

**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI**

AMENDED PETITION NO. 123/TL/2023

IN THE MATTER OF

Kallam Transmission Limited

...APPLICANT

VERSUS

Central Transmission Utility of
India Ltd. & Ors.

...RESPONDENTS

INDEX

S. No.	Particulars	Page No.
1.	Amended Memo of Parties	A-E
2.	Affidavit	1
3.	Amended Application under Sections 14, 15, 79(1)(e) of the Electricity Act, 2003 read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2009 seeking Transmission License for Kallam Transmission Ltd. for the Transmission Project to be constructed through regulated tariff mechanism (RTM) along with supporting affidavit.	2-24
4.	Annexure P-1: A copy of MoP's Office Order dated 28.10.2021	25 - 27
5.	Annexure P-2: A copy of NCT's letter dated 15.11.2022	28 - 33
6.	Annexure P-3: A copy of the CTUIL's letter dated 15.11.2022	34
7.	Annexure P-4: A copy of CTUIL's OM dated 08.06.2023	35 - 38
8.	Annexure P-5: CTUIL's email dated 28.06.2023	39 - 43
9.	Annexure P-6: A copy of the Transmission Licence No. 74/Transmission/2022/CERC dated 18.07.2022 for the TBCB Project	44 - 48
10.	Annexure P-7: A copy of the TSA dated 30.09.2021	49 - 193
11.	Annexure P-8: A copy of the Agenda of the 9 th	194 -

S. No.	Particulars	Page No.
	NCT meeting	258
12.	Annexure P-9: Board resolution dated 22.03.2023 for Indigrid 1 Ltd.	259
13.	Annexure P-10 Board resolution dated 22.03.2023 for Indigrid 2 Ltd.	260
14.	Annexure P-11: A copy of KTL's Board Resolution dated 22.03.2023	261
15.	Annexure P-12: A copy of the minutes of meeting convened by CTU on 03.07.2023 issued on 14.07.2023.	262 - 268
16.	Annexure P-13: A copy of Board Resolution dated 19.07.2023	269
17.	Annexure P-14: A copy of the Certificate of Incorporation dated 28.05.2020	270
18.	Annexure P-15: A copy of Memorandum of Association	271 - 277
19.	Annexure P-16: A copy of Articles of Association	278 - 292
20.	Annexure P-17: Duly filled Form-I of CERC (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2009	293 - 296

APPLICANT/KALLAM TRANSMISSION LTD.

Place: Noida, U.P.

Date: 20.07.2023

A

**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI**

PETITION NO. 123/TL/2023

AMENDED MEMO OF PARTIES

IN THE MATTER OF

Kallam Transmission Limited
Unit No. 101, First Floor, Windsor, Village Kolekalyan,
off CST Road, Vidyanagari Marg, Kalina, Santacruz (East),
Mumbai – 400098

...APPLICANT

VERSUS

1. Central Transmission Utility of India Ltd.
CTU-Planning
(1st Floor-A Wing), Saudamini, Plot No. – 2,
Sector- 29, Near IFFCO Chowk Metro Station,
Gurgaon-122001
...Respondent No -1
2. Veh Aarush Renewables Pvt. Ltd.
Plot No-38, Phase-2, First Floor N-Heights,
Hitech City, Siddiq Nagar, Hyderabad,
India, 50008
...Respondent No -2
3. JSW Neo Energy Limited (JSW NEL)
JSW Neo Energy Limited JSW Center, BKC,
Mumbai
...Respondent No -3
4. Serentica Renewables India 4 Private Limited (SRI4PL)
DLF Cyberpark, Tower-B, 9th Floor,
Udyog Vihar, Phase-III, Sector-20,
Gurgaon, HR 122008
...Respondent No -4
5. Torrent Solar Power Private Limited (TSPPL)
SUGEN Mega Power Project, Torrent Power Ltd.
Village-Akhakhhol, Distt-Surat-394155
...Respondent No -5

Lokendra Sug


B

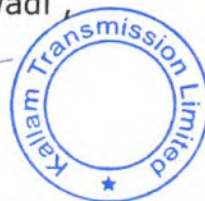
6. Chhatisgarh State Power Distribution Co. Ltd.
Post:Sundernagar, Dangania, Raipur-492013
...Respondent No -6
7. Goa Electricity Department
Goa Electricity Dept, Curti,
Ponda-403401
...Respondent No -7
8. Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhavan,
Racecourse Vadodara - 390007
...Respondent No -8
9. Heavy Water Board
O FLOOR, VIKRAM SARABHAI BHAVAN,
TROMBAY, ANUSHAKTINAGAR,
MUMBAI - 400094 ,
Maharashtra
...Respondent No -9
- 10.HVDC Bhadrawati, PGCIL
PGCIL RHQ, WR-I, Sampriti Nagar,
Off National Highway No. 8,
Taluka : Kamrej,
PO: Uppalwadi , Nagpur , 440026,
Maharashtra
...Respondent No -10
11. HVDC Vindhyachal, PGCIL
PGCIL RHQ, WR-I, Sampriti Nagar,
Off National Highway No. 8,
Taluka : Kamrej,
PO: Uppalwadi , Nagpur , 440026,
Maharashtra
...Respondent No -11
12. M.P. Power Management Company Ltd.
14, Shakti Bhawan, Rampur,
Jabalpur - 482008
...Respondent No -12
13. Maharashtra State Electricity
Distribution Co. Ltd. MSEDCL,
Plot No 9, "prakashgad",

Lokendra Singh



- A K Marg, Bandra East,
Mumbai-400051 **...Respondent No -13**
14. ACB India LIMITED
7th Floor, Corporate Tower, Ambience Mall,
NH-8, Gurgaon-122 001(Haryana) **...Respondent No -14**
15. Torrent Power Limited
Torrent Power Ltd. Naranpura Zonal Office,
Sola Road, Ahmedabad, 380013 **...Respondent No -15**
16. West Bengal State Elect. Dist. Co. Ltd.
6th Floor Vidyut Bhawan, Karunamoyee,
Salt Lake, Kolkata-700091, West Bengal **...Respondent No -16**
17. Thermal Powertech Corporation India
6-3-1090, Clock C, Level 2,
TSR , Towers, Rajbhavan Road,
Somajiguda, Hyderabad, 500082,
Telangana **...Respondent No -17**
18. BARC
Bhabha Atomic Research Centre,
Anushakti Nagar, Mumbai,
Maharashtra - 400085 **...Respondent No -18**
19. GMR Warora Energy Limited
Plot B-1,GMR Warora Energy Ltd,
Mohabala MIDC Growth Centre,
Post - Warora, Dist - Chandrapur,
Maharashtra, PIN 442907 **...Respondent No -19**
20. HVDC Champa
PGCIL RHQ, WR-I, Sampriti Nagar,
Off National Highway No. 8,
Taluka : Kamrej, PO: Uppalwadi,

Lokendra Singh



D

- Nagpur , 440026, Maharashtra **...Respondent No -20**
21. West Central Railway Head Office
General Manager's Office,
Electrical Branch,
Jabalpur- 482 001. **...Respondent No -21**
22. Western Railway
Office Of Chief Electrical Engineer,
Mumbai **...Respondent No -22**
23. East Central Railway
CEDE, Office of Chief Electrical Engineer,
ECR, Zonal Head Quarter, Dighikala,
Bihar-844101 **...Respondent No -23**
24. DB Power Limited- Untied
Opp Dena Bank, C-31, G- Block, Mumbai **...Respondent No -24**
25. Chhattisgarh State Power Trading Co. Ltd.
2nd floor Vidyut Sewa Bhawan, Raipur **...Respondent No -25**
26. TRN Energy Private Ltd-Untied
7th Floor, Ambience Office Block, Gurugram **...Respondent No -26**
27. Adani Power (Mundra) Limited.
Adani Corporate House, Shantigram,
Near Vaishnavdevi Circle, S G Road,
Ahmedabad - 382421 **...Respondent No -27**
28. Raigarh HVDC Station
RPT HVDC Office, Hebbal,
Bangalore - 560094 **...Respondent No -28**
29. Arcelor Mittal Nippon Steel India Ltd.
27,AMNS House, 2TH KM Surat Hazira road,
Hazira-394270,
Gujarat **...Respondent No -29**

Lokendra Singh



E

30. Central Railway
Pcee's office, 2nd floor, parcle building,
csmt mumbai-400001 **...Respondent No -30**
31. Dadra and Nagar Haveli and Daman and
Power Distribution Corporation Ltd.
1st & 2nd Floor, Vidyut Bhavan,
Nex Silvassa & Daman **...Respondent No -31**
32. MPSEZ Utilities Ltd.
3rd Floor, Adani Corporate House,
Ahmedabad **...Respondent No -32**

Lokendra Singh
APPLICANT/KALLAM TRANSMISSION LTD



Place: Noida, U.P

Date: 20.07.2023



**BEFORE THE CENTRAL ELECTRICITY REGULATORY
COMMISSION, AT NEW DELHI
PETITION NO.123/TL/2023**

IN THE MATTER OF:

Kallam Transmission Ltd

...Applicant

Versus

Central Transmission Utility
of India Ltd. & Ors.

...Respondents

AFFIDAVIT

I, Lokendra Singh Ranawat, Son of Shri B.S. Ranawat, aged about 39 years, being the authorized representative of Kallam Transmission Ltd., Applicant herein, having my office at Windsor, 1st Floor, Unit no. 101, Kalina, Santacruz East, Mumbai, Maharashtra 400098, presently at Noida, U.P., do hereby solemnly affirm and state as under:

1. That I am the authorized signatory of the Applicant and as such I am fully conversant with the facts and circumstances of the present case and therefore authorised and competent on behalf of the Applicant to swear and affirm this affidavit.
2. I state that I have read and understood the contents of the accompanying Application and the same has been drafted under my instructions and after carefully going through the same, I state that the same are true and correct to the best of my knowledge or belief and it is stated that no part of it is false and nothing material has been concealed there from.
3. I state that the annexures annexed to the accompanying Application, if any, are true copies of their respective originals.

DEPONENT

VERIFICATION

I, the deponent above named do hereby verify that the contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed there from.

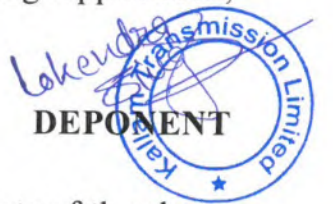
Verified at Noida, Uttar Pradesh on 20th day of July, 2023.

DEPONENT



ATTESTED
ANJANA SHUKLA
Advocate Notary
Distt. Gautam Budh Nagar

20 JUL 2023



**BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI**

PETITION NO. 123/TL/2023

IN THE MATTER OF

Application under Sections 14, 15, 79(1)(e) of the Electricity Act, 2003 read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2009 seeking Transmission License for Kallam Transmission Limited for the Transmission Project to be constructed through regulated tariff mechanism (RTM).

AND IN THE MATTER OF

Kallam Transmission Limited

...APPLICANT

VERSUS

Central Transmission Utility of
India Ltd. & Ors.

...RESPONDENTS

**AMENDED PETITION No. 123/TL/2023 IN TERMS OF THE LIBERTY
GRANTED BY THIS HON'BLE COMMISSION ON 20.06.2023**

**AMENDED APPLICATION UNDER SECTIONS 14, 15, 79 (1) (e) OF
THE ELECTRICITY ACT, 2003 FOR GRANT OF TRANSMISSION
LICENSE**

MOST RESPECTFULLY SHOWETH

A. INTRODUCTION

1. Kallam Transmission Limited ("**KTLL**" / "**Applicant**") has approached this Hon'ble Commission by way of the present Petition filed under Sections 14, 15 and 79 (1) (e) of the Electricity Act, 2003 (hereinafter "**Electricity Act**") read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2009 (hereinafter referred to as "**CERC Transmission Licence Regulations**") for grant of Transmission Licence in order to implement the following transmission project viz.:

- (i) "*Augmentation of Transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220 kV bays for RE interconnection*" (hereinafter referred to as "**Kallam Augmentation Part-1**"); and
- (ii) "*Implementation of 1 no. 400 kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Pvt. Ltd.*" (hereinafter referred to as "**Kallam Augmentation Part-2**")

The above projects are hereinafter collectively referred to as "**Transmission System**" / "**Kallam Augmentation Scheme**".



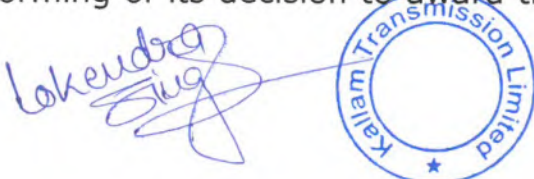

2. It is submitted that Ministry of Power ("**MoP**") through its Office Order dated 28.10.2021, has:
- (i) Empowered National Committee on Transmission ("**NCT**") to approve inter-State transmission systems costing between Rs. 100 Crores and Rs. 500 Crores (or such limit as prescribed by MoP from time to time), along with their mode of implementation under intimation to MoP.
 - (ii) Empowered Central Transmission Utility of India Ltd. ("**CTUIL**") to approve inter-State transmission systems along with their mode of implementation, which cost less than or equal to Rs. 100 Crores.

A copy of MoP's Office Order dated 28.10.2021 is annexed hereto and marked as **Annexure P-1**.

Re. Kallam Augmentation Part-1

3. In line with the aforesaid Office Order, National Committee on Transmission ("**NCT**") in its 9th meeting held on 28.09.2022 has awarded **Kallam Augmentation Part-1** to the consortium of IndiGrid 1 Ltd. and IndiGrid 2 Ltd. to be implemented under RTM in terms of MoP Office Order dated 28.10.2021.
4. In pursuance of the decision taken by the NCT in its 9th meeting, Member Secretary, NCT issued a letter dated 15.11.2022 to CTUIL informing of its decision to award the Kallam Augmentation Part-1 to

Lokendra Singh



CTUIL to be implemented by the consortium of Indigrd 1 Ltd. and Indigrd 2 Ltd. under RTM. A copy of NCT's letter dated 15.11.2022 is annexed hereto and marked as **Annexure P-2**.

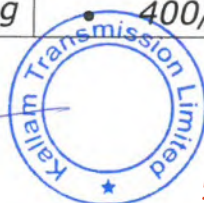
5. On 15.11.2022, CTUIL wrote to the Applicant, i.e., Kallam Transmission Ltd. (a wholly owned SPV of Indigrd 1 Ltd. and Indigrd 2 Ltd.) forwarding the letter received from NCT and informed of the NCT's decision to award the implementation of Kallam Augmentation Part-1 to the consortium of Indigrd 1 Ltd. and Indigrd 2 Ltd. A copy of the CTUIL's letter dated 15.11.2022 is annexed hereto and marked as **Annexure P-3**.
6. As per Serial Number 4 of Annexure-I to CTUIL's letter dated 15.11.2022 following is the scope of work of Kallam Augmentation Part-1 awarded to CTU to be implemented by consortium of Indigrd 1 Ltd. and Indigrd 2 Ltd.:

"Detailed scope of works of schemes agreed in 9th meeting of NCT:

[...]

Sl. No	Name of scheme	Detailed scope	Estimated Cost (Rs. Crs)
4.	Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along	i) Augmentation of Kallam Pooling Station by 2x500 MVA, <ul style="list-style-type: none"> • 500 MVA, 400/220kV ICT: 2 nos. • 400 kV ICT bays: 2 nos. • 400/220 kV ICTs 220 	156.89

Lokendra Singh



	with 220kV bays for RE interconnection.	kV ICT bays: 2 nos. ii) 3 nos. 220 kV line bays for RE interconnection <ul style="list-style-type: none"> • 220 kV line bays: 3 nos. iii) 1x125 MVAR bus reactor (2nd) at Kallam PS <ul style="list-style-type: none"> • 125 MVAR, 420 kV Bus reactor -1 • Bus reactor bay: 1 no. with implementation timeframe of 18 months from date of issue of this letter	
--	---	--	--

Re. Kallam Augmentation Part-2

7. Thereafter, on 08.06.2023, CTUIL acting under the power granted to it by NCT vide Office Order dated 28.10.2021, vide its OM bearing reference no. C/CTU/AI/00/13thCCTP dated 08.06.2023 awarded Kallam Augmentation Part-2 to KTL for implementation under RTM. A copy of CTUIL's OM dated 08.06.2023 is annexed hereto and marked as **Annexure P-4**.
8. As per Serial Number 1 of Annexure-I to CTUIL's letter dated 08.06.2023 following is the scope of work of Kallam Augmentation Part-2 to be implemented by KTL:-

"Annexure-I

Western Region

- 1. Implementation of 1 no. 400 kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Private Limited (TSPPL)**

Lokendra Singh

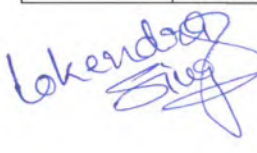
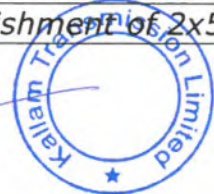



Sl. No.	Scope of Transmission Scheme	Item Descriptions	Implementation Timeframe.
1.	400 kV line bay at Kallam PS for interconnection of Torrent Solar Power Pvt. Ltd. (TSPPL)	•400kV line bay (including associated tie bay)- 1no.	30.12.2024
Total Estimated Cost:			₹17.1 Crore"

9. The Applicant is a wholly owned subsidiary of the consortium of Indigrid 1 Ltd. and Indigrid 2 Ltd. (hereinafter referred to as "**the Consortium**") and the Consortium is implementing the Kallam Augmentation Scheme through the Applicant. It may be noted here that the Applicant is an inter-State transmission licensee that is implementing an ISTS Transmission Scheme viz. "Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra" [hereinafter referred to as "**TBCB Project**"] under TBCB route.

10. Pertinently, at the time of award of the above TBCB Project, future requirement of the Kallam Augmentation Scheme was identified and space for such augmentation was provisioned in KTL's Transmission Service Agreement dated 30.09.2021 ("**TSA**") entered for the TBCB scope of work. The same is stipulated in Schedule 2 of the TSA, as under:

"Sl. No.	Scope of the Transmission Scheme
	Establishment of 2x500MVA, 400/220kV near Kallam

Lokendra Singh



1.	<p>PS 2x500MVA, 400/220kV 400kV ICT bays - 2 220kV ICT bays - 2 400kV line bays - 4 220kV line bays - 4</p> <p>Future provisions: Space for 400/220 kV ICTs along with bays: 4 400 kV line bays: 6 220 kV line bays: 7 400 kV reactors along with bays: 1"</p>
----	--

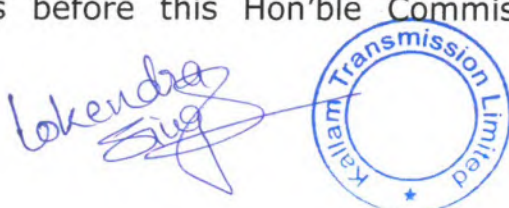
Accordingly, the consortium has decided to implement Kallam Augmentation Part 1 through Kallam Transmission Limited / the Applicant.

11. It is submitted that in order to implement the aforementioned Inter-State Transmission System, the Applicant is obligated to approach this Hon'ble Commission in terms of Sections 14 and 15 of the Electricity Act read with CERC Transmission License Regulations for grant of transmission license. Hence, the present petition is preferred by the Applicant before this Hon'ble Commission seeking transmission license under the provisions of the aforesaid statutory provisions.

DESCRIPTION OF PARTIES

12. The Applicant, Kallam Transmission Ltd. is an inter-State transmission licensee under the Electricity Act and has been executing the scope of work that has been awarded to it under the TBCB route. The Applicant is before this Hon'ble Commission through this Petition, to seek

Lokendra Singh



- separate license to develop this Transmission System under RTM route.
13. Respondent No. 1, CTUIL is Central Transmission Utility under the Electricity Act.
 14. Respondent No. 2, Veh Aarush Renewables Pvt Ltd. is a generating company in terms of Section 2(28) of the Electricity Act. Veh Aarush Renewables Pvt. Ltd. has been identified as a beneficiary of Kallam Augmentation Part-1 vide CTUIL's email dated 28.06.2023 is annexed hereto and marked as **Annexure P-5**.
 15. Respondent No. 3, JSW Neo Energy Limited is generating company in terms of Section 2(28) of the Electricity Act. JSW Neo Energy Ltd. has been identified as a beneficiary of Kallam Augmentation Part-1 vide CTUIL's email dated 28.06.2023 (annexed above).
 16. Respondent No. 4, Serentica Renewables India 4 Private Limited (SRI4PL) is generating company in terms of Section 2(28) of the Electricity Act. SRI4PL has been identified as a beneficiary of Kallam Augmentation Part-1 vide CTUIL's email dated 28.06.2023 (annexed above).
 17. Respondent No. 5, Torrent Solar Power Pvt. Ltd. is a generating company under the Electricity Act, 2003, who is the beneficiary of Kallam Augmentation Part-2.




18. Respondent Nos. 6 to 32 (as detailed in the amended memo of parties) are beneficiaries/DICs of the Grid in the Western Region, as confirmed by CTUIL in the email dated 28.06.2023.

B. BACKGROUND FACTS

19. It is submitted that the Applicant herein holds a transmission licence no. 74/Transmission/2022/CERC dated 18.07.2022 granted by this Hon'ble Commission in Petition No. 30/TL/2022. The said license has been granted to the Applicant for implementation of an TBCB Project. A copy of the Transmission Licence No. 74/Transmission/2022/CERC dated 18.07.2022 for the TBCB Project is annexed hereto and marked as **Annexure P-6**.

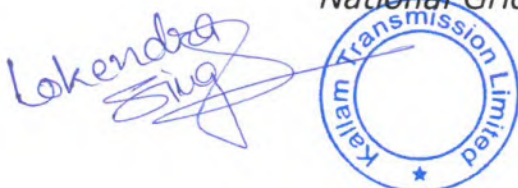
20. It is submitted that for the implementation of the aforesaid TBCB Project, the Applicant has entered into a TSA dated 30.09.2021 with its Long-Term Transmission Customers ("**LTTCs**"). Copy of the TSA dated 30.09.2021 is annexed hereto and marked as **Annexure P-7**.

21. On 28.10.2021, MoP vide its Office Order No. 15/3/2018-Trans-Pt(5) re-constituted the NCT. NCT has been empowered to approve ISTS costing between Rs 100 crore to Rs.500 crore or such limit as, along with their mode of implementation under intimation to MoP. Further CTU Relevant Terms of Reference (ToR) of the NCT as detailed in the Office Order dated 28.10.2021 are extracted hereunder:

"2. *Terms of Reference (ToR) of the NCT are as under:*

- i. The NCT shall evaluate the functioning of the National Grid on a quarterly basis.*

Lokendra Singh



ii. The Central Transmission Utility (CTU), as mandated under the Electricity Act, 2003, is to carry out periodic assessment of transmission requirement under Inter-State Transmission System (ISTS). The CTU shall also make a comprehensive presentation before the NCT every quarter for ensuring development of an efficient, co-ordinated and economical ISTS for smooth flow of electricity. The CTU, in the process, may also take inputs from the markets to identify constraints and congestion in the transmission system.

[...]

viii The NCT shall recommend to Ministry of Power (MoP) for implementation of the ISTS for projects with cost more than Rs 500 crore, along with their mode of implementation i.e. Tariff Based Competitive Bidding (TBCB) / Regulated Tariff Mechanism (RTM), as per the existing Tariff Policy. **However, the NCT shall approve the ISTS costing between Rs 100 crore to Rs.500 crore or such limit as prescribed by MoP from time to time, along with their mode of implementation under intimation to MoP.** The ISTS costing less than or equal to Rs. 100 crores, or such limit as prescribed by MoP from time to time, will be approved by the CTU along with their mode of implementation under intimation to the NCT and MoP. After approval of the ISTS by the NCT or the CTU (as the case may be), the TBCB project shall be allocated to Bid Process Coordinators through Gazette Notification, while the RTM project shall be allocated to CTU."

22. Following the mandate of aforesaid Office Order, NCT on 28.09.2022 conducted its 9th meeting. In the said meeting NCT approved the implementation of the Kallam Augmentation Part-1 under RTM and awarded the same to CTUIL to be implemented by the Consortium.

Lokendra Singh



Copy of the Agenda of the 9th NCT meeting is attached herewith and marked as **Annexure P-8**.

23. On 15.11.2022, Member secretary NCT wrote to CTUIL informing CTUIL of NCT's decision taken in the 9th meeting and that Kallam Augmentation Part-1 is awarded to CTUIL to be implemented by the Consortium under RTM. Relevant paras of the NCT's letter dated 15.11.2022 is extracted hereunder:-

"Subject: Implementation of ISTS Transmission Schemes (costing greater than Rs. 100 crore and upto Rs. 500 crore) approved by NCT in its 9th meeting held on 28.09.2022- regarding

Sir,

The undersigned is directed to inform that NCT has approved implementation of the following ISTS Transmission Scheme (costing greater than Rs. 100 Crore and up to Rs. 500 Crore) in its 9th meeting held on 28.09.2022, in line with MoP office order dated 28.10.2021, to be implemented through Regulated Tariff Mechanism (RTM) route by agency as indicated below:

[...]

S. No	Transmission Scheme	Implementing Agency
4.	Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection.	Consortium of Indigrid 1 Ltd. (Lead Member) and Indigrid 2 Ltd.

[...]

Detailed scope of works for the above scheme is enclosed at Annexure-I.

[...]

Lokendra Singh



The schemes are awarded to CTUIL for its implementation under RTM mode. CTUIL is requested to take necessary action for entering into a concession agreement with the respective agency for implementation of the above schemes."

24. On 15.11.2022, CTUIL issued a letter bearing reference no. CTUIL/OM/07 to the Applicant forwarding NCT's letter dated 15.11.2022 and informed regarding the NCT's decision taken in its 9th meeting. It was informed that Kallam Augmentation Part-1 has been awarded to CTUIL to be implemented by the Consortium under RTM. Relevant paras of CTUIL's letter dated 15.11.2022 are extracted hereunder:

"Subject: Implementation of ISTS Transmission Scheme approved by NCT in its 9th meeting held on 28.09.2022 under Regulated Tariff Mechanism (RTM)


NCT vide letter dated 15.11.2022 has awarded the following ISTS Transmission Scheme to CTUIL for their implementation under RTM mode by the Consortium of Indigrd 1 Ltd. (Lead Member) and Indigrd 2 Ltd. as indicated in the table below:

<i>Sl. No.</i>	<i>Transmission Scheme</i>	<i>Implementing Agency</i>
<i>1.</i>	<i>Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection</i>	<i>Consortium of Indigrd 1 Ltd. (Lead Member) and Indigrd 2 Ltd</i>

Copy of NCT letter in this regard is enclosed at Annexure-I. The detailed scope of work along with implementation time frame for transmission scheme is as per the letter enclosed.

The Consortium of Indigrd 1 Ltd. (Lead Member) and Indigrd 2 Ltd. shall enter into a concession agreement with CTUIL for implementation of aforementioned Transmission Scheme. However, pending finalization of Concession Agreement, it is

Lokendra Sug



requested to initiate necessary activities for implementation of the aforementioned Transmission Scheme.

This is for your kind information and necessary action, please.

[...]

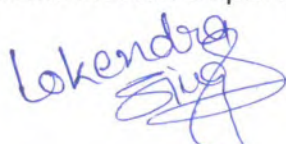

"Detailed scope of works of schemes agreed in 9th meeting of NCT:

[...]

Sl. No	Name of scheme	Detailed scope	Estimated Cost (Rs. Crs)
4.	Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection.	iv) Augmentation of Kallam Pooling Station by 2x500 MVA, <ul style="list-style-type: none"> • 500 MVA, 400/220kV ICT: 2 nos. • 400 kV ICT bays: 2 nos. • 400/220 kV ICTs 220 kV ICT bays: 2 nos. v) 3 nos. 220 kV line bays for RE interconnection <ul style="list-style-type: none"> • 220 kV line bays: 3 nos. vi) 1x125 MVAr bus reactor (2nd) at Kallam PS <ul style="list-style-type: none"> • 125 MVAr, 420 kV Bus reactor -1 • Bus reactor bay: 1 no. with implementation timeframe of 18 months from date of issue of this letter	156.89

25. It is submitted that in the aforementioned estimated cost provided in the letter submitted by CTUIL the cost components towards Incidental Expenditure During Construction (IEDC), Interest During Construction (IDC) and any other contingency provisions have not been shown separately. As no detailed cost break-up for this scope of

Lokendra Singh

14

work awarded is provided, the Applicant craves leave to submit the "Completed Cost" for the above scope including the cost components towards IEDC and IDC and any other contingency as a part of petition to be filed for determination of tariff, in line with the provisions of the CERC (Terms and Condition of Tariff), Regulations applicable at such time. The Completed Cost of the Transmission System shall be based on the actual capital expenditure incurred by the Applicant by employing prudent utility practices including competitive bidding process for procurements. The same shall be subject to prudence check by this Hon'ble Commission at the time of tariff determination.

26. In view of the above, based on award of the implementation of Kallam Augmentation Part-1, (i.e., augmentation work under RTM), the respective Boards of each member of the Consortium have allowed the implementation of project through the Applicant. Board Resolutions dated 22.03.2023 for both IndiGrid 1 Limited and Indigrid 2 Limited are annexed hereto and marked as **Annexure P-9** and **Annexure P-10** respectively.
27. Based on the above decision, the Board of the Applicant Company further approved the implementation of Kallam Augmentation Part-1 through its resolution passed on 22.03.2023. Power of Attorney authorising the signatory to commit has also been passed through this board resolution passed on 22.03.2023. A copy of Board Resolution dated 22.03.3023 is enclosed herewith and marked as **Annexure P-11**.

Lokendra Singh



28. On 12.04.2023, the Applicant filed the Petition No. 123/TL/2023 before this Hon'ble Commission seeking grant of transmission license for Kallam Augmentation Part-1.
29. Thereafter, on 08.06.2022, CTUIL through its Office Memorandum bearing reference no. C/CTU/AI/00/13th CCTP dated 08.06.2023 informed the Applicant that CTUIL has approved implementation of Kallam Augmentation Part-2 by the Applicant, to be implemented under RTM mode. Relevant paras of the OM are extracted hereunder:

"Sub: Inter-State Transmission Schemes (costing up to Rs. 100 Cr.) to be taken up for implementation under Regulated Tariff Mechanism (RTM)."

The undersigned is directed to inform that CTU has approved the implementation of the following ISTS costing less than or equal to Rs. 100 Cr. In line with the MoP office order dated 28.10.2021 under Regulated Tariff Mechanism (RTM) mode by the implementing agencies as indicated in table below:

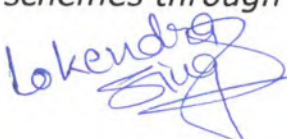

Sl. No.	Name of Transmission Scheme	Implementing Agency
8.	Implementation of 1 no. 400 kV bay at Kallam PS for interconnection of RE project Torrent Solar Power Pvt. Ltd. (TSPPL)	Kallam Transmission Ltd. (a subsidiary of India Grid Trust)

...

The detailed scope of works for the above transmission schemes, as approved by CTU is given at Annexure-I.

Implementing agencies shall enter into a concession agreement with CTU for the implementation of the above-mentioned schemes through the Regulated Tariff Mechanism (RTM).

Lokendra Singh

This issues with the approval of Competitive Authority.

[...]

Annexure-I

Western Region

1. Implementation of 1 no. 400 kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Private Limited (TSPPL)

Sl. No.	Scope of Transmission Scheme	Item Descriptions	Implementation Timeframe.
1.	400 kV line bay at Kallam PS for interconnection of Torrent Solar Power Pvt. Ltd. (TSPPL)	•400kV line bay (including associated tie bay)- 1no.	30.12.2024
Total Estimated Cost:			₹17.1 Crore"

30. On 20.06.2023, during the first listing of Petition No. 123/TL/2023, this Hon'ble Commission granted liberty to the Applicant to amend the Petition to include the scope of augmentation work granted for Kallam Augmentation Part-2 granted to the Applicant by CTUIL on 08.06.2023.

31. On 03.07.2023, CTUIL convened a meeting in compliance of this Hon'ble Commission's directions dated 20.06.2023 and discussed the commissioning timeframe of the RE projects being developed by Respondent Nos. 2 to 5. A copy of the minutes of this meeting issued on 14.07.2023 is annexed hereto and marked as **Annexure P-12**.

Lokendra Singh



32. On 19.07.2023, the board of the Applicant Company further approved the implementation of Kallam Augmentation Part-2 through its resolution passed on 19.07.2023. Power of Attorney authorising the signatory to commit has also been passed through this board resolution passed on 19.07.2023. A copy of Board Resolution dated 19.07.2023 is enclosed herewith and marked as **Annexure P-13**.
33. It is submitted that in terms of the aforementioned decision of the NCT and directions of CTU to implement the Transmission System under RTM, the Applicant is taking steps to implement the said Transmission System. For this purpose, the Applicant will sign a Concession Agreement(s) with CTU. It is submitted that at present the details of the Concession Agreement(s) and the timeline for executing the same is awaited from CTU. The Applicant craves leave to submit the signed Concession Agreement before this Hon'ble Commission as and when the same is executed.
34. It is submitted that the Applicant was incorporated as an SPV by REC Power Development and Consultancy Limited on 28.05.2020 for the purpose of implementing TBCB Project. This SPV was then acquired by the Consortium on 22.12.2021 upon being selected as successful bidder through the TBCB process. A copy of the Certificate of Incorporation dated 28.05.2020 is annexed hereto and marked as **Annexure P-14**.

Lakendra Singh



Copies of the Memorandum of Association is annexed herewith and marked as **Annexure P-15**. A copy of the Articles of Association of the Petitioner is annexed herewith and marked as **Annexure P-16**.

35. It is submitted that the Applicant is already a Transmission Licensee in terms of the Electricity Act and is currently implementing the TBCB Project under the license dated 18.07.2022 granted to it by this Hon'ble Commission. However, a Transmission System awarded by NCT is required and CTUIL are to be implemented under RTM, the Applicant is approaching this Hon'ble Commission for a separate license to implement the Transmission System awarded under RTM.
36. It is submitted that the above approach of the Applicant is consistent with the directions of this Hon'ble Commission in the Order dated 21.10.2021 in Petition No. 604/MP/2020 [NRSS XXXI (A) *Transmission Limited, (now known as Powergrid Kala Amb Transmission Limited) vs. UPPCL & Ors.*] wherein this Hon'ble Commission had directed the transmission license applicant (who already held a transmission license for a TBCB transmission project) to apply for a separate license for its transmission project being implemented through RTM. Relevant findings and directions of this Hon'ble Commission are extracted hereunder:-

"22. As we have already observed, the provisions of the Act do not put any restriction for issuing a second licence to a person, in case it fulfils all necessary requirements specified in the Act and Transmission Licence Regulations. During the course of hearing, the representative of the Applicant has fairly admitted that the

Lokendra Singh



Applicant as such has no objection if the Commission considers to issue a separate licence for RTM based assets/ elements instead of amending the existing licence issued to the Petitioner to include such RTM based assets/ elements. The learned counsel appearing on behalf of CTUIL also submitted during the hearing that the Commission may take a considered view in the subject matter as more such situations are likely to come up in the near future.

[...]

24. In view of the foregoing discussions, we are of the view that the Applicant may approach the Commission for grant of a separate transmission licence for the RTM based assets/ elements. Accordingly, the Applicant is granted liberty to approach the Commission for obtaining a separate transmission licence for implementation of 125 MVAR, 420 kV Bus Reactor at Kala Amb on the RTM route by way of a separate Petition in accordance with law. The filing fees deposited in the instant Petition shall be adjusted against the Petition to be filed by the Applicant in terms of the liberty granted as above."

37. It is submitted that Section 14 of the Electricity Act provides that the Appropriate Commission may, on an application made under Section 15 of the Act, grant Licence to any person to transmit electricity as a transmission licensee in any area as may be specified in the Licence. The word 'person' has been defined in Section 2(49) of the Electricity Act to include any company or body corporate or association or body of individuals, whether incorporated or not, artificial or juridical person. Therefore, the Applicant in terms of Sections 14, 15 & 79 (1) (e) of the Electricity Act is filing the present Petition/Application seeking grant of Transmission Licence for the Transmission System explained above.

Lokendra Singh




38. Further, it is submitted that Section 15(1) of the Electricity Act provides that every application under Section 14 shall be made in such manner and in such form as may be specified by the Appropriate Commission and shall be accompanied with such fees as may be prescribed. Having regard to the provisions of the parent Act, this Hon'ble Commission has enacted the CERC Transmission Licence Regulations. This Hon'ble Commission in the said CERC Transmission Licence Regulations has prescribed the form of Application and also the amount of fee for making an application for grant of Transmission Licence. Accordingly, the Applicant is submitting the present Application in such prescribed format along with the fees as per Regulation 7(1) of the said Regulations.

A Copy of duly filled **Form-I** is attached herewith and marked as **Annexure P-17**.

39. It is submitted that the grant of transmission license is a pre-condition under Section 12 of the Electricity Act, and is also the requirement in law without which the Applicant cannot proceed with the establishment of the Transmission System unless the same is granted to the Applicant.

40. It is submitted that a copy of the Application for grant of Transmission Licence is being forwarded to each of the Respondents in terms of Regulation 7(4) of CERC Transmission Licence Regulations.

Lokendra Singh



41. It is further submitted that the Applicant is simultaneously submitting/furnishing a copy of the instant Application to Central Transmission Utility, as required under Section 15 (3) of the Electricity Act and Regulation 7(6) of CERC Transmission Licence Regulations, 2009 seeking appropriate recommendations, if any, in accordance with Section 15 (4) of the Act. In addition, CTUIL is also a party Respondent in the present petition.
42. The present Application/ petition for grant of Transmission Licence is being posted/hosted on its website i.e., <https://www.indigrid.co.in/documents-manager/> as per Regulation 7(5) of CERC Transmission Licence Regulations so as to facilitate the access of the Application by any person through internet.
43. The Applicant further craves leave of this Hon'ble Commission to submit relevant information/ documents as and when required to comply with the obligations under the provisions of law.
44. The Applicant undertakes to comply with all the other requirements as provided in the CERC Transmission License Regulations read with Order dated 22.01.2022 passed in Petition No. 1/SM/2022 in relation to the publication of notices, service on the beneficiaries of the Petitioner's Transmission System. Accordingly, the Petitioner shall place on record the compliance reports before the Hon'ble Commission.

Lokendra Singh



45. The present Application is being made *bona-fide* and in the interest of justice.

46. It is submitted that Section 14 of the Electricity Act, 2003 empowers the Appropriate Commission to grant License.

AMEDED PRAYER

The Applicant/ Petitioner hereby humbly prays before this Hon'ble Commission to:

(a) Issue/Grant the Transmission License to the Applicant/ Petitioner in terms of Sections 14, 15 and 79 (1) (e) of the Electricity Act for establishing, operating and maintaining the Transmission System comprising :

i. *Augmentation of Transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220 kV bays for RE interconnection, comprising of elements as detailed in the present petition at Para 6; and*

ii. *Implementation of 1 no. 400 kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Pvt. Ltd. comprising of elements as detailed in the present petition at Para 8.*

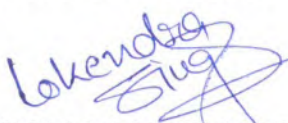

(b) Condone any inadvertent errors omissions/ errors / shortcomings and permit the Applicant to add/change/modify/alter these

Lokendra Singh



pleadings and make further submissions as may be required at a future date;

- (c) Pass any such other order / orders, as may be deemed fit and proper in the facts and circumstances of the case.



APPLICANT/KALLAM TRANSMISSION LTD.

Place: NOIDA, U.P.

Date: 20.07.2023.

No.15/3/2018-Trans-Pt(5)
 Government of India
 Ministry of Power
 Shram Shakti Bhawan, Rafi Marg, New Delhi

Dated, the 28th October 2021

OFFICE ORDER

Subject: - Re-constitution of the “National Committee on Transmission” (NCT) - reg.

In super-session of this Ministry's Office Order No. 15/3/2017-Trans dated 04.11.2019, regarding constitution of the National Committee on Transmission (NCT) and subsequent amendment issued vide this Ministry's Office Order No. 15/3/2018-Trans Pt(5) dated 20.05.2021, the undersigned is directed to state that the composition and terms of reference of the existing NCT are amended as mentioned below:


1. Composition of NCT

1	Chairperson, Central Electricity Authority (CEA)	Chairman
2	Member(Power System), CEA	Member
3	Member(Economic & Commercial), CEA	Member
4	Joint Secretary level officer nominated by Secretary, MNRE	Member
5	Director(Trans), M/o Power, Govt. of India	Member
6	Chief Operating Officer, Central Transmission Utility	Member
7	CMD POSOCO	Member
8	Advisor(Energy) , NITI Aayog	Member
9	Two experts from Power Sector to be nominated by MoP*	Members
10	Chief Engineer (from Power System Wing), CEA	Member Secretary

* Will be nominated for a maximum period of two years from the date of their nomination.

2. Terms of Reference (ToR) of the NCT are as under:

- i. The NCT shall evaluate the functioning of the National Grid on a quarterly basis.
- ii. The Central Transmission Utility (CTU), as mandated under the Electricity Act, 2003, is to carry out periodic assessment of transmission requirement under Inter-State Transmission System (ISTS). The CTU shall also make a comprehensive presentation before the NCT every quarter for ensuring development of an efficient, co-ordinated and economical ISTS for smooth flow of electricity. The CTU, in the process, may also take inputs from the markets to identify constraints and congestion in the transmission system.

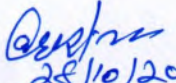

 28/10/2021

- iii. The CTU after consulting Regional Power Committee(s) [RPC(s)] shall submit the proposal for expansion of ISTS to the NCT for their consideration. For proposal upto Rs. 500 crores, prior consultation with RPC would not be required.
 - iv. As per provision of Electricity (Planning, Development and Recovery of ISTS charges) Rules 2021, the CTU shall also prepare a five-year rolling plan for ISTS capacity addition every year. The Annual Plan shall be put up to the NCT six months in advance, e.g. The Annual Plan for FY 2023-24 will be put up before the NCT by 30th September 2022..
 - v. After considering the recommendations of the CTU and views of the RPCs, the NCT shall propose expansion of ISTS after assessing the trend of growth in demand and generation in various regions, constraints, if any, in the inter- State, inter- Region transfer of power, which are likely to arise in the near term/ medium term, so that transmission does not constrain the growth.
 - vi. The NCT shall formulate the packages for the proposed transmission schemes for their implementation.
 - vii. The NCT shall estimate the cost of transmission packages and may constitute a cost committee for this purpose.
 - viii. The NCT shall recommend to Ministry of Power (MoP) for implementation of the ISTS for projects with cost more than Rs 500 crore, along with their mode of implementation i.e. Tariff Based Competitive Bidding (TBCB) / Regulated Tariff Mechanism (RTM), as per the existing Tariff Policy. However, the NCT shall approve the ISTS costing between Rs 100 crore to Rs.500 crore or such limit as prescribed by MoP from time to time, along with their mode of implementation under intimation to MoP. The ISTS costing less than or equal to Rs. 100 crores, or such limit as prescribed by MoP from time to time, will be approved by the CTU along with their mode of implementation under intimation to the NCT and MoP. After approval of the ISTS by the NCT or the CTU (as the case may be), the TBCB project shall be allocated to Bid Process Coordinators through Gazette Notification, while the RTM project shall be allocated to CTU.
 - ix. The NCT shall allocate the task of carrying out survey amongst the CTU and Bid Process Coordinators by maintaining a roster.
3. The NCT meetings shall be held every quarter, and on monthly basis, if required.
 4. While making their recommendations,
 - i. the NCT shall keep in mind the relevant Act, Rules, Regulation, policies and guidelines such as but not limited to - Electricity Act 2003, National Electricity Policy, Tariff Policy, Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules, 2021, Guidelines for Encouraging Competition in Development of Transmission Projects, Tariff based Competitive Bidding Guidelines for Transmission Service and any specific advice received from MoP.
 - ii. For enabling growth of Renewable Energy (RE) capacity, areas which have high solar/wind energy potential, as identified by Ministry of New and Renewable Energy

@victor
28/10/2021

(MNRE), need to be connected to ISTS, so that the RE capacity can come up there. This is a national mission as a part of our energy transition goal.

5. This issues with the approval of the Hon'ble Minister of Power and New & Renewable Energy.


28/10/2021
(Bihari Lal)


Under Secretary to the Govt. of India
Telefax: 23325242
Email: transdesk-mop@nic.in

To

1. All Members of NCT.
2. Secretary, Ministry of New & Renewable Energy, Govt. of India.
3. Chairperson, CEA, New Delhi.
4. Secretary, CERC
5. CMDs of all CPSUs under the Ministry of Power, Govt. of India.
6. Heads of all autonomous bodies under the Ministry of Power, Govt. of India.
7. Finance/ Budget Section, Ministry of Power.
8. Power/ Energy Secretaries of all States/UTs.
9. Chief Executives of all State Power Transmission Utilities.
10. CEO, NITI Aayog, New Delhi.

Copy to:

- i. PS to Hon'ble MoP/ PS to Hon'ble MoSP/Sr PPS/ PPS/ PS to Secretary(Power)/ AS&FA/ AS(SKGR)/ AS(VKD)/ all Joint Secretaries/ Economic Advisor/ Chief Engineer(Th)/ all Directors/ Dy. Secretaries, Ministry of Power.
- ii. Technical Director, NIC, M/o Power, for publishing this order on the website of M/o Power.


28/10/2021



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केंद्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन प्रभाग-II

Power System Planning & Appraisal Division-II

सेवा में / To

Chief Operating Officer, CTUIL

Saudamini, Plot No. 2,

Sector-29, Gurgaon – 122 001.

विषय/Subject: Implementation of ISTS Transmission Schemes (costing greater than Rs.100 crore and upto Rs. 500 crore) approved by NCT in its 9th meeting held on 28.09.2022- regarding

महोदय/ Sir,

The undersigned is directed to inform that NCT has approved implementation of the following ISTS Transmission Scheme (costing greater than Rs. 100 crore and upto Rs. 500 crore) in its 9th meeting held on 28.09.2022, in line with MoP office order dated 28.10.2021, to be implemented through Regulated Tariff Mechanism (RTM) route by agency as indicated below:

S.No	Transmission Scheme	Implementing Agency
1.	Augmentation of ISTS for interconnection of HVPNL transmission schemes	POWERGRID
2.	Scheme to relieve high loading of WR-NR Inter Regional Corridor (400 kV Bhinmal-Zerda line)	POWERGRID
3.	Eastern Region Expansion Scheme-XXIX (ERES-XXIX)	POWERGRID
4.	Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection	Consortium of IndiGrid 1 Ltd. (Lead Member) and IndiGrid 2 Ltd.
5.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner	POWERGRID

सेवा भवन, आर. के. पुरम-I, नई दिल्ली-110066 टेलीफोन : 011-26732305 ईमेल: cea-pspa2@gov.in वेबसाइट: www.cea.nic.in

Sewa Bhawan, R.K Puram-I, New Delhi-110066 Telephone: 011-26732305, Email: cea-pspa2@gov.in Website: www.cea.nic.in

I/24500/2022

S.No	Transmission Scheme	Implementing Agency
.		
	Complex)-Part-E	
6.	Supply and Installation of OPGW on existing main lines which are to be LILoed under various transmission schemes.	POWERGRID

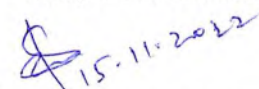
Detailed scope of works for the above scheme is enclosed at Annexure-I.

In addition to the above, NCT also approved modification in the scope under Western Region Expansion Scheme-XXV (WRES-XXV) awarded through RTM by 8th NCT. Details enclosed at Annexure-II.

The schemes are awarded to CTUIL for its implementation under RTM mode. CTUIL is requested to take necessary action for entering into a concession agreement with the respective agency for implementation of the above schemes.

भवदीय / Yours faithfully,

संलग्न / Encl. - उपरोक्त / as above

 15.11.2022

(ईशान शरण/Ishan Sharan)

मुख्य अभियन्ता /Chief Engineer & Member Secretary (NCT)

Copy to:

Joint Secretary (Trans), Ministry of Power, Shram Shakti Bhawan, New Delhi-110001

Annexure-I**Detailed scope of works of schemes agreed in 9th meeting of NCT:**

S.No	Name of scheme	Detailed scope	Estimated Cost (Rs. Crs)
1.	Augmentation of ISTS for interconnection of HVPNL transmission schemes	<p>i) Augmentation by 1x500 MVA, 400/220 kV ICT (3 rd) at 400/220 kV Bahadurgarh (PG) S/s -July, 24</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 1 no. • 400 kV ICT bay – 1 no. • 220 kV ICT bay – 1 no. <p>ii) 2 nos of 220 kV line bays at 400/220 kV Bahadurgarh (PG) S/s (for 220 kV Kharkhoda pocket B- Bahadurgarh (PG) D/c line) – July, 24</p> <ul style="list-style-type: none"> • 220 kV line bays – 2 nos. <p>iii) 2 nos of 220 kV line bays at 400/220 kV Bahadurgarh (PG) S/s (for 220 kV METL – Bahadurgarh (PG) D/c line) – March, 24</p> <ul style="list-style-type: none"> • 220 kV line bays – 2 nos. <p>iv) Augmentation by 1x500 MVA, 400/220 kV ICT (3 rd) at 400/220 kV Jind (PG) S/s – February, 24</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 1 no. • 400 kV ICT bay – 1 no. • 220 kV ICT bay – 1 no. <p>v) 2 nos of 220 kV line bays at 400/220 kV Sonapat (PG) S/s (for 220 kV D/c line from Kharkhoda pocket A) - July, 24</p> <ul style="list-style-type: none"> • 220 kV line bays – 2 nos. 	117.05
2.	Scheme to relieve high loading of WR-NR Inter Regional Corridor (400 kV Bhinmal-Zerda line)	<p>i) Bypassing of 400 kV Kankroli - Bhinmal-Zerda line at Bhinmal to form 400 kV Kankroli – Zerda (direct) line # - 12 months from date of issue of this letter</p> <p>ii) Reconductoring of 400 kV Jodhpur (Surpura) (RVPN) – Kankroli S/c (twin moose) line with twin HTLS conductor*- 18 months** from date of issue of this letter</p> <p>iii) OPGW installation on 400 kV Jodhpur (Surpura)(RVPN) – Kankroli S/c (twin moose) line -188 km</p> <p># with necessary arrangement for bypassing Kankroli- Zerda line at Bhinmal with suitable</p>	288.9

I/24500/2022

		switching equipment inside the Bhinmal substation *with minimum capacity of 1940MVA/ckt at nominal voltage; Upgradation of existing 400kV bay equipment's each at Jodhpur (Surpura) (RVPN) and Kankroli S/s(3150 A) **Best effort to be made for reconductoring in 15 months from date of issue of this letter	
3.	Eastern Region Expansion Scheme-XXIX (ERES-XXIX)	i) Reconductoring of Jharsuguda/Sundargarh (PG) – Rourkela (PG) 400kV 2xD/c Twin Moose line with Twin HTLS conductor (with ampacity of equivalent to single HTLS as 1228 A at nominal voltage). ii) Bay upgradation at Rourkela (PG) end for 3150 A rating – 04 nos. diameters in one and half breaker scheme (except 09 nos. existing circuit breakers which are of minimum 3150 A rating). Implementation timeframe 36 months from date of issue of this letter. Note: No upgradation in line bays is envisaged at Jharsuguda/Sundargarh (POWERGRID) S/s as the existing line bays are rated for 3150A.	422.23
4.	Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection	i) Augmentation of Kallam Pooling Station by 2x500 MVA, <ul style="list-style-type: none"> • 500 MVA, 400/220kV ICT: 2 nos. • 400 kV ICT bays: 2 nos. • 400/220 kV ICTs 220 kV ICT bays: 2 nos. ii) 3 nos. 220 kV line bays for RE interconnection <ul style="list-style-type: none"> • 220 kV line bays: 3 nos. iii) 1x125 MVAr bus reactor (2 nd) at Kallam PS <ul style="list-style-type: none"> • 125 MVAr, 420 kV Bus reactor – 1 no. • Bus reactor bay: 1 no. with implementation timeframe of 18 months from date of issue of this letter	156.89
5.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex)-	i) Augmentation by 765/400 kV, 1x1500 MVA ICT (4 th) at Bikaner (PG) <ul style="list-style-type: none"> • 765/400 kV, 1500 MVA ICT – 1 no. • 765 kV ICT bay – 1 nos. • 400 kV ICT bay - 1 nos. with implementation timeframe of 18 months from date of issue of this letter ii) Augmentation by 400/220 kV, 1x500 MVA	368

I/24500/2022

	Part-E	<p>ICT (3 rd) at Kotputli (PG)</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 1 nos. • 400 kV ICT bay – 1 nos. • 220 kV ICT bay - 1 nos. <p>with implementation timeframe of 18 months from date of issue of this letter {matching with Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex)-Part-B }</p> <p>iii) Augmentation by 400/220 kV, 5x500 MVA ICT at Bikaner-II PS</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 5 nos. • 400 kV ICT bays – 5 nos. • 220 kV ICT bays - 5 nos. <p>Augmentation with 400/220 kV, 5x500 MVA ICT at Bikaner-II PS –to be taken up for evacuation requirement beyond 2000 MW at 220 kV level of Bikaner-II PS, with implementation timeframe matching with schedule of RE generation or 18 months from date of allocation, whichever is later.</p>	
6.	Supply and Installation of OPGW on existing main lines which are to be LILOed under various transmission schemes.	<p>Installation of OPGW alongwith necessary accessories and FOTE are mentioned as under-</p> <p>Western Region</p> <ul style="list-style-type: none"> • 400kV Bachau (PG) – EPGL line (221 km) [to be LILOed at Lakadia] • 400kV Satna – Bina (1 st) D/c line (276 km) [to be LILOed at Chatarpur] • 400kV Kakrapar - Vapi D/c line (116 km) [to be LILOed at Vapi-II] <p>Northern Region</p> <ul style="list-style-type: none"> • 765kV S/c Jaipur (Phagi) (RVPNL) – Gwalior line (312 km) (Ckt-1 is proposed) (to be LILOed at Dausa) • 400kV D/c Agra – Jaipur (South) (PG) line (254 km) (to be LILOed at Dausa). <p>Matching with the timeframe of the respective LILOs.</p>	59.5

Modification in the scope of works of Transmission Scheme awarded through RTM by 8th NCT.

1. The modified scope of works for Western Region Expansion Scheme-XXV (WRES-XXV) scheme on account of space constraints at Raigarh (Kotra) S/s:

Raigarh (Kotra) Section-A

Original Scope	Revised Scope
765/400kV ICT: 1x1500MVA	765/400 kV ICT (Sec-A: 3rd): 1x1500 MVA
765kV ICT bay: 1 no.	765 kV bay: 1 no. for change in termination of Champa-I line from existing bay to new bay & Equipment of Existing Main bay of Champa-I line shall be shifted to New ICT Bay (ICT 3rd bay) for utilization.
400kV ICT bay: 1 no.	400 kV ICT bay: 1 no.

Raigarh(Kotra) Section-B

Original Scope	Revised Scope
765/400kV ICT: 2x1500MVA	765/400kV ICTs (Sec-B: 3rd & 4th): 2x1500MVA
765kV ICT bay: 2 no.	Sec-B: 3rd ICT <ul style="list-style-type: none"> • 765kV ICT bay (AIS): 1 no. Sec-B: 4th ICT <ul style="list-style-type: none"> • 765kV ICT bay (GIS): 1 no. consisting of 2 breakers [with Double bus double breaker scheme and the ICT (4 th) (physically located in the space available near section-A) to be connected with the above bay through GIB Duct]
400kV ICT bay: 2 no.	Sec-B: 3rd ICT <ul style="list-style-type: none"> • 400kV ICT bay (AIS): 1 no. (ICT shall be terminated into above bay using partly 400Kv GIB duct and balance by BPI arrangement) Sec-B: 4th ICT <ul style="list-style-type: none"> • 400kV ICT bay (GIS): 1 no. consisting of 2 breakers [with Double bus double breaker scheme and the ICT (4th) (physically located in the space available near section-A) to be connected with the above bay through GIB Duct]

2. The revised cost of Western Region Expansion Scheme-XXV (WRES-XXV) scheme is Rs. 381 Crs. Implementation timeframe of the scheme would be 12 months on best effort basis from date of issue of this letter

Annexure P-3

सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड
(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)
(भारत सरकार का उद्यम)

CENTRAL TRANSMISSION UTILITY OF INDIA LTD.

(A wholly owned subsidiary of Power Grid Corporation of India Limited)
(A Government of India Enterprise)

Ref.: CTUIL/OM/07

15th Nov 2022

Shri Venkatraman Inumula

Vice President–Regulatory & Contracts,
Kallam Transmission Ltd.,
(A consortium of IndiGrid 1 Ltd. & IndiGrid 2 Ltd.)
Unit No. 101, 1st Floor, Windsor Village,
Kolekalyan Off CST Road,
Vidyanagari Marg, Santacruz (East),
Mumbai – 400 098, Maharashtra.

Sub: Implementation of ISTS Transmission Schemes approved by NCT in its 9th meeting held on 28.09.2022 under Regulated Tariff Mechanism (RTM)

NCT vide letter dated 15.11.2022 has awarded the following ISTS Transmission Scheme to CTUIL for their implementation under RTM mode by Consortium of IndiGrid 1 Ltd. (Lead Member) and IndiGrid 2 Ltd. as indicated in the table below:

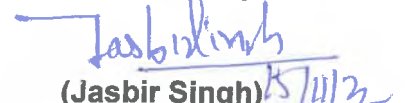
Sl. No.	Transmission Scheme	Implementing Agency
1.	Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection	Consortium of IndiGrid 1 Ltd. (Lead Member) and IndiGrid 2 Ltd.

Copy of NCT letter in this regard is enclosed at **Annexure-I**. The detailed scope of work along with implementation time frame for transmission scheme is as per the letter enclosed.

The Consortium of IndiGrid 1 Ltd. (Lead Member) and IndiGrid 2 Ltd. shall enter into a concession agreement with CTUIL for implementation of aforementioned Transmission Scheme. However, pending finalization of Concession Agreement, it is requested to initiate necessary activities for implementation of the aforementioned Transmission Scheme.

This is for your kind information and necessary action, please.

Yours faithfully,



(Jasbir Singh)

Chief General Manager

Encl: as stated.

Annexure P-4

सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड
(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)
(भारत सरकार का उद्यम)

CENTRAL TRANSMISSION UTILITY OF INDIA LTD.

(A wholly owned subsidiary of Power Grid Corporation of India Limited)
(A Government of India Enterprise)

Ref.: C/CTU/AI/00/13th CCTP

8th June 2023

OFFICE MEMORANDUM

Sub: Inter-State Transmission Schemes (costing up to Rs.100 Cr.) to be taken up for implementation under Regulated Tariff Mechanism (RTM).


The undersigned is directed to inform that CTU has approved the implementation of the following ISTS costing less than or equal to Rs.100 Cr. in line with the MoP office order dated 28.10.2021 under the Regulated Tariff Mechanism (RTM) mode by the implementing agencies as indicated in the table below:

Sl. No.	Name of Transmission Scheme	Implementing Agency
Western Region		
1.	Implementation of 1 no. 400kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Pvt. Ltd. (TSPPL)	Kallam Transmission Ltd. (a subsidiary of India Grid Trust)
Northern Region		
2.	Augmentation of transformation capacity at 400/220kV Nalagarh S/s by 400/220kV, 1x500 MVA ICT (4 th)	Power Grid Corporation of India Ltd.
3.	Augmentation of transformation capacity at 400/220kV Bikaner-II PS by 400/220kV, 1x500 MVA ICT (3 rd)	Power Grid Bikaner Transmission System Ltd. (a subsidiary of Power Grid Corporation of India Ltd.)
Eastern Region		
4.	Eastern Region Expansion Scheme-XXXV (ERES-XXXV)	Power Grid Corporation of India Ltd.

The detailed scope of works for the above transmission schemes is given at **Annexure-I**.

The above transmission schemes are awarded to the Implementing Agency for its implementation under RTM mode. The implementing agency shall enter into a concession agreement with CTU for the implementation of the above-mentioned transmission schemes through the Regulated Tariff Mechanism (RTM).

This issues with the approval of Competent Authority.


(Jasbir Singh)
Chief General Manager

Encl: as stated.

To:

1. The Chairman & Managing Director Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001	2. Shri Venkatraman Inumula Vice President – Regulatory & Contracts, Kallam Transmission Ltd. (KTL) (A consortium of IndiGrid 1 Ltd. & IndiGrid 2 Ltd.) Unit No. 101, First Floor, Windsor, Village Kolekalyan, Off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai – 400 098, Maharashtra
--	--

Copy to:

1. Shri Ishan Sharan Chief Engineer & Member Secretary (NCT) Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110 066.	2. Shri Om Kant Shukla Director (Trans) Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110 001
---	---

CC:

1. Shri Jigish Mehta Director Torrent Solar Power Pvt. Ltd. Sugen Mega Power Project, Torrent Power Ltd., Village-Akhakhol, Dist.-Surat 394 155	<i>With the request to implement Wind Power Project along with 400kV S/c dedicated transmission line by 30.12.2024 i.e., implementation timeframe of 1 no. 400kV line bay at Kallam PS.</i>
2. Director (P & C) HPPTCL, Headoffice, Himfed Bhawan, Panjari, Shimla-171005 Himachal Pradesh	<i>For Kind information</i>
3. Director (Technical) Punjab State Transmission Corporation Ltd. Head Office, The Mall, Patiala 147001, Punjab	<i>For Kind information</i>

Western Region

1. Implementation of 1 no. 400kV bay at Kallam PS for interconnection of RE project of Torrent Solar Power Private Limited (TSPPL)

Sl. No.	Scope of the Transmission Scheme	Item Descriptions	Implementation Timeframe.
1.	400kV line bay at Kallam PS for interconnection of Torrent Solar Power Pvt. Ltd. (TSPPL)	• 400kV line bay (including associated tie bay)– 1no.	30.12.2024
Total Estimated Cost:			₹ 17.1 Crore

Northern Region

2. Augmentation of transformation capacity at 400/220kV Nalagarh S/s by 400/220kV, 1x500 MVA ICT (4th)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Augmentation of transformation capacity at 400/220kV Nalagarh S/s by 400/220 kV, 1x500 MVA (4 th) ICT along with associated transformer bays* *1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220kV (GIS) transformer bay along with GIS duct for interconnection of 220kV bay with ICT	<ul style="list-style-type: none"> • 500 MVA, 400/220 kV ICT–1 no. • 400 kV ICT bay (including associated tie bay)– 1 no. • 220 kV ICT bay – 1 no. (GIS) 	24 months from the issue of OM by CTUIL (refer note 1).
Total Estimated Cost:			₹ 63.08 Crore

Note: -

1. Best efforts shall be carried out to implement the transmission scheme within 18 months from the issue of OM by CTUIL

3. Augmentation of transformation capacity at 400/220kV Bikaner-II PS by 400/220kV, 1x500 MVA ICT (3rd)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation timeframe
---------	----------------------------------	------------------	--------------------------

1	Augmentation of transformation capacity at 400/220kV Bikaner-II PS by 400/220 kV, 1x500 MVA (3 rd) ICT along with associated transformer bays* *1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220kV (AIS) transformer bay.	<ul style="list-style-type: none"> • 500 MVA, 400/220 kV ICT-1 no. • 400 kV ICT bay (including associated tie bay)- 1 no. • 220 kV ICT bay – 1 no. 	18 months from the issue of OM by CTUIL.
Total Estimated Cost:			₹ 55.82 Crore

Eastern Region

4. Eastern Region Expansion Scheme-XXXV (ERES-XXXV)

<i>Sl. No.</i>	<i>Scope of the Transmission Scheme</i>	<i>Item Description</i>	<i>Implementation timeframe</i>
1	Switching arrangement within the Rangpo (POWERGRID) GIS S/s premises such that Rangpo-Melli and Rangpo-Rangit 132kV S/c lines can be bypassed at Rangpo S/s end, such that the lines can either be terminated at Rangpo 132kV bus or bypassed, as per operational requirement.	<ul style="list-style-type: none"> • 132kV, 1250A, SF6, 3-Ph GIB – Approx. 300m length • 3 Phase, 1250A, SF6 to Air bushing – 02 Sets. • 132kV, 1250A, 31.5kA, 3-Ph, AIS Disconnecter with one E/S – 01 no. • 132kV BPI AIS – Approx. 05 nos. 	18 months from the issue of OM by CTUIL.
Total Estimated Cost:			₹ 7.23 Crore

Annexure P-5

Lokendra Singh Ranawat

From: Pratyush Singh (प्रत्युष सिंह) <pratyush.singh@powergrid.in>
Sent: 28 June 2023 14:45
To: Lokendra Singh Ranawat
Cc: Atul Kumar Agarwal (अतुल कुमार अग्रवाल); Swapnil Verma (स्वप्निल वर्मा); Ranjeet Singh Rajput (रणजीत सिंह राजपूत); Pinkesh Kumar; Saurav Kumar Jha; Ajay Kumar (अजय कुमार); Ashok Pal (अशोक पाल); Bhaskar Laxmanrao Wagh (भास्कर लक्ष्मण वाघ); Jasbir Singh (जसबीर सिंह); Partha Sarathi Das (पार्थ सारथि दास); RANGUDU SRICHARAN (रंगुडु श्रीचरण); shashank Shekhar (शशांक शेखर)
Subject: RE: CTU License Recommendations: Kallam Transmission Ltd. - reg.
Attachments: Communication Details of DICs -WR.xlsx; 20230623 _ Final_ Letter to CTU for confirmation of LTTC.pdf; ROP _ Petition 123-TL-2023_200623.pdf

Public

[Mail from External Sender - be careful with Links, Attachments and Responses.](#)

Dear Sir,

This is with reference to your letter received vide trailing mail (copy attached) requesting for details of beneficiaries/LTTCs in Western Region for filing amended petition for the transmission project "Augmentation of Transformation Capacity at Kallam PS by 2x500 MVA, 400/20 kV ICTs (3rd and 4th) along with 220 kV bays for RE interconnection" along with scope of 1 no. 400kV line bay (along with associated tie bay) at Kallam PS.

In this respect, please find below the details of various RE developers which have been granted connectivity at Kallam PS through 3 nos. 220kV bays and 1 no. 400kV bay which are part of scope of work of M/s KTL (for which the amended petition is being filed):

Sl. No.	Name of RE Generator	Stage-II Application Number	Stage-II Connectivity Quantum (MW)	Bay Allotted	Contact Details
1	Veh Aarush Renewables Pvt Ltd	1200003971	201	1 no. 220kV bay	Shri Chaitanya GVLK Head Projects Veh Aarush Renewables Private Limited Plot No.38, Phase-2, 1st Floor, N-Heights, Hitech City, Siddiq Nagar Hyderabad 500081 Email:

					cgvlk@vibrantenergyholdings.com hjinaga@vibrantenergyholdings.com
2	JSW Neo Energy Limited (JSW NEL)	231400005	300	1 no. 220kV bay	Shri Pritpal Singh AGM JSW Neo Energy Limited JSW Center, BKC, Mumbai Email: pritpal.singh@jsw.in abhay.yagnik@jsw.in
3	Serentica Renewables India 4 Private Limited (SRI4PL)	231400004 & 331400007	350	1 no. 220kV bay	Shri Arzaan Dordi Chief Manager Serentica Renewables India 4 Private Limited, DLF Cyber Park, 9th Floor, Tower B Sector 20, DLF Phase 3, Gurugram Email: arzaan.dordi1@sterlite.com ;
4	Torrent Solar Power Private Limited (TSPPL)	SW5531062915- M029_D001_A002- 1670224223993 & 331400013	158	1 no. 400kV bay	Shri Jigish Mehta Director Torrent Solar Power Private Limited, SUGEN Mega Power Project, Torrent Power Ltd. Village Akhakhhol, Distt. Surat 394155 ronaknaik@torrentpower.com jaydipchudasama@torrentpower.com
Kallam PS			1009		

In addition to the above, the details of DICs/Beneficiaries in Western Region (to whom regular billing is being done under LTA/MTOA/ Ministry allocations) is also enclosed here-with.

Please get back to us in case you need anything else.

With best regards,

Pratyush Singh
Chief Manager
Central Transmission Utility of India

From: Lokendra Singh Ranawat <Lokendra.Ranawat@indigrid.com>

Sent: Friday, June 23, 2023 6:58 PM

To: Ashok Pal {अशोक पाल} <ashok@powergrid.in>; shashank Shekhar {शशांक शेखर} <shashankshekhar@powergrid.in>

Cc: Atul Kumar Agarwal {अतुल कुमार अग्रवाल} <atul_ag@powergrid.in>; Swapnil Verma {स्वप्निल वर्मा} <swapnilverma@powergrid.in>; SIDDHARTH SHARMA {सिद्धार्थ शर्मा} <Siddharthsharma@powergrid.in>; Ranjeet Singh Rajput {रणजीत सिंह राजपूत} <ranjetrajput@powergrid.in>; Partha Sarathi Das {पार्थ सारथि दास} <psdas@powergrid.in>;

Ajay Kumar {अजय कुमार} <sriajaykumar@powergrid.in>; Pratyush Singh {प्रत्युष सिंह} <pratyush.singh@powergrid.in>; Jasbir Singh {जसबीर सिंह} <jasbir@powergrid.in>; RANGUDU SRICHARAN {रंगुडु श्रीचरण} <sricharan@powergrid.in>; Bhaskar Laxmanrao Wagh {भास्कर लक्ष्मण वाघ} <bhaskarwagh@powergrid.in>; Pinkesh Kumar <pinkesh.kumar@indigrid.com>; Saurav Kumar Jha <saurav.jha@indigrid.com>

Subject: RE: CTU License Recommendations: Kallam Transmission Ltd.

Public

Respected Sir,

Please find enclosed herewith our letter to CTUIL, in line with the direction of Hon'ble CERC in the recently issued Record of Proceedings in License petition no. 123/TL/2023 of Kallam Transmission Limited (KTL), wherein the commission has directed CTUIL to provide the details of LTTC / Beneficiaries for the Augmentation work awarded to KTL under RTM mode.

Your kind cooperation on the same highly solicited.

Thanking you.

Yours Sincerely,

Lokendra Singh Ranawat
Head Regulatory | IndiGrid
M: 9311279183
www.indigrid.co.in

From: shashank Shekhar {शशांक शेखर} <shashankshkhar@powergrid.in>

Sent: Friday, April 21, 2023 7:02 PM

To: secy@cercind.gov.in

Cc: A K Agarwal {अतुल कुमार अग्रवाल} <atul_ag@powergrid.in>; Swapnil Verma {स्वप्निल वर्मा} <swapnilverma@powergrid.in>; SIDDHARTH SHARMA {सिद्धार्थ शर्मा} <Siddharthsharma@powergrid.in>; Ranjeet Singh Rajput {रणजीत सिंह राजपूत} <ranjetrajput@powergrid.in>; Partha Sarathi Das {पार्थ सारथि दास} <psdas@powergrid.in>; Ashok Pal {अशोक पाल} <ashok@powergrid.in>; Ajay Kumar {अजय कुमार} <sriajaykumar@powergrid.in>; 'chiefengg@cercind.gov.in' <chiefengg@cercind.gov.in>; awdhesh@nic.in; 'shilpa@cercind.gov.in' <shilpa@cercind.gov.in>; Pratyush Singh {प्रत्युष सिंह} <pratyush.singh@powergrid.in>; Jasbir Singh {जसबीर सिंह} <jasbir@powergrid.in>; RANGUDU SRICHARAN {रंगुडु श्रीचरण} <sricharan@powergrid.in>; Regulatory <regulatory@indigrid.com>; Aditya Kislay <aditya.kislay@indigrid.com>; Bhaskar Laxmanrao Wagh {भास्कर लक्ष्मण वाघ} <bhaskarwagh@powergrid.in>

Subject: CTU License Recommendations: Kallam Transmission Ltd.

Mail from External Sender - be careful with Links, Attachments and Responses.

Sir,

In line with Section 15(4) of the Electricity Act, 2003, based on details furnished by M/s Kallam Transmission Ltd., CTU recommendations for the grant of a transmission license to Kallam Transmission Ltd. for executing **“Augmentation of Transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220 kV bays for RE interconnection”** transmission scheme are enclosed above.

Regards,

Shashank Shekhar
CTUIL

दावात्याग : यह ईमेल पावरग्रिड के दावात्याग नियम व शर्तों द्वारा शासित है जिसे <http://apps.powergrid.in/Disclaimer.htm> पर देखा जा सकता है। Disclaimer: This e-mail is governed by the Disclaimer Terms & Conditions of POWERGRID which may be viewed at <http://apps.powergrid.in/Disclaimer.htm>

Disclaimer: The contents of this e-mail message and any attachments are confidential and are intended solely for the addressee. If you have received this transmission in error, please immediately notify the sender by return e-mail and delete this message and its attachments. Any unauthorized use, copying or dissemination of this transmission is prohibited. Neither the confidentiality nor the integrity of this message can be vouched for following transmission on the Internet.

दावात्याग : यह ईमेल पावरग्रिड के दावात्याग नियम व शर्तों द्वारा शासित है जिसे <http://apps.powergrid.in/Disclaimer.htm> पर देखा जा सकता है। Disclaimer: This e-mail is governed by the Disclaimer Terms & Conditions of POWERGRID which may be viewed at <http://apps.powergrid.in/Disclaimer.htm>

Customer Code	Region	Name of the DICs	Adress	Name of Contact Person	Contact No.	Email id 1 (Mandatory)	Email id 2 (Optional)
2100023	WR	Chhatisgarh State Power Distribution Co. Ltd.	CSPDCL, Post: Sundernagar,Dangania, Raipur-492013	G K Rathi	9425514189	cecomseb@rediffmail.com;	Manoj.K@cspc.co.in;
2100026	WR	Goa Electricity Deparement-WR	Goa Electricity DeptCurti, Ponda403401	Shilpa	7796633154	eediv3@yahoo.co.in	
2100027	WR	Gujarat Urja Vikas Nigam Limited	Sardar Patel Vidyut Bhavan, Racecourse Vadodara - 390007	Vipul Lathiya	7069009628	de1csp.guvnl@gebbmail.com	aocom2.guvnl@gebbmail.com
2100028	WR	Heavy Water Board	O FLOOR, VIKRAM SARABHAI BHAVAN, TROMBAY, ANUSHAKTINAGAR, MUMBAI - 400094 , Maharashtra	D K Singh	9869900434	dk Singh@mum.hwb.gov.in;	dk Singh1164@yahoo.com;
2100029	WR	HVDC Bhadrawati, PGCIL	PGCIL RHQ, WR-I, Sampriiti Nagar, , Off National Highway No. 8, Taluka : Kamrej,PO: Uppalwadi , Nagpur , 440026 Maharashtra	Manoj Kumar Tripathi	8275025586	wr1commercial@powergrid.co.in	tripat_m@powergrid.in
2100030	WR	HVDC Vindhyachal, PGCIL	PGCIL RHQ, WR-I, Sampriiti Nagar, , Off National Highway No. 8, Taluka : Kamrej,PO: Uppalwadi , Nagpur , 440026 Maharashtra	Manoj Kumar Tripathi	8275025586	wr1commercial@powergrid.co.in	tripat_m@powergrid.in
2100031	WR	M.P. Power Management Company Ltd.	14, Shakti Bhawan, Rampur, Jabalpur - 482008	Raj varman saxena	9425012850	rajvarman.saxena@mppmcl.com	comm1.deptt@mppmcl.com
2100032	WR	MSEDCL	Plot No 9, "prakashgad", A K Marg, Bandra East, Mumbai 400051	P P Agrawal	9833387967	gmppmsedcl@gmail.com;	ceppmsedcl@gmail.com
2100034	WR	ACB India LIMITED	7th Floor, Corporate Tower, Ambience Mall, NH-8, Gurgaon-122 001(Haryana)	Harinder Jain	9953150412	acbpower@acbindia.com;	lopamudra.kashyap@acbindia.com
2100041	WR	Torrent Power Limited	Torrent Power Ltd. Naranpura Zonal Office, Sola Road, Ahmedabad, 380013	satyanarayan soni	9690017567	satyanarayansoni@torrentpower.com	Niralishah@torrentpower.com
2100062	ER/WR/NR	West Bengal State Elect. Dist. Co. Ltd.	6th Floor Vidyut Bhawan, Karunamoyee, Salt Lake, Kolkata-700091, West Bengal. (033-23197540)	Partha Saha	7003039751	wbsedcl.p2@wbsedcl.in	wbsedcl.p2@gmail.com
2100168	SR/WR	Thermal Powertech Corporation India	6-3-1090, Clock C, Level 2, TSR , Towers, Rajbhavan Road, Somajiguda , Hyderabad , 500082, Telangana	Sreekanth Agnihotram	9959444929	oa_commercial.seil@sembcorp.com	spotsales.india@sembcorp.com
2100240	WR	BARC	Bhabha Atomic Research Centre, Anushakti Nagar, Mumbai, Maharashtra - 400085	Kshirsagar	8149315305	electricitybill@barctara.gov.in	craman@barc.gov.in;
2100343	WR	GMR Warora Energy Limited	Plot B-1 GMR Warora Energy Ltd, Mohabala MIDC Growth Centre, Post – Warora, Dist – Chandrapur, Maharashtra. PIN 442907	Pramod Khandelwal	8390903524	Pramod.Khandelwal@gmrgroup.in	Santu.Pal@gmrgroup.in
2100368	WR	HVDC Champa	PGCIL RHQ, WR-I, Sampriiti Nagar, , Off National Highway No. 8, Taluka : Kamrej,PO: Uppalwadi , Nagpur , 440026 Maharashtra	Manoj Kumar Tripathi	8275025586	wr1commercial@powergrid.co.in	tripat_m@powergrid.in
2100385	WR	West Central Railway Head Office	General Manager's Office,Electrical Branch, Jabalpur-482 001.	Chetan Gulwani	9752415312	dyceetrdwcr@gmail.com	
2100387	WR	Western Railway	Office Of Chief Electrical EngineerMumbai	Brij Raj	9004490301	cede@wr.railnet.gov.in	
2100404	ER/WR/NR/SR/NER	East Central Railway	CEDE,Office of Chief Electrical Engineer, ECR,Zonal Head Quarter, Dighikala, Bihar-844101	A.K. SINGH	9771425303	cedeecr@gmail.com	
2100414	WR	DB Power Limited- Untied	Opp Dena Bank, C-31, G- BlockMumbai	Sanjay Jadhav	9769190360	sales@dbpower.in	sanjay.jadhav@dbpower.in
2100418	WR	Chhatisgarh State Power Trading Co. Ltd.	2nd floor Vidyut Sewa BhawanRaipur	G K Rathi	9425514189	ce.techcell@gmail.com	Manoj.K@cspc.co.in
2100420	WR	TRN Energy Private Ltd-Untied	7th Floor, Ambience Office BlockGurugram	Harinder Jain	9953150412	acbpower@acbindia.com;	lopamudra.kashyap@acbindia.com
2100526	WR	Adani Power (Mundra) Limited.	Adani Corporate House, Shantigram, Near Vaishnavdevi Circle, S G Road Ahmedabad - 382421	Hitesh Modi	8980802729	hitesh.modi@adani.com	Nilanjan.Chakraborty@adani.com
2100571	WR	Raigarh HVDC Station	RPT HVDC Office, Hebbal, Bangalore – 560094	P. K. Mahalik	9993065066	pkmahalik@POWERGRIDINDIA.COM	
2100632	WR	Arcelor Mittal Nippon Steel India Ltd.	27,AMNS House, 2TH KM Surat Hazira road, Hazira-394270, Gujarat	Naresh Yadav	7486036332	naresh.yadav@amns.in	
2100676	WR	Central Railway	Pcee's office 2nd floor parcle building csmt mumbai-400001	N.P.Singh	8828110300	cesecrly@gmail.com	dyceetrdcry@gmail.com
2100706	WR	Dadra and Nagar Haveli and Daman an Power Distribution Corporation Ltd	1st & 2nd Floor, Vidyut Bhavan, NexSilvassa & Daman	Bhavik shah	9227758405	bhavikshah@torrentpower.com	namanshah@torrentpower.com
2100747	WR	MPSEZ Utilities Ltd.	3rd Floor, Adani Corporate House, SAhmedabad	Shri Rajesh Sirigirisetty	9099995843	rajesh.sirigirisetty@adani.com	

CENTRAL ELECTRICITY REGULATORY COMMISSION
3rd & 4th Floor Chanderlok, Building, 36 Janpath, New Delhi 110 001
(Tele No.23353503 FAX No.23753923)

Reference No. 30/TL/2022

- 150(4)

18/11/2022

To

The Secretary
Ministry of Power
Govt. of India
Sharam Shakti Bhavan
Rafi Marg, New Delhi.

The Secretary
Central Electricity Authority
Sewa Bhavan, R.K. Puram
New Delhi

Subject: Grant of transmission licence to KALLAM TRANSMISSION LIMITED.

Sir,

In exercise of powers conferred under Section 14 of the Electricity Act, 2003 (36 of 2003), the Commission has granted the licence to KALLAM TRANSMISSION LIMITED.

2. I am directed to send herewith a copy of the above licence No. 74/Transmission/2022/CERC, dated 18th July, 2022 for your information.

Yours faithfully,



(T.D. Pant)
Joint Chief (Legal)

Encl: as stated.

Copy to:

1. The Chairman,
Power Grid Corporation of India Limited,
Plot No.2, Sector-29,
Gurgaon-122 001 (Haryana)
- ✓ 2. The Vice-Prsident (Regulatory & Contracts),
Kallam Transmission Limited,
Unit No 101, First Floor, Windsor Village,
KoleKalyan Off CST Road,
Vidyanagari Marg, Santacruz (East),
Mumbai – 400098, Maharashtra



(T.D. Pant)
Joint Chief (Legal)



केन्द्रीय विद्युत विनियामक आयोग CENTRAL ELECTRICITY REGULATORY COMMISSION



तीसरा एवं चौथा तल, चंद्रलोक बिल्डिंग, 36 जनपथ, नई दिल्ली-110001
3rd & 4th Floor, Chanderlok Building, 36 Janpath, New Delhi-110001


TRANSMISSION LICENCE

The Central Electricity Regulatory Commission (hereinafter referred to as "Commission"), in exercise of the powers conferred under Section 14 of the Electricity Act, 2003 (36 of 2003) (hereinafter referred to as "Act"), hereby grants the Transmission licence to Kallam Transmission Limited, having its registered office at Unit No. 101, First Floor, Windsor Village, Kolekalyan off CST Road, Vidyanagari Marg, Santacruz (East), Mumbai-400098, Maharashtra (hereinafter referred to as "licensee") to establish Transmission System for "evaluation of power from RE Projects in Osmanabad area (IGW) in Maharashtra" on Build, Own, Operate and Maintain (BOOM) basis, more specifically described in the schedule attached to this licence, which shall be read as a part and parcel of this licence, subject to the Act, the rules and the terms and conditions specified under the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009 which shall be read as part and parcel of this licence.

2. The conditions such as but not limited to, completion schedule, transfer value, liquidated damages, Project Implementation Guarantee Deposit, escalation due to domestic inflation, which are specified in bid documents and provisions in the Agreements, shall be treated as part of this licence, unless these provisions are contrary to the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009.
3. This licence is not transferable, except as provided in the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009.
4. The grant of licence to the licensee shall not in any way or manner restrict the right of the Commission to grant a licence to any other person within the same area for the transmission system other than the project described in the schedule attached to this licence. The licensee shall not claim any exclusivity.
5. The licence shall, unless revoked earlier, continue to be in force for a period of 25 (twenty five) years from the date of issue.

Copy of the licence endorsed to:-

- (1) Ministry of Power, Government of India
- (2) Central Electricity Authority
- (3) Central Transmission Utility of India Limited


(Harpreet Singh Pruthi)
Secretary

Place: New Delhi
Date : 18th July, 2022

(Harpreet Singh Pruthi)
Secretary

SCHEDULE

Project Related Details:

The project comprises of the following elements of the inter-State Transmission System:

S.No.	Scope of Transmission Elements	Scheduled COD in Month from Effective Date
1	Establishment of 2x500 MVA, 400/220 kV substation near Kallam PS 2x500 MVA, 400/220 kV 400 kV ICT bay-2 220 kV ICT bay-2 400 kV line bay-4 220 kV line bay-4 Space for Future Provisions: 400/220 kV ICTs along with bays: 2 nos. 400 kV line bays including the space for switchable line reactor: 6 nos. 220 kV line bays: 4 nos. 400 kV bus reactor along with bays: 1 no.	18 Months
2	1x125 MVAr bus reactor at Kallam PS 400 kV reactor bay-1	18 Months
3	LILO of both circuits of Parli (PG)-Pune (GIS) 400 kV D/c line at Kallam PS	18 Months
4	Provision of new 50 MVAr switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam-Pune (GIS) 400 kV D/c line 2x50 MVAr, 400 kV Reactor bay -2	18 Months

Note :

Space for future provisions for 400 kV line bays kept including the space for switchable line reactors.

के वि वि आयोग

CERC

Licence No. 74/ Transmission /2022/CERC

Authority: Orders of the Commission dated 27.5.2022 and 18.7.2022 in
Petition No. 30/TL/2022.

(Harpreet Singh Pruthi)
Secretary



केन्द्रीय विद्युत विनियामक आयोग CENTRAL ELECTRICITY REGULATORY COMMISSION



तीसरा एवं चौथा तल, चंद्रलोक बिल्डिंग, 36 जनपथ, नई दिल्ली-110001
3rd & 4th Floor, Chanderlok Building, 36 Janpath, New Delhi-110001

पारेषण अनुज्ञप्ति

केन्द्रीय विद्युत विनियामक आयोग (जिसे इसके पश्चात् 'आयोग' कहा गया है), विद्युत अधिनियम, 2003 (2003 का 36) (जिसे इसके पश्चात् 'अधिनियम' कहा गया है) की धारा 14 के अधीन प्रदत्त शक्तियों का प्रयोग करते हुए, इस अनुज्ञप्ति से संलग्न अनुसूची में विशेष रूप से वर्णित, निर्माण, स्वामित्व, प्रचालन एवं अनुरक्षण (बूम) के आधार पर "महाराष्ट्र में उस्मानाबाद क्षेत्र (1 जीडब्ल्यू) में आरई परियोजनाओं से विद्युत की निकासी के लिए पारेषण प्रणाली" के लिए विद्युत पारेषण प्रणाली को स्थापित करने के लिए, जो इस अनुज्ञप्ति के भाग रूप माने जाएंगे, कल्लम ट्रांसमिशन लिमिटेड, जिसका रजिस्ट्रीकृत कार्यालय यूनिट नंबर 101, प्रथम तल, विंडसर ग्राम, कोलेकल्याण ऑफ सीएसटी रोड, विद्यानगरी मार्ग, सेंटाक्रूज (पूर्व), मुंबई-400098, महाराष्ट्र में है (जिसे इसके पश्चात् 'अनुज्ञप्तिधारी' कहा गया है), अधिनियम तथा नियमों तथा केन्द्रीय विद्युत विनियामक आयोग (पारेषण अनुज्ञप्ति प्रदान करने तथा अन्य सहबद्ध विषयों के लिए प्रक्रिया, निबंधन एवं शर्तें) विनियम, 2009 के अधीन विनिर्दिष्ट निबंधन तथा शर्तों, जो इस अनुज्ञप्ति के भाग रूप माने जाएंगे, के अधीन रहते हुए, पारेषण अनुज्ञप्ति प्रदान करता है।

- ऐसी शर्तें, जो समापन अनुसूची, अंतरण मूल्य, परिनिर्धारित नुकसानी, परियोजना कार्यान्वयन गारंटीकृत निक्षेप, स्वदेशी मुद्रास्फीति के कारण वृद्धि, जो बोली दस्तावेजों में विनिर्दिष्ट हैं तथा करार के उपबंध हैं, जो सीमित नहीं हैं, इस अनुज्ञप्ति का भाग रूप तब तक समझे जाएंगे, जब तक कि ये उपबंध केन्द्रीय विद्युत विनियामक आयोग (पारेषण अनुज्ञप्ति प्रदान करने तथा अन्य सहबद्ध विषयों के लिए प्रक्रिया, निबंधन तथा शर्तें) विनियम, 2009 के प्रतिकूल न हों।
- केन्द्रीय विद्युत विनियामक आयोग (पारेषण अनुज्ञप्ति प्रदान करने तथा अन्य सहबद्ध विषयों के लिए प्रक्रिया, निबंधन तथा शर्तें) विनियम, 2009 में अन्यथा उपबंधित के सिवाय, यह अनुज्ञप्ति अंतरणीय नहीं है।
- अनुज्ञप्तिधारी को अनुज्ञप्ति प्रदान किए जाने से किसी अन्य ऐसे व्यक्ति का इस अनुज्ञप्ति से संलग्न अनुसूची में वर्णित परियोजना से भिन्न पारेषण प्रणाली के लिए उसी क्षेत्र में अनुज्ञप्ति प्रदान करने के लिए आयोग का अधिकार किसी रूप या रीति से निर्बंधित नहीं होगा। अनुज्ञप्तिधारी अनन्य रूप से कोई भी दावा नहीं करेगा।
- अनुज्ञप्ति जब तक पहले प्रतिसंहत नहीं कर ली जाए, इसके जारी होने की तारीख से 25 वर्षों की अवधि के लिए प्रवृत्त रहेगी।

अनुज्ञप्ति की प्रति निम्नलिखित को :

- (1) विद्युत मंत्रालय, भारत सरकार
- (2) केन्द्रीय विद्युत प्राधिकरण
- (3) सेन्ट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड

(हरप्रीत सिंह प्रुथी)
सचिव

स्थान : नई दिल्ली
तारीख : 18 जुलाई, 2022

(हरप्रीत सिंह प्रुथी)
सचिव

अनुसूची

परियोजना से संबंधित ब्यौरे:

परियोजना में अंतर-राज्यिक पारेषण प्रणाली के निम्नलिखित तत्व सम्मिलित हैं:

क्र.सं.	पारेषण घटकों का कार्य-क्षेत्र	प्रभावी तारीख से मास में अनुसूचित सीओडी
1	कल्लम पीएस के समीप 2x500 एमवीए, 400 / 220 केवी सबस्टेशन की स्थापना 2x500 एमवीए, 400 / 220 केवी 400 केवी आईसीटी बे-2 220 केवी आईसीटी बे- 2 400 केवी लाइन बे-4 220 केवी लाइन बे-4 भावी प्रावधानों के लिए स्थान: बे के साथ 400 / 220 केवी आईसीटी: 2 नंबर स्विचबल लाइन रिएक्टर के लिए स्थान सहित 400 केवी लाइन बे: 6 नंबर 220 केवी लाइन बे: 4 नंबर बे के साथ 400 केवी बस रिएक्टर: 1 नंबर	18 माह
2	कल्लम पीएस 400 केवी रिएक्टर बे पर 1x125 एमवीएआर बस रिएक्टर-1	18 माह
3	कल्लम पीएस पर पर्ली (पीजी)-पुणे (जीआइएस) 400 केवी डी/सी लाइन के दोनों सर्किटों का लीलो	18 माह
4	कल्लम -पुणे (जीआइएस) 400 केवी डी/सी लाइन 2x50 एमवीएआर, 400 केवी रिएक्टर बे के कल्लम पीएस अंत पर 400 ओएचएमएस एनजीआर के साथ नई 50 एमवीएआर स्विचबल का प्रावधान-2	18 माह


टिप्पण :-

स्विचबल लाइन रिएक्टरों के लिए स्थान सहित 400 केवी लाइन बे के लिए भावी प्रावधान के लिए रखा गया।

के वि वि आयोग
CERC

अनुज्ञप्ति सं. 74 / पारेषण / 2022 / केविविआ

प्राधिकार : आयोग की याचिका सं. 30 / टीएल / 2022 में तारीख 25.5.2022 तथा 18.7.2022 के आदेश।


(हरप्रीत सिंह प्रुथी)
सचिव

**TRANSMISSION SERVICE
AGREEMENT**

FOR

**PROCUREMENT OF TRANSMISSION
SERVICES FOR TRANSMISSION OF
ELECTRICITY THROUGH TARIFF
BASED COMPETITIVE BIDDING FOR**

**TRANSMISSION SYSTEM FOR
EVACUATION OF POWER FROM RE
PROJECTS IN OSMANABAD AREA (1
GW) IN MAHARASHTRA**

BETWEEN

**RENEW SOLAR POWER PRIVATE
LIMITED (RSPPL)**

AND

KALLAM TRANSMISSION LIMITED

30.09.2021



CONTENTS

1	Definitions And Interpretations	6
2	Effectiveness And Term Of Agreement.....	20
3	Conditions Subsequent.....	22
4	Development Of The Project	26
5	Construction Of The Project	30
6	Connection And Commissioning Of The Project	34
7	Operation And Maintenance Of The Project	39
8	Availability Of The Project.....	41
9	Insurances	42
10	Billing And Payment Of Transmission Charges.....	44
11	Force Majeure	54
12	Change In Law	59
13	Events Of Default And Termination	62
14	Liability And Indemnification	69
15	Assignments And Charges	75
16	Governing Law And Dispute Resolution.....	77
17	Representation And Warranties	80
18	Miscellaneous Provisions.....	82

SCHEDULES

Schedule: 1	List of Long Term Transmission Customers
Schedule: 2	Project Description and Scope of Project
Schedule: 3	Scheduled COD
Schedule: 4	Safety Rules and Procedures
Schedule: 5	Computation of Transmission Charges
Schedule: 6	Transmission Charges
Schedule: 7	Escalation Index
Schedule: 8	List of Articles
Schedule: 9	Appendix II & III of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019
Schedule: 10	Entire Bid (both financial bid and technical bid) of the Selected Bidder
Schedule: 11	Contract Performance Guarantee
Schedule: 12	Supplementary Agreement



INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

सत्यमेव जयते

Certificate No. : IN-DL30468485080488T
Certificate Issued Date : 29-Sep-2021 01:11 PM
Account Reference : IMPACC (IV)/ dl775803/ DELHI/ DL-DLH
Unique Doc. Reference : SUBIN-DL77580356629972070688T
Purchased by : KALLAM TRANSMISSION LIMITED
Description of Document : Article 5 General Agreement
Property Description : Not Applicable
Consideration Price (Rs.) : 0
(Zero)
First Party : KALLAM TRANSMISSION LIMITED
Second Party : Not Applicable
Stamp Duty Paid By : KALLAM TRANSMISSION LIMITED
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



.....Please write or type below this line.....

THIS TRANSMISSION SERVICE AGREEMENT (hereinafter referred to as "TSA" or "Agreement" or "the Agreement" or "this Agreement") is made on the 30th day of September of Two Thousand and Twenty One

Between:

Persons whose names, addresses and other details are provided in Schedule 1 of this Agreement (collectively referred to as the "Long Term Transmission Customers" and individually referred to as the "Long Term Transmission Customer" respectively), which

Statutory Alert:

- 1 The authenticity of this Stamp certificate should be verified at www.indiastamp.com or using e-Stamp Widone App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
- 2 The onus of checking the legitimacy is on the users of the certificate.
- 3 In case of any discrepancy please inform the Competent Authority.

expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the one part;

And

Kallam Transmission Limited, incorporated under the Companies Act, 2013, having its registered office at Core-4, Scope Complex, 7, Lodhi Road, New Delhi – 110 003 (herein after referred to as Transmission Service Provider or “TSP” which expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the other part;

(Each of the “Long Term Transmission Customer” or “Long Term Transmission Customers” and “TSP” are individually referred to as “Party” and collectively as the “Parties”)

AND WHEREAS:

- A) In accordance with the Bidding Guidelines, the Bid Process Coordinator (hereinafter referred to as BPC) had initiated a competitive e-Reverse bidding process through issuance of RFP for selecting a Successful Bidder to build, own, operate and maintain the Project comprising of the Elements mentioned in Schedule 2 (hereinafter referred to as the Project)
- B) Pursuant to the said e-Reverse bidding process, the BPC shall identify the Selected Bidder as the TSP, who will be responsible to set up the Project on build, own, operate and maintain basis and to provide Transmission Service to the Long Term Transmission Customers on the terms and conditions contained in this Agreement and the Transmission License.
- C) The Selected Bidder will acquire one hundred percent (100%) of the equity shareholding of Kallam Transmission Limited along with all its related assets and liabilities in terms of the provisions of the Share Purchase Agreement;
- D) The TSP has agreed to make an application for a Transmission License to the Appropriate Commission for setting up the Project on build, own, operate and maintain basis.
- E) The TSP has further agreed to make an application to the Appropriate Commission for the adoption of the Transmission Charges under Section 63 of the Electricity Act, 2003, along with a certification from the Bid Evaluation Committee in accordance with the Bidding Guidelines issued by Ministry of Power, Government of India.
- F) The Long Term Transmission Customers agree, on the terms and subject to the conditions of this Agreement, to use the available transmission capacity of the Project and pay to TSP the Transmission Charges as determined in accordance with the terms of this Agreement.
- G) The terms and conditions stipulated in the Transmission License issued by the Appropriate Commission to the TSP shall be applicable to this Agreement and the

TSP agrees to comply with these terms and conditions. In case of inconsistency between the Transmission License terms & conditions and the conditions of this Agreement, the conditions stipulated in the Transmission License granted by the Appropriate Commission shall prevail.

NOW, THEREFORE, IN CONSIDERATION OF THE PREMISES AND MUTUAL AGREEMENTS, COVENANTS AND CONDITIONS SETFORTH HEREIN, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:



ARTICLE: 1

1 DEFINITIONS AND INTERPRETATIONS

1.1 Definitions:

1.1.1 The words/expressions used in this Agreement, unless as defined below or repugnant to the context, shall have the same meaning as assigned to them by the Electricity Act, 2003 and the rules or regulations framed there under including those issued/framed by the Appropriate Commission (as defined hereunder), as amended or re-enacted from time to time or the General Clauses Act, failing which it shall bear its ordinary English meaning.

The words/expressions when used in this Agreement shall have the respective meanings as specified below:

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

“Act” or “Electricity Act” or “Electricity Act 2003” shall mean the Electricity Act, 2003 and any amendments made to the same or any succeeding enactment thereof;

“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;

“Agreed Form” in relation to any document shall mean the form of the document most recently agreed to by the Parties and initialled by them for identification;

“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;


KTL


RSPPL

“**Appropriate Commission**” shall mean the Central 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 or the Joint Commission referred to in Section 83 of the Electricity Act, as the case may be;

“**Arbitration Tribunal**” shall mean the tribunal constituted under Article 16 of this Agreement;

“**Availability**” in relation to the Project or in relation to any Element of the Project, for a given period shall mean the time in hours during that period the Project is capable to transmit electricity at its Rated Voltage and shall be expressed in percentage of total hours in the given period and shall be calculated as per the procedure contained in Appendix –II to Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 attached herewith in Schedule 9;

“**Bid**” shall mean technical bid and financial bid submitted by the Bidder, in response to the RFP, in accordance with the terms and conditions of the RFP;

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

“**Bidding Company**” shall refer to such single company that has made a Response to RFP for the Project;

“**Bidding Consortium**”/ “**Consortium**” shall refer to a group of companies that has collectively made a Response to RFP for the Project;

“**Bid Documents**” or “**Bidding Documents**” shall mean the RFP, along with all attachments thereto or clarifications thereof;

“**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 the Electricity Act and as amended from time to time;

“**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;


KTL


RSPPL

“**Business Day**” shall mean a day other than Sunday or a statutory holiday, on which the banks remain open for business in the State in which the concerned Long Term Transmission Customers’ registered office is located;

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

“**CERC**” shall mean the Central Electricity Regulatory Commission of India constituted under Section-76 of the Electricity Act, 2003 or its successors;

“**Change in law**” shall have the meaning ascribed thereto in Article 12;

“**Commercial Operation Date**” or “**COD**” shall mean the date as per Article 6.2;

Provided that the COD shall not be a date prior to the Scheduled COD mentioned in the TSA, unless mutually agreed to by all Parties;

“**Competent Court of Law**” shall mean the Supreme Court or any High Court, or any tribunal or any similar judicial or quasi-judicial body in India that has jurisdiction to adjudicate upon issues relating to the Project;

“**Connection Agreement**” shall mean the agreement between the CTU/STU and the TSP, setting out the terms relating to the connection of the Project to the Inter-connection Facilities and use of the Inter State Transmission System as per the provisions of the IEGC / State Grid Code, as the case may be;

“**Consultation Period**” shall mean the period of sixty (60) days or such longer period as the Parties may agree, commencing from the date of issue of a TSP’s Preliminary Termination Notice or a Long Term Transmission Customer’s Preliminary Termination Notice as provided in Article 13 of this Agreement, for consultation between the Parties to mitigate the consequence of the relevant event having regard to all the circumstances;

“**Consents, Clearances and Permits**” shall mean all authorizations, licenses, approvals, registrations, permits, waivers, privileges, acknowledgements, agreements, or concessions required to be obtained from or provided by any Indian Governmental Instrumentality for the development, execution and operation of Project including without any limitation for the construction, ownership, operation and maintenance of the Transmission Lines and/or sub-stations;

“**Construction Period**” shall mean the period from (and including) the Effective


KTL


RSPPL

Date of the TSA up to (but not including) the COD of the Element of the Project in relation to an Element and up to (but not including) the COD of the Project in relation to the Project;

“**Contractors**” shall mean the engineering, procurement, construction, operation & maintenance contractors, surveyors, advisors, consultants, designers, suppliers to the TSP and each of their respective sub-contractors (and each of their respective successors and permitted assigns) in their respective capacities as such;

“**Contract Performance Guarantee**” shall mean the irrevocable unconditional bank guarantee, submitted and to be submitted by the TSP or by the Selected Bidder on behalf of the TSP to the Long Term Transmission Customers from a bank mentioned in Annexure 17 of the RFP, in the form attached here to as Schedule 11, in accordance with Article 3 of this Agreement and which shall include the additional bank guarantee furnished by the TSP under this Agreement;

“**Contract Year**”, for the purpose of payment of Transmission Charges, shall mean the period beginning on the 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 the last Contract Year shall end on the last day of the term of the TSA;

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

“**Day**” shall mean a day starting at 0000 hours and ending at 2400 hours;

“**D/C**” shall mean Double Circuit;

“**Dispute**” shall mean any dispute or difference of any kind between a Long Term Transmission Customer and the TSP or between the Long Term Transmission Customers (jointly) and the TSP, in connection with or arising out of this Agreement including any issue on the interpretation and scope of the terms of this Agreement as provided in Article 16;

“**Due Date**” in relation to any Invoice shall mean the thirtieth (30th) day after the date on which any Invoice is received and duly acknowledged by the Long Term Transmission Customer (or, if that day is not a Business Day, the immediately following Business Day), and by such date, the Invoice is payable by the Long Term Transmission Customer;

“**Effective Date**” for the purposes of this Agreement, shall have the same


KTL


RSPPL

meaning as per Article 2.1 of this Agreement;

“Electrical Inspector” shall mean a person appointed as such by the Appropriate Government under sub-section (1) of Section 162 of the Electricity Act 2003 and also includes Chief Electrical Inspector;

“Electricity Rules 2005” shall mean the rules framed pursuant to the Electricity Act 2003 and as amended from time to time;

“Element” shall mean each Transmission Line or each circuit of the Transmission Lines (where there are more than one circuit) or each bay of 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 this Agreement and has a separate percentage for recovery of Transmission Charges on achieving COD as per Schedule 6 of this Agreement;

“Escalable Transmission Charges” shall mean the charges as specified in Schedule 6 of this Agreement;

“Event of Default” shall mean the events as defined in Article 13 of this Agreement;

“Expiry Date” shall be the date which is 35 (thirty five) years from the Scheduled COD of the Project;

“Financial Closure” shall mean the first Business Day on which funds are made available to the TSP pursuant to the Financing Agreements;

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

“Financing Agreements” shall mean the agreements pursuant to which the TSP is to finance the Project including the loan agreements, security documents, notes, indentures, security agreements, letters of credit and other documents, as may be amended, modified, or replaced from time to time, but without in anyway increasing the liabilities of the Long Term Transmission Customers ;

“Financial Year” shall mean a period of twelve (12) months at midnight Indian Standard Time (IST) between 1st April & 31st March;

“Force Majeure” and **“Force Majeure Event”** shall have the meaning assigned thereto in Article 11;

“GOI” shall mean Government of India;


KTL


RSPPL

“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 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;

“Indian Governmental Instrumentality” shall mean Government of India, Government of any State in India or any ministry, department, board, authority, agency, corporation, commission under the direct or indirect control of Government of India or any State Government or both, any political sub-division of any of them including any court or Appropriate Commission or tribunal or judicial or quasi-judicial body in India but excluding TSP and Long Term Transmission Customers;

“Insurances” shall mean the insurance cover to be obtained and maintained by the TSP in accordance with Article 9 of this Agreement;

“Interconnection Facilities” shall mean the facilities as may be set up for transmission of electricity through the use of the Project, on either one or both side of generating station’s / CTU’s / STU’s / Long Term Transmission Customer’s substations (as the case may be) which shall include, without limitation, all other transmission lines, gantries, sub-stations and associated equipments not forming part of the Project;

“Invoice” shall mean a Monthly Transmission Charges Invoice, a Supplementary Invoice or any other Invoice or Bill raised by any of the Parties;

“Invoice Dispute Notice” shall have the same meaning as defined in Article 10.9.2 of this Agreement;

“Late Payment Surcharge” shall have the meaning ascribed thereto in Article 10.8;

“Law” or “Laws” in relation to this Agreement, shall mean all laws including electricity laws in force in India and any statute, ordinance, rule, regulation, notification, order or code, or any interpretation of any of them by an Indian Governmental Instrumentality having force of law and shall include all rules, regulations, decisions and orders of the Appropriate Commission;

“Lead Long Term Transmission Customer” shall have the meaning as ascribed hereto in Article 18.1.1 of this Agreement;



KTL



RSPPL

“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 specified in the RFP and so designated by other Member(s) in Bidding Consortium;

“Letter of Credit” or “LC” shall mean an unconditional, irrevocable, revolving Letter of Credit opened by the Long Term Transmission Customer in favour of the TSP with any scheduled bank;

“Lenders” means the banks, financial institutions, multilateral funding agencies, non banking financial companies registered with the Reserve Bank of India (RBI) , mutual funds, etc., including their successors and assigns, who have agreed on or before COD of the Project to provide the TSP with the debt financing described in the capital structure schedule, and any successor banks or financial institutions to whom their interests under the Financing Agreements may be transferred or assigned;

Provided that, such assignment or transfer shall not relieve the TSP of its obligations to the Long Term Transmission Customers under this Agreement in any manner and shall also does not lead to an increase in the liability of any of the Long Term Transmission Customers;

“Lenders Representative” shall mean the person notified by the Lenders in writing as being the representative of the Lenders and such person may from time to time be replaced by the Lenders pursuant to the Financing Agreements by written notice to the TSP;

“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 Schedule 1 of this Agreement 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;

“Month” shall mean a period of thirty (30) days from (and excluding) the date of the event;

“Monthly Transmission Charges” for any Element of the Project, after COD of the Element till COD of the Project, and for the Project after COD of the Project, shall mean the amount of Transmission Charges for the relevant Contract Year as



KTL



RSPPL

specified in Schedule 5 of this Agreement;

“Monthly Transmission Charges Invoice” or **“Monthly Bill”** shall mean a monthly invoice comprising the Monthly Transmission Charges, as per Schedule 5 hereof;

“National Load Despatch Centre” shall mean the centre established as per sub-section (1) of Section 26 of the Electricity Act 2003;

“Non-Escalable Transmission Charges” shall mean the charges as specified in column (4) of Schedule 6 of this Agreement;

“Notification” shall mean any notification, issued in the Gazette of India;

“O & M Contractor” shall mean the entity appointed from time to time by the TSP to operate, maintain & repair any of the Element(s) of the Project;

“Open Access Customer” shall mean a consumer permitted by the State Commission to receive supply of electricity from a person other than distribution licensee of his area of supply or a generating company (including captive generating plant) or a licensee, who has availed of or intends to avail of open access;

“Operating Period” for any Element of the Project shall mean the period from (and including) the COD of such Element of the Project, up to (and including) the Expiry Date and for the Project, shall mean the period from (and including) the COD of the Project, up to (and including) the Expiry Date;

“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;

“Preliminary Termination Notice” shall mean a Long Term Transmission Customers’ Preliminary Termination Notice or TSP’s Preliminary Termination Notice, as the case may be, as defined in Article 13 of this Agreement;

“Project” shall mean Transmission system for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra, as detailed in Schedule 2 of this Agreement;

“Project Execution Plan” shall mean the plan referred to in Article 3.1.3 (c) hereof;


KTL


RSPPL

“Prudent Utility Practices” shall mean the practices, methods and standards that are generally accepted internationally from time to time by electric transmission utilities for the purpose of ensuring the safe, efficient and economic design, construction, commissioning, operation, repair and maintenance of the Project and which practices, methods and standards shall be adjusted as necessary, to take account of:

- (i) operation, repair and maintenance guidelines given by the manufacturers to be incorporated in the Project,
- (ii) the requirements of Law, and
- (iii) the physical conditions at the Site;

“RFP” shall mean Request For Proposal dated 05.03.2020 along with all schedules, annexures and RFP Project Documents attached thereto, issued by the BPC for tariff based competitive bidding process for selection of TSP to execute the Project, including any modifications, amendments or alterations 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; and
- b. Share Purchase Agreement

“RLDC” shall mean the relevant Regional Load Dispatch Centre as defined in the Electricity Act, 2003, in the region(s) in which the Project is located;

“RPC” shall mean the relevant Regional Power Committee established by the Government of India for the specific Region(s) in accordance with the Electricity Act, 2003 for facilitating integrated operation of the Power System in that Region;

“Rated Voltage” shall mean the manufacturers design voltage at which the Transmission System is designed to operate or such lower voltage at which the line is charged, for the time being, in consultation with Long Term Transmission Customers;

“Rebate” shall have the meaning as ascribed to in Article 10.7 of this Agreement;

“Scheduled COD” in relation to an Element(s) shall mean the date(s) as mentioned in Schedule 3 as against such Element(s) and in relation to the Project, shall mean the date as mentioned in Schedule 3 as against such Project, subject to the provisions of Article 4.4 of this Agreement, or such date as may be mutually agreed among the Parties;


KTL


RSPPL

“**Scheduled Outage**” shall mean the final outage plan as approved by the RPC as per the provisions of the Grid Code;

“**Selected Bid**” shall mean the Technical Bid and the Final Offer of the Selected Bidder submitted during e-reverse bidding, which shall be downloaded and attached herewith as Schedule 10 on or prior to the Effective Date;

“**Share Purchase Agreement**” shall mean the agreement amongst REC Power Development and Consultancy Limited, Kallam Transmission Limited and the Successful Bidder for the purchase of one hundred (100%) per cent of the shareholding of the Kallam Transmission Limited 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;

“**Site**” in relation to a substation, switching station or HVDC terminal or inverter station, shall mean the land and other places upon which such station / terminal is to be established;

“**SLDC**” shall mean the State Load Despatch Centre established as per sub-section (1) of Section 31 of the Electricity Act 2003;

“**STU**” or “**State Transmission Utility**” shall be the Board or the Government company specified as such by the State Government under sub-section (1) of Section 39 of the Electricity Act 2003;

“**Successful Bidder**” or “**Selected Bidder**” shall mean the Bidder selected pursuant to the RFP to acquire one hundred percent (100%) equity shares of Kallam Transmission Limited, 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;

“**Supplementary Agreement**” shall mean the agreement as annexed hereto in Schedule 12 of this Agreement;

“**Supplementary Bill**” or “**Supplementary Invoice**” shall mean a bill other than a Monthly Bill raised by any of the Parties in accordance with Article 10.10;

“**Target Availability**” shall have the meaning as ascribed hereto in Article 8.2 of this Agreement;


KTL


RSPPL

“**Technically Evaluated Entity**” shall mean the company which has been evaluated for the satisfaction of the technical requirement set forth in RFP ;

“**Termination Notice**” shall mean a Long Term Transmission Customer Termination Notice or TSP Termination Notice, as the case may be given by Parties pursuant to the provisions of Articles 3.3.2, 3.3.4, 13.3 and 13.4 of this Agreement for the termination of this Agreement;

“**Term of Agreement**” for the purposes of this Agreement shall have the meaning ascribed thereto in Article 2.2 of this Agreement;

“**Transmission Charges**” shall mean the Final Offer of the Selected Bidder during the e-reverse bidding and adopted by the Commission, payable to the TSP by the Long Term Transmission Customers, as per the provisions of TSA ;

“**Transmission Customer(s)**” shall mean any person using the Project, including the Open Access Customers;

“**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;

“**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**” shall mean making the Project available for use by the Transmission Customers as per the terms and conditions of this Agreement;

“**Transmission Service Provider**” or “**TSP**” shall mean the Kallam Transmission Limited, which has executed this 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 inter-connected together along with associated sub-stations and the term


KTL


RSPPL

includes equipment associated with transmission lines and sub-stations;

“Unscheduled Interchange” shall have the meaning ascribed thereto in Rule 24 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009, as amended from time to time;

“Unscheduled Outage” shall mean an interruption resulting in reduction of the Availability of the Element(s) / Project (as the case may be) that is not a result of a Scheduled Outage or a Force Majeure Event.

“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;

“Week” means a calendar week commencing from 00:00 hours of Monday, and ending at 24:00 hours of the following Sunday;

1.2 Interpretation:

Save where the contrary is indicated, any reference in this Agreement to:

“Agreement” shall be construed as including a reference to its Schedules, Appendices and Annexures;

“Rupee”, “Rupees” and “Rs.” shall denote lawful currency of India;

“crore” shall mean a reference to ten million (10,000,000) and a **“lakh”** shall mean a reference to one tenth of a million (1,00,000);

“encumbrance” shall be construed as a reference to a mortgage, charge, pledge, lien or other encumbrance securing any obligation of any person or any other type of preferential arrangement (including, without limitation, title transfer and retention arrangements) having a similar effect;

“holding company” of a company or corporation shall be construed as a reference to any company or corporation of which the other company or corporation is a subsidiary;

“indebtedness” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;


KTL


RSPPL

"person" shall be construed as a reference to any person, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and a person shall be construed as including a reference to its successors, permitted transferees and permitted assigns in accordance with their respective interests;

"subsidiary" of a company or corporation (the holding company) shall be construed as a reference to any company or corporation:

- (i) which is controlled, directly or indirectly, by the holding company, or
- (ii) more than half of the issued share capital of which is beneficially owned, directly or indirectly, by the holding company, or
- (iii) which is a subsidiary of another subsidiary of the holding company,

for these purposes, a company or corporation shall be treated as being controlled by another if that other company or corporation is able to direct its affairs and/or to control the composition of its board of directors or equivalent body;

"winding-up", "dissolution", "insolvency", or "reorganization" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the Law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, re-organization, dissolution, arrangement, protection or relief of debtors.

- 121 Words importing the singular shall include the plural and vice versa.
- 122 This Agreement itself or any other agreement or document shall be construed as a reference to this or to such other agreement or document as it may have been, or may from time to time be, amended, varied, novated, replaced or supplemented.
- 123 A Law shall be construed as a reference to such Law including its amendments or re-enactments from time to time.
- 124 A time of day shall, save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
- 125 Different parts of this Agreement are to be taken as mutually explanatory and supplementary to each other and if there is any inconsistency between or among the parts of this Agreement, they shall be interpreted in a harmonious manner so



KTL



RSPPL

as to give effect to each part.

- 126 The tables of contents and any headings or sub-headings in this Agreement have been inserted for ease of reference only and shall not affect the interpretation of this Agreement.
- 127 All interest payable under this Agreement shall accrue from day to day and be calculated on the basis of a year of three hundred and sixty five (365) days.
- 128 The words "hereof" or "herein", if and when used in this Agreement shall mean a reference to this Agreement.
- 129 The contents of Schedule 10 shall be referred to for ascertaining accuracy and correctness of the representations made by the Selected Bidder in Article 17.2.1 (f) hereof.



KTL



RSPPL

ARTICLE: 2

2 EFFECTIVENESS AND TERM OF AGREEMENT

2.1 Effective Date:

This Agreement shall be effective from later of the dates of the following events:

- a. The Agreement is executed and delivered by the Parties; and
- b. The Selected Bidder has acquired for the Acquisition Price, one hundred percent (100%) of the equity shareholding of REC Power Development and Consultancy Limited in Kallam Transmission Limited along with all its related assets and liabilities as per the provisions of the Share Purchase Agreement, and
- c. The Selected Bidder, on behalf of the TSP, has provided the Contract Performance Guarantee, as per terms of Article 3.1 of this Agreement.

2.2 Term and Termination:

2.2.1 Subject to Article 2.2.2 and Article 2.4, this Agreement shall continue to be effective in relation to the Project until the Expiry Date, when it shall automatically terminate unless extended by the Appropriate Commission for such period and on such terms and conditions as the Appropriate Commission may specify in this regard in terms of the procedures laid down by the Appropriate Commission for such matters.

2.2.2 This Agreement shall terminate before the Expiry Date:

- a. If a Termination Notice is served in accordance with Article 13
 - i. by the Majority Long Term Transmission Customers following a TSP Event of Default; or
 - ii. by the TSP following the Long Term Transmission Customers' Event of Default;
- b. If the Long Term Transmission Customers or the TSP serves a Termination Notice in accordance with Article 3.3.2 and 3.3.4.


KTL


RSPPL

2.3 Conditions prior to the expiry of the Transmission License

- 23.1 In order to continue the Project beyond the expiry of the Transmission License, the TSP shall be obligated to make an application to the Appropriate Commission at least two years before the date of expiry of the Transmission License, seeking the Appropriate Commission's approval for extension of the term of Transmission License upto the Expiry Date.
- 23.2 The TSP shall timely comply with all the requirements as may be laid down by the Appropriate Commission for extension of the term of the Transmission License beyond the initial term of 25 years and the TSP shall keep the Long Term Transmission Customers fully informed about progress on its application for extension of the term of Transmission License.

2.4 Survival:

The expiry or termination of this Agreement shall not affect any accrued rights, obligations and liabilities of the Parties under this Agreement, including the right to receive liquidated damages as per the terms of this Agreement, nor shall it effect the survival of any continuing obligations for which this Agreement provides, either expressly or by necessary implication, which are to survive after the Expiry Date or termination including those under Article 3.3.3, 3.3.5, Article 9.3 (Application of Insurance Proceeds), Article 11 (Force Majeure), Article 13 (Events of Default and Termination), Article 14 (Liability & Indemnification), Article 16 (Governing Law & Dispute Resolution), Article 18 (Miscellaneous).


KTL
RSPPL

ARTICLE: 3**3 CONDITIONS SUBSEQUENT****3.1 Satisfaction of conditions subsequent by the TSP**

- 3.1.1 Within ten (10) days from the date of issue of Letter of Intent , the Selected Bidder, on behalf of the TSP shall provide the Contract Performance Guarantee, acquire for the Acquisition Price, one hundred percent (100%) equity shareholding of Kallam Transmission Limited from REC Power Development and Consultancy Limited, who shall sell to the Selected Bidder, the equity shareholding of Kallam Transmission Limited along with all its related assets and liabilities, and apply to the Appropriate Commission for grant of Transmission License.

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 Rupees Five Crore Three Lakh Only (Rs. 5.03 Crore), 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)

- 3.1.2 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. In case the validity of the Contract Performance Guarantee is expiring before the validity specified in this Article, the TSP shall, at least thirty (30) days before the expiry of the Contract Performance Guarantee, replace the Contract Performance Guarantee with another Contract Performance Guarantee or extend the validity of the existing Contract Performance Guarantee until the validity period specified in this Article.
- 3.1.3 The TSP agrees and undertakes to duly perform and complete the following activities within six (6) months from the Effective Date, unless such completion is affected due to the Long Term Transmission Customers' failure to comply with their obligations under Article 3.2 of this Agreement or by any Force Majeure Event, or if any of the activities is specifically waived in writing by the Majority Long Term Transmission Customers:



KTL



RSPPL

- a. To obtain the Transmission License for the Project from the Appropriate Commission;
- b. To obtain the order for adoption of Transmission Charges by the Appropriate Commission, as required under Section 63 of the Electricity Act 2003;
- c. To submit to the Lead Long Term Transmission Customer and CEA the Project Execution Plan, within one hundred and twenty (120) days from the Effective Date. The TSP's Project Execution Plan should be in conformity with the Scheduled COD as specified in Schedule 3 of this Agreement, and shall bring out clearly the organization structure, time plan and methodology for executing the Project, award of major contracts, designing, engineering, procurement, shipping, construction, testing, commissioning to commercial operation, necessary to demonstrate a complete and accurate understanding of the Project, as well as the TSP's knowledge of procedures and prevailing conditions in India. Submission of a detailed bar (GANNT) chart of the Project outlining each activity (taking longer than one Month), linkages as well as durations;
- d. To achieve Financial Closure;
- e. To provide an irrevocable letter to the Lenders duly accepting and acknowledging the rights provided to the Lenders under the provisions of Article 15.3 of this Agreement and all other RFP Project Documents; and
- f. To award the Engineering, Procurement and Construction contract ("EPC contract") for the design and construction of towers for the Project and shall have given to such Contractor an irrevocable notice to proceed.

3.2 Satisfaction of conditions subsequent by the Long Term Transmission Customers

- 32.1 The Long Term Transmission Customers shall provide, within six (6) months from the Effective Date, an irrevocable letter to the Lenders duly accepting and acknowledging the rights provided to the Lenders as per Article 15.3 of this Agreement and all other RFP Project Documents


KTL


RSPPL

3.3 Consequences of non-fulfilment of conditions subsequent

33.1 If any of the conditions specified in Article 3.1.3 is not duly fulfilled by the TSP even within three (3) Months after the time specified therein, then on and from the expiry of such period and until the TSP has satisfied all the conditions specified in Article 3.1.3, the TSP shall, on a weekly basis, be liable to furnish to the Long Term Transmission Customers additional Contract Performance Guarantee of Rupees Sixty Three Lakh Only (Rs 0.63 Crore) within two (2) Business Days of expiry of every such Week. Such additional Contract Performance Guarantee shall be provided to each Long Term Transmission Customer in the manner provided in Article 3.1.1 and shall become part of the Contract Performance Guarantee and all the provisions of this Agreement shall be construed accordingly. The Long Term Transmission Customers shall be entitled to hold and/or invoke the Contract Performance Guarantee, including such additional Contract Performance Guarantee, in accordance with the provisions of this Agreement.

33.2 Subject to Article 3.3.4, if:

- (i) the fulfilment of any of the conditions specified in Article 3.1.3 is delayed beyond nine (9) Months from the Effective Date and the TSP fails to furnish additional Contract Performance Guarantee to the Long Term Transmission Customers in accordance with Article 3.3.1 hereof; or
- (ii) the TSP furnishes additional Performance Guarantee to the Long Term Transmission Customers in accordance with Article 3.3.1 hereof but fails to fulfil the conditions specified in Article 3.1.3 within a period of twelve (12) months from the Effective Date,

the Majority Long Term Transmission Customers, as per Article 18.1.5, shall have the right to terminate this Agreement, by giving a Termination Notice to the TSP in writing of at least seven (7) days, with a copy to the Appropriate Commission and the Lenders' Representative.

33.3 If the Long Term Transmission Customers elect to terminate this Agreement as per the provisions of Article 3.3.2, the TSP shall be liable to pay to the Long Term Transmission Customers an amount of Rupees Five Crore Three Lakh Only (Rs. 5.03 Crore) only as liquidated damages. The Long Term Transmission Customers shall be entitled to recover this amount of damages by invoking the Contract


KTL


RSPPL

Performance Guarantee to the extent of Rupees Five Crore Three Lakh Only (Rs. 5.03 Crore) which shall be provided separately to each of the Long Term Transmission Customers on the basis of their Allocated Project Capacity in MW as on the dated seven (7) days prior to the Bid Deadline, and shall then return the balance Contract Performance Guarantee, if any, to the TSP. If the Long Term Transmission Customers are unable to recover the said amount of Rupees Five Crore Three Lakh Only (Rs 5.03 Crore) or any part thereof from the Contract Performance Guarantee, the shortfall in such amount not recovered from the Contract Performance Guarantee, if any, shall be payable by the TSP to the Long Term Transmission Customers within ten (10) days after completion of the notice period.

It is clarified for removal of doubt that this Article shall survive the termination of this Agreement.

- 334 In case of inability of the TSP to fulfil the conditions specified in Article 3.1.3 due to any Force Majeure Event, the time period for fulfilment of the condition subsequent as mentioned in Article 3.1.3, shall be extended for a period of such Force Majeure Event, subject to a maximum extension period of three (3) Months, continuous or non-continuous in aggregate. Thereafter, this Agreement may be terminated by the Majority Long Term Transmission Customers or the TSP on mutually agreeable basis by giving a notice of at least seven (7) days, in writing to the other Party, with a copy to the Appropriate Commission and the Lenders' Representative and the Contract Performance Guarantee shall be returned as per the provisions of Article 6.5.2.

Provided, that due to the provisions of this Article 3.3.4, any increase in the time period for completion of conditions subsequent mentioned under Article 3.1.3, shall lead to an equal increase in the time period for the Scheduled COD. No adjustments to the Transmission Charges shall be allowed on this account.

- 335 Upon termination of this Agreement as per Articles 3.3.2 and 3.3.4, the Lead Long Term Transmission Customer shall approach the Appropriate Commission within seven (7) days of such termination for further necessary directions as per the provisions of the Electricity Act 2003.

3.4 Progress Reports

The TSP and the Lead Long Term Transmission Customer shall notify one another in writing at least once a Month on the progress made in satisfying the conditions subsequent in Articles 3.1.3 and 3.2.


KTL


RSPPL

ARTICLE: 4**4 DEVELOPMENT OF THE PROJECT****4.1 TSP's obligations in development of the Project:**

Subject to the terms and conditions of this Agreement, the TSP at its own cost and expense shall observe, comply with, perform, undertake and be responsible:

- a. for procuring and maintaining in full force and effect all Consents, Clearances and Permits, required in accordance with Law for development of the Project;
- b. for financing, constructing, owning and commissioning each of the Element of the Project for the scope of work set out in Schedule 2 of this Agreement in accordance with:
 - i. the Grid Code, the grid connectivity standards applicable to the Transmission Line and the sub-station as per the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010, Central Electricity Authority (Grid Standards) Regulations, 2010, Central Electricity Authority (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011, Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 and as amended from time to time,
 - ii. Prudent Utility Practices and the Law;

not later than the Scheduled COD as per Schedule 3 of this Agreement;
- c. for entering into a Connection Agreement with the CTU/STU (as applicable) in accordance with the Grid Code.
- d. for owning the Project throughout the term of this Agreement free and clear of any encumbrances except those expressly permitted under Article 15 of this Agreement;
- e. to co-ordinate and liaise with concerned agencies and provide on a timely


 KTL


 RSPPL

basis relevant information with regard to the specifications of the Project that may be required for interconnecting the Project with the Interconnection Facilities;

- f. for providing all assistance to the Arbitrators as they may require for the performance of their duties and responsibilities;
- g. to provide to the Long Term Transmission Customers with a copy to CEA, on a monthly basis, progress reports with regard to the Project and its execution (in accordance with Agreed Form) to enable the Long Term Transmission Customers / CEA to monitor and co-ordinate the development of the Project matching with the Interconnection Facilities.
- h. to procure the products associated with the Transmission System as per provisions of Public Procurement (Preference to Make in India) order issued by Ministry of Power vide order 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 (Procuring Entity as defined in above orders shall deemed to have included Selected Bidder and/or TSP).

Also, 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 regarding public procurement from a bidder of a country, which shares land border with India.

- i. to comply with all its obligations undertaken in this Agreement.

4.2 Long Term Transmission Customers' obligations in implementation of the Project:

- 4.2.1 Subject to the terms and conditions of this Agreement, Long Term Transmission Customers, at their own cost and expense, undertake to be responsible;
 - a. for assisting and supporting the TSP in obtaining the Consents, Clearances and Permits required for the Project and in obtaining any applicable concessions for the Project, by providing letters of recommendation to the concerned Indian Governmental Instrumentality, as may be requested by the TSP from time to time;


KTL


RSPPL

- b. for arranging and making available the Interconnection Facilities to enable the TSP to connect the Project;
- c. for complying with all their obligations under this Agreement, and
- d. for providing all assistance to the Arbitrators as they may require for the performance of their duties and responsibilities.

4.3 Time for Commencement and Completion:

- a. The TSP shall take all necessary steps to commence work on the Project from the Effective Date of the Agreement and shall achieve Scheduled COD of the Project in accordance with the time schedule specified in Schedule 3 of this Agreement.
- b. The COD of each Element of the Project shall occur no later than the Scheduled COD or within such extended time to which the TSP shall be entitled under Article 4.4 hereto.

4.4 Extension of time:

- 4.4.1 In the event that the TSP is prevented from performing its obligations under Article 4.1 (a), (b) and (e) by the stipulated date, due to any Long Term Transmission Customers' Event of Default, the Scheduled COD shall be extended, by a 'day for day' basis, subject to the provisions of Article 13.
- 4.4.2 In the event that an Element or the Project cannot be commissioned by its Scheduled COD on account of any Force Majeure Event as per Article 11, the Scheduled COD shall be extended, by a 'day for day' basis, for a maximum period of one hundred and eighty (180) days. In case the Force Majeure Event continues even after the maximum period of one hundred and eighty (180) days, the TSP or the Majority Long Term Transmission Customers may choose to terminate the Agreement as per the provisions of Article 13.5.
- 4.4.3 If the Parties have not agreed, within thirty (30) days after the affected Party's performance has ceased to be affected by the relevant circumstance, on how long the Scheduled COD should be deferred by, any Party may raise the Dispute to be resolved in accordance with Article 16.

4.5 Metering Arrangements:

- 4.5.1 The TSP shall comply with all the provisions of the IEGC and the Central



KTL



RSPPL

Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended from time to time, with regard to the metering arrangements for the Project. The TSP shall fully cooperate with the CTU/ STU /RLDC and extend all necessary assistance in taking meter readings.



K.T.L.

Kallam Transmission Limited



RSPPL

Page 29 of 145

ARTICLE: 5**5 CONSTRUCTION OF THE PROJECT****5.1 TSP's Construction Responsibilities:**

- 5.1.1 The TSP at its own cost and expense, shall be responsible for designing, constructing, erecting, completing and commissioning each Element of the Project by the Scheduled COD in accordance with the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010, Central Electricity Authority (Grid Standards) Regulations, 2010, Central Electricity Authority (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011, Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 and as amended from time to time, Prudent Utility Practices and other applicable Laws.
- 5.1.2 The TSP acknowledges and agrees that it shall not be relieved from any of its obligations under this Agreement or be entitled to any extension of time by reason of the unsuitability of the Site or Transmission Line route(s) for whatever reasons. The TSP further acknowledges and agrees that it shall not be entitled to any financial compensation in this regard.
- 5.1.3 The TSP shall be responsible for obtaining all Consents, Clearances and Permits relating but not limited to road / rail / river / canal / power line / crossings, Power and Telecom Coordination Committee (PTCC), defence, civil aviation, right of way / way-leaves and environmental & forest clearances from relevant authorities required for developing, financing, constructing, maintaining/ renewing all such Consents, Clearances and Permits in order to carry out its obligations under this Agreement in general and Article 5.1.1 in particular and shall furnish to the Lead Long Term Transmission Customer promptly with copy/ies of each Consents, Clearances and Permits, which it obtains. The Long Term Transmission Customers shall assist and support the TSP in obtaining the Consents, Clearances and Permits required for the Project and in obtaining any applicable concessions for the Project, by providing letters of recommendation to the concerned Indian Governmental Instrumentality, as may be reasonably required from time to time.
- 5.1.4 The TSP shall be responsible for:



KTL



RSPPL

- (a) acquisition of land for location specific substations, switching stations or HVDC terminal or inverter stations (if required);
- (b) final selection of Site including its geo-technical investigation;
- (c) survey and geo-technical investigation of line route in order to determine the final route of the Transmission Lines;
- (d) seeking access to the Site and other places where the Project is being executed, at its own costs, including payment of any crop compensation or any other compensation as may be required.

5.15 In case the Project involves any resettlement and rehabilitation, the resettlement and rehabilitation package will be implemented by the State Government authorities, for which the costs is to be borne by the TSP and no changes would be allowed in the Transmission Charges on account of any variation in the resettlement and rehabilitation cost. The TSP shall provide assistance on best endeavour basis, in implementation of the resettlement and rehabilitation package, if execution of such package is in the interest of expeditious implementation of the Project and is beneficial to the Project affected persons.

5.2 **Appointing Contractors:**

5.21 The TSP shall conform to the requirements as provided in this Agreement while appointing Contractor(s) for procurement of goods & services.

5.22 The appointment of such Contractor(s) shall neither relieve the TSP of any of its obligations under this Agreement nor make Long Term Transmission Customers liable for the performance of such Contractor(s).

5.3 **Monthly Progress Reporting:**

The TSP shall provide to the Long Term Transmission Customers, on a monthly basis, progress reports with regard to the Project and its execution (in accordance with Agreed Form) to enable the Long Term Transmission Customers to monitor and co-ordinate the development of the Project, matching with the Interconnection Facilities.

A copy of such monthly report shall also be sent by the TSP to the CEA.



KTL



RSPPL

5.4 Quality of Workmanship:

The TSP shall ensure that the Project is designed, built and completed in a good workmanlike manner using sound engineering and construction practices, and using only materials and equipment that are new and of international – utility grade quality such that, the useful life of the Project will be till the Expiry Date. 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 applicable under certain conditions, the other equivalent internationally recognised Standards and Codes shall be followed.

5.5 Inspection by the Lead Long Term Transmission Customer:

The Lead Long Term Transmission Customer shall designate, from time to time by a written notice to the TSP, at the most three (3) employees from any of the Long Term Transmission Customers, who shall have access at all reasonable times to the Site and to all such places where the Project is being executed for the purpose of inspecting the progress of the Project, at its own cost and expenses.

5.6 Site regulations and Construction Documents

The TSP shall abide by the Safety Rules and Procedures as mentioned in Schedule 4 of this Agreement

The TSP shall retain at the Site and make available for inspection to the Lead Long Term Transmission Customer at all reasonable times copies of the Consents, Clearances and Permits, construction drawings and other documents related to construction.

5.7 Supervisiou of work:

The TSP shall provide all necessary superintendence for execution of the Project and its supervisory personnel shall be available to provide full-time superintendence for execution of the Project. The TSP shall provide skilled personnel who are experienced in their respective fields.

5.8 Remedial Measures:

The TSP shall take all necessary actions for remedying the shortfall in achievement of timely progress in execution of the Project,, if any, as intimated


KTL
RSPPL

by the CEA. However, such intimation by the CEA and the subsequent effect of such remedial measures carried out by the TSP shall not relieve the TSP of its obligations in the Agreement. CEA may carry out random inspections during the Project execution, as and when deemed necessary by it. If the shortfalls as intimated to the TSP are not remedied to the satisfaction of the CEA, it may refer the same to the Appropriate Commission for appropriate action.


KTL

Kallam Transmission Limited


RSPPL

Page 33 of 145

ARTICLE: 6**6 CONNECTION AND COMMISSIONING OF THE PROJECT****6.1 Connection with the Inter-Connection Facilities:**

6.1.1 The TSP shall give the RLDC(s), CTU/ STU, as the case may be, the Long Term Transmission Customers and any other agencies as required at least sixty (60) days advance written notice of the date on which it intends to connect an Element of the Project, which date shall be not earlier than its Scheduled COD or Schedule COD extended as per Article 4.4.1 of this Agreement, unless the Lead Long Term Transmission Customer otherwise agrees.

6.1.2 The RLDC / SLDC (as the case may be) or the CTU / STU (as the case may be) or the Lead Long Term Transmission Customer may, for reasonable cause, including failure to arrange for Interconnection Facilities as per Article 4.2, defer the connection for up to fifteen (15) days from the date notified by the TSP pursuant to Article 6.1.1 if it notifies to the TSP in writing, before the date of connection, of the reason for the deferral and when the connection is to be rescheduled. However, no such deferment on one or more occasions would be for more than an aggregate period of 30 days. Further, the Scheduled COD would be extended as required, for all such deferments on day for day basis.

6.1.3 Subject to Articles 6.1.1 and 6.1.2, any Element of Project may be connected with the Interconnection Facilities when:

- a. it has been completed in accordance with this Agreement and the Connection Agreement;
- b. it meets the Grid Code, Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 and all other Indian legal requirements and
- c. The TSP has obtained the approval in writing of the Electrical Inspector certifying that the Element is ready from the point of view of safety of supply and can be connected with the Interconnection Facilities.

6.2 Commercial Operation:

6.2.1 An Element of the Project shall be declared to have achieved COD seventy two (72) hours following the connection of the Element with the Interconnection Facilities or seven (7) days after the date on which it is declared by the TSP to be ready for charging but is not able to be charged for reasons not attributable to



KTL



RSPPL

the TSP or seven (7) days after the date of deferment, if any, pursuant to Article 6.1.2

Provided that an Element shall be declared to have achieved COD only after all the Element(s), if any, which are pre-required to have achieved COD as defined in Schedule 3 of this Agreement, have been declared to have achieved their respective COD.

622 Once any Element of the Project has been declared to have achieved deemed COD as per Article 6.2.1 above, such Element of the Project shall be deemed to have Availability equal to the Target Availability till the actual charging of the Element and to this extent, shall be eligible for payment of the Monthly Transmission Charges applicable for such Element.

6.3 Liquidated Damages for delay due to Long Term Transmission Customer Event of Default or Direct Non Natural Force Majeure Events or Indirect Non Natural Force Majeure Events or Natural Force Majeure Event (affecting the Long Term Transmission Customer)

63.1 If the TSP is otherwise ready to connect the Element(s) of the Project and has given due notice, as per provisions of Article 6.1.1, to the Long Term Transmission Customer(s) of the date of intention to connect the Element(s) of the Project, where such date is on or before the Scheduled COD, but is not able to connect the Element(s) of the Project by the said date specified in the notice, due to a Long Term Transmission Customer Event of Default or due to Direct Non Natural Force Majeure Event or Indirect Non Natural Force Majeure Event or (Natural Force Majeure Event affecting the Long Term Transmission Customer) provided such Direct Non Natural Force Majeure Event or Indirect Non Natural Force Majeure Event or (Natural Force Majeure Event affecting the Long Term Transmission Customer(s)) has continued for a period of more than three (3) continuous or non-continuous Months, the TSP shall, until the effects of the Long Term Transmission Customer Event of Default or of Direct Non Natural Force Majeure Event or Indirect Non Natural Force Majeure Event or (Natural Force Majeure Event affecting the Long Term Transmission Customer(s)) no longer prevent the TSP from connecting the Element(s) of the Project, be deemed to have achieved COD relevant to that date and to this extent, be deemed to have been providing Transmission Service with effect from the date notified, and shall be treated as follows.

a In case of delay on account of the Long Term Transmission Customer Event of Default, the Long Term Transmission Customer(s) shall make payment to the TSP of Non Escalable Transmission Charges in proportion to their Allocated Project Capacity, calculated on Target Availability for and during the period of such delay.


KTL


RSPPL

- b. In case of delay due to Direct Non Natural Force Majeure Event, the Long Term Transmission Customer(s) shall make payments to the TSP of Non Escalable Transmission Charges calculated on Target Availability for the period of such events in excess of three (3) continuous or non continuous Months in the manner provided in (d) below.
- c. In case of delay due to Indirect Non Natural Force Majeure Event or (Natural Force Majeure Event affecting the Long Term Transmission Customer(s)), the Long Term Transmission Customer(s) shall make payment to the TSP for debt service, subject to a maximum of Non Escalable Transmission Charges calculated on Target Availability, which is due under the Financing Agreements for the period of such events in excess of three (3) continuous or non continuous Months in the manner provided in (d) below.
- d. In case of delay due to Direct Non Natural Force Majeure Event or Indirect Non Natural Force Majeure Event (or Natural Force Majeure Event affecting the Long Term Transmission Customer(s)), the Long Term Transmission Customer(s) shall be liable to make payments mentioned in (b) and (c) above, after commencement of Transmission Service, in the form of an increase in Non Escalable Transmission Charges. These amounts shall be paid from the date, being the later of a) the date of cessation of such Direct Non Natural Force Majeure Event or Indirect Non Natural Force Majeure Event (or Natural Force Majeure Event affecting the Long Term Transmission Customer(s)) and b) the completion of sixty (60) days from the receipt of the Financing Agreements by the Long Term Transmission Customer(s) from the TSP.

Provided such increase in Non Escalable Transmission Charges shall be determined by Appropriate Commission on the basis of putting the TSP in the same economic position as the TSP would have been in case the TSP had been paid amounts mentioned in (b) and (c) above in a situation where the Force Majeure Event had not occurred.

For the avoidance of doubt, it is specified that the charges payable under this Article 6.3.1 shall be paid by the Long Term Transmission Customer(s) in proportion to their then Allocated Project Capacity.

6.4 Liquidated Damages for Delay in achieving COD of Project:

- 64.1 If the TSP fails to achieve COD of any Element of the Project or the Project, by the Element's / Project's Scheduled COD as extended under Articles 4.4.1 and


KTL


RSPPL

4.4.2, then the TSP shall pay to the Long Term Transmission Customer(s), as communicated by the Lead Long Term Transmission Customer, in proportion to their Allocated Project Capacity as on the date seven (7) days prior to the Bid Deadline, a sum equivalent to 3.33% of Monthly Transmission Charges applicable for the Element of the Project [in case where no Elements have been defined, to be on the Project as a whole] / Project, for each day of delay up to sixty (60) days of delay and beyond that time limit, at the rate of five percent (5%) of the Monthly Transmission Charges applicable to such Element / Project, as liquidated damages for such delay and not as penalty, without prejudice to Long Term Transmission Customers' any rights under the Agreement.

642 The TSP's maximum liability under this Article 6.4 shall be limited to the amount of liquidated damages calculated in accordance with Article 6.4.1 for and up to six (6) months of delay for the Element or the Project.

Provided that in case of failure of the TSP to achieve COD of the Element of the Project even after the expiry of six (6) months from its Scheduled COD, the provisions of Article 13 shall apply.

643 The TSP shall make payment of the liquidated damages calculated pursuant to Article 6.4.1 within ten (10) days of the earlier of:

- a. the date on which the applicable Element achieves COD; or
- b. the date of termination of this Agreement.

The payment of such damages shall not relieve the TSP from its obligations to complete the Project or from any other obligation and liabilities under the Agreement.

644 If the TSP fails to pay the amount of liquidated damages within the said period of ten (10) days, the Long Term Transmission Customers shall be entitled to recover the said amount of the liquidated damages by invoking the Contract Performance Guarantee. If the then existing Contract Performance Guarantee is for an amount which is less than the amount of the liquidated damages payable by the TSP to the Long Term Transmission Customers under this Article 6.3, the TSP shall be liable to forthwith pay the balance amount.

6.5 Return of Contract Performance Guarantee

65.1 If the TSP fails to achieve COD of any of the Elements on their respective Scheduled COD specified in this Agreement, subject to conditions mentioned in Article 4.4, the Long Term Transmission Customers shall have the right to



KTL



RSPPL

encash the Contract Performance Guarantee and appropriate in their favour as liquidated damages an amount specified in Article 6.4.1, without prejudice to the other rights of the Long Term Transmission Customers under this Agreement.

- 652 The Contract Performance Guarantee as submitted by TSP in accordance with Article 3.1.1 shall be released by the Long Term Transmission Customers within three (3) months from the COD of the Project. In the event of delay in achieving Scheduled COD of any of the Elements by the TSP (otherwise than due to reasons as mentioned in Article 3.1.1 or Article 11) and consequent part invocation of the Contract Performance Guarantee by the Long Term Transmission Customers, the Long Term Transmission Customers shall release the Contract Performance Guarantee if any, remaining unadjusted, after the satisfactory completion by the TSP of all the requirements regarding achieving the Scheduled COD of the remaining Elements of the Project. It is clarified that the Long Term Transmission Customers shall also return/release the Contract Performance Guarantee in the event of (i) applicability of Article 3.3.2 to the extent the Contract Performance Guarantee is valid for an amount in excess of Rupees Five Crore Three Lakh Only (Rs. 5.03 Crore) or (ii) termination of this Agreement by any Party as mentioned under Article 3.3.4 of this Agreement.
- 653 The release of the Contract Performance Guarantee shall be without prejudice to other rights of the Long Term Transmission Customers under this Agreement.


KTL
RSPPL

ARTICLE: 7**7 OPERATION AND MAINTENANCE OF THE PROJECT****7.1 Operation and Maintenance of the Project:**

- 7.1.1 The TSP shall be responsible for ensuring that the Project is operated and maintained in accordance with the Indian Electricity Grid Code (IEGC) / State Grid Code (as applicable), Transmission License, directions of National Load Despatch Centre / RLDC / SLDC (as applicable), Prudent Utility Practices, other legal requirements including the terms of Consents, Clearances and Permits and is made available for use by the Transmission Customers as per the provisions of applicable regulations including but not limited to the 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, Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, and the Central Electricity Authority (Grid Standards) of Operation and Maintenance of Transmission Lines Regulations, 2010 as amended from time to time and provisions of this Agreement..
- 7.1.2 The TSP shall operate and maintain the Project in an efficient, coordinated and economical manner and comply with the directions issued by the National Load Despatch Centre, RLDC or the SLDC, as the case may be, in line with the provisions of the Electricity Act 2003 and Rule 5 of the Electricity Rules, 2005, and as amended from time to time.
- 7.1.3 The TSP shall be responsible to provide non-discriminatory open access to the Project as per the provisions of the Electricity Act 2003, 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 (as amended from time to time) and applicable regulations of the relevant State Electricity Regulatory Commission, as the case may be, as amended from time to time. The Long Term Transmission Customers agree with the TSP to provide such access to the Open Access Customers.
- 7.1.4 If the TSP fails to comply with the directions issued by the Appropriate



KTL



RSPPL

Commission or the RLDC / SLDC, as the case may be and is liable to pay a penalty under the provisions of the Electricity Act 2003, such penalties shall be borne by the TSP and cannot be claimed from any of the Long Term Transmission Customers.

7.15 The TSP may, with prior intimation to the Appropriate Commission and the Lead Long Term Transmission Customer, engage in any business for the optimum utilisation of the assets, subject to the provisions of Section 41 of the Electricity Act 2003 and Transmission License.

7.16 The TSP shall abide by the Safety Rules and Procedures during the Operation Period as mentioned in Schedule 4 of this Agreement.

7.2 **Scheduled Outage**

7.21 In line with the provisions of the Grid Code, as amended from time to time, the TSP shall provide its annual outage plan, and shall be governed by the decisions of the RPC in this regard.

7.3 **Unscheduled Outage**

7.31 In the event of an Unscheduled Outage, the TSP shall inform, in writing to the concerned RLDC/SLDC, as the case may be, and the Lead Long Term Transmission Customer, the reasons and the details of occurrence of such Unscheduled Outage. The TSP shall further inform about, the nature of the work to be carried out, the estimated time required to complete it and the latest time by which in its opinion the work should begin consistent with the Prudent Utility Practices.

7.32 The TSP shall use its reasonable endeavours consistent with Prudent Utility Practices to carry out the maintenance in minimum time schedule to address such Unscheduled Outage and bring the Element/Project back in operation.


KTL


RSPPL

ARTICLE: 8

8 AVAILABILITY OF THE PROJECT

8.1 Calculation of Availability of the Project:

Calculation of Availability for the Elements and for the Project, as the case may be, shall be as per Appendix –II of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, as applicable seven (7) days prior to the Bid Deadline and as appended in Schedule 9

8.2 Target Availability:

The Target Availability of the Project shall be 98%.



KTL

Kallam Transmission Limited



RSPPL

Page 41 of 145

ARTICLE: 9

9 INSURANCES

9.1 Insurance:

9.1.1 The TSP shall effect and maintain or cause to be effected and maintained during the Construction Period and the Operating Period, Insurances against such risks, with such deductibles and endorsements and co-beneficiary/insured, as may be necessary under

- a. any of the Financing Agreements,
- b. the Laws, and
- c. in accordance with Prudent Utility Practices.

The Insurances shall be taken effective from a date prior to the date of the Financial Closure till the Expiry Date.

9.2 Evidence of Insurance cover:

9.2.1 The TSP shall furnish to the Lead Long Term Transmission Customer copies of certificates and policies of the Insurances as soon as they are effected and renewed by or on behalf of the TSP from time to time in terms of Article 9.1

9.3 Application of Insurance Proceeds:

9.3.1 Save as expressly provided in this Agreement, the policies of Insurances and the Financing Agreements, the proceeds of any insurance claim made due to loss or damage to the Project or any part of the Project shall be first applied to reinstatement, replacement or renewal of such loss or damage.

9.3.2 If a Natural Force Majeure Event renders the Project no longer economically and technically viable and the insurers under the Insurances make payment on a "total loss" or equivalent basis, the portion of the proceeds of such Insurance available to the TSP (after making admissible payments to the Lenders as per the Financing Agreements) shall be allocated to the TSP and the Long Transmission Customers shall have no claim on such proceeds of the Insurance.

9.3.3 Subject to the requirements of the Lenders under the Financing Agreements, any dispute or difference between the Parties as to whether the Project is no longer economically and technically viable due to a Force Majeure Event or whether


KTL


RSPPL

that event was adequately covered in accordance with this Agreement by the Insurances shall be determined in accordance with Article 16.

9.4 Effect on liability of the Long Term Transmission Customers

9.4.1 The Long Term Transmission Customers shall have no financial obligations or liability whatsoever towards the TSP in respect of this Article 9.



KTL



RSPPL

ARTICLE: 10**10 BILLING AND PAYMENT OF TRANSMISSION CHARGES**

101 Subject to provisions of this Article 10, the Long Term Transmission Customers shall pay to the TSP, in Indian Rupees, on monthly basis, the Monthly Transmission Charges from the date on which an Element(s) has achieved COD until the Expiry Date of this Agreement, unless terminated earlier, in line with the provisions of Schedule 5 of this Agreement.

102 Calculation of Monthly Transmission Charges:

The Monthly Transmission Charges for each Contract Year shall be calculated in accordance with the provisions of Schedule 5 of this Agreement.

103 Incentive Payment

Incentive payment, on account of Availability being more than the Target Availability shall be payable by the Long Term Transmission Customer(s), in line with Clause 1.2.2 of Schedule 5 of this Agreement and shall be paid on an annual basis. The annual incentive amount payable to the TSP shall be shared by the Long Term Transmission Customer(s) in the ratio of the Transmission Charges paid or actually payable to the TSP by them existing at the end of the relevant Contract Year.

104 Payment of Penalty

The TSP shall pay a penalty on account of Availability being less than Ninety Five percent (95%) in any Contract Year in respect of the Element(s) having achieved COD or in case of the Project, after COD of the Project, to be computed in line with Clause 1.2.3 of Schedule 5 of this Agreement and paid on an annual basis. This penalty payable by the TSP shall be apportioned in favour of the Long Term Transmission Customer(s) in the ratio of the Transmission Charges paid or actually payable to the TSP by them existing at the end of the relevant Contract Year.

105 Delivery of Invoices:**10.5.1 TSP's Invoices**

- a Commencing with the month following the month in which the COD of an Element (which is first Commissioned) occurs, the TSP shall submit to Long Term Transmission Customers by the fifth day of such and each succeeding month (or, if such day is not a Business Day, the


KTL

RSPPL

immediately following Business Day) an Invoice in the Agreed Form (the "Monthly Transmission Charge Invoice") signed by the authorised signatory of the TSP setting out the computation of the Monthly Transmission Charges to be paid by the Long Term Transmission Customers to the TSP in respect of the immediately preceding month in accordance with this Agreement; and

- b. Each Monthly Transmission Charge Invoice shall include detailed calculations of the amounts payable under it, together with such further supporting documentation and information as Long Term Transmission Customers may reasonably require / request, from time to time.

10.5.2 Long Term Transmission Customers Invoices

- a. Long Term Transmission Customers shall (as and when any amount becomes due to be paid by TSP), on the fifth day of the month (or, if such day is not a Business Day, the immediately following Business Day) submit to the TSP an Invoice in the Agreed Form (the "Long Term Transmission Customers Invoice") setting out the computation of any amount that may be payable to it by the TSP for the immediately preceding month pursuant to this Agreement.
- b. Each Long Term Transmission Customer's Invoice shall include detailed calculations of the amounts payable under it, together with such further supporting documentation as the TSP may reasonably require/request, from time to time.

10.6 Payment of Invoices:

106.1 Pursuant to Article 10.4, any amount payable under an Invoice shall be paid in immediately available and freely transferable clear funds, for value on or before the Due Date, to such account of the TSP or Long Term Transmission Customers as shall have been previously notified to Long Term Transmission Customers or the TSP, as the case may be.

106.2 Where in respect of any month there is both:

- a. an amount payable by the Long Term Transmission Customers to TSP pursuant to a Monthly Transmission Charge Invoice and
- b. an amount payable by the TSP to Long Term Transmission Customer pursuant to a Long Term Transmission Customer's Invoice as per provisions of this Agreement,


KTL


RSPPL

the two amounts, to the extent agreed to be set off by the TSP may, be set off against each other and the balance, if any, shall be paid by Long Term Transmission Customers to the TSP or by TSP to Long Term Transmission Customers, as the case may be.

1063 The Long Term Transmission Customers shall pay the amount payable under the Monthly Transmission Charge Invoice and the Supplementary Bill on the Due Date to such account of the TSP, as shall have been previously notified by the TSP to the Long Term Transmission Customers in accordance with Article 10.6.6 below.

1064 All payments made by the Long Term Transmission Customers shall be appropriated by the TSP in the following order of priority:

- i. towards Late Payment Surcharge, payable to the TSP, if any;
- ii. towards earlier unpaid Monthly Transmission Charge Invoice, if any;
- iii. towards earlier unpaid Supplementary Bill, if any;
- iv. towards the then current Monthly Transmission Charge Invoice, if any; and
- v. towards the then current Supplementary Bill.

1065 All payments required to be made under this Agreement shall only include any deduction or set off for:

- i. deductions required by the Law; and
- ii. amounts claimed by the Long Term Transmission Customers from the TSP, through an Invoice duly acknowledged by the TSP, to be payable by the TSP, and not disputed by the TSP within thirty (30) days of receipt of the said Invoice and such deduction or set-off shall be made to the extent of the amounts not disputed. It is clarified that the Long Term Transmission Customers shall be entitled to claim any set off or deduction under this Article, after expiry of the said thirty (30) day period.

Provided further, the maximum amounts that can be deducted or set-off by all the Long Term Transmission Customers taken together (proportionate to their Allocated Project Capacity in case of each Long Term Transmission Customer) under this Article in a Contract Year shall not exceed Rupees Four Crore Twenty Lakh Only (Rs. 4.20 Crore), except on account of payments under sub Article (i) above.


KTL


RSPPL

10.6.6 The TSP shall open a bank account at [Insert identified place or account] (the "**Designated Account**") for all payments to be made by the Long Term Transmission Customers to the TSP, and notify the Long Term Transmission Customers of the details of such account at least ninety (90) days before the Scheduled COD of the first Element to the Long Term Transmission Customers. The Long Term Transmission Customers shall, on the day of payment, notify the TSP of the payment made to the Designated Account. The Long Term Transmission Customers shall also designate a bank account at [Insert identified place] for payments to be made by the TSP to Long Term Transmission Customers and notify the TSP of the details of such account ninety (90) days before the Scheduled COD of the first Element.

10.7 Payment of Rebate:

10.7.1 In case the Long Term Transmission Customer pays to the TSP through any mode of payment in respect of a Monthly Transmission Charge Invoice or Supplementary Bill, the following shall apply:

- a. For payment of Invoices through any mode of payment, a Rebate of 2% shall be allowed on the Monthly Transmission Charge Invoice or Supplementary Bill for payments made in full within one Business Day of the receipt of the Invoice; or
- b. For payment of Invoices subsequently, but within the Due Date, a Rebate of 1% shall be allowed on the payments made in full.
- c. Applicable rate of Rebate at (a) and (b) above shall be based on the date on which the payment has been actually credited to the TSP's account. Any delay in transfer of money to the TSP's account, on account of a statutory holiday, public holiday, or any other reasons shall be to the account of the Long Term Transmission Customers.
- d. No Rebate shall be payable on the bills raised on account of Change in Law relating to taxes, duties and cess;

Provided that if any Long Term Transmission Customer fails to pay a Monthly Transmission Charge Invoice/ Supplementary Bill or part thereof within and including the Due Date, the TSP shall recover such amount as per provisions of Article 10.11.1 (f).


KTL


RSPPL

10.8 Surcharge

10.8.1 Any amount due from one Party to the other, pursuant to this Agreement and remaining unpaid for thirty (30) days after the Due Date, shall bear Late Payment Surcharge @ 1.25% per month on the unpaid amount. Such Late Payment Surcharge shall be calculated on simple rate basis and shall accrue from the Due Date until the amount due is actually received by the payee.

10.9 Disputed Invoices

109.1 If either Party does not question or dispute an Invoice within thirty (30) days of receiving it, the Invoice shall be considered correct, complete and conclusive between the Parties.

109.2 If either Party disputes any item or part of an item set out in any Invoice then that Party shall serve a notice (an "Invoice Dispute Notice") on the other Party setting out (i) the item or part of an item which is in dispute, (ii) its estimate of what such item or part of an item should be, (iii) and with all written material in support of its claim.

109.3 If the invoicing Party agrees to the claim raised in the Invoice Dispute Notice issued pursuant to Article 10.9.2, the invoicing Party shall revise such Invoice within seven (7) days of receiving such notice from the disputing Party and if the disputing Party has already made the excess payment, the invoicing Party shall refund to the disputing Party, such excess amount within fifteen (15) days of receiving such notice. In such a case, the excess amount shall be refunded along with interest at the same rate as the Late Payment Surcharge, which shall be applied from the date on which such excess payment was made to the invoicing Party and up to and including the date on which such payment has been received as refund.

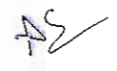
109.4 If the invoicing Party does not agree to the claim raised in the Invoice Dispute Notice issued pursuant to Article 10.9.2, it shall, within fifteen (15) days of receiving the Invoice Dispute Notice, furnish a notice to the disputing Party providing (i) reasons for its disagreement; (ii) its estimate of what the correct amount should be; and (iii) all written material in support of its counter-claim.

109.5 Upon receipt of notice of disagreement to the Invoice Dispute Notice under Article 10.9.4, authorised representative(s) or a director of the board of directors/member of board of each Party shall meet and make best endeavours to amicably resolve such Dispute within fifteen (15) days of receiving such notice of disagreement to the Invoice Dispute Notice.

109.6 If the Parties do not amicably resolve the dispute within fifteen (15) days of



KTL



RSPPL

receipt of notice of disagreement to the Invoice Dispute Notice pursuant to Article 10.9.4, the matter shall be referred to Appropriate Commission for Dispute resolution in accordance with Article 16.

- 1097 If a Dispute regarding a Monthly Transmission Charge Invoice or a Supplementary Invoice is settled pursuant to Article 10.7 or by Dispute resolution mechanism provided in this Agreement in favour of the Party that issues the Invoice Dispute Notice, the other Party shall refund the amount, if any incorrectly charged and collected from the disputing Party or pay as required, within five (5) days of the Dispute either being amicably resolved by the Parties pursuant to Article 10.9.5 or settled by Dispute resolution mechanism, along with interest (at the same rate as Late Payment Surcharge) or Late Payment Surcharge from the date on which such payment had been made to the invoicing Party or the date on which such payment was originally due, as may be applicable.
- 1098 For the avoidance of doubt, it is clarified that despite a Dispute regarding an Invoice, the concerned Long Term Transmission Customer shall, without prejudice to its right to Dispute, be under an obligation to make payment, of the lower of (a) an amount equal to simple average of last three (3) months Invoices (being the undisputed portion of such three months Invoices) and (b) Monthly Invoice which is being disputed, provided such Monthly Invoice has been raised based on the Allocated Project Capacity and in accordance with this Agreement.

10.10 Payment of Supplementary Bill

- 10.10.1 Either Party may raise a bill on the other Party ("Supplementary Bill") for payment on account of:
- i. adjustments (if any) required by the Regional Energy Account ; or
 - ii. quarterly or annual reconciliation as per Article 10.13; or
 - iii. Change in Law as provided in Article 12,
- and such Bill shall be paid by the other Party.

10.11 Payment Security Mechanism:

10.11.1 Establishment of Letter of Credit:

- (a) Not later than one (1) Month prior to the Scheduled COD of the first Element of the Project, each Long Term Transmission Customer shall, through a scheduled bank, open a Letter of Credit in favour of the TSP, to be made operative from a date prior to the Due Date of its first



KTL



RSPPL

Monthly Transmission Charge Invoice under this Agreement and shall be renewed annually.

- (b) The draft of the proposed Letter of Credit shall be provided by each Long Term Transmission Customer to the TSP not later than the Financial Closure of the Project and shall be mutually agreed between the Parties.
- (c) The Letter of Credit shall have a term of twelve (12) Months and shall be for an amount:
 - i. for the first Contract Year or for each subsequent Contract Year, equal to one point one (1.1) times the estimated average Monthly Transmission Charges based on Target Availability of the Elements or Project with Scheduled COD in such Contract Year, as the case may be;
 - ii. Provided that, the TSP shall not make any drawl before the Due Date and shall not make more than one drawal in a month.

Provided further that if at any time, such Letter of Credit amount falls short of the amount specified in Article 10.11.1, otherwise than by reason of drawal of such Letter of Credit by the TSP, the relevant Long Term Transmission Customer shall restore such shortfall within seven (7) days.

- (d) Long Term Transmission Customers shall cause the scheduled bank issuing the Letter of Credit to intimate the TSP, in writing regarding establishing of such Letter of Credit.
- (e) In case of drawal of the Letter of Credit by the TSP in accordance with the terms of this Article 10.11.1, the amount of the Letter of Credit shall be reinstated within seven (7) days from the date of such drawal.
- (f) If any Long Term Transmission Customer fails to pay a Monthly Transmission Charge Invoice / Supplementary Bill or part thereof within and including the Due Date, then, unless an Invoice Dispute Notice is received by the TSP as per the provisions of Article 10.9.2, the TSP may draw upon the Letter of Credit, and accordingly the bank shall pay without any reference or instructions from the Long Term Transmission Customers, an amount equal to such Monthly Transmission Charge Invoice/Supplementary Bill or part thereof plus Late Payment Surcharge, if applicable, in accordance with Article 10.8 above, by presenting to the scheduled bank issuing the Letter of Credit, the following documents:



KCTL



RSPPL

- i. a copy of the Monthly Transmission Charge Invoice/Supplementary Bill which has remained unpaid by such Long Term Transmission Customer;
- ii. a certificate from the TSP to the effect that the Invoice at item (i) above, or specified part thereof, is in accordance with the Agreement and has remained unpaid beyond the Due Date; and
- iii. calculations of applicable Late Payment Surcharge, if any.

Provided that failure on the part of the TSP to present the documents for negotiation of the Letter of Credit shall not attract any Late Payment Surcharge on the Long Term Transmission Customers.

- (g) Each Long Term Transmission Customer shall ensure that the Letter of Credit shall be renewed not later than thirty (30) days prior to its expiry.
- (h) All costs relating to opening and maintenance of the Letter of Credit shall be borne by the Long Term Transmission Customers. However, the Letter of Credit negotiation charges shall be borne and paid by the TSP.
- (i) If a Long Term Transmission Customer fails to pay (with respect to a Monthly Bill or Supplementary Bill) an amount exceeding thirty percent (30%) of the most recent undisputed Monthly Bill, for a period of seven (7) days after the Due Date and the TSP is unable to recover the amount outstanding to the TSP through the Letter of Credit,
 - (i) the TSP shall issue a notice to such Long Term Transmission Customer within seven (7) days from such period, with a copy to each of the other Long Term Transmission Customers, highlighting the nonpayment of such amount by such Long Term Transmission Customer;
 - (ii) If such Long Term Transmission Customer still fails to pay such amount within a period of thirty (30) days after the issue of notice by TSP as mentioned in (i) above, the TSP shall approach the RLDC / SLDC (as the case may be) requesting for the alteration of the schedule of dispatch of the lowest cost power of such Long Term Transmission Customer(s) from the Central Generating Stations, and the RLDC / SLDC shall continue to reschedule the lowest cost power till all the dues of the TSP are recovered;


KTL


RSPPL

- Provided that in this case, the quantum of electricity and the corresponding period in which it would be rescheduled for dispatch shall be corresponding to the amount of default. This electricity will then be dispatched to other utilities by the concerned RLDC/SLDC, as the case may be, during the peak hours, i.e., 7pm to 10 pm. The price of this electricity will be determined as per the UI rate
- Provided further that the revenue from such diverted power would be used to pay the dues first of the generating company (which would include the capacity charges as well as the energy charges) and the remainder would be available for covering the default amount and the balance (if any), after recovering both the charges, would be paid to the defaulting Long Term Transmission Customer.

10.12 Payment Intimation

Long Term Transmission Customers shall remit all amounts due under an Invoice raised by the TSP to the TSP's account by the Due Date and notify the TSP of such remittance on the same day. Similarly, the TSP shall pay all amounts due under an Invoice raised by Long Term Transmission Customers by the Due Date to concerned Long Term Transmission Customer's account and notify such Long Term Transmission Customers/s of such payment on the same day.

10.13 Quarterly and Annual Reconciliation

- 10.13.1 Parties acknowledge that all payments made against Monthly Bill(s) and Supplementary Bill(s) shall be subject to quarterly reconciliation at the beginning of the following quarter of each Contract Year and annual reconciliation at the end of each Contract Year to take into account Regional Energy Account, adjustments in Transmission Charges payments, Rebates, Late Payment Surcharge, Incentive, Penalty, or any other reasonable circumstance as may be mutually agreed between the Parties.
- 10.13.2 The Parties, therefore, agree that as soon as all such data in respect of any quarter of a Contract Year or a full Contract Year, as the case may be, is available and has been finally verified and adjusted, the TSP and each Long Term Transmission Customer shall jointly sign such reconciliation statement. Within fifteen (15) days of signing of a reconciliation statement, the TSP or Long Term Transmission Customers, as the case may be, shall raise a Supplementary Bill for the payments as may be due as a result of reconciliation for the relevant quarter/ Contract Year and shall make payment of such


K3LL


RSPPL

Supplementary Bill for the adjustments in Transmission Charges payments for the relevant quarter/Contract Year.

- 10.133 Interest / Late Payment Surcharge shall be payable in such a case from the date on which such payment had been made to the invoicing Party or the date on which any payment was originally due, as may be applicable. Any dispute with regard to the above reconciliation shall be dealt with in accordance with the provisions of Article 16


KTL


RSPPL

ARTICLE: 11**11 FORCE MAJEURE****11.1 Definitions**

11.1.1 The following terms shall have the meanings given hereunder.

11.2 Affected Party

11.2.1 An Affected Party means any of the Long Term Transmission Customers or the TSP whose performance has been affected by an event of Force Majeure.

11.2.2 An event of Force Majeure affecting the CTU/STU or any agent of the Long Term Transmission Customers, which has affected the Interconnection Facilities, shall be deemed to be an event of Force Majeure affecting the Long Term Transmission Customers.

11.2.3 Any event of Force Majeure shall be deemed to be an event of Force Majeure affecting the TSP only if the Force Majeure event affects and results in, late delivery of machinery and equipment for the Project or construction, completion, commissioning of the Project by Scheduled COD and/or operation thereafter ;

11.3 Force Majeure

A 'Force Majeure' means any event or circumstance or combination of events and circumstances including those stated below that wholly or partly prevents or unavoidably delays an Affected Party in the performance of its obligations under this Agreement, but only if and to the extent that such events or circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided if the Affected Party had taken reasonable care or complied with Prudent Utility Practices:

(a) Natural Force Majeure Events:

act of God, including, but not limited to drought, fire and explosion (to the extent originating from a source external to the Site), earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred (100) years,



KTL



RSPPL

(b) Non-Natural Force Majeure Events:

i. Direct Non-Natural Force Majeure Events

- Nationalization or compulsory acquisition by any Indian Governmental Instrumentality of any material assets or rights of the TSP; or
- the unlawful, unreasonable or discriminatory revocation of, or refusal to renew, any Consents, Clearances and Permits required by the TSP to perform their obligations under the RFP Project Documents or any unlawful, unreasonable or discriminatory refusal to grant any other Consents, Clearances and Permits required for the development/operation of the Project, provided that a Competent Court of Law declares the revocation or refusal to be unlawful, unreasonable and discriminatory and strikes the same down; or
- any other unlawful, unreasonable or discriminatory action on the part of an Indian Governmental Instrumentality which is directed against the Project, provided that a Competent Court of Law declares the action to be unlawful, unreasonable and discriminatory and strikes the same down.

ii. Indirect Non - Natural Force Majeure Events

- act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
- radioactive contamination or ionising radiation originating from a source in India or resulting from any other Indirect Non Natural Force Majeure Event mentioned above, excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Site by the Affected Party or those employed or engaged by the Affected Party; or
- industry wide strikes and labour disturbances, having a nationwide impact in India.


KTL
RSPPL

11.4 Force Majeure Exclusions

- 11.4.1 Force Majeure shall not include (i) any event or circumstance which is within the reasonable control of the Parties and (ii) the following conditions, except to the extent that they are consequences of an event of Force Majeure:
- (a) Unavailability, late delivery, or changes in cost of the machinery, equipment, materials, spare parts etc. for the Project;
 - (b) Delay in the performance of any Contractors or their agents;
 - (c) Non-performance resulting from normal wear and tear typically experienced in transmission materials and equipment;
 - (d) Strikes or labour disturbance at the facilities of the Affected Party;
 - (e) Insufficiency of finances or funds or the Agreement becoming onerous to perform; and
 - (f) Non-performance caused by, or connected with, the Affected Party's:
 - i. negligent or intentional acts, errors or omissions;
 - ii. failure to comply with an Indian Law; or
 - iii. breach of, or default under this Agreement or any Project Documents.

11.5 Notification of Force Majeure Event

- 115.1 The Affected Party shall give notice to the other Party of any event of Force Majeure as soon as reasonably practicable, but not later than seven (7) days after the date on which such Party knew or should reasonably have known of the commencement of the event of Force Majeure. If an event of Force Majeure results in a breakdown of communications rendering it unreasonable to give notice within the applicable time limit specified herein, then the Party claiming Force Majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than one (1) day after such reinstatement.

Provided that such notice shall be a pre-condition to the Affected Party's entitlement to claim relief under this Agreement. Such notice shall include full particulars of the event of Force Majeure, its effects on the Party claiming relief



KTL



RSPPL

and the remedial measures proposed. The Affected Party shall give the other Party regular reports on the progress of those remedial measures and such other information as the other Party may reasonably request about the Force Majeure.

- 11.5.2 The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of Force Majeure; and (ii) the cessation of the effects of such event of Force Majeure on the performance of its rights or obligations under this Agreement, as soon as practicable after becoming aware of each of these cessations.

11.6 Duty to perform and duty to mitigate

To the extent not prevented by a Force Majeure Event, the Affected Party shall continue to perform its obligations as provided in this Agreement. The Affected Party shall use its reasonable efforts to mitigate the effect of any event of Force Majeure as soon as practicable.

11.7 Available Relief for a Force Majeure Event

Subject to this Article 11

- (a) no Party shall be in breach of its obligations pursuant to this Agreement except to the extent that the performance of its obligations was prevented, hindered or delayed due to a Force Majeure Event;
- (b) every Party shall be entitled to claim relief for a Force Majeure Event affecting its performance in relation to its obligations under this Agreement.
- (c) For the avoidance of doubt, it is clarified that the computation of Availability of the Element(s) under outage due to Force Majeure Event, as per Article 11.3 affecting the TSP shall be as per Appendix II to the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019, as on seven (7) days prior to the Bid Deadline. For the event(s) for which the Element(s) is/are deemed to be available as per Appendix II to the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019, then only the Non Escalable Transmission Charges, as applicable to such Element(s) in the relevant Contract Year, shall be paid by the Long Term Transmission Customers as per Schedule 5, for the duration of such event(s).
- (d) For so long as the TSP is claiming relief due to any Force Majeure Event under this Agreement, the Lead Long Term Transmission Customer may, from time to time on one (1) day notice, inspect the Project and the TSP shall provide the Lead Long Term Transmission Customer's



KTLL



RSPPL

personnel with access to the Project to carry out such inspections, subject to the Lead Long Term Transmission Customer's personnel complying with all reasonable safety precautions and standards.


KTL

Kallam Transmission Limited


RSPPL

Page 58 of 145

ARTICLE: 12

12 CHANGE IN LAW

12.1 Change in Law

12.1.1 Change in Law means the occurrence of any of the following after the date, which is seven (7) days prior to the Bid Deadline resulting into any additional recurring / non-recurring expenditure by the TSP or any income to the TSP:

- the enactment, coming into effect, adoption, promulgation, amendment, modification or repeal (without re-enactment or consolidation) in India, of any Law, including rules and regulations framed pursuant to such Law;
- a change in the interpretation or application of any Law by any Indian Governmental Instrumentality having the legal power to interpret or apply such Law, or any Competent Court of Law;
- the imposition of a requirement for obtaining any Consents, Clearances and Permits which was not required earlier;
- a change in the terms and conditions prescribed for obtaining any Consents, Clearances and Permits or the inclusion of any new terms or conditions for obtaining such Consents, Clearances and Permits;
- any change in the licensing regulations of the Appropriate Commission, under which the Transmission License for the Project was granted if made applicable by such Appropriate Commission to the TSP;
- any change in the Acquisition Price; or
- any change in tax or introduction of any tax made applicable for providing Transmission Service by the TSP as per the terms of this Agreement.

12.1.2 Notwithstanding anything contained in this Agreement, Change in Law shall not cover any change:

- a. on account of regulatory measures by the Appropriate Commission including calculation of Availability; and
- b. in any tax applied on the income or profits of the TSP.


KTL

Kallam Transmission Limited

RSPPL



Page 59 of 145

12.2 Relief for Change in Law**12.2.1 During Construction Period:**

During the Construction Period, the impact of increase/decrease in the cost of the Project in the Transmission Charges shall be governed by the formula given below:

- For every cumulative increase/decrease of each Rupees Seventy Seven Lakh Only (Rs. 0.77 Crore) in the cost of the Project up to the Scheduled COD of the Project, the increase/decrease in Non-Escalable Transmission Charges shall be an amount equal to Zero Point Three One Three percent (0.313%) of the Non-Escalable Transmission Charges.

12.2.2 During the Operation Period:

During the Operation Period, the compensation for any increase/decrease in revenues shall be determined and effective from such date, as decided by the Appropriate Commission whose decision shall be final and binding on both the Parties, subject to rights of appeal provided under applicable Law.

Provided that the above mentioned compensation shall be payable only if the increase/decrease in revenues or cost to the TSP is in excess of an amount equivalent to one percent (1%) of Transmission Charges in aggregate for a Contract Year.

12.2.3 For any claims made under Articles 12.2.1 and 12.2.2 above, the TSP shall provide to the Long Term Transmission Customers and the Appropriate Commission documentary proof of such increase/decrease in cost of the Project/revenue for establishing the impact of such Change in Law.

12.2.4 The decision of the Appropriate Commission, with regards to the determination of the compensation mentioned above in Articles 12.2.1 and 12.2.2, and the date from which such compensation shall become effective, shall be final and binding on both the Parties subject to rights of appeal provided under applicable Law.

12.3 Notification of Change in Law:

12.3.1 If the TSP is affected by a Change in Law in accordance with Article 12.1 and wishes to claim relief for such Change in Law under this Article 12, it shall give notice to Lead Long Term Transmission Customer of such Change in Law as soon as reasonably practicable after becoming aware of the same.



KTL



RSPPL

1232 The TSP shall also be obliged to serve a notice to Lead Long Term Transmission Customer even when it is beneficially affected by a Change in Law.

1233 Any notice served pursuant to Articles 12.3.1 and 12.3.2 shall provide, amongst other things, precise details of the Change in Law and its effect on the TSP.

12.4 Payment on account of Change in Law

124.1 The payment for Change in Law shall be through Supplementary Bill as mentioned in Article 10.10. However, in case of any change in Monthly Transmission Charges by reason of Change in Law, as determined in accordance with this Agreement, the Monthly Invoice to be raised by the TSP after such change in Transmission Charges shall appropriately reflect the changed Monthly Transmission Charges.


KTL


RSPPL

ARTICLE: 13**13 EVENTS OF DEFAULT AND TERMINATION****13.1 TSP Event of Default**

The occurrence and continuation of any of the following events shall constitute a TSP Event of Default, unless any such TSP Event of Default occurs as a result of a breach by the Long Term Transmission Customers of their obligations under this Agreement, the Long Term Transmission Customers Event of Default or a Force Majeure Event:

- a. After having taken up the construction of the Project, the abandonment by the TSP or the TSP's Contractors of the construction of the Project for a continuous period of two (2) months and such default is not rectified within thirty (30) days from the receipt of notice from the Lead Long Term Transmission Customer in this regard;
- b. The failure to commission any Element of the Project by the date falling six (6) months after its Scheduled COD;
- c. If the TSP:
 - i. assigns, mortgages or charges or purports to assign, mortgage or charge any of its assets or rights related to the Project in contravention of the provisions of this Agreement; or
 - ii. transfers or novates any of its obligations pursuant to this Agreement, in a manner contrary to the provisions of this Agreement;

except where such transfer is in pursuance of a Law and

- it does not affect the ability of the transferee to perform, and such transferee has the financial and technical capability to perform, its obligations under this Agreement;
 - is to a transferee who assumes such obligations under the Project and this Agreement remains effective with respect to the transferee;
- d. If:
 - i. The TSP becomes voluntarily or involuntarily the subject


 KTL


 RSPPL

of any bankruptcy or insolvency or winding up proceedings and such proceedings remain uncontested for a period of thirty (30) days; or

- ii. any winding up or bankruptcy or insolvency order is passed against the TSP; or
- iii. the TSP goes into liquidation or dissolution or a receiver or any similar officer is appointed over all or substantially all of its assets or official liquidator is appointed to manage its affairs, pursuant to Law,

Provided that a dissolution or liquidation of the TSP will not be a TSP Event of Default where such dissolution or liquidation of the TSP is for the purpose of a merger, consolidation or reorganization with the prior approval of the Appropriate Commission as per the provisions of Central Electricity Regulatory Commission (Procedure, terms and Conditions for grant of Transmission License and other related matters) Regulations, 2009 or as amended from time to time; or

- e. Revocation of the Transmission License of TSP; or
- f. Non-payment of i) an amount exceeding Rupees Fifty (50) lakhs required to be paid to the Long Term Transmission Customers under this Agreement within three (3) months after the Due Date of an undisputed Invoice raised by the said Long Term Transmission Customer(s) on the TSP or ii) an amount up to Rupees Fifty (50) lakhs required to be made to the Long Term Transmission Customers under this Agreement within six (6) months after the Due Date of an undisputed Invoice; or
- g. Failure on the part of the TSP to comply with the provisions of Article 18.2 of this Agreement; or
- h. the TSP repudiates this Agreement and does not rectify such breach even within a period of thirty (30) days from a notice from the Lead Long Term Transmission Customer in this regard; or
- i. after Commercial Operation Date of the Project, the TSP fails to achieve monthly Target Availability of 98%, for a period of six (6) consecutive months or within a non-consecutive period of six (6) months within any continuous aggregate period of eighteen(18) months except where the Availability is affected by Force Majeure Events as per Article 11; or
- j. any of the representations and warranties made by the TSP in Article 17


KTL


RSPPL

of this Agreement being found to be untrue or inaccurate. Further, in addition to the above, any of the undertakings submitted by the Selected Bidder at the time of submission of the Bid being found to be breached or inaccurate, including but not limited to undertakings from its Parent Company/ Affiliates related to the minimum equity obligation; or

- k. the TSP fails to complete/fulfil all the activities/conditions within the specified period as per Article 3 ; or
- l. except where due to any Long Term Transmission Customer's failure to comply with its obligations, the TSP is in material breach of any of its obligations under this Agreement and such material breach is not rectified by the TSP within thirty (30) days of receipt of notice in this regard from the Majority Long Term Transmission Customers; or
- m. the TSP fails to take the possession of the land required for location specific substations, switching stations or HVDC terminal or inverter stations and/or fails to pay the requisite price to the parties and/or any State Government authority from whom the land is acquired, within twelve (12) months from the Effective Date.

13.2 Long Term Transmission Customers' Event of Default

The occurrence and continuation of any of the following events shall constitute a Long Term Transmission Customers' Event of Default, unless any such Long Term Transmission Customers' Event of Default occurs as a result of a breach by the TSP of its obligations under this Agreement, a TSP Event of Default or a Force Majeure Event:

- a. a Long Term Transmission Customer fails to pay (with respect to a Monthly Bill or Supplementary Bill) an amount exceeding thirty percent (30%) of the most recent undisputed Monthly Bill, for a period of ninety (90) days after the Due Date and the TSP is unable to recover the amount outstanding to the TSP through the Letter of Credit; or
- b. the Long Term Transmission Customer repudiates this Agreement and does not rectify such breach even within a period of thirty (30) days from a notice from the TSP in this regard; or
- c. except where due to the TSP's failure to comply with its obligations, the Long Term Transmission Customers are in material breach of any of their obligations under this Agreement and such material breach is not rectified by the Long Term Transmission Customer within thirty (30) days of receipt of notice in this regard from the TSP to all the Long Term



KTL



RSPPL

Transmission Customers; or

- d any of the representations and warranties made by the Long Term Transmission Customers in Article 17 of this Agreement being found to be untrue or inaccurate; or
- e If:
 - i. any Long Term Transmission Customer becomes voluntarily or involuntarily the subject of any bankruptcy or insolvency or winding up proceedings and such proceedings remain uncontested for a period of thirty (30) days; or
 - ii. any winding up or bankruptcy or insolvency order is passed against the Long Term Transmission Customer; or
 - iii. the Long Term Transmission Customer goes into liquidation or dissolution or a receiver or any similar officer is appointed over all or substantially all of its assets or official liquidator is appointed to manage its affairs, pursuant to Law,

Provided that it shall not constitute a Long Term Transmission Customer Event of Default where such dissolution or liquidation of such Long Term Transmission Customer is for the purpose of a merger, consolidation or reorganization and where the resulting entity has the financial standing to perform its obligations under this Agreement, similar to such Long Term Transmission Customer and expressly assumes all obligations of such Long Term Transmission Customer under this Agreement and is in a position to perform them;

13.3 **Termination Procedure for TSP Event of Default**

- a Upon the occurrence and continuance of any TSP's Event of Default under Article 13.1 the Majority Long Term Transmission Customers, through the Lead Long Term Transmission Customer, may serve notice on the TSP, with a copy to the Appropriate Commission and the Lenders' Representative, of their intention to terminate this Agreement (a "Long Term Transmission Customer's Preliminary Termination Notice"), which shall specify in reasonable detail, the circumstances giving rise to such Long Term Transmission Customer's Preliminary Termination Notice.
- b Following the issue of a Long Term Transmission Customer's Preliminary Termination Notice, the Consultation Period shall apply and would be for the Parties to discuss as to what steps shall be taken with a view to


KTL


RSPPL

mitigate the consequences of the relevant Event of Default having regard to all the circumstances.

- c. During the Consultation Period, the Parties shall, save as otherwise provided in this Agreement, continue to perform their respective obligations under this Agreement, and the TSP shall not remove any material, equipment or any part of the Project, without prior consent of the Lead Long Term Transmission Customer.
- d. Following the expiry of the Consultation Period, unless the Parties shall have otherwise agreed to the contrary or the circumstances giving rise to Long Term Transmission Customers Preliminary Termination Notice shall have ceased to exist or shall have been remedied, the Long Term Transmission Customers may terminate this Agreement by giving written notice of thirty (30) days ("Long Term Transmission Customers' Termination Notice") to the TSP, with a copy to the Lenders' Representative and the Appropriate Commission. Unless the Lenders have exercised their rights of substitution as per the provisions of Article 15.3 of this Agreement and the Appropriate Commission has agreed to such substitution rights of the Lenders or otherwise directed by the Appropriate Commission, this Agreement shall terminate on the date of expiry of such Long Term Transmission Customers' Termination Notice. Upon termination of the Agreement, the Lead Long Term Transmission Customer shall approach the Appropriate Commission seeking revocation of the Transmission License and further action as per the provisions of the Electricity Act, 2003.

13.4 Termination Procedure for Long Term Transmission Customers Event of Default

- a. Upon the occurrence of a Long Term Transmission Customers Event of Default under Article 13.2, the TSP may serve notice on Long Term Transmission Customers, with a copy to the Appropriate Commission and the Lenders' Representative, of its intention to terminate this Agreement (a "TSP's Preliminary Termination Notice"), which notice shall specify in reasonable detail the circumstances giving rise to such TSP's Preliminary termination Notice.
- b. Following the issue of a TSP's Preliminary Termination Notice, the Consultation Period shall apply.
- c. The Consultation Period would be for the Parties to discuss as to what steps shall be taken with a view to mitigate the consequences of the relevant Event of Default having regard to all the circumstances.


KTL


RSPPL

- d. During the Consultation Period, both Parties shall, save as otherwise provided in this Agreement, continue to perform their respective obligations under this Agreement.
- e. Following the expiry of the Consultation Period, unless the Parties shall have otherwise agreed or the circumstances giving rise to the TSP Preliminary Termination Notice shall have ceased to exist or shall have been remedied, the TSP may terminate this Agreement by giving written notice of thirty (30) days ("TSP's Termination Notice") to the Lead Long Term Transmission Customer, with a copy to the Lenders' Representative and the Appropriate Commission. Unless the Lenders have exercised their rights for substitution as per provisions of Article 15.3 of this Agreement and the Appropriate Commission has agreed to such substitution rights of the Lenders or otherwise directed by the Appropriate Commission, this Agreement shall terminate on the date of expiry of such Termination Notice.

13.5 Termination due to Force Majeure

In case the Parties could not reach an agreement pursuant to Article 4.4.2 of this Agreement and the Force Majeure Event or its effects continue to be present, either Party shall have the right to cause termination of the Agreement. The Long Term Transmission Customers shall also have the right to cause termination of the Agreement and to approach the Appropriate Commission to seek further directions in this regard. In such an event, subject to the terms and conditions of the

Financing Agreements, this Agreement shall terminate on the date of such Termination Notice. In case of such termination, the Contract Performance Guarantee shall be returned to the TSP as per the provisions of Article 6.5.2.

- 13.5.1 In case of termination of this Agreement, the TSP shall provide to the Lead Long Term Transmission Customer the full names and addresses of its Contractors as well as complete designs, design drawings, manufacturing drawings, material specifications and technical information, as required by the Long Term Transmission Customers within 30 (thirty) days of Termination Notice.

13.6 Revocation of the Transmission License

- 13.6.1 The Appropriate Commission may, as per the provisions of the Electricity Act, 2003, revoke the Transmission License of the TSP. In the event of the revocation of the Transmission License, the Appropriate Commission would take necessary steps as per the provisions of the Electricity Act, 2003. Further



KTL



RSPPL

the Long Term Transmission Customers reserve the right to terminate the Agreement in the event of the revocation of the Transmission License of the TSP by the Appropriate Commission.



KTL

Kallam Transmission Limited



RSPPL

Page 68 of 145

ARTICLE: 14**14 LIABILITY AND INDEMNIFICATION****14.1 Indemnity**

14.1.1 The TSP shall indemnify, defend and hold each Long Term Transmission Customer harmless against:

- (a) any and all third party claims, actions, suits or proceedings against the Long Term Transmission Customers for any loss of or damage to property of such third party, or death or injury to such third party, arising out of a breach by the TSP of any of its obligations under this Agreement, except to the extent that any such claim, action, suit or proceeding has arisen due to a negligent act or omission, breach of this Agreement or breach of statutory duty on the part of Long Term Transmission Customers, its contractors, servants or agents; and
- (b) any and all losses, damages, costs and expenses including legal costs, fines, penalties and interest actually suffered or incurred by Long Term Transmission Customers from third party claims arising by reason of:
 - i a breach by the TSP of any of its obligations under this Agreement, (provided that this Article 14 shall not apply to such breaches by the TSP, for which specific remedies have been provided for under this Agreement) except to the extent that any such losses, damages, costs and expenses including legal costs, fines, penalties and interest (together to constitute "Indemnifiable Losses") has arisen due to a negligent act or omission, breach of this Agreement or breach of statutory duty on the part of Long Term Transmission Customers, its contractors, servants or agents or
 - i any of the representations and warranties of the TSP under this Agreement being found to be inaccurate or untrue.

14.1.2 Each of the Long Term Transmission Customers shall indemnify, defend and hold the TSP harmless against:

- (a) any and all third party claims, actions, suits or proceedings against the TSP, for any loss of or damage to property of such third party, or death or injury to such third party, arising out of a breach by the Long Term



KUL



RSPPL

Transmission Customers of any of their obligations under this Agreement except to the extent that any such claim, action, suit or proceeding has arisen due to a negligent act or omission, breach of this Agreement or breach of statutory duty on the part of the TSP, its Contractors, servants or agents; and

- (b) any and all losses, damages, costs and expenses including legal costs, fines, penalties and interest ('Indemnifiable Losses') actually suffered or incurred by the TSP from third party claims arising by reason of:
 - i a breach by the Long Term Transmission Customers of any of their obligations under this Agreement (Provided that this Article 14 shall not apply to such breaches by Long Term Transmission Customers, for which specific remedies have been provided for under this Agreement.), except to the extent that any such Indemnifiable Losses have arisen due to a negligent act or omission, breach of this Agreement or breach of statutory duty on the part of the TSP, its Contractors, servants or agents or
 - i any of the representations and warranties of the Long Term Transmission Customers under this Agreement being found to be inaccurate or untrue.

14.2 Patent Indemnity:

14.2.1

- (a) The TSP shall, subject to the Long Term Transmission Customers compliance with Article 14.2.1 (b), indemnify and hold harmless the Long Term Transmission Customers and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Long Term Transmission Customers may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Agreement by reason of the setting up of the Project by the TSP.

Such indemnity shall not cover any use of the Project or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Agreement, any infringement resulting from the misuse of the Project or any part thereof, or any products produced in association or



KTL



RSPPL

combination with any other equipment, plant or materials not supplied by the TSP, pursuant to the Agreement.

- (b) If any proceedings are brought or any claim is made against the Long Term Transmission Customers arising out of the matters referred to in Article 14.2.1 (a), the Lead Long Term Transmission Customer shall promptly give the TSP a notice thereof, and the TSP shall at its own expense take necessary steps and attend such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. The TSP shall promptly notify the Lead Long Term Transmission Customer of all actions taken in such proceedings or claims.
- (c) If the TSP fails to notify the Lead Long Term Transmission Customer within twenty-eight (28) days after receipt of such notice from the Long Term Transmission Customers under Article 14.2.1 (b) above, that it intends to attend any such proceedings or claim, then the Long Term Transmission Customers shall be free to attend the same on their own behalf at the cost of the TSP. Unless the TSP has so failed to notify the Lead Long Term Transmission Customer within the twenty eight (28) days period, the Lead Long Term Transmission Customer shall make no admission that may be prejudicial to the defence of any such proceedings or claims
- (d) The Lead Long Term Transmission Customer shall, at the TSP's request, afford all available assistance to the TSP in attending to such proceedings or claim, and shall be reimbursed by the TSP for all reasonable expenses incurred in so doing.

14.2.2

- (a) The Long Term Transmission Customers, subject to the TSP's compliance with Article 14.2.2 (b) shall indemnify and hold harmless the TSP and its employees, officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs and expenses of whatsoever nature, including attorney's fees and expenses, which the TSP may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Agreement by reason of the setting up of the Project by the TSP.
- (b) If any proceedings are brought or any claim is made against the TSP



KPL



RSPPL

arising out of the matters referred to in Article 14.2.2 (a) the TSP shall promptly give the Lead Long Term Transmission Customer a notice thereof, and the Long Term Transmission Customers shall at its own expense take necessary steps and attend such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. The Lead Long Term Transmission Customer shall promptly notify the TSP of all actions taken in such proceedings or claims.

- (c) If the Lead Long Term Transmission Customer fails to notify the TSP within twenty-eight (28) days after receipt of such notice from the TSP under Article 14.2.2 (b) above, that it intends to attend any such proceedings or claim, then the TSP shall be free to attend the same on its own behalf at the cost of the Long Term Transmission Customers. Unless the Lead Long Term Transmission Customer has so failed to notify the TSP within the twenty (28) days period, the TSP shall make no admission that may be prejudicial to the defence of any such proceedings or claim.
- (d) The TSP shall, at the Long Term Transmission Customers request, afford all available assistance to the Long Term Transmission Customers in attending to such proceedings or claim, and shall be reimbursed by the Long Term Transmission Customers for all reasonable expenses incurred in so doing.

14.3 Monetary Limitation of liability

- 14.3.1 A Party ("Indemnifying Party") shall be liable to indemnify the other Party ("Indemnified Party") under this Article 14 for any indemnity claims made in a Contract Year only up to an amount of Rs. 0.84 Crore (Rupees Eighty Four Lakh Only). With respect to each Long Term Transmission Customer, the above limit of Rs. 0.84 Crore (Rupees Eighty Four Lakh Only) shall be divided in the ratio of their Allocated Project Capacity, as existing on the date of the indemnity claim.

14.4 Procedure for claiming indemnity

- 14.4.1 Where the Indemnified Party is entitled to indemnification from the Indemnifying Party pursuant to Articles 14.1 or 14.2 the Indemnified Party shall promptly notify the Indemnifying Party of such claim, proceeding, action or suit referred to in Articles 14.1 or 14.2 in respect of which it is entitled to be indemnified. Such notice shall be given as soon as reasonably practicable after the Indemnified Party becomes aware of such claim, proceeding, action or suit. The Indemnifying Party shall be liable to settle the indemnification claim within thirty (30) days of receipt of the above notice.



KTL



RSPPL

Provided however that, if:

- i. the Parties choose to contest, defend or litigate such claim, action, suit or proceedings in accordance with Article 14.4.3 below; and
- ii. the claim amount is not required to be paid/deposited to such third party pending the resolution of the Dispute,

the Indemnifying Party shall become liable to pay the claim amount to the Indemnified Party or to the third party, as the case may be, promptly following the resolution of the Dispute, if such Dispute is settled in favour of the Indemnified Party.

14.4.2 The Indemnified Party may contest, defend and litigate a claim, action, suit or proceeding for which it is entitled to be indemnified under Articles 14.1 or 14.2 and the Indemnifying Party shall reimburse to the Indemnified Party all reasonable costs and expenses incurred by the Indemnified Party. However, such Indemnified Party shall not settle or compromise such claim, action, suit or proceedings without first getting the consent of the Indemnifying Party, which consent shall not be unreasonably withheld or delayed.

14.4.3 An Indemnifying Party may, at its own expense, assume control of the defence of any proceedings brought against the Indemnified Party if it acknowledges its obligation to indemnify such Indemnified Party, gives such Indemnified Party prompt notice of its intention to assume control of the defence, and employs an independent legal counsel at its own cost that is reasonably satisfactory to the Indemnified Party.

14.5 Limitation on Liability

14.5.1 Except as expressly provided in this Agreement, neither the TSP nor the Long Term Transmission Customers nor their respective officers, directors, agents, employees or Affiliates (including, officers, directors, agents or employees of such Affiliates), shall be liable or responsible to the other Party or its Affiliates including its officers, directors, agents, employees, successors, insurers or permitted assigns for incidental, indirect or consequential, punitive or exemplary damages, connected with or resulting from performance or non-performance of this Agreement, or anything done in connection herewith, including claims in the nature of lost revenues, income or profits (other than payments expressly required and properly due under this Agreement), any increased expense of, reduction in or loss of transmission capacity or equipment used therefore, irrespective of whether such claims are based upon breach of warranty, tort (including negligence, whether of the Long Term Transmission Customers, the


KTL

Kallam Transmission Limited

RSPPL



Page 73 of 145

TSP or others), strict liability, contract, breach of statutory duty, operation of law or otherwise.

1452 The Long Term Transmission Customers shall have no recourse against any officer, director or shareholder of the TSP or any Affiliate of the TSP or any of its officers, directors or shareholders for such claims excluded under this Article. The TSP shall also have no recourse against any officer, director or shareholder of Long Term Transmission Customers, or any Affiliate of Long Term Transmission Customers or any of its officers, directors or shareholders for such claims excluded under this Article.

14.6 Duty to Mitigate

The party entitled to the benefit of an indemnity under this Article 14 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.



KTL

Kallam Transmission Limited



RSPPL

Page 74 of 145

ARTICLE: 15**15 ASSIGNMENTS AND CHARGES****15.1 Assignments:**

15.1.1 This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns. This Agreement shall not be assigned by any Party, except as provided in Article 15.2.4.

15.2 Permitted Charges:

15.2.1 Neither Party shall create or permit to subsist any encumbrance over all or any of its rights and benefits under this Agreement.

15.2.2 However, the TSP may create any encumbrance over all or part of the receivables, Letter of Credit or the other assets of the Project in favour of the Lenders or the Lenders' Representative on their behalf, as security for amounts payable under the Financing Agreements and any other amounts agreed by the Parties.

Provided that:

- i. the Lenders or the Lenders' Representative on their behalf shall have entered into the Financing Agreements and agreed in writing to the provisions of this Agreement; and
- ii. any encumbrance granted by the TSP in accordance with this Article 15.2.2 shall contain provisions pursuant to which the Lenders or the Lender's Representative on their behalf agrees unconditionally with the TSP to release from such encumbrances upon payment by the TSP to the Lenders of all amounts due under the Financing Agreements.

15.2.3 Article 15.2.1 does not apply to:

- a. liens arising by operation of Law (or by an agreement evidencing the same) in the ordinary course of the TSP carrying out the Project;
- b. pledges of goods, the related documents of title and / or other related documents, arising or created in the ordinary course of the TSP carrying out the Project; or
- c. security arising out of retention of title provisions in relation to goods


KTL

RSPPL

acquired in the ordinary course of the TSP carrying out the Project.

- 15.2.4 Neither the TSP nor any of the Long Term Transmission Customers can relinquish or transfer its rights and obligations, without prior approval of the Appropriate Commission.

15.3 Substitution Rights of the Lenders

- 153.1 The TSP would need to operate and maintain the Project under the provisions of the Transmission License granted by the Appropriate Commission and the provisions of this Agreement and can not assign the Transmission License or transfer the Project or part thereof to any person by sale, lease, exchange or otherwise, without the prior approval of the Appropriate Commission.

- 153.2 However, in the case of default by the TSP in debt repayments, the Appropriate Commission may, on an application from the Lenders, assign the Transmission License to the nominee of the Lenders subject to the fulfilment of the qualification requirements and provisions of the Central Electricity Regulatory Commission (Procedure, terms and Conditions for grant of Transmission License and other related matters) Regulations, 2009 or as amended from time to time.



KTL



RSPPL

ARTICLE: 16**16 GOVERNING LAW AND DISPUTE RESOLUTION****16.1 Governing Law:**

This Agreement shall be governed by and construed in accordance with the Laws of India. Any legal proceedings in respect of any matters, claims or disputes under this Agreement shall be under the jurisdiction of appropriate courts in New Delhi, India.

16.2 Amicable Settlement:

16.2.1 Either Party is entitled to raise any claim, dispute or difference of whatever nature arising under, out of or in connection with this Agreement, including its existence or validity or termination or whether during the execution of the Project or after its completion and whether prior to or after the abandonment of the Project or termination or breach of the Agreement by giving a written notice to the other Party, which shall contain:

- (i) a description of the Dispute;
- (ii) the grounds for such Dispute; and
- (iii) all written material in support of its claim.

16.2.2 The other Party shall, within thirty (30) days of issue of notice issued under Article 16.2.1, furnish:

- (i) counter-claim and defences, if any, regarding the Dispute; and
- (ii) all written material in support of its defences and counter-claim.

16.2.3 Within thirty (30) days of issue of notice by the Party pursuant to Article 16.2.1 if the other Party does not furnish any counter claim or defense under Article 16.2.2, or thirty (30) days from the date of furnishing counter claims or defence by the other Party, both the Parties to the Dispute shall meet to settle such Dispute amicably. If the Parties fail to resolve the Dispute amicably within thirty (30) days from the later of the dates mentioned in this Article 16.2.3, the Dispute shall be referred for dispute resolution in accordance with Article 16.3.


KTL
RSPPL

16.3 Dispute Resolution:

16.3.1 Where any Dispute

- i. arises from a claim made by any Party regarding any provisions of this Agreement, , or
- ii. relates to any matter agreed to be referred to the Appropriate Commission, including those under Articles, 2.2.1, 2.3.1, 3.3.5, 5.1.2, 7.1.4, 7.1.5, 9.3.3, 10.9.6, 12.1.1, 12.2, 13, 15.2.4, 15.3, 16.3.3, and 18.17.1 hereof

such Dispute shall be submitted to adjudication by the Appropriate Commission.

Appeal against the decisions of the Appropriate Commission shall be admissible only as per the provisions of the Electricity Act, 2003, as amended from time to time.

16.3.2 The obligations of the Long Term Transmission Customers under this Agreement towards the TSP shall not be affected in any manner by reason of inter-se disputes amongst the Long Term Transmission Customers.

16.3.3 Where any dispute is referred by the Appropriate Commission to be settled through arbitration process, such Dispute shall be resolved by arbitration under the Indian Arbitration and Conciliation Act, 1996 and the Rules of the Indian Council of Arbitration, in accordance with the process specified in this Article.

- (i) The Arbitration Tribunal shall consist of three arbitrators to be appointed in accordance with the Indian Council of Arbitration Rules
- (ii) The place of arbitration shall be New Delhi, India. The language of the arbitration shall be English.
- (iii) The Arbitration Tribunal's award shall be substantiated in writing. The Arbitration Tribunal shall also decide on the costs of the arbitration proceedings and the allocation thereof.
- (iv) The award shall be enforceable in any court having jurisdiction, subject to the applicable Laws.
- (v) The provisions of this Article shall survive the termination of this Agreement for any reason whatsoever.



KTL



RSPPL

16.4 Parties to Perform Obligations:

Notwithstanding the existence of any Dispute and difference referred to the Appropriate Commission or the Arbitration Tribunal as provided in Article 16.3 and save as the Appropriate Commission or the Arbitration Tribunal may otherwise direct by a final or interim order, the Parties hereto shall continue to perform their respective obligations (which are not in dispute) under this Agreement.



KPL

Kallam Transmission Limited



RSPPL

Page 79 of 145

ARTICLE: 17**17 REPRESENTATION AND WARRANTIES****17.1 Representation and warranties of the Long Term Transmission Customers**

17.1.1 Each Long Term Transmission Customer hereby represents and warrants to and agrees with the TSP as follows and acknowledges and confirms that the TSP is relying on such representations and warranties in connection with the transactions described in this Agreement:

- a. It has all requisite powers and has been duly authorized to execute and consummate this Agreement;
- b. This Agreement is enforceable against the said Long Term Transmission Customer in accordance with its terms;
- c. The consummation of the transactions contemplated by this Agreement on the part of said Long Term Transmission Customer will not violate any provision of nor constitute a default under, nor give rise to a power to cancel any charter, mortgage, deed of trust or lien, lease, agreement, license, permit, evidence of indebtedness, restriction, or other contract to which the said Long Term Transmission Customer is a Party or to which the said Long Term Transmission Customer is bound, which violation, default or power has not been waived;
- d. The said Long Term Transmission Customer is not insolvent and no insolvency proceedings have been instituted, nor threatened or pending by or against the said Long Term Transmission Customer;
- e. There are no actions, suits, claims, proceedings or investigations pending or, to the best of the said Long Term Transmission Customer's knowledge, threatened in writing against the said Long Term Transmission Customer at law, in equity, or otherwise, and whether civil or criminal in nature, before or by, any court, commission, arbitrator or governmental agency or authority, and there are no outstanding judgements, decrees or orders of any such courts, commission, arbitrator or governmental agencies or authorities, which materially adversely affect its ability to comply with its obligations under this Agreement;

17.1.2 Each of the said Long Term Transmission Customer makes all the representations and warranties above to be valid as on the date of this Agreement.


KTL


RSPPL

17.2 Representation and Warranties of the TSP:

- 17.2.1 The TSP hereby represents and warrants to and agrees with the Long Term Transmission Customers as follows and acknowledges and confirms that the Long Term Transmission Customers is relying on such representations and warranties in connection with the transactions described in this Agreement:
- a. It has all requisite powers and has been duly authorized to execute and consummate this Agreement;
 - b. This Agreement is enforceable against it in accordance with its terms;
 - c. The consummation of the transactions contemplated by this Agreement on the part of the TSP will not violate any provision of nor constitute a default under, nor give rise to a power to cancel any charter, mortgage, deed of trust or lien, lease, agreement, license, permit, evidence of indebtedness, restriction, or other contract to which the TSP is a Party or to which the TSP is bound which violation, default or power has not been waived;
 - d. The TSP is not insolvent and no insolvency proceedings have been instituted, nor threatened or pending by or against the TSP;
 - e. There are no actions, suits, claims, proceedings or investigations pending or, to the best of the TSP's knowledge, threatened in writing against the TSP at law, in equity, or otherwise, and whether civil or criminal in nature, before or by, any court, commission, arbitrator or governmental agency or authority, and there are no outstanding judgments, decrees or orders of any such courts, commission, arbitrator or governmental agencies or authorities, which materially adversely affect its ability to execute the Project or to comply with its obligations under this Agreement.
 - f. deleted.
 - g. The TSP makes all the representations and warranties above to be valid as on the date of this Agreement.
- 17.2.2 The TSP makes all the representations and warranties above to be valid as on the date of this Agreement.



KTL



RSPPL

ARTICLE: 18

18 MISCELLANEOUS PROVISIONS

18.1 Lead Long Term Transmission Customer:

18.1.1 The Long Term Transmission Customers hereby appoint and authorize "Renew Solar Power Private Limited" to represent all the Long Term Transmission Customers for discharging the rights and obligations of the Long Term Transmission Customers, which are required to be undertaken by all the Long Term Transmission Customers. All the Long Term Transmission Customers shall follow and be bound by the decisions of the Lead Long Term Transmission Customer on all matters specified in the Schedule 8 of this Agreement. Accordingly, each Long Term Transmission Customer agrees that any decision, communication, notice, action or inaction of the Lead Long Term Transmission Customer on such matters shall be deemed to have been on its/his behalf and shall be binding on each of the Long Term Transmission Customer. The TSP shall be entitled to rely upon any such action, decision or communication or notice from the Lead Long Term Transmission Customer. It is clarified that provisions under this Article 18.1 are not intended to and shall not render the Lead Long Term Transmission Customer liable to discharge Transmission Charges payments due to TSP from the other Long Term Transmission Customers.

18.1.2 The Long Term Transmission Customers hereby also appoint and authorise _____ [hereinafter referred to as the "Alternate Lead Long Term Transmission Customer"], to act as Lead Long Term Transmission Customer as per the provisions of this Article 18.1.2, on the occurrence of any Event of Default specified in Article 13 by the Lead Long Term Transmission Customer. In such an event, the TSP may, at its option, within a period of fifteen (15) days from the date of issue of the TSP's Preliminary Termination Notice referred to in Article 13 and if the said default by the Lead Long Term Transmission Customer subsists, specify in writing to all the Long Term Transmission Customers that the Alternate Lead Long Term Transmission Customer shall thereafter act as the Lead Long Term Transmission Customer. In such a case, if the TSP so notifies, the Alternate Lead Long Term Transmission Customer shall, thereafter, act as Lead Long Term Transmission Customer for the purposes of this Agreement, and the Lead Long Term Transmission Customer earlier appointed under Article 18.1.1 shall automatically cease to be the Lead Long Term Transmission Customer. It is clarified that all decisions taken by the "Renew Solar Power Private Limited" appointed under Article 18.1.1., in its capacity as Lead Long Term Transmission Customer before such change, shall continue to be valid, in accordance with this Agreement.



KFL



RSPPL

- 18.1.3 In the event of [Insert Name of the Alternate Long Term Transmission Customer] becoming the Lead Long Term Transmission Customer as per Article 18.1.2, all the Long Term Transmission Customers shall also appoint any of Long Term Transmission Customers, other than "Renew Solar Power Private Limited", appointed under Article 18.1.1, as an Alternate Lead Long Term Transmission Customer and thereafter the provisions of Article 18.1.2 shall be applicable.
- 18.1.4 Notwithstanding anything contained above, any decision which is required to be taken by the Long Term Transmission Customers jointly under the provisions of Article 13, shall be taken by all the Long Term Transmission Customers and in case of difference amongst the Long Term Transmission Customers, the said decision shall be taken by the Majority Long Term Transmission Customers, as defined in Article 18.1.5 below.
- 18.1.5 Any decision taken by Long Term Transmission Customers, who taken together constitute sixty five percent (65%) of the Allocated Project Capacity and constitute in number at least fifty percent (50%) of the total number of Long Term Transmission Customers (hereinafter referred to as "Majority Long Term Transmission Customers"), shall be binding on the Lead Long Term Transmission Customer and all other Long Term Transmission Customers. Majority Long Term Transmission Customers shall also have the right to replace the Lead Long Term Transmission Customer by any other Long Term Transmission Customer of their choice. All decisions taken by the Majority Long Term Transmission Customers in this Agreement shall be conveyed by the Lead Long Term Transmission Customer.

18.2 Equity Lock-in Commitment:

- 1821 The aggregate equity share holding of the Selected Bidder in the issued and paid up equity share capital of Kallam Transmission Limited shall not be less than Fifty-one percent (51%) up to a period of (1) one year after COD of the Project.

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

Provided further, that in case the Selected Bidder is a Bidding Consortium, the Lead Member shall continue to hold equity of at least twenty six percent (26%) upto a period of one (1) year after COD of the Project and any 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 above.

- 1822 If equity is held by the Affiliates, Parent Company or Ultimate Parent Company


KTL


RSPPL

of the Selected Bidder, subject to the second proviso to Article 18.2.1, then such Affiliate, Parent Company or Ultimate Parent Company shall be eligible to transfer its shareholding in Kallam Transmission Limited to another Affiliate or to the Parent Company / Ultimate Parent Company of the Selected Bidder. 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 of the Selected Bidder

1823 Subject to Article 18.2.1, all transfer(s) of shareholding of Kallam Transmission Limited by any of the entities referred to in Article 18.2.1 and 18.2.2 above, shall be after prior written permission from the Lead Long Term Transmission Customer.

1824 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 Kallam Transmission Limited 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 Kallam Transmission Limited , then holding of Selected Bidder A in Kallam Transmission Limited 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 Kallam Transmission Limited , then, for the purposes of ascertaining the minimum equity/equity lock-in requirements specified above, the effective holding of Bidder A in Kallam Transmission Limited shall be fifteen percent (15%), (i.e., 30%* 50%)

1825 The provisions as contained in this Article 18.2 shall override the terms of the consortium agreement submitted as part of the Bid.

1826 The TSP shall be responsible to report, within thirty (30) days from the occurrence of any event that would result in any change in the equity holding structure from that existed as on the date of signing of the Share Purchase Agreement. In such cases, the Lead Long Term Transmission Customer would reserve the right to ascertain the equity holding structure and to call for all such required documents / information/clarifications as may be required.

18.3 Language:

183.1 All agreements, correspondence and communications between the Parties



KTL



RSPPL

relating to this Agreement and all other documentation to be prepared and supplied under the Agreement shall be written in English, and the Agreement shall be construed and interpreted in accordance with English language.

18.3.2 If any of the agreements, correspondence, communications or documents are prepared in any language other than English, the English translation of such agreements, correspondence, communications or documents shall prevail in matters of interpretation.

18.4 Affirmation

The TSP and the Long Term Transmission Customers, each affirm that:

1. neither it nor its respective directors, employees, or agents has paid or undertaken to pay or shall in the future pay any unlawful commission, bribe, pay-off or kick-back; and
2. it has not in any other manner paid any sums, whether in Indian currency or foreign currency and whether in India or abroad to the other Party to procure this Agreement, and the TSP and the Long Term Transmission Customers hereby undertake not to engage in any similar acts during the Term of Agreement.

18.5 Severability

The invalidity or enforceability, for any reason, of any part of this Agreement shall not prejudice or affect the validity or enforceability of the remainder of this Agreement, unless the part held invalid or unenforceable is fundamental to this Agreement.

18.6 Counterparts

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which collectively shall be deemed one and the same Agreement.

18.7 Breach of Obligations

The Parties acknowledge that a breach of any of the obligations contained herein would result in injuries. The Parties further acknowledge that the amount of the liquidated damages or the method of calculating the liquidated damages specified in this Agreement is a genuine and reasonable pre-estimate of the damages that may be suffered by the non-defaulting party in each case specified under this Agreement.



KTL



RSPPL

18.8 Nomination Restriction

Notwithstanding anything contained to the contrary in this Agreement, wherever a reference is made to the right of a Long Term Transmission Customer to nominate a third Party to receive benefits under this Agreement, such Third Party shall have a financial standing comparable to that of the Long Term Transmission Customer in question.

18.9 Commercial Acts

The Long Term Transmission Customers and the TSP unconditionally and irrevocably agree that the execution, delivery and performance by each of them of this Agreement and any other RFP Project Document to which it is a Party constitute private and commercial acts rather than public or governmental acts;

18.10 Restriction of Shareholders/Owners Liability

18.10.1 Parties expressly agree and acknowledge that none of the shareholders of the Parties hereto shall be liable to the other Parties for any of the contractual obligations of the concerned Party under this Agreement.

18.10.2 Further, the financial liabilities of the shareholder/s of each Party to this Agreement shall be restricted to the extent provided in the Indian Companies Act, 1956/ Companies Act 2013.

18.11 Taxes and Duties:

18.11.1 The TSP shall bear and promptly pay all statutory taxes, duties, levies and cess, assessed/levied on the TSP, its Contractors or their employees, that are required to be paid by the TSP as per the Law in relation to the execution of the Project and for providing Transmission Service as per the terms of this Agreement.

18.11.2 Long Term Transmission Customers shall be indemnified and held harmless by the TSP against any claims that may be made against Long Term Transmission Customers in relation to the matters set out in Article 18.11.1.

18.11.3 Long Term Transmission Customers shall not be liable for any payment of, taxes, duties, levies, cess whatsoever for discharging any obligation of the TSP by the Long Term Transmission Customers on behalf of TSP or its personnel, provided the TSP has consented in writing to Long Term Transmission Customers for such work, which consent shall not be unreasonably withheld.

18.12 No Consequential or Indirect Losses

The liability of the TSP and the Long Term Transmission Customers shall be


 KTL


 RSPPL

limited to that explicitly provided in this Agreement.

Provided that, notwithstanding anything contained in this Agreement, under no event shall the Long Term Transmission Customers or the TSP claim from one another any indirect or consequential losses or damages.

18.13 Discretion:

Except where this Agreement expressly requires a Party to act fairly or reasonably, a Party may exercise any discretion given to it under this Agreement in any way it deems fit.

18.14 Confidentiality

18.14.1 The Parties undertake to hold in confidence this Agreement 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; or
- (c) disclosures required under Law

without the prior written consent of the other Parties.

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 Agreement and the RFP Project Documents to any person, to the extent stipulated under the Law and the Competitive Bidding Guidelines.

18.15 Order of priority in application:

In case of inconsistencies between the terms and conditions stipulated in Transmission License issued by Appropriate Commission to the TSP, agreement(s) executed between the Parties, applicable Law including rules and regulations framed there under, the order of priority as between them shall be the order in which they are placed below::

- terms and conditions of Transmission License
- applicable Law, rules and regulations framed there under,
- this Agreement.



KTL



RSPPL

18.16 Independent Entity:

18.16.1 The TSP shall be an independent entity performing its obligations pursuant to the Agreement.

18.16.2 Subject to the provisions of the Agreement, the TSP shall be solely responsible for the manner in which its obligations under this Agreement are to be performed. All employees and representatives of the TSP or Contractors engaged by the TSP in connection with the performance of the Agreement shall be under the complete control of the TSP and shall not be deemed to be employees, representatives, Contractors of Long Term Transmission Customers and nothing contained in the Agreement or in any agreement or contract awarded by the TSP shall be construed to create any contractual relationship between any such employees, representatives or Contractors and the Long Term Transmission Customers.

18.17 Amendments:

18.17.1 This Agreement may only be amended or supplemented by a written agreement between the Parties and after obtaining approval of the Appropriate Commission, where necessary.

18.18 Waiver:

18.18.1 No waiver by either Party of any default or breach by the other Party in the performance of any of the provisions of this Agreement shall be effective unless in writing duly executed by an authorised representative of such Party:

18.18.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement nor time or other indulgence granted by one Party to the other Parties shall act as a waiver of such breach or acceptance of any variation or the relinquishment of any such right or any other right under this Agreement, which shall remain in full force and effect.

18.19 Relationship of the Parties:

This Agreement shall not be interpreted or construed to create an association, joint venture, or partnership or agency or any such other relationship between the Parties or to impose any partnership obligation or liability upon either Party and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.



KTL



RSPPL

18.20 Entirety:

- 18.20.1 This Agreement along with its sections, schedules and appendices is intended by the Parties as the final expression of their agreement and is intended also as a complete and exclusive statement of the terms of their agreement.
- 18.20.2 Except as provided in this Agreement, all prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement or the provision of Transmission Service under this Agreement to the Long Term Transmission Customers by the TSP shall stand superseded and abrogated.

18.21 Notices:

- 18.21.1 All notices or other communications which are required to be given under this Agreement shall be in writing and in the English language
- 18.21.2 If to the TSP, all notices or communications must be delivered personally or by registered post or facsimile or any other mode duly acknowledged to the addressee below:

Address :
 Attention :
 Email :
 Fax. No. :
 Telephone No.:

- 18.21.3 If to the Long Term Transmission Customers, all notices or communications must be delivered personally or by registered post or facsimile or any other mode duly acknowledged to the addresses below:

(i) Renew Solar Power Private Limited

Address :
 Attention :
 Email :
 Fax. No. :
 Telephone No.:

RENEW HUB, COMMERCIAL BLOCK-1, ZONE 6, DLF PHASE 3
 GOLF COURSE ROAD, GURUGRAM, HARYANA
 MR. RAKESH SWAROOP
 HYBRIDS@RENEWPOWER
 NEW DELHI
 RENEW SOLAR POWER PRIVATE LIMITED
 0124-4896699

- 18.21.4 All notices or communications given by facsimile shall be confirmed by sending a copy of the same via post office in an envelope properly addressed to the appropriate Party for delivery by registered mail. All notices shall be deemed validly delivered upon receipt evidenced by an acknowledgement of the recipient, unless the Party delivering the notice can prove in case of delivery


 KTL


 RSPPL

through the registered post that the recipient refused to acknowledge the receipt of the notice despite efforts of the postal authorities.

- 18.21.5 Any Party may by notice of at least fifteen (15) days to the other Party change the address and/or addresses to which such notices and communications to it are to be delivered or mailed

18.22 Fraudulent and Corrupt Practices

- 18.22.1 The TSP and its respective officers, employees, agents and advisers shall observe the highest standard of ethics during the subsistence of this Agreement. Notwithstanding anything to the contrary contained in the Agreement, the Long Term Transmission Customer(s) may terminate the Agreement without being liable in any manner whatsoever to the TSP, if it determines that the TSP 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 Long Term Transmission Customer(s) shall forfeit the Contract Performance Guarantee, without prejudice to any other right or remedy that may be available to the Long Term Transmission Customer(s) hereunder or subsistence otherwise.

- 18.22.2 Without prejudice to the rights of the Long Term Transmission Customer(s) under Clause 18.22.1 hereinabove and the rights and remedies which the Long Term Transmission Customer(s) may have under this Agreement, if a TSP is found by the Long Term Transmission Customer(s) 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 Letter of Intent (hereinafter referred to as LoI) or after the execution of the TSA, the Long Term Transmission Customer(s) may terminate the Agreement without being liable in any manner whatsoever to the TSP. Further, the TSP shall not be eligible to participate in any tender or RFP issued by the Long Term Transmission Customer(s) during a period of 2 (two) years from the date such TSP is found by the Long Term Transmission Customer(s) 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.

- 18.22.3 For the purposes of this Clause 18.22, 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,



KTL



RSPPL

directly or indirectly with the Bid process or the LoI 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 LoI 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 LoI 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;

18.23 Compliance with Law:

Despite anything contained in this Agreement but without prejudice to Article 12, if any provision of this Agreement shall be in deviation or inconsistent with or repugnant to the provisions contained in the Electricity Act, 2003, or any rules and regulations made there under, such provision shall be deemed to be amended to the extent required to bring it into compliance with the aforesaid relevant provisions as amended from time to time.

IN WITNESS WHEREOF, THE PARTIES HAVE CAUSED THIS AGREEMENT TO BE EXECUTED BY THEIR DULY AUTHORISED REPRESENTATIVES AS OF THE DATE AND PLACE SET FORTH ABOVE.



KTL



RSPPL

1. For and on behalf of **Kallam Transmission Limited**

[Signature]

Name:

Designation:

Address:

P. Baburaj

P. Baburaj
Chairman

Core-4, SCOPE

7, Lodhi Road

New Delhi-03



2. For and on behalf of **Renew Solar Power Private Limited**

[Signature]

Name: *ABHISHEK SHRINGI*

Designation: *MANAGER-NEW BUSINESS*

Address: *RENEW HUB, COMMERCIAL BLOCK-1, ZONE-6, DLF Phase 5, GOLF COURSE ROAD GURUGRAM - 122009*

Abhishek

WITNESSES:

1. For and on behalf of **Western Region Power Committee**

[Signature]

Name: *DEEPAK SHARMA*

Designation: *EXECUTIVE ENGINEER*

Address: *F-3, MIDC, MAROL, ANDHERI (EAST) MUMBAI - 400093*

Deepak

2. For and on behalf of **Central Transmission Utility of India Ltd (CTUIL)**

[Signature]

Name: *PRATYUSH SINGH*

Designation: *MANAGER*

Address: *Sandamini Plot No 2 Sector 29, Jurgaon.*

Pratyush Sg.

[Signature]
KTL

[Signature]
RSPPL

SCHEDULES


KTL

Kallam Transmission Limited


RSPPL

Page 93 of 145

Schedule: 1

List of Long Term Transmission Customers

Note: As referred to in the recital of this Agreement and in the definition of "Long Term Transmission Customers" in this Agreement

Sl. No.	Name of the Long Term Transmission Customer	Address of Registered Office	Law under which incorporated	Allocated Project Capacity (in MW)*
1.	Renew Solar Power Private Limited	Renew Hub, Commercial Block-1, Zone-6, Golf Course Road, DLF City Phase-V, Gurugram, Haryana -122009	Companies Act, 2013	300 MW

* 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. The transmission charges will be shared and recovered for payment as per the applicable CERC regulation which is at present the Point of Connection mechanism of sharing. As per the present CERC regulation the charges will be recovered by the Central Transmission Utility from the DICs and disbursed to the TSPs as per the Revenue Share Agreement.

Note: The above list of Long Term Transmission Customers is subject to change. Any addition or deletion in this list after the award of LoI shall be duly notified to the Parties to the Agreement.

The new Long Term Transmission Customers shall become a Party to this Agreement after agreeing to the terms and conditions of this Agreement and signing a Supplemental Agreement as annexed in Schedule 12 to this Agreement.



KTL



RSPPL

Schedule: 2

Project Description and Scope of Project

1.0 Project Scope:

Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra		
Sl. No	Scope of Transmission Element	Scheduled COD in months from Effective Date
1.	<p>Establishment of 2x500 MVA, 400/220 kV substation near Kallam PS</p> <p>2x500MVA, 400/220kV 400kV ICT bay-2 220kV ICT bay-2 400kV line bay-4 220kV line bay- 4</p> <p>Space for future Provisions: 400/220 kV ICTs along with bays: 2 nos. 400 kV line bays including the space for switchable line reactors: 6 nos. 220kV line bays: 4 nos. 400 kV bus reactor along with bays: 1 no.</p>	18 months
2.	<p>1x125 MVA bus reactor at Kallam PS 400 kV reactor bay -1</p>	18 months
3.	<p>LILO of both circuits of Parli(PG) – Pune(GIS) 400kV D/c line at Kallam PS</p>	18 months
4.	<p>Provision of new 50MVA switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam – Pune(GIS) 400kV D/c line 2x50 MVA, 400 kV Reactor bays -2</p>	18 months

Note:

Space for future provisions for 400 kV line bays to kept including the space for switchable line reactors.


KTL


RSPPL

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
Upto 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. 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



KTL



RSPPL

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, the rules / regulations of appropriate authorities shall be followed.

6. 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 (Twin ACSR/AAAC/AL59 conductor) transmission lines	Moose : Stranding 54/3.53mm-Al + 7/3.53 mm-Steel, 528.5 sq mm, Aluminium area 31.77mm diameter	Stranding details: 61/3.55mm 31.95mm diameter; 604 sq.mm Aluminium alloy area	Stranding details: 61/3.55mm 31.7mm diameter; 593 sq.mm Aluminium alloy area	450 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.

7. 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.
8. 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.

Minimum live metal clearances for 400kV lines:

- a) (i) Under Stationary Condition:
From tower body: 3.05m


KTL


RSPPL

(i) Under Swing condition

Wind Pressure Condition	Minimum Electrical Clearance
a) Swing angle (22°)	3.05mtrs
b) Swing angle (44°)	1.86mtrs

- b) Minimum ground clearance: 8.84 m
- c) Minimum mid span separation between earthwire and conductor: 9.0 m
9. Shielding angle shall not exceed 20 deg for 400 kV D/C transmission line.
 10. The Fault current for design of line shall be 63 kA for 1 sec for 400 kV.
 11. In case of 400kV voltage class lines, at least one out of two earth wires shall be OPGW and second earth wire, if not OPGW, shall be either of galvanized standard steel (GSS) or AACSR or any other suitable conductor type depending upon span length and other technical consideration.
 12. 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.
 13. Multi-circuit (4 circuits) towers shall be used for the LILLO portion. 400kV towers shall be designed for reliability level 2.
 14. 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.
 15. Transmission line route shall be finalized, in consultation with appropriate authorities so as to avoid the habitant zones of Great Indian Bustard and other protected species. Bird diverters, wherever required, shall be provided on the line.
 16. The transmission lines shall be designed with porcelain disc insulators or porcelain long rod insulators / Composite Long rod Insulators/ Glass insulators with the specific creepage distance required as per Site Pollution Severity level in the concerned area.



KTL



RSPPL

17. Wherever, transmission lines are passing through coastal/ creek regions, the fabricated tower parts and stubs shall have a minimum overall zinc coating of 900 gram/sq m of surface area except for plates and sections below 5mm which shall have a minimum overall zinc coating of 610 gram/ sqm of surface area. The average zinc coating for all sections and plates 5mm and above shall be maintained as 127 microns and that for plates and sections below 5mm shall be maintained as 87 microns.
18. For foundation in creek or aggressive soil areas, Concrete of M30 Grade design Mix conforming to IS 456 and epoxy coated reinforcement as per IS 13620 shall be used.
19. For transmission line sections passing within a distance of 50 km from the boundary of the two wind zones, higher of the two wind zones shall be considered for design of towers located in such sections.
20. Wherever the transmission line is passing through cyclone prone areas i.e. areas upto 60 km from coast
 - a. K4 factor (Importance factor for cyclonic region) of 1.3 shall be considered for tower design.
 - b. Terrain Category- I ($K_2=1.08$) shall be used for transmission lines in exposed open terrain with few or no obstruction and open sea coasts.
 - c. The number of consecutive spans between the section points / angle point shall not exceed 10 spans or 3km instead of conventional practice of 15 spans or 5km in order to reduce the failure of such towers in coastal areas due to cascading effect. The section shall be terminated with tension towers/angle towers and angle of deviation should be based on the site requirement.
 - d. Measures for foundation & reinforcement of foundation and protection against corrosion
 - i. Ready mix concrete of M30 Grade shall be used to avoid use of locally available saline water. However, design mix concrete of M30 Grade with potable water can be used at locations where transportation of ready mix concrete is not feasible. Minimum cement content in any case shall not be less than 330kg/m³.
 - ii. Double coat 20mm thick cement plaster shall be provided on all exposed concrete surface as well up to 300mm below Ground level to give protection to concrete surface from environmental and saline effect.
 - iii. The surface of the reinforced steel may be treated with epoxy based coating to enhance corrosion performance of foundation in coastal areas.



KTL



RSPPL

Use of epoxy coated reinforcement in foundation shall be as per IS 13620. In addition, two (2) coats of bituminous painting of minimum 1.6kg/m² per coat shall be applied on all exposed faces of foundation (i.e. pedestal & base slab)

- e. The top of the chimney of foundation should be atleast above HFL or the historical water stagnation/logging level (based on locally available data) or above High Tide Level of 500 mm above Natural Ground Level (whichever is higher) in areas prone to flooding/water stagnation like paddy filed/agricultural field and undulated areas to avoid direct contact of water with steel part of tower.
- f. Before coping of chimney top portion, three coats of anti-corrosive paint of minimum 30-35 microns dry film thickness each shall be applied on the stub in the 50mm coping portion as well as up to 350mm above CL portion.



Handwritten signature in blue ink, appearing to be 'KTL', with a horizontal line drawn through it.

Kallam Transmission Limited



Handwritten signature in blue ink, appearing to be 'AS', with a horizontal line drawn through it.

RSPPL

Page 100 of 145

SPECIFIC TECHNICAL REQUIREMENTS FOR SUBSTATION

The proposed 400/220kV substation near Kallam PS shall be conventional AIS type generally conforming to the requirement of CEA (Technical Standards for Construction of Electrical plants and Electric Lines) regulations 2010, as amended from time to time.

1.1 Salient features of Substation Equipment and Facilities

The design and specification of substation equipment are to be governed by the following factors:

1.2 Insulation Coordination

The system design parameters for substations/switchyards shall be as given below:

Sl. No	Description of parameters	400/220kV Kallam PS	
		400 kV System	220 kV System
1.	System operating voltage	400kV	220kV
2.	Maximum voltage of the system (rms)	420kV	245kV
3.	Rated frequency	50Hz	50Hz
4.	No. of phase	3	3
5.	Rated Insulation levels		
i)	Impulse withstand voltage for (1.2/50 micro sec.) - for Equipment other than Transformer and Reactors - for Insulator String	1425kVp 1550kVp	1050 kVp 1050 kVp


KPL


RSPPL

Sl. No	Description of parameters	400/220kV Kallam PS	
		400 kV System	220 kV System
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)	-	460kV
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	1000 micro-volts at 156kV rms
8.	Minimum creepage distance for insulator string/ longrod insulators/ outdoor bushings	13020 mm (31mm/kV)	7595 mm (31mm/kV)
9.	Minimum creepage distance for switchyard equipment	10500mm (25mm/kV)	6125 mm (25mm/kV)
10.	Max. fault current	63kA	50kA
11.	Duration of fault	1 Sec	1 Sec

1.3 Switching Scheme

The switching schemes, as mentioned below, shall be adopted at various voltage levels of substation/switchyard:



KTL



RSPPL

Substation	400kV side	220kV side
400/220kV Kallam PS	One & half breaker (AIS)	Double Main & Transfer (AIS)

- i. At 400kV voltage level, each circuit of a double circuit transmission line shall be terminated in different diameters.
- ii. Transformers and bus reactors of same HV rating shall be placed in different diameters (i.e transformers of same HV rating shall not be in the same diameter and similarly bus reactors of same HV rating shall also not be in the same diameter).

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.

Sl. No	Description of bay	400/220kV Kallam PS	
		400kV	220 kV
1.	Bus Bar	4000A	4000A
2.	Line bay	3150A	1600A
3.	ICT bay	3150A	1600A
4.	Bus Reactor bay	3150A	-
5.	Line Reactor Bay	3150A	-
6.	Bus Coupler bay	-	3150A
7.	Transfer Bus coupler bay	-	1600A

2.1 400/220kV, 3-Phase Transformer

500MVA 400/220/33kV 3 Phase transformer shall conform to CEA's "Standard Specifications and Technical Parameters for Transformers and Reactors (66 kV and above)" available on CEA website.

2.2 420kV, 3-Phase, Shunt Reactor

125 MVAR, 420 kV, 3-Phase Shunt Reactor shall conform to CEA's "Standard



KTL



RSPPL

Specifications and Technical Parameters for Transformers and Reactors (66 kV and above)" available on CEA website.

Neutral Grounding Reactor (NGR) and Surge Arrester for 400kV Line Reactors (as applicable)

The neutral of the line reactors (wherever provided) shall be grounded through adequately rated Neutral Grounding Reactors (NGR) to facilitate single phase auto-reclosure, provided that the NGR shall be provided with bypass arrangement through a breaker so that the line reactor can be used as Bus reactor as and when required. The neutral of bus reactor shall be solidly grounded.

NGR shall be oil filled or a dry type air core for outdoor application. NGR shall conform to CEA's "Standard Specifications and Technical Parameters for Transformers and Reactors (66 kV and above)" available on CEA website. Technical parameters of NGR shall be as specified in Annexure- A of above mentioned documents.

The surge arresters (rated voltage of arrester in coordination with ohmic value of NGR shall be decided by the TSP) shall be provided & physically located between the neutral of shunt reactor (brought out at 145kV class bushing) and neutral grounding reactor. The surge arresters shall be of heavy duty station class gapless Metal oxide (ZnO) type conforming in general to IEC-60099-4. Arresters shall be hermetically sealed units, of self-supporting construction, suitable for mounting on structures.

2.3 Circuit Breakers (AIS)

The circuit breakers and accessories shall conform with IEC: 62271-100, IEC: 62271-1 and shall be of SF6 Type. The circuit breakers shall be of class C2-M2 (as per IEC) with regard to restrike probability during capacitive current breaking and mechanical endurance. The rated break time shall not exceed 40 ms for 400kV circuit breakers and 60 ms for 220kV circuit breakers. Circuit breakers shall be provided with single phase and three phase auto reclosing. The Circuit breakers controlling 400kV lines of more than 200km length shall be provided with pre insertion closing resistor of about 400 ohms maximum with 8 ms minimum insertion time or Controlled Switching Device. The short line fault capacity shall be same as the rated capacity and this is proposed to be achieved without use of opening resistors. The controlled switching device shall be provided in 400kV Circuit breaker of switchable line reactor and in Main & Tie circuit breakers of line with non-switchable line reactors and Bus reactors.

2.4 Isolators (AIS)

The isolators shall comply with IEC 62271-102 in general. 400 kV and 220kV Isolators shall be double break type. All Isolators and earth switches shall be motor operated. Earth switches shall be provided at various locations to facilitate



KTL



RSPPL

maintenance. Isolator rated for 400kV and 220kV shall be of extended mechanical endurance class-M2 and suitable for bus transfer current switching duty. Main blades and earth blades shall be interlocked and interlock shall be fail safe type. 400kV and 220kV earth switch for line isolator shall be suitable for induced current switching duty as defined for Class- B.

2.5 Current Transformers (AIS)

Current Transformers shall comply with IEC 61869 in general. All ratios shall be obtained by secondary taps only. Generally, Current Transformers (CT) for 400kV shall have six cores (four for protection and two for metering). 220kV Current Transformers shall have five cores (four for protection and one for metering). 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 20 VA for metering core) for better sensitivity and accuracy. The instrument security factor shall be less than 5 for CTs upto 400kV voltage class.

2.6 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 and 220kV 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.

2.7 Surge Arresters (AIS)

336kV Station High (SH type) class gapless type Surge arresters & 216kV Station Medium (SM type) class gapless type Surge arresters conforming to IEC 60099-4 in general shall be provided for 420kV & 245kV 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.



KTL



RSPPL

2.8 Protection Relaying & Control System

The protective relaying system proposed to be provided for transmission lines, autotransformers, 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 and should have Interoperability during integration of numerical relays to communicate over IEC61850 protocol with RTU/SAS/IEDs of different OEMs. 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 and 220kV lines shall have Main-I numerical three zone distance protection scheme with carrier aided inter-tripping feature. 400kV and 220kV 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 220kV line bays where the line lengths are not indicated, Numerical Distance protection relay as Main-I and Line Current differential relay (with back up distance protection feature) as Main-II shall be provided. Further, in such case, the matching line current differential relay for remote end shall be provided by the remote end 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 and 220kV 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.



KTL



RSPPL

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 400 kV and 220 kV 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) Auto Transformer Protection

These shall have the following protections:

- i) Numerical Differential protection
- ii) Numerical Restricted earth fault protection
- iii) Numerical Back-up Over-current and earth fault protection on HV & IV side
- iv) Numerical Over fluxing protection on HV & IV side
- v) Numerical Overload alarm
- vi) Numerical Back up Impedance protection (HV Side)

Further, Numerical Back-up Over-current and earth fault protection on HV & MV side of autotransformer shall not be combined with other protective functions (except back up Impedance protection) in the main relays and shall be independent relays. Besides these, power transformers shall also be provided with Buchholz relay, protection against high oil and winding temperature and pressure relief device etc.

Suitable monitoring, control (operation of associated circuit breaker & isolator) and protection for LT auxiliary transformer connected to tertiary winding of auto-transformer for the purpose of auxiliary supply shall be provided. The Over current and other necessary protection shall be provided for the auxiliary transformer. These protection and control may be provided as built in feature either in the bay controller to be provided for the auxiliary system or in the control & protection IEDs to be provided for autotransformer.

c) 400kV Reactor Protection

Reactor shall be provided with the following protections:

- vii) Numerical Differential protection.



KTL



RSPPL

- viii) Numerical Restricted earth fault protection
- ix) 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.

d) Bus bar Protection

The high speed 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 and 220kV 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.

e) Local Breaker Back up Protection

This shall be provided for each 400kV and 220kV circuit breakers and will be connected to de-energize the affected stuck breaker from both sides.

Notes:

1. LBB & REF relays shall be provided separately from transformer differential relay.
2. 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).
3. Over fluxing & overload protection can be provided as built-in feature of differential relay.
4. In 400kV switchyard, if spare bay of half diameter is identified as future, Tie CB relay panel shall be provided with Auto-reclosure feature.


KTL


RSPPL

2.9 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. However, for substation extension / augmentation, existing facilities shall be augmented as required:-

- i) For LT Supply at each new Substation, two (2) nos. of LT Transformers (minimum 800kVA for substations with highest voltage rating as 765kV and minimum 630kVA for substations with highest voltage rating as 400kV) shall be provided out of which one shall be connected with SEB/DISCOM supply and other one shall be connected to tertiary of Transformer.

Metering arrangement with Special Energy Meters (SEMs) shall be provided by TSP at 33kV tertiary of Transformer for drawing auxiliary supply at new substation. Such SEMs shall be provided by CTU at the cost of the TSP. Accounting of such energy drawn by the TSP shall be done by RLDC/RPC as part of Regional Energy Accounting.

Additionally, Active Energy Meters may be provided at the same point in the 33kV tertiary of Transformer by local SEB/DISCOM for energy accounting.

- 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. 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 present and future feeders as specified.

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 no.
- (b) AC distribution board – 1 no.
- (c) Main lighting distribution board – 1 no.


KTL


RSPPL

- (d) Emergency lighting distribution board – 1 no.
 - (e) 220 Volt DC distribution board – 2 nos.
 - (f) 48 Volt DC distribution board – 2 nos.
- iv) At new Substation, one no. of DG set of adequate capacity (minimum 250kVA for substations with highest voltage rating as 400kV) shall be provided for emergency applications considering future bays.
- v) At new substation, sizing of battery and battery charger shall be done based on the number of bays specified (including future bays).

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.

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


KTL


RSPPL

work stations for station level control (SAS) alongwith 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 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.

3.7 Visual monitoring system 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) 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 colour 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 specifications 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.
- f) Boundary wall shall be brick masonry wall with RCC frame or Stone masonry wall or Precast RCC wall under present scope along the property line of complete substation area including future switchyard area to prevent encroachment and unauthorized access. Minimum height of the boundary wall shall be of 1.8 m from finished ground level (FGL) as per CEA Measures Relating to Safety and Electric Supply Regulations.



KTL



RSPPL

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. 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.

i. LILO of both circuits of Parli(PG) – Pune(GIS) 400kV D/c line at Kallam PS

On LILO of 400 kV D/c Parli(PG) – Pune (GIS) 400kV D/c line at Kallam PS, TSP to install & commission Two (2) no. OPGW cable containing 24 Fibres (24F each) on both the Earthwire peaks of Multi Circuit Towers (for Loop in and Out M/C towers to be used).

The TSP shall install OPGW cables from gantry of Kallam PS up to the LILO tower with all associated hardware including Vibration Dampers, mid-way Joint Boxes (called OPGW Hardware hereafter) and finally terminate in Joint Boxes at Kallam PS. Repeater equipment is not envisaged for the LILO of 400 kV D/c Parli(PG) – Pune (GIS) 400kV D/c line.

Maintenance of OPGW Cable & OPGW Hardware shall be responsibility of TSP.

The protection system for 400kV and higher voltage transmission line and the line compensating equipment shall have one 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.

PLCC

PLCC & PBAX: Power line carrier communication (PLCC) equipment complete for speech, teleprotection 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:-

- Coupling device, line traps, carrier terminals, protection couplers, HF cables, PABX (if applicable) and maintenance and testing instruments.
- A telephone exchange (PABX) of 24 lines shall be provided at new substations as means of effective communication among various buildings of the substation, remote end substations and with control centers (RLDC/SLDC) etc.


KTL


RSPPL

- 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.
- 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.
- 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.
- 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.
- TSP shall provide/undertake necessary addition/modification/shifting/re-commissioning etc. of PLCC equipment at remote ends substations due to LILO of transmission lines (wherever applicable).
- All other associated equipment like cabling, coupling device and HF cable shall also be provided by the TSP. The wave trap and CVT required for PLCC at remote end shall be provided by respective bay owner.
- 2 sets of 48 V battery banks for PLCC and communication equipment shall be provided at each new substation with at least 10 hour battery backup and extended backup, if required.

2. Establishment of 2x500MVA, 400/220kV near Kallam PS

- (i) TSP shall provide 2 no. FODP (96 F) alongwith panel and Approach Cable (24F each) with all associated hardware fittings (from gantry tower to Control Room) for all the incoming lines envisaged under the present scope.
- (ii) TSP shall provide STM-16 (FOTE) equipment with panel supporting minimum eight (8) MSP (Multiplex Section Protection) directions in combination of two no. of 5 & 3



KTL



RSPPL

MSP Equipment. Communication Equipment shall be provided with suitable DC Power Supply & necessary interfaces to meet the voice and data communication requirement between Parli (PG), Pune (GIS), Kallam PS & Upcoming RE Plants.

- (iii) FODP & FOTE equipment's with panels shall be provided in Control Room of Kallam PS. FOTE & FODP Eq can be accommodated in same panel to optimize space.
- (iv) The integration work of new communication equipment under present scope with existing regional level centralized NMS shall be responsibility of TSP. Configuration work in existing centralized NMS for integration of new Communication equipment is not in scope of TSP, however all necessary support to integrate new Communication equipment with the Centralized NMS shall be ensured by TSP.
- (v) TSP shall install required no. of Phasor Measurement Units (PMUs) for all 400kV voltage line bays (under the scope of this project) at 400kV Kallam PS, these PMUs shall support latest IEEE C-37.118 protocols. These PMUs shall be provided with GPS clock and LAN switch and shall connect with LAN switch of control room with Fibre Optic cable. These PMUs shall be connected with the FOTE at Substation for onwards data transmission to the PDC (Phasor Data Concentrator) located at respective RLDC. However, configuration work in existing PDC at RLDC for new PMU integration is not in scope of TSP.
- (vi) The maintenance of all the communication equipment including FOTE, FODP, approach cable, PMUs, DCPS along with Battery Bank shall be the responsibility of TSP.



KTL



RSPPL

1.1 Project Description

Govt. of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. MNRE vide its order dated 08.06.2018 had constituted a Sub-Committee to identify ISTS connectivity for renewable energy projects from potential solar energy zones (SEZs) and potential wind energy zones (WEZs) of about 50 GW and 16.5 GW respectively. Accordingly, SEZs and WEZs envisaged in 7 RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) were identified by SECI in association with MNRE in consultation with RE power developers.

A total of 28 GW RE capacity has been identified in Western Region out of which 2 GW Wind generation capacity has been identified in Osmanabad area in Maharashtra. Out of this, 1 GW has been proposed to be integrated with Intra-state system and the balance 1 GW with ISTS. Transmission System for Renewable Energy Zones (REZs) in Western Region [including Osmanabad Wind energy zone(WEZ)] was finalised in the 2nd WRSC meeting held on 21.05.2019.

The subject scheme will enable integration of 1 GW WEZ in Osmanabad area with the ISTS grid.

1.2 Scope of Work and Commissioning schedules of each element of the scheme and also the conductor specification for the transmission lines are given in Table-1 above.



KTL



RSPPL

Schedule: 3

Scheduled COD

[Note: As referred to in the definition of “Element”, “Scheduled COD”, and in Articles 3.1.3 (c), 4.1 (b) and 4.3 (a) of this Agreement]

Sl. No.	Scope of the Transmission Scheme	Completion Target	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the	Element(s) which are pre-required for declaring the commercial operation (COD) of the respective Element
1.	Establishment of 2x500 MVA, 400/220 kV substation near Kallam PS	18 months	63.48%	Elements marked at Sl. No. 1, 2, 3 & 4 are required to be commissioned simultaneously as their utilization is dependent on commissioning of each other.
2.	1x125 MVar bus reactor at Kallam PS 400 kV reactor bay -1		6.38%	
3.	LILO of both circuits of Parli(PG) – Pune(GIS) 400kV D/c line at Kallam PS		19.50%	
4.	Provision of new 50MVar switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam – Pune(GIS) 400kV D/c line		10.64%	



KTL



RSPPL

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: 18 months from Effective Date



KTL

Kallam Transmission Limited



RSPPL

Page 119 of 145

Schedule: 4

Safety Rules and Procedures

[Note: As referred to in Articles 5.6 and 7.1.6 of this Agreement]

1: Site Regulations and Safety:

The TSP shall establish Site regulations within sixty (60) days from fulfilment of conditions subsequent, as per Prudent Utility Practices setting out the rules to be observed in the execution of the Agreement at the Site and shall comply therewith.

Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Project, gate control, sanitation, medical care, and fire prevention, public health, environment protection, security of public life, etc.

Copies of such Site regulations shall be provided to the Lead Long Term Transmission Customer and CEA for the purpose of monitoring of the Project.

2: Emergency Work:

In cases of any emergency, the TSP shall carry out all necessary remedial work as may be necessary.

If the work done or caused to be done by any Party other than the TSP, the TSP shall, reimburse the actual costs incurred, to the other Party carrying out such remedial works.

3: Site Clearance:

In the course of execution of the Agreement, the TSP shall keep the Site reasonably free from all unnecessary obstruction, storage, remove any surplus materials, clear away any wreckage, rubbish and temporary works from the Site, and remove any equipment no longer required for execution of the Agreement. After completion of all Elements of the Project, the TSP shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site clean and safe.

4: Watching and Lighting:

The TSP shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper construction, operation, maintenance/repair of any of the Elements of the Project, or for the safety of the owners and occupiers of adjacent property and for the safety of the public, during such maintenance/repair.


KTL


RSPPL

Schedule: 5**Computation of Transmission Charges**

[Note: As referred to in the definitions of “Monthly Transmission Charges”, “Monthly Transmission Charges Invoice” and in Articles 10.1, 10.2, 10.3 and 11.7 (c) of this Agreement]

1.1 General

- a. The Monthly Transmission Charges to be paid by the Long Term Transmission Customers to the TSP for providing Transmission Service for any Contract Year during the term of the Agreement shall be in accordance with this Schedule.
- b. The Transmission Charges to be paid to the TSP shall comprise of the Escalable Transmission Charges and the Non Escalable Transmission Charges, payable by each Long Term Transmission Customer, in proportion to their Allocated Project Capacity for the Contract Year, as determined by the CERC. In the event of change by CERC in the methodology for the allocation of Transmission Charges between the Long Term Transmission Customers, such revised methodology shall apply.
- c. For the purpose of payment, the Escalable Transmission Charges to be paid in any Contract Year shall be the Escalable Transmission Charge as per Schedule 6 duly escalated as provided in Schedule 7.
- d. In case of any extension of time period for the Scheduled COD, the applicable Transmission Charges in relation to an Element shall be the Transmission Charges of the Contract Year in which the COD of such Element occurs or it has deemed to have occurred, and in relation to the Project, the Transmission Charges applicable will be for the Contract Year in which the COD occurs.
- e. The Annual Transmission Charges shall be the sum of the Payable Annual Escalable Transmission Charges and the Payable Annual Non Escalable Transmission Charges for the Contract Year n.
- f. The Transmission Charges shall be payable based on the Allocated Project Capacity at Target Availability and Incentive for Availability beyond the Target Availability as provided in this schedule shall be admissible for payment. In case of Availability being lower than the Target Availability, the Transmission Charges shall be payable on proportionate basis as provided in this Schedule. In case of the Availability being lower than the level as specified in Article 10.4, the TSP shall pay a penalty as per the provisions in this Schedule. This penalty payable by the TSP shall be apportioned in favour of the Long Term Transmission Customer(s) in the ratio of the Transmission



KTLL



RSPPL

Charges paid or actually payable to the TSP then existing at the end of the relevant Contract Year.

- g. The Availability shall be calculated as per the procedure specified in Appendix II of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 as notified by CERC and as attached herewith.
- h. All applicable Rebates and Surcharges will be computed and Invoices, as required, would be raised based on the provisions laid out in Articles 10.7 of this Agreement.
- i. Reactive Power compensations and payments shall be as per the provisions of the Grid Code.

1.2 Components of Monthly Bill

The Monthly Bill for any month in a Contract Year shall consist of the following:

- i. Monthly Transmission Charges in accordance with Article 1.2.1 below;
- ii. Incentive Payment determined in accordance with Article 1.2.2 below (applicable on annual basis and included only in the Monthly Tariff Payment for the first month of the next Contract Year); and
- iii. Penalty Payment determined in accordance with Article 1.2.3 below (applicable on annual basis and included in the Monthly Tariff Payment for the first month of the next Contract Year.

1.2.1 Computation of Monthly Transmission Charges

The Monthly Transmission Charges for any month m in a Contract Year n shall be calculated as below:

If $CA \geq NA$;

Monthly Transmission Charge $MTC(m) =$

$$\left[\sum_{m=1}^M T_{mn} / \text{No. of days in the month 'm' in Contract Year 'n'} * \text{No. of days in the month 'm' in Contract Year 'n' for which bill is raised} \right] - \sum_{m=1} MTC(m-1)$$



KTL



RSPPL

ELSE

Monthly Transmission Charge MTC (m)=

$$\left[\frac{\sum_{m=1}^M T_{mn}}{M} \right] / \text{No. of days in the month 'm' in Contract Year 'n' * AA/NA * No. of days in the month 'm' in Contract Year 'n' for which the bill is raised] - \sum_{m=1}^{M-1} \text{MTC (m-1)}$$

where:

- m is the month in Contract Year 'n'
- M= month considered for payment in the Contract Year 'n'
- T_{mn}= Transmission Charges for the month 'm' in Contract Year 'n' and is equal to the sum of Monthly Escalable Transmission Charges (METC mn) and Monthly Non Escalable Transmission Charges (MNETC mn)
- CA is the Cumulative Availability , as per REA, from the first day of the Contract Year "n" in which month "m" occurs upto and including upto the end of the month "m";
- AA is the actual Availability for the month 'm' in the Contract Year n. as per REA, (expressed in percentage);
- NA is the Target Availability;
- MTC (m-1) is the Payable Monthly Transmission Charge for the month '(m-1)' for the Contract Year 'n'


KTL


RSPPL

- **Monthly Escalable Transmission Charges (METC_{mn})**

The Monthly Escalable Transmission Charges (METC_{mn}) for month 'm' for the Contract Year 'n' shall be calculated by the following formula.

$$\text{METC}_{mn} = [\text{Escalable Transmission Charge for the first Contract year (as provided in Schedule 6)} / \text{No. of days in the Contract Year 'n'}] * \text{No. of days in the month 'm'} * p/q$$

Where,

'p' is the escalation index as per Schedule 7 at the beginning of the month 'm' (expressed as a number)

'q' is the escalation index as per Schedule 7 applicable as at the beginning of the first Contract Year mentioned in Schedule 6 (expressed as a number)

- **Monthly Non Escalable Transmission Charges (MNETC_{mn})**

The Monthly Non Escalable Transmission Charges (MNETC_{mn}) for month 'm' for the Contract Year 'n' shall be calculated as follows;

$$\text{MNETC}_{mn} = [\text{Non Escalable Transmission Charge for the Contract Year 'n' (as provided in Schedule 6)} / \text{No. of days in the Contract Year 'n'}] * \text{No. of days in the month 'm'}$$

Provided, no Transmission Charges shall be paid during the period for which the RLDC has not allowed the operation of the Element/Project due to the failure of the TSP to operate it as per the provisions of the Grid Code.

1.2.2 Incentive Payment

If and to the extent the Availability in a Contract Year exceeds ninety eight percent (98%) for AC system, the TSP shall be entitled for an annual Incentive as calculated below:

$$\text{Incentive} = 0.02 \times \text{Annual Transmission Charges} \times (\text{Actual annual Availability} - \text{Target Availability})$$

Provided that no Incentive shall be payable above the Availability of 99.75% for AC system.

Incentive shall be shared by the Long Term Transmission Customer(s) in the ratio of the Transmission Charges paid or actually payable to the TSP by then existing at the end of the relevant Contract Year.



KTL



RSPPL

1.2.3 Penalty

If and to the extent that the Availability in a Contract Year falls below ninety five percent (95%) for AC system, the TSP shall be entitled for an annual penalty as per the formula given below:

$$\text{Penalty} = 0.02 \times \text{Annual Transmission Charges} \times (\text{Target Availability} - \text{Actual Annual Availability})$$

The penalty payable by the TSP shall be apportioned in favour of the Long Term Transmission Customer(s) in the ratio of the Transmission Charges paid or actually payable to the TSP by them existing at the end of the relevant Contract Year.

1.3 Recovery from Short Term Transmission Customers

The Transmission Charges to be paid by the Long Term Transmission Customers to the TSP shall stand reduced in proportion to their then existing Allocated Project Capacity at the end of the relevant month, to the extent of adjustable revenues from Short Term Transmission Customers.

The charges payable by the Short Term Transmission Customers shall be calculated on the basis of the provisions of the Central Electricity Regulatory Commission (Open Access in Inter-state Transmission) Regulations, 2008 or as amended from time to time.

1.4 Scheduling Charges

The payment of scheduling charges to the respective RLDC or SLDC, as the case may be, shall be the responsibility of the Long Term Transmission Customers.


KTL
RSPPL

Schedule: 6

Transmission Charges

[Note: As referred to in the definitions of “Element”, “Escalable Monthly Charges”, “Non Escalable Monthly Charges” and “Monthly Transmission Charges” and in Clauses 1.1 (c) of Schedule 5 of this Agreement]

[To be incorporated from the Bid of the Selected Bidder]

[In case of pre-signing of RFP Project Documents, this needs to be inserted after selection of the Selected Bidder]

Year	Commencement Date of Contract Year	End Date of Contract Year	Non-Escalable Transmission Charges (in Rupees Millions)	Escalable Transmission Charges (in Rupees Millions)
(1)	(2)	(3)	(4)	(5)
1	Scheduled COD 08.05.2023	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		


KTL


RSPPL

Year	Commencement Date of Contract Year	End Date of Contract Year	Non-Escalable Transmission Charges (in Rupees Millions)	Escalable Transmission Charges (in Rupees Millions)
(1)	(2)	(3)	(4)	(5)
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 Scheduled COD		

[This table needs to be replicated exactly as from Annexure-22 of the RFP (i.e. Financial Bid of the Selected Bidder).]

Notes:

- Charges for the first Contract Year are the Transmission Charges applicable for the twelve month period (from the immediately preceding 1 April from the Scheduled COD till the immediately succeeding 31 March) irrespective of the duration of the first Contract Year.
- Charges for the second Contract Year are the Transmission Charges applicable for the full Contract Year
- Charges for the last Contract Year are the Transmission Charges applicable for the twelve month period (from immediately preceding 1 April to the date of 35th anniversary of the Scheduled COD till the immediately succeeding 31 March) irrespective of the duration of the last Contract Year.


KTL


RSPPL

- d. However, in cases of both (a) and (c) above, total Transmission Charges payable to the TSP are computed proportionately for the total number of days in the first and last Contract Year respectively.
- e. Charges for Short Term Open Access of the Project shall be as per the provisions of Central Electricity Regulatory Commission (Open Access in Inter-state Transmission) Regulations 2008 as notified by CERC and as amended from time to time.

Proportionate Transmission Charges payable for each Element of the Project:

Sl. No.	Scope of the Transmission Scheme	Percentage of Quoted Transmission Charges recoverable on Scheduled COD of the Element of the Project
1.	Establishment of 2x500 MVA, 400/220 kV substation near Kallam PS	63.48%
2.	1x125 MVAR bus reactor at Kallam PS 400 kV reactor bay -1	6.38%
3.	LILO of both circuits of Parli(PG) – Pune(GIS) 400kV D/c line at Kallam PS	19.50%
4.	Provision of new 50MVAR switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam – Pune(GIS) 400kV D/c line	10.64%



KTL



RSPPL

Schedule: 7**Escalation Index**

[Note: As referred to in Clause 1.1 of Schedule 5 of this Agreement]

The index ("Escalation Index") to be applied for escalation of Escalable Transmission Charges shall be computed by assuming that as on the date of the COD, the value of such Escalation Index is 100. Thereafter, for each month after the COD, the value of the Escalation Index shall be computed by applying the per annum inflation rate specified by CERC for payment of Escalable Transmission Charges, as per the provisions of the Competitive Bidding Guidelines.

For the avoidance of doubt, it is clarified that:

- if the prevailing inflation rate specified by CERC is 4.7% per annum, then at the end of the first month after the COD, the value of the Escalation Index shall be 100.3917 [i.e., $100 * (1 + 4.7\%/12)$] for Escalable Transmission Charges. Thereafter, at the end of the second month beyond such first month, the value of the Escalation Index shall be 100.7833 [i.e $100 * [1 + (4.7\% * 2) / 12]$] and so on. The value of the Escalation Index at the end of the Nth Month after the COD shall be calculated as: $100 * (1 + N * 0.047 / 12)$ for Quoted Escalable Transmission Charges.
- the per annum inflation rate specified by CERC shall be revised only at the end of every six (6) months.
- The value of the Escalation Index shall be calculated upto the fourth decimal point.

In case, due to any reason, CERC discontinues the publication of the inflation rate mentioned above, then the Lead Long Term Transmission Customer and the TSP shall replace the above inflation rate with an inflation rate which shall be computed on the same basis as was being used by CERC to estimate their notified inflation rate.



KTL



RSPPL

Schedule: 8**List of Articles**

List of Articles under which rights and obligations of the Long Term Transmission Customers (including all matters incidental thereto and related follow-up), which are required to be undertaken by the Lead Long Term Transmission Customer, or by Majority Long Term Transmission Customers or by the Long Term Transmission Customers jointly, respectively:

- A) Rights and Obligations of the Long Term Transmission Customers required to be undertaken by the Lead Long Term Transmission Customer**
1. **Article 3.3.5** (approach the Appropriate Commission on termination of the Agreement on TSP's not able to meet conditions subsequent)
 2. **Article 5.5** (inspection of the Project during the construction phase);
 3. **Articles 6.1.1 and 6.1.2** (extension of Scheduled COD);
 4. **Article 6.4.1** (communication with the TSP on imposition of liquidated damages)
 5. **Articles 7.3.2** (notice for maintenance of Interconnection Facilities under the purview of the Long Term Transmission Customers);
 6. **Article 11.7 (d)** (inspection of Project during operation of Force Majeure);
 7. **Article 13.1 (a)** (notice to TSP on abandonment of Project);
 8. **Article 13.3. (d)** (to approach the Appropriate Commission for revocation of Transmission Licensee on account of TSP's Event of Default);
 9. **Articles 14.2.1 (b), 14.2.2 (b) and 14.2.2 (c)** (notice for patent indemnity);
 10. **Article 14.2.1 (d)** (provide assistance to the TSP during the proceedings of patent indemnity);
 11. **Article 18.2.3** (written permission to TSP for divestment of equity holding and subsequent verification of equity structure, post-divestment); and
 12. **Schedule 7** (computation of alternative escalation index in the event of CERC discontinuing publishing of the inflation rate mentioned in this schedule).



KTL



RSPPL

B) Rights and Obligations of the Long Term Transmission Customers required to be undertaken by the Majority Long Term Transmission Customers

1. **Article 2.3.1**(decision to continue the Project beyond the Expiry Date);
2. **Article 3.1.3** (waiver of the TSP's obligations due to reasons attributable to the Long Term Transmission Customer(s));
3. **Articles 3.3.2 and 3.3.4** (right to terminate the Agreement on non-fulfillment of conditions subsequent);
4. **Articles 13.1 (k) and 13.1 (l)** (invocation of termination of the Agreement due to the TSP's Event of Default);
5. **Article 13.3** (notice to TSP for termination of Agreement on TSP's Event of Default);
6. **Article 18.1.4** (in case of any difference of opinion on any decision among the Long Term Transmission Customers, decision in such cases to be taken by the Majority Long Term Transmission Customers); and
7. **Article 18.1.5** (Right to replace the Lead Long Term Transmission Customer).

and any other Articles of this Agreement not specifically mentioned herein, which provide for a joint action by all the Long Term Transmission Customers.



KTL



RSPPL

Schedule: 9

Appendix II of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019**Procedure for Calculation of Transmission System Availability Factor for a Month**

1. Transmission system availability factor for nth calendar month ("TAF_{Pn}") shall be calculated by the respective transmission licensee, got verified by the concerned Regional Load Dispatch Centre (RLDC) and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. In case of AC system, transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system. In case of HVDC system, transmission System Availability shall be calculated on consolidate basis for all inter-state HVDC system.
2. Transmission system availability factor for nth calendar month ("TAF_{Pn}") shall be calculated by consider following:
 - i) **AC transmission lines:** Each circuit of AC transmission line shall be considered as one element;
 - ii) **Inter-Connecting Transformers (ICTs):** Each ICT bank (three single phase transformer together) shall form one element;
 - iii) **Static VAR Compensator (SVC):** SVC along with SVC transformer shall form one element;
 - iv) **Bus Reactors or Switchable line reactors:** Each Bus Reactors or Switchable line reactors shall be considered as one element;
 - v) **HVDC Bi-pole links:** Each pole of HVDC link along with associated equipment at both ends shall be considered as one element;
 - vi) **HVDC back-to-back station:** Each block of HVDC back-to-back station shall be considered as one element. If associated AC line (necessary for transfer of inter- regional power through HVDC back-to-back station) is not available, the HVDC back-to-back station block shall also be considered as unavailable;
 - vii) **Static Synchronous Compensation ("STATCOM"):** Each STATCOM shall be considered as separate element.
3. The Availability of AC and HVDC portion of Transmission system shall be calculated by considering each category of transmission elements as under:



KTL



RSPPL

TAFMn (in %) for AC system:

$$= \frac{o \times AV_o + (p \times AV_p) + (q \times AV_q) + (r \times AV_r) + (u \times AV_u)}{(o + p + q + r + u)} \times 100$$

Where,

- o = Total number of AC lines.
- AV_o = Availability of o number of AC lines.
- p = Total number of bus reactors/switchable line reactors
- AV_p = Availability of p number of bus reactors/switchable line reactors
- q = Total number of ICTs.
- AV_q = Availability of q number of ICTs.
- r = Total number of SVCs.
- AV_r = Availability of r number of SVCs
- u = Total number of STATCOM.
- AV_u = Availability of u number of STATCOMs

TAFMn (in %) for HVDC System:

$$= \frac{\sum_{x=1}^s C_{xpb}(\text{act}) \times AV_{xpb} + \sum_{y=1}^t C_{ybtb}(\text{act}) \times AV_{ybtb}}{\sum_{x=1}^s C_{xpb} + \sum_{y=1}^t C_{ybtb}} \times 100$$

Where

- C_{xpb}(act) = Total actual operated capacity of xth HVDC pole
- C_{xpb} = Total rated capacity of xth HVDC pole



KTL



RSPPL

AV_{xpb}	=	Availability of x^{th} HVDC pole
$Cy_{btb(act)}$	=	Total actual operated capacity of y^{th} HVDC back-to-back station block
Cy_{btb}	=	Total rated capacity of y^{th} HVDC back-to-back station block
AV_{ybtb}	=	Availability of y^{th} HVDC back-to-back station block
s	=	Total no of HVDC poles
t	=	Total no of HVDC Back to Back blocks

4. The availability for each category of transmission elements shall be calculated based on the weightage factor, total hours under consideration and non-available hours for each element of that category. The formulae for calculation of Availability of each category of the transmission elements are as per **Appendix-III**. The weightage factor for each category of transmission elements shall be considered as under:
- For each circuit of AC line – Number of sub-conductors in the line multiplied by ckt-km;
 - For each HVDC pole- The rated MW capacity x ckt-km;
 - For each ICT bank – The rated MVA capacity;
 - For SVC- The rated MVAR capacity (inductive and capacitive);
 - For Bus Reactor/switchable line reactors – The rated MVAR capacity;
 - For HVDC back-to-back station connecting two Regional grids- Rated MW capacity of each block; and
 - For STATCOM – Total rated MVAR Capacity.
5. The transmission elements under outage due to following reasons shall be deemed to be available:
- Shut down availed for maintenance of another transmission scheme or construction of new element or renovation/upgradation/additional capitalization in existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the Member Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved. In case of dispute regarding deemed availability, the matter may be referred to Chairperson, CEA within 30 days.
 - Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of concerned RLDC.
6. For the following contingencies, outage period of transmission elements, as certified by the Member Secretary, RPC, shall be excluded from the total time of the element under period of consideration for the following contingencies:
- Outage of elements due to acts of God and force majeure events beyond the control of the transmission



KTL



RSPPL

licensee. However, whether the same outage is due to force majeure (not design failure) will be verified by the Member Secretary, RPC. A reasonable restoration time for the element shall be considered by Member Secretary, RPC and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary, RPC may consult the transmission licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available;

- ii) Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, and tripping of lines, ICTs, HVDC, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalizing the system following grid incident/disturbance within reasonable time, the element will be considered not available for the period of outage after issuance of RLDC's direction for restoration;

Provided that in case of any disagreement with the transmission licensee regarding reason for outage, same may be referred to Chairperson, CEA within 30 days. The above need to be resolved within two months:

Provided further that where there is a difficulty or delay beyond sixty days, from the incidence in finalizing the recommendation, the Member Secretary of concerned RPC shall allow the outage hours on provisional basis till the final view.

7. Time frame for certification of transmission system availability: (1) Following schedule shall be followed for certification of availability by Member Secretary of concerned RPC:

- Submission of outage data by Transmission Licensees to RLDC/ constituents
 - By 5th of the following month;
- Review of the outage data by RLDC / constituents and forward the same to respective RPC – by 20th of the month;
- Issue of availability certificate by respective RPC – by 3rd of the next month.



KTL



RSPPL

Appendix-III

FORMULAE FOR CALCULATION OF AVAILABILITY OF EACH CATEGORY OF TRANSMISSION ELEMENTS

For AC transmission system

$$AV_o(\text{Availability of } o \text{ no. of AC lines}) = \frac{\sum_{i=1}^o W_i(T_i - TNA_i)/T_i}{\sum_{i=1}^o W_i}$$

$$AV_q(\text{Availability of } q \text{ no. of ICTs}) = \frac{\sum_{k=1}^q W_k T_k - TNA_k / T_k}{\sum_{k=1}^q W_k}$$

$$AV_r(\text{Availability of } r \text{ no. of SVCs}) = \frac{\sum_{i=1}^r W_i(T_i - TNA_i)/T_i}{\sum_{i=1}^r W_i}$$

$$AV_p(\text{Availability of } p \text{ no. of Switched Bus reactors}) = \frac{\sum_{m=1}^p W_m(T_m - TNA_m)/T_m}{\sum_{m=1}^p W_m}$$

$$AV_u(\text{Availability of } u \text{ no. of STATCOMs}) = \frac{\sum_{n=1}^u W_n(T_n - TNA_n)/T_n}{\sum_{n=1}^u W_n}$$

$$AV_{xtp}(\text{Availability of an individual HVDC pole}) = \frac{(T_x - TN_x)}{T_x}$$

$$AV_{ybb}(\text{Availability of an individual HVDC Back-to-back Blocks}) = \frac{(T_y - TNA_y)}{T_y}$$

For HVDC transmission system

For the new HVDC commissioned but not completed twelve months;

For first 12 months: $[(AV_{xtp} \text{ or } AV_{ybb}) \times 95\% / 85\%]$, subject to ceiling of 95%.

Where,

- o = Total number of AC lines;
- AVo = Availability of o number of AC lines;
- p = Total number of bus reactors/ switchable line reactors;
- AVp = Availability of p number of bus reactors/ switchable line reactors;
- q = Total number of ICTs;
- AVq = Availability of q number of ICTs;
- r = Total number of SVCs;
- AVr = Availability of r number of SVCs;
- u = Total number of STATCOM;


KTL


RSPPL

- AV_u = Availability of u number of STATCOMs;
 W_i = Weightage factor for i^{th} transmission line,
 W_k = Weightage factor for k^{th} ICT;
 W_l = Weightage factors for inductive & capacitive operation of l^{th} SVC;
 W_m = Weightage factor for m^{th} bus reactor;
 W_n = Weightage factor for n^{th} STATCOM.
- $T_i, T_k, T_l, T_m, T_n, T_x, T_y$ - The total hours of i^{th} AC line, k^{th} ICT, l^{th} SVC, m^{th} Switched Bus Reactor & n^{th} STATCOM, x^{th} HVDC pole, y^{th} HVDC back-to-back blocks during the period under consideration (excluding time period for outages not attributable to transmission licensee for reasons given in Para 5 of the procedure)
- $T_{NAi}, T_{NAk}, T_{NAl}, T_{NAm}, T_{NAn}, T_{NAx}, T_{NAy}$ - The non-availability hours (excluding the time period for outages not attributable to transmission licensee taken as deemed availability as per Para 5 of the procedure) for i^{th} AC line, k^{th} ICT, l^{th} SVC, m^{th} Switched Bus Reactor, n^{th} STATCOM, x^{th} HVDC pole and y^{th} HVDC back-to-back block.



KTL



RSPPL

Schedule: 10

Entire Bid (both financial bid and technical bid) of the Selected Bidder to be attached


KTL


RSPPL

Schedule: 11

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 Customer(s), in proportion to their Allocated Project Capacity as provided in Schedule 1 of this document)

In consideration of the[Insert name of the TSP or Selected Bidder on behalf of the TSP, with address] agreeing to undertake the obligations under the TSA datedand the other RFP Project Documents and REC Power Development and Consultancy Limited (“BPC”), 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 includingand 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 Rs. Crores (Rs.)only. Our Guarantee shall remain in force until[Insert the date of validity of the Guarantee as per Article 3.1.2 of this TSA]. 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.



KTL



RSPPL

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 Kallam Transmission Limited, [Insert name of the TSP] 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 Kallam Transmission Limited or the Selected Bidder or TSP, as the case may be, to make any claim against or any demand on Kallam Transmission Limited or the Selected Bidder or TSP, as the case may be, or to give any notice to Kallam Transmission Limited or the Selected Bidder or TSP, as the case may be, 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 Kallam Transmission Limited or the Selected Bidder or TSP, as the case may be.

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.


KTL


RSPPL

Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to Rs. Crores (Rs.) only and it shall remain in force until[Date to be inserted on the basis of Articleof 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



KTL



RSPPL

Schedule: 12

SUPPLEMENTARY AGREEMENT

BETWEEN

..... [Insert name of the TSP]

AND

..... [Insert name of the new Long Term Transmission Customer 1],

..... [Insert name of the new Long Term Transmission Customer 2],

..... [Insert name of the new Long Term Transmission Customer n]

THIS SUPPLEMENTARY AGREEMENT entered into on [Insert date] [Insert day] of[Insert month] in [Insert year] by and between, [Insert name of the Transmission Service Provider] incorporated under the Companies Act, 1956, having its registered office at (here in after referred to as Transmission Service Provider or "TSP", which expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the first part,

AND

..... [Insert name of the new Long Term Transmission Customer '1'] having its registered office at..... [Insert address of the new Long Term Transmission Customer 1] and having an Allocated Project Capacity as specified in the Table 2 of this Supplementary Agreement, (which expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the second part,

..... [Insert name of the new Long Term Transmission Customer '2'] having its registered office at..... [Insert address of the new Long Term Transmission Customer 1] and having an Allocated Project Capacity as specified in the Table 2 of this Supplementary Agreement, (which expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the third part,

..... [Insert name of the new Long Term Transmission Customer 'n'] having its registered office at..... [Insert address of the new Long Term Transmission Customer 1]


KTL


RSPPL

and having an Allocated Project Capacity as specified in the Table 2 of this Supplementary Agreement, (which expression shall unless repugnant to the context or meaning thereof include its successors, and permitted assigns) as Party of the nth part.

WHEREAS:

- A. The TSP has executed the TSA with the existing Long Term Transmission Customers as listed out in Schedule 1 of the TSA.
- B. The existing Long Term Transmission Customers as listed out in Schedule 1 of the TSA have executed the TSA with the TSP.
- C. The TSP has agreed to provide the Transmission Service to the existing Long Term Transmission Customers as per the terms and conditions of the TSA.
- D. The Allocated Project Capacity of the existing Long Term Transmission Customers as on this date.....[Insert date] is as detailed below:

Table : 1

Sl. No.	Name of the existing Long Term Transmission Customers	Allocated Project Capacity (in MW)
1		
2		
3		
.		
.		

- E. The existing Long Term Transmission Customers have agreed, on the terms and subject to the conditions of the TSA, to use the available transmission capacity of the Project and pay TSP the Transmission Charges as determined in accordance with the terms of the TSA.

NOW THEREFORE THIS AGREEMENT WITNESSETH as under:

- 1) The new Long Term Transmission Customer(s) and their Allocated Project Capacity as on this date.... [Insert date] are as detailed below:

Table 2:

Sl. No.	Name of the new Long Term Transmission Customer(s)	Allocated Project Capacity (in MW)
1		


KTL


RSPPL

Sl. No.	Name of the new Long Term Transmission Customer(s)	Allocated Project Capacity (in MW)
2		
3		
.		
.		

- 2) The new Long Term Transmission Customer(s) have been granted long term open access from the CTU/STU, as the case may be, and are beneficiaries to the Project.
- 3) The new Long Term Transmission Customer(s) agree to the terms and conditions laid down in the TSA, to use the Project and pay the TSP the Transmission Charges as determined in accordance with the terms of the TSA and the provisions of this Supplementary Agreement.
- 4) The TSP agrees to provide the Transmission Service to the new Long Term Transmission Customer(s) as per the terms and conditions of the TSA.
- 5) All terms and conditions of the TSA between the TSP and the existing Long Term Transmission Customers (as listed out in Table 1 of this Supplementary Agreement) shall apply, mutatis mutandis without any change, to the new Long Term Transmission Customers (as listed out in Table 2 of this Supplementary Agreement)

IN WITNESS WHEREOF the parties have executed these presents through their Authorised Representatives

WITNESS:

**Table 3:
WITNESS**

- | | |
|--|---|
| 1. Signature:
Name:
Designation: | For and on behalf of [Insert name of the TSP] |
| 2. Signature:
Name:
Designation: | For and on behalf of [Insert name of the new Long Term Transmission Customer 1] |


KTL


RSPPL

3. Signature: For and on behalf of [Insert
Name: name of the new Long Term
Designation: Transmission Customer 1]
.
.
.

n. Signature: For and on behalf of [Insert
Name: name of the new Long Term
Designation: Transmission Customer n]



Handwritten signature in blue ink, appearing to be 'B' with a long horizontal stroke, positioned above the printed text 'KTL'.

Kallam Transmission Limited



Handwritten signature in blue ink, appearing to be 'AS' with a checkmark-like stroke, positioned above the printed text 'RSPPL'.

Page 145 of 145

I/23836/2022

Annexure P-8



भारत सरकार
Government of India
 विद्युत मंत्रालय
Ministry of Power
 केंद्रीय विद्युत प्राधिकरण
Central Electricity Authority
 विद्युत प्रणाली योजना एवं मूल्यांकन प्रभाग- II
Power System Planning & Appraisal Division-II

सेवा में/To

As per list of Addresses

विषय : ट्रांसमिशन पर राष्ट्रीय समिति (एनसीटी) की नवी बैठक की कार्यसूची – के सम्बन्ध में ।

Subject : Agenda for the 9th Meeting of National Committee on Transmission (NCT) – regarding.

महोदया (Madam) / महोदय (Sir),

The 9th meeting of the "National Committee on Transmission" (NCT) is scheduled on 28th September, 2022 at 3.00 pm. Details of the meeting are given below:

Venue : Chintan, 2nd Floor, CEA, Sewa Bhawan, R.K. Puram Sector-1, New Delhi

Date : 28th September, 2022

Time : 1500 Hrs.

The agenda for the meeting is enclosed herewith.

Kindly make it convenient to attend the meeting.

भवदीय/Yours faithfully,

(रवीन्द्र गुप्ता / Ravinder Gupta)

मुख्य अभियंता एवं सदस्य सचिव (एनसीटी)
 /Chief Engineer & Member Secretary (NCT)

प्रतिलिपि / Copy to:

संयुक्त सचिव (पारेषण), विद्युत मंत्रालय, नई दिल्ली /
 Joint Secretary (Trans), Ministry of Power, New Delhi

I/23836/2022

List of Addresses:

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, CTUIL, Saudamini, Plot No. 2, Sector-29, Gurgaon – 122 001.
7.	Sh. Rajnath Ram, Adviser (Energy), NITI Aayog, Parliament Street, New Delhi – 110 001.	8.	CMD, POSOCO, B-9, Qutub, Institutional Area, Katwaria Sarai, New Delhi – 110010
9.	Dr. Radheshyam Saha, Ex. Chief Engineer, Central Electricity Authority	10	Shri Sushanta Kumar Ray Mohapatra, Ex. Chief Engineer, Central Electricity Authority

Table of Agenda

1	Confirmation of the minutes of the 08th meeting of National Committee on Transmission.	4
2	Transmission scheme for Solar Energy Zone in Gadag (1500MW), Karnataka: Part A Phase-II.....	4
3	Status of the transmission schemes noted/approved/recommended to MoP in the meetings of NCT:.....	5
4	New Transmission Schemes submitted by CTUIL for consideration of 9th NCT:.....	6
5	Schemes referred from previous NCT:.....	36
6	Evaluation of functioning of National Grid.....	63
7	Comprehensive presentation by CTU apprising NCT of measures taken for ensuring development of an efficient, co-ordinated and economical ISTS for smooth flow of electricity.....	63
8	Five-year rolling plan for ISTS capacity addition.....	63
9	Any other issues, with permission of chair.....	63

Agenda for the 9th meeting of National Committee on Transmission

- 1 Confirmation of the minutes of the 08th meeting of National Committee on Transmission.
 - 1.1 The minutes of the 8th meeting of NCT held on 25/03/2022 were issued vide CEA letter no CEA-PS-11-15(11)/1/20-PSPA-I dated 05/05/2022.
 - 1.2 Further, corrigendum to the minutes was issued vide CEA letter no.CEA-PS-11-15(11)/1/2020-PSPA-I Division/258 dated 13.06.2022.
 - 1.3 Members may confirm the minutes and corrigendum to the 08th meeting of NCT.

- 2 Transmission scheme for Solar Energy Zone in Gadag (1500MW), Karnataka: Part A Phase-II.
 - 2.1 CTU vide letter no. C/CTU/S/03/NCT dated 15.06.2022 has requested to amend the scope of work for Transmission scheme for Solar Energy Zone in Gadag (1500MW), Karnataka: Part A Phase-II.
 - 2.2 *Considering that the total number of 220 kV bays to be implemented in Phase I & Phase II of the scheme would be more than 8, at Gadag PS, 220kV bus sectionalizer bay along with associated Bus Coupler (BC) & Transfer Bus Coupler (TBC) bays are also required as per CEA planning criteria. Accordingly, the revised scope of works is as follows:*

SI. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	400/220 kV, 3x500 MVA ICT Augmentation at Gadag Pooling Station	400/220 kV, 500 MVA ICT – 3 400 kV ICT bays – 3 220 kV ICT bays – 3 220 kV line bays – 4 220kV sectionalization bay: 1 set 220kV Bus Coupler (BC) bay: 1 220kV Transfer Bus Coupler (TBC) bay - 1
2.	Gadag PS-Koppal PS 400 kV (high capacity equivalent to quad moose) D/c line	Length – 60
3.	2 nos. of 400 kV line bays at each end of Gadag PS-Koppal PS 400 kV D/c line	Line bays – 4

- 2.3 The Scheme with revised scope is already under bidding. Members may note.

I/23836/2022

3 Status of the transmission schemes noted/approved/recommended to MoP in the meetings of NCT:

3.1 The status of the transmission schemes noted/approved/recommended in the 8th meeting of NCT is tabulated below

Sr. No	Name of the Transmission Scheme	Noted/ Recommended/ Approved	Survey Agency	MoP approval	BPC	Remarks
	8th NCT					
1.	Inter-regional ER-WR Interconnection	Approved for implementation through TBCB	RECPDC L	Not required	RECPDC L	Bid documents under preparation
2.	Western Region Expansion Scheme-XXV (WRES-XXV)	Approved for implementation through RTM route	Not applicable	Not required		
3.	Western Region Expansion Scheme-XXVII (WRES-XXVII)	Approved for implementation through TBCB	PFCCL	Not required	PFCCL	Bid documents under preparation
4.	Western Region Expansion Scheme-XXVIII (WRES-XXVIII)	Approved for implementation through TBCB	PFCCL	Not required	PFCCL	
5.	Western Region Expansion Scheme-XXIX (WRES-XXIX)	Approved for implementation through TBCB	PFCCL	Not required	PFCCL	
6.	Transmission system for evacuation of power from Luhri Stage-I HEP	Approved for implementation through TBCB	CTUIL	Not required	RECPDC L	
7.	Transmission system for evacuation of power from Kaza Solar Power Project (880 MW)	Recommended to MoP Implementation through TBCB mode	PFCCL	MoP approval awaited		
8.	ISTS Network Expansion scheme in Western Region & Southern Region for export of surplus power during high RE scenario in Southern	Recommended to MoP Implementation through TBCB mode	RECPDC L	Approved and notified vide Gazette Notification dated		

I/23836/2022

Sr. No	Name of the Transmission Scheme	Noted/ Recommended/ Approved	Survey Agency	MoP approval	BPC	Remarks
	Region			13.06.2022		

* As per the MoP order dated 28.10.2021, ISTS schemes costing between Rs. 100 Crore to Rs. 500 Crore are to be approved by NCT while ISTS schemes costing more than Rs. 500 Crore to be recommended by NCT to MoP for approval.

4 New Transmission Schemes submitted by CTUIL for consideration of 9th NCT:

4.1 HVPNL proposal of transmission schemes involving Interconnection with ISTS elements:

S. No.	Items	Details
1.	Name of Scheme	HVPNL proposal of transmission schemes involving Interconnection with ISTS elements
2.	Scope of the scheme	<ul style="list-style-type: none"> ➤ Augmentation with 1x500MVA, 400/220kV transformer (3rd) at 400/220kV Bahadurgarh (PG) S/s - July, 24. <ul style="list-style-type: none"> ▪ 400/220 kV, 500 MVA ICT – 1 no. ▪ 400 kV ICT bay – 1 no. ▪ 220 kV ICT bay – 1 no. ➤ 2 nos of 220 kV line bays at 400/220 kV Bahadurgarh (PG) S/s (for 220 kV D/c line from Kharkhoda pocket B) – July, 24 <ul style="list-style-type: none"> ▪ 220 kV line bays – 2 nos. ➤ 2 nos of 220 kV line bays at 400/220 kV Bahadurgarh (PG) S/s (for 220kV METL – Bahadurgarh (PG) D/c line) – March, 24 <ul style="list-style-type: none"> ▪ 220 kV line bays – 2 nos. ➤ Augmentation with 1x500MVA, 400/220kV transformer (3rd) at 400/220kV Jind (PG) S/s – December, 23 <ul style="list-style-type: none"> ▪ 400/220 kV, 500 MVA ICT – 1 no. ▪ 400 kV ICT bay – 1 no. ▪ 220 kV ICT bay – 1 no. ➤ 2 nos of 220 kV line bays at 400/220 kV Sonapat (PG) S/s (for 220 kV D/c line from Kharkhoda pocket A) - Jul'24 <ul style="list-style-type: none"> ▪ 220 kV line bays – 2 nos.
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 4 -1, Figure 4 -2 and Figure 4 -3 (As per MOM of 24.11.21 meeting)
4.	Upstream/downstream system associated with the scheme	Upstream: nil (existing) Downstream: <ul style="list-style-type: none"> • Bahadurgarh (PG) - Kharkhoda pocket B 220 kV D/c line • Bahadurgarh (PG) - METL 220 kV D/c line • At Jind 400/220 kV (PG) – 220 kV network existing • Sonapat (PG) - Kharkhoda pocket A 220 kV D/c line
5.	Objective / Justification	<ul style="list-style-type: none"> • A meeting was held on 24/11/2021 among CEA, CTU, HVPNL, BBMB, POWERGRID and POSOCO to discuss HVPNL transmission scheme proposal involving interconnection with ISTS elements. In the meeting, Inter-state transmission scheme involving inter-connections with transmission scheme proposal of HVPNL agreed for implementation under ISTS • Subsequently, HVPNL vide their letter dated 27/01/2022 provided the time schedule for transmission works to be implemented under ISTS.

I/23836/2022

S. No.	Items	Details
		<ul style="list-style-type: none"> HVPNL vide email dated 15/02/2022 confirmed that network for unutilised/ under implementation bays at 400/220 kV Bahadurgarh (PG) & 400/220 kV Sonapat (PG) Substations are already planned. Therefore, the approval of 220kV line bays requested in the above scheme (S. No 2) are additional and agreed for implementation of the proposed scheme. The matter was also discussed and agreed in 4th Consultation meeting for evolving Transmission Schemes in NR held on 28/02/2022.
6.	Estimated Cost	117.05 Cr.
7.	Impact on the total Annual Transmission charges in % along with the existing ATC	A. ATC (considering Levelized Tariff @15% of estimated cost): Rs 17.56 Crore B. Present ATC: Rs. 41,292.01 Crore* C. A/B (%): 0.042 %
8.	Need of phasing, if any	Not Applicable
9.	Implementation timeframe	The element wise timeline as provided by HVPN are mentioned in Scope of the scheme (Sl. No. 2).
10.	Inclusion of any wild life/protected area along the transmission line route	Not Applicable
11.	Deliberations with RPC along with their comments	The estimated cost of the scheme is less than Rs 500 Crs. Accordingly, the same is not required to be sent to NRPC for deliberation in line with MoP office order no. 15/3/2018-Trans-Pt(5) dated 28-10-2021 regarding reconstitution of NCT.
12.	System Study for evolution of the proposal	<ul style="list-style-type: none"> In the joint meeting held on 24.11.2021, HVPN informed that load flow studies carried out by HVPNL, after connecting all the downstream network at 220 kV level, ICTs at 400/220 kV Bahadurgarh (PG) will become 'N-1' non-compliant. CEA and POSOCO also agreed the same. Therefore, ICT augmentation is required at Bahadurgarh (PG). In the joint meeting held on 24.11.2021, Director (PSPA-I), CEA, stated that as per system studies, loading on 2x500 MVA 400/220 kV ICTs at Jind (PG) would increase and ICTs may become 'N-1' non-compliant with the commissioning of Nain and Lodhar (HVPN) substations. Therefore, ICT augmentation would be required at Jind (PG). 4 nos. of 220kV line bays at Bahadurgarh (PG) agreed for interconnection to 220kV Kharkhoda pocket B (HVPN) and 220kV METL (HVPN) S/s as proposed by HVPNL 2 nos. of 220kV line bays at Sonapat (PG) agreed for interconnection to 220kV Kharkhoda pocket A (HVPN) S/s as proposed by HVPNL

**Total YTC allowed for Nov'21, as per Notification of Transmission Charges payable by DICs for Billing Month of January, 2022 dated 25.12.2021 posted on NLDC website*

I/23836/2022

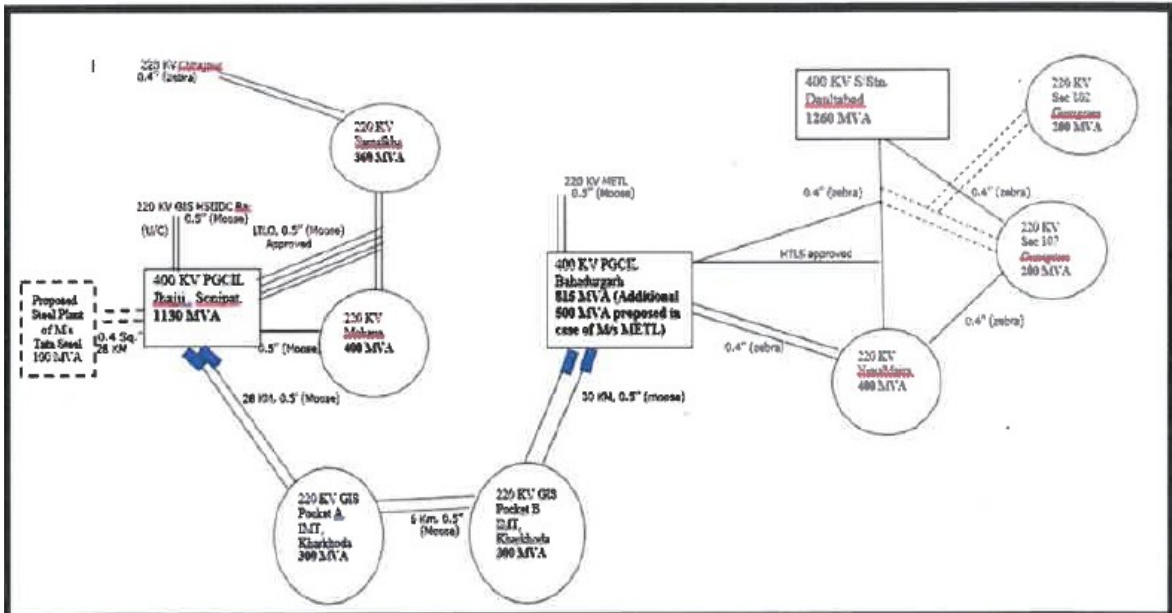
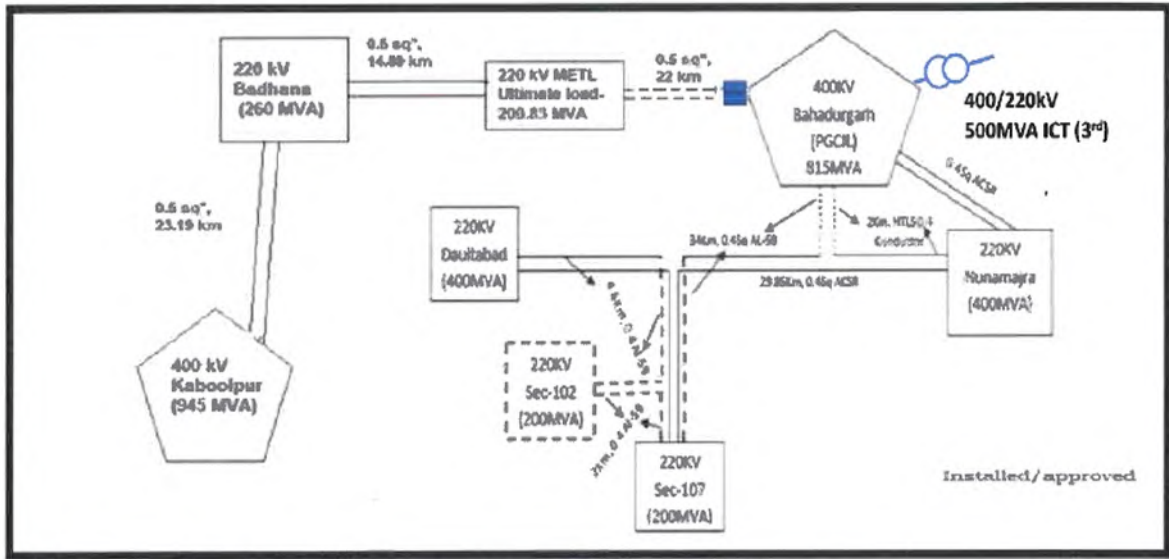


Figure 4-2HVPNL proposal of transmission schemes involving Interconnection with ISTS elements (fig-2)

I/23836/2022

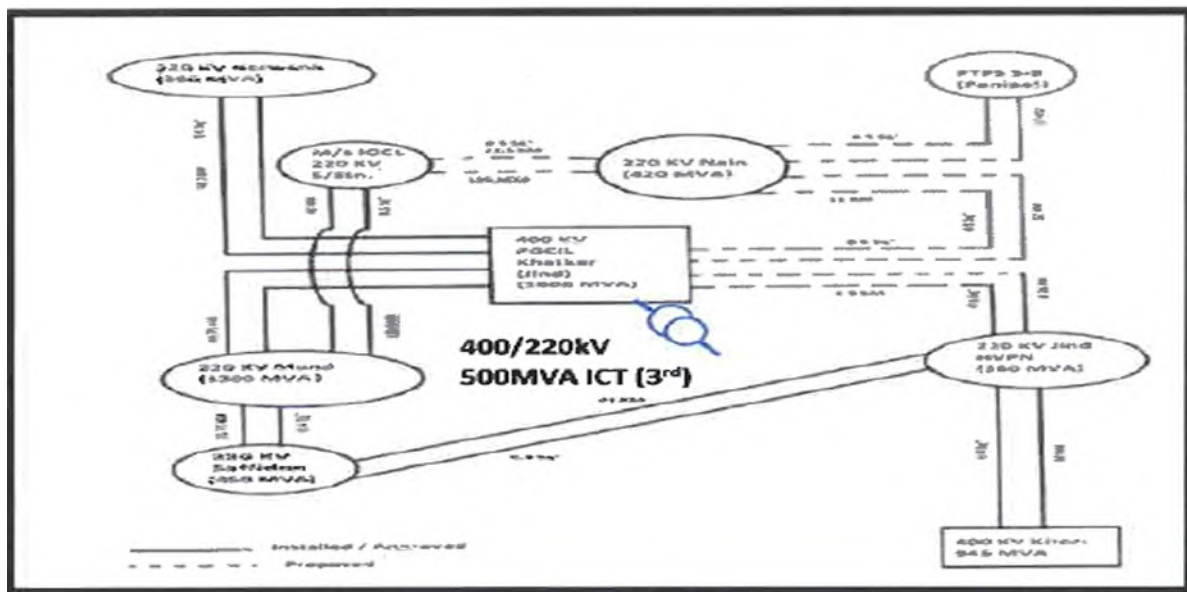


Figure 4-3 HVPNL proposal of transmission schemes involving Interconnection with ISTS elements (fig-3)

4.2 Scheme to relieve high loading of WR-NR Inter Regional Corridor (400 kV Bhinmal-Zerda line)

S. No.	Items	Details
	Name of Scheme	Scheme to relieve high loading of WR-NR Inter Regional Corridor (400 kV Bhinmal-Zerda line)
2.	Scope of the scheme	<ul style="list-style-type: none"> ➤ Bypassing of 400 kV Kankroli - Bhinmal-Zerda line at Bhinmal to form 400 kV Kankroli – Zerda (direct) line # ➤ Reconductoring of 400 kV Jodhpur (Surpura)(RVPN) – Kankroli S/c (twin moose) line with twin HTLS conductor*-188 km <p># with necessary arrangement for bypassing Kankroli- Zerda line at Bhinmal with suitable switching equipment inside the Bhinmal substation</p> <p>*with minimum capacity of 1940MVA/ckt at nominal voltage; Upgradation of existing 400kV bay equipment's each at Jodhpur (Surpura)(RVPN) and Kankroli S/s(3150 A)</p>
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 4 -4
4.	Upstream/downstream system associated with the scheme	Not Applicable
5.	Objective / Justification	<p>The objective of transmission scheme is to relieve overloading of Bhinmal-Zerda line under various operating conditions</p> <p>The Joint Study Meeting on Transmission Planning for Northern Region & Western Region was held on 21.03.2022, 28.03.22 & 29.03.22 over VC amongst CEA, CTU, POSOCO, WR, and NR constituents to deliberate NR-WR Inter-regional transmission system requirement to relieve overloading of Bhinmal-Zerda line under various operating conditions.</p>

I/23836/2022

S. No.	Items	Details
		<p>In the Joint Study meeting, the following scheme was proposed by CTU as per the immediate requirement (Phase-I: short term) to relieve 400kV WR-NR IR corridor loadings:</p> <ul style="list-style-type: none"> • Bypassing of 400 kV Kankroli - Bhinmal-Zerda lines at Bhinmal to form 400 kV Kankroli – Zerda (direct) line # • Reconductoring of 400 kV Jodhpur(Surpura)(RVPN) – Kankroli S/c line with twin HTLS conductor*-188 km <p># with necessary arrangement for bypassing Kankroli- Zerda line at Bhinmal with suitable switching equipment inside the Bhinmal substation.</p> <p>*with minimum capacity of 2100 MVA/ckt at nominal voltage; Upgradation of existing 400kV bay equipment's each at Jodhpur (Surpura)(RVPN) and Kankroli S/s (3150 A)</p> <p>After deliberations in the meeting, it was decided that Ph-1 (short term) scheme may be implemented as inter regional system strengthening scheme (ISTS) on urgent basis. The matter was also discussed and agreed in the 5th CMETS NR held on 30.03.2022.</p> <p>Subsequently, POWERGRID vide mail 20.05.22 provided inputs stating that with recent experience of Re-conductoring of various old lines based on HTLS conductor design principles for 400KV Lines designed with ACSR Moose conductor for 85 Deg C, ampacity of around 1400 Amperes may be possible with GAP & Composite Core type HTLS Conductor. For higher ampacity corresponding to 2100MVA capacity, GAP type HTLS Conductor may not be suitable and Composite Core type HTLS conductor may be the only option.</p> <p>It was also mentioned that the Composite Core type HTLS conductors is very costly (around 3 times to that of equivalent ACSR), whereas, GAP is economical (around 1.5 times to that of equivalent ACSR). With ampacity requirement of 1400A, possibility of GAP & Composite core type HTLS conductor may facilitate larger vendor base leading to better competition & fair price discovery. In case of higher ampacity, limited vendors of Composite core conductor may lead to reduced competition</p> <p>With 1400 Ampacity, 400kV line can be designed for about 1940 MVA. In the studies, it is observed from studies that line loading at 400 kV Jodhpur (Surpura) (RVPN) – Kankroli S/c (twin moose) line is about 1250 MW in Feb solar max scenario under worst case contingency. As the envisaged power flow is less than 1940MVA, therefore it is proposed that HTLS Conductor (Gap/Composite core) with 1400Amps(~1940MVA) may be utilized for reconductoring of 400kV Jodhpur (Surpura)(RVPN) – Kankroli S/c (twin moose) line</p> <p>Based on above inputs, proposal was again deliberated in the 7th CMETS NR meeting held on 31.05.22. In the meeting, proposal for Reconductoring of 400 kV Jodhpur(Surpura) (RVPN) – Kankroli S/c line with twin HTLS conductor having minimum capacity of 1940MVA/ckt at nominal voltage was agreed</p>
6.	Estimated Cost	Rs 279.5 Cr.
7.	Impact on the total Annual	A. ATC (considering Levelized Tariff @15% of

S. No.	Items	Details
	Transmission charges in % along with the existing ATC	estimated cost): Rs 41.93 Crore B. Present ATC: Rs. 41,292.01 Crore* C. A/B (%): 0.102 %
8.	Need of phasing, if any	Not Applicable
9.	Implementation timeframe	18 Months from date of allocation of project
10.	Inclusion of any wild life/protected area along the transmission line route	Not Applicable
11.	Deliberations with RPC along with their comments	The estimated cost of the scheme is less than Rs 500 Crs. Accordingly, the same is not required to be sent to NRPC for deliberation in line with MoP office order no. 15/3/2018-Trans-Pt(5) dated 28-10-2021 regarding reconstitution of NCT.
12.	System Study for evolution of the proposal	Refer Figure 4 -5, Figure 4 -6, Figure 4 -7, Figure 4 -8 and Figure 4 -9.

**Total YTC allowed for Nov'21, as per Notification of Transmission Charges payable by DICs for Billing Month of January, 2022 dated 25.12.2021 posted on NLDC website*

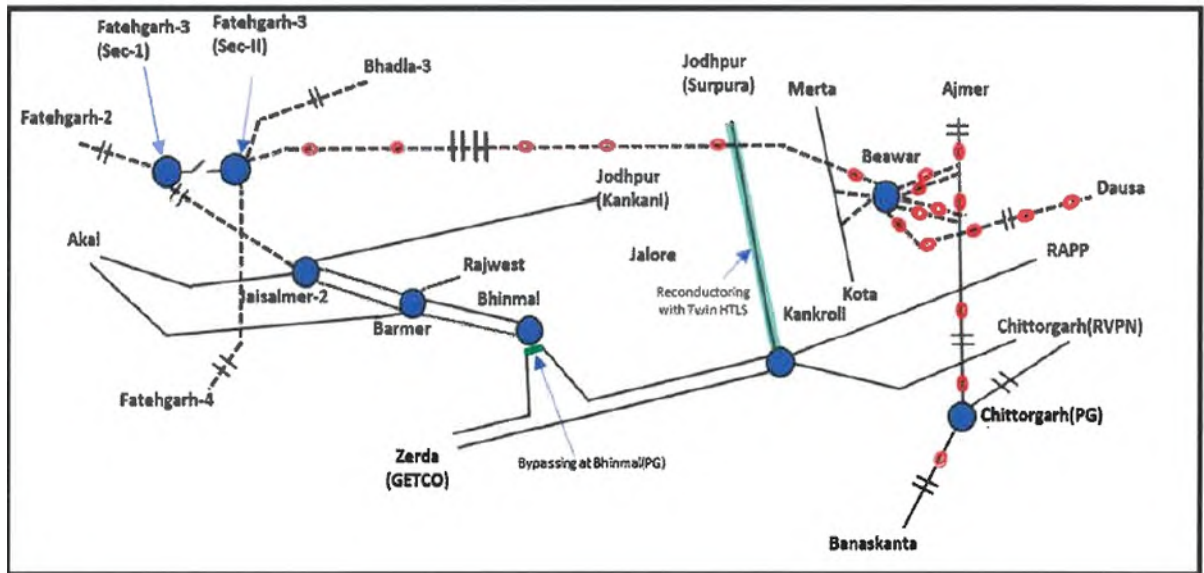


Figure 4-4 Scheme to relieve high loading of WR-NR Inter Regional Corridor (400 kV Bhisamal-Zarda line)

I/23836/2022

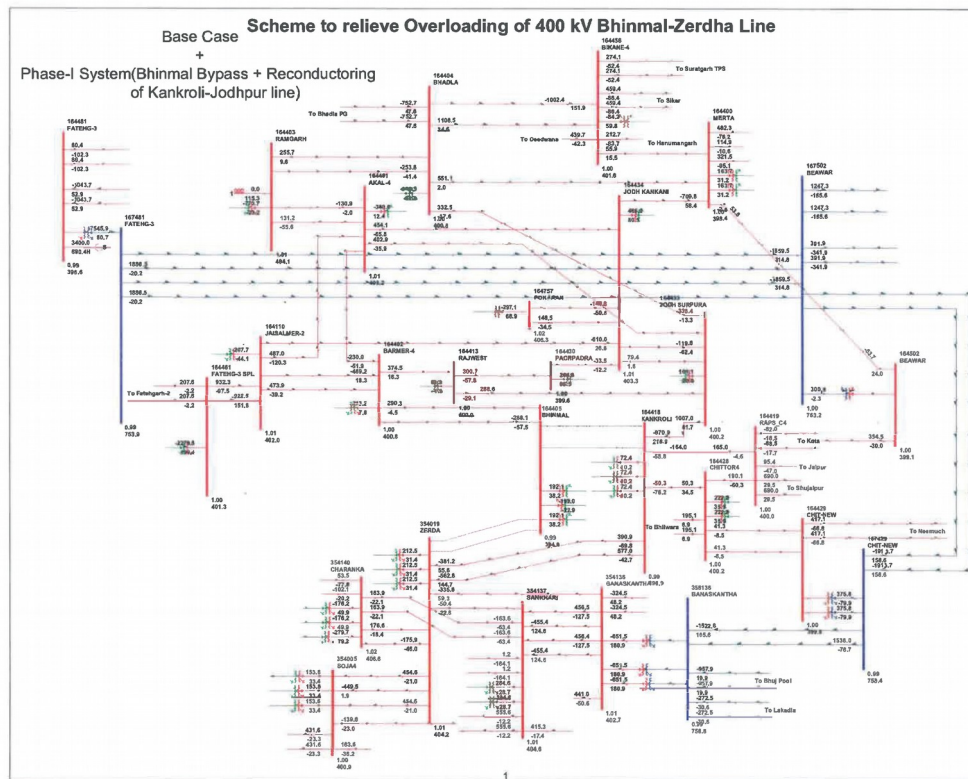
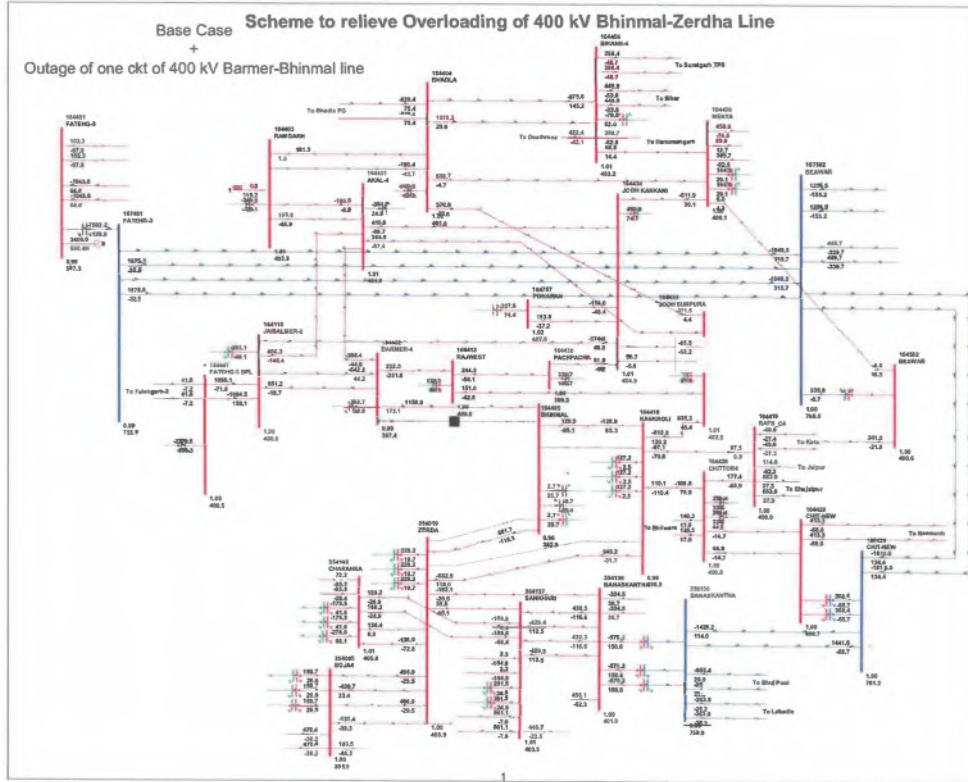


Figure 4-8 Scheme to relieve overloading of 400kV Bhinmal - Zerdha Line (fig-4)

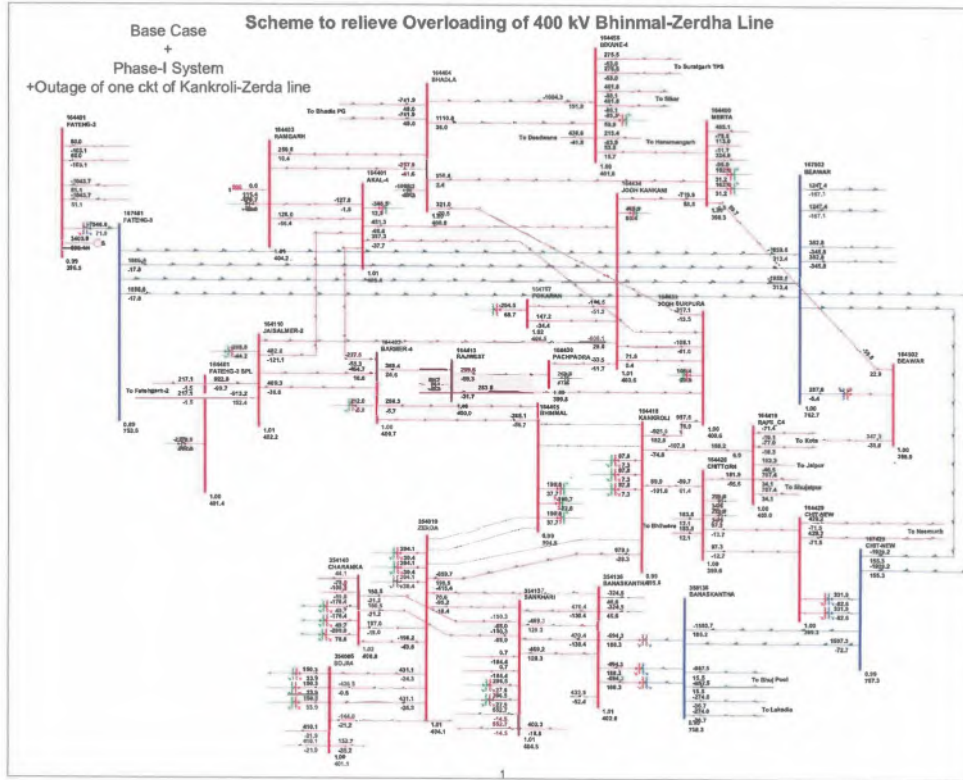


Figure 4-9 Scheme to relieve overloading of 400kV Bhinmal - Zerda Line (fig-5)

4.3 Eastern Region Expansion Scheme-XXIX (ERES-XXIX)

Sl. No.	Items	Details
1.	Name of scheme	Eastern Region Expansion Scheme-XXIX (ERES-XXIX)
2.	Scope of the scheme	<p>(a) Reconductoring of Jharsuguda/Sundargarh (POWERGRID) – Rourkela (POWERGRID) 400kV 2xD/c Twin Moose line with Twin HTLS conductor (with ampacity Single HTLS as 1228 A at nominal voltage).</p> <p>(b) Bay upgradation at Rourkela (POWERGRID) end for 3150A rating – 04 nos. diameters in one and half breaker scheme (except 09 nos. existing circuit breakers which are of minimum 3150 A rating).</p> <p>Note: No upgradation in line bays is envisaged at Jharsuguda/Sundargarh (POWERGRID) S/s as the existing line bays are rated for 3150 A.</p>
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 4 -10.
4.	Upstream/downstream system associated with the scheme	Nil
5.	Objective / Justification	As per inputs from Odisha, large numbers of industries are expected in and around Joda area with cumulative demand of about 480MW, which cannot be catered with existing 220kV network in the area. Accordingly, need for establishment of a new 400kV substation in Joda was felt to meet the power demand of the area. In this regard, providing power supply to Joda from nearby strong ISTS substation(s) was explored. Considering the same, it has

I/23836/2022

Sl. No.	Items	Details
		<p>been decided in the 6th CMETS-ER held on 29th Apr 2022 that new 400/220kV Joda substation may be implemented by OPTCL under intra-state scheme through LILO of existing Rourkela (POWERGRID) – Talcher (NTPC) 400kV D/c ISTS line at Joda New.</p> <p>With the integration of Joda New 400/220kV substation with ISTS, most of the power flows to Joda from Jharsuguda – Rourkela – Joda 400kV corridor. Further, Rourkela substation also acts as a source of power to Jharkhand through Rourkela – Chaibasa and Rourkela – Ranchi 400kV D/c lines. Accordingly, it has also been agreed in the 7th CMETS-ER held on 31-05-2022 to reconductor Jharsuguda – Rourkela 400kV 2xD/c lines with HTLS conductor in similar timeframe of establishment of Joda New 400/220kV substation i.e. in 36 months.</p> <p>Circuit I & III of Rourkela-Jharsuguda 400kV D/c line are designed for 75°C max. conductor temperature and Circuit II & IV are designed for and 85°C max. conductor temperature (schematic at Figure 4 -11). For 400kV transmission lines designed for 75°C & 85°C max. conductor temperature, ampacity of 1228 Amperes & 1400 Amperes (per conductor) respectively may be possible for re-conductoring purpose considering techno-commercial solution. It is observed that one circuit (ckt-1) of Rourkela-Jharsuguda on Section-A is designed for 75°C max. conductor temperature and other circuit (ckt-2) is designed for 85°C max. conductor temperature. Similar is the case for Section-B i.e. ckt-3 is designed for 75°C max. conductor temperature and ckt-4 is designed for 85°C max. conductor temperature. Accordingly, to have equitable rating for all circuits on Section-A and Section-B it was proposed in the meeting that all four circuits of Rourkela-Jharsuguda may be reconducted with HTLS of 1228A rating</p>
6.	Estimated Cost	<p>INR 422.23 Cr.</p> <p>Note: NCT may rework the estimated cost of the scheme at the time of finalisation/approval of the scheme considering scrap value of dismantled conductor at that point of time.</p>
7.	Impact on the total Annual Transmission Charges in % along with the existing ATC	<p>A. ATC (considering levelized tariff @15% of estimated cost): about ₹63.33 Cr.</p> <p>B. Present ATC: ₹ 42259.4Cr.*</p> <p>C. A/B: about 0.15%</p>
8.	Need of phasing, if any	No phasing required.
9.	Implementation timeframe	36 months from date of allocation
10.	Inclusion of any wild life/protected area along the transmission line route	No major National Park, Wild Life Sanctuary, other protected areas exist.
11.	Deliberations with RPC along with their comments	Estimated cost of the ISTS scheme is less than INR 500 Cr. Accordingly, the same is not required to be sent to NERPC for deliberation in line with MoP office order no. 15/3/2018-Trans-Pt(5) dated 28-10-2021 regarding reconstitution of NCT.
12.	System study for evolution of the proposal	Refer Figure 4 -12, Figure 4 -13 and Figure 4 -14.

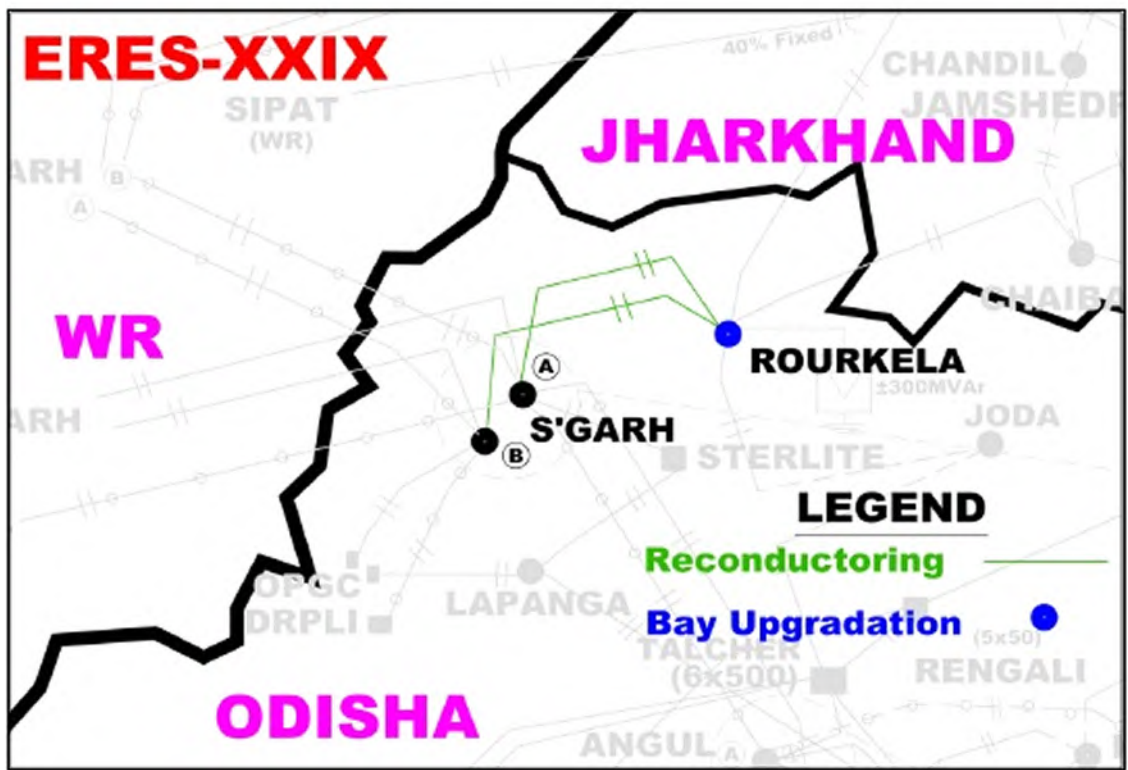


Figure 4-10 Eastern Region Expansion Scheme-XXIX (fig-1)

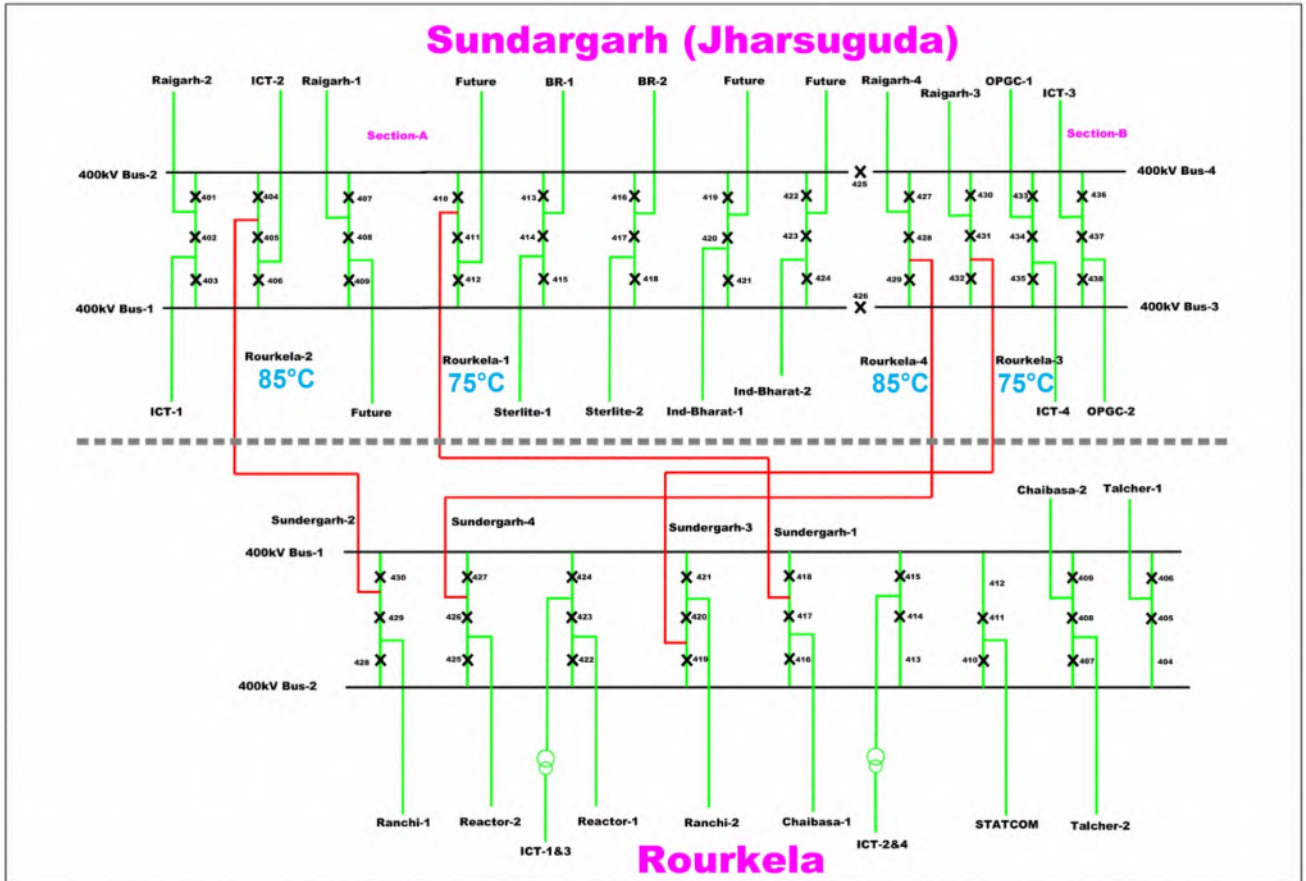


Figure 4-11 Eastern Region Expansion Scheme-XXIX (fig-2)

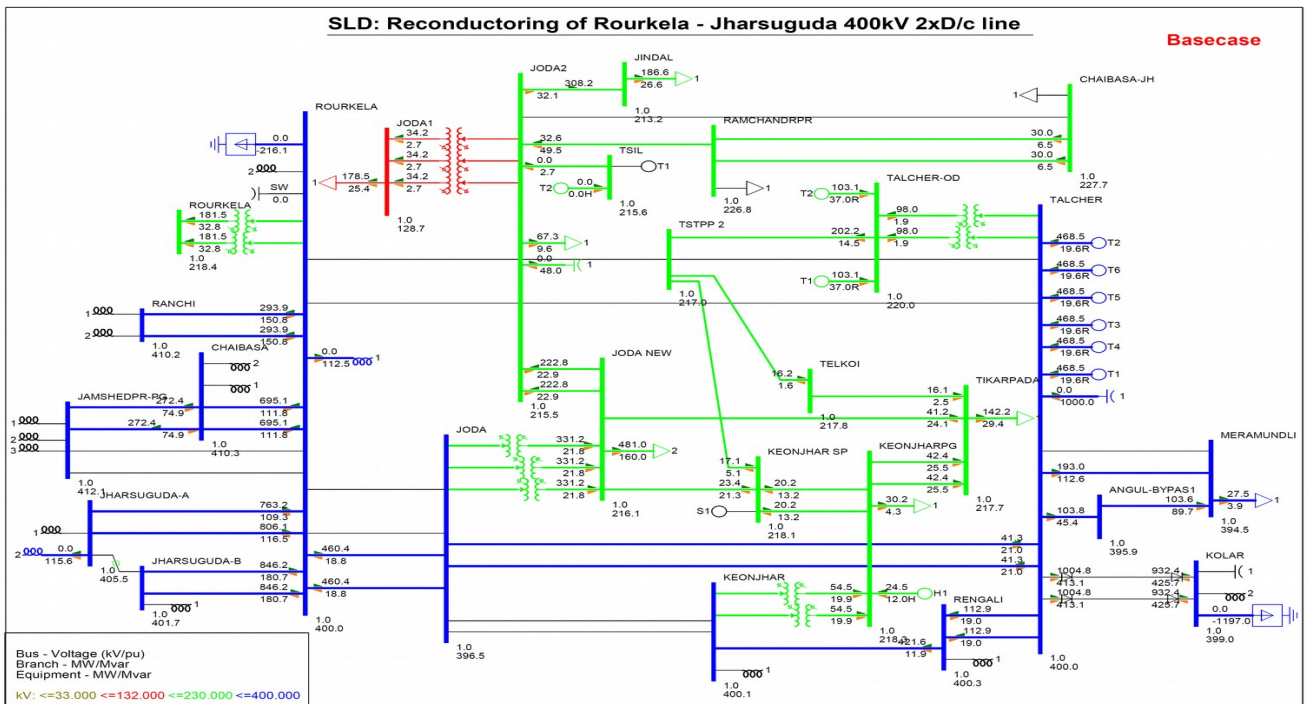


Figure 4-12 Eastern Region Expansion Scheme-XXIX (fig-3)

I/23836/2022

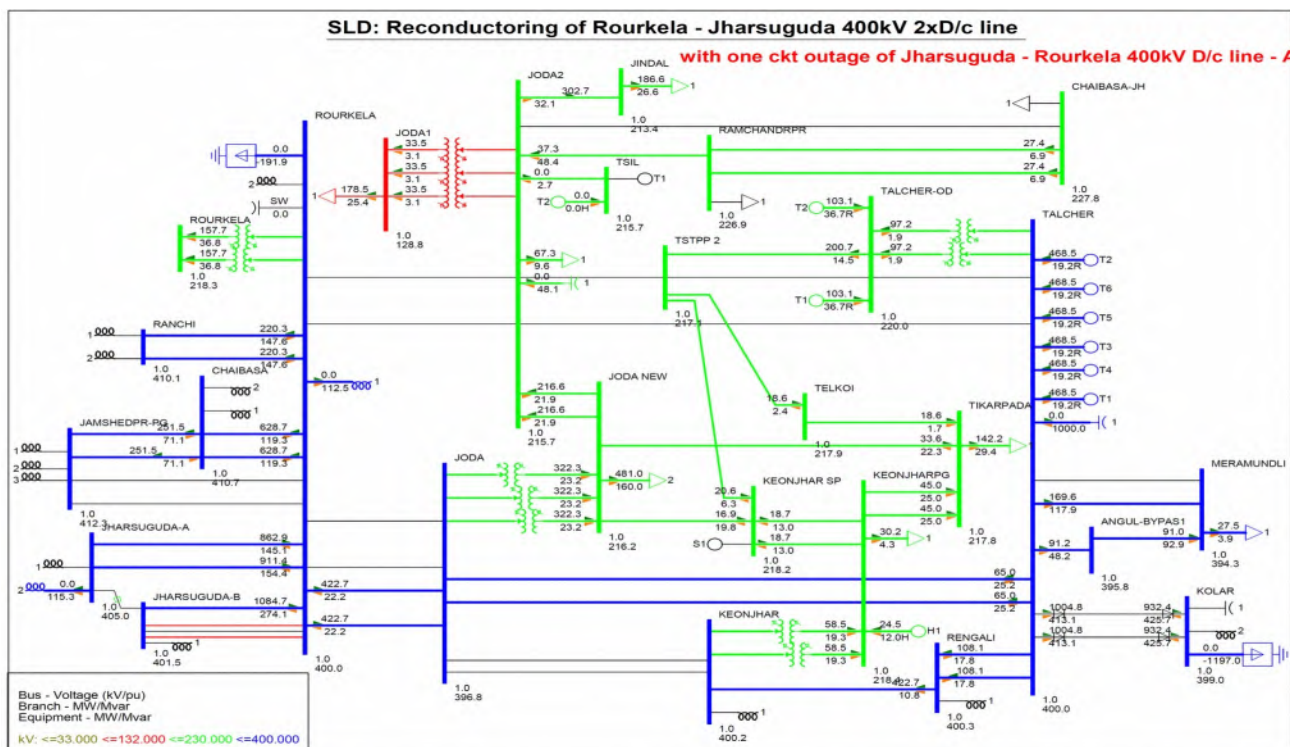


Figure 4-13 Eastern Region Expansion Scheme-XXIX (fig-4)

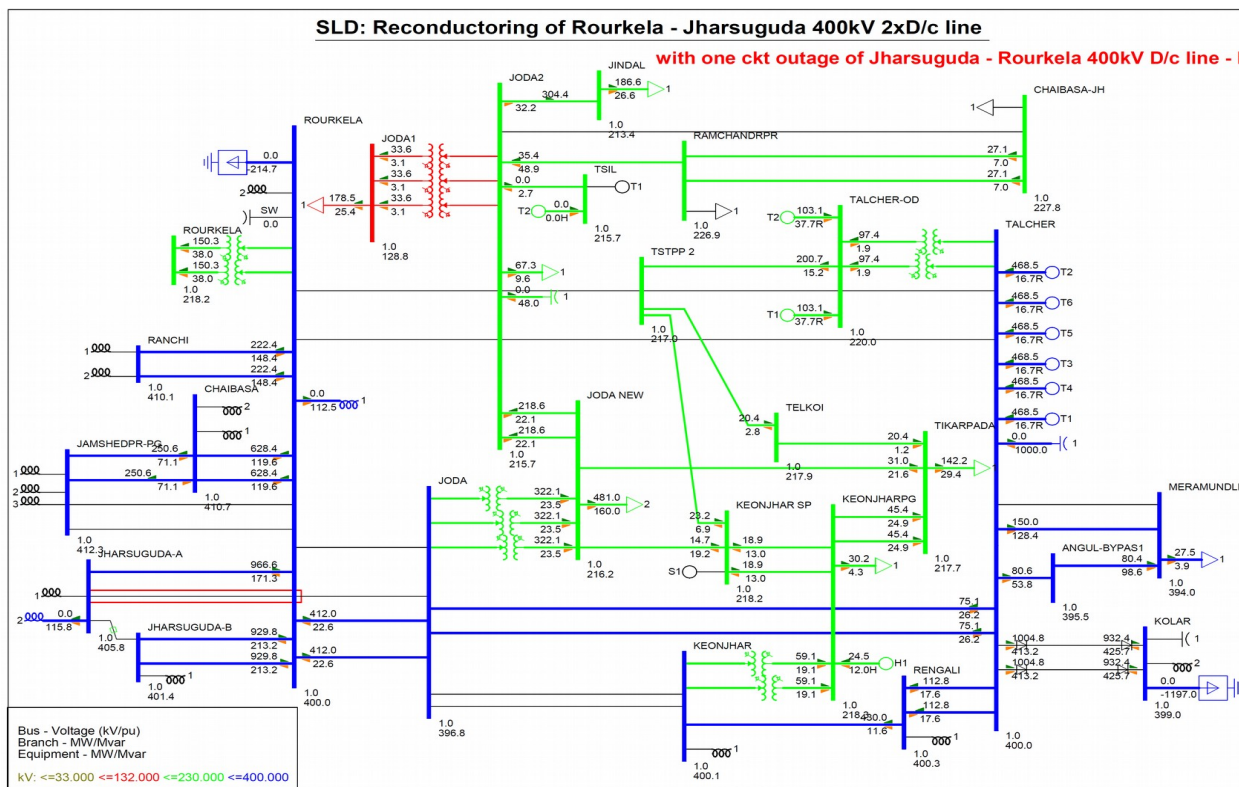


Figure 4-14 Eastern Region Expansion Scheme-XXIX (fig-5)

I/23836/2022

4.4 *Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection*

S. No.	Items	Details		
1.	Name of Scheme	Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection		
2.	Scope of the scheme	Sl.	Scope of the Transmission Scheme	Capacity /km
		1.	Augmentation of Kallam Pooling Station by 2x500 MVA, 400/220kV ICTs	500MVA, 400/220kV ICT: 2 nos. 400kV ICT bays: 2 nos. 220kV ICT bays: 2 nos.
		2.	3 nos. 220kV line bays for RE interconnection	220kV line bays: 3 nos.
		3.	1x125 MVAr bus reactor (2nd) at Kallam PS	125 MVAr, 420 kV Bus reactor – 1 no. Bus reactor bay: 1 no.
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 4 -15		
4.	Upstream/ downstream system associated with the scheme	Upstream: Following RE projects are granted/proposed to be granted Stage-II connectivity at Kallam PS: <ul style="list-style-type: none"> • M/s Veh Aarush (201MW: Granted) • M/s JSW Neo (300MW: Under Process) • M/s Serentica Renewables (210MW: Under Process) 		
5.	Objective / Justification	<p>In order to achieve the commitment made in terms of Nationally Determined Contributions (NDCs), as one of the significant steps, India has pledged to increase the non-fossil fuel energy capacity to 500 GW by 2030. MNRE vide letter No. 367-13/1/2021-GEC dated 15.02.2022 addressed to Joint Secretary (Trans), MoP, had forwarded the Renewable Energy Zones (REZs) identified by MNRE/SECI with a total capacity of 181.5 GW for likely benefits by the year 2030. Out of the same, 1GW (Wind + Solar) potential has been identified in Kallam area, which is in addition to 1GW REZ potential identified at Kallam under 66.5GW REZ. (i.e. total 2GW).</p> <p>Further, out of 181.5GW REZ, SECI vide letter dated 23.06.2022 has informed that as a first step to provide RTC Power (with wind, solar & storage components), they have identified certain locations with high solar & wind potential where work on RE evacuation system may be taken up immediately. Kallam is one such location which has been prioritised by SECI for development of transmission system.</p> <p>The matter was deliberated in the 9th CMETS-WR meeting held on 28.07.2022 wherein it was deliberated that the Stage-II connectivity at Kallam PS has already crossed 1GW (~1272MW). Hence, scheme for integration of Kallam REZ (1GW) may be taken up considering the 1GW addl. potential under 181.5GW as well as rapid pace of Stage-II connectivity applications being received by CTU.</p> <p>Further, 3 nos. 220kV line bays are also proposed under the subject scheme for following RE projects which are granted/proposed to be granted Stage-II connectivity at Kallam PS: <ul style="list-style-type: none"> • M/s Veh Aarush (201MW: Granted) • M/s JSW Neo (300MW: Under Process) • M/s Serentica Renewables (210MW: Under Process) </p>		
6.	Estimated Cost	Rs. 156.89 Crore		

I/23836/2022

S. No.	Items	Details		
7.	Impact on the total Annual Transmission charges in % along with the existing ATC	A. ATC (considering Levelized Tariff @15% of estimated cost): INR 23.53 Crore B. Present ATC: INR 42391.16 Crore* C. A/B (%): Less than 0.055%		
8.	Need of phasing, if any	Not Applicable		
9.	Implementation timeframe	Sl.	Scope of the Transmission Scheme	Time-frame
		1.	Augmentation of Kallam Pooling Station by 2x500 MVA, 400/220kV ICTs	18 months from date of allocation to implementing agency
		2.	3 nos. 220kV line bays for RE interconnection	M/s Serentica Renewables (210MW): 01.07.2024 M/s JSW Neo (300MW): 01.08.2024 M/s Veh Aarush (201MW): 31.12.2024
		3.	1x125 MVar bus reactor (2nd) at Kallam PS	18 months from date of allocation to implementing agency
10.	Inclusion of any wild life/protected area along the transmission line route	None envisaged		
11.	Deliberations with RPC along with their comments	The estimated cost of the scheme is less than INR 500 Cr. Accordingly, the same is not required to be sent to WRPC for deliberation in line with MoP office order no. 15/3/2018-Trans-Pt(5) dated 28-10-2021 regarding reconstitution of NCT		
12.	System Study for evolution of the proposal	Studies were carried out by Committee on Transmission Planning for Integration of 181.5 GW RE Capacity by 2030, which includes 1GW REZ potential at Kallam PS. The same was discussed and agreed in 9 th Consultation Meeting for Evolving Transmission Schemes in Western Region (CMETS-WR) held on 28.07.2022 Load flow results are at Figure 4 -16.		

* Total YTC allowed for July 2022, as per notification of transmission charges payable by DICs for billing month of Sep 2022 dated 25-08-2022 published on NLDC website (available @ <https://posoco.in/transmission-pricing/notification-of-transmission-charges-for-the-dics/>.)

I/23836/2022

Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection

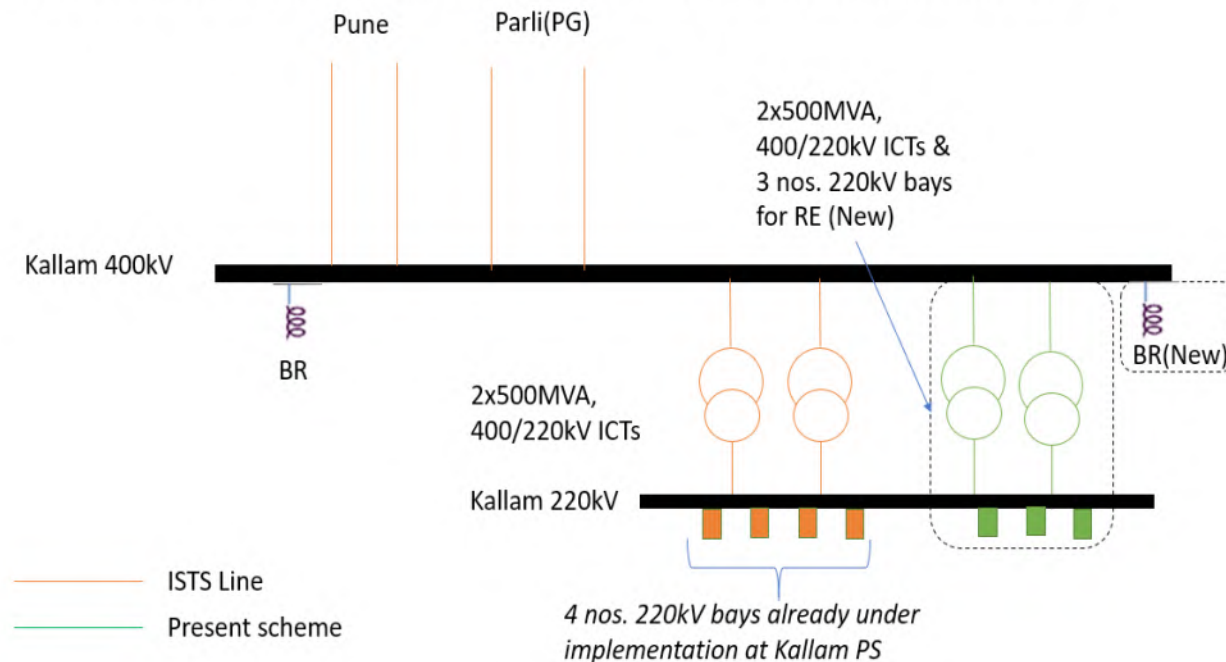


Figure 4-15 Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection (fig-1)

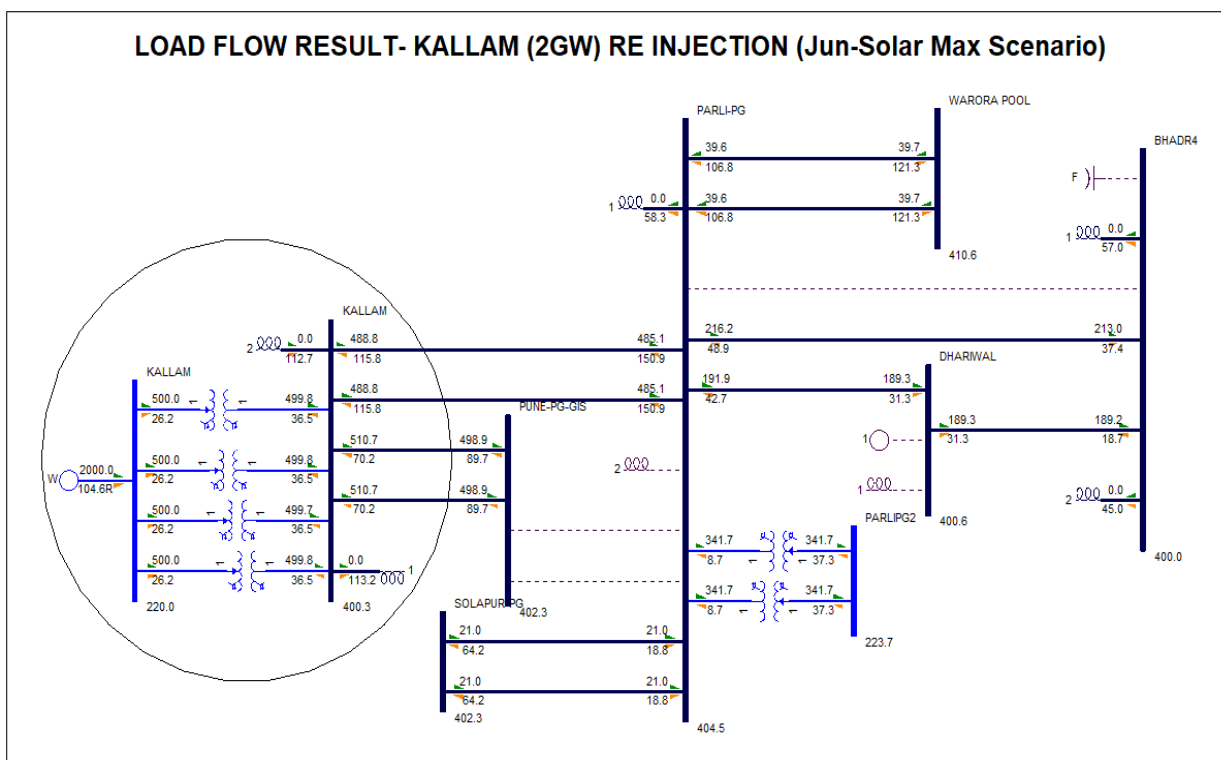


Figure 4-16 Augmentation of transformation capacity at Kallam PS by 2x500MVA, 400/220kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection (fig-2)

I/23836/2022

4.5 *Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex: 7.7GW)*

S. No.	Items	Details
1.	Name of Scheme	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex : 7.7GW)
2.	Scope of the scheme	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex: 7.7GW) (Bikaner-II : 3.7GW (Solar) + Bikaner-III : 4GW (7GW Solar+3GW BESS))</p> <ul style="list-style-type: none"> • Establishment of 6x1500 MVA, 765/400kV & 5x500 MVA[^] 400/220kV Bikaner-III Pooling Station along with 2x330 MVA_r (765kV) Bus Reactor & 2x125 MVA_r (420kV) Bus Reactor at a suitable location near Bikaner <ul style="list-style-type: none"> ➤ 765/400kV 1500 MVA ICTs: 6 nos (19x500 MVA 1Φ unit including one spare) ➤ 765kV bays: 10 nos. <ul style="list-style-type: none"> ➤ 765kV ICT bays - 6 nos. ➤ 765kV reactor bays- 2 nos. ➤ 330 MVA_r Bus Reactor-2 nos. (7x110 MVA_r, including one spare unit) ➤ 400 kV bays: 21 nos. <ul style="list-style-type: none"> ➤ 400 kV ICT bays – 11 nos. ➤ 400 kV line bays - 6 nos.(4 nos. for LILO of Bikaner-Bikaner-II D/c line & 2 nos. for Bikaner-II D/c line) ➤ 420 kV reactor bays - 2 nos. ➤ 125 MVA_r, 420kV bus reactor - 2 nos. ➤ 220 kV bays: 12 nos. <ul style="list-style-type: none"> ➤ 220 kV ICT bays - 5 nos. ➤ 220 kV line bays – 6 nos* (for RE connectivity) ➤ 220kV Sectionalization bay: 1 set ➤ BC and TBC : 2 nos. (each) <p>Future provisions at Bikaner-III PS*:</p> <p>Space for</p> <ul style="list-style-type: none"> ▪ 765 kV bays: 6 nos. <ul style="list-style-type: none"> ▪ 765/400kV ICT along with bay- 1 no. ▪ 765 kV line bays along with switchable line reactors – 4 nos. ▪ 765kV Bus Reactor along with bay: 1 no. ▪ 400 kV bays: 16 nos. <ul style="list-style-type: none"> ▪ 400 kV line bays along with switchable line reactor –4 nos. ▪ 400 kV line bays–4 nos. ▪ 400/220kV ICT along with bays -5 nos. ▪ 400 kV Bus Reactor along with bay: 1 no. ▪ 400kV Sectionalisation bay: 2 sets ▪ 220 kV bays: 8 nos. <ul style="list-style-type: none"> ▪ 220 kV line bays for connectivity of RE Applications - 6 nos.* ▪ 220kV Sectionalization bay: 2 sets ▪ STATCOM (2x+300MVA_r) along with MSC (4x125 MVA_r) & MSR (2x125 MVA_r) <ul style="list-style-type: none"> • LILO of both ckts of 400kV Bikaner (PG)-Bikaner-II D/c line at Bikaner-III PS (~20 km) • Bikaner-II PS – Bikaner-III PS 400 kV D/c line (Quad) (~30 km) <ul style="list-style-type: none"> ➤ 400 kV line bays at Bikaner-II – 2 nos. • Establishment of 765/400 kV, 4x1500 MVA Neemrana-II S/s along with 2x330 MVA_r (765kV) Bus Reactor & 2x125 MVA_r (420kV) Bus Reactor at a suitable location near Neemrana <ul style="list-style-type: none"> ➤ 765/400kV 1500 MVA ICTs: 4 nos (13x500 MVA 1Φ units including one spare) ➤ 765 kV bays: 8

I/23836/2022

S. No.	Items	Details
		<ul style="list-style-type: none"> ➤ 765kV ICT bays - 4 nos. ➤ 330 MVar Bus Reactor-2 nos. (7x110 MVar, including one spare unit) ➤ 765kV reactor bays- 2 nos. ➤ 400 kV bays: 14 <ul style="list-style-type: none"> ➤ 400 kV ICT bays – 4 nos. ➤ 400 kV line bays - 6 nos (4 nos. for LILO of Gurgaon - Sohna Road D/c line & 2 nos. for Kotputli D/c line) ➤ 125 MVar, 420kV bus reactor - 2 nos. ➤ 420 kV reactor bays - 2 nos. <p>Future provisions at Neemrana-II S/s:</p> <p>Space for</p> <ul style="list-style-type: none"> ▪ 765 kV bays: 9 nos. <ul style="list-style-type: none"> ▪ 765/400kV ICT along with bays- 2 nos. ▪ 765 kV line bays along with switchable line reactors – 6 nos. ▪ 765kV Bus Reactor along with bay: 1 no. ▪ 400 kV bays: 9 nos. <ul style="list-style-type: none"> ▪ 400 kV line bays along with switchable line reactor –6 nos. ▪ 400 kV Bus Reactor along with bays: 1 no. ▪ 400kV Sectionalization bay: 2 sets <ul style="list-style-type: none"> • LILO of both ckts of 400 kV Sohna Road(GPTL)-Gurgaon(PG) D/c line at Neemrana-II S/s (~85 km) • Neemrana-II -Kotputli 400 kV D/c line (Quad) (~70 km) <ul style="list-style-type: none"> ➤ 400 kV line bays at Kotputli- 2 nos. • Bikaner-III – Neemrana-II 765 kV 2xD/c line (~350 km) along with 330 MVar switchable line reactor for each circuit at each end <ul style="list-style-type: none"> ➤ 765kV line bays at Bikaner-III PS – 4 nos ➤ 765kV line bays at Neemrana-II – 4 nos. ➤ 765 kV, 330 MVar Switchable line reactors at Bikaner-III PS – 4 nos. ➤ 765 kV, 330 MVar Switchable line reactors at Neermana-II – 4 nos. ➤ Switching equipment for 765kV 330 MVar switchable line reactors at Bikaner-III PS – 4 nos. ➤ Switching equipment for 765kV 330 MVar switchable line reactors at Neemrana-II – 4 nos. • Neemrana-II- Bareilly(PG) 765 kV D/c line (~350 km) along with 330 MVar switchable line reactor for each circuit at each end <ul style="list-style-type: none"> ➤ 765 kV line bays at Neemrana-II – 2 nos. ➤ 765 kV line bays at Bareilly(PG) – 2 nos. ➤ 765 kV, 330 MVar Switchable line reactors at Neemrana-II – 2 nos. ➤ 765 kV, 330 MVar Switchable line reactors at Bareilly(PG) – 2 nos. ➤ Switching equipment for 765kV 330 MVAR switchable line reactors at Neemrana-II – 2 nos. ➤ Switching equipment for 765kV 330 MVAR switchable line reactors at Bareilly(PG) – 2 nos. • Augmentation with 400/220 kV, 5x500 MVA[^] ICT at Bikaner-II PS along with associated bays <ul style="list-style-type: none"> ➤ 400/220 kV, 500 MVA ICTs – 5 nos ➤ 400 kV ICT bays – 5 nos. ➤ 220 kV ICT bays - 5 nos. • Augmentation with 765/400 kV, 1x1500MVA ICT (4th) at Bikaner (PG) <ul style="list-style-type: none"> ➤ 765/400 kV, 1500 MVA ICT – 1 no. ➤ 765 kV ICT bay – 1 no. ➤ 400 kV ICT bay – 1 no.

I/23836/2022

S. No.	Items	Details																						
		<ul style="list-style-type: none"> • Augmentation by 400/220 kV, 1x500 MVA (3rd) ICT at Kotputli (PG) <ul style="list-style-type: none"> ➤ 400/220 kV, 500 MVA ICT – 1 no ➤ 400 kV ICT bay – 1 no ➤ 220 kV ICT bay - 1 no <p><i>^incl 1x500MVA ICT to fulfill 'N-1' requirement</i> <i>* Recently, 220kV bays (3 nos. under ISTS scope+1 no. under developer scope) at Bikaner-III PS under ISTS were agreed in CMETS-NR meetings commensurate to Stage-II connectivity applications granted at Bikaner-III PS. Considering additional envisaged applications as well as agreed bays (3 nos) under ISTS, 220 kV line bays at Bikaner-III PS for RE Connectivity (6 nos.) is considered in the scheme. The corresponding no. of 220 kV bays may be considered reduced from future scope of Bikaner-III PS.</i></p>																						
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 4 -17																						
4.	Upstream/ downstream system associated with the scheme	Connectivity of under implementation 400/220kV Bikaner-II S/s includes 400kV D/c interconnection with Khetri (2xD/c) and Bikaner (PG). 765/400/220kV existing Bikaner (PG) S/s is interconnected to 765/400kV Khetri, 765/400/220kV Bhadla (PG) and 765/400kV Moga S/s through 765kV D/c lines. 765/400kV existing Bareilly(PG) S/s is interconnected to 765/400kV Lucknow S/s through 765kV D/c line & 400kV Bareilly (PG) and Kashipur S/s through 400kV D/c lines.																						
5.	Objective / Justification	<p>1. MNRE vide letter No. 367-13/1/2021-GEC dated 15.02.2022 addressed to Joint Secretary (Trans), MoP, had forwarded the Renewable Energy Zones (REZs) identified by MNRE/SECI with a total capacity of 181.5 GW for likely benefits by the year 2030. Transmission plan was to be prepared for the identified RE zones. These REZ's are located in eight states, out of which 75 GW REZs includes in the state of Rajasthan comprising of 15 GW Wind and 60 GW Solar potential.</p> <p>2. Accordingly, a Comprehensive transmission scheme was evolved for evacuation of 75GW RE from Rajasthan. Out of above comprehensive scheme, transmission scheme is evolved for about 8GW (Solar) in Bikaner complex with potential (14GW along with 6GW BESS) as below:</p> <ul style="list-style-type: none"> • Bikaner-II: 4 GW (7GW Solar+ 3 GW BESS) • Bikaner-III:4 GW (7GW Solar+ 3 GW BESS) <p>3. At Bikaner-II PS, St-II Connectivity for 5.575 GW RE is already granted against the potential of 1.9 GW (revised from 2.9GW) identified under Ph-II), therefore, evacuation for additional 3.7 GW capacity is required from Bikaner-II PS.</p> <p>4. For additional solar potential of 7GW with 3GW BESS at Bikaner-III, evacuation system (4 GW) shall also be required. Therefore, total evacuation system requirement for 7.7GW (3.7+4 GW) shall be required from Bikaner Complex (Bikaner-II & III).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">S.No</th> <th rowspan="2">Pooling Station</th> <th colspan="2">Total RE potential (GW)</th> <th rowspan="2">Net RE generation</th> </tr> <tr> <th>Solar</th> <th>BESS</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Bikaner-II</td> <td>3.7*</td> <td>-</td> <td>3.7</td> </tr> <tr> <td>2</td> <td>Bikaner-III</td> <td>7</td> <td>3</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td>10.7</td> <td>3</td> <td>7.7</td> </tr> </tbody> </table>	S.No	Pooling Station	Total RE potential (GW)		Net RE generation	Solar	BESS	1	Bikaner-II	3.7*	-	3.7	2	Bikaner-III	7	3	4			10.7	3	7.7
S.No	Pooling Station	Total RE potential (GW)			Net RE generation																			
		Solar	BESS																					
1	Bikaner-II	3.7*	-	3.7																				
2	Bikaner-III	7	3	4																				
		10.7	3	7.7																				

I/23836/2022

S. No.	Items	Details
		<p>*1.9GW Solar potential is already considered in Ph-II at Bikaner-II. Total potential considered at Bikaner-II : 5.6GW (1.9+3.7)</p> <p>5. Evacuation system planned earlier in Ph-I, II, III from Bikaner complex was adequate for evacuation of about 4.8 GW RE potential from Bikaner complex. however, recently due to restrictions in GIB area, CTU has received more no. of connectivity applications in Bikaner complex. Stage-II connectivity received at Bikaner (PG) & Bikaner-II PS has already exceeded the envisaged potential in Bikaner complex as part of Ph-I (2.9 GW) and Ph-II (1.9 GW) potential.</p> <p>6. Upon grant of about 5.575 GW St-II Connectivity, in the 5th & 6th CMETS in NR, no further grant for St-II connectivity at 400/220kV Bikaner-II was decided. However, to effect LTA of entire Stage-II grant at Bikaner-II, additional corridors shall need to be planned from Bikaner-II PS. Further, as Bikaner PS and Bikaner-II PS are interconnected, power flow on interconnection is influenced by RE generation dispatched at each Pooling station. Considering space limitation of 400kV bays for additional corridors as well as 765/400kV ICTs at Bikaner PS, there is limitation on evacuation of power from Bikaner PS.</p> <p>7. The agenda for evacuation of power from Bikaner-II & Bikaner-III PS along with studies was discussed in 8th CMETS-NR meeting wherein observations on agenda/studies by Stakeholder incl. HVPN and POSOCO were deliberated. HVPN vide letter 28.06.22 and POSOCO mail dated 01.07.22 also sent their observations on agenda/studies.</p> <p>8. Based on observations from Stakeholders, revised study files shared to all constituents on 01.07.22. Subsequently, HVPN vide letter 05.07.22 concurred with the proposal</p> <p>9. Based on POSOCO input, CTU also carried out P-V and Q-V stability analysis in line with the discussion held in meeting and enclosed as part of minutes of 8th CMETS-NR meeting</p> <p>10. Considering grant of connectivity to new RE generators in Bikaner complex (incl. Bikaner-III) as well as for evacuation of power beyond Bikaner complex (Bikaner/Bikaner-II/Bikaner-III PS), transmission scheme was agreed for evacuation of power from Rajasthan REZ Ph-IV (Part-1) [Bikaner complex :7.7GW] in the 8th CMETS-NR meeting with scope at S. No. 2</p>
6.	Estimated Cost	Total: Rs 13460 Cr.
7.	Impact on the total Annual Transmission charges in % along with the existing ATC	<p>A. ATC (considering Levelized Tariff @15% of estimated cost): Rs 2,019 Cr.</p> <p>B. Present ATC: Rs. 42259.4 Cr.*</p> <p>C. A/B (%): 4.78 %</p>
8.	Need of phasing, if any	Not Applicable
9.	Implementation timeframe	24 months from allocation of project.

I/23836/2022

S. No.	Items	Details
10.	Inclusion of any wild life/protected area along the transmission line route	No major National park, Wild life sanctuary, other protected areas observed. However, for details of forest/protected areas survey is required to be done.
11.	Deliberations with RPC along with their comments	The above scheme was deliberated and agreed in 56 th NRPC held on 29.07.2022. (MoM Awaited)
12.	System Study for evolution of the proposal	Studies discussed and agreed in following meeting: <ul style="list-style-type: none"> 8th & 9th CMETS-NR meeting held on 30.06.2022 & 28.07.2022 respectively. 56th NRPC meeting held on 29.07.2022 (MoM Awaited) Load flow results are shown at Figure 4 -18 to Figure 4 -26

4.5.1. Packaging for Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex: 7.7GW) (Bikaner-II : 3.7GW (Solar) + Bikaner-III : 4GW (7GW Solar+3GW BESS))

PART-A1: (Rs. 4424 Cr.)

S.No.	Transmission Elements	Capacity /km
1	<p>Establishment of 4x1500 MVA (along with one spare unit of 500 MVA), 765/400 kV & 3x500 MVA 400/220 kV Bikaner-III Pooling Station along with 2x330 MVar (765kV) Bus Reactor (along with one spare unit of 110 MVar) & 2x125 MVar (420kV) Bus Reactor at a suitable location near Bikaner</p> <p>Future provisions: Space for</p> <ul style="list-style-type: none"> 765 kV bays: 10 nos. <ul style="list-style-type: none"> 765/400kV ICT along with bays- 3 no. 765 kV line bays along with switchable line reactors – 6 nos. 765kV Bus Reactor along with bay: 1 no. 400 kV bays: 18 nos. <ul style="list-style-type: none"> 400 kV line bays along with switchable line reactor –4 nos. 400 kV line bays–4 nos. 400/220kV ICT along with bays -7 nos. 400 kV Bus Reactor along with bay: 1 no. 400kV Sectionalization bay: 2 sets 220 kV bays: 11 nos. <ul style="list-style-type: none"> 220 kV line bays for connectivity of RE Applications -8 nos. 220kV Sectionalization bay: 3 sets 	<ul style="list-style-type: none"> 765/400kV 1500 MVA ICTs: 4 nos (13x500 MVA including one spare unit) 765 kV bays: 10 nos. <ul style="list-style-type: none"> 765kV ICT bays - 4 nos. 765kV line bays- 2 nos. 330 MVar Bus Reactor-2 nos. (7x110 MVar, including one spare unit) 765kV reactor bays- 2 nos. 400 kV bays: 18 nos. <ul style="list-style-type: none"> 400/220 kV, 500 MVA ICTs – 3 nos 400 kV ICT bays – 7 nos. 420 kV reactor bays - 2 nos. 400 kV line bays - 6 nos.(4 nos. for LILO of Bikaner-Bikaner-II D/c line & 2 nos. for Bikaner-II D/c line) 220 kV bays: 9 nos. <ul style="list-style-type: none"> 220 kV ICT bays - 3 nos. 125 MVar, 420kV bus reactor - 2 nos. 220 kV line bays – 4 nos (for RE connectivity) BC and TBC: 1 no. (each)

I/23836/2022

	<ul style="list-style-type: none"> • STATCOM (2x±300MVAR) along with MSC (4x125 MVAR) & MSR (2x125 MVAR) 	
2	LILO of both ckts of 400kV Bikaner (PG)-Bikaner-II D/c line(Quad) at Bikaner-III PS	Length: 20 km
3	Bikaner-II PS – Bikaner-III PS 400 kV D/c line (Quad)	Length: 30 km
4	2 no. of 400 kV line bays at Bikaner-II	400 kV line bays at Bikaner-II PS - 2 nos.
5	Bikaner-III - Neemrana-II 765 kV D/c line along with 330 MVAR switchable line reactor for each circuit at each end	Length: 350 km <ul style="list-style-type: none"> • 765 kV, 330 MVAR switchable line reactors at Bikaner-III PS – 2 nos. • 765 kV, 330 MVAR Switchable line reactors at Neemrana-II S/s – 2 nos. • Switching equipment for 765kV 330 MVAR switchable line reactors at Bikaner-III PS – 2 nos. • Switching equipment for 765kV 330 MVAR switchable line reactors at Neemrana-II S/s – 2 nos.
6	2 no. of 765 kV line bays at Neemrana-II S/s	<ul style="list-style-type: none"> • 765kV line bays at Neemrana-II S/s- 2nos.

Note :

- 1) The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- 2) Powergrid to provide space for 2 nos. of 400 kV line bays at Bikaner-II PS
- 3) Developer of Neemrana-II S/s to provide space for 2 nos. of 765 kV line bays at Neemrana-II S/s for termination of Bikaner-III - Neemrana-II 765 kV D/c line
- 4) Provision of suitable sectionalization shall be kept at Bikaner-III PS at 400kV & 220kV level to limit short circuit level

PART-A2: (Rs. 118 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Augmentation with 400/220 kV, 2x500 MVA [^] ICT at Bikaner-III PS	<ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICTs – 2 nos. • 400 kV ICT bays – 2 nos. • 220 kV ICT bays - 2 nos.
2	220 kV Line bays for RE connectivity	<ul style="list-style-type: none"> • 220 kV line bays – 2 nos • 220kV Sectionalization bay: 1 set • BC and TBC: 1 no. (each)

[^] incl 1x500MVA ICT to fulfill 'N-1' requirement

Note :

- 1) The implementation of package comprising number of 220kV bays and transformers. The 220kV bays to be taken based on receipt of Stage-II connectivity and the implementation of 400/220kV transformer to be taken up based on evaluation requirement beyond 1500MW at 220kV level of Bikaner-III PS

I/23836/2022

PART-A3: (Rs. 199 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Augmentation with 765/400 kV, 2x1500 MVA ICT at Bikaner-III PS	<ul style="list-style-type: none"> • 765/400kV 1500 MVA ICTs: 2 nos. (6x500 MVA 1-phase units) • 765 kV ICT bays – 2 nos. • 400 kV ICT bays - 2 nos.

Note :

- 1) The implementation of package to be taken up with evaluation requirement beyond 3000MW (out of 7.7GW) at Bikaner-II/ Bikaner-III PS

PART-B1: (Rs. 1776 Cr.)

S.No.	Transmission Elements	Capacity /km
1	<p>Establishment of 765/400 kV, 3x1500 MVA (along with one spare unit of 500MVA) Neemrana-II S/s along with 2x330 MVAR (765kV) Bus Reactor (along with one spare unit of 110 MVAR) & 2x125 MVAR (420kV) Bus Reactor at a suitable location near Neemrana</p> <p>Future provisions: Space for</p> <ul style="list-style-type: none"> • 765 kV bays: 16 nos. <ul style="list-style-type: none"> • 765/400kV ICT along with bays- 3 • 765 kV line bays along with switchable line reactors – 12 • 765kV Bus Reactor along with bay: 1 nos. • 400 kV bays: 9 nos. <ul style="list-style-type: none"> • 400 kV line bays along with switchable line reactor –6 • 400 kV Bus Reactor along with bays: 1 no. • 400kV Sectionalization bay: 2 sets 	<ul style="list-style-type: none"> • 765 kV bays: 10 nos. <ul style="list-style-type: none"> • 765/400kV 1500 MVA ICTs – 3 nos (10x500 MVA including one spare unit) • 765kV ICT bays – 3 nos. • 330 MVAR Bus Reactor-2 nos.(7x110 MVAR, including one spare unit) • 765kV reactor bays- 2 nos. • 400 kV bays: 13 nos. <ul style="list-style-type: none"> • 400 kV ICT bays – 3 nos. • 400 kV line bays - 6 nos (4 nos. for LILO of Gurgaon -Sohna Road D/c line & 2 nos. for Kotputli D/c line) • 125 MVAR, 420kV bus reactor - 2 nos. • 420 kV reactor bays - 2 nos.
2	Neemrana-II -Kotputli 400 kV D/c line (Quad)	Length: 70 km
3	2 no. of 400 kV line bays at Kotputli	400 kV line bays at Kotputli - 2 nos.
4	LILLO of both ckts of 400 kV Gurgaon (PG) - Sohna Road (GPTL) D/c line (Quad) at Neemrana-II S/s	Length: 85 km

Note :

I/23836/2022

- 1) The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- 2) Provision of suitable sectionalization shall be kept at Neemrana-II at 400kV level to limit short circuit level
- 3) Powergrid to provide space for 2 nos. of 400 kV line bays at Kotputli S/s

PART-B2: (Rs. 100 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Augmentation with 765/400kV, 1x1500 MVA (4 th) at Neemrana-II S/s	<ul style="list-style-type: none"> • 765/400kV 1500 MVA ICT: 1 no. • 765 kV ICT bay – 1 no. • 400 kV ICT bay – 1 no.

Note :

- 1) The implementation of package to be taken up with evaluation requirement beyond 2300MW at Bikaner-II/ Bikaner-III PS (Out of 7.7GW)

PART-C: (Rs. 3204 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Bikaner-III - Neemrana-II 765 kV D/c line (2 nd) along with 330 MVA switchable line reactor for each circuit at each end	Length: 350 km <ul style="list-style-type: none"> • 765 kV, 330 MVA Switchable line reactors at Bikaner-III PS – 2 nos. • 765 kV, 330 MVA Switchable line reactors at Neermana-II – 2 nos. • Switching equipment for 765kV 330 MVA switchable line reactors at Bikaner-III PS – 2 nos. • Switching equipment for 765kV 330 MVA switchable line reactors at Neemrana-II S/s – 2 nos.
2	2 no. of 765 kV line bays each at Bikaner-III PS & Neemrana-II S/s	765kV line bays - 4 nos (2 nos. each at Bikaner-III PS & Neemrana-II S/s)

Note :

- 1) The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- 2) The implementation of package to be taken up with evaluation requirement beyond 3800MW at Bikaner-II/ Bikaner-III PS (Out of 7.7GW)
- 3) Developer of Bikaner-III PS & Neemrana-II S/s to provide space for 2 nos. of 765 kV line bays each at Bikaner-III PS & Neemrana-II S/s for termination of Bikaner-III - Neemrana-II 765 kV D/c line (2nd)

PART-D: (Rs. 3271 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Neemrana-II- Bareilly (PG) 765 kV D/c line (~350 km) along with 330 MVA switchable line reactor for each circuit at each end	Length: 350 km <ul style="list-style-type: none"> • 765 kV, 330 MVA switchable line reactors at Neermana-II S/s– 2 nos. • 765 kV, 330 MVA Switchable line reactors at Bareilly(PG) – 2 nos.

I/23836/2022

		<ul style="list-style-type: none"> Switching equipment for 765kV 330 MVAr switchable line reactors at Neermana-II S/s – 2 nos. Switching equipment for 765kV 330 MVAr switchable line reactors at Bareilly(PG) S/s – 2 nos.
2	2 no. of 765 kV line bays each at Neemrana-II & Bareilly (PG) S/s	765kV line bays - 4 nos (2 nos. each at Neemrana-II & Bareilly (PG) S/s)

Note :

- 1) The implementation of package shall be taken up matching with Package C
- 2) The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- 3) Developer of Neemrana-II S/s to provide space for 2 nos. of 765 kV line bays at Neemrana-II S/s for termination of Neemrana-II- Bareilly (PG) 765 kV D/c line
- 4) Powergrid to provide space for 2 nos. of 765 kV line bays at Bareilly (PG) S/s

PART-E: (Rs. 368 Cr.)

S.No.	Transmission Elements	Capacity /km
1	Augmentation by 765/400 kV, 1x1500MVA ICT (4 th) at Bikaner (PG)	<ul style="list-style-type: none"> 765/400 kV, 1500 MVA ICT – 1 no. 765 kV ICT bay – 1 nos. 400 kV ICT bay - 1 nos.
2	Augmentation by 400/220 kV, 1x500 MVA ICT (3 rd) at Kotputli (PG)	<ul style="list-style-type: none"> 400/220 kV, 500 MVA ICT – 1 nos. 400 kV ICT bay – 1 nos. 220 kV ICT bay - 1 nos.
3	Augmentation with 400/220 kV, 5x500 MVA [^] ICT at Bikaner-II PS	<ul style="list-style-type: none"> 400/220 kV, 500 MVA ICTs – 5 nos. 400 kV ICT bays – 5 nos. 220 kV ICT bays - 5 nos.

[^] incl 1x500MVA ICT to fulfill 'N-1' requirement

Note :

- 1) Implementation of Augmentation by 765/400kV, 1x1500MVA Transformer (4th) at Bikaner (PG) shall be taken up after evacuation requirement beyond 5500MW (Out of 7.7GW) at Bikaner-II/Bikaner-III
- 2) Implementation of Augmentation by 400/220kV, 1x500MVA Transformer (3rd) at Kotputli (PG) shall be taken up matching with Package B1
- 3) Implementation of Augmentation by 400/220kV, 5x500MVA Transformer at Bikaner-II PS shall be taken up after evacuation requirement beyond 1000MW at 220kV level of Bikaner-II PS (2x500MVA ICTs is under implementation)

I/23836/2022

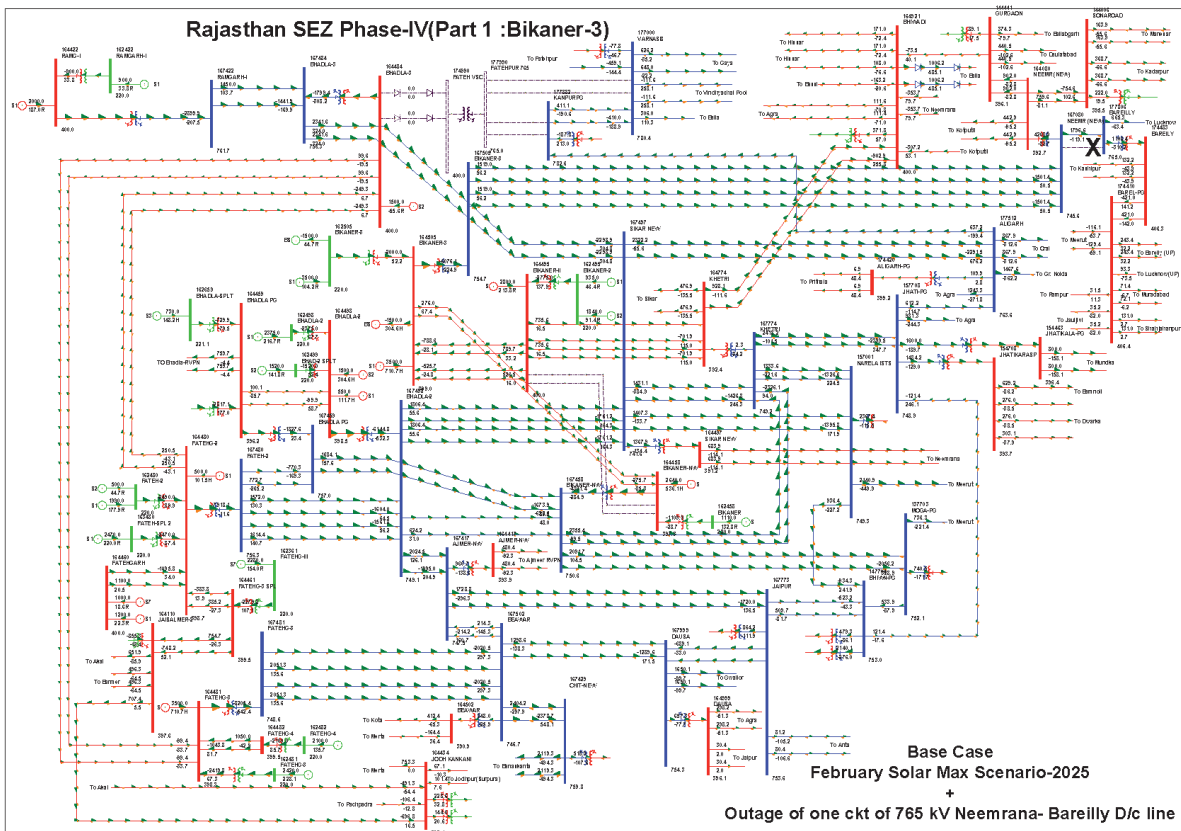
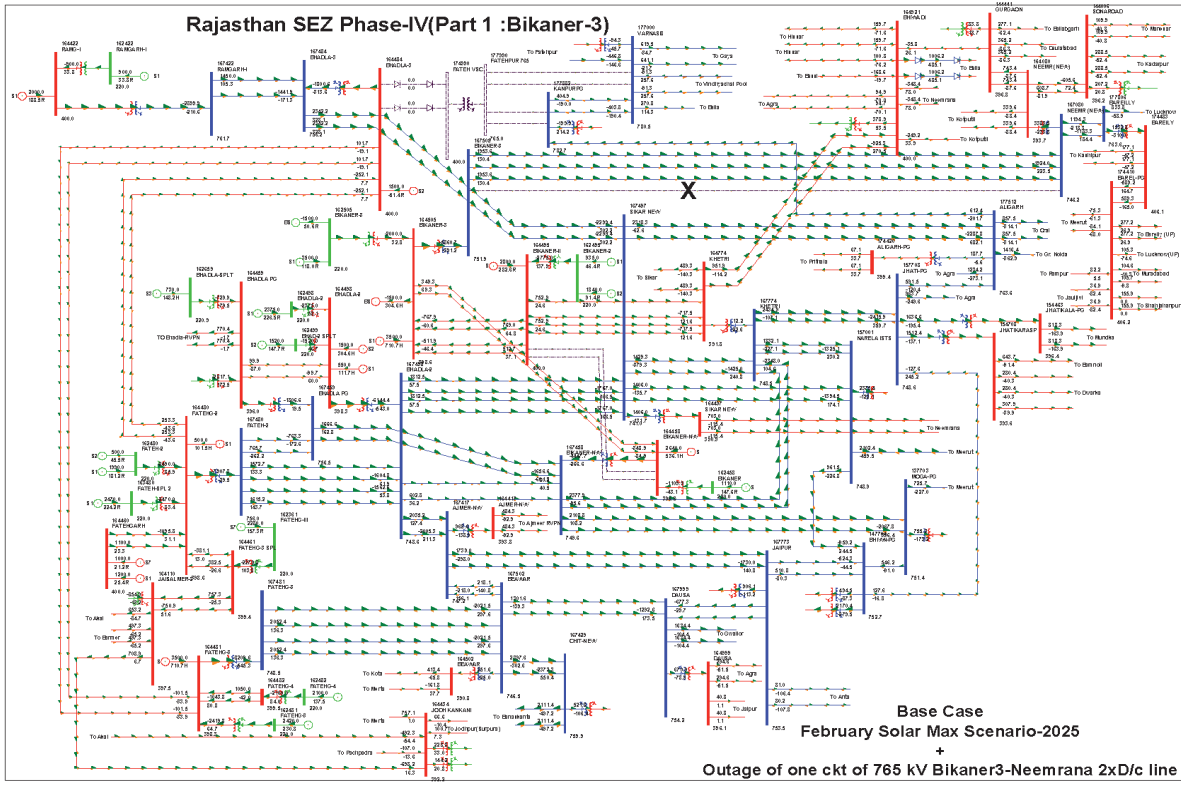


Figure 4-20 Load flow results of Bikaner-3 (fig-3)

I/23836/2022

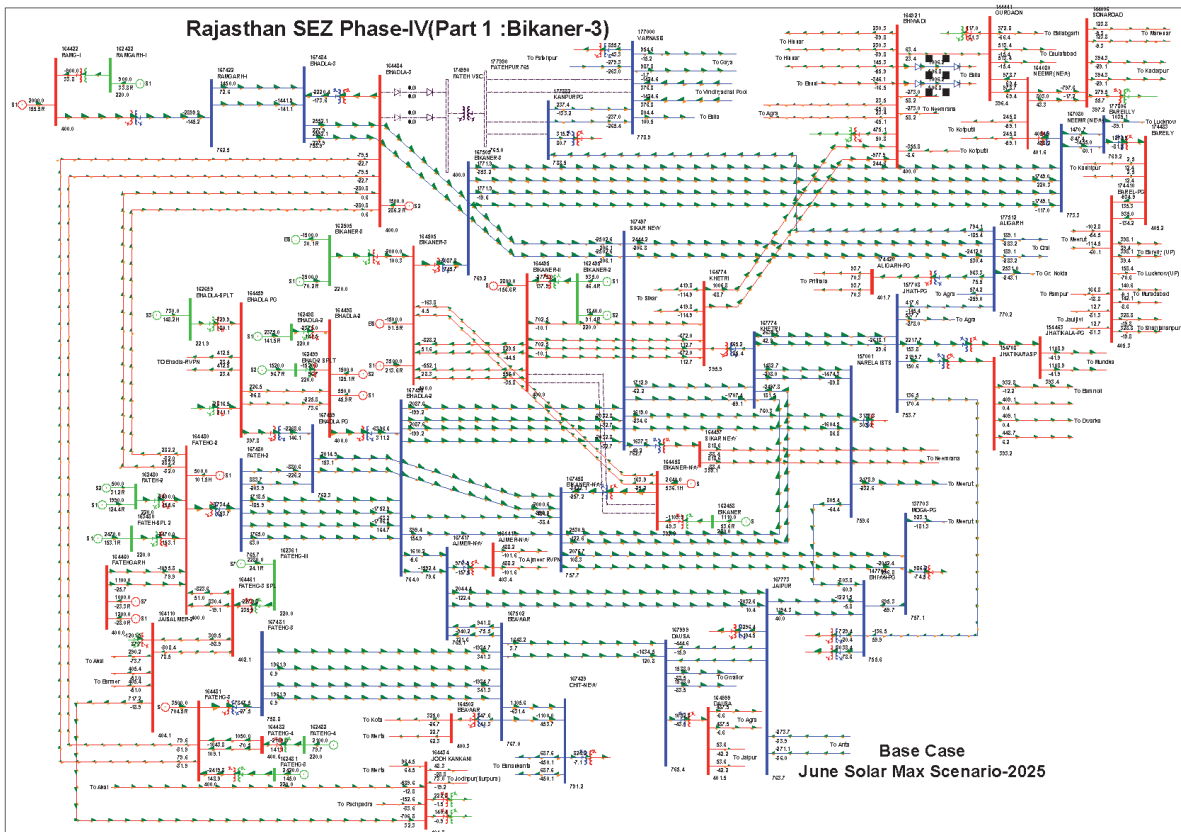
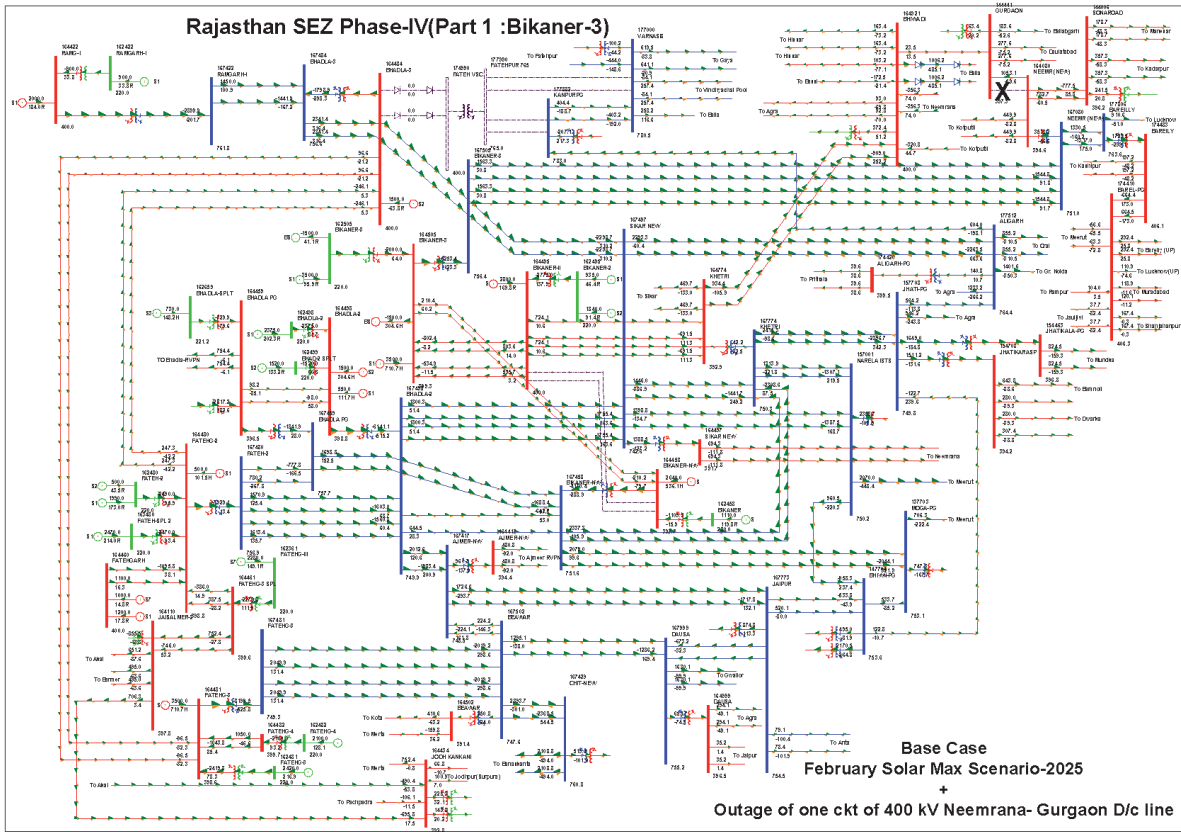


Figure 4-22 Load flow results of Bikaner-3 (fig-5)

I/23836/2022

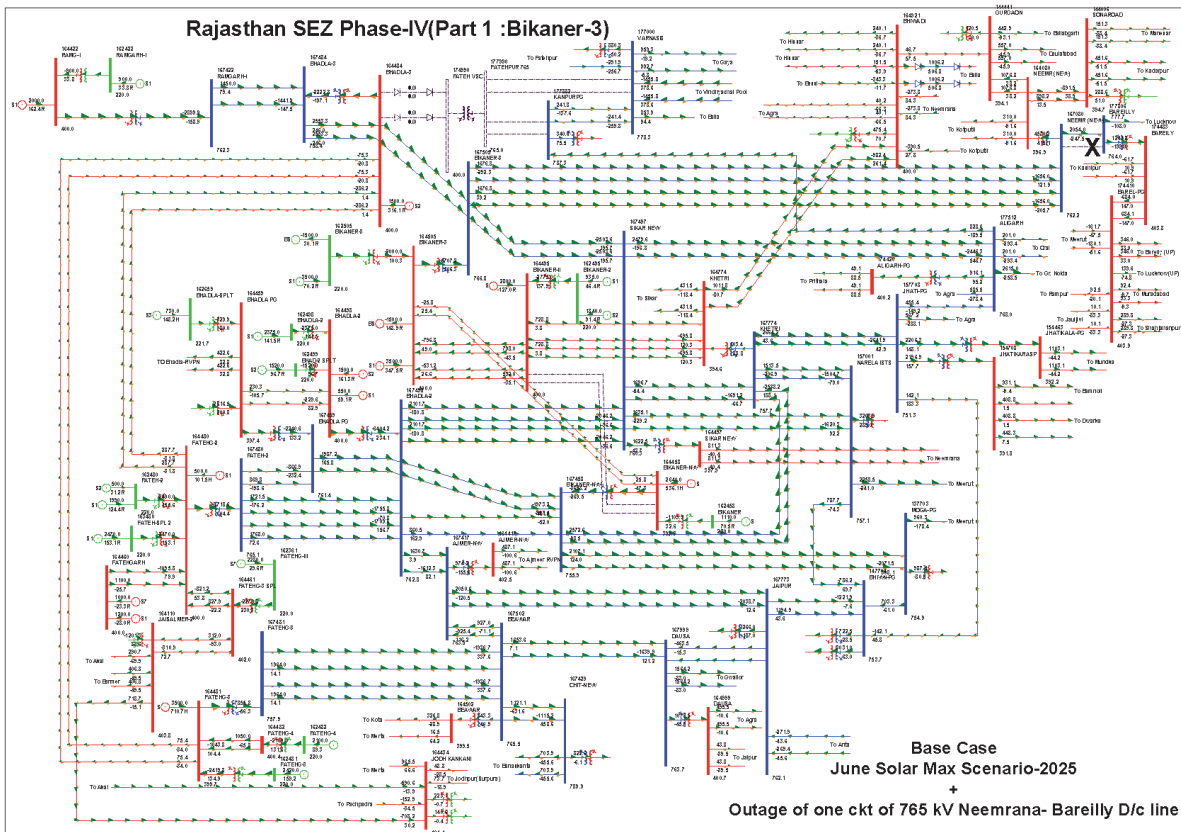
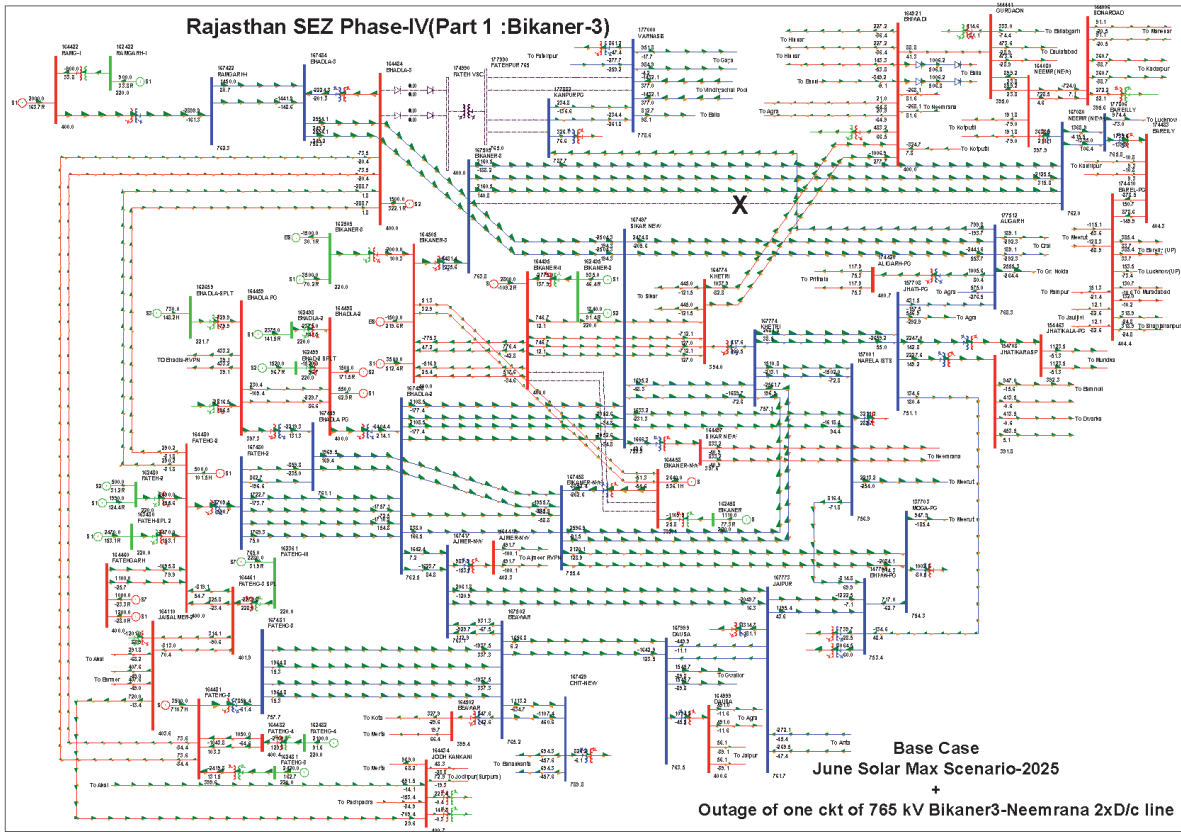
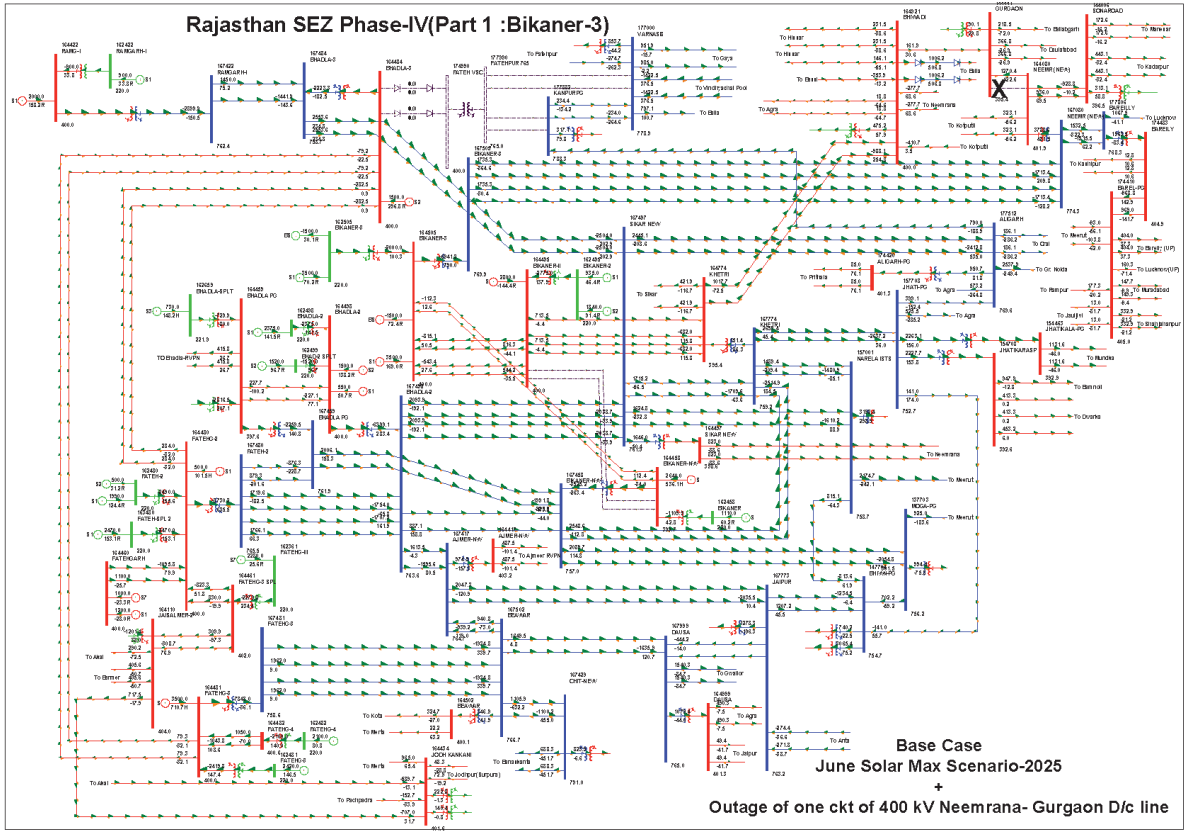
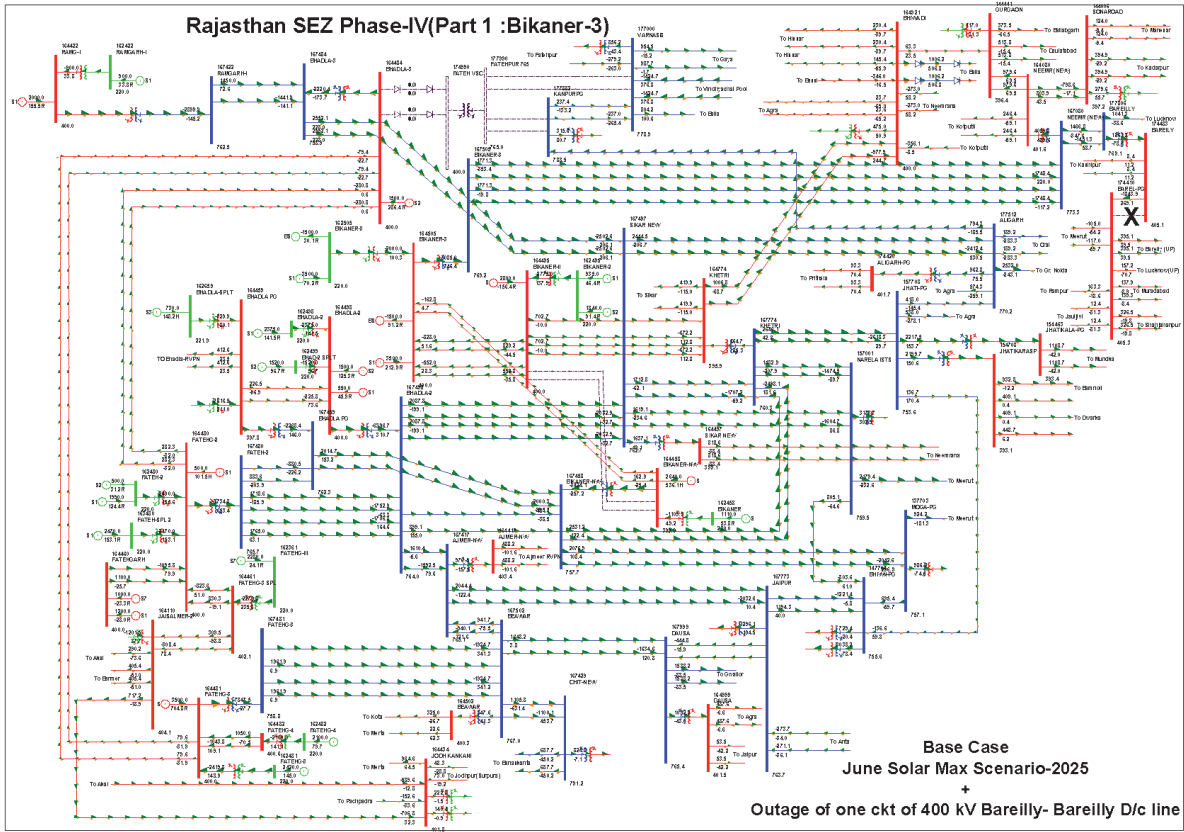


Figure 4-24 Load flow results of Bikaner-3 (fig-7)

I/23836/2022



1



2

Figure 4-26 Load flow results of Bikaner-3 (fig-9)

I/23836/2022

5 Schemes referred from previous NCT:

5.1 Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part I

S. No.	Items	Details
1.	Name of Scheme	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part I
2.	Scope of the scheme	<ul style="list-style-type: none"> • Establishment of 6000MW, ± 800KV Bhadla(HVDC) terminal station at a suitable location near Bhadla-3 substation. • Establishment of 6000MW, ± 800KV Fatehpur (HVDC) terminal station at suitable location near Fatehpur (UP). • Bhadla-3 - Bhadla(HVDC) 400kV 2xD/c quad moose line along with the line bays at both substations <ul style="list-style-type: none"> ➤ Line length- 2km ➤ 400kV line bays -8 nos • ± 800KV HVDC line (Hexa lapwing) (4x1500 MW) between Bhadla-3 & Fatehpur <ul style="list-style-type: none"> ➤ Line length- 950 km • Establishment of 5x1500MVA, 765/400KV ICTs at Fatehpur (HVDC) along with 2x330MVAr (765kV) bus reactor <ul style="list-style-type: none"> ➤ 765/400kV 1500 MVA ICTs : 5 nos (16x500 MVA, including one spare unit) ➤ 765kV ICT bays – 5 nos. ➤ 400 kV ICT bays – 5 nos. ➤ 765 kV line bays – 4 nos. ➤ 330 MVAr, 765kV Bus Reactor -2 nos. (7x110 MVAr, including one spare unit) ➤ 765kV reactor bays- 2 nos. <p><u>Future provisions: Space for</u></p> <ul style="list-style-type: none"> ➤ 765/400kV ICT along with bay: 1 no. ➤ 765kV line bay along with switchable line reactor: 4nos. ➤ 765kV Bus Reactor along with bays: 2 nos. ➤ 400/220 kV ICTs along with bays: 4nos. ➤ 400 kV line bays along with switchable line reactor: 4 nos. ➤ 400kV Bus Reactor along with bay: 1 no. ➤ 220 kV line bays: 6nos. • LILO of both ckts of 765kV Varanasi – Kanpur (GIS) D/c at Fatehpur - (30km)
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 5 -27
4.	Upstream/ downstream system associated with the scheme	Not Applicable
5.	Objective / Justification	➤ Transmission system for evacuation of power from additional 20GW REZs envisaged in Rajasthan, was

I/23836/2022

S. No.	Items	Details
		<p>discussed and agreed in 5th NCT meeting held on 25.08.2021 and 02.09.2021 respectively. As part of above scheme, Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part I i.e. 6000MW HVDC corridor towards Fatehpur for further dispersal of RE power from Ramgarh PS/Bhadla-3 PS was also discussed. Augmentation of 1x1500MVA ICT at 765/400kV Kanpur (GIS) substation was also linked with HVDC system (LILO of Varanasi-Kanpur at Fatehpur)</p> <ul style="list-style-type: none"> ➤ During the above NCT meeting, it emerged that option of Battery Storage System could be explored which could reduce the requirement of HVDC lines. Accordingly, after detailed deliberations, NCT recommended that Transmission scheme "Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under phase III – Part I" may be deferred and to be reviewed in next NCT meeting. 1x1500MVA ICT at 765/400kV Kanpur (GIS) (which is part of Phase-III Part J) was also deferred. ➤ Subsequently, SECI submitted a proposal that 12GW generation capacity including Battery Energy Storage System may be planned so that net injection at Bhadla-III PS remains 6GW. Matter was discussed in 12th meeting of sub-committee on cross cutting issues for setting up transmission lines in RE rich areas held under chairmanship of JS(Trans.) on 27.04.2022. During the meeting, it was informed that Stage-II Connectivity application of 550MW has been received at Bhadla-III PS. Further, it was also informed that Stage-I Connectivity for plain vanilla solar generators has been received in substantial quantum at Bhadla-III PS. SECI suggested to reserve 6GW capacity at Bhadla-III PS for RE Projects with CUF more than 50%. On this, it was informed that as per present Regulations, connectivity cannot be denied to any applicant. ➤ After detailed deliberation, it transpired that implementation time schedule of HVDC is about 3.5 years, while generators are seeking connectivity under plain vanilla mode before year 2025. It was advised to indicate the specific conditions in the approval for avoiding hoarding of Stage-II Connectivity in a particular location. ➤ It is also to inform that Stage-II Connectivity and LTA for 2600MW has already been granted at Ramgarh PS. Further, Adani Renewable Energy Park Rajasthan Ltd. (AREPRL) vide its letter addressed to Director (PS), SECI dated 12.05.2022 informed that they are in process of developing 2GW Solar Park proposed to be connected at Ramgarh PS. They have requested to enhance the transmission system capacity of Ramgarh PS by minimum 5GW. Implementation of HVDC shall help in evacuation of additional power from Ramgarh PS

I/23836/2022

S. No.	Items	Details
		<ul style="list-style-type: none"> ➤ It is further to inform that for Bhadla-II – Sikar-II 765kV D/c line (Ph-II Part- C) is ratified by SC constituted GIB committee based on which CERC has accorded grant of transmission license both for Part-C and its onward interconnector i.e. Sikar-II – Aligarh 765kV D/c line (Phase-II Part-D) which is out of GIB area. ➤ Recently, committee has also ratified Phase-II Part-A as well as Phase-II Part B schemes (with rerouting of lines) ➤ Keeping above in view and since implementation time frame of HVDC is more than gestation period of RE, implementation of above HVDC scheme may be again discussed in ensuing NCT meeting.
6.	Estimated Cost	Total: Rs 12700 Cr. (As per 5th NCT estimate)
7.	Impact on the total Annual Transmission charges in % along with the existing ATC	D. ATC (considering Levelized Tariff @15% of estimated cost): Rs 1,905 Crore E. Present ATC: Rs. 42259.4Cr.* F. A/B (%): 4.51 %
8.	Need of phasing, if any	Not Applicable
9.	Implementation timeframe	36 months from the date of allocation of project
10.	Inclusion of any wild life/protected area along the transmission line route	Identified Bhadla-3 PS location (under 3 km boundary) is falling in GIB potential area. Likewise Bhadla(HVDC) S/s shall also be located in the potential GIB area in Rajasthan. Therefore, the lines emanating from above stations shall pass through the potential GIB area in Rajasthan. The Bhadla-3 - Fatehpur HVDC line may also pass through Jamwa ramgarh, Nahargarh, bandh baratha & ramsagar WLS or its buffer zone in the state of Rajasthan & National Chambal WLS or its buffer zone in the state of UP & MP. However, for details of forest/protected areas survey is required to be done.
11.	Deliberations with RPC along with their comments	Transmission system for additional 20 GW REZ in Northern Region (Phase-III) was discussed and agreed in the 49 th NRPC meeting held on 27.09.2021 It may be noted that in the scheme approved in NRTC (TP) & NRPC, the scope of Bhadla(HVDC) was combined with Bhadla-3 S/s. However, in the 5 th NCT packaging, the scope of Bhadla-3 & Bhadla(HVDC) was segregated by adding 400 kV 2xD/c line(Quad) between Bhadla-3 S/s & Bhadla(HVDC) (~2km)
12.	System Study for evolution of the proposal	Studies were discussed and agreed in following meeting: <ul style="list-style-type: none"> • 3rd NRPC(TP) on 19.02.2022 • 49th NRPC meeting held on 27.09.2021

*Total YTC allowed for June 2022, as per notification of transmission charges payable by DICs for billing month of August 2022 dated 25-07-2022 published on NLDC website

I/23836/2022

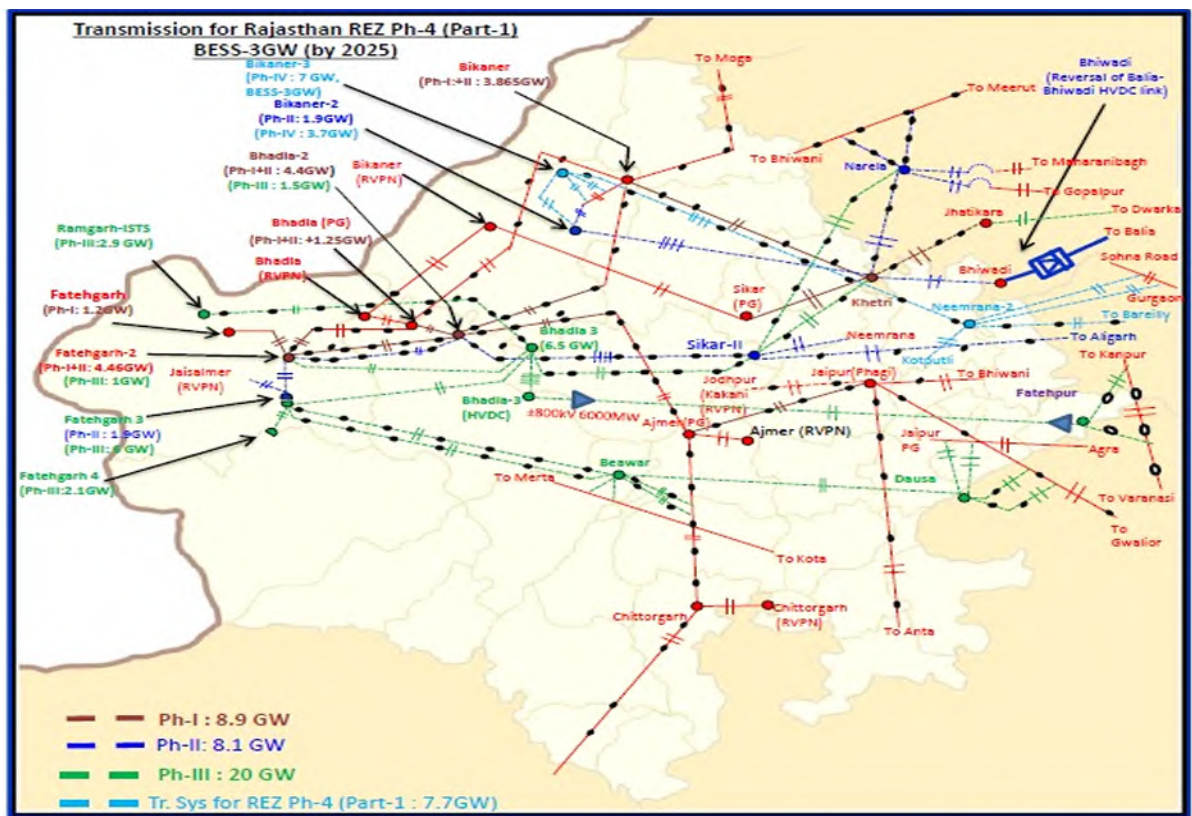


Figure 5-27 Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part I

5.2 Augmentation of 1x1500MVA ICT at 765/400kV Kanpur (GIS) substation (Part of Transformer augmentation at various substations for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part J)

S. No.	Items	Details
1.	Name of Scheme	Augmentation of 1x1500MVA ICT (3 rd ICT) at 765/400kV Kanpur (GIS) substation (Part of Transformer augmentation at various substations for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part J)
2.	Scope of the scheme	<ul style="list-style-type: none"> Augmentation of 1x1500MVA ICT at 765/400kV Kanpur(GIS) substation <ul style="list-style-type: none"> ➤ 765/400kV 1500 MVA ICT: 1 no ➤ 765kV ICT bay – 1no. ➤ 400 kV ICT bay – 1 no.
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 5 -28

I/23836/2022

S. No.	Items	Details
4.	Upstream/ downstream system associated with the scheme	765 kV level Kanpur (GIS) S/s is presently connected with existing 765/400 kV Aligarh S/s through a S/c line and 765/400 kV Varanasi S/s through 2 x S/c lines. At 400 kV level, Kanpur (GIS) is connected with 400/220 kV Kanpur (AIS), 765/400 kV Lucknow, 400/220 kV Allahabad S/s through D/c lines each.
5.	Objective / Justification	<ul style="list-style-type: none"> ➤ Transmission system for evacuation of power from additional 20GW REZs envisaged in Rajasthan, was discussed and agreed in 5th NCT meeting held on 25.08.2021 and 02.09.2021 respectively. As part of above scheme, Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part I i.e. 6000MW HVDC corridor towards Fatehpur for further dispersal of RE power from Ramgarh PS/Bhadla-3 PS was also discussed. Augmentation of 1x1500MVA ICT at 765/400kV Kanpur (GIS) substation was also linked with HVDC system (LILo of Varanasi-Kanpur at Fatehpur). ➤ After deliberations, it was decided that since the timeframe of HVDC has now been delayed, therefore, augmentation of 1x1500MVA ICT at 765/400kV Kanpur (GIS) substation could also be taken up later. ➤ Since the Bhadla-3 -Fatehpur HVDC scheme is being taken up in the ensuing NCT meeting, implementation of above scheme may also be discussed in the present meeting. Implementation may be taken up matching with the Bhadla-3 – Fatehpur HVDC Scheme (Phase-III Part-I)
6.	Estimated Cost	Total: Rs 88 Cr. (As per 5th NCT cost estimate)
7.	Impact on the total Annual Transmission charges in % along with the existing ATC	A. ATC (considering Levelized Tariff @15% of estimated cost): Rs 13.2 Crore B. Present ATC: Rs. 42259.4Cr.* C. A/B (%): 0.031 %
8.	Need of phasing, if any	Not Applicable
9.	Implementation timeframe	Matching with Bhadla-3 – Fatehpur HVDC scheme(Phase-III Part-I)
10.	Inclusion of any wild life/protected area along the transmission line route	Not Applicable
11.	Deliberations with RPC along with their comments	Transmission system for additional 20 GW REZ in Northern Region (Phase-III) was discussed and agreed in the 49 th NRPC meeting held on 27.09.2021.
12.	System Study for evolution of the proposal	Studies were discussed and agreed in following meeting: <ul style="list-style-type: none"> • 3rd NRPC(TP) on 19.02.2022 • 49th NRPC meeting held on 27.09.2021

*Total YTC allowed for June 2022, as per notification of transmission charges payable by DICs for billing month of August 2022 dated 25-07-2022 published on NLDC website

5.3 North Eastern Region Expansion Scheme-XVI (NERES-XVI)

5.3.1 This scheme comprising of establishment of a new 400kV substation at Gogamukh has been proposed by CTU for feeding power to upper Assam above Brahmaputra river. The proposed substation is also planned to be utilised for providing additional feed and strength to under construction 132 kV Pasighat to Khupi corridor in Arunachal Pradesh through Gogamukh (ISTS) – Gerukamukh (Arunachal Pradesh) 132kV D/c line.

5.3.2 In the 8th Meeting of National Committee on Transmission (NCT) held on 25-03-2022, the following was agreed:

"In view of commissioning timeframe of May'2029 for Dibang HEP (2880 MW) and proposal of Assam for intra-state system strengthening in the area where Gogamukh substation has been proposed, NCT deferred the proposal for further deliberation and review, if required."

5.3.3 CTU vide letter dated 04th July, 2022 requested to take up approval of the NERES-XVI scheme in the NCT at the earliest.

5.3.4 Details of the scheme is given as under:

Sl. No.	Items	Details
1.	Name of scheme	North Eastern Region Expansion Scheme-XVI (NERES-XVI)
2.	Scope of the scheme	<p>i. Establishment of New Gogamukh 400/220/132kV substation</p> <ul style="list-style-type: none"> • 400/220kV, 2x500MVA ICTs alongwith associated ICT bays at both levels • 220/132kV, 2x200MVA ICTs alongwith associated ICT bays at both levels • 400kV line bays <ul style="list-style-type: none"> - 4 no. for termination of LILO of one D/c line (ckt-1 & ckt-2 of line-1) of Lower Subansiri – Biswanath Chariali 400kV (Twin Lapwing) 2xD/c lines • 420kV, 2x125MVA r bus reactor along with associated bays • 220kV line bays <ul style="list-style-type: none"> - 2 no. for termination of Bihpuria – Gogamukh 220kV D/c line (line to be implemented by AEGCL) • 132kV line bays <ul style="list-style-type: none"> - 2 no. for termination of LILO of one circuit of North Lakhimpur – Dhemaji 132kV new D/c line (LILO to be implemented by AEGCL) - 2 no. for termination of Gogamukh (ISTS) – Gerukamukh (Arunachal Pradesh) 132kV D/c line <p>ii. Extension works at Gerukamukh (Arunachal Pradesh) 132kV S/s</p> <ul style="list-style-type: none"> - 2 no. of 132kV line bays for termination of Gogamukh (ISTS) – Gerukamukh (Arunachal

I/23836/2022

Sl. No.	Items	Details
		<p>Pradesh) 132kV D/c line</p> <p>iii. Gogamukh (ISTS) – Gerukamukh (Arunachal Pradesh) 132kV D/c (Zebra[#]) line</p> <p>iv. LILO of one D/c (ckt-1 & ckt-2 of line-1) of Lower Subansiri – Biswanath Chariali 400kV (Twin Lapwing) 2xD/c lines at Gogamukh S/s</p> <ul style="list-style-type: none"> • Additional space for future expansion: <ul style="list-style-type: none"> - 400/220kV, 1x500MVA ICT - 1 no. (along with associated bays at both levels) - 420kV, 1x125MVA bus reactor along with associated bays - 12 nos. of 400kV line bays for future lines <ul style="list-style-type: none"> ○ 4 nos. of 400V line bays for termination of Dibang – Gogamukh 2xD/c lines ○ 2 nos. of 400kV line bays (along with 2x80MVA switchable line reactor) for termination of Gogamukh – Biswanath Chariali 400kV D/c (Quad) line ○ 6 nos. of 400kV line bays (along with switchable line reactor) for future lines - 220/132kV, 1x200MVA ICT - 1 no. (along with associated bays at both levels) - 6 nos. of 220kV line bays for future lines - 6 nos. of 132kV line bays for future lines <p>Note:</p> <p>(a) Lower Subansiri – Biswanath Chariali 400kV (Twin Lapwing) D/c line is under implementation by POWERGRID and is expected to be commissioned by Aug 2022.</p> <p>(b) Arunachal Pradesh to provide space at Gerukamukh S/s for implementation of 2 no. 132kV line bays.</p>
3.	Depiction of the scheme on Transmission Grid Map	Refer Figure 5 -28.
4.	Upstream/downstream system associated with the scheme	<p><u>Upstream network to be implemented under ISTS:</u></p> <p>i. Lower Subansiri – Biswanath Chariali 400kV (Twin Lapwing) 2xD/c lines</p> <p><u>Downstream system to be implemented by AEGCL, Assam:</u></p> <p>i. Bihpuria – Gogamukh 220kV D/c line</p> <p>ii. Construction of North Lakhimpur – Dhemaji 132kV new D/c line along with LILO of one circuit at Gogamukh (ISTS)</p>
5.	Objective / Justification	There is no source (EHV substation or generation) in upper Assam or in eastern part of Arunachal Pradesh. Accordingly, a new 400kV substation is planned to be established at Gogamukh for feeding power to upper Assam above Brahmaputra river. Further, the same substation is also planned to be utilised for providing additional feed and strength to

Sl. No.	Items	Details
		under construction long 132kV Pasighat to Khupi corridor in Arunachal Pradesh through Gogamukh (ISTS) – Gerukamukh (Arunachal Pradesh) 132kV D/c line. Further, Gogamukh 400/220/132kV substation would also serve the purpose of acting as a pooling point for upcoming large HEPs in Arunachal Pradesh. One such project is Dibang HEP (2880MW, 12x240MW) of M/s NHPC Ltd. in Arunachal Pradesh. The same is planned to be pooled through Dibang – Gogamukh 400kV 2xD/c (Quad) line and for onward power transfer to other parts of Indian grid, Biswanath Chariyali – Gogamukh 400kV D/c (Quad) line has been planned.
6.	Estimated Cost	INR 289 Cr.
7.	Impact on the total Annual Transmission Charges in % along with the existing ATC	A. ATC (considering levelized tariff @15% of estimated cost): ₹43.35 Cr. B. Present ATC: ₹41292.01 Cr.* C. A/B: 0.105%
8.	Need of phasing, if any	No phasing required.
9.	Implementation timeframe	Mar 2025
10.	Inclusion of any wild life/protected area along the transmission line route	No major National park, Wild life sanctuary, other protected areas observed. However, for details of forest/protected areas survey is required to be done.
11.	Deliberations with RPC	Estimated cost of the scheme is less than INR 500

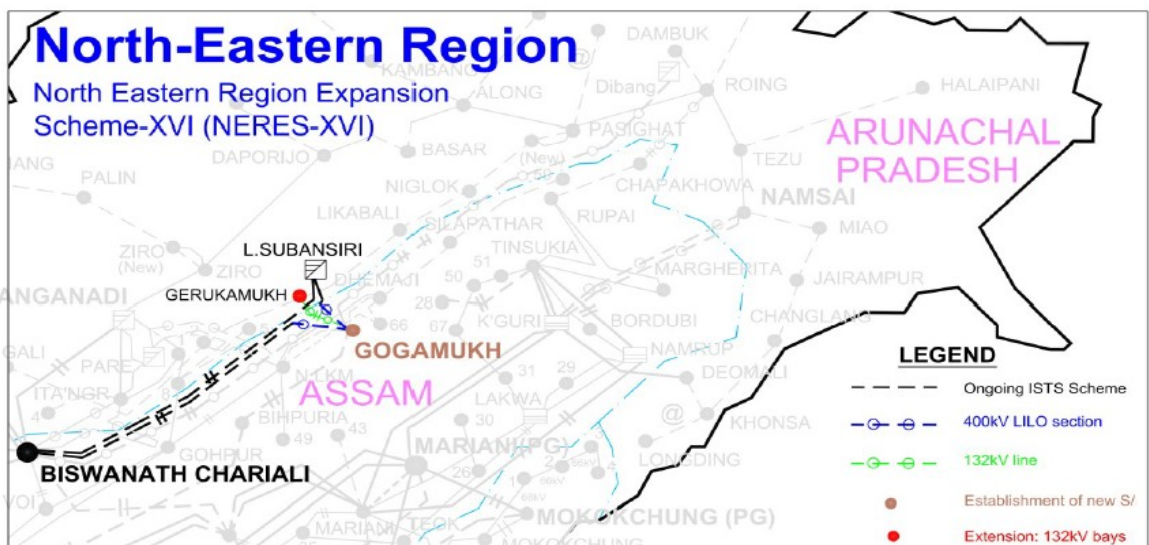


Figure 5-28 Augmentation of 1x1500MVA ICT (3rd ICT) at 765/400kV Kanpur (GIS) substation (Part of Transformer augmentation at various substations for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part J) (fig-1)

I/23836/2022

765/400kV ICT at Section-A (3rd ICT on Section A) and by 2x1500MVA, 765/400kV ICTs at Section-B (3rd & 4th ICTs on Section B) along with associated ICT bays as elaborated below:

Raigarh(Kotra) Section-A

- 765/400kV ICT: 1x1500MVA
- 765kV ICT bay: 1 no.
- 400kV ICT bay: 1 no.
-

Raigarh(Kotra) Section-B

- 765/400kV ICT: 2x1500MVA
- 765kV ICT bay: 2 nos.
- 400kV ICT bay: 2 nos.

5.4.2 The above scheme was agreed in the 8th NCT meeting held on 25.03.2022 to facilitate N-1 compliancy of the 765/400kV ICTs at Raigarh (Kotra) S/s under following 2 conditions (after bus split arrangement):

- With Raigarh – Pugalur HVDC line operating under blocked mode or reverse mode (SR to WR) during high renewable generation in southern region and high generation at Raigarh (Kotra) PS
- With Raigarh – Pugalur HVDC line operating under forward mode (WR to SR) and under low generation at either of the bus section at Raigarh PS

The scheme was awarded to CTUIL for implementation under RTM mode to be implemented by POWERGRID vide NCT letter dated 10.05.2022 with schedule of 15 months from date of allocation.

5.4.3 Subsequently, POWERGRID vide letter dated 19.05.2022 that as per site conditions, space for installation of 4th 765/400kV ICT on Section-B is not feasible. Further, modification of bay orientation may be required for installation of ICT on Section-A. The matter was discussed with POWERGRID and it was decided that a committee comprising of members from CTUIL & POWERGRID shall visit the site and explore options to implement the scheme. The committee visited the site on 31.05.2022 & 01.06.2022 and submitted its site visit report and made the following recommendations:

- a) 3rd ICT in Section B: ICT to be installed in Space available for Future ICT. For connection on 765kV side, Future Bay No. 726 to be constructed in existing Half Dia. For connection in 400kV side, 400kV DB Power 2 Line (along with Line side equipment) to be shifted from existing 400kV Bay No. 433 to Future Bay 444 using additional BPIs. The vacated 400kV Bay no. 433 shall be used

I/23836/2022

to terminate this ICT in AIS. This arrangement requires sufficient outage of DB POWER 2 Line for shifting in new Dia.

- b) 3rd ICT in Section A: ICT to be installed in Space available for Future ICT. For connection on 765kV side the Dia consisting of Bays 710,711 & 712 to be constructed in AIS (Presently this space has been used to terminate the Champa-I Line in Bay 715).

765kV Champa-1 Line shall be shifted from Bay 715 to Bay 710. For connection of ICT on 765kV side, Bay No. 712 shall be used. For connection of ICT in 400kV side, Future Bay 421 shall be constructed in existing Half Dia.

- c) 4th ICT in Section B: ICT to be installed in Space available in the area earmarked for Future ICT in Section A. For connection on 765kV side, 1 no. 765kV GIS Bay (consisting of 2 nos. CBs) shall be constructed (Double Bus Double Breaker Scheme) in Bus Section-B in the space available near 765k Bus Sectionaliser Area and using GIB (Gas Insulated Bus Duct), the ICT shall be physically located in the area of Section A and connected to Bus in Section B.

Likewise, for connection on 400kV side also, 1 no 400kV GIS Bay (consisting of 2 nos. CBs) shall be constructed (Double Bus Double Breaker Scheme) in the space available near 400kV Bus Sectionaliser Area and using GIB (Gas Insulated Bus Duct), the ICT shall be physically located in the area of Section A and connected to Bus in Section B.

- 5.4.4 To deliberate on DB Power line 2 shifting from existing 400kV Bay No. 433 to Future Bay 444 using additional BPIs (proposed under SI.(a) above), a meeting was held amongst CEA, CTUIL, POSOCO, POWERGRID and DB Power on 20/07/22 wherein DB power expressed their apprehensions in shifting of their bay and subsequently DB Power vide e-mail dated 26.07.2022 informed that the above shifting is not acceptable to them.

- 5.4.5 In view of above, committee explored alternate arrangement for termination of ICT bay in section-B using partly 400kV GIB duct and balance by BPI arrangement. In view of the same, the revised scope of the scheme is given below:

Raigarh (Kotra) Section-A

Original Scope	Site Visit Committee Recommendation	Revised Scope
765/400kV ICT: 1x1500MVA	Space available	765/400kV ICT (Sec-A: 3 rd): 1x1500MVA

I/23836/2022

Original Scope	Site Visit Committee Recommendation	Revised Scope
765kV ICT bay: 1 no.	<ul style="list-style-type: none"> New Diameter with bay nos. 710, 711 & 712 to be constructed (AIS) in the space used for termination of Champa-I 765kV line in Bay No. 715 (existing). Champa-I 765kV line to be shifted from bay no. 715 to 710 (new) Equipment of Existing Main bay (715) of Champa-I line shall be shifted to New ICT Bay (ICT 3rd bay no. 712) ICT to be terminated into bay no. 712 	765kV bay: 1 no. for change in termination of Champa-I line from existing bay to new bay & Equipment of Existing Main bay of Champa-I line shall be shifted to New ICT Bay (ICT 3 rd bay) for utilization.
400kV ICT bay: 1 no.	Space available (Bay No. 421)	400kV ICT bay: 1 no.

Raigarh(Kotra) Section-B

Original Scope	Site Visit Report Recommendation	Revised Scope
765/400kV ICT: 2x1500MVA	<p>ICT-I (3rd):</p> <ul style="list-style-type: none"> Space Available <p>ICT-II (4th):</p> <ul style="list-style-type: none"> Space Available in area earmarked for future ICT in the other section (Section-A) 	765/400kV ICTs (Sec-B: 3 rd & 4 th): 2x1500MVA
765kV ICT bay: 2 no.	<p>ICT-I (3rd):</p> <ul style="list-style-type: none"> Space Available (Bay No. 726) <p>ICT-II (4th):</p> <ul style="list-style-type: none"> Due to space constraints / non availability of required clearances in Section-B, 1 no. 765kV GIS bay (consisting of 2 breakers) to be constructed (Double bus double breaker scheme) in space near 765kV bus sectionalizer area and the ICT (physically located in section-A) to be connected with the above bay through GIB Duct 	<p><u>Sec-B: 3rd ICT</u></p> <ul style="list-style-type: none"> 765kV ICT bay (AIS): 1 no. <p><u>Sec-B: 4th ICT</u></p> <ul style="list-style-type: none"> 765kV ICT bay (GIS): 1 no. consisting of 2 breakers [with Double bus double breaker scheme and the ICT (4th) (physically located in the space available near section-A) to be connected with the above bay through GIB Duct]
400kV ICT bay: 2 no.	<p>ICT-I (3rd):</p> <ul style="list-style-type: none"> Space Available (Bay No. 444) Due to constraints w.r.t. available clearances on 400kV side, ICT shall be terminated into above bay in section-B using partly 400kV GIB duct and balance by BPI arrangement <p>ICT-II (4th):</p>	<p><u>Sec-B: 3rd ICT</u></p> <ul style="list-style-type: none"> 400kV ICT bay (AIS): 1 no. (ICT shall be terminated into above bay using partly 400kV GIB duct and balance by BPI arrangement)

I/23836/2022

Original Scope	Site Visit Report	Revised Scope
	<ul style="list-style-type: none"> Due to space constraints / non availability of required clearances in Section-B, 1 no. 400kV GIS bay (consisting of 2 breakers) to be constructed (Double bus double breaker scheme) in space near 400kV bus sectionalizer area and the ICT (physically located in the space available near section-A) to be connected with the above bay through GIB Duct 	<p>Sec-B: 4th ICT</p> <ul style="list-style-type: none"> 400kV ICT bay (GIS): 1 no. consisting of 2 breakers [with Double bus double breaker scheme and the ICT (4th) (physically located in the space available near section-A) to be connected with the above bay through GIB Duct]

5.4.6 The cost of scheme was earlier mentioned as Rs. 210Cr. in the 8th NCT meeting held on 25.03.2022 and the same was arrived at considering Mar'20 price level. However, considering **Mar'22 level**, the cost of scheme shall be about Rs. 274 Cr. Now, with above changes in the scope of work, the revised cost of the scheme has been worked out as Rs. 381 Cr. (i.e. increment by Rs. 107 Cr.).

5.4.7 POWERGRID vide letter dated 14.07.2022 has informed that although the scheme was to be implemented by POWERGRID as per CTU OM dated 11.05.2022 in time-frame of 15 months (i.e. Aug'23), the same is undergoing changes as per the site visit held on 31.05.2022 & 01.06.2022 leading to cost and time escalation. Hence, POWERGRID has requested approval for revised scheme with revised time-line of implementation.

Matter may be deliberated.

5.5 Modification of future space provision in "Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park" scheme

5.5.1 Transmission system for KPS2 & KPS3 establishment was deliberated and approved in the 3rd WRPC (TP) meeting held on 14.06.2021 and in the 5th NCT meeting held on 25.08.2021 and 02.09.2021. Ministry of Power vide Gazette notification 5032(E) published on 06.12.2021 has appointed RECPDCL as BPC for implementation of the subject transmission schemes through TBCB route.

5.5.2 Subsequently, RECPDCL vide letter dated 10.05.2022 informed that as per discussions amongst CEA, RECPDCL & GPCL on 26.04.2022 & between CEA & RECPDCL on 04.05.2022 & 09.05.2022, the following space requirement (for future expansion) at KPS2 was felt:

- 765kV line bays (future): 10 nos. instead of 8 nos.
- 400kV line bays (future): 12 nos. instead of 10 nos.

I/23836/2022

- Space for proposed 8000MW HVDC System as well as BESS

5.5.3 Accordingly, a meeting was held on 24.05.2022 amongst CEA, CTU, RECPDCL, GPCL & RE developers to discuss the above issues and the revised land requirement for KPS2 & KPS3 as well as transmission line corridor requirements in Khavda RE park were firmed up and communicated to GPCL by REC vide letter dated 17.06.2022 (copy of requirement attached at Flag-II).

5.5.4 In view of the above changes in space for future provisions at KPS2, the changes in scope of KPS2 are given as under:

Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park:

S.No	Scope of the Transmission Scheme (Original)	Scope of the Transmission Scheme (Revised)
1.	<p>Establishment of 765/400 kV, 4x1500MVA, KPS2 (GIS) with 2x330 MVAR 765 kV bus reactor and 2x125 MVAR 400 kV bus reactor.</p> <p>Adequate space for future expansion of 5x1500 MVA 765/400 kV ICT's</p> <p><i>Bus sectionalizer at 765kV & 400kV.</i></p> <p><i>On each bus section, there shall be 2x1500MVA 765/400kV ICTs, 1x330MVAR, 765 kV & 1x125MVAR 420kV bus reactor with space for future expansion.</i></p> <p><i>Bus sectionalizer at 765 kV level shall normally be closed and bus sectionalizer at 400 kV level shall normally be open</i></p> <p>Future provisions: Space for 765/400 kV ICTs along with bays: 5 nos. 765kV line bay with switchable line reactor: 8 nos. 400kV line bay with switchable line reactor: 10 nos. To take care of any drawal needs of area in future: 400/220 kV ICT: 2 nos.</p>	<p>Establishment of 765/400 kV, 4x1500MVA, KPS2 (GIS) with 2x330 MVAR 765 kV bus reactor and 2x125 MVAR 400 kV bus reactor.</p> <p>Adequate space for future expansion of 5x1500 MVA 765/400 kV ICT's</p> <p><i>Bus sectionalizer at 765kV & 400kV.</i></p> <p><i>On each bus section, there shall be 2x1500MVA 765/400kV ICTs, 1x330MVAR, 765 kV & 1x125MVAR 420kV bus reactor with space for future expansion.</i></p> <p><i>Bus sectionalizer at 765 kV level shall normally be closed and bus sectionalizer at 400 kV level shall normally be open</i></p> <p>Future provisions: Space for 765/400 kV ICTs along with bays: 5 nos. 765kV line bay with switchable line reactor: 10 nos. 400kV line bay with switchable line reactor: 12 nos. 8000MW, ±800kV HVDC Converter station (LCC) To take care of any drawal needs of area in</p>

I/23836/2022

S.No	Scope of the Transmission Scheme (Original)	Scope of the Transmission Scheme (Revised)
	220 kV line bays: 4 nos.	future: 400/220 kV ICT: 2 nos. 220 kV line bays: 4 nos.
2.	LILO of one ckt. of KPS1- Bhuj PS 765 kV D/c line at KPS2	LILO of one ckt. of KPS1- Bhuj PS 765 kV D/c line at KPS2

5.5.5 Subsequently, series of deliberations have been held between CEA, CTUIL, RECPDCL & GPCL to resolve the issues related to land requirement for Khavda PS - 2 and RoW for associated transmission lines. In a meeting convened by CEA on 30.08.2022 under the chairmanship of Member (Power System), the land requirement for KPS-2 has been firmed up. It had been agreed that the 247 acres of land being provided by GPCL for setting up Khavda Pooling Station-2 (KPS-2) would be sufficient and additional land may not be required. GPCL would take up with LMA (Local Military Authority) for the requirement of 700 metres corridor width with a margin of 50- 100 m beyond 700 m for the transmission line corridor from KPS-1 to KPS-2 and requirement of 370 m corridor (available RoW is 300 m) with some margin from KPS-2 to KPS-3.

5.5.6 Space for Battery Energy Storage System (BESS) in Khavda RE Park:

As per discussions amongst CEA, CTU and RECPDCL in a meeting held under chairmanship of Member(PS), CEA on 08.08.2022, it was preliminarily decided that space for 5GW (for 4 hours) BESS may be reserved & distributed for interconnection with KPS1, KPS2 & KPS3. For this purpose, space may be reserved by GPCL outside the premises of KPS1 (under implementation), and KPS2/KPS3 (under bidding). The above land requirement shall not be under scope of future provisions of TSP implementing the above substations.

Members may deliberate.

I/23836/2022

5.6 Modification of future space provision in Transmission system for evacuation of power from Chhatarpur SEZ (1500MW) scheme

5.6.1 MoP vide letter dated 13.06.2022 regarding location of new ISTS projects planned under TBCB route has decided that where a proposed line is to connect to an existing station, the transformers at terminal end must be located in the existing station itself. A new substation will only be created if there is no space in the existing substation after working out cost-benefit analysis of modernizing/reconfiguring existing station vis-à-vis acquiring land and building new substation.

5.6.2 In view of above direction of MoP, it is proposed that new ISTS substations (for evacuation of power from potential RE Zones / for meeting drawl requirements of STUs, etc) may be planned with more space provisions on account of following reasons:

- To be able to cater to significant enhancement of injection/drawl requirements in the area in future, Substations may be established with a minimum transformation capacity of 4000-5000MVA.
- Outage of any single ICT unit should not overload the remaining ICT(s) or the underlying system (i.e n-1 criterion to be followed)
- Where possible, space provision for Battery Energy Storage Systems (BESS) may also be kept in vicinity of REZ Pooling Stations (esp. considering appreciable space requirement of such systems). As a thumb rule, space provision for BESS capacity of about 20% of REZ potential identified by SECI/ MNRE (for 4 hrs.) may be kept.

5.6.3 In view of the above, space provision at Chhatarpur PS being established under Transmission system for evacuation of power from Chhatarpur SEZ (1500MW) scheme (currently under tendering process) was reviewed and revised space provision is given below:

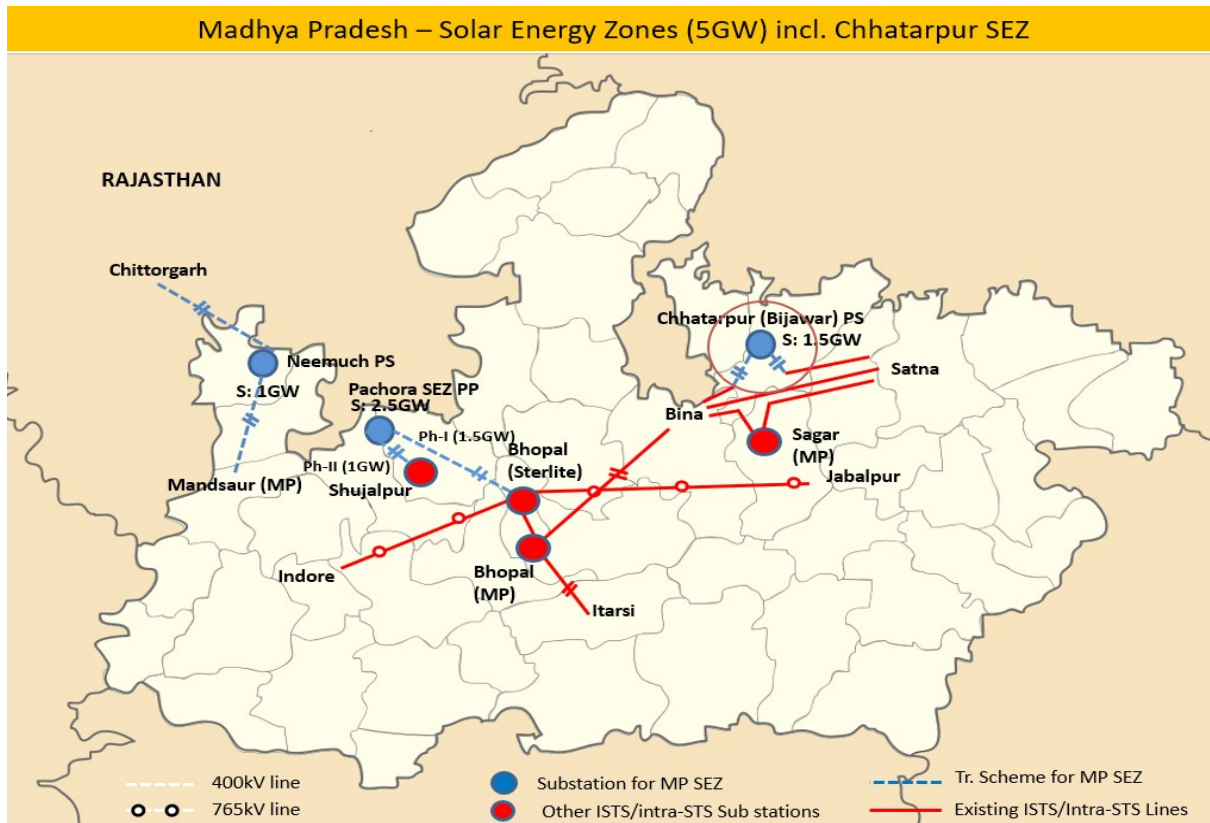
Transmission system for evacuation of power from Chhatarpur SEZ (1500MW)

Sl. No.	Scope of the Transmission Scheme (Original)	Scope of the Transmission Scheme (Revised)
1.	(i) Establishment of 3x500MVA, 400/220 kV Pooling Station at Chhatarpur (ii) 1x125 MVAR, 420 kV bus reactor at Chhatarpur PS (iii) 5 nos. 220kV line bays for solar park interconnection <i>*out of Satna – Bina 2xD/c lines, one circuit of 2nd D/c line has been LILOed at Sagar (MPPTCL) substation. The proposed LILO is to be made on the other (1st) D/c line</i>	Establishment of 3x500MVA, 400/220 kV Pooling Station at Chhatarpur 1x125 MVAR, 420 kV bus reactor at Chhatarpur PS 5 nos. 220kV line bays for solar park interconnection <i>*out of Satna – Bina 2xD/c lines, one circuit of 2nd D/c line has been LILOed at Sagar (MPPTCL) substation. The proposed LILO is to be made on the other (1st) D/c line between Satna & Bina</i>

I/23836/2022

Sl. No.	Scope of the Transmission Scheme (Original)	Scope of the Transmission Scheme (Revised)
	<p>between Satna & Bina</p> <p>Future provisions: Space to accommodate:</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT along with associated bays -1 • 4 nos. of 220kV line bays • Sectionaliser arrangement 	<p>Future provisions: Space to accommodate:</p> <ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT along with associated bays -5 • 400 kV line bays: 6 nos. • 3x125MVA Bus Reactor with bay • 13 nos. of 220kV line bays • Sectionaliser arrangement at 220kV (2 Sets) & 400kV (1 Set) levels
2.	LILO of Satna – Bina 400kV (1 st) D/c line at Chhatarpur PS	LILO of Satna – Bina 400kV (1 st) D/c line at Chhatarpur PS

Note: As per the MoP Gazette, scheme implementation is to be taken only after grant of LTA. In this respect, it may be noted that Generation Projects are yet to be identified at Chhatarpur PS.



I/23836/2022

- 5.6.4 The 400kV & 220kV buses may be sectionalized in future as per space given above so that they may be operated in normally open / normally closed mode as per requirement.
- 5.6.5 Further, space for 300MW (for 4 hours) BESS (i.e. 20% of 1500MW REZ Potential) may be reserved outside the premises of Chhatarpur PS. The above land requirement shall not be under scope of future provisions of TSP implementing the above substation.
- 5.6.6 The matter was discussed and in-principally agreed in the 9th CMETS-WR meeting held on 28.07.2022. In the meeting, M/s RUMSL was requested to intimate regarding adequate space availability for the above revised scope as well as for installation of BESS in vicinity of Chhatarpur PS.

Members may deliberate.

- 5.7 Transmission System for Evacuation of Power from RE Projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh

I/23836/2022

- 5.7.1 The transmission scheme was agreed in the 2nd WRSCT and 2nd WRPC(TP) meetings held on 21.05.2019 and 04.09.2020 respectively for evacuation of Power from RE Projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh in two phases: Ph-I (1500MW) & Ph-II (1000MW). The transmission system was discussed and agreed on in the 4th NCT (re-constituted vide MOP office order 13.04.2018) meeting held on 31.07.2019 & 4th NCT (re-constituted vide MOP office order 04.11.2019) meeting held on 20.01.2021 & 28.01.2021.
- 5.7.2 Ministry of Power, GOI vide Gazette notification dated 24.01.2020 had appointed REC as the Bid Process Coordinator (BPC) for selection of Bidder as Transmission Service Provider (TSP) to establish the subject transmission scheme through Tariff Based Competitive Bidding (TBCB) process. Subsequently, MoP vide gazette notification dated 19.07.2021 had modified the scope of the subject transmission scheme after examining the recommendations of the 4th NCT meeting (held on 20.01.2020 & 28.01.2020) and CEA such that the scope covered only the Transmission system for evacuation of power from RE projects in Rajgarh (1500 MW) SEZ in Madhya Pradesh under Phase-I.
- 5.7.3 Phase-I of the scheme is under implementation by M/s GR Infraprojects Ltd. with SCOD of 30.11.2023.
- 5.7.4 Now, SECI vide letter dated 23.06.2022 (refer Flag-III) has requested to initiate the development of Pooling Stations simultaneously at various locations specified in the letter, irrespective of the receipt of connectivity applications including Rajgarh Phase-II (1000MW). The Phase-II of the scheme as agreed in the 4th NCT meeting is given below:

Sl. No	Scope of the Transmission Scheme	Capacity/km.
1.	Augmentation of 400/220 kV, 2x500 MVA ICT (4 th & 5 th) at Pachora PS	400/220 kV, 500 MVA ICT – 2 400 kV ICT bays – 2 220 kV ICT bays – 2 400 kV line bays – 2 220 kV line bays – 4 (to be taken up as per Connectivity/LTA applications received)
2.	Pachora – Shujalpur 400kV D/c line (Quad/HTLS) (with minimum capacity of 2100MVA/ckt at nominal voltage)	Length – 80 km
3.	2 no. of 400 kV line bays at Shujalpur for Pachora – Shujalpur 400kV D/c line (Quad/HTLS) (with minimum capacity of	400kV line bays – 2

I/23836/2022

Sl. No	Scope of the Transmission Scheme	Capacity/km.
.	2100MVA/ckt at nominal voltage)	

Note:

(i) Powergrid to provide space for 2 no. of 400 kV line bays at Shujalpur for termination of Rajgarh SEZ PP – Shujalpur 400 kV D/c line.

(ii) Phase-II scheme to be taken up only after grant of Connectivity/LTA applications beyond 1500 MW at Pachora P.S.

(ii) The schedule of implementation of Phase-II of the scheme would be matching with schedule of RE developers or 18 months from the date of transfer of SPV whichever is later.

5.7.5 Earlier, the Phase-II of the scheme was to be taken up only after grant of Connectivity/LTA applications beyond 1500 MW at Pachora PS. However, based on request of SECI to expedite the Phase-II of the scheme irrespective of connectivity applications, the matter needs to be deliberated.

5.7.6 Further, to provide clarity regarding the conductor configuration of Pachora – Shujalpur 400kV D/c line as well as bus sectionalization which shall be required at 220kV level, the revised scope is given below (changes marked in bold):

Sl. No.	Scope of the Transmission Scheme	Capacity/km.
1.	400/220 kV, 2x500 MVA ICT augmentation at Pachora PS	400/220 kV, 500 MVA ICT – 2 400 kV ICT bays – 2 220 kV ICT bays – 2 400 kV line bays – 2 220 kV line bays – 4 (to be taken up as per Connectivity/LTA applications received) 220kV Bus Sectionalizer – 1 set 220kV TBC bay – 1 no. 220kV BC bay – 1 no.
2.	Pachora – Shujalpur 400kV D/c line (Quad ACSR/AAAC/AL59 Moose equivalent)	Length – 80 km
3.	2 no. of 400 kV line bays at Shujalpur for Pachora – Shujalpur 400kV D/c line (Quad ACSR/AAAC/AL59 Moose equivalent)	400kV line bays – 2

Note:

(i) Powergrid to provide space for 2 no. of 400 kV line bays at Shujalpur for termination of Rajgarh SEZ PP – Shujalpur 400 kV D/c line.

(ii) Phase-II scheme to be taken up only after grant of Connectivity/LTA applications beyond 1500 MW at Pachora P.S.

I/23836/2022

(ii) The schedule of implementation of Phase-II of the scheme would be matching with schedule of RE developers or 18 months from the date of transfer of SPV whichever is later.

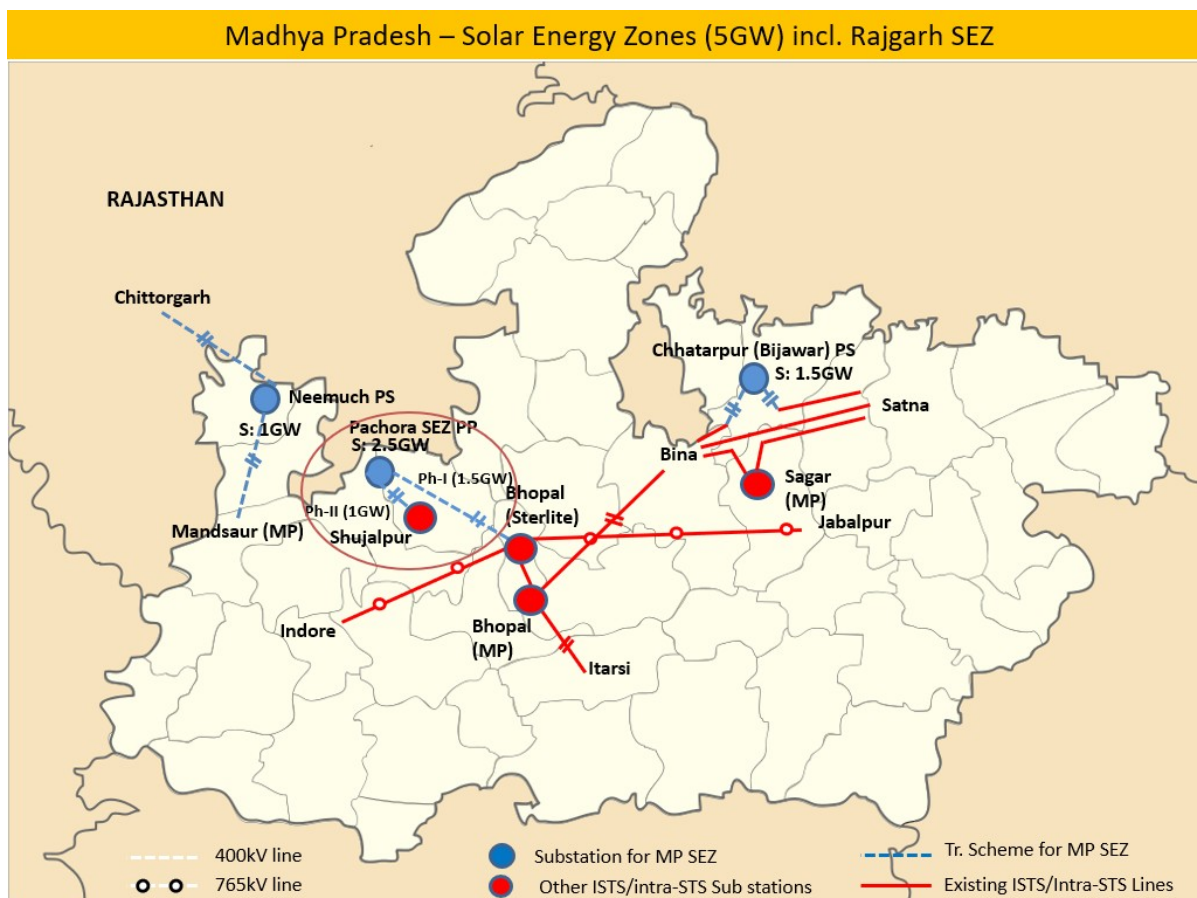


Figure 5-31 Madhya Pradesh - Solar Energy Zone

Members may deliberate.

5.8 Resumption of bidding process of transmission schemes as Bidar and Ananthapuram

I/23836/2022

5.8.1 SECI vide the letter dated 23.06.2022 had informed that Delhi, Punjab and Madhya Pradesh have approached SECI for RTC power with Renewable Energy. Since sufficient pooling stations are not available in the identified potential RE generation locations in Southern Region such as Bidar, Ananthpur and Kurnool, SECI had requested CTUIL to initiate the development of Pooling Stations simultaneously at different locations including Anantapur and Bidar. The transmission system at Ananthpur and Bidar was to be implemented through TBCB route for which bidding had been initiated but were subsequently put on hold because of uncertainty in development of RE generation projects.

5.8.2 A meeting was held in CEA on 01.08.2022 in which it was agreed that 1000 MVA capacity each at Bidar, Ananthpur could be taken up in first phase and further capacity would be taken up based on the visibility of RE generators. In the meeting, CTUIL informed that they have not received any connectivity applications at Anantapur and Bidar.

5.8.3 In view of above, the following needs to be deliberated:

- Taking up the transmission schemes without any connectivity applications
- Phasing of the schemes i.e. (i) whether bidding for Phase I & phase II of each scheme would be done simultaneously with time gap in CoD of the phases or (ii) taking up bidding of Phase I & phase II of each scheme in different time frames needs to be deliberated.

5.8.4 Transmission Scheme for Solar Energy Zone in Bidar (2500 MW), Karnataka

5.8.4.1 Detailed Scope of Work

S. No.	Scope of the Transmission Scheme
1.	<p>Establishment of 3x1500MVA (765/400kV), 5x500MVA (400/220kV) station at suitable border location near Bidar with 765kV (1x240 MVAR) and 400kV (1x125 MVAR) Bus Reactor</p> <p>A. 765kV</p> <ul style="list-style-type: none"> i) ICT: 10x500MVA, 765/400/33 kV (with 1x500 MVA, 765/400/33 kV Transformer unit as common spare for three banks) ii) ICT bay: 3 nos. iii) Line bay: 2 nos. iv) Bus Reactor: 3x80 MVAR (one bank of 240 MVAR) v) Line Reactor: 6x80 MVAR (two banks of 240 MVAR each) vi) Spare Reactor: 1x80 MVAR (common spare unit for banks of Bus Reactor & Line Reactor) vii) Bus Reactor bay: 1 no. viii) Switchable Line Reactor bay: 2 nos. ix) Space for future line bay: 6 nos.

I/23836/2022

	<p>x) Space for future 765/400/33 kV ICT along with associated bay: 1 no.</p> <p>xi) Space for future 765kV Bus Reactor along with associated bay: 1 no.</p> <p>B. 400kV</p> <p>i) ICT: 5x500MVA, 400/220kV</p> <p>ii) ICT bay: 8 nos. (3 nos. for 765/400/33kV and 5 nos. for 400/220/33kV)</p> <p>iii) Bus Reactor: 1x125 MVAR, 420kV</p> <p>iv) Bus Reactor bay: 1 no.</p> <p>v) Space for future line bay: 8 nos.</p> <p>vi) Space for future 765/400/33kV ICT bay: 1 no.</p> <p>vii) Space for future 400/220/33kV ICT along with associated bay: 2 nos.</p> <p>C. 220kV</p> <p>i) ICT bay: 5 nos. (4 nos. on Bus section-A and 1 no. on Bus section-B)</p> <p>ii) Line bay: 8 nos. (6 nos. on Bus section-A and 2 no. on Bus section-B)</p> <p>iii) Bus sectionalizer bay: 2 nos. (one no. for each Main Bus)</p> <p>iv) Bus coupler bay: 2 nos. (one no. for each Bus section)</p> <p>v) Transfer Bus coupler bay: 2 nos. (one no. for each bus section)</p> <p>vi) Space for future 400/220kV ICT bay: 2 nos. (2 nos. on Bus section-B)</p> <p>vii) Space for future line bay: 4 nos. (2 nos. each on Bus section-A & Bus section-B)</p>
2.	Bidar PS – Maheshwaram (PG) 765 kV D/C line
3.	2 nos. of 765 kV Line bays at Maheshwaram (PG) GIS substation for termination of Bidar PS – Maheshwaram (PG) GIS 765 kV D/C line
4.	765kV, 1x240 MVAR Switchable Line Reactor for each circuit at Bidar PS end of Bidar PS- Maheshwaram (PG) GIS 765 kV D/C line [as per A. v), vi) & viii) above]

Note:

1. POWERGRID to provide space for 2 no. of 765 kV line bays at Maheshwaram (PG) substation for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line

Phasing of Transmission scheme based on the Minutes of the meeting on “ISTS network expansion scheme for integration of additional RE potential in SR for providing RE power on RTC basis/load following basis and wind generation in windy states” held on 01.08.2022.

5.8.4.2 Transmission Scheme for Solar Energy Zone in Bidar (2500 MW), Karnataka under Phase-I

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Establishment of 2x500MVA 400/220kV station at suitable border location near	<ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 2 nos. • 400 kV ICT bays – 2 nos.

I/23836/2022

Sl. No.	Scope of the Transmission Scheme	Capacity /km
	<p>Bidar with 1x125 MVAR, 400kV bus reactor with provision to upgrade to 765kV level</p> <p>Future provisions: (including space for Phase-II)</p> <p>A. 765kV</p> <p>i) Space for 500 MVA, 765/400/33 kV ICTs: 13 nos. (12x500 MVA + 1x500 MVA, 765/400/33 kV Transformer unit as common spare for three banks)</p> <p>ii) Space for 765/400/33 kV ICT bays – 4 nos.</p> <p>iii) Space for Line bay with SLR: 8 nos.</p> <p>iv) Space for future 765kV Bus Reactor along with associated bay: 2 nos.</p> <p>v) Space for Spare Reactor</p> <p>B. 400kV</p> <p>i) Space for 765/400/33 kV ICT bays – 4 nos.</p> <p>ii) Space for 400/220kV ICTs : 5 nos.</p> <p>iii) Space for 400/220kV ICT bays : 5 nos.</p> <p>iv) Space for future line bay with SLR: 8 nos.</p> <p>C. 220kV</p> <p>i) Space for ICT bay: 5 nos.</p> <p>ii) Space for Line bay: 8 nos.</p> <p>iii) Bus Sectionalizer: 1 set</p> <p>iv) Bus coupler bay: 1 no.</p> <p>v) Transfer Bus coupler bay: 1 no.</p>	<ul style="list-style-type: none"> • 220 kV ICT bays – 2 nos. • 400 kV line bays – 2 nos. (for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c (initially charged at 400kV)) • 420kV Bus Reactors – 1x125 MVAR • 400kV Bus Reactor bays – 1 no. • 220 kV line bays – 4 nos. • 220 kV Bus Coupler (BC) Bay -1 nos. • 220 kV Transfer Bus Coupler (TBC) Bay - 1 nos.
2.	Bidar PS – Maheshwaram (PG) 765 kV D/ c (initially charged at 400kV)	160 Km
3.	400 kV line bays at Maheshwaram(PG) for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line (initially charged at 400kV)	400 kV GIS line bays – 2 nos.

Note: 1. POWERGRID to provide space for 2 no. of 400 kV GIS line bays at Maheshwaram (PG) substation for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line (initially charged at 400kV)

5.8.4.3 Transmission Scheme for Solar Energy Zone in Bidar (2500 MW), Karnataka under Phase-II

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	Upgradation of Bidar PS with 3x1500 MVA (765/400kV), 3x500MVA (400/220kV) ICTs along with 1x240 MVAR, 765kV bus reactor	<ul style="list-style-type: none"> • 765/400/33 kV, 1500 MVA ICTs – 3 nos. (10x500MVA, 765/400/33 kV Transformer unit including one common spare for three banks) • 400/220 kV, 500 MVA ICT – 3 nos.

I/23836/2022

Sl. No.	Scope of the Transmission Scheme	Capacity /km
		<ul style="list-style-type: none"> • 765kV ICT bays – 3 nos. • 400 kV ICT bays – 6 nos. • 220 kV ICT bays – 3 nos. • 765kV Bus Reactors – 1x240 MVAR • 765kV Bus Reactor bays – 1 no. • 765 kV line bays – 2 nos. (for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line) • 220 kV line bays – 4 nos. • 220kV Bus Sectionalizer: 1set • 220 kV Bus Coupler (BC) Bay -1 no. • 220 kV Transfer Bus Coupler (TBC) Bay - 1 no.
2.	Upgradation of Bidar PS – Maheshwaram (PG) 765 kV D/c line (initially charged at 400kV) to its rated voltage level	160 km
3.	765 kV line bays at Maheshwaram(PG) for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line	765 kV GIS line bays – 2 nos.
4.	765kV, 1x240MVAr switchable line reactor for each circuit at Bidar PS end of Bidar PS – Maheshwaram (PG) 765 kV D/c line	765 kV, 240 MVAr SLR – 2 nos. (7 x 80 MVAr incl. 1 switchable spare unit common for both bus reactor and line reactor) at Bidar PS

Note:

1. *POWERGRID to provide space for 2 no. of 765 kV GIS line bays at Maheshwaram (PG) substation for termination of Bidar PS – Maheshwaram (PG) 765 kV D/c line*

5.8.5 Transmission scheme for Solar Energy Zone in Ananthapuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh

5.8.5.1 Detailed Scope of Work

S. No.	Scope of the Transmission Scheme
1.	<p>Establishment of 400/220 kV, 7x500 MVA pooling station at suitable border location between Ananthapuram & Kurnool Distt with 400kV (2x125 MVAR) bus reactor</p> <p>A. 400 kV</p> <ol style="list-style-type: none"> i. ICT: 7x500MVA, 400/220kV ii. ICT bay: 7 nos. iii. Line bay: 4 nos. iv. Bus Reactor: 2x125 MVAR, 420kV v. Bus Reactor bay: 2 nos. vi. Line Reactor: 2x80 MVAR, 420kV vii. Switchable line reactor bay: 2 Nos viii. Space for future line bay along with switchable line reactor: 6 nos. ix. Space for future 400/220kV ICT along with associated bay: 1 nos.

I/23836/2022

	<p>B. 220 kV</p> <p>i. ICT bay: 7 nos. (4 nos. on Bus section-A and 3 nos. on Bus section-B)</p> <p>ii. Line bay: 12 nos. (6 nos. on Bus section-A and 6 nos. on Bus section-B)</p> <p>iii. Bus sectionalizer bay: 2 nos. (one no. for each Main Bus)</p> <p>iv. Bus coupler bay: 2 nos. (one no. for each Bus section)</p> <p>v. Transfer Bus coupler bay: 2 nos. (one no. for each Bus section)</p> <p>vi. Space for future 400/220kV ICT bay: 1 nos. (1 no. on Bus section-B)</p> <p>vii. Space for future line bay: 4 nos. (2 nos. on Bus section-A and 2 nos. on Bus section-B)</p>
2.	Ananthpuram PS-Kurnool-III PS 400 kV (High capacity equivalent to quad moose) D/c Line
3.	2 Nos 400 kV line bays at Kurnool-III PS for Ananthpuram PS-Kurnool-III PS 400 kV D/c line
4.	Ananthpuram PS-Cuddapah 400 kV (High capacity equivalent to quad moose) D/c Line
5.	2 Nos 400 kV line bays Cuddapah PS for Ananthpuram PS-Cuddapah 400 kV
6.	80 MVAR, 420 KV switchable line reactor for Ananthpuram PS-Cuddapah 400 kV D/c line [As per A.vi) & vii) above]

Note:

1. POWERGRID to provide space for 2 nos. 400kV GIS line bays at Cuddapah PS.
2. Developer of Kurnool-III PS to provide space for 2 nos. 400kV line bays at Kurnool-III PS.

Phasing of Transmission scheme based on the Minutes of the meeting on “ISTS network expansion scheme for integration of additional RE potential in SR for providing RE power on RTC basis/load following basis and wind generation in windy states” held on 01.08.2022.

5.8.5.2 Transmission scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh under Phase-I

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	<p>Establishment of 400/220 kV, 2x500 MVA pooling station at suitable border location between Ananthpuram & Kurnool Distt with 400kV (2x125 MVAR) bus reactor</p> <p>Future provisions: (including space for Phase-II)</p> <p>400kV</p> <ul style="list-style-type: none"> • Space for 400kV Line bay with switchable line reactor: 8 nos. 	<ul style="list-style-type: none"> • 400/220 kV, 500 MVA ICT – 2 nos. • 400 kV ICT bays – 2 nos. • 220 kV ICT bays – 2 nos. • 400 kV line bays – 2 nos. (for termination of Ananthapuram PS - Cuddapah 400 kV (quad) D/c Line) • 420kV Bus Reactors – 2x125 MVAR

I/23836/2022

Sl. No.	Scope of the Transmission Scheme	Capacity /km
	<ul style="list-style-type: none"> Space for future 400/220kV ICT along with associated bays: 6 nos. <u>220 kV</u> <ul style="list-style-type: none"> Space for ICT bay: 6 nos. Space for Line bay: 12 nos. 220 kV Bus Sectionalizer: 2 sets 220 kV Bus Coupler (BC) Bay - 2 nos. 220 kV Transfer Bus Coupler (TBC) Bay - 2 nos. 	<ul style="list-style-type: none"> 400kV Bus Reactor bays – 2 nos. 220 kV line bays – 4 nos. 220 kV Bus Coupler (BC) Bay -1 nos. 220 kV Transfer Bus Coupler (TBC) Bay - 1 nos.
2.	Ananthpuram PS-Cuddapah 400 kV (High capacity equivalent to quad moose) D/c Line	150 km
3.	2 Nos 400 kV line bays at Cuddapah PS for Ananthpuram PS-Cuddapah 400 kV D/c line	400 kV GIS line bays – 2 nos.
4.	80 MVar, 420 kV switchable line reactor at Ananthpuram PS for Ananthpuram PS-Cuddapah 400 kV D/c line	420 kV, 80 MVar line reactor – 2 nos. Switching equipments for line reactor – 2 nos.

Note:

1. POWERGRID to provide space for 2 nos. 400kV GIS line bays at Cuddapah.

5.8.5.3 Transmission scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh under Phase-II

Sl. No.	Scope of the Transmission Scheme	Capacity /km
1.	400/220 kV, 5x500 MVA ICT Augmentation at Ananthapuram PS	<ul style="list-style-type: none"> 400/220 kV, 500 MVA ICT – 5 nos. 400 kV ICT bays – 5 nos. 220 kV ICT bays – 5 nos. 400 kV line bays – 2 nos. (for termination of Ananthapuram PS – Kurnool-III 400 kV (quad) D/c Line) 220 kV line bays – 8 nos. 220 kV bus sectionalizer: 2 sets 220 kV Bus Coupler (BC) Bay - 2 nos. 220 kV Transfer Bus Coupler (TBC) Bay - 2 nos.
2.	Ananthpuram PS-Kurnool-III PS 400	100 km

I/23836/2022

Sl. No.	Scope of the Transmission Scheme	Capacity /km
	kV (High capacity equivalent to quad moose) D/c Line	
3.	2 Nos 400 kV line bays at Kurnool-III PS for Ananthpuram PS- Kurnool-III PS 400 kV D/c line	400 kV line bays – 2 nos.

Note:

- Developer of Kurnool-III PS to provide space for 2 nos. 400kV line bays at Kurnool-III PS for termination of Ananthpuram PS-Kurnool-III PS 400 kV (High capacity equivalent to quad moose) D/c Line.

5.9 Modification in the “Transmission system for evacuation of power from REZ in Rajasthan (20GW) Phase –III”

- 5.9.1 Various transmission scheme for ‘Transmission system for evacuation of power from REZ in Rajasthan (20GW) Phase –III’ were approved in the 5th NCT meeting held on 25.08.2021 and 02.09.2021. The same was notified by MoP for implementation vide Gazette notification dated 06.12.2021. The transmission schemes are presently under bidding. In regard to the above approved scheme, CTUIL vide its mail dated 08.09.2022 has intimated some modifications in the following packages on account of increase in line length and addition in future provision:

Sl. No.	Scheme	Scope	As approved in 5 th NCT	Modification/ Additional provision
1.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part A3	Fatehgarh-III PS -Bhadla-III PS 400kV D/c line (Quad)	50 MVar-4 Nos. (Switchable) Sw. equipment for 50MVar Sw. line reactor - 4 Nos	63 MVar-4 Nos. (Switchable) Switching equipment for 63MVar Switchable line reactor - 4 Nos.
2.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part B1	Fatehgarh-II PS -Bhadla-III PS 400kV D/c line (Quad)	50 MVar-4 Nos. (Switchable) Sw. equipment for 50MVar Sw. line reactor - 4 Nos	63 MVar-4 Nos. (Switchable) Switching equipment for 63MVar Switchable line reactor - 4 Nos.
3.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part C1	Establishment of 2x1500 MVA 765/400kV & 2x500 MVA 400/220 kV pooling station at Ramgarh along with 2x240 MVar (765kV) Bus Reactor &	--	<i>Future provision to be included:</i> Space provision for STATCOM (± 2x300MVar, 4x125 MVar MSC, 2x125 MVar MSR) at Ramgarh S/s

I/23836/2022

SI No	Scheme	Scope	As approved in 5 th NCT	Modification/ Additional provision
		2x125 MVAR (420kV) Bus reactor		

5.9.2 CTUIL informed that in the survey report shared by BPC, with the identified Bhadla-III PS location there is significant increase in the length of Fatehgarh-III PS - Bhadla-III PS 400 kV D/c line and Fatehgarh-II PS - Bhadla-III PS 400 kV D/c line from the tentative length approved in the 5th NCT meeting (i.e. 200 km to around 274 km and 243 km respectively). Therefore, the line reactive compensation agreed with the earlier line lengths also need to be revised. Further, as part of Phase-III scheme, establishment of Ramgarh S/s was approved under Phase-III Part C1 package in 5th NCT. However, future space provision for STATCOM (\pm 2x300MVAR, 4x125 MVAR MSC, 2x125 MVAR MSR) at Ramgarh S/s was inadvertently missed in the above package. Since the Package Phase-III Part C1 is under bidding, the same is to be included in the future provision of Ramgarh S/s.

5.9.3 The Modification/Additional provisions proposed in the above table have been intimated to BPCs for incorporation in the respective transmission schemes.

5.9.4 Members may please note.

6 Evaluation of functioning of National Grid.

POSOCO may make the requisite presentation apprising NCT of the performance of national Grid.

7 Comprehensive presentation by CTU apprising NCT of measures taken for ensuring development of an efficient, co-ordinated and economical ISTS for smooth flow of electricity.

CTU may present

8 Five-year rolling plan for ISTS capacity addition.

- As per the amended ToR of the NCT, CTU shall prepare a five-year rolling plan for ISTS capacity addition every year. The Annual Plan shall be put up to the NCT six months in advance.
- CTU may present
- Members may deliberate

- 9 Any other issues, with permission of chair

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE COMPANY BY WAY OF CIRCULATION ON MARCH 22, 2023**IMPLEMENTATION OF AUGMENTATION WORK BY KALLAM TRANSMISSION LIMITED**

“RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 2013 as amended from time to time or any other provisions as may be applicable, and pursuant to Office Memorandum No. CTUIL/OM/07 dated 15.11.2022 issued by CTUIL, the consent of the Board be and is hereby accorded to develop and implement the project for augmentation in the transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection by Kallam Transmission Limited at an estimated cost of Rs. 156.89 crores or based on the actual capex incurred by employing prudent utility practices including competitive bidding process for procurements in line with the provisions laid down in the applicable Tariff Regulations issued by CERC from time to time.

RESOLVED FURTHER THAT the Directors, or Mr. Abhay Kumar, Authorised Signatory or Mr. Lokendra Singh Ranawat, Authorised Signatory, or Mr. Aditya Kislay, Authorised Signatory (collectively the “Authorised Representatives” of the Company) be and are hereby severally authorized to sign and deliver any document, agreement, letter, undertaking and any amendments/ supplements to the same and to do such acts, deeds and things as may be required or incidental for implementation of the said augmentation work.

RESOLVED FURTHER THAT a copy of this resolution certified to be true by any of the Directors of the Company may be given to the concerned authorities/ offices/ parties etc. as may be required.”

Certified True Copy
For **IndiGrid 1 Limited**
(Formerly known as Sterlite Grid 2 Limited)



Satish Talmale
Director
DIN: (08456661)

Date: March 22, 2023

Address: A Wing, A-2403, Avalon CHS Ltd, Hiranandani Gardens, Nr Garden, Powai – 400076, Mumbai, Maharashtra, India

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE COMPANY BY WAY OF CIRCULATION ON MARCH 22, 2023**IMPLEMENTATION OF AUGMENTATION WORK BY KALLAM TRANSMISSION LIMITED**

“RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 2013 as amended from time to time or any other provisions as may be applicable, and pursuant to Office Memorandum No. CTUIL/OM/07 dated 15.11.2022 issued by CTUIL, the consent of the Board be and is hereby accorded to develop and implement the project for augmentation in the transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection by Kallam Transmission Limited at an estimated cost of Rs. 156.89 crores or based on the actual capex incurred by employing prudent utility practices including competitive bidding process for procurements in line with the provisions laid down in the applicable Tariff Regulations issued by CERC from time to time.

RESOLVED FURTHER THAT the Directors, or Mr. Abhay Kumar, Authorised Signatory or Mr. Lokendra Singh Ranawat, Authorised Signatory, or Mr. Aditya Kislay, Authorised Signatory (collectively the “Authorised Representatives” of the Company) be and are hereby severally authorized to sign and deliver any document, agreement, letter, undertaking and any amendments/ supplements to the same and to do such acts, deeds and things as may be necessary or incidental for implementation of the said augmentation work.

RESOLVED FURTHER THAT a copy of this resolution certified to be true by any of the Directors of the Company may be given to the concerned authorities/ offices/ parties etc. as may be required.”

Certified True Copy

For **IndiGrid 2 Limited**

(Formerly known as Sterlite Grid 3 Limited)



Satish Talmale

Director

DIN: (08456661)

Date: March 22, 2023

Address: A Wing, A-2403, Avalon CHS Ltd, Hiranandani Gardens, Nr Garden, Powai – 400076, Mumbai, Maharashtra, India

Kallam Transmission Limited

Corporate Office: Unit No. 101, First Floor, Windsor, Village Kolkalyan, off CST Road, Vidyanaigari Marg, Kalina, Santacruz (East), Mumbai – 400098, Ph: +91 70284 93885

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE COMPANY BY WAY OF CIRCULATION ON MARCH 22, 2023

IMPLEMENTATION OF AUGMENTATION WORK BY THE COMPANY

“RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 2013 as amended from time to time or any other provisions as may be applicable, the consent of the Board be and is hereby accorded to develop and implement the project for augmentation in the transformation Capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays for RE interconnection at an estimated cost of Rs. 156.89 crores or based on the actual capex incurred by employing prudent utility practices including competitive bidding process for procurements in line with the provisions laid down in the applicable Tariff Regulations issued by CERC from time to time.

RESOLVED FURTHER THAT the Directors, or Mr. Abhay Kumar, Authorised Signatory or Mr. Lokendra Singh Ranawat, Authorised Signatory, or Mr. Aditya Kislay, Authorised Signatory (collectively the “Authorised Representatives” of the Company) be and are hereby severally authorised inter-alia to do all the activities in relation to the augmentation work including but not limited to:

- a. make an application to “Central Electricity Regulatory Commission” (CERC) for grant of License under Electricity Act and Determination of Tariff, approval for creation of security and to execute all necessary applications, documents, undertakings in connection therewith and personally appear before CERC or any other related statutory authority as may be required.
- b. appoint any consultant for representing to CERC.
- c. deal with any Long-Term Transmission Customers or any other statutory agency for the purpose of License and determination of Tariff.
- d. To interact, liaise, represent and deal with the relevant statutory authorities and obtain all statutory permissions and approvals, if any.
- e. To liaison with or to negotiate with or to receive and submit documents to the Assessment Officer, Income Tax Commissioner, Commissioner of Appeals, Appellate Tribunal, Courts including Courts, Supreme Courts or any other judicial/ quasi-judicial authority/ies as mentioned under Income Tax Act, 1961 for the time being in force with regards to the Income Tax assessment, pay or any other issue falling in the purview of the Income Tax Act.
- f. delegate to any person any or all of the aforesaid authorities and to do all such acts, deeds, and things as may be necessary for lawful execution of the project and to give effect to this resolution.

RESOLVED FURTHER THAT a copy of this resolution certified to be true by any of the Directors of the Company may be given to the concerned authorities/ offices/ parties etc. as may be required.”

Certified True Copy

For **Kallam Transmission Limited**




Meghana Pandit

Director (DIN-08497976)

Date: March 22, 2023

Address: B 601, Chandiwala Complex, Off Nooribaba, Darga Road, Panchpakhadi, Thane West, Thane- 400601

Annexure P-12



सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड
(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)
(भारत सरकार का उद्यम)

CENTRAL TRANSMISSION UTILITY OF INDIA LTD.
(A wholly owned subsidiary of Power Grid Corporation of India Limited)
(A Government of India Enterprise)

Ref.: C/CTU/CMG/2023-24/KTL/RNoD

Date: 14.07.2023

To,
As per the distribution list

Subject: Implementation of "Augmentation of Transformation Capacity at Kallam PS by 2×500 MVA, 400/220kV ICTs (3rd and 4th) along with 220 kV bays for RE interconnection" – regarding

Dear Sir,

This has reference to the meeting held on 3rd July'23 through Video Conference amongst CTUIL, M/s Kallam Transmission Ltd. (KTL) and Generating entities viz. Veh Aarush Renewables Private Limited, JSW Neo Energy Limited, Serentica Renewables India 4 Private Limited and Torrent Solar Power Pvt. Ltd, pursuant to the Hon'ble CERC direction vide RoP dated 20.06.2023 w.r.t Petition no. 123/TL/2023 filed by M/s KTL, for grant of transmission license for implementation of subject project under RTM. The Record Notes of Discussions are attached herewith.

Thanking You,

Yours faithfully,

(Abhijit Jha)
Chief Manager

Encls: A/a

Copy to (for kind information please):

Shri Ishan Sharan

Chief Engineer (PSP&A-I)
Central Electricity Authority,
Sewa Bhawan, R K Puram,
New Delhi – 110066

Shri Y K Swarnkar

Chief Engineer-I/C (PSPM)
Central Electricity Authority,
Sewa Bhawan, R K Puram,
New Delhi – 110066

Distribution List:

A) Generators-

<p>1. Shri Chaitanya GVLK Vice President (Development & Delivery) Veh Aarush Renewables Private Limited 9th Floor, My Home Twitza, Raidurg, Hyderabad-500081, Telangana Email: cgvk@vibrantenergy.in hjinaga@vibrantenergy.in</p>	<p>2. Shri Pritpal Singh AGM JSW Neo Energy Limited JSW Center, BKC, Mumbai Email: prtipal.singh@jsw.in abhay.yagnik@jsw.in</p>
<p>3. Shri Arzaan Dordi Chief Manager Serentica Renewables India 4 Private Limited, DLF Cyber Park, 9th Floor, Tower B Sector 20, DLF Phase-3, Gurugram Email: Arzaan.dordi1@serenticaglobal.com Saurav.bagchi@serenticaglobal.com</p>	<p>4. Shri Jigish Mehta Director Torrent Solar Power Pvt. Ltd. SUGEN Mega Power Project, Torrent Power Ltd., Akhakhol, Surat-394155 Email: ronaknaik@torrentpower.com; jaydipchudasama@torrentpower.com</p>

B) TSP

<p>1. Shri Suman Sah Project Director, Kallam Transmission Ltd., (A consortium of IndiGrid 1 Ltd. & IndiGrid 2 Ltd.) Unit No. 101, 1st Floor, Windsor Village, Kolekalyan Off CST Road, Vidhyanagari Marg, Santacruz (East), Mumbai – 400 098, Maharashtra. Email: suman.sah@indigrid.com; wasim.alam1@indigrid.com</p>	
---	--

Record notes of discussions held on 03.07.2023 amongst CTUIL, KTL, Veh Aarush Renewables Private Limited, JSW Neo Energy Limited, Serentica Renewables India 4 Private Limited and Torrent Solar Power Pvt. Ltd.

CTUIL welcomed all the stakeholders associated with “Augmentation of Transformation Capacity at Kallam PS by 2×500 MVA, 400/220 kV ICTs (3rd and 4th) along with 220 kV bays for RE interconnection” i.e. Kallam Transmission Ltd (KTL), Veh Aarush Renewables Private Limited, Serentica Renewables India 4 Private Limited and Torrent Solar Power Pvt. Ltd. in the meeting held on 03.07.2023 through Video Conference. JSW Neo Energy Limited did not attend the meeting, however, information was furnished by them through email. List of the participants is attached as **Annexure-I**.

Following were discussed in the meeting:

1. CTUIL informed that in the Petition no. 123/TL/2023 filed before Hon’ble CERC by Kallam Transmission Limited (M/s KTL), for grant of transmission license for implementation of subject project under RTM, Hon’ble CERC vide Record of Proceedings dated 20.06.2023 has directed CTU to convene a joint meeting with M/s KTL and the Generators to ascertain their respective timelines to avoid the eventualities of mismatch in commissioning of 3 nos. of 220kV and 1 nos. of 400kV bays (newly added and to be implemented by M/s KTL- inadvertently mentioned as 220kV bay in aforesaid CERC’s RoP) and corresponding generating stations viz. Veh Aarush Renewables Private Limited, JSW Neo Energy Limited, Serentica Renewables India 4 Private Limited and Torrent Solar Power Pvt. Ltd.
2. CTUIL appraised that Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra is presently under implementation by Kallam Transmission Ltd. Further, augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd& 4th) along with 220 kV bays for RE interconnection is also under implementation which shall enable connectivity of additional 1 GW at 220 kV level of Kallam PS. Further, additional connectivity has also been granted to M/s Torrent at 400 kV level (1 no. bay) and hence there is a cumulative requirement of evacuation of about 3.25 GW (2GW at 220 kV level and 1.25 GW at 400 kV level) from Kallam PS and accordingly Western Region Network Expansion scheme in Kallam area of Maharashtra was evolved in addition to above schemes to cater to evacuation of 3.25GW RE capacity in Kallam area. Further, till May’23, total 2109.3MW St-II Connectivity out of which 1951.3MW at 220kV level & 158MW at 400kV level has been granted/agreed for grant and LTA of 798.75MW at 220kV level has been granted/agreed for grant at Kallam PS.
3. Further, in view of the CERC directions, updated status of ISTS network and generation projects phase-wise anticipated commissioning schedule along with the status of Dedicated Transmission line are as follows:

Sl. No.	Generator	Connectivity Quantum (MW)	Connectivity Start date (As per Intimation)	Generator Anticipated Schedule	ISTS System	ISTS System SCOD
		Process)		92MW: 30.06.2025 DTL: 31.03.2025	B. Western Region Network Expansion scheme in Kallam area of Maharashtra (i) LILO of both circuits of Parli(M) – Karjat(M)/Lonikand-II(M) 400kV D/c line (twin moose) at Kallam PS (ii) 4 nos. 400kV line bays at Kallam PS for LILO of both circuits of Parli(M) – Karjat(M)/ Lonikand-II(M) 400kV D/c line (twin moose) at Kallam PS (iii) 63MVAr, 420kV switchable line reactor (with NGR bypassing arrangement) on each ckt at Kallam PS end of Karjat – Kallam 400kV D/c line	Transmission system approved in 14 th NCT held on 09.06.2023 and recommended to be implemented under TBCB route. SCOD: 18 months from SPV transfer

4. Further, KTL informed that EPC contract for 3 nos. of 220 kV line bays is under advance stage of award and likely to be awarded by 07.07.2023.

5. In view of the above, following is observed:

- i. Transmission system under Kallam 1GW scheme [at sl. no. 1(A) in above table] and 01 no. of 220kV line bay [at sl. no. 1(B) in above table] are required for transfer of power for 200MW LTA of M/s SRI4PL generation project.
- ii. ISTS system required for power evacuation from the generation projects are:
 - Veh Aarush (201MW), JSW Neo(300MW), SRI4PL (balance quantum of 150 MW out of 350 MW): Transmission system mentioned at Sl. No. 2 & 4 (B) in above table
 - Torrent Solar Power Pvt. Ltd (66MW+92MW): Transmission system mentioned at Sl. No. 4 in above table
- iii. Serentica Renewables India 4 Private Limited and JSW Neo Energy Limited generation projects are expected to be commissioned progressively from 10.06.2024 & 30.06.2024, respectively and associated 2 nos. of 220kV line bays commissioning schedule is 14.05.2024, which needs to be matched to avoid non-utilization of 220 kV line bays.
- iv. Veh Aarush Renewables Pvt Ltd is expected to be commissioned progressively from 15.04.2025 & it's associated 01 No. of 220kV line bay commissioning schedule is 14.05.2024, which needs to be matched to avoid non-utilization of 220 kV line bay.
- v. Torrent Solar Power Private Limited is expected to be commissioned progressively from 31.03.2025 & it's associated 01 No. of 400kV line bay commissioning schedule is 30.12.2024, which needs to be matched to avoid non-utilization of 400 kV line bay.

Meeting ended with vote of Thanks.

List of Participants

Sl. No.	Name	Designation	Organization
1.	Shri Rajesh Verma	General Manager	CTUIL
2.	Shri Shyam Sunder Goyal	Manager	CTUIL
3.	Shri Shashank Shekhar	Manager	CTUIL
4.	Shri Sanjeev Singh	Dy. Manager	CTUIL
5.	Shri Ajay Kumar	Asst. Manager	CTUIL
6.	Shri Suman Sah	Project Director	Kallam Transmission Ltd.
7.	Shri Pritesh Lodha	Deputy General Manager	Veh Aarush Renewable Pvt. Ltd.
8.	Shri Anshu Negi	Assistant Manager	Torrent Solar Power Pvt. Ltd.
9.	Shri Arzaan Dordi	Chief Manager	Serentica Renewables India 4 Private Limited

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF THE COMPANY ON JULY 19, 2023

Implementation of augmentation work by the Company

“RESOLVED THAT pursuant to the applicable provisions of the Companies Act, 2013 as amended from time to time or any other provisions as may be applicable, the consent of the Board be and is hereby accorded to develop and implement the project of 1 no. of 400kV bay at Kallam PS for interconnection of RE Project of Torrent Solar Power Plant Private Limited (TSPPL) which is awarded to the Company under the Regulated Tariff Mechanism (RTM) route at an estimated cost of Rs. 17.10 Crores or based on the actual capex incurred by the project developer by employing prudent utility practices including adoption competitive bidding process for procurements in line with the provisions laid down in the applicable Tariff Regulations issued by CERC from time to time.

RESOLVED FURTHER THAT the Directors or Key Managerial Personnels (KMP's), or Mr. Abhay Kumar, Authorised Signatory, or Mr. Lokendra Ranawat, Authorised Signatory, or Mr. Puneet Singh Chouhan, Authorised Signatory, Mr. Aditya Kislay, Authorised Signatory (collectively the “Authorised Representatives”) the Authorised Representatives be and are hereby severally authorized inter-alia to do all the activities in relation to the augmentation work including but not limited to:

- a. make an application to “Central Electricity Regulatory Commission” (CERC) for grant of License under Electricity Act and Tariff Adoption, approval for creation of security and to execute all necessary applications, documents, undertakings in connection therewith and personally appear before CERC or any other related statutory authority as may be required.
- b. appoint any consultant for representing to CERC.
- c. deal with any Long-Term Transmission Customers or any other statutory agency for the purpose of License and Tariff Adoption.
- d. To interact, liaise, represent and deal with the relevant statutory authorities and obtain all statutory permissions and approvals, if any.
- e. To liaison with or to negotiate with or to receive and submit documents to the Assessment Officer, Income Tax Commissioner, Commissioner of Appeals, Appellate Tribunal, Courts including Courts, Supreme Courts or any other judicial/ quasi-judicial authority/ies as mentioned under Income Tax Act, 1961 for the time being in force with regards to the Income Tax assessment, pay or any other issue falling in the purview of the Income Tax Act.
- f. delegate to any person any or all of the aforesaid authorities and to do all such acts, deeds, and things as may be necessary for lawful execution of the project and to give effect to this resolution.

RESOLVED FURTHER THAT a copy of this resolution certified to be true by any of the Directors of KMP's of the Company may be given to the concerned authorities/ offices/ parties etc. as may be required.”

Certified to be true
For **Kallam Transmission Limited**



Meghana Pandit

Director

DIN: 08497976

Date: 19.07.2023

Place: Mumbai



GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that KALLAM TRANSMISSION LIMITED is incorporated on this Twenty eighth day of May Two thousand twenty under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U40106DL2020GOI364104.

The Permanent Account Number (PAN) of the company is **AAICK0945P** *

The Tax Deduction and Collection Account Number (TAN) of the company is **DELK21359C** *

Given under my hand at Manesar this Twenty eighth day of May Two thousand twenty .



Digital Signature Certificate
Mr RAJENDER KUMAR
DEPUTY REGISTRAR OF COMPANIES
For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:

KALLAM TRANSMISSION LIMITED
CORE-4, SCOPE COMPLEX, 7, LODHI ROAD, NEW DELHI, South
Delhi, Delhi, India, 110003



* as issued by the Income Tax Department

THE COMPANIES ACT, 2013

COMPANY LIMITED BY SHARES

MEMORANDUM OF ASSOCIATION OF

KALLAM TRANSMISSION LIMITED

1. The Name of the Company is KALLAM TRANSMISSION LIMITED

2. The Registered office of the company will be situated in the State of Delhi

3.(a) The objects to be pursued by the Company on its incorporation are :

1. To plan, promote and develop an integrated and efficient power transmission system network in all its aspects including planning, investigation, research, design and engineering, preparation of preliminary, feasibility and definite project reports, construction, operation and maintenance of transmission lines, sub-stations, load dispatch stations and communication facilities and appurtenant works, coordination of integrated operation of regional and national grid system, execution of turn-key jobs for other utilities/organizations and wheeling of power in accordance with the policies, guidelines and objectives laid down by the Central Government from time to time.
2. To study, investigate, collect information and data, review operation, plan, research, design and prepare Report, diagnose operational difficulties and weaknesses and advise on the remedial measures to improve, undertake development of new and innovative product connected with business of the Company as well as modernize existing EHV, HV lines and Sub-Stations.
3. To act as consultants, technical advisors, surveyors and providers of technical and other services to Public or Private Sector enterprises engaged in the planning, investigation, research, design and preparations of preliminary, feasibility and definite project reports, manufacture of power plant and equipment, construction, generation, operation and maintenance of power transmission system from power generating stations and projects, transmission and distribution of power.
4. To plan, promote, develop, erect and maintain, operate and otherwise deal in Telecommunication networks and services in all its aspects including planning, investigation, research, design and engineering, preparation of preliminary, feasibility and definite project reports: to purchase, sell, import, export, assemble, manufacture, install, commission, maintain, operate commercially whether on own or along with other, on lease or otherwise. These networks and for such purposes to set up and/or install all requisite communications facilities and other facilities including fibre optic links, digital microwave links, communication cables, other telecommunication means, telephone and other exchanges, co-axial stations, microwave stations, repeater stations, security system databases, billing systems, subscriber management systems and other communication systems whether consisting of sound, visual impulse, or otherwise, existing or that may be developed or invented in the future and to manufacture, purchase, sell, import, export, assemble, take or give on lease/rental/subscription basis or by similar means or otherwise deal in all components and other support and ancillary hardware and software systems, accessories, parts and equipments etc. used in or in connection with the operation of the above communication systems and networks including to deal with telecommunication operations or directly with the general public, commercial companies otherwise.

Certified True Copy


Bigyan Parija
Director
DIN- 08339324



3.(b)Matters which are necessary for furtherance of the objects specified in clause 3(a) are:



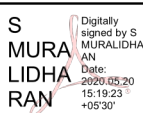
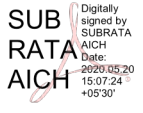
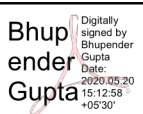

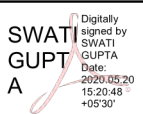
1. To obtain license, approvals and authorization from Governmental Statutory and Regulatory Authorities, as may be necessary to carry out and achieve the Objects of the Company and connected matters which may seem expedient to develop the business interests of the Company in India and abroad.
2. To enter into any arrangement with the Government of India or with any State Government or with other authorities/ commissions, local bodies or public sector or private sector undertakings, Power Utilities, Financial Institutions, Banks, International Funding Agencies and obtain such charters, subsidies, loans, advances or other money, grants, contracts, rights, sanctions, privileges, licenses or concessions whatsoever (whether statutory or otherwise) which the Company may think it desirable to obtain for carrying its activities in furthering the interests of the Company or its members.
3. To enter into any agreement, contract or any arrangement for the implementation of the power generation, evacuation, transmission and distribution system and network with Power/Transmission Utilities, State Electricity Boards, Vidyut Boards, Transmission Companies, Generation Companies, Licensees, Statutory bodies, other organizations (whether in Private, Public or Joint Sector Undertaking) and bulk consumers of power etc.
4. To secure the payments of money, receivables on transmission and distribution of electricity and sale of fuel, as the case may be, to the State Electricity Boards, Vidyut Boards, Transmission Utilities, Generating Companies, Transmission Companies, Distribution Companies, State Governments, Licensees, statutory bodies, other organizations (whether in Private, Public or Joint Sector Undertaking) and bulk consumers of power etc. through Letter of Credits/ESCROW and other security documents.
5. To coordinate with the Central Transmission Utility of electricity generated by it under the relevant provisions of Electricity Act 2003 and any amendments thereto.
6. Subject to provisions of Sections 73, 74, 179, 180 & 186 and other applicable provisions of the Companies Act, 2013 and rules made thereunder and subject to other laws or directives, if any, of SEBI/RBI, to borrow money in Indian rupees or foreign currencies and obtain foreign lines of credits/ grants/aids etc. or to receive money or deposits from public for the purpose of the Company's business in such manner and on such terms and with such rights, privileges and obligations as the Company may think fit. The Company may issue bonds/ debentures whether secured or unsecured; bills of exchange, promissory notes or other securities, mortgage or charge on all or any of the immovable and movable properties, present or future and all or any of the uncalled capital for the time being of the Company as the Company may deem fit and to repay, redeem or pay off any such securities or charges.
7. To lend money on property or on mortgage of immovable properties or against Bank guarantee and to make advances of money against future supply of goods and services on such terms as the Directors may consider necessary and to invest money of the Company in such manner as the Directors may think fit and to sell, transfer or to deal with the same.
8. To own, possess, acquire by purchase, lease or otherwise rights, title and interests in and to, exchange or hire real estate, equipment, Transmission lines, lands, buildings, apartments, plants, equipment, machinery, fuel blocks and hereditaments of any tenure or descriptions situated in India or abroad or any estate or interest therein and any right over or connected with land so situated and turn the same to account in any manner as may seem necessary or convenient for the purpose of business of the Company and to hold, improve, exploit, re-organize, manage, lease, sell, exchange or otherwise dispose of the whole or any part thereof.
9. Subject to applicable provisions of Companies Act, 2013, to subscribe for, underwrite, or otherwise acquire, hold, dispose of and deal with the shares, stocks, debentures or other securities and titles of indebtedness or the right to participate in profits or other similar documents issued by any Government authority, Corporation or body or by any company or body of persons and any option or right in respect thereof.

10. To create any depreciation fund, reserve fund, sinking fund, insurance fund, gratuity, provident fund or any other fund, for depreciation or for repairing, improving extending or maintaining any of the properties of the Company or for any other purposes whatsoever conducive to the interests of the Company.
11. To acquire shares, stocks, debentures or securities of any company carrying on any business which this Company is entitled to carry on or acquisition of undertaking itself which may seem likely or calculated to promote or advance the interests of the Company and to sell or dispose of or transfer any such shares, stocks or securities and the acquired undertaking.
12. To enter into partnership or into any agreement for joint working, sharing or pooling profits, joint venture, amalgamation, union of interests, co-operation, reciprocal concessions or otherwise or amalgamate with any person or company carrying on or engaged in or about to carry on or engaged in any business or transaction in India or abroad which the Company is authorized to carry on or engage in any business undertaking having objects identical or similar to, as are being carried on by this Company.
13. To establish and maintain agencies, branch offices and local agencies, to procure business in any part of India and world and to take such steps as may be necessary to give the Company such rights and privileges in any part of the world as deemed proper in the interest of the Company.
14. To promote and undertake the formation of any institution or Company or subsidiary company or for any aforesaid objects intended to benefit the Company directly or indirectly and to coordinate, control and guide their activities.
- 15(a) To negotiate and enter into agreements and contracts with domestic and foreign companies, persons or other organizations, banks and financial institutions, in relation to the business of the Company including that of technical know-how, import, export, purchase or sale of plant, machinery, equipment, tools, accessories and consumables, financial assistance and for carrying out all or any of the objects of the Company.
- 15(b) To negotiate and enter into agreements and contracts for execution of turnkey jobs, works, supplies and export of plant, machinery, tools and accessories etc.
16. Upon and for the purpose of any issue of shares, debentures or any other securities of the Company, to enter into agreement with intermediaries including brokers, managers of issue/commission agents and underwriters and to provide for the remuneration of such persons for their services by way of payment in cash or issue of shares, debentures or other securities of the Company or by granting options to take the same or in any other manner as permissible under the law.
17. To enter into contracts of indemnity and get guarantee and allocations for the business of the Company.
18. To make arrangements for training of all categories of employees and to employ or otherwise engage experts, advisors, consultants etc. in the interest of achieving the Company's objects.
19. To promote conservation and protection of electricity from theft, safety of life and to protect environments including air, land and water etc.
20. To pay and provide for the remuneration, amelioration and welfare of persons employed or formerly employed by the Company and their families providing for pension, allowances, bonuses, other payments or by creating for the purpose from time to time the Provident Fund, Gratuity and other Funds or Trusts. Further to undertake building or contributing to the building or houses, dwellings or chawls by grants of money, or by helping persons employed by the Company to effect or maintain insurance on their lives by contributing to the payment of premium or otherwise and by providing or subscribing or contributing towards educational institutions, recreation, hospitals and dispensaries, medical and other assistance as the Company may deem fit.

21. To ensure any rights, properties, undertakings, contracts, guarantees or obligations or profits of the Company of every nature and kind in any manner with any person, firm, association, institution or company.
22. To distribute among members of the Company dividend including bonus shares out of profits, accumulated profits or funds and resources of the Company in any manner permissible under law.
23. To institute, conduct, defend, compound or abandon any legal proceedings by or against the Company or its officers or otherwise concerning the affairs of the Company and also to compound and to allow time for payment or satisfaction of any debts or recovery due, claims or demands by or against the Company and to refer any claims or demands by or against the Company or any differences arising in execution of contracts to conciliation and arbitration and to observe, comply with and/or challenge any awards preliminary, interim or final made in any such arbitration.
24. To pay out of the funds of the Company all costs, charges, expenses and preliminary and incidental to the promotion, formation, establishment and registration of the Company or other expenses incurred in this regard.
25. Subject to provisions of Sections 181, 182 & 183 of Companies Act, 2013 to contribute money or otherwise assist to charitable, benevolent, religious, scientific national, defense, public or other institutions or objects or purposes.
26. To open an account or accounts with any individual, firm or company or with any bank bankers or shroofs and to pay into and withdraw money from such account or accounts.
27. To accept gifts, bequests, devises and donations from members and others and to make gifts to members and others of money, assets and properties of any kind.
28. To carry out all or any of the objects of the company and do all or any of the above things in any part of the world and either as principal, agent, contractor or trustee or otherwise and either alone or in conjunction with others.
29. To negotiate and/or enter into agreement and contract with individuals, companies, corporations, foreign or Indian, for obtaining or providing technical, financial or any other assistance for carrying on all or any of the objects of the Company and also for the purpose of activating, research, development of projects on the basis of know-how and/or financial participation and for technical collaboration, and to acquire or provide necessary formulate and patent rights for furthering the objects of the company.
30. To aid peculiarly or otherwise, any association, body or movement having for its object the solution, settlement or surmounting of industrial or labour problems or trouble or the promotion of industry or trade.
31. Subject to the provisions of Companies Act, 2013 or any amendment or re-enactment thereof in the event of winding up to distribute among the members in specie any property of the Company or any proceeds of sale on disposal of any property in accordance with the provisions of the Act.
32. To do all such other things as may be deemed incidental or conducive to the attainment of the above Objects or any of them and to carry on any business which may seem to the Company capable of being conveniently carried in connection with any of the Company's Objects or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property or rights.
33. To establish, provide, maintain and conduct or otherwise subsidies research laboratories and experimental workshops for scientific, technical or researches, experiments and to undertake and carry on directly or in collaboration with other agencies scientific and technical research experiments and tests of all kinds and to process, improve and invent new products and their techniques of manufacture and to promote, encourage, reward in every manner studies and research, scientific and technical investigations and inventions of any

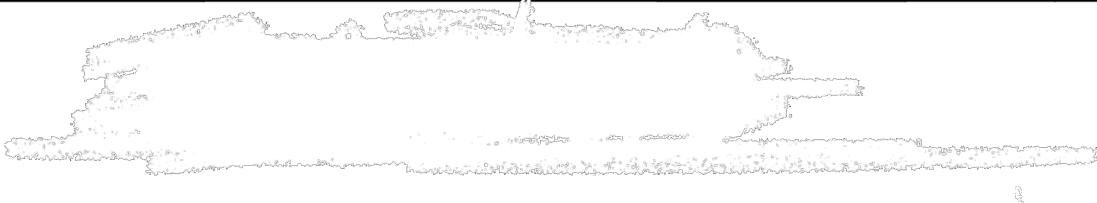
kind that may be considered likely to assist, encourage and promote rapid advances in technology, economies, import substitution or any business which the Company is authorized to carry on.

34. Subject to provisions of the Companies Act, 2013, to evolve scheme for restructuring or arrangement, to amalgamate or merge or to enter into partnership or into any consortium or arrangement for sharing of profits, union of interests, co-operation, joint venture with any Person or Persons, partnership firm/firms, or company or companies carrying on or engaged in any operation capable of being conducted so conveniently in co-operation with the business of the Company or to benefit the Company or to the activities for which the Company has been established.
35. To apply for purchase, or otherwise acquire any trade marks, patents, brevets, inventions, licenses, concessions and the like, conferring any exclusive or nonexclusive or limited rights to use, or any secret or other information as to any invention which may be capable of being used for any of the purposes of the Company, or the acquisition of which may benefit the Company and to use, exercise, develop or grant licenses in respect of or otherwise turn to account the property, rights or information so acquired.
36. To sell, dispose or hive off an undertaking of the Company or any part thereof for such consideration as the Company may think fit and in particular for shares, debentures or securities of any other association, corporation or company.
37. To sell, improve, manage, develop, exchange, loan, lease or let, under-lease, sub - let, mortgage, dispose of, deal with in any manner, turn to account or otherwise deal with any rights or property of the Company.
4. The liability of the member(s) is limited, and this liability is limited to the amount unpaid, if any, on the shares held by them.
5. **The Authorised Share Capital of the Company is Rs. 500,000.00 (Rupees Five Lacs Only) divided into 50,000.00 (Fifty Thousand) Equity Shares of Rs. 10.00 (Rupees Ten) each.**
- 6 We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a company in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:

S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	REC TRANSMISSION PROJECTS COMPANY LIMITED CORE-4, SCOPE COMPLEX, 7, LODHI ROAD, NEW DELHI- 110003 THROUGH ITS CEO THANGARAJAN SUBASH CHANDIRA BOSH S/O SHRI SITHAN THANGARAJAN R/O APARTMENT NO S-2, MIDDLE PORTION 2-B, JANGPURA, NEW DELHI - 110014 OCCUPATION – SERVICE	ALNPS1600G	49994	Equity	T S C BOSH H  Digitally signed by T S C BOSH Date: 2020.05.20 15:04:58 +05'30'	20/05/20
				Preference		
2	KULDEEP RAI S/O LATE SHRI HARI NARAIN SRIVASTAVA NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED B-601, PAN OASIS SOCIETY , PLOT NO. GH-01, NEAR GLOBAL INDIAN INTERNATIONAL SCHOOL, NOIDA, SECTOR-70, GAUTAM BUDDHA NAGAR, UTTAR PRADESH-201301 OCCUPATION - SERVICE	08203134	1	Equity	Kuldeep Rai  Digitally signed by Kuldeep Rai Date: 2020.05.20 15:06:36 +05'30'	20/05/20
				Preference		
3	SRINIVASAN MURALIDHARAN S/O SRINIVASAN NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED 103 A, POCKET B, DILSHAD GARDEN, JHILMIL, DELHI-110095 OCCUPATION - SERVICE	AIWPM4360K	1	Equity	S MURA LIDHARAN  Digitally signed by S MURALIDHARAN Date: 2020.05.20 15:19:23 +05'30'	20/05/20
				Preference		
4	SUBRATA AICH S/O SHRI SURESH CHANDRA AICH NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED FLAT NO. 9, 1ST FLOOR, SOUTH PARK APPTS, KALKAJI, NEW DELHI-110019 OCCUPATION – SERVICE	08203135	1	Equity	SUBRATA AICH  Digitally signed by SUBRATA AICH Date: 2020.05.20 15:07:24 +05'30'	20/05/20
				Preference		
5	BHUPENDER GUPTA S/O SHRI AMRIT SWAROOP GUPTA NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED C-6/204, SECTOR-43, PWO COMPLEX, GURGAON- 122009, HARYANA OCCUPATION – SERVICE	06940941	1	Equity	Bhupender Gupta  Digitally signed by Bhupender Gupta Date: 2020.05.20 15:12:58 +05'30'	20/05/20
				Preference		
6	HARINDER KAUR CHANI D/O SHRI HARJEET SINGH BADWAL NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED 145, CHARAK SADAN, DOCTOR'S SOCIETY, NEAR DG-III, DDA FLATS, VIKASPURI, NEW DELHI-110018 OCCUPATION – SERVICE	01258347	1	000000000	HARINDER KAUR CHANI  Digitally signed by HARINDER KAUR CHANI Date: 2020.05.20 15:13:51 +05'30'	20/05/20
				Preference		
7	SWATI GUPTA D/O SHRI ROSHAN LAL MAINI NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED 337, TOWER NO. 1, MOUNT KAILASH APARTMENTS, EAST OF KAILASH, DELHI-110065 OCCUPATION - SERVICE	ABIPG2377B	1	Equity	SWATI GUPTA A  Digitally signed by SWATI GUPTA Date: 2020.05.20 15:20:48 +05'30'	20/05/20
				Preference		

Total Shares taken	50,000.0	Equity	
		Preference	

Signed before Me					
Name	Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	DSC	Dated	
FCA	VINAY KUMAR	101, MARUTI APARTMENT, PLOT No-B-5, GURUDWARA ROAD, I.P. EXTENSION, MANDAWALI, DELHI-110092	402996	VINAY KUMAR <small>Digitally signed by VINAY KUMAR Date: 2020.05.20 15:51:29 +05'30'</small>	20/05/20



ARTICLES OF ASSOCIATION OF *
KALLAM TRANSMISSION LIMITED
PART – A – General Provisions
Interpretation

- I. (1) In these regulations—
- (a) –the Act means the Companies Act, 2013,
 - (b) –the seal means the common seal of the company.
- (2) Unless the context otherwise requires, words or expressions contained in these regulations shall bear the same meaning as in the Act or any statutory modification thereof in force at the date at which these regulations become binding on the company.

Share capital and variation of rights

- II. 1. Subject to the provisions of the Act and these Articles, the shares in the capital of the company shall be under the control of the Directors who may issue, allot or otherwise dispose of the same or any of them to such persons, in such proportion and on such terms and conditions and either at a premium or at par and at such time as they may from time to time think fit.
2. (i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided,—
- (a) one certificate for all his shares without payment of any charges; or
 - (b) several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first.
- (ii) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon.
- (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate, and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders.
3. (i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate.
- (ii) The provisions of Articles (2) and (3) shall *mutatis mutandis* apply to debentures of the company.
4. Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.

*Articles of Association of the Company were adopted by passing special resolution at the Extra- Ordinary General Meeting held on December 28, 2021 in substitution for, and to the entire exclusion of, the earlier regulations comprised in the existing Articles of Association of the Company

5. (i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class.
- (ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall *mutatis mutandis* apply, but so that the necessary quorum shall be at least two persons holding at least one-third of the issued shares of the class in question.
6. The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith.
7. Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.

Lien

8. (i) The company shall have a first and paramount lien—
 - (a) on every share (not being a fully paid share), for all monies (whether presently payable or not) called, or payable at a fixed time, in respect of that share; and
 - (b) on all shares (not being fully paid shares) standing registered in the name of a single person, for all monies presently payable by him or his estate to the company:

Provided that the Board of directors may at any time declare any share to be wholly or in part exempt from the provisions of this clause.

- (ii) The company's lien, if any, on a share shall extend to all dividends payable and bonuses declared from time to time in respect of such shares.
9. The company may sell, in such manner as the Board thinks fit, any shares on which the company has a lien: Provided that no sale shall be made—
 - (a) unless a sum in respect of which the lien exists is presently payable; or
 - (b) until the expiration of fourteen days after a notice in writing stating and demanding payment of such part of the amount in respect of which the lien exists as is presently payable, has been given to the registered holder for the time being of the share or the person entitled thereto by reason of his death or insolvency.
10. (i) To give effect to any such sale, the Board may authorise some person to transfer the shares sold to the purchaser thereof.
- (ii) The purchaser shall be registered as the holder of the shares comprised in any such transfer.
- (iii) The purchaser shall not be bound to see to the application of the purchase money, nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale.
11. (i) The proceeds of the sale shall be received by the company and applied in payment of such part of the amount in respect of which the lien exists as is presently payable.
- (ii) The residue, if any, shall, subject to a like lien for sums not presently payable as existed upon the shares before the sale, be paid to the person entitled to the shares at the date of the sale.

Calls on shares

12. (i) The Board may, from time to time, make calls upon the members in respect of any monies unpaid on their shares (whether on account of the nominal value of the shares or by way of premium) and not by the conditions of allotment thereof made payable at fixed times:

Provided that no call shall exceed one-fourth of the nominal value of the share or be payable at less than one month from the date fixed for the payment of the last preceding call.

- (ii) Each member shall, subject to receiving at least fourteen days' notice specifying the time or times and place of payment, pay to the company, at the time or times and place so specified, the amount called on his shares.
- (iii) A call may be revoked or postponed at the discretion of the Board.
13. A call shall be deemed to have been made at the time when the resolution of the Board authorising the call was passed and may be required to be paid by instalments.
14. The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.
15. (i) If a sum called in respect of a share is not paid before or on the day appointed for payment thereof, the person from whom the sum is due shall pay interest thereon from the day appointed for payment thereof to the time of actual payment at ten percent. per annum or at such lower rate, if any, as the Board may determine.
- (ii) The Board shall be at liberty to waive payment of any such interest wholly or in part.
16. (i) Any sum which by the terms of issue of a share becomes payable on allotment or at any fixed date, whether on account of the nominal value of the share or by way of premium, shall, for the purposes of these regulations, be deemed to be a call duly made and payable on the date on which by the terms of issue such sum becomes payable.
- (ii) In case of non-payment of such sum, all the relevant provisions of these regulations as to payment of interest and expenses, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.
17. The Board—
- (a) may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid upon any shares held by him; and
- (b) upon all or any of the monies so advanced, may (until the same would, but for such advance, become presently payable) pay interest at such rate not exceeding, unless the company in general meeting shall otherwise direct, twelve per cent per annum, as may be agreed upon between the Board and the member paying the sum in advance.

Transfer of shares

18. (i) The instrument of transfer of any share in the company shall be executed by or on behalf of both the transferor and transferee.
- (ii) The transferor shall be deemed to remain a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
19. The Board may, subject to the right of appeal conferred by section 58 decline to register—
- (a) the transfer of a share, not being a fully paid share, to a person of whom they do not approve; or
- (b) any transfer of shares on which the company has a lien.
20. The Board may decline to recognise any instrument of transfer unless—
- (a) the instrument of transfer is in the form as prescribed in rules made under sub-section (1) of section 56;

- (b) the instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer; and
 - (c) the instrument of transfer is in respect of only one class of shares.
21. On giving not less than seven days 'previous notice in accordance with section 91 and rules made thereunder, the registration of transfers may be suspended at such times and for such periods as the Board may from time to time determine:
- Provided that such registration shall not be suspended for more than thirty days at any one time or for more than forty-five days in the aggregate in any year.

21A Transfer of Shares

Notwithstanding anything to the contrary contained in these Articles or any other inter se arrangement or agreement amongst the shareholders of the Company:

- (i) the Board shall not register any transfer of shares of the Company made in contravention of the provisions of the Financing Documents, nor shall the Board exercise any rights available to the Company relating to the shares of the Company, in contravention of the provisions of the Financing Documents entered into by the Company;
- (ii) any transfer of shares affected pursuant to the Financing Documents shall be recognized by the Board and promptly be registered in the books of the Company in the name or names of the transferees concerned without any objection, conditions or restriction whatsoever; and
- (iii) transfer by the Lenders or their trustees, of the pledged shares of the Company, pursuant to the provisions of the Financing Documents or the applicable laws, shall be free from and not be subject to any special rights that the shareholders of the Company may have in relation to transfer of shares of the Company, and the shareholders of the Company, waive any such special rights in relation to any actual or proposed transfer of shares, for the benefit of the Lenders.

Financing Documents shall mean the loan agreements, debenture trust deeds and other finance and security documents entered/ to be entered into connection with the Loan Facility.

Loan Facility shall mean loan availed/ to be availed by India Grid Trust from the Lenders, from time to time including by way of issuance of debentures.

Lenders shall mean the banks, financial institutions and other institutions that have provided or have agreed to provide the Loan Facility to the India Grid Trust.

Transmission of shares

22. (i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares.
- (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.
23. (i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either—
- (a) to be registered himself as holder of the share; or
 - (b) to make such transfer of the share as the deceased or insolvent member could have made.

- (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.
24. (i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects.
- (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share.
 - (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
25. A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company:
- Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.
26. In case of a One Person Company—
- (i) on the death of the sole member, the person nominated by such member shall be the person recognised by the company as having title to all the shares of the member;
 - (ii) the nominee on becoming entitled to such shares in case of the member's death shall be informed of such event by the Board of the company;
 - (iii) such nominee shall be entitled to the same dividends and other rights and liabilities to which such sole member of the company was entitled or liable;
 - (iv) on becoming member, such nominee shall nominate any other person with the prior written consent of such person who, shall in the event of the death of the member, become the member of the company.

Forfeiture of shares

27. If a member fails to pay any call, or installment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or installment remains unpaid, serve a notice on him requiring payment of so much of the call or installment as is unpaid, together with any interest which may have accrued.
28. The notice aforesaid shall—
- (a) name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and
 - (b) state that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
29. If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
30. (i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit.
- (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.

31. (i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares.
- (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.
32. (i) A duly verified declaration in writing that the declarant is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share;
- (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of;
- (iii) The transferee shall thereupon be registered as the holder of the share; and
- (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
33. The provisions of these regulations as to forfeiture shall apply in the case of nonpayment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.

Alteration of capital

34. The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
35. Subject to the provisions of section 61, the company may, by ordinary resolution, —
- (a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares;
- (b) convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination;
- (c) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum;
- (d) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
36. Where shares are converted into stock, —
- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit:
- Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose.
- (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage.
- (c) such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words –share|| and –shareholder|| in those regulations shall include –stock|| and –stock-holder|| respectively.

37. The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law, —
- (a) its share capital;
 - (b) any capital redemption reserve account; or
 - (c) any share premium account.

Capitalisation of profits

38. (i) The company in general meeting may, upon the recommendation of the Board, resolve—
- (a) that it is desirable to capitalise any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the profit and loss account, or otherwise available for distribution; and
 - (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions.
- (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (iii), either in or towards—
- (A) paying up any amounts for the time being unpaid on any shares held by such members respectively;
 - (B) paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions aforesaid;
 - (C) partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B);
 - (D) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares;
 - (E) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.
39. (i) Whenever such a resolution as aforesaid shall have been passed, the Board shall—
- (a) make all appropriations and applications of the undivided profits resolved to be capitalised thereby, and all allotments and issues of fully paid shares if any; and
 - (b) generally do all acts and things required to give effect thereto.
- (ii) The Board shall have power—
- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and
 - (b) to authorise any person to enter, on behalf of all the members entitled thereto, into an agreement with the company providing for the allotment to them respectively, credited as fully paid-up, of any further shares to which they may be entitled upon such capitalisation, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalised, of the amount or any part of the amounts remaining unpaid on their existing shares;
- (iii) Any agreement made under such authority shall be effective and binding on such members.

Buy-back of shares

40. Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.

General meetings

41. All general meetings other than annual general meeting shall be called extraordinary general meeting.
42. (i) The Board may, whenever it thinks fit, call an extraordinary general meeting.
- (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extraordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.

Proceedings at general meetings

43. (i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceeds to business.
- (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
44. The chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the company.
45. If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
46. If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.
47. In case of a One Person Company—
- (i) the resolution required to be passed at the general meetings of the company shall be deemed to have been passed if the resolution is agreed upon by the sole member and communicated to the company and entered in the minutes book maintained under section 118;
- (ii) such minutes book shall be signed and dated by the member;
- (iii) the resolution shall become effective from the date of signing such minutes by the sole member.

Adjournment of meeting

48. (i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place.
- (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.
- (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting.
- (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

Voting rights

49. Subject to any rights or restrictions for the time being attached to any class or classes of shares, —
- (a) on a show of hands, every member present in person shall have one vote; and
- (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.

50. A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
51. (i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders.
- (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
52. A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
53. Any business other than that upon which a poll has been demanded may be proceeded with, pending the taking of the poll.
54. No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid.
55. (i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes.
- (ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.

Proxy

56. The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.
57. An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105.
58. A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given:
- Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.

Board of Directors

59. The following are the First directors of the Company:
- a. Mr. Puthiyarkattu Shivaraman Hariharan
 - b. Mr. Arun Kumar Tyagi
 - c. Mr. Jatin Kumar Nayak
60. (i) The remuneration of the directors shall, in so far as it consists of a monthly payment, be deemed to accrue from day-to-day.
- (ii) In addition to the remuneration payable to them in pursuance of the Act, the directors may be paid all travelling, hotel and other expenses properly incurred by them—
- (a) in attending and returning from meetings of the Board of Directors or any committee thereof or general meetings of the company; or
 - (b) in connection with the business of the company.

61. The Board may pay all expenses incurred in getting up and registering the company.
62. The company may exercise the powers conferred on it by section 88 with regard to the keeping of a foreign register; and the Board may (subject to the provisions of that section) make and vary such regulations as it may think fit respecting the keeping of any such register.
63. All cheques, promissory notes, drafts, *hundis*, bills of exchange and other negotiable instruments, and all receipts for monies paid to the company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, by such person and in such manner as the Board shall from time to time by resolution determine.
64. Every director present at any meeting of the Board or of a committee thereof shall sign his name in a book to be kept for that purpose.
65. (i) Subject to the provisions of section 149, the Board shall have power at any time, and from time to time, to appoint a person as an additional director, provided the number of the directors and additional directors together shall not at any time exceed the maximum strength fixed for the Board by the articles.
(ii) Such person shall hold office only up to the date of the next annual general meeting of the company but shall be eligible for appointment by the company as a director at that meeting subject to the provisions of the Act.

Proceedings of the Board

66. (i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit.
(ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.
(iii) A meeting of the Board of Directors for the time being at which a quorum is present shall be competent to exercise all or any of the authorities, powers and discretion which by or under the Act or these Articles or the regulations for the time being of the Company are vested in or exercisable by the Board of Directors generally
67. (i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes.
(ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.
68. The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.
69. (i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office.
(ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.
70. (i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body or any person as it thinks fit.
(ii) Any committee so formed or any person so authorized or appointed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.
71. (i) A committee may elect a Chairperson of its meetings.
(ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
72. (i) A committee may meet and adjourn as it thinks fit.
(ii) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.

The investment manager of India Grid Trust, in consultation with the trustee of India Grid Trust, shall appoint majority of the directors (Representative Directors) on the Board of the Company pursuant to SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended from time to time.

73. All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
74. Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
75. In case of a One Person Company—
- (i) where the company is having only one director, all the businesses to be transacted at the meeting of the Board shall be entered into minutes book maintained under section 118;
 - (ii) such minutes book shall be signed and dated by the director;
 - (iii) the resolution shall become effective from the date of signing such minutes by the director.

Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer

76. Subject to the provisions of the Act, —
- (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may think fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of a resolution of the Board;
 - (ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer.
77. A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.

The Seal

78. (i) The Board shall provide for the safe custody of the seal.
- (ii) The seal of the company shall not be affixed to any instrument except by the authority of a resolution of the Board or of a committee of the Board authorised by it in that behalf, and except in the presence of at least one director of the Company or such other person as authorised by the Board of Directors for the purpose; who shall sign every instrument to which the seal of the company is so affixed.

Dividends and Reserve

79. The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
80. Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
81. (i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalising dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, think fit.

- (ii) The Board may also carry forward any profits which it may consider necessary not to divide, without setting them aside as a reserve.
82. (i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares.
- (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share.
 - (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
83. The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
84. (i) Any dividend, interest or other monies payable in cash in respect of shares may be paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct.
- (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
85. Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
86. Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
87. No dividend shall bear interest against the company.

Accounts

88. (i) The Board shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations, the accounts and books of the company, or any of them, shall be open to the inspection of members not being directors.
- (ii) No member (not being a director) shall have any right of inspecting any account or book or document of the company except as conferred by law or authorised by the Board or by the company in general meeting.

Winding up

89. Subject to the provisions of Chapter XX of the Act and rules made thereunder—
- (i) If the company shall be wound up, the liquidator may, with the sanction of a special resolution of the company and any other sanction required by the Act, divide amongst the members, in specie or kind, the whole or any part of the assets of the company, whether they shall consist of property of the same kind or not.
 - (ii) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different classes of members.
 - (iii) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the contributories if he considers necessary, but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.

Indemnity

90. Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.

Note: The Articles shall be signed by each subscriber of the memorandum of association who shall add his address, description and occupation, if any, in the presence of at least one witness who shall attest the signature and shall likewise add his address.

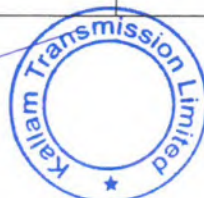
Subscriber Details					
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	REC TRANSMISSION PROJECTS COMPANY LIMITED, CORE-4, SCOPE COMPLEX, 7, LODHI ROAD, NEW DELHI- 110003, THROUGH ITS CEO THANGARAJAN SUBASH CHANDIRA BOSH, S/O SHRI SITHAN THANGARAJAN, R/O APARTMENT NO S-2, MIDDLE PORTION 2-B, JANGPURA, NEW DELHI – 110014, OCCUPATION – SERVICE	ALNPS1600G	NEW DELHI	T S C BOSH <small>Digitally signed by T S C BOSH Date: 2020.05.26 13:57:59 +05'</small>	26/05/2020
2	KULDEEP RAI, S/O LATE SHRI HARI NARAIN SRIVASTAVA, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, B-601, PAN OASIS SOCIETY , PLOT NO. GH-01, NEAR GLOBAL INDIAN INTERNATIONAL SCHOOL,SECTOR-70,NOIDA, GAUTAMBUDDHA NAGAR,UTTARPRADESH-201301, OCCUPATION – SERVICE	08203134	NEW DELHI	Kuldeep Rai <small>Digitally signed by Kuldeep Rai Date: 2020.05.26 16:37:35 +05'</small>	26/05/2020
3	SRINIVASAN MURALIDHARAN, S/O SRINIVASAN, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, 103 A, POCKET B, DILSHAD GARDEN, JHILMIL, DELHI-110095, OCCUPATION -SERVICE	AIWPM4360K	NEW DELHI	S MURALIDHARAN <small>Digitally signed by MURALIDHARAN Date: 2020.05.26 16:08:23 +05:30</small>	26/05/2020
4	SUBRATA AICH, S/O SHRI SURESH CHANDRA AICH, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, FLAT NO. 9, 1ST FLOOR, SOUTH PARK APPTS, KALKAJI, NEW DELHI-110019, OCCUPATION – SERVICE	08203135	NEW DELHI	SUBRATA AICH <small>Digitally signed by SUBRATA AICH Date: 2020.05.26 16:11:51 +05:30</small>	26/05/2020
5	BHUPENDER GUPTA, S/O SHRI AMRIT SWAROOP GUPTA, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, C-6/204, SECTOR-43, PWO COMPLEX, GURGAON- 122009, HARYANA, OCCUPATION – SERVICE	06940941	NEW DELHI	Bhupender Gupta <small>Digitally signed by Bhupender Gupta Date: 2020.05.26 16:12:04 +05'</small>	26/05/2020
6	HARINDER KAUR CHANI, D/O SHRI HARJEET SINGH BADWAL, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, 145, CHARAK SADAN, DOCTOR'S SOCIETY, NEAR DG-III, DDA FLATS, VIKASPURI, NEW DELHI-110018, OCCUPATION – SERVICE	01258347	NEW DELHI	HARINDER KAUR CHANI <small>Digitally signed by HARINDER KAUR CHANI Date: 2020.05.26 16:12:48 +05'</small>	26/05/2020
7	SWATI GUPTA, D/O SHRI ROSHAN LAL MAINI, NOMINEE OF REC TRANSMISSION PROJECTS COMPANY LIMITED, 337, TOWER NO. 1, MOUNT KAILASH APARTMENTS, EAST OF KAILASH, DELHI-110065, OCCUPATION – SERVICE	ABIPG2377B	NEW DELHI	SWATI GUPTA <small>Digitally signed by SWATI GUPTA Date: 2020.05.26 17:49:29 +05'</small>	26/05/2020

Signed Before Me						
Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	Place	DSC	Dated
FCA	VINAY KUMAR	101, MARUTI APARTMENT, PLOT No- B-5, GURUDWARA ROAD, I.P.EXTENSION, MANDAWALI,DELHI-110092	402996	NEW DELHI	VINAY KUMAR <small>Digitally signed by VINAY KUMAR Date: 2020.05.26 16:15:20</small>	26/05/2020

Annexure P-17

FORM-I					
Particulars of the Applicant					
S.no	Name of the Applicant:	KALLAM TRANSMISSION LIMITED			
ii	Status:	Individual/Partnership firm/Private Limited Company/Public Limited Company	Public Limited Company		
iii	Address:	Registered Office: A-52/6 G/F Ali Extn Badarpur, New Delhi -110044 Communication Address: Unit No. 101, First Floor, Windsor, Village Kolekalyan, off CST Road, Vidyanagari Marg, Kalina, Santacruz (East), Mumbai – 400098			
iv	Name, Designation & Address of the Contact Person:	Lokendra Singh Ranawat, Head Regulatory, Windsor, 1st Floor, Unit no. 101, Kalina, Santacruz East, Mumbai, Maharashtra 400098			
v	Contact Tel. No.:	+91 9311279183			
vi	FAX No.:	Not Applicable			
vii	Email Id:	regulatory@indigrid.com			
viii	Place of Incorporation/Registration:	Manesar			
ix	Year of Incorporation/Registration:	28.5.2020			
x	Following documents are to be enclosed:				
(a)	Certificate of Registration	Not Applicable			
(b)	Original Power of Attorney of the Signatory to commit the Applicant or its promoter	Annexures- P-11 & 13			
2	Particulars of the Project for which licence is being sought				
(a)	Transmission Lines:				
S.No	Name (End-points location)	Voltage Class (kV)	Length (Km)	Type (S/C or D/C)	
Not Applicable					
(b)	Sub-Stations:				
S.No	Name (Location)	Voltage Level(s) (kV)	Transformer (Nos. and MVA capacity)	Reactive/capacitive compensation (device with MVAR capacity)	No. of bays
(i)	Kallam Augmentation Part-1 <i>Augmentation of transformation capacity at Kallam PS by 2x500 MVA, 400/220 kV ICTs (3rd & 4th) along with 220kV bays</i>	400 kV and 220 kV	500 MVA, 400/220kV ICT: 2 nos.	125 MVAR, 420 kV Bus reactor -1 No	- 400 kV ICT bays: 2 nos. - 400/220 kV ICTs 220 kV ICT bays: 2 nos. - 3 nos. 220 kV line bays for RE interconnection - Bus reactor bay: 1 no.

Lokendra Singh



	<i>for RE interconnection</i>				
(ii)	Kallam Augmentation Part-2 400 kV line bay at Kallam PS for interconnection of Torrent Solar Power Pvt. Ltd. (TSPPL)	400 kV	-	-	400kV line bay (including associated tie bay)- 1no.
(c)	Commissioning Schedule:	Kallam Augmentation Part-1 18 Months from the date of award of project by National Committee on Transmission dated 15.11.2022 (Implementation Time Frame: 15.05.2024) Kallam Augmentation Part-2 Implementation Time Frame: 30.12.2024			
(d)	Identified Long-term transmission customers of the Project:	Kallam Augmentation Part-1 &2 <ol style="list-style-type: none"> 1. Central Transmission Utility of India Ltd. 2. Veh Aarush Renewables Pvt. Ltd. 3. JSW Neo Energy Limited (JSW NEL) 4. Serentica Renewables India 4 Private Limited (SRI4PL) 5. Torrent Solar Power Private Limited (TSPPL) 6. Chhatisgarh State Power Distribution Co. Ltd. 7. Goa Electricity Department 8. Gujarat Urja Vikas Nigam Limited 9. Heavy Water Board 10. HVDC Bhadravati, PGCIL 11. HVDC Vindhyaachal, PGCIL 12. M.P. Power Management Company Ltd. 13. Maharashtra State Electricity 14. ACB India LIMITED 15. Torrent Power Limited 16. West Bengal State Elect. Dist. Co. Ltd. 17. Thermal Powertech Corporation India 18. Bhabha Atomic Research Centre 19. GMR Warora Energy Limited 20. HVDC Champa 21. West Central Railway Head Office 22. Western Railway 23. East Central Railway 24. DB Power Limited- Untied 25. Chhattisgarh State Power Trading Co. Ltd. 26. TRN Energy Private Ltd-Untied 27. Adani Power (Mundra) Limited. 28. Raigarh HVDC Station 29. Arcelor Mittal Nippon Steel India Ltd. 30. Central Railway 31. Dadra and Nagar Haveli and Daman and 			

Lokendra
Singh



		Power Distribution Corporation Ltd. 32. MPSEZ Utilities Ltd.
	(Agreements or status of discussion on Agreements to be submitted along with application	Kallam Augmentation Part-1 & 2 Finalization of the Concession Agreement to be entered with CTUIL separately for Kallam Augmentation Part-1 & 2 are pending and is awaited by the Applicant.
1	Any other relevant information	Not Applicable
3	Levelized transmission charges in case of project selected through the transparent process of competitive bidding and Estimated completion cost of the project in other cases:	<p>Kallam Augmentation Part-1</p> <p>CTUIL vide its letter dated 15.11.2022 has allotted the consortium of IndiGrid 1 Ltd (Lead Member) and IndiGrid 2 Ltd. the scope provided at Sr. No. 2 (b)(i) above, under the directions of NCT vide its letter dated 15.11.2022 to be implemented through RTM mode. As per Sr. No. 4 of Annexure-1 to the letter dated 15.11.2022 issued by NCT, an estimated cost of INR 156.89 Crore has been provided for the Transmission System mentioned at Sr. No. 2(b) (i) above. A copy of CTUIL's letter dated 15.11.2022 is annexed as Annexure P-3, NCT Letter dated 15.11.2022 is enclosed as Annexure P-2 to the CTUIL Letter.</p> <p>The above cost estimate is provided by CTUIL and details towards other cost components such as Incidental Expenditure During Construction (IEDC), Interest During Construction (IDC) and any other contingency provisions have not been highlighted separately. In absence of detailed break-up of the Estimated Cost provided, it is submitted that the Final Completion Cost of the Transmission System shall be based on the actual capex incurred by the project developer by employing prudent utility practices including competitive bidding process for procurements. The same shall be subject to prudence check by this Hon'ble Commission at the time of tariff determination.</p> <p>Kallam Augmentation Part-2</p> <p>CTUIL through its Office Memorandum bearing reference no. C/CTU/AI/00/13th CCTP dated 08.06.2023 has approved implementation of Kallam Augmentation Part-2 by the Applicant, to be implemented under RTM mode at an estimated cost of INR 17.1 Crore at Sr. No. 2(b) (ii) above. Annexed as Annexure P-4</p> <p>The above cost estimate is provided by CTUIL and details towards other cost components such as Incidental Expenditure During Construction (IEDC), Interest During Construction (IDC) and any other contingency provisions have not been highlighted separately. In absence of detailed break-up of the Estimated Cost provided, it is submitted that the Final Completion Cost of the</p>

Lokendra Singh



		Transmission System shall be based on the actual capex incurred by the project developer by employing prudent utility practices including competitive bidding process for procurements. The same shall be subject to prudence check by this Hon'ble Commission at the time of tariff determination.
	(The levelized transmission charges Estimated cost should be indicated in INR, along with the base month and year in case of the estimated cost)	<p>Kallam Augmentation Part-1</p> <p>As detailed above, CTUIL vide its letter dated 15.11.2022 has provided an estimated cost of the Transmission System as INR 156.89 Crore (in November 2022). However, detailed break-up of the same has not been provided by CTUIL.</p> <p>Kallam Augmentation Part-2</p> <p>As detailed above, CTUIL vide its letter dated 08.06.2023 has provided an estimated cost of the scope of work of Kallam Augmentation Part-2 to be implemented by KTL as INR 17.1 Crore. However, detailed break-up of the same has not been provided by CTUIL.</p>
4	In case applicant has been selected in accordance with the competitive bidding, enclose:	Not Applicable
(a)	Recommendation of selection by Empowered Committee Evaluation report public by the bid Process Coordinator	Not Applicable
5	List of Documents Enclosed:	
	Name of document	
a)	Article of Association	Annexure-P-16
b)	Certificate of Incorporation	Annexure-P-14
c)	Certified true copy of the resolution passed by the board of directors of the company on March 22, 2023 and July 19, 2023	Annexure-P-11 & 13
d)	Memorandum of Association	Annexure-P-15

Dated: Noida, U.P

Place: 20.07.2023



 (Signature of Applicant or the Person Authorized)