Establishment of 2x315 MVA, 400/220 kV Karanprayag substation of PTCUL by LILO of both circuits of Pipalkoti-Khandukhal (erstwhile Srinagar) 400 kV D/c (Quad) line at Karanprayag. Line termination bays at generation switchyard shall be under the scope of SJVN Ltd.	Applicant was requested to sign Transmission Agreement and submit Conn-BG to PTCUL as per agreement. Applicant informed that project Capacity revised (194 MW) by CEA. CTU requested SJVN to submit a written request in this regard.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Generation Comm. schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations
				Under Applicant Scope	Under ISTS Scope	
3	SJVN Ltd Luhri HEP Stage-II (5x32 + 1x12MW)	172	U1: 31/10/27 U2: 15/11/27 U3: 30/11/27 U4: 15/12/27 U5: 31/12/27 U6: 31/10/27	Generation: U1: 31/10/27 U2: 15/11/27 U3: 30/11/27 U4: 15/12/27 U5: 31/12/27 U6: 31/10/27 Dedicated system: <ul style="list-style-type: none"> Luhri Stage-II – 400/220kV Nanje GIS Pooling Station 220kV D/c line along with associated bays at both ends. 	Common connectivity transmission system under ISTS <ul style="list-style-type: none"> Establishment of 1x315MVA, 400/220kV Nanje GIS Pooling Station (Tentatively Identified near Luhri Stage-II HEP). Nanje GIS Pooling Station – Koldam 400kV D/c line along with associated bays at both ends (GIS bays at Koldam). 	Total land required – 173 ha. Land acquisition is in process. Draft SIA report prepared and submitted to GoHP on 19/10/19. DPR yet to be prepared. Yet to be awarded. Walkover and preliminary survey for dedicated transmission line from project location to Nanje carried out. Detailed route survey under progress. Clearance from Ministry of Defense accorded on 04/10/19.
4	SJVN Ltd Sunni Dam HEP (5x73 + 1x17MW)	382	U1: 15/01/27 U2: 31/01/27 U3: 15/02/27 U4: 28/02/27 U5: 15/03/27 U6: 31/03/27	Generation: U1: 15/01/27 U2: 31/01/27 U3: 15/02/27 U4: 28/02/27 U5: 15/03/27 U6: 31/03/27 Dedicated system: Sunni Dam HEP – 400/220kV Nanje GIS Pooling Station 220kV D/c (High Capacity) line along with associated bays at both ends.	Common connectivity transmission system under ISTS <ul style="list-style-type: none"> Establishment of 1x315MVA, 400/220kV Nanje GIS Pooling Station (Tentatively Identified near Luhri Stage-II HEP). Nanje GIS Pooling Station – Koldam 400kV D/c line along with associated bays at both ends (GIS bays at Koldam). 	Total land required – 456 ha. Land acquisition is in process. Land requirement has now been revised. Revised case submitted to MoEF&CC on 24/02/21. DPR approved by CEA. Walkover and preliminary survey for dedicated transmission line from project location to Nanje carried out. Detailed route survey under progress.

Sl. No.	Connectivity Applicant	Connectivity Quantum (MW)	Generation Comm. schedule (as per 16 th JCC)	Schedule as per 17 th JCC		Deliberations
				<u>Under Applicant Scope</u>	<u>Under ISTS Scope</u>	
5	Greenko Energies Private Limited (1x1200MW)	1200	Unit 1 – 30th Month Unit 2 – 31st Month Unit 3 – 32nd Month Unit 4 – 33rd Month Unit 5 – 34th Month Unit 6 – 35th Month Unit 7 – 36th Month From the start of construction activities post obtaining statutory clearances.	Generation: COD – progressively by 31.03.24 Dedicated system: Greenko Energies Private Limited generating plant –Chittorgarh (PG) 400kV D/c line (Triple snowbird conductor or equivalent) along with line bays at both ends.		Project DPR is under preparation.
6	THDC India Limited Khurja STPP (2x660MW)	528	U1: 02/02/2024 U2: 02/05/2024	Generation: U1: 28/02/2024 U2: 31/08/2024 Dedicated system: THDC India Limited (Khurja STPP) –Aligarh (PG) 400 kV D/c line along with line bays at both ends and 125MVA _r bus reactor at generating station		CON-4 received and under process.All clearance are in place. TG package awarded to BHEL. BOP-main pkg awarded. Work has started on the dedicated transmission line.

Part D:Status of the Associated Transmission System

Sl. No.	LTA Applicant	LTA Transmission System	Implementati on Scope	Status (As per 16 th JCC)	Status (As per 17 th JCC)	Remarks
1	GMR Bajoli Holi Hydropower Pvt. Ltd	Through existing system beyond Chamera Pooling Point.	-	March'22 (Schedule as per Meeting	March'22 (Schedule as	A meeting among CEA, POSOCO, CTU & HPPTCL was held on 11/11/20 for charging of Lahal Plg _{stn} of HPPTCL, wherein revised time schedule of Line & generator was provided.

Sl. No.	LTA Applicant	LTA Transmission System	Implementation Scope	Status (As per 16 th JCC)	Status (As per 17 th JCC)	Remarks
	(180 MW)			held on 11/11/2020)	per Meeting held on 11/11/2020)	*Transmission system up to Chamera Pooling Point is being constructed by HPPTCL
2	Nuclear Power Corporation of India Limited (RAPP)	<ul style="list-style-type: none"> 400kV Kota – Jaipur (South) D/c line Re-arrangement of lines at Kota (so as to restore the transmission system at Kota inline with original LTA intimation). Associated 400kV bays at Kota and Jaipur (South) S/s. 50 MVar line reactors at Jaipur (South) S/s 	POWERGRID	Commissioned (Apr'19)	Commissioned (Apr'19)	<p>Generation delayed and expected by Dec'20.</p> <p>LTA operationalized w.e.f. 12/04/19. Applicant is liable to bear transmission charges for the ATS, till commissioning of generation units.</p>
3	EsselSauryaUrja Company of Rajasthan Ltd. (Bhadla) (750MW) & SauryaUrja Company of Rajasthan Limited (Bhadla) (500 MW) & Adani Renewable Energy Park Rajasthan Limited (Bhadla) (250 MW)	<ul style="list-style-type: none"> Bhadla (PG) – Bikaner (PG) 765kV D/c line. Bhadla (PG) – Bhadla (RVPN) 400kV D/c (Quad) line. Establishment of Pooling Station at Bhadla (PG) (765/400kV: 3x1500MVA, 400/220kV: 3x500MVA). 1x240 MVAR switchable line reactor at each end (each ckt.) of Bhadla (PG) - Bikaner (PG) 765kV D/c line. 	POWERGRID	<p>Part system Commissioned</p> <p>Additional 1x500MVA, 400/220kV 4th ICT at Bhadla:</p>	400/220kV 4 th ICT at Bhadla pooling station- Revised SCOD as per CEA MOM/MOP order- May'21	Applicants were informed that they would be liable to pay the transmission charges after commissioning of transmission system as per CERC Regulations/ orders in case applicants fail to submit documents for waiver of ISTS charges.

Sl. No.	LTA Applicant	LTA Transmission System	Implementation Scope	Status (As per 16 th JCC)	Status (As per 17 th JCC)	Remarks
		<ul style="list-style-type: none"> 1x240 MVAR (765kV) & 1x125 MVAR (400kV) Bus reactors at Bhadla Pooling Station. 				
4	Adani Renewable Energy Park Rajasthan Limited (Jaisalmer) (1000 MW)	<ul style="list-style-type: none"> Bhadla (PG) –Bikaner 765 kV D/c line 400 kV Bhadla (PG) – Bhadla (RVPN) Quad D/c line <p>In addition to above, elements being implemented by POWERGRID under Green Energy Corridor(GEC) viz Bikaner-Moga 765kV D/c line or Bikaner –Ajmer 765kV D/c line shall also be part of LTA system.</p>	POWERGRID	Commissioned	Commissioned	LTA to be operationalized with the commissioning of connectivity and LTA system. Upon operationalization, applicant shall be liable to pay transmission charges for ATS, till commissioning of generation units.
		Connectivity system: 765kV Fatehgarh Pooling- Bhadla D/C (to be operated at 400kV voltage level)	ISTS Under TBCB	Line completed, to be commisisoned	Line completed, to be commisisoned	
5	GMR (Badrinath) hydro power Generation Pvt. Ltd.	a. 220 kV Alaknanda HEP-Joshimath – Pipalkoti D/C line (line not taken up as matter is under sub-judice before Supreme Court on account of environmental issue in Alaknanda Basin).	-	PTCUL also informed that they shall put up agenda of taking up of above line in Central Sector through RTM/TBCB mode in their Board meeting to be held shortly.	Khandukhal (erstwhile Srinagar) – Rampura(erstwhile Kashipur) 400kV D/c quad line for LTA: to be taken up in central sector	Matter regarding implementation of generation project is sub-judice before Hon'ble Supreme Court.

Sl. No.	LTA Applicant	LTA Transmission System	Implementation Scope	Status (As per 16 th JCC)	Status (As per 17 th JCC)	Remarks
		b. 400 kV Pipalkoti – Karanprayag-Khandukhal D/C c. 400kV Khandukhal – Rampura D/C line (Re-tendering is in process)				
6	NTPC (Tapovan Vishnugad HEP)	Khandukhal – Rampura 400kV D/c line along with associated 400 kV bays.	PTCUL	PTCUL also informed that they shall put up agenda of taking up of above line in Central Sector through RTM/TBCB mode in their Board meeting to be held shortly.	Khandukhal (erstwhile Srinagar) – Rampura (erstwhile Kashipur) 400kV D/c quad line for LTA: to be taken up in central sector	
7	Lanco Mandakini (Phata Byung) Hydro Energy	Khandukhal-Rampura 400 kV D/C (Quad) line [earlier named as Srinagar-Kashipur 400kV D/C (Quad) line] along with associated 400 kV bays at both ends (to be implemented by PTCUL-Deemed ISTS)	PTCUL			
8	THDC – Tehri PSP (1000MW)	a. Tehri Generation – Koteswar PS 400kV S/c (Quad) b. 765/400kV, 1x800MVA GIS S/s at Koteswar PS c. Augmentation of 765/400kV transformation capacity at Meerut	POWERGRID	Dec'20	Commissioned	Generation Delayed. THDC will be liable for payment of transmission charges after completion of inter-state transmission system.
9	NTPC Ltd Tanda TPS Stage-II (2x660MW)	2 nd Unit [balance 178.39 MW (cumulative 356.78 MW LTA) w.e.f. 30/04/2020 with availability of following UPPTCL transmission system]:	UPPTCL	Feb'21	Mar'21	UPPTCL vide mail dated 28.02.21 confirmed availability of UPPTCL system by 15.03.21. However same is yet to be commissioned.

Sl. No.	LTA Applicant	LTA Transmission System	Implementation Scope	Status (As per 16 th JCC)	Status (As per 17 th JCC)	Remarks
		i) Establishment of 400/220/132 kV, 2x500 + 2x200 MVA GIS substation at Basti along with 125 MVAR Bus Reactor ii) Construction of Tanda TPS–Basti 400 kV D/C Quad line iii) LILO of two ckts (ckt. no. 3 rd & 4 th) of Gorakhpur (PG)- Lucknow(PG) 400 kV D/C (twin) existing PGCIL line at Basti by UPPTCL. iv) After LILO, the Gorakhpur- Lucknow 400 kV D/C line at Basti, Basti-Lucknow section would be about 225 km in length, for which, UPPTCL needs to provide line reactors at Basti end.				

Tr. System for Solar Energy Zones in Rajasthan (8.9GW) under Phase-I

Under RTM (By POWERGRID) :Progressively from May'21 (revised SCOD as per CEA MOM/MOP Order-May'21)

1. Establishment of 765/400kV, 4X1500MVA, 400/220kV 5x500MVA pooling station at suitable location near Fatehgarh in Jaisalmer Distt (Fatehgarh-II PS)
2. Establishment of 765/400kV, 3x1500MVA 400/220kV 5x500MVA pooling station at suitable location near Phalodi/ Bhadla in Jodhpur (Bhadla-II PS)

3. LILO of both circuits of Fatehgarh (TBCB) – Bhadla (PG) 765 kV D/c line (operating at 400kV) at Fatehgarh-II PS so as establish Fatehgarh (TBCB)-Fatehgarh-II 765kV D/c line (to be operated at 400kV) and Fatehgarh-II – Bhadla (PG) 765kV D/c line
4. Charging of Fatehgarh-II PS–Bhadla section at 765kV level
5. LILO of both ckts of 765kV Ajmer – Bikaner D/c line at Bhadla-II PS
6. Bhadla-II PS – Bhadla (PG) 400kV D/c Line (Twin AL59)
7. Augmentation with 1x1000MVA,765/400kV transformer (3rd) at Bhiwani (PG)
8. Associated Reactive Power Compensation

In addition to the above, following shall also be part of LTA System:

1. Augmentation of transformation capacity at Bhadla (PG) by 400/220kV, 1x500MVA (5th) transformer - **expected by May'21**
 2. 400/220kV, 1x500MVA (6th) transformer - **expected by May'21**
 3. 400/220kV, 1x500MVA (7th) transformer - **expected by Jun'21**
- Transmission scheme for controlling high loading and high short circuit level at Moga substation: **expected by Jun'21**

Under TBCB (By POWERGRID): Progressively from Mar'21 (revised SCOD as per CEA MOM/MOP Order-May'21)

1. Ajmer (PG)– Phagi 765kV D/c line (ready for charging)
2. Fatehgarh – Bhadla-II 765kv D/c line- expected by May'21
3. Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Khetri. - expected by May'21
4. Khetri– Jhatikara 765kV D/c line- expected by May'21
5. Khetri – Sikar (PG) 400kV D/c line (twin HTLS) - expected by May'21
6. Associated Reactive Power Compensation

Under TBCB (By ATL) : By May'21 (revised SCOD as per CEA MOM/MOP Order-May'21)

1. Bikaner(PG) – Khetri 765kV D/c line
2. Associated Reactive Power Compensation

Transmission System for Solar Energy Zones in NR Phase-II (8.1 GW)

Phase-II under RTM (POWERGRID)

1. Transmission system strengthening Scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II –Part A1 – By Mar'22

- Augmentation with 765/400 kV, 1x1500 MVA Transformer (5th) at Fatehgarh-II PS.

3. Transmission system strengthening Scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II –Part B1- By Sep'22 (220kV line bays progressively from Dec'21)

- Augmentation with 765/400 kV, 1x1500 MVA Transformer (6th) at Fatehgarh-II PS
- Augmentation with 400/220 kV, 4x500 MVA Transformer (6th to 9th) at Fatehgarh-II PS with suitable Bus sectionalisation at 400 and 220 kV level and 7 nos. of 220 kV line bays
- Augmentation with 400/220kV 1x500 MVA transformer (6th) at Bhadla-II PS and 4 nos 220kV line bays
- Augmentation with 765/400 kV, 1x1500 MVA Transformer (4th) at Bhadla-II PS
- ± 600 MVar STATCOM at Fatehgarh-II substation with 4x125 MVar MSC, 2x125 MVar MSR
- ± 600 MVar STATCOM at Bhadla-II substation with 4x125 MVar MSC, 2x125 MVar MSR

4. Transmission system strengthening Scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II –Part F1 –By Sep 22 (matching with Part-F)

- Removal of LILO of one circuit of Bhadla-Bikaner (RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) up to Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line.
- 2 Nos. of 400 kV line bays at Bikaner-II PS for Bikaner-II PS – Bikaner (PG) 400 kV D/c (Quad) line formed after removal of LILO of one circuit of Bhadla- Bikaner(RVPN) 400 kV D/c (Quad).

5. Transmission system strengthening Scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II –Power reversal in Balia-Bhiwadi HVDC line –By Mar'22

- Power reversal on ±500 KV, 2500 Balia- Bhiwadi HVDC line upto 2000 MW from Bhiwadi to Balia.

Phase-II under TBCB

6. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase II –PartA–by Sep’22

- Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer i.e. Ramgarh-II PS (Fatehgarh-III) with 2x125 MVA bus reactor
- Ramgarh-II PS (Fatehgarh-III) –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS*)
- Ramgarh-II (Fatehgarh-III) PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS*)
- 220kV line bays for interconnection of solar projects at Ramgarh-II (Fatehgarh-III) PS (7 nos)

7. Transmission system strengthening for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase II –Part B -tentatively Nov’22 (18 month from SPV transfer by BPC)

- Fatehgarh-II PS – Bhadla-II PS 765kV D/c line (2nd)
- 1x240 MVA Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line

8. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part C - tentatively Nov’22 (18 month from SPV transfer by BPC)

- Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Sikar (Sikar-II Substation) with 1x125 MVA & 2x330 MVA bus reactor at Sikar –II
- Bhadla-II PS – Sikar-II 765kV D/c line
- 1x330 MVA Switchable line reactor for each circuit at Sikar II end of Bhadla-II – Sikar-II 765kV D/c line
- 1x240 MVA Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line
- Sikar-II – Neemrana 400kV D/c line (Twin HTLS*)

9. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part D- tentatively Nov’22 (18 month from SPV transfer by BPC)

- Sikar-II – Aligarh 765kV D/c line
- 1x330MVA Switchable line reactor for each circuit at each end of Sikar-II –Aligarh 765kV D/c line

10. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part F- By Sep’22

- Establishment of 400 pooling station at suitable location near Bikaner (Bikaner-II PS) with 2x125 MVAR bus reactor and with suitable bus sectionalisation at 400 kV level.
- Bikaner-II PS – Khetri 400kV 2xD/c line (Twin HTLS line on M/c tower)
- 1x80 MVAR Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line
- Khetri - Bhiwadi 400kV D/c line (Twin HTLS)
- 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.)
- Bikaner – II S/s : STATCOM : ± 300 MVAR, 2x125 MVAR MSC , 1x125 MVAR MSR

Annexure-I**List of Participants in the 17th Joint Co-ordination committee Meeting of generation projects in NR held on 26/03/2021**

Sl. no.	Name of Participants	Designation	Organization	Email id
1.	Shri R K Agarwal	Consultant	SECI	pikabaya56@gmail.com
2.	Shri Piyush Kumar Gupta	Senior Engineer (Schemes)	SECI	piyush.gupta@seci.co.in
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5.	Smt Sandhya Gupta	Manager CVPPPL	CVPPPL	mohan32906@gmail.com
6.	Shri Kapilsharma	Lead CRM	ABC Renewable Energy Private Limited	ksharma@brookfieldrenewable.in
7.	Shri Anish Pasrija	DGM-Business Development	Greenko Energies Private Limited	anish.p@greenkogroup.com
8.	Shri Thushar R Nayar	Senior Manager - Projects	Ayana Renewable Power One Private Limited	thushar@ayanapower.com
9.	Shri rajeshkumar Gupta	DGM	Adani green Energy Limited	rajesh.gupta@adani.com
10.	Shri Parijat Deshmukh	Head (Projects & Operations) IPP	Mahindra Susten Pvt Ltd	deshmukh.parijat@mahindra.com
11.	Shri Agam Kumar	Senior Manager-BD & Regulatory	ACME Solar Holdings Private Limited	agam.kumar@acme.in
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Sl. no.	Name of Participants	Designation	Organization	Email id
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15.	Shri Sanjeev Kumar Verma	DGM, Electrical	L&T Power Development Limited	sanjeevkumar.verma@larsentoubro.com
16.	Shri Abhilash Yadav	Manager	AMP Energy Green Private Limited	ayadav@amp.energy
17.	Shri Parish Gupta	Authorised Signatory	ibvogt Solar Seven Pvt. Ltd.	parish.gupta@ibvogt.com
18.	Shri BalakishoreKollabathula	Business Development	Avikiran Surya India Private Limited	balakishore.kollabathula@enel.com
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21.	Shri Rakesh Rathore	General Manager - BD	AltraXergi Power Pvt Ltd., XL Xergi Power Pvt Ltd. and Energizent Power Pvt Ltd.	rakesh.rathore@o2power.in
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25.	Shri Gopendra Saraswat	AVP.Head Transmission Projects	GMR Bajoli Holi Hydro Projects	gopendra.saraswat@gmrgroup.in
26.	Shri Pradeep Kumar Gupta	STE(E), TSU	RAPP 7&8, NPCIL, Rawatbhata	pradeepkgupta@npcil.co.in
27.	Shri Makarand P. Joshi	Head O & M, SingoliBhatwari Hydro Power PLant	L & T Uttaranchal Hydro Power limited	Makarand.Joshi@larsentoubro.com
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29.	Shri Rajas Ranjan Acharya	Senior Manager	ADANI	rajasr.acharya@adani.com
30.	Shri Bhrugesh Amin	Resolution Professional	LancoMandakini Hydro Energy Pvt Ltd	bhrugeshamin@bdo.in

Sl. no.	Name of Participants	Designation	Organization	Email id
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33.	Shri Animesh Manna	DGM(RE)	NTPC LTD.	amanna@ntpc.co.in
34.	Shri Deepesh Gupta	General Manager, Transmission	Avaada Energy Private Limited	deepesh.gupta@avaada.com
35.	Shri S SPA NWAR	General Manager, Psp	THDC India Ltd	sspanwar1@thdc.co.in
36.	Shri Hariharan Krishnamurthy	Dy Manager (E&C)	Enel Green Power	hariharan.krishnamurthy@enel.com
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44.	Shri K A Vishwanath	Deputy General Manager	Azure Power India Private Limited	ists@azurepower.com
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Provisions applicable in respect of grant of Connectivity for RE projects to the ISTS Grid:

1. CTU informed that recently in some cases, generation developers have submitted online additional details in respect of Connectivity (CON-4) only when the generation projects are on the verge of commissioning. Thus, a very short period of time is available for processing and issuance of Connection Offer (CON-5) and subsequent signing of the Connection Agreement. As per the CERC Connectivity Regulations/ Detailed Procedure, 2009, the CON-4 details are to be furnished to CTU at least 2 (two) years prior to physical interconnection which should be noted by all the applicants. **The finalized template of generation data for Solar and Wind based generation projects has been appended as additional sections at Para F (Details of Connection – Solar PV Station) and Para G (Details of Connection – Wind Generating Station) in the pre-existing FORMAT-CON-4. The modified FORMAT CON-4 is available on our website (www.powergrid.in>> CTU Open Access).** Further, Wind/Solar developers shall submit the test reports along with a compliance certificate from the manufacturer and undertaking from the developer for all applicable provisions under the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 (as amended) from labs accredited by Govt./NABL/other recognized agencies along with the application for CON-4.
2. All RE developers being commissioned after 06.08.2019 are required to put into place systems for compliance with the CEA Regulations 2019 notified on 06.02.2019. In view of the same, Connection Agreement (CON-6) shall only be signed after receipt of all requisite documents/test reports as per advisory available on the CTU website (which include Lab test reports for applicable provisions under the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 (as amended)).
3. CEA vide order dated 09.11.2020, has mandated all power generating stations of 0.5 MW or above capacity to register themselves on CEA e-portal and get a Unique Registration Number (URN). The same is required as per Regulation 11 of Technical Standards for Connectivity with the Grid Regulations, 2007 prior to the physical interconnection of the Generating station with ISTS Grid.
4. All information exchanged, discussions/decisions taken in the JCC meeting shall be subject to the CERC Regulations and Detailed procedure made therein. Wherever data has not been furnished in the online form, the corresponding field has been left blank.
5. It may be noted that some of the generation developers/applicants have not been attending the JCC Meetings regularly. All such generation developers/applicants were requested to regularly attend future meetings. It is further emphasized for applicants who have been granted Stage-II Connectivity, in terms of Para 11.1, Stage-II Connectivity grantee shall furnish progress of the monitoring parameters on a quarterly basis as per FORMAT-RCON-II-M by the last day of each quarter. Failure to update the progress of the monitoring parameters shall be considered as adverse progress and, in such cases, CTU shall approach the Commission for appropriate directions.

6. It may be noted that in terms of the recent CERC Orders and directions, the liability to pay transmission charges shall commence irrespective of opening of LC and signing of TSA. In default thereof, necessary action in terms of CERC Regulations including curtailment of STOA may be taken. However, all DICs are duty bound to establish payment security mechanism (LC) under Regulation Regulation 19 of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 to facilitate smooth transaction of power on LTA basis.
7. The expected completion schedule recorded is based on the status as provided by the respective TSPs. CTU shall not be liable directly or indirectly for any commercial or regulatory consequences, loss of earnings, interest or profit or any other liabilities; emanating from any change or modification in the SCOD, as prescribed in TSA or as agreed in the CEA meeting or emanating from any mismatch in the commissioning schedule of the TSP upon such change or modification.
8. It may be noted that as per clause 9.3.1 of the revised procedure for RE Connectivity, an entity which has been issued the Letter of Award (LOA), or has entered into a Power Purchase Agreement (PPA) with a Renewable Energy Implementing Agency or a distribution license or an authorized agency on behalf of distribution licensee consequent to tariff-based competitive bidding, on submission of such LOA or PPA, as the case may be, need to submit the proof regarding the following milestones in accordance with the Letter of Award or the Power Purchase Agreement within a week of achieving the milestone(s):
 - a. Ownership or lease rights or land use rights of the land
 - b. Financial closure with sanction letter from financial institution
 - c. Proof of release of funds duly supported by Auditor's certificate.
9. It may be noted that as per clause 9.3.2 of the revised procedure for RE Connectivity, an entity granted Stage-II Connectivity on the basis of ownership or lease rights or land use rights for 50% of the land required and financial closure/release of at least 10% of the project cost including land acquisition cost through equity, duly supported by Auditor's certificate, shall need to submit the proof to CTU for the following within 9 months from the date of grant of Stage-II Connectivity or within 9 months prior to SCOD of substation at which Stage-II Connectivity is granted, whichever is later.
 - a. Entity who has submitted the proof of release of at least 10% of the project cost including the land acquisition cost through equity, duly supported by Auditor's certificate, shall submit documents regarding achievement of financial closure.
 - b. Entity who has submitted documents regarding achievement of financial closure shall submit the proof of release of at least 10% of the project cost including the land acquisition cost through equity, duly supported by Auditor's certificate.
10. It may be noted that as per 9.3.3 of the revised procedure for RE Connectivity, if a grantee of Stage-II Connectivity covered under Clause 9.2.2, subsequently submits LOA or PPA with Renewable Energy Implementing Agency or distribution licensee, consequent upon tariff-

based competitive bidding within the timeline under Clause 9.3.2, it shall be deemed to be a grantee under Clause 9.2.1 and shall be required to meet the conditions under Clause 9.3.1.

11. In the event of failure to achieve the above milestones as listed in Clause 9.3.1 or Clause 9.3.2, as applicable, Stage-II Connectivity shall be revoked by CTU under intimation to the grantee and Conn-BG1 and Conn-BG2 shall be encashed by CTU in accordance with the provisions under Clause 10.8(b) of this Procedure.
12. All the generators are notified that they shall be liable for their default(s) in terms of and as provided under the applicable provisions of the CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 and the Detailed Procedures notified thereunder in terms of Regulation 27. The purpose of the coordination meeting is inter alia to monitor possible regulatory responses based upon the status and information received (including appropriate actions on account of non-attendance, non-updation, etc.). Accordingly, wherever stipulated in the Regulations, Procedure or Agreements; relevant bank guarantees (Application BG, Construction Phase Bank Guarantee, ConnBG, etc.) shall be liable for encashment without any advance or further notice in this regard.
13. It is further emphasized that in terms of Para 11.2 of the revised Procedure for RE Connectivity, Stage-II Connectivity grantees are required to complete the dedicated transmission line(s) and pooling sub-station(s) on or before the timelines specified in clause no. 11.2(A)(a) & (b). If the grantee fails to complete the dedicated transmission line(s) and/or generator pooling station(s) within the timeline stipulated under sub-clause (A) above, Stage-II Connectivity shall be revoked and Conn-BG1 and Conn-BG2 shall be encashed, as per provisions of Clause 10.8.
14. It is to inform that as per the CERC Regulations and revised procedure for RE Connectivity, Stage-I grantees are required to submit the progress status of generation by 30th June & 31st December and Stage-II grantees by last day of each quarter through CTU monitoring portal through the online utility available on CTU website. Procedure for online submission of status report of Stage-I/Stage-II grantees is available on the CTU website. Failure to update the progress of the monitoring parameters shall be considered as adverse progress and shall be dealt in accordance with CERC Regulations / revised procedure for RE Connectivity.

App Number	Applicant Name	Quantum of Stage-II granted	Substation at which Stage-II granted	Date of grant of Stage-II connectivity	Status of Connection Agreement	1st Phase commissioning Date	Last Phase commissioning date	Route survey for Dedicated Transmission line	Section 68	No. of Foundations (Total/Completed)	No. of Tower Erections (Total/Completed)	Stringing (ckm) (Total/Completed)	Status of Financial closure	Date of FC (Date/Target)	Land Required (Acres)	Land Acquired (Acres)	Date of award of Pooling Station	Status of Main Transformers	Status of Switchyard (configuration, bays and status)	Last status updated on	Data submitted as per CERC timelines
1200002339	NTPC LTD.	150 MW	Fatehgarh-II PS	29-Jul-2021	Not signed	15-Oct-2021	15-Oct-2021	Completed	Obtained	To be started	To be started	To be awarded	Done	11-Jan-2020	780.2	780.2	11-Jan-2020	PO awarded	under detailed engineering process	31-Mar-2021	YES
1200002340	NTPC LTD.	250 MW	Bhadia II PS	1-Sep-2021	Not Signed	15-Dec-2021	15-Dec-2021	Not Completed	Obtained	To be awarded	To be awarded	To be awarded	Done	11-Jan-2020	1331	0	11-Jan-2020	PO awarded and detailed engineering in progress	Double bus with one and half breaker scheme 4 bays under detailed engineering process	31-Mar-2021	YES
1200002483	NTPC LTD.	300 MW	Bhadia II PS	1-Sep-2021	Not signed	15-Dec-2021	15-Dec-2021	Not Completed	Obtained	To be awarded	To be awarded	To be awarded	Done	20-Mar-2020	1500	0	20-Mar-2020	PO awarded and detailed engineering in progress	under detailed engineering process	31-Mar-2021	YES
1200002497	NTPC LTD.	90 MW	Fatehgarh-II PS	25-Oct-2021	Not signed	15-Oct-2021	15-Oct-2021	Not Completed	Obtained	To be awarded	To be awarded	To be awarded	Done	20-Mar-2020	450	450	20-Mar-2020	PO awarded	under detailed engineering process	31-Mar-2021	YES
1200002501	NTPC LTD.	300 MW	Bhadia II PS	1-Sep-2021	Not signed	1-Sep-2021	1-Sep-2021	Not Completed	Obtained	To be awarded	To be awarded	To be awarded	Done	20-Mar-2020	1500	0	15-Sep-2020	PO awarded	Awarded	31-Mar-2021	YES
1200002321	SBE Renewables Ten Private Limited	450	Fatehgarh-II	23-Dec-2019	Not done	7-Nov-2021	7-Nov-2021	Completed	Obtained	221/0	221/0	61.94/0	In Progress	9-Apr-2021	2719	Nil, Govt Land applied, allocation under process	11-Feb-2020	Order Placement Done ,Drawing Approval in Process	CAT 2 approved. 220kV PSS Single Line Diagram 33/220kV, 5 bays, 30% complete	26-Mar-2021	YES
1200001980	SSSR POWER CLEANTECH ELEVEN PRIVATE LIMITED	300	Bikaner	21-Jun-2019	CON-4 details submitted	4-Jun-2021	4-Aug-2021	Completed	Obtained	58/57	58/56	11.17/10.7	Completed	3-Dec-2020	1510	1242	14-Dec-2019	Order placed, Under manufacturing		26-Mar-2021	YES
1200002742	Solarpack Corporacion Tecnologica S.A.	300	Bhadia II	9-Oct-2020	To be Signed	30-Jun-2022	30-Jun-2022	Not Completed	Not Applied	0	0	0	PPA yet to be signed		1500					26-Mar-2021	YES
1200000287	ADANI RENEWABLE ENERGY PARK RAJASTHAN LIMITED	1000	Fatehgarh-1	4-Jul-2018	Con-4 Submitted	30-Sep-2021	31-Jan-2022	Completed	Applied	2/0	2/0	0.4/0	As Per Bid		5530	5530	4-Jan-2019	Received at site	7 Nos. of 220kV Bays, 8 Nos. of 400kV Bay	25-Mar-2021	YES
1200002226	Adani Green Energy Nine Limited	300	Fatehgarh-II	29-Oct-2019	Con-4 Submitted	30-Nov-2021	31-Dec-2021	Completed	Obtained	39/29	39/23	12/0	As Per Bid	15-Jun-2021	2000+36 Location	1411+30 Location	18-Jun-2020	1st delivered at site, 2nd under manufacturing	Double Bus, 4 Bay, Under Progress	25-Mar-2021	YES
1200002225	Adani Green Energy Seven Limited	300	Fatehgarh-II	7-Oct-2019	Con-4 Submitted	30-Sep-2021	30-Nov-2021	Completed	Obtained	19/19	19/19	5.5/5.5	As per Bid	15-Jun-2021	2000+36 Location	1148+21 Locations	18-Jun-2020	1st delivered at site, 2nd under manufacturing	Double Bus, 4 Bay, Under Progress	25-Mar-2021	YES
1200001941	Mahoba Solar (UP) Private Limited	390	Fatehgarh-2	21-Jun-2019	Con-4 Submitted	30-Jun-2021	30-Sep-2021	Completed	Obtained	139/109	139/82	35.8/ 5.3	As Per Bid	7-Apr-2021	1530+48 location	1530+48 location	25-Jan-2020	1st received at site, 2nd under transit to site	Double Bus , 05 bay, Under Progress	25-Mar-2021	YES
1200002682	Adani Green Energy Four Limited	1500 MW	Ramgarh PS	9-Oct-2020	Pending	31-Dec-2022	31-Dec-2024	Not Completed	Not Applied	00/00	00/00	00/00	As per Bid		500X5	0		Under Process	Under Process	25-Mar-2021	YES
1200002683	Adani Green Energy Four Limited	1500 MW	Fatehgarh - III PS	9-Oct-2020	Pending	31-Dec-2022	31-Dec-2024	Not Completed	Not Applied	00/00	00/00	00/00	As per Bid		500X5	0		Under Process	Under Process	25-Mar-2021	YES
1200002815	Azure Power India Private Limited	500	Fatehgarh III PS	27-Oct-2020	Yet to be signed	30-Oct-2026	30-Oct-2026	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	Yet to be initiated					Engineering yet to be concluded	Engineering yet to be concluded	25-Mar-2021	YES
1200002402	AZURE POWER INDIA PRIVATE LIMITED	500 MW	Fatehgarh-III	29-Apr-2020	Yet to be signed	30-Oct-2026	30-Oct-2026	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	To be initiated in due course ; PPA is yet to be signed					Engineering is yet to be concluded	Engineering is yet to be concluded	25-Mar-2021	YES
1200002814	Azure Power India Private Limited	500	Fatehgarh III PS	27-Oct-2020	Yet to be signed	30-Oct-2025	30-Oct-2025	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	Process yet to be initiated	28-Feb-2025				Engineering yet to be concluded	Engineering yet to be concluded	25-Mar-2021	YES
1200002400	AZURE POWER INDIA PRIVATE LIMITED	500 MW	Fatehgarh-II	22-Jun-2020	Yet to be signed	30-Oct-2025	30-Oct-2025	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	To be initiated in due course ; PPA is yet to be signed					Engineering is yet to be concluded	Engineering is yet to be concluded	25-Mar-2021	YES
1200002813	Azure Power India Private Limited	500	Fatehgarh III PS	27-Oct-2020	Yet to be signed	30-Oct-2024	30-Oct-2024	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	Yet to initiated					Engineering yet to be concluded	Engineering yet to be concluded	25-Mar-2021	YES
1200002812	Azure Power India Private Limited	500	Fatehgarh III PS	27-Oct-2020	Yet to be signed	30-Oct-2024	30-Oct-2024	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	Yet to be initiated					Engineering yet to be concluded	Engineering yet to be concluded	25-Mar-2021	YES
1200002403	AZURE POWER INDIA PVT. LTD.	500 MW	Bhadia-II	29-Apr-2020	Yet to be signed	30-Apr-2023	30-Apr-2023	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	To be initiated in due course ; PPA is yet to be signed and under finalization from SECI		2000 +/- 10 % acres	0		Engineering is yet to be concluded	Engineering is yet to be concluded	25-Mar-2021	YES
1200002151	RAJASTHAN SOLARPARK DEVELOPMENT COMPANY LIMITED	925 MW	Bhadia-II PS (new)	7-Oct-2019		30-Apr-2022	30-Apr-2022	Completed	Obtained	Total 249. Completed 20	Work to be started	Work to be started	Achieved	2-Jun-2020	4586.12	4586.12	11-Nov-2020			25-Mar-2021	YES
1200002432	Adani Green Energy Four Limited	500 MW	Ramgarh-II PS	29-Apr-2020	Pending	31-Dec-2022	31-Dec-2022	Not Completed	Not Applied	0	0	0	As Per Bid		500X5	0		Under Process	Under Process	25-Mar-2021	YES
1200002430	Adani Green Energy Four Limited	500	Fategarh-II	22-Jun-2020	Pending	31-Dec-2022	31-Dec-2022	Not Completed	Not Applied	00/00	00/00	00/00	Under Process		2500	under process		Under Finalization	Under Finalization	25-Mar-2021	YES
1200002401	AZURE POWER INDIA PVT. LTD.	500 MW	Bhadia-II	29-Apr-2020	Yet to be signed	30-Apr-2023	30-Apr-2023	Not Completed	Not Applied	Work yet to start	Work yet to start	Work yet to start	Under Process		2000 +/- 10 % acres	0		Engineering is yet to be concluded	Engineering is yet to be concluded	25-Mar-2021	YES
1200002428	Adani Green Energy Four Limited	500	Bhadia - II	29-Apr-2020	Pending	31-Dec-2022	31-Dec-2022	Not Completed	Not Applied	00/00	00/00	00/00	Under Process		2500	under process		Under Finalization	Under Finalization	25-Mar-2021	YES
1200002410	ADANI RENEWABLE ENERGY PARK RAJASTHAN LIMITED	500 MW	Fatehgarh-II PS	18-Mar-2020	Pending	31-Jul-2022	31-Jul-2022	Not Completed	Not Applied	00/00	00/00	00/00	As Per Bid		2500	Under Progress		Under Progress	33/220 KV, 1 bay, Award of bay construction in progress	25-Mar-2021	YES
1200002009	EDEN RENEWABLE CITE PRIVATE LIMITED	300 MW	Fatehgarh-II	21-Jun-2019	Con-4 submitted	26-May-2021	26-May-2021	Completed	Obtained	228/228	57/54	12.7/11.6	Financial Closure have been completed on 16th December 2020	16-Dec-2020	1115	1190	1-Apr-2020	Delivered and placed to the foundation		24-Mar-2021	YES
1200001600	AZURE POWER INDIA PRIVATE LIMITED	250 MW + 50 MW (from 1200001644)	Bhadia (Existing)	14-Sep-2018	CON 4 documentation compilation in progress	31-Jul-2021	23-Dec-2021	Completed	Obtained	All foundations completed	All tower erections completed	All stringing completed and CEA inspection completed	Done	29-Aug-2019	1250	1174	13-Feb-2020	Material received at site and erection completed	100 % work completed	23-Mar-2021	YES
1200001601	AZURE POWER INDIA PRIVATE LIMITED	300 MW	Bhadia (Existing)	14-Sep-2018	awaiting CON 5	31-Jul-2021	1-Nov-2021	Completed	Obtained	All foundations completed	All tower erections completed	All stringing completed and CEA visit completed	Done	29-Aug-2019	1337	1337	13-Feb-2020	Work Completed and CEA visit completed	100% work completed	23-Mar-2021	YES
1200002907	ENERGIZENT POWER PRIVATE LIMITED	125 MW	Fatehgarh-III	28-Jan-2021	to be signed	31-Aug-2022	31-Aug-2022	Not Completed	Not Applied	to be finalized	to be finalized	to be finalized	Secured	6-Oct-2020	437.5	236.0351		to be finalized	Under Progress	23-Mar-2021	YES
1200002847	XL XERGI POWER PRIVATE LIMITED	400 MW	Fatehgarh-III	1-Dec-2020	to be signed	31-May-2022	31-May-2022	Not Completed	Not Applied	to be finalized	to be finalized	to be finalized	Secured	27-Aug-2020	1600	805.7115		to be finalized	Under Progress	23-Mar-2021	YES
1200002637	Altra Xergi Power Private Limited	380 MW	Fatehgarh-III	10-Sep-2020	to be signed	15-Feb-2022	15-Feb-2022	Not Completed	Not Applied	to be finalized	to be finalized	to be finalized	Under Progress		approx. 1550 Acres	200 Acres		under negotiation	under progress	23-Mar-2021	YES
1200001573	AZURE POWER INDIA PRIVATE LIMITED	300 MW	Bikaner	5-Sep-2018	CON6 signed	30-Apr-2021	31-Jul-2021	Completed	Obtained	All foundations completed	All tower erections completed	All stringing completed and line charged	Completed	22-Jul-2019	1262	1262	6-Dec-2019	Received and erection completed	100 % work completed and charged	22-Mar-2021	YES
1200002699	ABC Renewable Energy Private Limited	400 MW	Fatehgarh-III	9-Oct-2020	signed on 03/11/2020	4-Mar-2022	4-Mar-2022	Not Completed	Not Applied	0	0	0	PPA signed on 05/10/2020 & PSA Signed with CPDCL on 25/09/2020 and it's approval from respective SERC yet to clear for financial closure		1600	750	9-Jul-2021	Yet to Finalize	Yet to Finalize	22-Mar-2021	YES
1200001572	AZURE POWER INDIA PRIVATE LIMITED	300 MW	Bikaner Pooling Station, Bay no 207 (Revised Intimation), Bay Type 220 kV AIS Bay	5-Sep-2018	CON6 signed	15-Dec-2020	8-Feb-2021	Completed	Obtained	All foundations completed	All tower erections completed	All stringing completed	Completed	22-Jul-2019	1262	1262	6-Dec-2019	Received and erection completed	100% work completed	22-Mar-2021	YES
1200002642	AVIKIRAN SURYA INDIA PRIVATE LIMITED	300		10-Sep-2020	Yet to be signed	15-Nov-2021	31-Dec-2021	Completed	Obtained	00/00	00/00	00/00	Achieved	5-Jun-2020	1450	1430	15-Jan-2021	PO Issued	Subcontractor finalised	22-Mar-2021	YES
1200002676	AMP ENERGY GREEN PRIVATE LIMITED	100 MW	Bhadia-II PS	9-Oct-2020		11-Apr-2022	11-Apr-2022	Not Completed	Not Applied	In progress	In progress	In progress	In Progress		450	245				20-Mar-2021	YES
1200001627	Mahindra Susten Private Limited	250 MW	Bhadia PGCIL Substation	28-Sep-2018	To be executed	31-Mar-2021	30-May-2021	Completed	Obtained	64/64	64/64	15/15	Achieved	25-May-2019	Approx 1200	Approx 1200	1-May-2019	All 3 transformer erection ans testing completed.	Erection of equipments completed, testing work in progress	20-Mar-2021	YES
1200002559	AMP ENERGY GREEN PRIVATE LIMITED	100 MW	Bhadia-II PS	9-Jul-2020		31-Mar-2022	31-Mar-2022	Not Completed	Not Applied	In progress	In progress	In progress	In Progress		450	423				20-Mar-2021	YES
1200002628	RENEW SURYA ROSHNI PRIVATE LIMITED	400MW	Fatehgarh-III Substation	10-Sep-2020	Not done	30-Jan-2023	30-Jan-2023	Not Completed	Not Applied	To be updated	To be updated	To be updated	To be updated	30-Oct-2022	1267	0	18-Aug-2022	To be updated	To be updated	20-Mar-2021	YES
1200002746	ReNew Surya Jyoti Private Limited	210 MW	Fatehgarh III Substation	10-Oct-2020	to be updated	30-Dec-2022	30-Dec-2022	Not Completed	Not Applied	to be updated	to be updated	to be updated	Achieved	30-Nov-2021	750	502	3-Jul-2021	basis equity infusion	to be updated	20-Mar-2021	YES
1200002778	RENEW SURYA PRATAP PRIVATE LIMITED	210 MW	Fatehgarh III Substation	9-Oct-2022	to be updated	30-Mar-2023	30-Mar-2023	Not Completed	Not Applied	to be updated	to be updated	to be updated	FC closed basis Equity contribution	30-Nov-2021	750	512	3-Jul-2021	to be updated	to be updated	20-Mar-2021	YES
1200002692	ReNew Surya Aayan Private Limited	300	Fatehgarh III Substation	9-Oct-2022	to be updated	30-Oct-2022	30-Oct-2022	Not Completed	Not Applied	to be updated	to be updated	to be updated	to be updated	30-Apr-2022	950	804	18-May-2022	to be updated	to be updated	20-Mar-2021	YES
1200002695	ReNew Surya Vihaan Private Limited	100	Fatehgarh III Substation	9-Oct-2020	to be updated	30-Oct-2022	30-Oct-2022	Not Completed	Not Applied	to be updated	to be updated	to be updated	to be updated	30-Apr-2022	317	to be updated	18-May-2022	to be updated	to be updated	20-Mar-2021	YES
1200002590	ReNew Surya Vihaan Private Limited	200	Fatehgarh III Substation	3-Aug-2020	to be updated	30-Oct-2022	30-Oct-2022	Not Completed	Not Applied	to be updated	to be updated	to be updated	to be updated	30-Apr-2022	634	to be updated	18-May-2022	to be updated	to be updated	20-Mar-2021	YES
1200002370	ReNew Solar Urja Private Limited	300 MW	Fatehgarh II substation	10-Feb-2020	Con 4 initiated	25-Feb-2022	25-Feb-2022	Completed	Not Applied	112/17	112/2	26.28/0	to be updated	25-Aug-2021	950	359	31-Mar-2021	To be updated	To be updated	20-Mar-2021	YES
1200001989	ReNew Solar Energy (Jharkhand Four) Private Limited	300 MW	Fatehgarh II substation	21-Jun-2019	Con 4 initiated	24-Nov-2021	24-Nov-2021	Completed	Not Applied	67/26	67/15	16.1/0	Achieved	24-Sep-2020	950	950	26-Mar-2021	Civil work yet to start	Civil work yet to start	20-Mar-2021	YES
1200002229	ReNew Solar Energy (Jharkhand Three) Private Limited	300 MW	Fatehgarh II substation	10-Oct-2019	Con 4 initiated	23-Sep-2021	23-Sep-2021	Completed	Applied	91/17	91/2	20.2/0	Achieved	23-Mar-2021	950	950	15-Mar-2021	Civil work yet to start	Civil work yet to start	20-Mar-2021	YES
1200001967	ReNew Solar Energy (Jharkhand Four) Private Limited	300 MW	Fatehgarh II substation	21-Jun-2019	Con 4 initiated	30-Jul-2021	30-Jul-2021	Completed	Obtained	33/26	33/15	7.5/0	Achieved	20-Nov-2020	950	950	5-Oct-2020	Accessories erection in progress	Equipment erection in progress	20-Mar-2021	YES

App Number	Applicant Name	Quantum of Stage-II granted	Substation at which Stage-II granted	Date of grant of Stage-II connectivity	Status of Connection Agreement	1st Phase commissioning Date	Last Phase commissioning date	Route survey for Dedicated Transmission line	Section 68	No. of Foundations (Total/Completed)	No. of Tower Erections (Total/Completed)	Stringing (ckm) (Total/Completed)	Status of Financial closure	Date of FC (Date/Target)	Land Required (Acres)	Land Acquired (Acres)	Date of award of Pooling Station	Status of Main Transformers	Status of Switchyard (configuration, bays and status)	Last status updated on	Data submitted as per CERC timelines
1200000270	ESSEL SAURYA URIA COMPANY OF RAJASTHAN LTD	750 MW	PGCIL BADLA	7-Nov-2017	CON-4 DETAILS SUBMITTED. UNDER PROCESS	15-Mar-2021	Completed	Obtained	250/247	250/243	76/59 FOR CONDUCTOR. 76/38 FOR OPGW	76/59 FOR CONDUCTOR. 76/38 FOR OPGW	COMPLETED	31-Mar-2019	3444.64	3444.64	6-Jul-2018	OUT OF 10 NOS, 4NOS ERECTED AT ISS-II. BALANCE AT SITE	CONFIGURATION:MAIN-1 ,MAIN-2. MSS: 9 BAYS , ISS-I: 6 BAYS(Execution under hold due to court stay order). ISS-II :COMMISSIONING IN PROGRESS	20-Mar-2021	YES
1200002728	Tata Power Green Energy Limited	225 MW	Bikaner # 1	9-Oct-2020	23 Nov 2020 Signed. LTA also signed on	31-Dec-2021	31-Dec-2021	Not Completed	Not Applied	Pending Completed. Existing transmission line will be used	Pending Completed. Existing transmission line will be used	Pending Completed. Existing transmission line will be used	Land acquisition started	30-Sep-2021	1000	In progress		Yet to be awarded	Designing in progress	20-Mar-2021	YES
1200002390	TATA POWER RENEWABLE ENERGY LIMITED	150	765/440/220 Bhadia Pooling Station	18-Mar-2020	Complete	30-Jun-2021	30-Jun-2021	Completed	Obtained	Completed. Existing transmission line will be used	Completed. Existing transmission line will be used	Completed. Existing transmission line will be used	Achieved. Land acquisition is completed PPA with NTPC has been signed on 13th June 2020. PSA to be executed and it's approval from respective SERC yet to clear for financial closure	31-Dec-2020	750	750		In progress	Completed	20-Mar-2021	YES
1200002359	TBEA Solar (India) Private Limited	300 MW	Bhadia-II PS	10-Feb-2020	Transmission agreement signed on 15th July 2020	19-Dec-2021	19-Dec-2021	Not Completed	Not Applied	0	0	0			1200	700 acres acquired and rest will be acquired by 30th April'21.	31-Aug-2020	Yet to finalize.	Yet to finalize.	20-Mar-2021	YES
1200002244	Mahindra Susten Private Limited	250 MW	Bhadia-II PGCIL Substation	29-Oct-2019	Yet to done	25-Feb-2022	25-Feb-2022	Completed	Not Applied	Yet to start	Yet to start	Yet to start	Yet to be done	25-Aug-2021	Approx. 1000	Acquisition in process	In progress	Yet to start	Yet to start	20-Mar-2021	YES
1200001642	ACME Solar Holdings Limited	300	400 kV Fategarh Substation	28-Sep-2018	To be signed	3-Mar-2022	3-Mar-2022	Not Completed	Obtained	0	0	0	Documents submitted (In Process)	2-Mar-2021	1112 acres (1.5 hectare per MW as per RfS)	1117acres (approx.)		ordering done	Negotiation with vendors in process	19-Mar-2021	YES
1200002228	Ayana Renewable Power One Private Limited	300	Bikaner(PG) S/s	7-Oct-2019	Signed on 24.10.2019	30-Jun-2021	23-Sep-2021	Completed	Obtained	4/16	0/16	0/3	Completed	28-Feb-2021	1346	1346	28-Nov-2019	Purchase Order placed	Contract Awarded	19-Mar-2021	YES
1200001643	ACME Solar Holdings Limited	300	400 kV Fategarh Substation	28-Sep-2018	To be Signed	3-Mar-2022	3-Mar-2022	Not Completed	Obtained	0	0	0	Documents submitted (In Process)	2-Mar-2021	1112 acres (1.5 hectare per MW as per RfS)	1114 acres (approx.)		ordering done	Negotiation with vendors in process	19-Mar-2021	YES
1200001603	ACME Solar Holdings Limited	300	400 kV Fategarh Substation	5-Sep-2018	To be Signed	17-Feb-2022	17-Feb-2022	Not Completed	Obtained	0	0	0	Achieved	25-May-2019	mentioned in RfS/PPA	1034 acres (approx.)		ordering done	Negotiation with Vendors in process	19-Mar-2021	YES
1200001602	ACME Solar Holdings Limited	300	400 kV Fategarh Substation	5-Sep-2018	To be signed	17-Feb-2022	17-Feb-2022	Not Completed	Obtained	0	0	0	Achieved	14-May-2019	mentioned in RfS/PPA	1126 land acquired		ordering done	Negotiation with Vendor in Process	19-Mar-2021	YES
1200001575	HERO SOLAR ENERGY PRIVATE LIMITED	250	765/400/220 kV Bhadia PGCIL Substation	14-Sep-2018	To be signed	31-Dec-2021	31-Dec-2021	Completed	Obtained	40/36	40/34	10 km/3 km	FC Clearance letter from SECI received on 16 Aug 2019 and submitted to PGCIL on 23 Aug 2019	25-May-2019	844	844.39	31-May-2020	Contract awarded	Contract awarded, Configuration – 2 Bus Scheme, No. of Bay – 4 (2 Trafo, 1 Line, 1 Bus Coupler), 40% Completed	19-Mar-2021	YES
1200002471	ACME Solar Holdings Limited	300 MW	220KV Bhadia-II PS	22-Jun-2020	yet to be signed	28-Dec-2021	28-Dec-2021	Not Completed	Applied	0	0	0	achieved	5-Feb-2021	No Provision in RfS and PPA	1118 acres acquired	16-Feb-2021	Ordered	2 main bus scheme, 4 bays	19-Mar-2021	YES
1200002636	Avaada Energy Private Limited	320 MW	Bhadia-II, PSS of PowerGrid	10-Sep-2020	Transmission Agreement signed on 30th Sept. 2020	1-Jan-2022	1-Jan-2022	Not Completed	Not Applied	under finalization	under finalization	under finalization	Under Appraisal	30-Sep-2021	1190	300	31-May-2021	Under Designing	Under Designing	19-Mar-2021	YES
1200002125	Avaada Energy Private Limited	350	765/400 kV BIKANER PGCIL SS	2-Aug-2019	Transmission Agreement Signed on 13th August 2019	1-May-2021	24-Jun-2021	Completed	Obtained	35/40	0/40	0/13.9	Achieved	1-Jul-2020	1238.85	1238.85	31-Jan-2020	Under Manufacturing Stage (awarded to GE)	Under Construction (awarded to GE)	19-Mar-2021	YES
1200002775	Avaada Energy Private Limited	240	765/400 kV BIKANER PGCIL SS	13-Oct-2020	Transmission Agreement Signed on 29th October 2020	30-Nov-2021	30-Nov-2021	Completed	Obtained	35/40	0/40	0/13.9	Under Appraisal	30-Jun-2021	890	200	31-Jan-2020	Under Manufacturing Stage (awarded to GE)	Under Construction (Awarded to GE)	19-Mar-2021	YES
1200002385	Avaada Energy Private Limited	300	765/400 kV BIKANER PGCIL SS	18-Mar-2020	Transmission Agreement signed on 07th July 2020	1-Jul-2021	15-Sep-2021	Completed	Obtained	35/40	0/40	0/13.9	Achieved	13-Oct-2020	1112	700	31-Jan-2020	Under Manufacturing Stage (Awarded to GE)	Under Construction (Awarded to GE)	19-Mar-2021	YES
1200002700	IB VOGT SOLAR SEVEN PRIVATE LIMITED	300	Fatehgarh-III PS	9-Oct-2020	Yet to happen	15-Oct-2022	15-Oct-2022	Not Completed	Not Applied	to be updated post route survey	to be updated post route survey	to be updated post route survey	PPA shall start post signing of PPA with SECI	15-Apr-2022	1350	0	15-Jan-2022	to be ordered along with PSS	to be decided during detailed engineering	19-Mar-2021	YES
1200002556	SBE Renewables Fifteen Private Limited	600	Bhadia-II	9-Jul-2020	To be applied	30-Sep-2022	30-Sep-2022	Not Completed	Obtained	67/0	67/0	20/0	Under process	31-Mar-2022	3000	0				18-Mar-2021	YES
1200002635	SBE Renewables Seventeen Private Limited	600	Fatehgarh-III	10-Sep-2020	To be applied	31-Mar-2022	31-Mar-2022	Not Completed	Obtained	18/0	18/0	5/0	Not done	30-Sep-2021	3000	0				18-Mar-2021	YES
1200002450	SBE Renewables Sixteen Private Limited	180	Fatehgarh-II	29-Apr-2020	Not done	16-Nov-2021	16-Nov-2021	Completed	Obtained	32/0	32/0	11/0	Not done	14-Jul-2021	900	909	2-Jun-2020			18-Mar-2021	YES
1200002688	Eden Renewable Bercy Private Limited	300	Fatehgarh-II	9-Oct-2020		8-Oct-2022	8-Oct-2022	Not Completed	Not Applied	0	0	0	PPA is still not executed		1115	0		To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision	10-Mar-2021	YES
1200002554	Eden Renewable Alma Private Limited	300MW	Bhadia-II	9-Jul-2020	PPA pending for signing	30-Jul-2022	30-Jul-2022	Not Completed	Not Applied	To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision		1115	NIL		To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision	10-Mar-2021	YES
1200002629	Eden Renewable Passy Private Limited	300MW	Fatehgarh-II	5-Nov-2020	Pending Signed. LTA also signed on	28-Feb-2022	28-Feb-2022	Not Completed	Not Applied	To be informed in due course of time as per project time line	To be informed in due course of time as per project time line	To be informed in due course of time as per project time line	yet to start the process	31-Aug-2021	1115	00		To be informed in due course of time as per bid provision	To be informed in due course of time as per bid provision	10-Mar-2021	YES
1200002804	Tata Power Green Energy Limited	225 MW	Bikaner # 1	9-Oct-2020	23 Nov 2020 Signed	31-Dec-2021	31-Dec-2021	Not Completed	Not Applied	Pending	Pending	Pending	Land acquisition started	30-Sep-2021	1000	In progress				18-Jan-2021	YES
1200002454	TATA POWER RENEWABLE ENERGY LIMITED	150	Bhadia 1	18-Mar-2020	Complete	30-Jun-2021	30-Jun-2021	Completed	Obtained	Completed. Existing transmission line will be used	Completed. Existing transmission line will be used	Completed. Existing transmission line will be used	Land acquisition completed and other parameters achieved by 31st Dec 2020	31-Dec-2020	750	750		Completed	Completed	15-Jan-2021	YES
1200001797	ADANI RENEWABLE ENERGY PARK RAJASTHAN LIMITED	500 MW	Fatehgarh - II PS	29-Aug-2019	Pending	31-Dec-2021	31-Dec-2021	Not Completed	Not Applied	00/00	00/00	00/00	As Per Bid		2500	1500		Under Process	Under Process	29-Dec-2020	NO
1200002238	SBSR POWER CLEANTECH ELEVEN PRIVATE LIMITED	300	Bikaner	21-Jun-2019	To be applied	5-Jun-2021	5-Jun-2021	Completed	Obtained	58/39	58/27	11.2/0	Documents submitted , approval awaited from SECI	3-Dec-2020	1510	1242	14-Dec-2019	Order placed, Under manufacturing	33/220kV, 5 bays, 30% complete	27-Dec-2020	NO
1200001551	AZURE POWER INDIA PRIVATE LIMITED	130 MW	Bhadia (Exisitng)	14-Sep-2018	Signed	6-Sep-2019	6-Sep-2019	Completed	Obtained	61/61	61/61	14/14	Completed	17-Jan-2019	650	676	25-Jul-2018	Awarded	Completed and Commissioned	30-Dec-2019	NO
1200001443	Mahoba Solar (UP) Private Limited	200+50	Bhadia PS-1	2-Aug-2018	signed	21-Aug-2019	20-Feb-2020	Completed	Obtained	64/64	64/64	15.5/15.5	Achieved	12-Mar-2019	762	762	10-Nov-2018	Charged	220 kV double bus , 4 bays, completed	21-Dec-2019	NO
1200001432	RENEW SOLAR POWER PRIVATE LIMITED	250 MW	400 kV Bikaner substation of POWERGRID	2-Aug-2018	Signed	27-Oct-2019	27-Oct-2019	Completed	Obtained	15/15	15/15	4.5/4.5	Achieved	26-Feb-2019	1000	1002	30-Sep-2018	installed	Commissioned - one and half breaker scheme substation	20-Dec-2019	NO
1200001494	ACME Solar Holdings Limited	250	765/400/220 kV Bhadia Substation	14-Sep-2018	Signed	6-Oct-2019	31-Dec-2019	Completed	Obtained	31/31	31/31	7.75/7.75	Achieved	27-Feb-2019	1000	1058.22	18-Jan-2019	Installed	completed	19-Dec-2019	NO
1200001498	TATA POWER RENEWABLE ENERGY LIMITED	150	765/440/220 Bhadia Pooling Station	14-Sep-2018	Signed	29-Aug-2019	29-Aug-2019	Completed	Obtained	Completed	Completed	Completed	Achieved	22-Nov-2018	1074	1074	10-Oct-2018	Commissioned	100% completed.	25-Sep-2019	NO

**Project Inception Report for
Transmission system for evacuation of power from Pakaldul HEP in Chenab
Valley**

A. Project at a Glance

1. Title (Name of Scheme)	Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley
2. Objective / Justification	To establish Transmission system to facilitate interconnection of Pakaldul HEP (1000MW) in J&K and evacuation of its power
3. Scope	<p>Under ISTS transmission system Scope:</p> <ol style="list-style-type: none"> 1. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (LILO length : approx. 10 Km) (Single Circuit Strung) 2. 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station 3. Stringing of Second(2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) (approx. 130km) 4. 2 nos. of 400 kV bays at Kishtwar (GIS) to terminate LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line 5. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section 6. 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section 7. Reconductoring of Dulhasti- Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 km Section) with Quad Moose conductor <p><i>Location of Kishtwar pooling station (GIS) is to be finalized. Line length is tentative.</i></p> <p>Future Scope: Space provision at Kishtwar switching station</p> <p>765/400 kV ICT along with bays – 3 nos. 400/220/132 kV ICT along with bays – 3 nos. 765 kV line bays along with switchable line reactor- 6 nos. 400 kV Line bays – 8 nos. 220/132 kV line bays – 6 nos. 765kV Bus Reactor along with bay– 1no. 400kV Bus Reactor along with bay– 1no.</p> <p>Note: Following connectivity transmission system shall be under the scope of M/s Chenab Valley Power projects Ltd</p>

	<p>(CVPPL)</p> <ol style="list-style-type: none"> 1. Implementation of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C (Triple HTLS) connectivity line. M/s CVPPL to phase the implementation of the connectivity line as per the implementation timelines of the three HEPs i.e. Kiru, Kwar & Pakaldul 2. 2 nos. GIS bays at each end of Kishtwar and Pakaldul 3. 420 kV, 1x125 MVAR Bus Reactor at Pakaldul HEP
4. Estimated Cost	About ₹ 384 Crore
5. Estimated impact on tariff for next five years	₹ 65 Crore/year*
6. System Study	<p>The study results are attached at Exhibit-I.</p> <p>List of assumptions considered is given at Annexure-I</p>
7. Approval of Scheme	<ul style="list-style-type: none"> ➤ Agreed in 1st meeting of NRPC(TP) held on 24/01/2020, extract of MoM attached at Annexure-II. ➤ Agreed in 2nd meeting of NRPC(TP) held on 01/09/2020, extract of MoM attached at Annexure-III. ➤ Agreed in 3rd meeting of NRPC(TP) held on 19/02/2021, extract of MoM attached at Annexure-IIIa ➤ Agreed in 48th Northern Region Power Committee (NRPC) meeting held on 02/09/2020, extract of MoM attached at Annexure-IV ➤ Agreed in 3rd National Committee on Transmission (NCT) held on 26th and 28th May, 2020, extract of MoM attached at Annexure-V ➤ For implementation modality, MOP gazette dated 25.09.20 & MOP OM dated 25.09.20 attached at Annexure-VI
8. Time frame	Apr'25 (matching timeframe of Pakaldul HEP).

* Considering first year tariff @ 17% ** Levelised tariff may be in the range of 14 %

Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley

1.0 TITLE (NAME OF SCHEME)

Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley

2.0 ESTIMATED COST

The estimated cost of the proposed transmission system: about ₹ 384Cr.

3.0 Transmission System for evacuation of power from Pakaldul Hydro Electric Power Plant (1000MW) in Chenab Valley

Proposed transmission system includes following elements:

1. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (LILO length : approx. 10 Km) (Single Circuit Strung)
2. 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station
3. Stringing of Second(2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) (approx. 130km)
4. 2 nos. of 400 kV bays at Kishtwar (GIS) to terminate LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line
5. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section
6. 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section
7. Reconductoring of Dulhasti- Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 km Section) with Quad Moose conductor

Location of Kishtwar pooling station (GIS) is yet to be finalized. Line length is tentative.

Future Scope : Space provision at Kishtwar switching station

765/400 kV ICT along with bays – 3 nos.
 400/220/132 kV ICT along with bays – 3 nos.
 765 kV line bays along with switchable line reactor- 6 nos.
 400 kV Line bays – 8 nos.
 220kV/132 kV line bays – 6 nos.
 765kV Bus Reactor along with bay– 1 no.
 400kV Bus Reactor along with bay– 1 no.

Note: Following connectivity transmission system is to be implementation by CVPPL.

1. Implementation of Kiru-Kwar- Pakaldul- Kishtwar 400 kV D/C (Triple HTLS) connectivity line. M/s CVPPL to phase the implementation of the connectivity

line as per the implementation timelines of the three HEPs i.e. Kiru, Kwar & Pakaldul

2. 2 nos. GIS bays at each end of Kishtwar and Pakaldul
3. 420 kV, 1x125 MVAR Bus Reactor at Pakaldul HEP

However, for ease of implementation, scheme is further segregated in connectivity and LTA system as under:

Connectivity Transmission system under ISTS

1. Establishment of 400 kV switching station at Kishtwar (GIS) by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (LILO length : approx. 10 Km) (Single Circuit Strung)
2. 420kV, 125 MVAR Bus Reactor at Kishtwar Switching Station
3. 2 nos. of 400 kV bays at Kishtwar (GIS) to terminate LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line
4. 1 no. of 400kV line bay at Kishtwar (GIS) for termination of 2nd ckt after stringing of Kishtwar-Kishenpur section

Future Scope: Space provision at Kishtwar switching station

765/400 kV ICT along with bays – 3 nos
 400/220/132 kV ICT along with bays – 3 nos
 765 kV line bays along with switchable line reactor- 6 nos
 400 kV Line bays – 8 nos
 220kV/132 kV line bays – 6 nos
 765kV Bus Reactor along with bay– 1 no
 400kV Bus Reactor along with bay– 1 no

LTA Transmission System under ISTS

1. Stringing of Second(2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) (approx. 130km)
2. 1 no. of 400kV line bay at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section

Reconductoring of Dulhasti- Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line (approx. 13 km Section) with Quad Moose conductor

Schematic diagram is given at **Exhibit-II**

List of Assumptions considered is given at **Annexure-I**

4.0 OBJECTIVE AND JUSTIFICATION

The scheme objective includes interconnection & evacuation of power from Pakaldul HEP in J&K (1000 MW).

M/s Chenab Valley Power Projects Limited (CVPPL) is implementing three major HEPs viz. Pakaldul(1000MW), Kiru (624 MW) and Kwar (540 MW) in J&K. M/s CVPPL has also applied for Connectivity and LTA (Target NR -1000 MW) in ISTS. For connectivity of above generation projects, a comprehensive system was evolved which includes establishment of common pooling station at Kishtwar by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) as well as 400kV dedicated transmission line from generation projects to Kishtwar PS. It was also decided that the generation developer (M/s CVPPL) will establish the dedicated transmission system and phase out its implementation matching with the implementation timelines of the three HEPs i.e. Kiru, Kwar & Pakaldul. M/s CVPPL would first connect Pakaldul to Kishtwar PS and subsequently extend the same transmission line to Kiru and Kwar HEP as per matching time frame.

In order to evacuate power from the Pakaldul HEP (1000 MW) with reliability, as part of its LTA, stringing of Second (2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) as well as reconductoring of a portion of existing Dulhasti - Kishenpur 400 kV S/c line (*Dulhasti- Ratle LILO tap Point of Dulhasti - Kishenpur 400 kV line*) with quad conductor was also planned.

Presently power from Dulhasti HEP (390 MW) is being evacuated through 400 kV Dulhasti- Kishenpur S/c line & D/c (quad) line (Single circuit strung). Earlier, Ratle HEP (690 MW) was planned to be developed in the downstream of Dulhasti HEP and it was agreed that Dulhasti - Kishenpur D/c Quad (S/c strung) would be LILOed at Ratle HEP and 2nd (quad) circuit shall be strung from Kishenpur and terminated at Ratle HEP. Further, it was also agreed during 35th NRSCM that as outlet beyond Dulhasti is Dulhasti-Kishenpur 400kV line single circuit, the quantum of power that can be exported/imported is limited. Therefore, Dulhasti - Ratle section would be optimized to the extent possible. Based on above considerations, Dulhasti - Kishenpur 400kV S/c line (Quad) was implemented with Twin Moose conductor till Ratle LILO point. Beyond Ratle LILO point, line was implemented with Quad Moose conductor. However, LTA & Connectivity application for Ratle HEP was revoked at a later stage due to non-signing of requisite agreements.

As location of proposed Kishtwar S/s is above Ratle location and towards Dulhasti, portion of Dulhasti-Ratle LILO tap Point of Dulhasti- Kishenpur 400 kV line (approx. 13 kms) implemented through twin moose conductor, there would be power transfer limitation from Pakaldul (1000 MW) HEP. Accordingly, reconductoring of above twin moose section was agreed to be carried out with quad moose conductor.

The above identified scheme shall facilitate interconnection and transfer of power from Pakaldul HEP. M/s CVPPL is also granted connectivity & LTA (1000 MW- NR target) in ISTS with above agreed system. Further, to facilitate reliable power transfer to the area, implementation of 2x200 MVA, 400/132 kV transformer at Kishtwar Pooling Station along with 4 no. of 132 kV line bays was also approved, based on JKPDD request, separately as a system strengthening scheme.

5.0 COST-BENEFIT ANALYSIS INCLUDING LONG TERM ECONOMIC ADVANTAGE

The annual transmission charges for the subject scheme at an estimated cost of about **Rs 384 Cr**, would be about **Rs. 65 Cr**. The above transmission system shall enable evacuation of power from f proposed **1000 MW** Pakaldul HEP. Such quantum of power shall translate into annual energy of about **3500 MU** [$Energy\ in\ MU = (1000 \times 0.40 \times 8760) / 10^3$]. If we consider average rate of energy as **Rs. 4.5 per unit** on the conservative side then the total annual energy cost works out to be about **Rs. 1577 Crs.**

In other words, the system proposed under the subject scheme whose annual transmission charges is **Rs.65 Crs** shall enable ISTS network to handle clean hydro energy whose cost is of the order of **Rs. 1577 Crs.** (i.e. **~24 times** the transmission cost). Hence the subject scheme shall be good proposition from Cost-benefit point of view.

** PLF@40% has been considered.*

6.0 TIME FRAME / PHASING OF THE IMPLEMENTATION OF THE SCHEME

Transmission system is to be implemented in matching timeframe of Pakaldul HEP, which was originally expected by Feb, 2024. Subsequently, in the 17th JCC meeting held on 26.03.21, CVPPL has revised schedule to Apr'25. Accordingly, time frame of implementation of the transmission scheme shall be matching with generation i.e. Apr'25.

7.0 CONSENT OF BENEFICIARIES

The transmission system was discussed, finalized in consultation with CEA & various state utilities in NR as well as M/s CVPPL.

In the 1st meeting of Northern Region Power Committee- Transmission Planning (NRPC (TP)) held on 24/01/2020, Comprehensive system for connectivity was deliberated and agreed for evacuation of power from Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) HEPs of CVPPL.

Transmission System for transfer of 1000 MW from Pakaldul HEP under Long-term Transmission Access(LTA) was agreed for grant to NR (target region) through Second (2nd) circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar-Kishenpur Section) in the 2nd meeting of NRPC (TP) held on 01/09/2020.

The system was agreed and approved by 48th NRPC meeting held on 02/09/2020 and 3rd NCT held on 26th and 28th May, 2020.

Further one element of the above scheme i.e. reconductoring of a portion of existing Dulhasti - Kishenpur 400 kV S/c line is agreed in 3rd meeting of NRPC(TP) held on 19/02/2021. This shall also be taken up in ensuing NRPC meeting for approval. Meanwhile, CTU vide letter dated 19.05.21 has also requested NRPC to arrange its recommendation on the above one element of the scheme.

Results of the system studies carried out with the proposed scheme for various scenarios is enclosed at **Exhibit-I**. Assumption and inputs considered in above system studies is also enclosed in **Annexure -I**.

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Annexure-I**Study Assumptions**

1. Studies have been carried out in peak demand scenario (evening peak) for 2025 time frame of Monsoon season (Hydro peak). In this scenario, Hydro is fully dispatched. Therefore, transmission system is evolved considering Pakadul HEP maximum generation dispatch (1000 MW).
2. All India Peak Demand is considered as per the 19th EPS of CEA (2025) as well as based on NR constituents' inputs.
3. In the studies, all India transmission network up to 220kV level has been simulated. This includes, existing as well as under construction transmission network
4. In evening peak demand scenario, no Solar generation is considered whereas wind generation dispatch is considered as 70% in all regions.
5. In peak demand scenario, NR, ER & NER hydro generation is considered as 90-95 % dispatch level whereas other regions hydro generation is considered to 60%. However, hydro dispatch of Pakaldul HEP and nearby hydro generations in J&K is considered to be fully dispatched.

Balance demand is to be met through thermal generation considering only those thermal units which were operating in noon time at lower dispatch level (up to 55% level)

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S No	Cost Estimate				
	Item	Unit cost (Rs Cr)	Unit cost	Nos./km	Total
		A	Incl.IDC & Centages(@18%)	B	
1	Establishment of 400 kV switching station at Kishtwar (GIS) along with 420 kV, 125 MVAR Bus Reactor and Space for future provision.				
	125 MVAR Bus Reactor-1 no	6.18	7.29	1	7.29
	400kV line GIS bays- 3 no	11.72	13.83	3	41.49
	400kV Bus reactor GIS bay-1 no.	11.72	13.83	1	13.83
	Establishment Cost	20	23.60	1	23.60
2	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line(10km)*	3.152	3.72	10	37.19
3	Second(2nd) circuit stringing on Kishenpur – Dulhasti 400kV D/c (Quad) line (Kishtwar- Kishenpur Section)	1.58	1.86	130	241.61
4	1 no. of 400kV line bay(AIS) at Kishenpur for 2nd ckt stringing of Kishtwar - Kishenpur section	7.9	9.32	1	9.32
5	Reconductoring of approx 13 km section (LILO tap Point of Dulhasti - Kishenpur 400 kV line) with Quad Moose	0.61	0.73	13	9.43
	Total (Rs Cr)				384

* Considering hilly terrain factor of 1.6

Form-I

Particulars	
1. Name of the Petitioner/Applicant	Central Transmission Utility of India
2. Address of the Petitioner/Applicant	Plot No. 2, Sector 29, Gurugram (Haryana) - 122001
3. Subject Matter	Grant of Regulatory Approval
4. Petition No., if any	
5. Details of generation assets (a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	
6. Details of transmission assets (a) Transmission line and sub-stations (b) Date of commercial operation (c) Period for which fee paid (d) Amount of fee paid (g) Surcharge, if any	As per Annexure P1 to this Regulatory Approval Petition
7. Fee paid for Adoption of tariff for (a) Generation asset (b) Transmission asset	
8. Application fee for licence (a) Trading licence (b) Transmission licence (c) Period for which paid (d) Amount of fee paid	
9. Fees paid for Miscellaneous Application	Filing fee exempted in terms
10. Fees paid for Interlocutory Application	of Reg. 6(3) of CERC
11. Fee paid for Regulatory Compliance petition	Payment of Fee Regulations, 2012 (CTU petition in
12. Fee paid for Review Application	discharge of official functions)
13. Licence fee for inter-State Trading (a) Category (b) Period (c) Amount of fee paid (d) Surcharge, if any	
14. Licence fee for inter-State Transmission (a) Expected/Actual transmission charge (b) Period (c) Amount of fee calculated as a percentage of transmission charge. (d) Surcharge, if any	
15. Annual Registration Charge for Power Exchange (a) Period (b) Amount of turnover (c) Fee paid (d) Surcharge, if any	



16. Details of fee remitted (a) UTR No. (b) Date of remittance (c) Amount remitted	Filing fee exempted in terms of Reg. 6(3) of CERC Payment of Fee Regulations, 2012. (CTU petition in discharge of official functions)
Note: While Sl. Nos. 1 to 3 and 16 are compulsory, the rest may be filled up as applicable	
Signature of the authorized signatory with date	

[Atul K. Agarwal, CGM (CTUIL)]