

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION,
NEW DELHI

PETITION NO. _____ OF 2023

IN THE MATTER OF

Application under Section-14, 15 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 for Grant of separate Transmission License for implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on Regulated Tariff Mechanism (RTM) route

AND IN THE MATTER OF

Khavda – Bhuj Transmission Ltd.

....Petitioner

Versus

Adani Renewable Energy Holding Four Limited and Ors.

....Respondents



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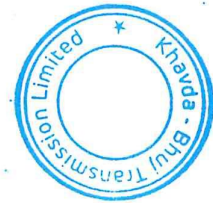


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Bundella
Petitioner

Place: Ahmedabad

Date: 04.09.2023



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....Respondents

MEMO OF PARTIES

Khavda – Bhuj Transmission Limited

Having its registered office at;

C/o Khavda - Bhuj Transmission Limited,

C 105, Anand Niketan

New Delhi 110021

..... Petitioner

Versus

1. Adani Renewable Energy Holding Four Limited

Adani Corporate House, Shantigram,

Nr. Vaishno Devi Circle, S G Highway,

Khodiyar, Ahmedabad – 382421

2. Chief Executive Officer, CTU Planning,

POWERGRID Corporation of India Limited,

Saudamini, Plot No.2, Sector-29,

Gurgaon-122 001

....Respondents



Ramdeo
Petitioner

Place: Ahmedabad
Date: 04.09.2023



4
4 SEP 2023
BEFORE

S. No. 6710/2023

VIJAY C. SHAH
NOTARY
GOVT. OF INDIA

THE CENTRAL ELECTRICITY REGULATORY COMMISSION, NEW

DELHI

4 SEP 2023

PETITION NO. _____ OF 2023

IN THE MATTER OF

Application under Section-14, 15 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 for Grant of separate Transmission License for implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on Regulated Tariff Mechanism (RTM) route

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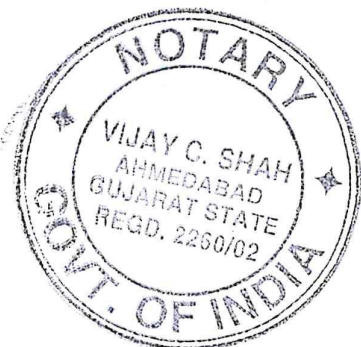
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....Respondents

AFFIDAVIT



I, **Bhavesh Kundalia**, son of **Sh Pradyumna Kundalia**, aged about 60 years, R/o **A63, Luv Kush Towers, Thaltej, Ahmedabad** do hereby solemnly affirm and state on oath as under:

1. That I am the Authorised Representative, of the Petitioner, Khavda – Bhuj Transmission Ltd, and I am fully conversant with the facts and circumstances of the case and I have been duly authorized and am, therefore, competent to affirm this affidavit.
2. That I have read the accompanying submissions being submitted on behalf of Khavda – Bhuj Transmission Ltd and have understood the contents thereof and that the contents therein are true and correct to the best of my knowledge and belief



VERIFICATION

I, **Bhavesh Kundalia**, the above named deponent do hereby verify that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therefrom.

Verified by me on this 4th September, 2023, at Ahmedabad



SOLEMNLY AFFIRMED
BEFORE ME

VIJAY C. SHAH
NOTARY
GOVT. OF INDIA

4 SEP 2023

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION,
NEW DELHI

PETITION NO. _____ OF 2023

IN THE MATTER OF

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AND IN THE MATTER OF

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....Respondents



**PETITION / APPLICATION UNDER SECTION 14, 15 OF THE
ELECTRICITY ACT, 2003 FOR GRANT OF TRANSMISSION
LICENSE**

MOST RESPECTFULLY SHOWETH:

1. The present application is being filed by Khavda – Bhuj Transmission Ltd. (herein after referred to as “Petitioner”) under Section 14 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 for grant of separate Transmission License for implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on RTM route.
2. It is most respectfully submitted that Ministry of Power, Government of India, vide Gazette Notification dated 25.09.2020 notified PFC Consulting Limited to be the Bid Process Coordinator (Hereinafter referred as “BPC”) for the purpose of selection of Bidder as Transmission Service Provider (Hereinafter referred as “TSP”) to establish below mentioned project through Tariff Based Competitive Bidding process on build, own, operate and maintain basis.



	Name of the Transmission Element	Scheduled COD in months from Effective Date
1.	<p>Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor</p> <ul style="list-style-type: none"> • 765/400 kV, 1500 MVA ICT - 3 Nos. • 765 kV ICT bays - 3 Nos. • 400 kV ICT bays - 3 Nos. • 330 MVAR 765 kV bus reactor -1 No. • 125 MVAR 420 kV bus reactor -1 No. • 765 kV reactor bay - 1 Nos. • 765 kV line bay - 2 Nos. • 400 kV reactor bay - 1 No. • 400 kV line bay - 3 Nos. • 500 MVA, 765/400 kV Spare ICT - 1 No. • 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. <p>Future Scope: Space for</p> <ul style="list-style-type: none"> • 765/400 kV, ICT along with bays - 5 Nos. • 400/220 kV, ICT along with bays- 4 Nos. • 765 kV Line bays along with switchable line reactor- 6 Nos. • 400 kV Line bays – 9 Nos. • 220 kV Line bays - 8 Nos. • 765 kV reactor along with bays - 2 Nos. • 400 kV reactor along with bays – 1 No. • 765 kV bus sectionalizer- 1 No. • 400 kV bus sectionalizer- 1 No. 	24 months
2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line	



	Name of the Transmission Element	Scheduled COD in months from Effective Date
3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line <ul style="list-style-type: none"> 765 kV AIS line bays – 2 Nos. 	

Note:

- i. *As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3nos. of 400 kV GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process.*
 - ii. *GIS Bay (if any) for completion of diameter in one and half breaker scheme shall also be in the scope of the TSP.*
3. Thereafter, a Company under the Companies Act 2013 by the name “Khavda – Bhuj Transmission Limited” having its registered office at C 105, Anand Niketan New Delhi 110021 has been incorporated on 18.05.2021 by PFC Consulting Ltd. (Bid Process Coordinator) as its 100% wholly owned subsidiary to initiate the activities for execution of the Project and subsequently to act as Transmission Service Provider after



being acquired by the successful bidder selected through Tariff Based Competitive Bidding process.

4. Subsequently, BPC initiated the process for selection of the successful bidder to acquire the TSP in accordance with the "Tariff Based Competitive Bidding Guidelines for Transmission Service" and "Guidelines for Encouraging Competition in Development of Transmission Projects" issued by Government of India, Ministry of Power under section - 63 of The Electricity Act, 2003 and as amended from time to time. Subsequent to the process of competitive bidding conducted by the BPC, Adani Transmission Limited had been declared as the successful bidder. The Letter of Intent dated 22nd December, 2021 was issued to Adani Transmission Limited by the BPC.
5. Thereafter in accordance with the RFP documents, Adani Transmission Limited on 18th January, 2022 acquired the Khavda - Bhuj Transmission Limited, after execution of the Share Purchase Agreement and completing all procedural requirements specified.
6. Subsequently, based on the application filed by the Khavda – Bhuj Transmission Limited before this Hon'ble Commission, Transmission license for the project scope was granted vide its order in Petition No. 107/TL/2022 dated 16th June, 2022. Copy of this Hon'ble Commission's



order dated 16th June, 2022 along with the Transmission License is enclosed and marked as **Annexure-1**.

7. In addition to above scope, National Committee on Transmission (NCT), vide its Minutes of the 14th Meeting dated 09.06.2023, notified implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on Regulated Tariff Mechanism (RTM) to Khavda - Bhuj Transmission Limited in line with the MoP office order dated 28.10.2021. The MoP office order dated 28.10.2021 was issued with reference to the Re-constitution of the National Committee on Transmission (NCT) and Terms of Reference of NCT. The Terms of Reference of the NCT as specified in the order is as under:

*“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.**”*



8. In the above background, NCT approved the implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on Regulated Tariff Mechanism (RTM) to Khavda-Bhuj Transmission Limited. The copies of NCT Minutes of the 14th Meeting dated 09.06.2023 and MoP office order 28.10.2021 are enclosed as **Annexure - 2** and **Annexure – 3** respectively.

The Scope of the Project is as follows:

SN	Name of the scheme and Implementation timeframe	Estimated Cost (₹ Crores)	Remark
1	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 Implementation timeframe: 24 months from the date of allocation	216	Approved to be implemented under RTM by Adani Transmission Limited

Detailed scope of Part E1 Scheme is given below:

SN	Scope of the Transmission Scheme	Capacity/ Route length
1	Augmentation of transformation capacity at	1500 MVA, 765/400 kV ICT – 1 No.



SN	Scope of the Transmission Scheme	Capacity/ Route length
	KPS1 (GIS) by 1x1500 MVA, 765/400 kV ICT (8th) on bus section-I	<p>765 kV bays – 2 Nos. on bus Section-I (including 1 No. bay for Dia completion)</p> <p>400 kV bays – 2 Nos. on bus section-I (including 1 No. bay for Dia completion)</p>

Note:

- i. *The TSP shall implement one complete diameter consisting of 2 main bays & 1 Tie bay at both 765 kV & 400 kV levels of KPS1 (GIS) for completion of diameter (GIS) in one and- half breaker scheme.*
- ii. *Further, TSP of KPS1 shall provide space to carry out the above augmentation work.*

9. Chief Engineer & Member Secretary (NCT), vide its letter dated 07.07.2023, requested Central Transmission Utility of India Limited (CTUIL) to take necessary action for implementation of the above scheme. A copy of letter dated 07.07.2023 is attached as **Annexure – 4**.
10. Thereafter, CTUIL, vide its letter dated 10.07.2023, requested the Petitioner to initiate the necessary actions for implementation of the aforementioned transmission scheme. A copy of letter dated 10.07.2023 is attached as **Annexure – 5**.



11. It is humbly submitted that Section-14 of the Electricity Act, 2003 provides that the Appropriate Commission may, on an application made under Section-15 of the Electricity Act, 2003, 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 Act to include any company or body corporate or association or body of individuals, whether incorporated or not, or artificial juridical person. Therefore, the Petitioner under Section 14 of the Electricity Act, 2003 is filing the present Petition/Application inter-alia seeking grant of Transmission Licence for the Project as explained above.
12. The Hon'ble Commission in its CERC (Procedure, Terms & Conditions for grant of Transmission Licence and other related matters) Regulations, 2009 had prescribed the form of Application and also the amount of fee for making an Application for a Transmission Licence and the Petitioner is submitting herewith the Application in such prescribed format along with the fees as per Regulation 7(1) of the said Regulation. Copy of duly filled Form-I along with the Resolution passed by the Board of Directors of Khavda - Bhuj Transmission Limited is enclosed herewith and marked as **Annexure – 6**.



13. It is most respectfully submitted that the copy of the Application for grant of Transmission Licence is being forwarded to each of the Respondents as per Regulation 7(4) of CERC (Procedure, Terms and Conditions of Transmission Licence and other related matters) Regulations, 2009 read with CERC order dated 22.01.2022 in Suo-motu Petition No. 1/SM/2022.
14. It is further submitted that the Petitioner is submitting/furnishing a copy of the instant Application to Central Transmission Utility, as required under Section 15 (3) of the Act and Regulation 7(6) of CERC (Procedure, Terms and Conditions of Transmission Licence and other related matters) Regulations, 2009 for the recommendation, if any, in accordance with Section 15 (4) simultaneously along with submission of this petition to Hon'ble Commission.
15. The Petitioner has posted the Application for grant of Transmission Licence on the website www.adanienergysolutions.com as required under Regulation 7(4) and 7(5) of CERC (Procedure, Terms and Conditions of Transmission Licence and other related matters) Regulations, 2009 read with CERC order dated 22.01.2022 in Suo-motu Petition No. 1/SM/2022 so as to facilitate the access to the Application by any person through internet.



16. Keeping in view of the above, the Petitioner fulfils the eligibility criteria for grant of transmission licence as stipulated in Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009 read with CERC order dated 22.01.2022 in Suo-motu Petition No. 1/SM/2022 and therefore the Hon'ble Commission may grant the prayer as prayed for.
17. The Petitioner shall also comply with all the other requirements as provided in the Transmission License Regulations including posting the public notice in Form-II on its website, service on the beneficiaries of the Petitioner's Transmission System. The Petitioner shall place the compliance report on record before the Hon'ble Commission.
18. On completion of the Project, the Applicant shall approach the Hon'ble Commission with the actual cost incurred for determination of transmission charges in accordance with Section 61, 62 of the Electricity Act; 2003.

19. **PRAYER**

The Petitioner hereby humbly prays the Hon'ble Commission to:



- a) Grant Separate Transmission Licence to the Applicant for implementation of “Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1” on Regulated Tariff Mechanism (RTM) basis with detailed scope as per para 8 above.
- b) Allow the Applicant liberty to approach the Hon'ble Commission for determination of transmission charges for the aforementioned additional scope in Transmission license in accordance with Section 61, 62 of the Electricity Act, 2003.
- c) Condone any inadvertent errors omissions/ errors / shortcomings and permit the Petitioner to add/change/modify/alter these filings and make further submissions as may be required at a future date.
- d) Pass any such other order / orders, as may be deemed fit and proper in the facts and circumstances of the case.

Pundalia

Petitioner

Place: Ahmedabad

Date: 04.09.2023



**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 107/TL/2022

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P. K. Singh, Member**

Date of order: 16th June, 2022

In the matter of

Application under Section-14, 15, 79(1)(e) of the Electricity Act, 2003 read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission Licence and other related matters) Regulations, 2009 with respect to Grant of Transmission License to Khavda-Bhuj Transmission Limited

And

In the matter of

Khavda-Bhuj Transmission Limited,
C-105, Anand Niketan,
New Delhi-110021.

.....Petitioner

Versus

1. Adani Renewable Energy Holding Four Limited,
Adani Corporate House, Shantigram,
Nr. Vaishno Devi Circle, S G Highway, Khodiyar,
Ahmedabad- 382421
2. PFC Consulting Limited,
First Floor, Urja Nidhi,1, Barakhamba Lane, Connaught Place,
New Delhi-110 001
3. Chief Executive Officer,
CTU Planning,
POWERGRID Corporation of India Limited,
Saudamini, Plot No.2, Sector-29,
Gurgaon-122 001

.....Respondents

Parties present:


Shri Bhavesh Kundalia, KBTL
Shri Afak Pothiwala, KBTL
Shri Naresh Desai, KBTL
Shri Partha Sarathi Das, CTUIL
Shri Bhaskar Laxmanrao Wagh, CTUIL
Shri Siddharth Sharma, CTUIL
Shri Ranjeet Singh Rajput, CTUIL



Shri Sanjay Nayak, PFFCL
 Shri Manish Agawal, PFFCL
 Shri Kunal Kumar, PFCCL
 Ms. Nirmala Meena, PFFCL

ORDER

The Petitioner, Khavda-Bhuj Transmission Limited, has filed the present Petition for grant of transmission licence under Section 14, Section 15 and Section 79(1)(e) of the Electricity Act, 2003 (hereinafter referred to as “the Act”) read with the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009 (hereinafter referred to as “Transmission Licence Regulations”) to establish “Transmission Scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I” (hereinafter referred to as “Transmission System” or “Project”) on Build, Own, Operate and Maintain (BOOM) basis comprising of the following elements:

	<i>Name of the Transmission Element</i>	<i>Scheduled COD in months from Effective Date</i>
1.	<p><i>Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor</i></p> <ul style="list-style-type: none"> • 765/400 kV, 1500 MVA ICT - 3 Nos. • 765 kV ICT bays - 3 Nos. • 400 kV ICT bays - 3 Nos. • 330 MVAR 765 kV bus reactor - 1 No. • 125 MVAR 420 kV bus reactor - 1 No. • 765 kV reactor bay - 1 Nos. • 765 kV line bay - 2 Nos. • 400 kV reactor bay - 1 No. • 400 kV line bay - 3 Nos. • 500 MVA, 765/400 kV Spare ICT - 1 No. • 110 MVAR, 765 kV, 1-ph reactor (spare unit) - 1 No. <p><i>Future Scope: Space for</i></p> <ul style="list-style-type: none"> • 765/400 kV, ICT along with bays - 5 Nos. • 400/220 kV, ICT along with bays- 4 Nos. 	<p style="text-align: center;">24 months</p> 

	Name of the Transmission Element	Scheduled COD in months from Effective Date
	<ul style="list-style-type: none"> • 765 kV Line bays along with switchable line reactor- 6 Nos. • 400 kV Line bays – 9 Nos. • 220 kV Line bays - 8 Nos. • 765 kV reactor along with bays - 2 Nos. • 400 kV reactor along with bays – 1 No. • 765 kV bus sectionalizer- 1 No. • 400 kV bus sectionalizer- 1 No. 	
2.	Khavda PS (GIS) – Bhuj PS 765 kV D/c line	
3.	2 nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line <ul style="list-style-type: none"> • 765 kV AIS line bays – 2 Nos. 	

Note:

i. As on date, Adani Green Energy Four Limited (AGEFL) has been granted Stage-I connectivity for 5000 MW and Stage-II Connectivity for 3500 MW at proposed Khavda PS at 400 kV level. Accordingly, 3 nos of 400 k V GIS line bay for termination of the dedicated lines from AGEFL's Solar PV project has been included under the scope of works of Khavda P.S. Further, 1000MW LTA application has been received from AGEFL and the same is under process.

ii. GIS Bay (if any) for completion of diameter in one and half breaker scheme shall also be in the scope of the TSP.

2. Based on the competitive bidding carried out by PFC Consulting Limited (PFCCL) in its capacity as the Bid Process Coordinator (BPC) in accordance with the Guidelines issued by Ministry of Power, Government of India under Section 63 of the Act, Khavda-Bhuj Transmission Limited emerged as the successful bidder with the lowest levelized transmission charges of Rs.1000.33 million per annum.

3. The Commission after considering the application of the Petitioner in the light of the provisions of the Act and the Transmission Licence Regulations, in its order dated 29.4.2022, *prima facie* proposed to grant transmission licence to the Petitioner.

Relevant extract of order dated 29.4.2022 is extracted as under:

"17. We have considered the submissions of the Petitioner and BPC. The proviso to Clause 2.4 of the RfP provides that "if for any reason attributable to the BPC, the



said activities are not completed by the selected bidder within the above period of ten (10) days as mentioned in this clause, such period of 10 days shall be extended, on a day to day basis till the end of the Bid validity period". Though Lol was issued on 22.12.2021, BPC, vide its letter dated 18.1.2022, in terms of Clause 2.4, Clause 2.5 and Clause 2.6 of RfP extended the date up to 28.1.2022 for completion of all activities by the successful bidder. The selected bidder furnished the Contract Performance Guarantee to the Long Term Transmission Customers of the Project for an amount of Rs.23.40 crore and has acquired hundred percent equity-holding in the applicant company on 18.1.2022 after execution of the Share Purchase Agreement. The TSP on behalf of the selected bidder filed the Application through e-filing for grant of transmission licence and adoption of tariff on 27.1.2022. Considering the material on record, we are prima-facie of the view that the Petitioner satisfies the conditions for grant of inter-State transmission licence under Section 15 of the Act read with Transmission Licence Regulations for construction, operation and maintenance of the Transmission System as described in paragraph 1 of this order. We therefore, direct that a public notice under clause (a) of sub-section (5) of Section 15 of the Act be published to invite suggestions or objections to grant of transmission licence aforesaid. The objections or suggestions, if any, be filed by any person before the Commission, by 20.5.2022."

4. A public notice under Sub-section (5) of Section 15 of the Act was published on 13.5.2022 in all editions of the Hindustan Times (English) and Hindustan (Hindi).

No suggestions/ objections have been received from the members of the public in response to the public notice.

5. The Petitioner, vide order dated 29.4.2022, was directed to file an affidavit to the effect that the execution of the transmission project shall not be delayed due to time taken in obtaining statutory clearances required under Request for Proposal (RfP) and the Transmission Service Agreement (TSA) or adjudication of any claim of the Petitioner arising under the TSA.

6. In response, the Petitioner vide its affidavit dated 11.5.2022 has submitted that the claims, if any, shall be in accordance with the provisions of the RfP Project documents. The Petitioner has submitted that the bidding process was governed by the Tariff Based Competitive Bidding Guidelines for the Transmission Service and Standard Bidding Documents issued by the Ministry of Power. The tariff quoted inter-alia takes into consideration the rights and obligations of the developer including the



provisions available to claim time and cost variations as allowed in the TSA. The Petitioner has further submitted that the terms of the TSA are binding on the parties (TSP and LTTCs). The Petitioner has submitted that any claim for escalation in transmission charges or for extension of time that may be raised by the Petitioner in pursuance of such competitive bidding process needs to be dealt with in accordance with terms contained in the TSA. Post selection of the successful bidder and the decision to award the Project, there cannot be a review of the bidding terms including scope of implications of the clauses such as force majeure and change in law etc. specified in the TSA. The Petitioner has submitted that Section 56 of the Indian Contract Act, 1872 provides for frustration of contract and impossibility of performance, etc. and the Commission in number of cases has been giving reliefs as per the provisions of law. The Petitioner has submitted that in terms of Section 28 of the Indian Contract Act, 1872, no restraint in taking legal proceedings in future can be validly placed. The Petitioner has submitted that in terms of the TSA, it would implement the Project as per the provisions of the Article 16.4 of the TSA which is extracted as under:

"16.4. Parties to Perform Obligation: 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."

7. The Petitioner has submitted that claim, if any, made by the Petitioner shall be in accordance with the provisions of the RfP Project documents. We direct that the Petitioner shall remain bound by the commitment given by it under affidavit dated 11.5.2022.



8. In the order dated 29.4.2022, the following provisions of the TSA with regard to quality control and workmanship were taken note of:

(a) As per Article 5.1.1 of the TSA, the TSP at its own cost and expense, shall be responsible for designing, constructing, erecting, completing and commissioning each element of the Project by Scheduled COD in accordance with the various regulations of the Central Electricity Authority.

(b) Article 5.4 of the TSA provides that 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.

(c) The 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 India Standards.

9. Accordingly, the Petitioner was directed to submit information with regard to quality control mechanism available or to be put in place to ensure compliance of the requirements stipulated in Article 5.1.1 and Article 5.4 of the TSA.

10. The Petitioner, vide its affidavit dated 11.5.2022, has submitted as under:

“14. According to the terms of the TSA, there are two external agencies, viz CEA and Lead LTTC, which monitor the quality of the construction of the Transmission Project being constructed by the Applicant. Further, the Applicant under the TSA is entrusted with the obligation of providing on a monthly basis, a progress report to all the Long term Transmission Customer and Central Electricity Authority (CEA), with regard to the project and its execution, to enable them to monitor and co-ordinate the development of the Project. Further, it is most respectfully submitted that in terms of the TSA, the Lead LTTC is duty bound to designate, at the most 3 employees for the purpose of inspecting the progress of the Project. In addition, the CEA may carry out random inspections during the Project execution, as and when deemed necessary by it....

16. In terms of the above quoted provisions of the TSA, there are sufficient checks and balances and the quality control mechanism is already available whereby both, CEA and the Lead LTTC will monitor the overall quality of construction of the Project by the



Applicant to ensure that the Applicant is complying with Article 5.1.1 and 5.4 of the TSA.

18. The Applicant being an experienced entity will ensure that the project is constructed by following the required quality standard and prudent utility practices by putting in place the following:

(i) At the procurement stage, the Qualification Requirement for short listings of a supplier/contractor is done on the basis of the technical specifications as mentioned in the TSA. The purchase order/contract mentions the technical standard and the testing requirements. Material despatch is allowed after the conformance report is validated.

(ii) For tower material, a Manufacturing Quality Plan (MQP) in line with the applicable technical standards and the one followed by CTU is followed.

(iii) For ensuring construction quality, a Field Quality Plan (in line with the standards mentioned in TSA and that followed by CTU) is specified to the contractors in advance. The conformance report to the said document is also maintained at site.

(iv) The construction and material supply quality is also validated with respect to the TSA by the Lenders Independent Engineer during its quarterly construction review.”

11. We have considered the submissions of the Petitioner. In the TSA, there is provision for inspection, random inspection and monthly progress reporting of the Project. The Petitioner shall provide monthly progress report along with likely completion date of each element of the Project and its likely execution to CEA and CTUIL. The random inspection may be carried out by CEA and CTUIL as and when deemed necessary. We consider it necessary that CEA and CTUIL devises a mechanism for random inspection of the Project every three months to ensure that the Project is not only being executed as per the schedule, but the quality of equipment and workmanship of the Project conform to the Technical Standards and Grid Standards notified by CEA and IS Specifications.



12. Case was called out for virtual hearing on 14.6.2022 through video conferencing. It was submitted by the representative of the Petitioner that as per order dated 29.4.2022, the Petitioner has submitted the information called for. He further submitted that in response to public notice published by the Commission, no objection has been received.

13. As regards grant of transmission licence, Clauses (15) and (16) of Regulation 7 of Transmission Licence Regulations provide as under:

“(15) The Commission may after consideration of the further suggestions and objections, if any, received in response to the public notice as aforesaid, grant licence as nearly as practicable in Form-III attached to these regulations or for reasons to be recorded in writing, reject the application if such application is not in accordance with the provisions of the Act, the rules or regulations made thereunder or any other law for the time being in force or for any other valid reason.

(16) The Commission may, before granting licence or rejecting the application, provide an opportunity of hearing to the applicant, the Central Transmission Utility, the long-term customers, or the person who has filed suggestions and objections, or any other person:

Provided further that the applicant shall always be given a reasonable opportunity of being heard before rejecting the application.”

14. In our order dated 29.4.2022, we had proposed to grant transmission licence to the Petitioner company and directed for issue of public notice. In response to the public notice, no suggestions/objections have been received. CTU in its letter dated 25.2.2022 has recommended for grant of transmission licence to the Petitioner. We are satisfied that the Petitioner company meets the requirements of the Act and the Transmission Licence Regulations for grant of transmission licence for the subject Transmission System mentioned at paragraph 1 of this order. Accordingly, we direct that transmission licence be granted to the Petitioner, Khavda-Bhuj Transmission Limited, to establish to establish “Transmission Scheme for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I”, on Build, Own, Operate and Maintain basis as per the details given in paragraph 1 above.



15. It is expected that while carrying out the survey, the Petitioner has complied with the provisions of clause 2.5.7.3, clause 2.5.7.4 and clause 2.5.7.5 of the RfP. The Petitioner will comply with the provisions of bidding documents and TSA for commissioning of the Project within SCOD.

16. The grant of transmission licence to the Petitioner (hereinafter referred to as “the licensee”) is subject to the fulfilment of the following conditions throughout the period of licence:

- (a) The transmission licence shall, unless revoked earlier, remain in force for a period of 25 years from the date of issue;
- (b) The transmission licensee shall comply with the provisions of the Transmission Licence Regulations or any subsequent enactment thereof and the terms and condition of the TSA during the period of subsistence of the licence.
- (c) Since the expiry date as per the TSA is 35 years from the scheduled COD of the Project, the licensee may make an application, two years before the expiry of initial licence period, for grant of licence for another term in accordance with Regulation 13(2) of the Transmission Licence Regulations which shall be considered by the Commission in accordance with law;
- (d) The licensee shall not enter into any contract for or otherwise engage in the business of trading in electricity during the period of subsistence of the transmission licence;
- (e) The licensee shall have the liability to pay the license fee in accordance with the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012, as amended from time to time or any subsequent enactment thereof. Delay in payment or non-payment of licence fee or a part thereof for a period exceeding sixty days shall be construed as breach of the terms and conditions of the licence;



- (f) The licensee shall comply with the directions of the National Load Despatch Centre under Section 26 of the Act, or the Regional Load Despatch Centre under sub-section (3) of Section 28 or sub-section (1) of Section 29 of the Act, as may be issued from time to time for maintaining the availability of the transmission system;
- (g) The licensee shall remain bound by the Central Electricity Regulatory Commission (Standard of Performance of inter-State transmission licensees) Regulations, 2012 or subsequent enactment thereof;
- (h) The licensee shall provide non-discriminatory open access to its Transmission System for use by any other licensee, including a distribution licensee or an electricity trader, or generating company or any other person in accordance with the Act; the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008; the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009; the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, as amended from time to time or any subsequent re-enactments thereof;
- (i) The licensee shall not undertake any other business for optimum utilization of the Transmission System without prior intimation to the Commission and shall comply with the provisions of the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for other business) Regulations, 2020;
- (j) The licensee shall remain bound by provisions of the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2020 as amended from time to time;
- (k) The licensee shall remain bound by the provisions of the Act, the rules and regulations framed thereunder, in particular the Transmission Licence Regulations, the Grid Code, the Standards specified by the Central Electricity Authority, orders and directions of the Commission issued from time to time;



(l) The licensee shall ensure execution of the Project within timeline specified in the Schedule 3 of the TSA and as per the Technical Standards and Grid Standards of CEA prescribed in Article 5.1.1 and Article 5.4 of the TSA;

(m) The licensee shall as far as practicable coordinate with the licensee (including deemed licensee) executing the upstream or downstream transmission projects and the Central Electricity Authority and CTUIL for ensuring execution of the Project in a matching timeline; and

(n) The licensee shall submit all such report or information as may be required under Transmission Licence Regulations, Standard of Performance Regulations, Transmission Service Agreement or any other regulation of the Commission or as per the directions of the Commission as may be issued from time to time.

17. Central Electricity Authority shall monitor the execution of the Project and bring to the notice of the Commission any lapse on the part of the licensee to meet the schedule for further appropriate action in accordance with the provisions of the Act and the Transmission Licence Regulations.

18. Let an extract copy of this order be sent to CEA for information and necessary action.

19. Petition No. 107/TL/2022 is allowed in terms of the above.

Sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



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

Reference No. 102/TL/2022

01/08/2022

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 KARUR 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 KARUR TRANSMISSION LIMITED.

2. I am directed to send herewith a copy of the above licence No. 72/Transmission/2022/CERC, dated 16th June, 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 Authorised Representative,
Karur Transmission Limited
C – 105, Anand Niketan,
New Delhi - 110021




(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 licence to Karur Transmission Limited, having its registered office at C-105, Anand Niketan, New Delhi-110021 (hereinafter referred to as "licensee") to establish "Transmission System for evacuation of power from RE sources in Karur/Tiruppur Wind Energy Zones (Tamil Nadu) (1000 MW) under Phase-I" 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

[Signature]

(Harpreet Singh Pruthi)
Secretary

Place: New Delhi
Date : 16th June, 2022



SCHEDULE

Project Related Details:

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

S.No.	Name of the Transmission Element	Scheduled COD- from Effective Date
1	<p>Establishment of 2x500 MVA, 400/230 kV Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone)</p> <p>4 Nos. of 230 kV line bays for interconnection of wind projects</p> <ul style="list-style-type: none"> • 2x500 MVA, 400/230 kV ICTs • 400 kV ICT bay - 2 nos. • 230 kV ICT bay - 2 nos. • 400 kV line bay - 4 nos. • 400 kV reactor bay - 2 nos. • 230 kV line bays - 4 nos. • 230 kV Bus coupler bay - 1 no.* • 230 kV Transfer Bus Coupler (TBC) bay - 1 no.* <p>Space provision for Phase-II:</p> <ul style="list-style-type: none"> i. 400/230 kV ICTs along with bays: 3 nos. ii. 230 kV line bays: 5 nos. iii. 230 kV Bus Sectionaliser bays: 2 nos. <p>Future provisions (Additional Space for):</p> <ul style="list-style-type: none"> i. 400/230 kV ICTs along with bays: 3 nos. ii. 400 kV line bays: 6 nos. iii. 230 kV line bays: 7 nos. 	Matching with schedule of RE developers or 18 months from the date of transfer of SPV whichever is later
2	LILO of both circuits of Pugalur-Pugalur (HVDC) 400 kV D/c line (with Quad Moose ACSR Conductor) at Karur PS	
3	2x125 MVA, 400 kV Bus reactors at Karur PS	

Note :

* To fulfil the requirement of bus switching scheme.

Licence No. 72/ Transmission /2022/CERC

**Authority: Orders of the Commission dated 13.5.2022 and 16.6.2022 in
Petition No. 102/TL/2022.**



(Signature)

**(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 "फेज-1 के अधीन करूर/तिरुप्पुर पवन उर्जा क्षेत्र (तमिलनाडु) (1000 एमडब्ल्यू) में नीकरणीय उर्जा स्रोतों से विद्युत की निकासी के लिए पारेषण प्रणाली" को स्थापित करने के लिए जो इस अनुज्ञप्ति के भाग रूप माने जाएंगे, करूर ट्रांसमिशन लिमिटेड, जिसका रजिस्ट्रीकृत कार्यालय सी-105, आनंद निकेतन, नई दिल्ली-110021 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 तथा 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

स्थान : नई दिल्ली
तारीख : 16 जून, 2022

(हरप्रीत सिंह प्रुथी)
सचिव

(हरप्रीत सिंह प्रुथी)
सचिव



अनुसूची

परियोजना से संबंधित ब्यौरे:

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

क्र.सं.	पारेषण घटक का नाम	प्रभावी तारीख से मास में कमीशनिंग की अनुसूचित तारीख
1	<p>2x500 एमवीए 400 / 230 केवी करूर पूलिंग स्टेशन की स्थापना (करूर विंड जोन और तिरुप्पुर विंड जोन के बिच के स्थान पर) विंड परियोजनाओं के इंटरकनेक्शन के लिए 230 केवी लाइन बे की संख्या* 4</p> <ul style="list-style-type: none"> • 2x500 एमवीए 400 / 230 केवी आईसीटीएस • 400 केवी आईसीटी बे - 2 संख्या • 230 केवी आईसीटी बे - 2 संख्या • 400 केवी लाईन बे - 4 संख्या • 400 केवी रिएक्टर बे - 2 संख्या • 230 केवी लाईन बे - 4 संख्या • 230 केवी बस कपलर बे - 1 संख्या* • 230 केवी ट्रांसफर बस कपलर (टीबीसी) बे - 1 संख्या* <p>फेज-II के लिए स्थान का प्रावधान:</p> <ol style="list-style-type: none"> बे सहित 400 / 230 केवी आईसीटीएस : 3 संख्या* 230 केवी लाईन बे : 5 संख्या 230 केवी बस सेक्शनलाइजर बे : 2 संख्या <p>भावी प्रावधान (के लिए अतिरिक्त स्थान) :</p> <ol style="list-style-type: none"> बे सहित 400 / 230 केवी आईसीटी : 3 संख्या 400 केवी लाईन बे : 6 संख्या 230 केवी लाईन बे : 7 संख्या 	आरई डेवलेपर की अनुसूची के अनुरूप या एसपीवी के अंतरण की तारीख से 18 माह जो भी बाद में है।
2	करूर पीएस पर पुगालुर- पुगालुर (एचवीडीसी) 400 केवी डी/सी लाईन की दोनों सर्किट का लीलो (क्वेद मूस एसीएसआर कंडक्टर सहित)	
3	करूर पीएस में 2x125 एमवीएआरए 400 केवी बस रिएक्टर्स	


नोट :

*बस स्विचिंग स्कीम की अपेक्षा की पूर्ति के लिए।

अनुज्ञप्ति सं. 72/पारेषण/2022/केविविआ

प्राधिकार : आयोग की याचिका सं. 102/टीएल/2022 में तारीख 13.5.2022 तथा 16.6.2022 के आदेश।




(हरप्रीत सिंह प्रुथी)
सचिव

Annexure - 2

सत्यमेव जयते
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 चौदहवीं बैठक का कार्यवृत्त - के सम्बन्ध में ।

Subject: Minutes of the 14th Meeting of National Committee on Transmission (NCT) – regarding.

महोदया (Madam) / महोदय (Sir),

The 14th meeting of the "National Committee on Transmission" (NCT) was held on 09th June, 2023. Minutes of the meeting are enclosed herewith.

भवदीय/Yours faithfully,

(ईशान शरण / Ishan Sharan)

मुख्य अभियंता एवं सदस्य सचिव, एनसीटी
/Chief Engineer & Member Secretary (NCT)प्रतिलिपि / Copy to:

Joint Secretary (Trans), Ministry of Power, New Delhi



List of Addressees:

1.	Chairperson, Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	2.	Member (Power System), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.
3.	Member (Economic & Commercial), Central Electricity Authority Sewa Bhawan, R.K. Puram, New Delhi – 110 066.	4.	Director (Trans), Ministry of Power Shram Shakti Bhawan, New Delhi-110001.
5.	Sh. Ajay Yadav, Joint Secretary Room no 403, Atal Akshay Urja Bhawan, Opposite CGO Complex gate no 2, 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, Grid Controller of India, B-9, Qutub, Institutional Area, Katwaria Sarai, New Delhi – 110010
9.	Dr. Radheshyam Saha, Ex. Chief Engineer, Central Electricity Authority	10	Ms. Seema Gupta, Ex. Director (Operations), POWERGRID

Special Invitee

Chief Engineer (PCD), CEA



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Minutes of the 14th meeting of National Committee on Transmission

List of Participants is enclosed at Annex-I.

1 Confirmation of the minutes of the 13th meeting of National Committee on Transmission.

1.1 The minutes of the 13th meeting of NCT held on 12.05.2023 were issued vide CEA letter no CEA-PS-12-13/3/2019-PSPA-II dated 19.05.2023. Comments/observations were not received on the minutes.

1.2 Accordingly, members confirmed the minutes.

2 Status of the transmission schemes noted/approved/recommended to MoP in the 13th meeting of NCT:

2.1 The status of the transmission schemes noted/approved/recommended in the 13th meeting of NCT is tabulated below:

Sl. No.	Name of the Transmission Scheme	Noted/ Recommended / Approved	Survey Agency	MoP approval	Remarks
1.	Establishment of State-of the Art Unified Network Management System (U-NMS) for ISTS and State Utility Communication System for Southern Region	Approved	Not Applicable	Not Applicable (Cost of the scheme being less than Rs. 500 Crore)	Under RTM route
2.	Eastern Region Expansion Scheme- XXXVII (ERES- XXXVII)	Approved	Not Applicable	Not Applicable (Cost of the scheme being less than Rs. 500 Crore)	Under RTM route



3 New Transmission Schemes:

3.1 Augmentation of transformation capacity by 1x1500 MVA, 765/400 kV ICT (3rd) at Maheshwaram (PG) substation in Telangana

3.1.1 As per SRLDC, augmentation of transformation capacity at Maheshwaram by 1x1500 MVA, 765/400 kV ICT is required as existing ICTs (2x1500 MVA) at Maheshwaram (GIS) are over loaded and 'N-1' criterion is not getting satisfied. Additionally, as per the studies carried out as part of the Rolling Plan exercise for the year 2026-27, under N-1 contingency of one ICT, loading on the other is around 114% of the rating and therefore augmentation by 1x1500 MVA, 765/400 kV ICT (3rd) at Maheshwaram is required.

Accordingly, augmentation of transformation capacity at Maheshwaram (PG) by 1x1500 MVA (3rd) for improving reliability and meeting the peak demand of Telangana was discussed and agreed in the 14th CMETS-SR meeting held on 26.12.2022.

3.1.2 After detailed deliberations, augmentation of transformation capacity by 1x1500 MVA (3rd), 765/400 kV ICT at Maheshwaram (PG) substation in Telangana was agreed to be implemented under RTM route by POWERGRID.

3.1.3 Summary of the scheme is given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Augmentation of transformation capacity by 1x1500 MVA, 765/400 kV ICT (3 rd) at Maheshwaram (PG) substation in Telangana Implementation timeframe: 21 months from the date of allocation	123.12	Approved to be implemented under RTM route by POWERGRID.

3.1.4 Detailed scope of the scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity / Route length
1.	Augmentation by 1x1500 MVA, 765/400 kV ICT at Maheshwaram(PG) S/s	<ul style="list-style-type: none"> • 765/400 kV, 1500 MVA ICT – 1 No. • 765 kV ICT bays – 1 No. (GIS) • 400 kV ICT bays – 1 No. (GIS) • 400 kV GIS duct along with associated support structure – 710 m (total length for three phases) • 765 kV GIS duct along with associated support structure – 800 m (total length for three phases)



3.2 Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW)

3.2.1 Transmission system for evacuation of 15 GW power from Khavda RE Park has already been evolved in 3 phases (Phase-I: 3 GW, Phase-II: 5 GW & Phase-III: 7 GW). Phase I and Phase II transmission schemes are under construction and Phase III transmission scheme is under bidding.

3.2.2 Stage-II connectivity applications for 18.605 GW (KPS-I: 9 GW, KPS-II: 3.755 GW & KPS-III: 5.85 GW) have already been received till January, 2023. Considering the rapid pace of connectivity applications being received in Khavda area and request from GPCL vide e-mail dated 23.12.2022 to consider 30 GW RE potential in Khavda for planning the power evacuation system, transmission system for balance 15 GW Khavda REZ has now been planned in two phases (Phase-IV: 7 GW AC & Phase-V: 8 GW HVDC). The present scheme has been planned to enable the evacuation of additional 7 GW RE power from Khavda RE park under Phase IV.

3.2.3 Member Secretary, NCT, stated that the modified scheme as per deliberations in 12th NCT meeting held on 28.03.2023 and meetings held on 20.04.2023 & 09.05.2023 amongst CEA, CTUIL & GRID-INDIA, had been sent by CTUIL to WRPC vide letter dated 12.05.2023 for views/observations within 10 days. However, no views were received from WRPC in this regard.

3.2.4 After detailed deliberations, the transmission scheme was agreed to be implemented subject to views of WRPC. Subsequently, in the 47th WRPC meeting held on 15.06.2023, the subject scheme was deliberated. However, minutes of WRPC meeting are yet to be issued. Details of the packages formulated for implementation of the scheme is given below:

Sl. No.	Name of the scheme	Implementation mode
1.	Part A	TBCB
2.	Part B	TBCB
3.	Part C	TBCB
4.	Part D	TBCB
5.	Part E1	RTM
6.	Part E2	TBCB
7.	Part E3	RTM
8.	Part E4	RTM



Package wise details of the scheme are given below:

3.2.5 Phase-IV: Part A - Summary

Sl. No.	Name of the transmission scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda RE park of Gujarat under Phase-IV (7 GW): Part A Tentative Implementation timeframe: 24 months from SPV transfer and matching with Parts B, C & D of Khavda Ph-IV (7 GW)	4091	Recommended to be implemented through TBCB route.

3.2.6 Detailed scope of Part A Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
	Creation of 765 kV bus section-II at KPS3 (GIS) along with 765 kV Bus Sectionaliser & 1x330 MVAR, 765 kV Bus Reactors on Bus Section-II Bus section – II shall be created at 765 kV & 400 kV level both with 3x1500 MVA, 765/400 kV ICTs at Bus Section-II	Bus Section-II at KPS3 765 kV Bus Sectionaliser – 1 set 1500 MVA, 765/400 kV ICT – 3 Nos. 330 MVAR, 765 kV Bus Reactor – 1 No. 765 kV reactor bay – 1 No. 765 kV ICT bays – 3 Nos.
	Creation of 400 kV bus Section-II at KPS3 (GIS) along with 400 kV Bus Sectionaliser & 1x125 MVAR, 420 kV Bus Reactors on Bus Section-II and 3 Nos. 400 kV bays at Bus Section-II for RE interconnection	Bus Section-II at KPS3 400 kV Bus Sectionaliser – 1 set 125 MVAR, 420 kV Bus Reactors – 1 No.



S l . N o .	Scope of the Transmission Scheme	Capacity/ Route length
		400 kV reactor bay – 1 No. 400 kV ICT bays – 3 Nos. (for ICTs at Sl. 1 above) 400 kV line bays – 3 Nos. (for RE interconnection)
	KPS3 (GIS) – Lakadia (AIS) 765 kV D/C line	Route length: 185 km
	2 Nos. of 765 kV line bays each at KPS3 (GIS) & Lakadia (AIS) for KPS3 (GIS) – Lakadia (AIS) 765 kV D/C line	• 765 kV line bays (GIS) – 2 Nos. (at KPS3 end Bus section-II) • 765 kV line bays (AIS) – 2 Nos. (at Lakadia end)
	5-300 MVAR STATCOM with 1x125 MVAR MSC, 2x125 MVAR MSR at KPS3 400 kV Bus section-II	• ±300 MVAR STATCOM (with 1x125 MVAR MSC, 2x125 MVAR MSR) • 400 kV bay – 1 No.
	6 KPS1 (GIS)– Bhuj PS 765 kV 2 nd D/C line	• Route length: 110 km
	7 2 Nos. of 765 kV line bays each at KPS1 (GIS) & Bhuj PS for KPS1 (GIS) – Bhuj PS 765 kV D/C line	• 765 kV line bays (GIS) – 2 Nos. (at KPS1 end Bus section-II) • 765 kV line bays (AIS) – 2 Nos. (at Bhuj end)
	8 30 MVAR switchable line reactors at KPS3 end of KPS3 (GIS) – Lakadia 765 kV D/C line (with NGR bypass arrangement)	• 330 MVAR, 765 kV switchable line reactor- 2 Nos. • Switching equipment for 765 kV line reactor- 2 Nos. • 1x110 MVAR spare switchable reactor unit at KPS3 (GIS) end

Note:

- Bay(s) required for completion of diameter (GIS) in one-and-half breaker scheme, shall also be executed by the TSP.
- TSP of KPS3 shall provide space for work envisaged at Sl. 1, 2, 4, 5 & 8.
- The TSP of the present scheme shall arrange for additional land for installation of STATCOM (with MSC/MSR) as specified at Sl. No. 5 at KPS3 and TSP of KPS3 shall provide space for 1 No. 400 kV bay for termination of STATCOM.
- TSP of KPS1 and Bhuj PS shall provide space for work envisaged at Sl. No. 7.
- The TSP of the present scheme shall arrange for additional land adjoining Lakadia S/s for creation of 2 Nos. 765 kV diameter consisting of 1 main bay & 1 Tie bay (for each diameter)



in one-and-half breaker AIS scheme, towards implementation of 2 Nos. 765 kV line bays at Lakadia S/s (at Sl. No. 4) associated with KPS3 – Lakadia 765 kV D/c line and the same shall be extendable in future for integration of 2nd main bay (future line with switchable line reactor) for diameter completion.

- vi. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- vii. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.2.7 Phase-IV: Part B - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	<p>Transmission System for Evacuation of power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part B</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer and matching with Parts A, C & D of Khavda Ph-IV (7 GW)</p>	4,766	Recommended to be implemented through TBCB route.

3.2.8 Detailed scope of Part B Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	<p>Establishment of 2x1500 MVA, 765/400 kV & 2x500 MVA, 400/220 kV GIS S/s at a suitable location South of Olpad (between Olpad and Ichhapore) with 2x330 MVAR, 765 kV & 1x125 MVAR, 420 kV bus reactors</p> <p>Future Provisions:</p> <p>Space for</p> <ul style="list-style-type: none"> ➤ 765/400 kV ICT along with bays- 4 Nos. ➤ 765 kV line bays along with switchable line reactors – 8 Nos. ➤ 765 kV Bus Reactor along with bay: 	<p>765/400 kV, 1x1500 MVA ICT-2 Nos. (7x500 MVA single phase units including one spare unit)</p> <p>400/220 kV, 500 MVA ICT – 2 Nos.</p> <p>765 kV ICT bays- 2 Nos.</p> <p>400 kV ICT bays- 4 Nos.</p> <p>220 kV ICT bays- 2 Nos.</p> <p>220 kV BC bay – 1 No.</p> <p>330 MVAR, 765 kV bus</p>



	<p>2 Nos.</p> <ul style="list-style-type: none"> ➤ 765 kV Sectionaliser bay: 1 - set ➤ 400 kV line bays along with switchable line reactor – 8 Nos. ➤ 400/220 kV ICT along with bays - 8 Nos. ➤ 420 kV Bus Reactor along with bay: 3 Nos. ➤ 400 kV Sectionalization bay: 1- set ➤ 220 kV line bays: 18 Nos. ➤ 220 kV Sectionalization bay: 1 set ➤ 220 kV BC: 1 Nos. ➤ Establishment of 2500 MW, \pm 500 kV South Olpad (HVDC) [VSC] terminal station (2x1250 MW) 	<p>reactor-2 Nos.</p> <p>125 MVAR, 420 kV bus reactor-1 No.</p> <p>765 kV reactor bay- 2 Nos.</p> <p>765 kV line bay- 4 Nos.</p> <p>400 kV reactor bay- 1 No.</p> <p>400 kV line bay- 4 Nos.</p> <p>110 MVAR, 765 kV, 1-ph reactor (spare unit for line/bus reactor)-1 No.</p>
2	Vadodara (GIS) –South Olpad (GIS) 765 kV D/C line	Route length: 140 km
3	240 MVAR switchable line reactors on each ckt at Vadodara(GIS) end of Vadodara(GIS) –South Olpad (GIS) 765 kV D/C line (with NGR bypass arrangement)	<ul style="list-style-type: none"> • 240 MVAR, 765 kV switchable line reactor- 2 Nos. • Switching equipment for 765 kV line reactor- 2 Nos. • 1x80 MVAR spare bus reactor available at Vadodara (GIS) to be used as spare
4	2 Nos. of 765 kV line bays at Vadodara (GIS) for Vadodara(GIS) – South Olpad (GIS) 765 kV D/C line	<ul style="list-style-type: none"> • 765 kV line bays (GIS) – 2 Nos. (at Vadodara end)
5	LILO of Gandhar – Hazira 400 kV D/c line at South Olpad (GIS) using twin HTLS conductor with minimum capacity of 1700 MVA per ckt at nominal voltage	LILO route length ~ 10 km.
6	Ahmedabad – South Olpad (GIS) 765 kV D/c line	Route length: 250 km
7	240 MVAR switchable line reactors on each ckt at Ahmedabad & South Olpad (GIS) end of Ahmedabad – South Olpad (GIS) 765 kV D/c line (with NGR bypass arrangement)	<ul style="list-style-type: none"> • 240 MVAR, 765 kV switchable line reactor- 4 Nos. [2 for Ahmedabad end and 2 for South Olpad (GIS) end] • Switching equipment for 765 kV line reactor- 4 Nos. [2 for Ahmedabad end and 2 for South Olpad (GIS) end] • 1x80 MVAR, 765 kV 1-ph spare line reactor – 1 No. (for South Olpad end)



		<ul style="list-style-type: none"> 1x80 MVAR, 765 kV 1-ph spare line reactor being implemented for Lakadia – Ahmedabad line (under Khavda Ph-II Part B scheme) at Ahmedabad S/s to be used as spare
8	2 Nos. of 765 kV line bays at Ahmedabad S/s for Ahmedabad – South Olpad (GIS) 765 kV D/c line	<ul style="list-style-type: none"> 765 kV line bays (AIS) – 2 Nos. (at Ahmedabad end)

Note:

- TSP of Vadodara S/s shall provide space for work envisaged at Sl. No. 3 & 4 given above
- TSP of Ahmedabad S/s shall provide space for work envisaged at Sl. No. 7 & 8 given above
- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.2.9 Phase-IV: Part C - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	<p>Transmission System for Evacuation of power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part C</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer and matching with Parts A, B & D of Khavda Ph-IV (7 GW)</p>	5,340	Recommended to be implemented through TBCB route.

3.2.10 Detailed scope of Part C Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity / Route length
1	Establishment of 4x1500 MVA, 765/400 kV & 2x500 MVA, 400/220 kV Boisar-II (GIS) S/s with 2x330 MVAR, 765 kV bus reactors and 2x125 MVAR, 420 kV bus	765/400 kV, 1500 MVA ICT- 4 Nos. (13x500 MVA single phase units)



S I N O	Scope of the Transmission Scheme	Capacity / Route length
	<p>reactors.</p> <p>(2x1500 MVA, 765/400 kV ICTs shall be on each 400 kV section and 2x500 MVA, 400/220 kV ICTs shall be on 400 kV Bus Section-II. 2x125 MVAR Bus reactors shall be such that one bus reactor is placed on each 400 kV bus section. 400 kV Bus Sectionalizer to be kept under normally OPEN condition)</p> <p>Future Provisions:</p> <p>Space for</p> <ul style="list-style-type: none"> ➤ 765/400 kV ICT along with bays- 2 No. ➤ 765 kV line bays along with switchable line reactors – 8 Nos. ➤ 765 kV Bus Reactor along with bay: 2 No. ➤ 765 kV Sectionalizer bay: 1 - set ➤ 400 kV line bays along with switchable line reactor – 8 Nos. ➤ 400/220 kV ICT along with bays - 6 Nos. ➤ 420 kV Bus Reactor along with bay: 2 No. ➤ 220 kV line bays: 12 Nos. ➤ 220 kV Sectionalization bay: 1 set ➤ 220 kV BC: 1 No. 	<p>including one spare unit)</p> <p>400/220 kV, 500 MVA ICT – 2 Nos.</p> <p>765 kV ICT bays- 4 Nos.</p> <p>400 kV ICT bays- 6 Nos. (2 Nos. on Bus Section-I and 4 Nos. on Bus Section-II)</p> <p>400 kV Bus Sectionalizer-1 set</p> <p>220 kV ICT bays- 2 Nos.</p> <p>220 kV BC bay – 1 No.</p> <p>330 MVAR, 765 kV bus reactor-2 Nos.</p> <p>125 MVAR, 420 kV bus reactor-2 Nos.</p> <p>765 kV reactor bays- 2 Nos.</p> <p>765 kV line bays- 6 Nos.</p> <p>400 kV reactor bays- 2 Nos. (one on each bus section)</p> <p>400 kV line bay- 6 Nos. (4 Nos. on bus Section-I and 2 Nos. on bus Section-II)</p>



S I . N o .	Scope of the Transmission Scheme	Capacity / Route length
		110 MVAR, 765 kV, 1-ph reactor (spare unit for line/bus reactor)-1 No.
	South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line	Route length: 225 km
	2 Nos. of 765 kV line bays at South Olpad (GIS) for termination of South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line	765 kV line bays (GIS) – 2 Nos. (for South Olpad end)
	240 MVAR switchable line reactors on each ckt at South Olpad (GIS) & Boisar-II (GIS) end of South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line (with NGR bypass arrangement)	<ul style="list-style-type: none"> • 240 MVAR, 765 kV switchable line reactor- 4 [2 for Boisar-II (GIS) and 2 for South Olpad (GIS)] • Switching equipment for 765 kV line reactor- 4 (2 for Boisar-II (GIS) and 2 for South Olpad (GIS)) • 1x80 MVAR, 765 kV 1-ph spare line reactor – 1 No. (for Boisar-II end) • 1x80 MVAR, 765 kV 1-ph spare line reactor proposed for Ahmedabad – South Olpad (GIS) 765 kV line (under Khavda Ph-IV Part B scheme) at South Olpad (GIS) S/s to be used as spare
	LILO of Navsari (New) – Padghe (PG) 765 kV D/c line at Boisar-II	LILO route length: 25 km.
	Boisar-II (Sec-II) – Velgaon (MH) 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line	Route length: 10 km.
	2 Nos. of 400 kV line bays at Velgaon (MH) for termination of Boisar-II – Velgaon (MH) 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line	400 kV line bays (GIS) – 2 Nos. [for Velgaon (MH) end]
	LILO of Babhaleswar – Padghe (M) 400 kV D/c line at Boisar-II (Sec-I) using twin HTLS conductor with a minimum capacity of 1700 MVA per ckt at	LILO route length: 65 km.



Sl. No.	Scope of the Transmission Scheme	Capacity / Route length
	nominal voltage	
	80 MVAR switchable line reactors at Boisar-II end of Boisar-II – Babhaleswar 400 kV D/c line (with NGR bypass arrangement) formed after above LILO	80 MVAR, 420 kV switchable line reactor including switching equipment- 2 Nos.
	±200 MVAR STATCOM with 2x125 MVAR MSC, 1x125 MVAR MSR at 400 kV bus section-I of Boisar-II and ±200 MVAR STATCOM with 2x125 MVAR MSC, 1x125 MVAR MSR at 400 kV bus section-II of Boisar-II	<ul style="list-style-type: none"> • ±200 MVAR STATCOM (with MSC/MSR) on 400 kV Section-I • 400 kV bay – 1 No. on Section-I • ±200 MVAR STATCOM (with MSC/MSR) on 400 kV section-II • 400 kV bay – 1 No. on Section-II
	± 300 MVAR STATCOM with 3x125 MVAR MSC, 1x125 MVAR MSR at 400 kV level of Navsari (New)(PG) S/s with 1 No. of 400 kV bay (GIS)	<ul style="list-style-type: none"> • ±300 MVAR STATCOM (with MSC/MSR) • 400 kV bay – 1 No.

Note:

- Bay(s) required for completion of diameter (GIS) in one-and-half breaker scheme shall also be executed by the TSP.
- MSETCL shall carry out reconductoring of the balance portion of Padghe (M) – Boisar-II 400 kV D/c line (i.e. from LILO point upto Padghe(M)) and shall also carry out corresponding upgradation of 400 kV bays at Padghe (M) as may be required in matching time-frame of the LILO line. MSETCL has confirmed the maximum capacity of the line which can be achieved after reconductoring considering clearances in existing towers of Babhaleswar – Padghe (M) 400 kV D/c line as 1700 MVA per ckt.
- MSETCL shall implement the LILO of both circuits of Boisar-II – Velgaon 220 kV D/c line at Boisar-II (ISTS) S/s along with 4 Nos. 220 kV GIS bays at Boisar-II in matching time-frame of Boisar-II (ISTS) S/s.
- TSP of South Olpad (GIS) S/s shall provide space for work envisaged at Sl. No. 3 & 4.
- MSETCL shall provide space for the work envisaged at Sl. No. 7 at Velgaon S/s.
- TSP of the subject scheme shall implement Inter-tripping scheme on South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line (for tripping of the switchable line reactor at either end along with the main line breaker).
- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.



3.2.11 Phase-IV: Part D - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part D</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer and matching with Parts A, B & C of Khavda Ph-IV (7 GW)</p>	3,455	Recommended to be implemented under TBCB route.

3.2.12 Detailed scope of Part D Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	<p>Establishment of 2x1500 MVA, 765/400 kV & 3x500 MVA, 400/220 kV Pune-III (GIS) S/s with 2x330 MVAR, 765 kV bus reactor and 2x125 MVAR, 420 kV bus reactor.</p> <p>Future Provisions:</p> <p>Space for</p> <ul style="list-style-type: none"> ➤ 765/400 kV ICT along with bays- 4 No. ➤ 765 kV line bays along with switchable line reactors – 8 Nos. ➤ 765 kV Bus Reactor along with bay: 2 No. ➤ 765 kV Sectionalizer bay: 1 -set ➤ 400 kV line bays along with switchable line reactor – 12 Nos. ➤ 400/220 kV ICT along with bays -5 Nos. ➤ 400 kV Bus Reactor along with bay: 2 No. ➤ 400 kV Sectionalization bay: 1 set ➤ 220 kV line bays: 12 Nos. ➤ 220 kV Sectionalization bay: 1 set ➤ 220 kV BC: 1 No. 	<p>765/400 kV, 1500 MVA ICT-2 Nos. (7x500 MVA including one spare unit)</p> <p>400/220 kV, 500 MVA ICT – 3 Nos.</p> <p>765 kV ICT bays- 2 Nos.</p> <p>400 kV ICT bays- 5 Nos.</p> <p>220 kV ICT bays- 3 Nos.</p> <p>220 kV BC bay – 1 No.</p> <p>330 MVAR, 765 kV bus reactor-2 Nos.</p> <p>125 MVAR, 420 kV bus reactor-2 Nos.</p> <p>765 kV reactor bay- 2 Nos.</p>



S l o o	Scope of the Transmission Scheme	Capacity/ Route length
	<ul style="list-style-type: none"> ➤ STATCOM (± 300 MVAR) along with MSC (3x125 MVAR) & MSR (1x125 MVAR): alongwith 1 No. 400 kV bay: 1 No. ➤ 80 MVAR, 765 kV, 1-ph reactor (spare unit for line reactor)-1 No. 	<p>765 kV line bay- 6 Nos.</p> <p>400 kV reactor bay- 2 Nos.</p> <p>400 kV line bay- 2 Nos.</p> <p>110 MVAR, 765 kV, 1-ph reactor (spare unit for line/ bus reactor)-1 No.</p>
	Boisar-II – Pune-III 765 kV D/c line	Route length: 200 km
	330 MVAR switchable line reactors at Pune-III end of Boisar-II – Pune-III 765 kV D/c line (with NGR bypass arrangement).	<ul style="list-style-type: none"> • 330 MVAR, 765 kV switchable line reactor- 2 Nos. • Switching equipment for 765 kV line reactor- 2 Nos. • 1x110 MVAR spare bus reactor available at Pune-III (GIS) to be used as spare
	42 Nos. of 765 kV line bays at Boisar-II for termination of Boisar-II – Pune-III 765 kV D/c line	<ul style="list-style-type: none"> • 765 kV line bays (GIS) – 2 Nos. (for Boisar-II end)
	LILO of Narendra (New) – Pune (GIS) 765 kV D/c line at Pune-III	LILO route length: 10 km.
	330 MVAR switchable line reactors at Pune-III end of Narendra (New) – Pune-III(GIS) 765 kV D/c line (with NGR bypass arrangement).	<ul style="list-style-type: none"> • 330 MVAR, 765 kV switchable line reactor- 2. • Switching equipment for 765 kV line reactor- 2 • 1x110 MVAR spare bus reactor (1-ph) available at Pune-III (GIS) to be used as spare
	LILO of Hinjewadi-Koyna 400 kV S/c line at Pune-III (GIS) S/s	LILO route length: 40 km.
	80 MVAR, 420 kV switchable Line Reactors on each ckt at Pune-III (GIS) end of Pune-III (GIS) – Koyna 400 kV line formed after above LILO (with	<ul style="list-style-type: none"> • 80 MVAR, 420 kV switchable line reactor along with switching equipment- 2 Nos.



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
	NGR bypass arrangement).	

Note:

- i. Bay(s) required for completion of diameter (GIS) in one-and-half breaker scheme, shall also be executed by the TSP.
- ii. Logic for Inter-tripping scheme for tripping of the 330 MVAR switchable line reactor along with main line breaker at Pune (GIS) end of Pune (GIS) – Narendra (New) 765 kV D/c line shall be implemented by the owner of the line after LILO of Narendra (New) – Pune (GIS) 765 kV D/c line at Pune-III
- iii. MSETCL shall implement the following 220 kV lines along with 5 Nos. 220 kV GIS bays at Pune-III (GIS) S/s in matching time-frame of Pune-III S/s:
 - a. LILO of both circuits of Jejuri-Phursungi 220 kV D/c line at Pune-III S/s with HTLS conductor (twin zebra equivalent) along with reconductoring of balance line section viz. LILO point to Phursungi and LILO points to Jejuri with HTLS conductor (twin zebra equivalent)
 - b. Nanded City - Pune PG III 220 kV S/c line with HTLS conductor (twin zebra equivalent)
- iv. TSP of Boisar-II S/s shall provide space for work envisaged at Sl. No. 4.
- v. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- vi. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.2.13 Phase-IV: Part E1 - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 Implementation timeframe: 24 months from the date of allocation	216	Approved to be implemented under RTM by Adani Transmission Limited (the TSP implementing KPS 1)



3.2.14 Detailed scope of Part E1 Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Augmentation of transformation capacity at KPS1 (GIS) by 1x1500 MVA, 765/400 kV ICT (8 th) on bus section-I	1500 MVA, 765/400 kV ICT – 1 No. 765 kV bays – 2 Nos. on bus Section-I (including 1 No. bay for Dia completion) 400 kV bays – 2 Nos. on bus section-I (including 1 No. bay for Dia completion)

Note:

- The TSP shall implement one complete diameter consisting of 2 main bays & 1 Tie bay at both 765 kV & 400 kV levels of KPS1 (GIS) for completion of diameter (GIS) in one-and-half breaker scheme.
- Further, TSP of KPS1 shall provide space to carry out the above augmentation work.

3.2.15 Phase-IV: Part E2 - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E2 Tentative Implementation timeframe: 21 months from SPV transfer	697	Recommended to be implemented under TBCB route.



3.2.16 Detailed scope of Part E2 Scheme is given below:

S l . N o	Scope of the Transmission Scheme	Capacity/ Route length
	Augmentation of transformation capacity at KPS2 (GIS) by 2x1500 MVA, 765/400 kV ICT on Bus section-I (5 th & 6 th) & 2x1500 MVA, 765/400 kV ICT on Bus section-II (7 th & 8 th) & 2 Nos. 400 kV bays at Bus Section-I for RE interconnection and 3 Nos. 400 kV bays at Bus Section-II for RE interconnection	1500 MVA, 765/400 kV ICT – 4 Nos. 765 kV bays – 4 Nos. [2 Nos. complete Dia for 2 ICTs (one on each bus section) and balance 2 ICTs to be terminated in spare bays (one on each section)] 400 kV bays– 10 Nos. [4 Nos. ICT bays (2 on each section) & 5 Nos. line bays (2 on bus section-I & 3 on bus section-II) along with 1 No. bay on Bus Section-II for Dia completion]

Note:

- The TSP shall implement two complete diameters (1 on Bus Section-I & 1 on bus section-II) at 765 kV level of KPS2 (GIS) consisting of 2 Main Bays & 1 Tie Bay required for completion of diameter (GIS) in one-and-half breaker scheme.
- The TSP shall implement five complete diameters (2 on Bus Section-I & 3 on Bus Section-II) at 400 kV level of KPS2 (GIS) consisting of 2 Main Bays & 1 Tie bay required for completion of diameter (GIS) in one-and-half breaker scheme.
- Further, TSP of KPS2 shall provide space to carry out the above augmentation work.
- 2 Nos. 400 kV bays at Bus Section-I for RE interconnection and 1 No. 400 kV bays at Bus Section-II for RE interconnection are already under implementation at KPS2.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.2.17 Phase-IV: Part E3 - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E3	216	Approved to be implemented under RTM by the TSP implementing KPS 3.



	Implementation timeframe: 24 months from date of allocation		
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3.2.18 Detailed scope of Part E3 Scheme is given below:

No.	Scope of the Transmission Scheme	Capacity/ Route length
	Augmentation of transformation capacity at KPS3 (GIS) by 1x1500 MVA, 765/400 kV ICT (7 th) on Bus section-I	1500 MVA, 765/400 kV ICT – 1 No. 765 kV bays – 2 Nos. on Bus Section-I (including 1 No. bay for Dia completion) 400 kV bays – 2 Nos. on Bus section-I (including 1 No. bay for Dia completion)

Note:

1. The TSP shall implement one complete diameter consisting of 2 Main Bays & 1 Tie Bay at both 765 kV & 400 kV levels of KPS3 (GIS) required for completion of diameter (GIS) in one-and-half breaker scheme.
2. Further, TSP of KPS3 shall provide space to carry out above augmentation work.

3.2.19 Phase-IV: Part E4 - Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E4 Implementation timeframe: 24 months from date of allocation	235	Approved to be implemented under RTM route by POWERGRID

3.2.20 Detailed scope of Part E4 Scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1.	Augmentation of transformation capacity at Padghe (PG) (GIS) by 1x1500 MVA,	1500 MVA, 765/400 kV ICT – 1



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
	765/400 kV ICT (4 th)	<p>No.</p> <p>765 kV bays – 2 Nos. (including 1 No. bay for Dia completion)</p> <p>400 kV bays – 2 Nos. (including 1 No. bay for Dia completion)</p> <p>765 kV GIB Duct (single phase) – 510 m (approx.) for three phases</p> <p>400 kV GIB Duct (single phase) – 500 m (approx.) for three phases</p>

Note:

- i. POWERGRID shall implement one complete diameter consisting of 2 main bays & 1 Tie bay at both at 765 kV & 400 kV levels Padghe (PG)(GIS) required for completion of diameter (GIS) in one-and-half breaker scheme.

3.3 Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW)

3.3.1 The Phase V (HVDC) transmission scheme has been planned for evacuation of additional 8 GW RE power from Khavda RE park.

3.3.2 Member Secretary, NCT, stated that the modified scheme as per deliberations in 12th NCT meeting held on 28.03.2023 and meetings held on 20.04.2023 & 09.05.2023 amongst CEA, CTUIL & GRID-INDIA had been by CTUIL to WRPC vide letter dated 12.05.2023 for views/observations within 10 days. However, no views were received from WRPC in this regard.

3.3.3 After detailed deliberations, the following was agreed w.r.t. the transmission schemes, subject to views/observations of WRPC. Subsequently, in the 47th WRPC meeting held on 15.06.2023, the subject scheme was deliberated. Minutes of WRPC meeting is to be issued.

Sl. No.	Name of the scheme	Mode of implementation
1.	Part A	TBCB



2.	Part A1	RTM
3.	Part B	To be reviewed.
4.	Part C	TBCB

3.3.4 Phase-V: Part A- Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A Tentative Implementation timeframe: 48 months for Bipole-1 (2x1500 MW) and 54 months for Bipole-2 (2x1500 MW)	24,819	Recommended to be implemented through TBCB route.

3.3.5 Detailed scope of Part A Scheme is given below:

Sl. No.	Scope	Capacity/ Route length
1.	Establishment of 6000 MW, \pm 800 kV KPS2 (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard*.	6000 MW, \pm 800 kV KPS2 (HVDC) [LCC] Terminal station
2.	Establishment of 6000 MW, \pm 800 kV Nagpur (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard*	6000 MW, \pm 800 kV Nagpur (HVDC) [LCC] terminal station
3.	\pm 800 kV HVDC Bipole line (Hexa lapwing) between KPS2 (HVDC) and Nagpur (HVDC) (1200 km) (with Dedicated Metallic Return) (capable to evacuate 6000 MW with overload as specified)	Route length: 1200 km.
4.	Establishment of 6x1500 MVA, 765/400 kV ICTs at Nagpur-S/s along with 2x330 MVAR (765 kV) & 2x125 MVAR, 420 kV bus reactors along with associated interconnections with HVDC Switchyard*. The 400 kV bus shall be established in 2 sections through 1 set of 400 kV bus sectionaliser so that 3x1500 MVA ICTs are placed in each section. The bus sectionaliser shall be normally closed and may be opened based on Grid	<ul style="list-style-type: none"> ○ 765/400 kV, 1500 MVA ICT-6 (3 on each 400 kV section) (19 single phase units including one spare unit) ○ 765 kV ICT bays- 6 Nos. ○ 400 kV ICT bays- 6 Nos. (3 on each section) ○ 330 MVAR 765 kV bus reactor-2 Nos. ○ 125 MVAR 420 kV bus



Sl. No.	Scope	Capacity/ Route length
	<p>requirement.</p> <p>Future Provisions at Nagpur:</p> <p>Space for:</p> <ul style="list-style-type: none"> ○ 765/400 kV, 1500 MVA ICT- 4 (1 on 400 kV bus section-II & 3 on future 400 kV bus section-III) ○ 765 kV line bays along with switchable line reactors – 10 Nos. ○ 765 kV Bus Reactor along with bay: 2 No. ○ 765 kV Sectionalizer bay: 1 -set ○ 400 kV line bays along with switchable line reactor – 12 Nos. ○ 400 kV Bus sectionaliser- 1 Set ○ 400/220 kV ICT along with bays -9 Nos. (3 Nos. on 400 kV bus sections II & 6 Nos. on future bus section-III) ○ 400 kV Bus Reactor along with bay: 4 No. (1 each on 400 kV bus sections I & II and 2 on future 400 kV bus section-III) ○ 220 kV line bays: 16 Nos. ○ 220 kV Sectionalization bay: 2 set ○ 220 kV BC & TBC: 3 Nos. ○ 80 MVAR, 765 kV, 1-ph reactor (spare unit for line reactor)-1 	<p>reactor-2 Nos. (one on each section)</p> <ul style="list-style-type: none"> ○ 765 kV reactor bay- 2 Nos. ○ 765 kV line bay- 4 Nos. ○ 400 kV reactor bay- 2 Nos. (one on each section) ○ 400 kV Bus sectionaliser - 1 Set ○ 110 MVAR, 765 kV, 1-ph reactor (spare unit for line/bus reactor) - 1 No.
5.	LILO of Wardha – Raipur 765 kV one D/c line (out of 2xD/c lines) at Nagpur	LILO route length: 30 km.
6.	Installation of 240 MVAR switchable line reactor at Nagpur end on each ckt of Nagpur – Raipur 765 kV D/c line	<ul style="list-style-type: none"> ● 240 MVAR, 765 kV switchable line reactors- 2 Nos. (at Nagpur end) ● Switching equipment for 765 kV line reactor- 2 Nos. (at Nagpur end) ● 80 MVAR, 765 kV, 1-ph reactor (spare unit for line reactor)-1 No.

* The 400 kV interconnections (along with all associated equipment/ bus extension, etc.) between HVDC & HVAC switchyards shall be implemented by the TSP

Note:

- i. The 2x1500 MW poles shall emanate from 400 kV bus section 1 of KPS2 and terminate at bus section 1 of Nagpur. Similarly, the other 2x1500 MW poles shall emanate from 400 kV bus section 2 of KPS2 and terminate at bus section 2 of Nagpur.



- ii. HVDC System will be designed considering 100% power reversal capability. The rated power transmission capacity as well as the rated transmission voltage shall be defined and guaranteed at the rectifier end of the AC yard.
- iii. TSP of KPS2 shall provide space for the establishment of the HVDC system as per above scope.
- iv. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- v. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.3.6 Phase-V: Part A1- Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A1 Implementation timeframe: Matching with implementation of Khavda Phase-V Part A scheme viz. Bipole-1 (2x1500 MW) \pm 800 kV Nagpur (HVDC) [LCC] which is 48 months from SPV transfer.	21	Approved to be implemented under RTM by POWERGRID i.e. owner of Wardha S/s.

3.3.7 Detailed scope of Part A1 is given below:

Sl. No.	Scope	Capacity/ Route length
1.	Conversion of 330 MVAR Fixed LR at Wardha (on each ckt of Wardha – Raipur 765 kV D/c line being LILOed at Nagpur) into Bus Reactors at Wardha S/s	765 kV reactor bays- 2 Nos. & Conversion of 330 MVAR Fixed LR at Wardha (on each ckt of Wardha – Raipur 765 kV D/c line being LILOed at Nagpur) into Bus Reactors through creation of 2 new diameters and shifting of Reactors

Note:

- i. POWERGRID shall implement two new diameters consisting of 1 main bay & 1 Tie bay at 765 kV level of Wardha S/s required in one-and-half breaker AIS scheme for termination of 2 Nos. of 330 MVAR Bus reactors & the same shall be extended in future for integration of 2nd main bay (future line with switchable line reactor) for diameter completion.



3.3.8 Phase-V: Part B: Augmentation of transformation capacity at KPS2 (GIS) by 1x1500 MVA, 765/400 kV ICT on Bus Section I (9th) and at KPS 3 (GIS) by 1x1500 MVA, 765/400 kV ICT on Bus Section-II (8th)

It was deliberated that the above ICTs would be required in the matching timeframe of VSC based HVDC (Part C) and hence would be reviewed and taken up subsequently.

3.3.9 CTUIL had proposed ± 525 kV VSC based HVDC system. It was deliberated that ± 500 kV HVDC systems are already existing in the country and tested tower design for ± 500 kV systems are already available. In order to reduce the time involved in engineering and testing, it was opined that already proven design of ± 500 kV may be adopted in this case also. Hence, the rating of HVDC system was revised to ± 500 kV, 2500 MW.

3.3.10 Summary of Phase-V: Part C scheme is given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part C Tentative Implementation timeframe: 48 months from SPV transfer	12,000	Recommended to be implemented through TBCB route.

3.3.11 Detailed scope of Part C is given below:

Sl. No.	Scope	Capacity/ Route length
1.	Establishment of 2500 MW, ± 500 kV KPS3 (HVDC) [VSC] terminal station (2x1250 MW) at a suitable location near KPS3 substation with associated interconnections with 400 kV HVAC Switchyard*	2500 MW, ± 500 kV KPS3 (HVDC) [VSC] Terminal station
2.	Establishment of 2500 MW, ± 500 kV South Olpad (HVDC) [VSC] terminal station (2x1250 MW) along with associated interconnections with 400 kV HVAC Switchyard of South Olpad S/s*	2500 MW, ± 500 kV South Olpad (HVDC) [VSC] terminal station
3.	Establishment of KPS3 (HVDC) S/s along with 2x125 MVAR, 420 kV bus reactors along with associated interconnections with HVDC Switchyard*. The 400 kV bus shall be established in 2 sections through 1 set of 400 kV bus sectionaliser to be kept normally OPEN. 400/33 kV, 2x50 MVA transformers for	<ul style="list-style-type: none"> ○ 400/33 kV, 1x50 MVA ICT along with bays- 2 Nos. ○ 125 MVAR 420 kV bus reactor-2 Nos. (one on each section) ○ 400 kV reactor bay- 2 Nos. (one on each section)



Sl. No.	Scope	Capacity/ Route length
	<p>exclusively supplying auxiliary power to HVDC terminal. MVAR</p> <p>Future Provisions at KPS3 (HVDC) S/s</p> <p>Space for:</p> <ul style="list-style-type: none"> ○ 400 kV line bays – 6 Nos. (3 on each section) ○ 400 kV reactor bay- 2 Nos. (one on each section) 	<ul style="list-style-type: none"> ○ 400 kV Bus sectionaliser- 1 Set
4.	KPS3 – KPS3 (HVDC) 400 kV 2xD/c (Quad ACSR/AAAC/AL59 moose equivalent) line along with the line bays at both substations	<p>Route length- 2 km</p> <p>400 kV GIS line bays - 4 Nos. at KPS3 (2 Nos. on each bus section)</p> <p>400 kV GIS line bays - 4 Nos at KPS3 (HVDC) (2 Nos. on each bus section)</p>
5.	±500 kV HVDC Bipole line between KPS3 (HVDC) and South Olpad (HVDC) (with Dedicated Metallic Return) (capable to evacuate 2500 MW)	Route length: 600 km

* The 400 kV interconnections (along with all associated equipment/ bus extension, etc.) between HVDC & HVAC switchyards shall be implemented by the TSP

Note:

- i. The 1250 MW pole-1 shall emanate from 400 kV bus section 1 of KPS3 (HVDC) and terminate at South Olpad S/s. Similarly, the 1250 MW pole-2 shall emanate from 400 kV bus section 2 of KPS3 (HVDC) and terminate at South Olpad S/s.
- ii. HVDC System will be designed with 100% power reversal capability as well as black start, automatic grid restoration & dynamic reactive power support capability.
- iii. The rated power transmission capacity as well as the rated transmission voltage shall be defined and guaranteed at the rectifier end of the AC yard.
- iv. TSP of KPS3 shall provide space for scope at Sl. No. 4 as per the above scope
- v. TSP of South Olpad S/s shall provide space for scope at Sl. No. 2 as per above scope
- vi. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- vii. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.



3.4 400 kV Western Region Network Expansion scheme in Kallam area of Maharashtra

3.4.1 Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra is presently under implementation by Kallam Transmission Ltd. (expected by Oct'23). 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 injection of additional 1 GW at 220 kV level of Kallam PS.

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 (2 GW at 220 kV level and 1.25 GW at 400 kV level) from Kallam PS. The subject Transmission system shall enable evacuation of upto 3.25 GW power from Kallam PS.

3.4.2 CTUIL stated that generally a minimum implementation schedule of 24 months is specified for transmission schemes. However, as a special case, considering the small length of LILO line and no visible forest/wildlife involvement, reduced implementation time-frame of 18 months may be specified in this case in order to match the commissioning of transmission scheme and associated RE generation.

3.4.3 After detailed deliberations, it was decided that the transmission scheme Western Region Network Expansion scheme in Kallam area of Maharashtra, will be implemented under TBCB route with an implementation timeframe of 18 months.

3.4.4 Summary of the scheme is as given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Western Region Network Expansion scheme in Kallam area of Maharashtra. Tentative Implementation timeframe: 18 months from SPV transfer	160	Approved to be implemented through TBCB route.

3.4.5 Detailed scope of the scheme is given below:

Scope of the Transmission Scheme	Capacity/ Route length
LILO of both circuits of Parli(M) – Karjat(M)/Lonikand-II (M) 400 kV D/c	LILO route length~ 15 km.



	line (twin moose) at Kallam PS	
	24 Nos. 400 kV line bays at Kallam PS for LILO of both circuits of Parli(M) – Karjat(M)/Lonikand-II(M) 400 kV D/c line (twin moose) at Kallam PS	400 kV line bays (AIS) – 4 Nos. (for Kallam PS end)
	63 MVAR, 420 kV switchable line reactor (with NGR bypassing arrangement) on each ckt at Kallam PS end of Karjat – Kallam 400 kV D/c line (~140km.)	63 MVAR, 420 kV switchable line reactor including Switching equipment - 2 Nos. (at Kallam end)

Note:

- i. TSP of Kallam PS (Kallam Transmission Ltd.) shall provide requisite space at Kallam PS for above scope of work
- ii. The 50 MVAR fixed line reactor on each ckt at Parli (M) end of Kallam – Parli (M) 400 kV D/c line shall be converted into switchable (with NGR bypass arrangement & provision of inter-tripping scheme to trip the line reactors along with the main line breakers) by MSETCL in matching time-frame of the above scheme. MSETCL vide email dated 08.06.2023 has informed that conversion of fixed 50 MVAR line reactor at 400 kV Parli (M) (Girwali) end into switchable reactor is feasible.
- iii. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- iv. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.



3.5 Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex)

3.5.1 The transmission scheme was earlier proposed for evacuation of about 7.5 GW power from Jaisalmer/Barmer Complex. The scheme was deliberated in the 12th NCT meeting held on 24.03.23. In the meeting, various issues like system strength (SCR), requirement of Barmer-I PS as well as high angular separation in the proposed 765 kV Jalore-Mandsaur D/C (length 320 kms) inter-regional transmission line were raised. Subsequently, various joint study meetings were held for review and phasing of transmission scheme among CEA, CTUIL and GRID-INDIA and revised studies were carried out.

3.5.2 Accordingly, revised studies were carried out incorporating the increased electricity demand of Rajasthan as suggested by Grid-India, and it was observed that the transmission system was adequate for evacuation of about 5.5 GW RE power (solar) in summer & winter scenario.

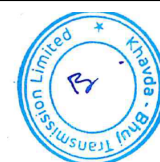
3.5.3 The modified transmission scheme was discussed and agreed in the 65th NRPC meeting held on 21.04.23. The scheme was further agreed in the 46th WRPC meeting held on 03.02.23.

3.5.4 Further, transmission scheme for evacuation of power from Neemuch/Mandsaur 2 GW WEZ was proposed as transmission system in Western Region whereas creation of Mandsaur 765 kV S/s was envisaged as a part of Rajasthan REZ Ph-IV (Part-2) Scheme. As deliberated in the 12th NCT meeting, it was decided to combine the transmission scheme for Neemuch/Mandsaur with Rajasthan Ph-IV Part- C Scheme which involves the creation of 765 kV Mandsaur S/s.

3.5.5 GRID-INDIA requested to review the reactive compensation of Sirohi PS - Rishabdeo 765 kV D/c line (170 km) and Rishabdeo - Mandsaur 765 kV D/c (160 km) line as reactive compensation seemed to be on the higher side. CTUIL stated that with the proposed line length reactive compensation on Sirohi PS- Rishabdeo 765 kV D/c line is about 73% and Rishabdeo-Mandsaur 765 kV D/c is about 78%. CTUIL also mentioned that in view of high voltages in night off-peak scenario specially for RE evacuation lines, reactive compensation is to be kept adequate to address reactive management issues, however, it was observed that the reactive compensation on Rishabdeo-Mandsaur 765 kV D/c line is about 78% which has some scope for reduction. Grid-India stated that if possible, reactive compensation of Rishabdeo-Mandsaur 765 kV D/c line may be reduced. Hence, it was decided that 330 MVAR line reactor at Rishabdeo end on above line may be replaced with 240 MVAR reactor.

3.5.6 After detailed deliberations, the following was decided w.r.t. the transmission schemes:

Sl. No.	Scheme	Remarks
1.	Part A	TBCB
2.	Part B	TBCB



3.	Part C	Scheme of 2 GW Neemuch / Mandsaur to be merged with Part C. Combined scheme to be implemented under TBCB.
4.	Part D	TBCB
5.	Part E	TBCB
6.	Part F1	Part F1 and F2 to be combined. Combined scheme (Part F i.e. Part F1+F2) to be implemented under TBCB.
7.	Part F2	
8.	Part G	Deferred. To be taken up based on GIB clearance of dedicated transmission line associated with RE generation at Fatehgarh-II PS along with GIB clearance of Fatehgarh-II PS- Bhadla-III PS 400 kV D/C line
9.	Part H1	TBCB
10.	Part H2	RTM

3.5.7 Part A: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part A Tentative Implementation timeframe: 24 months from SPV transfer	2,206	Recommended to be implemented through TBCB route.

3.5.8 Detailed scope of Part A scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Establishment of 4x1500 MVA, 765/400 kV & 5x500 MVA, 400/220 kV Fatehgarh-IV (Section-2) Pooling Station along with 2x240 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor [Future space provisions already approved at Fatehgarh-IV in 8 th NCT meeting dated 25.03.22 would be utilized for the present scheme]	<ul style="list-style-type: none"> 765/400 kV, 1500 MVA ICT- 4 Nos. (13x500 MVA including one spare unit) 765 kV ICT bays- 4 Nos. 240 MVAR, 765 kV Bus Reactor- 2 Nos. (7x80 MVAR including one spare unit) 765 kV Bus reactor bays-2 Nos. 765 kV line bays - 4 Nos. [for LILO of Fatehgarh-III - Beawer 765 kV D/c (2nd) line at Fatehgarh-IV (Section-2) PS] 400/220 kV, 500 MVA ICT -5 Nos. 400 kV ICT bays- 9 Nos. 400 kV line bays - 2 Nos. [For Fatehgarh-IV (Sec-2) - Bhinmal (PG) D/c line] 125 MVAR, 420 kV Bus Reactor-2 Nos. 400 kV Bus reactor bays- 2 Nos.



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
		<ul style="list-style-type: none"> • 400 kV Sectionalisation bay: 1 set • 220 kV ICT bays- 5 Nos. • 220 kV line bays: 6 Nos. (for RE connectivity) • 220 kV BC (2 Nos.) and 220 kV TBC (2 Nos.) • 220 kV Sectionalisation bay: 1 set
2	Fatehgarh-IV (Section-2) PS – Bhinmal (PG) 400 kV D/c line (Twin HTLS) along with 50 MVAR switchable line reactor on each ckt at each end	Route Length: 200 km <ul style="list-style-type: none"> • 50 MVAR, 420 kV switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. • 50 MVAR, 420 kV, switchable line reactors at Bhinmal (PG) – 2 Nos. • Switching equipment for 420 kV, 50 MVAR switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. • Switching equipment for 420 kV, 50 MVAR switchable line reactors at Bhinmal (PG) – 2 Nos.
3	LILO of both ckts of 765 kV Fatehgarh-III- Beawar D/c line (2nd) at Fatehgarh-IV (Section-2) PS along with 330 MVAR switchable line reactor at Fatehgarh-IV PS end of each ckt of 765 kV Fatehgarh-IV-Beawar D/c line (formed after LILO)	LILO length: 15 km <ul style="list-style-type: none"> • 330 MVAR, 765 kV switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. • Switching equipment for 330 MVAR, 765 kV switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. • 110 MVAR (765 kV) spare reactor single phase unit at Fatehgarh-IV (Section-2) PS end – 1 No.
4	2 Nos. of 400 kV line bays at Bhinmal (PG)	400 kV line bays - 2 Nos.

Note:

- Transmission system for evacuation of about 2 GW RE power from REZ in Rajasthan (20 GW) under Phase-III Part A1 at Fatehgarh-IV (Section-1) is under bidding.
- Transmission system under Phase-IV (Part 2) is for evacuating 4-5 GW RE potential at Fatehgarh-IV (Section 2), which is utilising the future provision (approved in 8th NCT meeting dated 25.03.22) at Fatehgarh-IV approved under Phase-III scheme.
- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- POWERGRID to provide space for 2 Nos. of 400 kV line bays at Bhinmal (PG) along with the space for switchable line reactors without any cost implications.
- Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned
- Switchable line reactors to be implemented with NGR bypass arrangement.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.



3.5.9 Part B: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part B Tentative Implementation timeframe: 24 months from SPV transfer	3,279	Recommended to be implemented through TBCB route.

3.5.10 Detailed scope of Part B scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Establishment of 2x1500 MVA, 765/400 kV Substation at suitable location near Sirohi along with 2x240 MVAR (765 kV) & 2x125 MVAR (420 kV) Bus Reactor Future provisions: Space for <ul style="list-style-type: none"> 765/400 kV ICT along with bays- 4 Nos. 765 kV line bays along with switchable line reactors – 10 Nos. 765 kV Bus Reactor along with bay: 1 Nos. 400 kV line bays along with switchable line reactor –4 Nos. 400 kV line bays –4 Nos. 400 kV Bus Reactor along with bay: 1 No. 400 kV Sectionalization bay: 2 sets 400/220 kV ICT along with bay - 6 Nos. 220 kV line bays -10 Nos. 220 kV Sectionalization bay: 2 sets 220 kV BC (3 Nos.) & TBC (3 Nos.) STATCOM (2x±300 MVAR) along with MSC (4x125 MVAR) & MSR (2x125 MVAR) along with two number 400 kV bays. 	<ul style="list-style-type: none"> 765/400 kV, 1500 MVA ICT- 2 Nos. (7x500 MVA including one spare unit) 765 kV ICT bays-2 Nos. 240 MVAR, 765 kV Bus Reactor-2 Nos. (7x80 MVAR including one spare unit) 765 kV Bus reactor bays-2 Nos. 765 kV line bays- 2 Nos. [for D/c line to Fatehgarh-IV (Section-2) PS] 400 kV ICT bays- 2 Nos. 400 kV line bays - 2 Nos. [for D/c line to Chittorgarh (PG) S/s] 125 MVAR, 420 kV Bus Reactor-2 Nos. 400 kV Bus reactor bays- 2 Nos.
2	Fatehgarh-IV (Section-2) PS – Sirohi PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end	Route Length – 240 km <ul style="list-style-type: none"> 765 kV, 240 MVAR switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. 765 kV, 240 MVAR switchable line reactors



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
		at Sirohi PS– 2 Nos. <ul style="list-style-type: none"> Switching equipment for 765 kV, 240 MVAR switchable line reactors at Fatehgarh-IV (Section-2) PS – 2 Nos. Switching equipment for 765 kV, 240 MVAR switchable line reactors at Sirohi PS – 2 Nos.
3	Sirohi PS-Chittorgarh (PG) 400 kV D/c line (Quad) along with 80 MVAR switchable line reactor for each circuit at Sirohi PS end	Route Length ~160 km <ul style="list-style-type: none"> 420 kV, 80 MVAR switchable line reactors at Sirohi PS – 2 Nos. Switching equipment for 420 kV, 80 MVAR switchable line reactors at Sirohi PS – 2 Nos.
4	2 No. of 400 kV line bays at Chittorgarh (PG) S/s	400 kV line bays at Chittorgarh (PG) S/s - 2 Nos.
5	2 No. of 765 kV line bays at Fatehgarh-IV (Section-2) PS	765 kV line bays at Fatehgarh-IV (Section-2) PS – 2 Nos.

Note:

- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- POWERGRID to provide space for 2 Nos. of 400 kV line bays at Chittorgarh (PG).
- Developer of Fatehgarh-IV S/s (Section-2) to provide space for 2 Nos. of 765 kV line bays at Fatehgarh-IV(Section-2) PS along with the space for switchable line reactor
- Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned
- Switchable line reactors to be implemented with NGR bypass arrangement.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.5.11 Part C: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part C Tentative Implementation timeframe: 24 months from SPV transfer	2,708	Recommended to be implemented through TBCB route.



3.5.12 Detailed scope of Part C scheme is given:

S l o o	Scope of the Transmission Scheme	Capacity/ Route length
	<p>Establishment of 3x1500 MVA, 765/400 kV & 5x500 MVA, 400/220 kV Mandsaur Pooling Station along with 2x330 MVAR (765 kV) Bus Reactors & 2x125 MVAR, 420 kV Bus Reactor</p> <p>Future Provisions:</p> <p>Space for:</p> <ul style="list-style-type: none"> • 765/400 kV ICT along with bays- 3 No. • 765 kV line bays along with switchable line reactors – 12 Nos. • 765 kV Bus Reactor along with bay: 2 No. • 765 kV Sectionalizer bay: 1 -set • 400 kV line bays along with switchable line reactor – 12 Nos. • 400/220 kV ICT along with bays -5 Nos. • 400 kV Bus Reactor along with bay: 2 No. • 400 kV Sectionalization bay: 1- set • 220 kV line bays: 11 Nos. • 220 kV Sectionalization bay: 1 set • 220 kV BC and TBC: 1 Nos. • STATCOM (\pm 300 MVAR) along with MSC (2x125 MVAR) & MSR (1x125 MVAR) along with one 400 kV bay. 	<p>765/400 kV, 1500 MVA ICT – 3 Nos. (10x500 MVA single phase units including one spare unit)</p> <p>400/220 kV, 500 MVA ICT – 5 Nos. (3 Nos. on 220 kV bus section-1 & 2 Nos. on 220 kV bus section-2)</p> <p>765 kV ICT bays – 3 Nos.</p> <p>400 kV ICT bays – 8 Nos.</p> <p>330 MVAR 765 kV bus reactor-2 Nos. (7x110 MVAR single phase units including one spare unit)</p> <p>765 kV bus reactor bay- 2 Nos.</p> <p>765 kV line bay- 2 Nos. (for Indore line)</p> <p>80 MVAR, 765 kV, 1-ph reactor (spare unit)-1 No.</p> <p>125 MVAR, 420 kV bus reactor-2 Nos.</p> <p>400 kV reactor bay- 2 Nos.</p> <p>220 kV ICT bays – 5 Nos.</p> <p>220 kV line bays – 7 Nos. (4 Nos. on bus section-1 and 3 Nos. on bus section-2)</p> <p>220 kV Bus Sectionalizer – 1 set</p> <p>220 kV TBC bay – 2 Nos.</p> <p>220 kV BC bay – 2 Nos.</p>
	Mandsaur PS – Indore(PG) 765 kV D/c Line	Route Length ~ 200 km
	3x330 MVAR switchable line reactor (SLR) on each ckt at Mandsaur end of Mandsaur PS – Indore(PG) 765 kV D/c Line	<ul style="list-style-type: none"> • 330 MVAR, 765 kV switchable line reactor- 2 Nos. • Switching equipment for 765 kV line reactor- 2 Nos.
	4 Nos. of 765 kV line bays at Indore(PG) for termination of Mandsaur PS – Indore(PG) 765 kV D/c Line	<ul style="list-style-type: none"> • 765 kV line bays – 2 Nos. (for Indore (PG) end)

Note:

- The line lengths mentioned above are approximate as the exact length shall be obtained after detailed survey
- POWERGRID to provide space for 2 Nos. of 765 kV line bays at Indore S/s



- iii. Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned
- iv. Switchable line reactors to be implemented with NGR bypass arrangement
- v. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.5.13 Part D: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part D Tentative Implementation timeframe: 24 months from SPV transfer	2,227	Recommended to be implemented through TBCB route.

3.5.14 Detailed scope of Part D scheme is given below:

S. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Beawar- Mandsaur PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end	Route Length – 260 km <ul style="list-style-type: none"> 765 kV, 240 MVAR switchable line reactors at Beawar – 2 Nos. 765 kV, 240 MVAR switchable line reactors at Mandsaur PS – 2 Nos. Switching equipment for 765 kV, 240 MVAR switchable line reactors at Beawar – 2 Nos. Switching equipment for 765 kV, 240 MVAR switchable line reactors at Mandsaur PS – 2 Nos.
2	2 No. of 765 kV line bays each at Beawar S/s & Mandsaur S/s	765 kV line bays - 4 Nos. (2 Nos. each at Beawar S/s and Mandsaur PS)

Note:

- i. The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- ii. Developer of Mandsaur PS to provide space for 2 Nos. of 765 kV line bays at Mandsaur S/s along with the space for switchable line reactor.
- iii. Developer of Beawar S/s to provide space for 2 Nos. of 765 kV line bays at Beawar S/s along with the space for switchable line reactor.
- iv. Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned
- v. Switchable line reactors to be implemented with NGR bypass arrangement
- vi. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.



3.5.15 Part E: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part E Tentative Implementation timeframe: 24 months from SPV transfer	3,251	Recommended to be implemented through TBCB route.

3.5.16 Detailed scope of Part E scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Establishment of 765 kV Substation at suitable location near Rishabdeo (Distt. Udaipur) along with 2x240 MVAR (765 kV) Bus Reactor Future Provisions: Space for <ul style="list-style-type: none"> ➤ 765/400 kV ICT along with bays- 5 No. along with spare unit ➤ 765 kV line bays along with switchable line reactors – 6 Nos. ➤ 765 kV Bus Reactor along with bay: 1 No. ➤ 400 kV line bays along with switchable line reactor – 4 Nos. ➤ 400 kV line bays – 4 Nos. ➤ 400 kV Bus Reactor along with bay: 3 Nos. ➤ 400 kV Sectionalization bay: 2 sets ➤ 400/220 kV ICT along with bay - 6 Nos. ➤ 220 kV line bays -10 Nos. ➤ 220 kV Sectionalization bay: 2 sets ➤ 220 kV BC (3 Nos.) & TBC (3 Nos.) ➤ STATCOM (2 x ±300MVAR) along with MSC (4x125 MVAR) & MSR (2x125 MVAR) along with two number 400 kV bays. 	<ul style="list-style-type: none"> • 240 MVAR, 765 kV Bus Reactor- 2 Nos. (7x80 MVAR including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 765 kV line bays - 6 Nos. [for 765 kV Sirohi PS- Rishabdeo – Mandsaur D/c line and LILO of one circuit of 765 kV Chittorgarh-Banaskanta D/c line at Rishabdeo S/s]
2	Sirohi PS- Rishabdeo 765 kV D/c line along with 330 MVAR switchable line reactor for each circuit at Sirohi end	Route Length – 170 km <ul style="list-style-type: none"> • 765 kV, 330 MVAR switchable line reactors at Sirohi PS– 2 Nos. • Switching equipment for 765 kV, 330 MVAR switchable line reactors at Sirohi PS– 2 Nos. • 110 MVAR (765 kV) spare reactor single phase unit at Sirohi PS – 1 No.
3	Rishabdeo - Mandsaur PS 765 kV D/c line along with 240 MVAR switchable line reactor	Route Length – 160 km



	for each circuit at Rishabdeo end	<ul style="list-style-type: none"> • 765 kV, 240 MVAR switchable line reactors at Rishabdeo – 2 Nos. • Switching equipment for 765 kV, 240 MVAR switchable line reactors at Rishabdeo – 2 Nos.
4	LILO of one circuit of 765 kV Chittorgarh-Banaskanta D/c line at Rishabdeo S/s (20 km)	LILO route length~ 20 km
5	2 No. of 765 kV line bays each at Sirohi PS & Mandsaur S/s	<ul style="list-style-type: none"> • 765 kV line bays – 4 Nos. (2 Nos. each at Sirohi PS & Mandsaur PS)

Note:

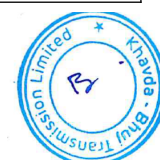
- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- Developer of Sirohi PS to provide space for 2 Nos. of 765 kV line bays at Sirohi PS along with the space for switchable line reactors, including spare unit.
- Developer of Mandsaur PS to provide space for 2 Nos. of 765 kV line bays at Mandsaur PS.
- Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned
- Switchable line reactors to be implemented with NGR bypass arrangement.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.5.17 Part F: Summary (by clubbing F1 & F2 Schemes)

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part F Tentative Implementation timeframe: 24 months from SPV transfer	2,735	Recommended to be implemented through TBCB route.

3.5.18 Detailed scope of Part F scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1	Establishment of 3x1500 MVA, 765/400 kV & 2x500 MVA, 400/220 kV Barmer-I Pooling Station along with 2x240 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor Future provisions: Space for ➤ 765/400 kV ICT along with bays- 3 No. ➤ 765 kV line bays along with switchable	<ul style="list-style-type: none"> • 765/400 kV, 1500 MVA ICT- 3 Nos. (10x500 MVA including one spare unit) • 765 kV ICT bays-3 Nos. • 240 MVAR, 765 kV Bus Reactor-2 Nos. (7x80 MVAR, including one spare unit) • 765 kV Bus reactor bays-2 Nos. • 765 kV line bays- 2 Nos. (for D/c line to Sirohi PS) • 400/220 kV, 500 MVA ICT -2 Nos. • 400 kV ICT bays- 5 Nos.



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
	line reactors – 4 Nos. ➤ 765 kV Bus Reactor along with bay: 1 No. ➤ 400 kV line bays –4 ➤ 400 kV line bays along with switchable line reactor –4 Nos. ➤ 400/220 kV ICT along with bays -8 Nos. ➤ 400 kV Bus Reactor along with bay: 1 No. ➤ 400 kV Sectionalization bays: 2 sets ➤ 220 kV line bays for connectivity of RE Applications -10 Nos. ➤ 220 kV Sectionalization bay: 3 sets ➤ 220 kV BC (3 Nos.) & TBC (3 Nos.) ➤ STATCOM (2x±300 MVAR) along with MSC (4x125 MVAR) & MSR (2x125 MVAR) along with two number 400 kV bays	<ul style="list-style-type: none"> • 125 MVAR, 420 kV Bus Reactor-2 Nos. • 400 kV Bus reactor bays- 2 Nos. • 400 kV line bays - 2 Nos. [for D/c line to Fatehgarh-III(Section-2) PS] • 220 kV ICT bays- 2 Nos. • 220 kV line bays: 4 Nos. (for RE connectivity) • 220 kV BC (1 No.) & TBC (1 No.)
2	Fatehgarh-III (Section-2) PS – Barmer-I PS 400 kV D/c line (Quad)	Route Length ~50 km
3	Barmer-I PS– Sirohi PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end	Route Length ~ 200 km <ul style="list-style-type: none"> • 765 kV, 240 MVAR switchable line reactors at Barmer-I PS – 2 Nos. • 765 kV, 240 MVAR switchable line reactors at Sirohi PS – 2 Nos. • Switching equipment for 765 kV 240 MVAR switchable line reactors at Barmer-I PS – 2 Nos. • Switching equipment for 765 kV 240 MVAR switchable line reactors at Sirohi PS – 2 Nos.
4	2 No. of 400 kV line bays at Fatehgarh-III (Section-2) PS	400 kV line bays at Fatehgarh-III (Section-2) PS - 2 Nos.
5	2 No. of 765 kV line bays at Sirohi PS	765 kV line bays at Sirohi PS – 2 Nos.

Note:

- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey
- Developer of Sirohi PS to provide space for 2 Nos. of 765 kV line bays at Sirohi PS along with the space for switchable line reactor.
- Developer of Fatehgarh-III PS (Section-2) to provide space for 2 Nos. of 400 kV line bays at Fatehgarh-III PS (Section-2).
- Switchable line reactors to be implemented with NGR bypass arrangement
- Implementation of A, B, C, D, E, F, H1, H2 packages shall be aligned.



- vi. The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.5.19 Part G: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part G Augmentation by 1x1500 MVA, 765/400 kV ICT at Fatehgarh-II PS	132	The scheme was agreed to be deferred and it was decided that the scheme would be taken up for implementation in the matching timeframe of Fatehgarh-II PS- Bhadla 3 PS 400 kV D/c line, once the transmission line is approved by the GIB Committee constituted by Hon'ble Supreme Court Committee.

3.5.20 Part H1: Summary

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part H1 Tentative Implementation timeframe: 24 months from SPV transfer	3,674	Recommended to be implemented through TBCB route.

3.5.21 Detailed scope of Part H1 scheme is given below:

Sl. No.	Scope of the Transmission Scheme	Capacity / line length km
1.	Establishment of 765/400 kV (2x1500 MVA), 400/22 kV (2x500 MVA) & 220/132 kV (3x200 MVA) Kurawar S/s with 2x330 MVAR 765	<ul style="list-style-type: none"> 765/400 kV, 1500 MVA ICT – 2 (7 single units of 500 MVA including one spare unit) 400/220 kV, 500 MVA ICT – 2



S N o	Scope of the Transmission Scheme	Capacity / line length km
	<p>kV bus reactor and 1x125 MVAR, 420 kV bus reactor.</p> <p>Future Provisions:</p> <p>Space for</p> <ul style="list-style-type: none"> • 765/400 kV ICT along with bays- 4 no. • 765 kV line bays along with switchable line reactors – 8 nos. • 765 kV Bus Reactor along with bay: 2 no. • 765 kV Sectionalizer bay: 1 -set • 400 kV line bays along with switchable line reactor – 8 nos. • 400/220 kV ICT along with bays -6 nos. • 420 kV Bus Reactor along with bay: 3no. • 400 kV Sectionalization bay: 1- set • 220 kV line bays: 12 nos. • 220 kV Sectionalization bay: 1set • 220 kV BC and TBC: 1 no. • 220/132 kV ICT along with bays: 5 Nos. • 132 kV line bays: 16 nos. • 132 kV Sectionalization bay: 1 set • 132 kV TBC– 1 no. • STATCOM (± 300 MVAR) along with MSC (2x125 MVAR) & MSR (1x125 MVAR) along with 400 kV bay. 	<ul style="list-style-type: none"> • 220/132 kV, 200 MVA ICT – 3 • 765 kV ICT bays- 2 • 400 kV ICT bays- 4 • 220 kV ICT bays – 5 • 132 kV ICT bays - 3 • 330 MVAR 765 kV bus reactor-2 • 125 MVAR 420 kV bus reactor-1 • 765 kV reactor bay- 2 • 765 kV line bays- 4 • 400 kV line bays- 4 • 400 kV reactor bay- 1 • 220 kV BC – 1 • 220 kV TBC – 1 • 132 kV TBC – 1 • 110 MVAR, 765 kV, 1-ph reactor (spare unit)-1 • 80 MVAR, 765 kV, 1-ph reactor (spare unit)-1
2	Mandsaur – Kurawar 765 kV D/c line	Route length: 235 km
3	240 MVAR switchable line reactors on each ckt at both ends of Mandsaur – Kurawar 765 kV D/c line	<ul style="list-style-type: none"> • 240 MVAR, 765 kV switchable line reactor- 4 (2 for Mandsaur end and 2 for Kurawar end) • Switching equipment for 765 kV line reactor- 4 (2 for Mandsaur end and 2 for Kurawar end)
4	2 nos. of 765 kV line bays at Mandsaur S/s for termination of Mandsaur – Kurawar 765 kV D/c line	<ul style="list-style-type: none"> • 765 kV line bays – 2 Nos. (for Mandsaur end)
5	LILO of Indore – Bhopal 765 kV S/c line at Kurawar	LILO route length: 15 km.
6	Kurawar – Ashtha 400 kV D/c (Quad	Route length: 65 km



S l o o	Scope of the Transmission Scheme	Capacity / line length km
	ACSR/AAAC/AL59 moose equivalent) line	
	2 nos. of 400 kV line bays at Ashtha (MP) S/s for termination of Kurawar – Ashtha 400 kV D/c line	400 kV line bays – 2 Nos. [for Ashtha (MP) end]
	LILO of one circuit of Indore – Itarsi 400 kV D/c line at Astha	LILO route length: 30 km
	2 nos. of 400 kV line bays at Ashtha (MP) S/s for LILO of one circuit of Indore – Itarsi 400 kV D/c line at Astha	400 kV line bays – 2 Nos. [for Ashtha (MP) end]
	Shujalpur – Kurawar 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line	Route length: 40 km
	2 nos. of 400 kV line bays at Shujalpur(PG) S/s for termination of Shujalpur – Kurawar 400 kV D/c line	400 kV line bays – 2 Nos. [for Shujalpur (PG) end]

Note:

- The line lengths mentioned above are approximate as the exact length shall be obtained after the detailed survey.
- MPPTCL has confirmed availability of space for 2 nos. 400 kV bays at Ashta (MP) S/s and for 2 nos. additional bays, MPPTCL has informed that adjacent land is private land and may be purchased by the project developer at their cost as per requirement.
- Implementation of A,B,C,D, E ,F, H1 & H2 packages shall be aligned
- TSP of the subject scheme shall implement Inter-tripping scheme on Mandsaur – Kurawar 765 kV D/c line (for tripping of the switchable line reactor at Mandsaur/Kurawar end along with the main line breaker).
- Switchable line reactors to be implemented with NGR bypass arrangement
- Developer of Mandsaur S/s to provide space for 2 Nos. 765 kV line bays for Mandsaur – Kurawar 765 kV D/c line.
- POWERGRID to provide space for 2 Nos. 400 kV line bays at Shujalpur S/s for Shujalpur – Kurawar 400 kV D/c line.
- The implementation timeline mentioned above is tentative. Final Timeline would be indicated in the RfP Document.

3.5.22 Part H2: Summary

Sl. No.	Name of the scheme and	Estimated Cost	Remarks
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	implementation timeframe	(₹ Crores)	
1.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part H2</p> <p>Provision of NGR bypass arrangement and inter tripping scheme on 240 MVAR SW LR at Bhopal end of Kurawar – Bhopal 765 kV S/c line (~60 km.): Part H2</p> <p>Implementation timeframe: In matching timeframe of H1 Scheme</p>	0.45	To be awarded under RTM to BDTCL i.e. the TSP owing the Indore – Bhopal 765 kV S/c line .

3.5.23 Detailed scope of Part H2 scheme is given below:

S l o o	Scope of the Transmission Scheme	Capacity/ Route length
1	Provision of NGR bypass arrangement and inter tripping scheme on 240 MVAR Switchable Line Reactor at Bhopal end of Kurawar – Bhopal 765 kV S/c line (~Route length: 60 km)	NGR bypass arrangement and inter tripping scheme (Bhopal end)



3.6 Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater to connectivity of RE Gencos.

3.6.1 To connect 6 number of RE generators (Inox, Vadava Desalpar, Narayanpar, Adani Ratadia, Renew Power, Alfannar Energy) directly to existing FOTE at Control Room of Bhuj PS maintaining MSP (1+1) and for making independent connectivity for upcoming generators at this station, Additional STM-16 capacity SDH equipment is required

3.6.2 The “Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater connectivity of RE Gencos”, has been deliberated in 46th TCC/ WRPC meeting. WRPC concurred the proposal of “Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater connectivity of RE Gencos” at an estimated cost of Rs 60 Lacs.

3.6.3 After detailed deliberations, the scheme was approved to be implemented under RTM route by POWERGRID.

3.6.4 Summary of the scheme is given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater to connectivity of RE Gencos Implementation timeframe: 12 months from date of allocation	0.6	Approved to be implemented under RTM route by POWERGRID

3.6.5 Detailed Scope of the Scheme is given below:

Sl. No.	Scope of the Scheme	Estimated Cost
1.	Supply and installation of 01 number 10 MSP (1+1) FOTE or 02 No. 5 MSP (1+1) FOTE (STM-16 capacity) at Bhuj PS.	Rs. 60 Lakhs



3.7 Requirement of additional FOTE of STM-16 capacity at Bhuj-II substation to cater connectivity of RE Gencos.

3.7.1 To connect 6 number of RE generators (Inox, Vadava Desalpar, Narayanpar, Adani Ratadia, Renew Power, Alfannar Energy) directly to existing FOTE at Control Room of Bhuj PS maintaining MSP (1+1) and for making independent connectivity for upcoming generators at this station, Additional STM-16 capacity SDH equipment is required

3.7.2 The “Requirement of additional FOTE of STM-16 capacity at Bhuj II to cater connectivity of RE Gencos”, has been deliberated in 46th TCC/ WRPC meeting. WRPC concurred the proposal of “Requirement of additional FOTE of STM-16 capacity at Bhuj II to cater connectivity of RE Gencos” at estimated cost of Rs 30 Lacs.

3.7.3 After detailed deliberations, the scheme was approved to be implemented under RTM mode by M/s PBTL.

3.7.4 Summary of the scheme is given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Requirement of additional FOTE of STM-16 capacity at Bhuj-II substation to cater connectivity of RE Gencos Implementation timeframe: 12 months from date of allocation	0.3	Approved to be implemented under RTM mode by M/s PBTL

3.7.5 Detailed Scope of the Scheme is given below:

Sl. No.	Scope of the Scheme	Estimated Cost
1.	Supply and installation of 01 number 5 MSP (1+1) FOTE (STM-16 capacity) at Bhuj-II station.	Rs. 30 Lakhs



3.8 Congestion in ISTS communication link via Dehgam- Ranchhodpura- Santhalpur- Bhachau- Mundra

3.8.1 The communication link via Dehgam-Ranchhodpura-Santhalpur-Bhachau-Mundra was at STM-4 level. Further, this link was extended through Mundra-Bhuj-Santhalpur Repeater-Banaskantha at STM-16 level. The owner of these stations is POWERGRID. This communication network is being used for routing the data Bhuj-PS, Bhuj-II, Lakadia, CGPL Mundra and various RE generators connected to these stations to WRLDC/NLDC. Communication link via Dehgam-Ranchhodpura-Santhalpur repeater-Banaskantha is also used for routing inter regional data between WR-NR.

As on date, the STM-4 level bandwidth on Dehgam-Ranchhodpura-Santhalpur Repeater is almost 100% utilized and on Santhalpur repeater-Bhachau-Mundra is 75% utilized. Outage of these lines affects the telemetry of the entire Bhuj location and CGPL Mundra.

3.8.2 The “Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Repeater, Bhachau and CGPL Mundra to STM-16 capacity”, has been deliberated in 46th TCC/ WRPC meeting held on 02-03 Feb 2023. WRPC concurred the proposal of “Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Rep, Bhachau and CGPL Mundra to STM-16 capacity” at estimated cost of Rs 1.5 Cr.

3.8.3 After detailed deliberations, the scheme was approved to be implemented under RTM route by POWERGRID.

3.8.4 Summary of the scheme is given below:

Sl. No.	Name of the scheme and implementation timeframe	Estimated Cost (₹ Crores)	Remarks
1.	Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Rep, Bhachau and CGPL Mundra to STM-16 capacity. Implementation timeframe: 12 months from date of allocation	1.5	Approved to be implemented under RTM route by POWERGRID

3.8.5 Detailed Scope of the Scheme is given below:

Scope of the Scheme	Estimated Cost
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1. Supply and installation of 5 No. STM-16 SDH, 5 MSP (1+1) for all the below mentioned stations- a) Dehgam b) Ranchhodpura c) Santhalpur Repeater d) Bhachau e) CGPL Mundra	Rs. 1.5 Cr.
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3.9 Transmission scheme for evacuation of power from Neemuch/Mandsaur 2 GW WEZ

3.9.1 SECI vide letter dated 23.06.2022 has informed that in order to provide round the clock (RTC) Power (with wind, solar and storage components), they have identified certain locations with high solar and wind potential where work on RE evacuation system may be taken up immediately. 2 GW Wind Potential at Neemuch/Mandsaur is one such prioritized RE Zone.

3.9.2 Accordingly, scheme was evolved to cater to the evacuation of power from Neemuch/Mandsaur 2 GW WEZ and was discussed in the 12th NCT meeting held on 24.03.2023. During the meeting, the establishment of 765 kV Mandsaur Pooling Station [Under Transmission system for Rajasthan REZ Phase-IV Part-2 (5.5 GW)] was agreed to be reviewed and it was decided that the proposal of creation of 400 kV and 220 kV levels at Mandsaur PS (under the subject scheme), would also be reviewed along with 765 the kV Pooling Station at Mandsaur.

3.9.3 After detailed deliberations, it was decided that the scheme shall be merged with Part C of the Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex) and would be implemented under TBCB route. Please refer para 3.5.

3.10 Change in implementation timeline of STATCOM and HVDC

3.10.1 Siemens and TATA Power had requested to increase the timeline of commissioning of STATCOMs from 24 months to 30 months on account of increased delivery period of Power Electronics, Control Cards, Air Core Reactors, Valve Cooling systems etc. globally e.g. for $\pm 2 \times 300$ MVAR STATCOM at any sub-station, time frame for implementation of STATCOMs to be as given below, in place of 24 months:

- ± 300 MVAR (1st): 24 months
- ± 300 MVAR (2nd): 30 months



3.10.2 After detailed deliberations, it was agreed that the base time shall remain 24 months for 1st STATCOM unit. For further STATCOM units, additional 3 months of time for each unit e.g. 27 months (for 2nd STATCOM unit) will be given.

3.10.3 Chairperson, CEA, stated that the list of components of STATCOM, not being manufactured in India, may be prepared and put up to the Technical Scoping Committee (TSC) Committee under Chairperson, CEA, constituted to inter-alia identify the identify the potential technologies that can be considered for indigenous development in the country, bring out the relevance of the technology for the future power sector. The Committee would in turn make recommendations to the Apex Committee, the High Level Committee under Hon'ble Minister of Power.

3.10.4 Similarly, Hitachi had requested to increase the timeline of commissioning of Bhadla-Fatehpur HVDC from 42 months to 49 months for Bipole I and 54 months for Bipole II, considering the present global uncertainties on supplies of components and their lead time.

After detailed deliberations, it was agreed that the timeline of commissioning of HVDC shall be increased by 06 months for Bipole-II i.e. if implementation timeline is 48 months for Bipole I, it should be 54 months for Bipole-II.

3.10.5 However, the changed timelines for implementation of HVDC & SATCOM schemes would be applicable only to the new schemes brought up in NCT henceforth.

3.10.6 Chairperson, CEA, also stated that rating of HVDC transmission system must be standardised by CEA so that delivery time is reduced.

4 Modification in the earlier approved/notified transmission schemes:

4.1 Transmission system for evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW)

4.1.1 A comprehensive transmission scheme (400 kV Jhangi-Wangtoo-Panchkula D/c Corridor) for evacuation of power from two Hydro Electric Projects (HEPs) viz Tidong (150 MW) of Tidong Power Generation Private Limited (STATKRAFT) and Shongtong Karcham HEP (450 MW) of HPPCL in Himachal Pradesh was evolved. The transmission scheme was approved by MoP based on the recommendation by NCT for implementation through TBCB route. Subsequently, HPPCL had intimated that the commissioning date of Shongtong Karcham HEP (STKHEP) had been revised (preponed) from July'26 to July'25 and requested to review the timelines of the transmission system for evacuation of power from Shongtong Karcham HEP (STKHEP) in Himachal Pradesh due to the revised timeline of commissioning of STKHEP.



4.1.2 The revised scheme was also discussed in the 65th NRPC meeting held on 21.04.2023. During the NRPC meeting, MS, NRPC stated that all efforts may be made to reduce the time frame of the interim part to ensure that the generation is not stranded. Therefore, NRPC Forum recommended NCT to give consideration to generation project schedule and accordingly transmission system may be developed.

4.1.3 In the NCT meeting, CTUIL informed that based on the preliminary survey report for 400 kV Wangtoo-Panchkula D/c line, conductor in certain portion of the transmission line may need to be of different configuration (due to very high altitude encountered in certain sections) in order to avoid Corona inception gradient. The cost of the transmission scheme may also increase. Accordingly, CTUIL was requested to confirm change in conductor configuration if any along with revised cost of the scheme based on the survey report and submit the same within two weeks.

4.2 Revised timeframe of the transmission scheme “Transmission system for evacuation of power from Luhri Stage-I HEP”

4.2.1 The transmission system for evacuation of power from Luhri Stage-I HEP was agreed in the 8th meeting of NCT held on 25.03.2022 with the following scope of works:

Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
1.	Establishment of 7x105 MVA, 400/220 kV Nange GIS Pooling Station along with 125 MVAR (420kV) Bus Reactor at Nange (GIS) PS (1-Ph units along with one spare unit) Future provisions: Space for <ul style="list-style-type: none"> 400/220 kV ICTs (315 MVA with single phase units) along with associated bays: 3 Nos. 400 kV line bays along with switchable line reactor: 3 Nos. 220 kV line bays: 10 nos 	315 MVA, 400/220 kV ICT: 2 Nos. (7x105 MVA including 1 spare ICT) 400 kV ICT bays: 2 Nos. 220 kV ICT bays: 2 Nos. 400 kV, 125 MVAR Bus Reactor-1 No. 400 kV Bus Reactor bay- 1 No. 400 kV Line Bays- 2 Nos.
2.	Nange (GIS) Pooling Station – Koldam 400 kV D/c line (Triple snowbird) (<i>only one circuit is to be terminated at Kol Dam while second circuit would be connected to bypassed circuit of Kol Dam – Ropar/Ludhiana 400 kV D/c line</i>)	Route length: 40 km
3.	1 No. of 400 kV line bay at Koldam S/s for termination of Nange (GIS) Pooling Station – Koldam 400 kV line along with 125 MVAR (420kV) Bus Reactor at Koldam S/s (1-Ph units along with one spare unit)	400 kV Line Bays- 2 Nos. 400 kV, 125 MVAR Bus Reactor-1 No. 400 kV Bus Reactor bay- 1 No.
4.	Bypassing one ckt of Koldam –	



Sl. No.	Scope of the Transmission Scheme	Capacity/ Route length
	Ropar/Ludhiana 400 kV D/c line (Triple snowbird) at Koldam and connecting it with one of the circuit of Nange- Koldam 400 kV D/c line(Triple snowbird), thus forming Nange- Ropar/ Ludhiana one line (Triple snowbird)	
5.	1x50 MVAR switchable line reactor at Ropar end of Nange- Ropar/ Ludhiana 400 kV line	400 kV, 50 MVAR Line Reactor- 1 No. 400 kV Reactor Bay- 1 No.

4.2.2 The above mentioned transmission scheme was notified in Gazette dated 02.06.2022 and RECPDCL was appointed as the BPC of the transmission scheme. The transmission scheme is currently under bidding with the implementation timeframe of 24.04.2025 (in matching timeframe of Luhri Stage-I HEP).

4.2.3 SJVNL vide letter dated 17.02.2023 informed that Luhri Stage-I HEP is likely to be commissioned by August, 2026, hence the time frame of Luhri Stage-I may be considered as 31.08.2026. The same was acknowledged in a meeting convened by CEA on 07.03.2023. Accordingly, it was decided that the timeframe of the transmission scheme “Transmission system for evacuation of power from Luhri Stage-I HEP”, would be revised to 31st August, 2026.

4.2.4 NCT noted the same.

4.3 **Delinking of 400 kV Fatehgarh-II- Bhadla-III D/c line from transmission scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1”**

4.3.1 The transmission scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1” was agreed in the 5th meeting of the NCT held on 25.08.2021 and 02.09.2021, with the following scope of works:

- Establishment of 2x1500 MVA 765/400 kV & 3x500 MVA 400/220 kV pooling station at Bhadla-3
- Fatehgarh-2 PS – Bhadla-3 PS 400 kV D/c line
- Bhadla-3 PS – Sikar-II S/s 765 kV D/c line



- 4.3.2 The above mentioned transmission scheme was notified in the Gazette dated 06.12.2022 and PFCCCL was appointed as the BPC of the transmission scheme. As the transmission scheme is falling under core GIB area, PFCCCL approached the Committee formed by Hon'ble Supreme Court for obtaining the necessary GIB clearance.
- 4.3.3 Subsequently, a meeting was held on 01.05.2023 under the chairmanship of Secretary, MoP, to review the progress of under construction/ under bidding/ planned Transmission Projects for evacuation of Renewable Energy (RE) projects, wherein it was highlighted that the GIB clearance for Fatehgarh-2 PS – Bhadla-3 PS 400 kV D/c line has not been received due to which the bidding process for the transmission scheme is getting delayed. Considering that, Secretary, MoP, directed that the process of delinking of 400 kV Fatehgarh-II- Bhadla-III D/c line from Phase-III Part-B1 may be carried out at the earliest and a separate package may be formed comprising 400 kV Fatehgarh-II- Bhadla III D/c line.
- 4.3.4 The same was deliberated in a meeting convened by CEA on 10.05.2023, wherein PFCCCL (BPC) was requested to delink the 400 kV Fatehgarh-II- Bhadla-III D/c line as directed by Secretary, MoP. Further, it was recommended that for timely completion of the bidding process, bidders may be given 4 weeks of time for bid submission by the BPC, since the transmission scheme (Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1) is already under the bidding process for the past few months and also linked with other transmission schemes under Phase-III.
- 4.3.5 In view of above, the modification in the scope of the transmission scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1” is as follows:

Sl. No.	Existing Scope	Revised Scope
1.	<p>Establishment of 2x1500 MVA 765/400 kV & 3x500 MVA 400/220 kV pooling station at Bhadla-3 along with 2x330 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420kV) Bus Reactor</p> <ul style="list-style-type: none"> 765/400 kV 1500 MVA ICTs: 2 Nos. (7x500 MVA including one spare unit) 765 kV ICT bays - 2 Nos. 400/220 kV, 500 MVA ICT – 3 Nos. 765 kV line bays -2 Nos. 400 kV ICT bays – 5 Nos. 220 kV ICT bays - 3 Nos. 400 kV line bays - 2 Nos. 220 kV line bays: 5 Nos. 330 MVAR Bus Reactor-2 Nos. (7x110 MVAR, including one spare unit) 	<p>Establishment of 2x1500 MVA, 765/400 kV & 3x500 MVA, 400/220 kV pooling station at Bhadla-3 along with 2x330 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor</p> <ul style="list-style-type: none"> 765/400 kV 1500 MVA ICTs: 2 Nos. (7x500 MVA including one spare unit) 765 kV ICT bays - 2 Nos. 400/220 kV, 500 MVA ICT – 3 Nos. 765 kV line bays -2 Nos. 400 kV ICT bays – 5 Nos. 220 kV ICT bays - 3 Nos. 220 kV line bays: 5 Nos. 330 MVAR Bus Reactor-2 Nos. (7x110 MVAR, including one spare unit) 765 kV reactor bay- 2 Nos. 125 MVAR, 420 kV bus reactor - 2 Nos.



Sl. No.	Existing Scope	Revised Scope
	<ul style="list-style-type: none"> 765 kV reactor bay- 2 Nos. 125 MVAR, 420kV bus reactor - 2 Nos. 420 kV reactor bay - 2 Nos. <p><u>Future provisions:</u> Space for</p> <ul style="list-style-type: none"> 765/400 kV ICTs along with bays: 2 Nos. 765 kV line bay along with switchable line reactor: 6 Nos. 765 kV line bay: 4 Nos. 765 kV Bus Reactor along with bays: 2 Nos. 400/220 kV ICTs along with bays: 10 Nos. 400 kV line bays: 8 Nos. 400 kV line bays along with switchable line reactor: 6 Nos. 400 kV Bus Reactor along with bays: 2 Nos. 400 kV Sectionalization bay: 2 sets 220 kV line bays: 12 Nos. 220 kV sectionalization bay: 2 sets 	<ul style="list-style-type: none"> 420 kV reactor bay - 2 Nos. <p><u>Future provisions:</u> Space for</p> <ul style="list-style-type: none"> 765/400 kV ICTs along with bays: 2 Nos. 765 kV line bay along with switchable line reactor: 6 Nos. 765 kV line bay: 4 Nos. 765 kV Bus Reactor along with bays: 2 Nos. 400/220 kV ICTs along with bays: 10 Nos. 400 kV line bays: 8 Nos. 400 kV line bays along with switchable line reactors: 8 Nos. 400 kV Bus Reactor along with bays: 2 Nos. 400 kV Sectionalization bay: 2 sets 220 kV line bays: 12 Nos. 220 kV Sectionalization bay: 2 sets
2.	<p>Fatehgarh-2 PS – Bhadla-3 PS 400 kV D/c line (Quad moose) along with 63 MVAR Switchable line reactor for each circuit at both ends of Fatehgarh 2-Bhadla-3 400 kV D/c line</p> <ul style="list-style-type: none"> 400 kV 63 MVAR switchable line reactor – 4 Nos. Switching equipment for 400 kV 63 MVAR switchable line reactor – 4 Nos. 	Deleted
3.	<p>400 kV line bays at Fatehgarh-2 PS for Fatehgarh-2 PS – Bhadla-3 PS 400 kV D/c line</p> <ul style="list-style-type: none"> 400 kV line bays - 2 Nos. 	Deleted
4.	Bhadla-3 PS – Sikar-II S/s 765 kV D/c line along with 330 MVAR Switchable line reactor for each circuit at each end of	Bhadla-3 PS – Sikar-II S/s 765 kV D/c line along with 330 MVAR Switchable line reactor for each circuit at each end of Bhadla-



Sl. No.	Existing Scope	Revised Scope
	Bhadla-3 PS – Sikar-II S/s 765 kV D/c line <ul style="list-style-type: none"> Switching equipment for 765 kV 330 MVAR switchable line reactor – 4 Nos. 765 kV, 330 MVAR Switchable line reactor- 4 Nos. 	3 PS – Sikar-II S/s 765 kV D/c line <ul style="list-style-type: none"> Switching equipment for 765 kV 330 MVAR switchable line reactor – 4 Nos. 765 kV, 330 MVAR Switchable line reactor- 4 Nos.
5.	765 kV line bays at Sikar-II <ul style="list-style-type: none"> 765 kV line bays – 2 Nos. 	765 kV line bays at Sikar-II <ul style="list-style-type: none"> 765 kV line bays – 2 Nos.
	Note: <ol style="list-style-type: none"> Provision of suitable sectionalization shall be kept at Bhadla-3 at 400 kV & 220 kV level to limit short circuit level. POWERGRID to provide space for 2 Nos. of 400 kV line bays along with space for switchable line reactors at Fatehgarh-2 S/s. Developer of Sikar-II S/s to provide space for 2 Nos. of 765 kV line bays at Sikar-II S/s along with space for switchable line reactors. Space provision for future 2 Nos. 220 kV Bus Coupler bay and 2 Nos. Transfer Bus Coupler Bay shall be kept for bus switching scheme requirement. 	Note: <ol style="list-style-type: none"> Provision of suitable sectionalization shall be kept at Bhadla-3 at 400 kV & 220 kV level to limit short circuit level. Deleted Developer of Sikar-II S/s to provide space for 2 Nos. of 765 kV line bays at Sikar-II S/s along with space for switchable line reactors. Space provision for future 2 Nos. 220 kV Bus Coupler bay and 2 Nos. Transfer Bus Coupler Bay shall be kept for bus switching scheme requirement.

4.3.6 After detailed deliberations, the revised scope of the scheme was approved by NCT. Revised scope of the scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1” is as follows:

Revised Scope
Establishment of 2x1500 MVA 765/400 kV & 3x500 MVA 400/220 kV pooling station at Bhadla-3 along with 2x330 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor <ul style="list-style-type: none"> 765/400 kV 1500 MVA ICTs: 2 Nos. (7x500 MVA including one spare unit) 765 kV ICT bays - 2 Nos. 400/220 kV, 500 MVA ICT – 3 Nos. 765 kV line bays -2 Nos. 400 kV ICT bays – 5 Nos. 220 kV ICT bays - 3 Nos. 220 kV line bays: 5 Nos. 330 MVAR Bus Reactor-2 Nos. (7x110 MVAR, including one spare unit)



Revised Scope
<ul style="list-style-type: none"> • 765 kV reactor bay- 2 Nos. • 125 MVAR, 420kV bus reactor - 2 Nos. • 420 kV reactor bay - 2 Nos. <p><u>Future provisions:</u> Space for</p> <ul style="list-style-type: none"> • 765/400 kV ICTs along with bays: 2 Nos. • 765 kV line bay along with switchable line reactor: 6 Nos. • 765 kV line bay: 4 Nos. • 765 kV Bus Reactor along with bays: 2 Nos. • 400/220 kV ICTs along with bays: 10 Nos. • 400 kV line bays: 8 Nos. • 400 kV line bays along with switchable line reactor: 8 Nos. • 400 kV Bus Reactor along with bays: 2 Nos. • 400 kV Sectionalization bay: 2 sets • 220 kV line bays: 12 Nos. • 220 kV Sectionalization bay: 2 sets
<p>Bhadla-3 PS – Sikar-II S/s 765 kV D/c line along with 330 MVAR Switchable line reactor for each circuit at each end of Bhadla-3 PS – Sikar-II S/s 765 kV D/c line</p> <ul style="list-style-type: none"> • Switching equipment for 765 kV 330 MVAR switchable line reactor – 4 Nos. • 765 kV, 330 MVAR Switchable line reactor- 4 Nos.
<p>765 kV line bays at Sikar-II</p> <ul style="list-style-type: none"> • 765 kV line bays – 2 Nos.
<p>Note:</p> <ol style="list-style-type: none"> <i>Provision of suitable sectionalization shall be kept at Bhadla-3 at 400 kV & 220 kV level to limit short circuit level.</i> <i>Developer of Sikar-II S/s to provide space for 2 Nos. of 765 kV line bays at Sikar-II S/s along with space for switchable line reactors.</i> <i>Space provision for future 2 Nos. 220 kV Bus Coupler bay and 2 Nos. Transfer Bus Coupler Bay shall be kept for bus switching scheme requirement.</i>

5 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.

CTUIL has prepared the rolling plan for 2027-28, which will be presented in the next NCT meeting.

6 Five-year rolling plan for ISTS capacity addition.

CTUIL has prepared the rolling plan for 2027-28, which will be presented in the next NCT meeting.



7 Any other issues, with permission of chair

The meeting ended with thanks to the chair.



Summary of the deliberations of the 14th meeting of NCT held on 09th June, 2023**I. ISTS communication schemes approved by NCT for implementation under RTM Route:**

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Implementing Agency	Estimated Cost (Rs Cr)
1.	Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater to connectivity of RE Gencos	RTM	12 months	POWER GRID	0.6
2.	Requirement of additional FOTE of STM-16 capacity at Bhuj-II substation to cater to connectivity of RE Gencos	RTM	12 months	M/s PBTL	0.3
3.	Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Rep, Bhachau and CGPL Mundra to STM-16 capacity	RTM	12 months	POWER GRID	1.5

II. ISTS schemes costing less than Rs. 100 Crs. approved by NCT:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs Crs)
1.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A1</p> <p><u>Brief Scope:</u></p> <p>Conversion of 330 MVAR Fixed LR at Wardha (on each ckt of Wardha – Raipur 765 kV D/c line</p>	RTM	Matching with implementation of Khavda Phase-V Part A scheme viz. Bipole-1 (2x1500 MW) ±	POWER GRID	21



Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs Crs)
	being LILOed at Nagpur) into Bus Reactors at Wardha S/s		800 kV Nagpur (HVDC) [LCC] which is 48 months from SPV transfer.		
2.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part H2</p> <p><u>Brief Scope:</u></p> <p>Provision of NGR bypass arrangement and inter tripping scheme on 240 MVAR SW LR at Bhopal end of Kurawar – Bhopal 765 kV S/c line (~60 km.):</p>	RTM	In matching timeframe of H1 Scheme	BDTCL i.e. the TSP owing the Indore – Bhopal 765 kV S/c line	0.45

III. ISTS Transmission schemes, costing between Rs 100 Crore to Rs 500 Crore, approved by NCT:

(a) The transmission schemes approved by NCT under RTM route is given below:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs. Crs)
1.	Augmentation of transformation capacity by 1x1500 MVA (3rd), 765/400 kV ICT at Maheshwaram (PG) substation in Telangana	RTM	21 months	POWERGRID	123.12



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Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs. Crs)
2.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1	RTM	24 months	Khavda – Bhuj Transmission Ltd. (Subsidiary of Adani Transmission limited)	216
3.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E3	RTM	24 months	KPS3 Transmission Limited (Subsidiary of POWERGRID)	216
4.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E4	RTM	24 months	POWERGRID	235

(b) The transmission schemes approved by NCT to be implemented through TBCB route is given below:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Allocated to	Estimated Cost (Rs. Crs)	Survey Agency
1.	Western Region Network Expansion scheme in Kallam area of Maharashtra	TBCB	18 months	RECPD CL	160	RECPDCL

The broad scope of above ISTS scheme, approved by NCT for implementation through TBCB route to be notified in Gazette of India is as given below:



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
1.	Western Region Network Expansion scheme in Kallam area of Maharashtra Tentative Implementation Timeframe: 18 months from transfer of SPV	i. LILO of both circuits of Parli(M) – Karjat(M)/Lonikand-II(M) 400 kV D/c line (twin moose) at Kallam PS ii. 4 Nos. 400 kV line bays at Kallam PS for LILO of both circuits of Parli(M) – Karjat(M)/Lonikand-II(M) 400 kV D/c line (twin moose) at Kallam PS iii. 63 MVAR, 420 kV switchable line reactor (with NGR bypassing arrangement) on each ckt at Kallam PS end of Karjat – Kallam 400 kV D/c line (~140 km) (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	RECPDCL

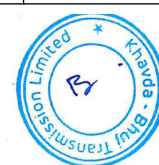
IV. ISTS Transmission schemes, costing greater than Rs 500 Crore recommended by NCT to MoP:

(a) The ISTS transmission schemes recommended by NCT to MoP are given below:

Sl. No.	Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Survey Agency	BPC	Estimated Cost (Rs. Crs)
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part A	TBCB	24 months from SPV Transfer	RECPDCL	RECPDCL	4,091
2.	Transmission System for Evacuation of Power from potential renewable	TBCB	24 months from	PFCCCL	PFCCCL	4,766



Sl. No.	Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Survey Agency	BPC	Estimated Cost (Rs. Crs)
	energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part B		SPV Transfer			
3.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part C	TBCB	24 months from SPV Transfer	RECPDCL	RECPDCL	5,340
4.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part D	TBCB	24 months from SPV Transfer	PFCCL	PFCCL	3,455
5.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E2	TBCB	21 months from SPV Transfer	RECPDCL	RECPDCL	697
6.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A	TBCB	48 months for Bipole-1 and 54 months for Bipole-2 from SPV Transfer	RECPDCL	RECPDCL	24,819
7.	Transmission System for Evacuation of Power	TBCB	48 months	PFCCL	PFCCL	12,000



Sl. No.	Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Survey Agency	BPC	Estimated Cost (Rs. Crs)
	from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part C		from SPV Transfer			
8.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part A	TBCB	24 months from SPV Transfer	RECPDCL	RECPDCL	2,206
9.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part B	TBCB	24 months from SPV Transfer	PFCCL	PFCCL	3,279
10.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part C	TBCB	24 months from SPV Transfer	CTUIL	RECPDCL	2,708
11.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part D	TBCB	24 months from SPV Transfer	CTUIL	PFCCL	2,227
12.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part E	TBCB	24 months from SPV Transfer	RECPDCL	RECPDCL	3,251



Sl. No.	Transmission Scheme	Implementation Mode	Tentative Implementation timeframe	Survey Agency	BPC	Estimated Cost (Rs. Crs)
13.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part F (By clubbing Part F1 & F2)	TBCB	24 months from SPV Transfer	PFCL	PFCL	2,735
14.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part H1	TBCB	24 months from SPV Transfer	RECPDCL	RECPDCL	3,674

(b) The broad scope of ISTS schemes recommended by NCT to MoP for implementation through TBCB mode, to be notified in Gazette of India is as given below:

Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part A Tentative Implementation Timeframe: 24 months	<p>i. Creation of 765 kV bus section-II at KPS3 (GIS) along with 765 kV Bus Sectionaliser & 1x330MVAR, 765 kV Bus Reactors on Bus Section-II</p> <p>Bus section – II shall be created at 765 kV & 400 kV level both with 3x1500 MVA, 765/400 kV ICTs at Bus Section-II</p> <p>ii. Creation of 400 kV bus section-II at KPS3 (GIS) along with 400 kV Bus Sectionaliser & 1x125MVAR, 400 kV Bus Reactors on Bus Section-II and 3 Nos. 400 kV bays at Bus Section-II for RE interconnection</p>	RECPDCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		iii. KPS3 (GIS) – Lakadia (AIS) 765 kV D/C line iv. 2 Nos. of 765 kV line bays each at KPS3 (GIS) & Lakadia (AIS) for KPS3 (GIS) – Lakadia (AIS) 765 kV D/C line v. ± 300 MVAR STATCOM with 1x125 MVAR MSC, 2x125 MVAR MSR at KPS3 400 kV Bus section-2 vi. KPS1 (GIS)– Bhuj PS 765 kV 2 nd D/C line vii. 2 Nos. of 765 kV line bays each at KPS1 (GIS) & Bhuj PS for KPS1 (GIS) – Bhuj PS 765 kV D/C line viii. 330 MVAR, 765 kV switchable line reactors at KPS3 end of KPS3 (GIS) – Lakadia 765 kV D/C line (with NGR bypass arrangement) (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	
2.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part B Tentative Implementation timeframe: 24 months from SPV transfer	i. Establishment of 2x1500 MVA, 765/400 kV & 2x500 MVA, 400/220 kV GIS S/s at a suitable location South of Olpad (between Olpad and Ichhapore) with 2x330 MVAR, 765 kV & 1x125 MVAR, 420 kV bus reactors. ii. Vadodara(GIS) – South Olpad (GIS) 765 kV D/C line iii. 240 MVAR switchable line	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>reactors on each ckt at Vadodara(GIS) end of Vadodara(GIS) –South Olpad(GIS) 765 kV D/C line (with NGR bypass arrangement)</p> <p>iv. 2 Nos. of 765 kV line bays at Vadodara(GIS) for Vadodara(GIS) – South olpad(GIS) 765 kV D/C line</p> <p>v. LILO of Gandhar – Hazira 400 kV D/c line at South Olpad (GIS) using twin HTLS conductor with minimum capacity of 1700MVA per ckt at nominal voltage</p> <p>vi. Ahmedabad – South Olpad(GIS) 765 kV D/c line</p> <p>vii. 240 MVAR switchable line reactors on each ckt at Ahmedabad & South Olpad (GIS) end of Ahmedabad – South Olpad(GIS) 765 kV D/c line (with NGR bypass arrangement)</p> <p>viii. 2 Nos. of 765 kV line bays at Ahmedabad S/s for Ahmedabad – South Olpad(GIS) 765 kV D/c line</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	
3.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part C	<p>i. Establishment of 4x1500 MVA 765/400 kV & 2x500 MVA 400/220 kV Boisar-II (GIS) with 2x330 MVAR, 765 kV bus reactor and 2x125 MVAR, 420 kV bus reactor. [2x1500 MVA, 765/400 kV ICTs shall be on each 400 kV section and</p>	RECPDCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
	Tentative Implementation timeframe: 24 months from SPV transfer	<p>2x500MVA, 400/220 kV ICTs shall be on 400 kV bus section-II. 2x125MVAR Bus reactors shall be such that one bus reactor is placed on each 400 kV bus section. 400 kV Bus Sectionalizer to be kept under normally OPEN condition.]</p> <p>ii. South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line</p> <p>iii. 2 Nos. of 765 kV line bays at South Olpad (GIS) for termination of South Olpad (GIS) – Boisar-II (GIS) 765 kV D/c line</p> <p>iv. 240 MVAR switchable line reactors on each ckt at South Olpad(GIS) & Boisar-II(GIS) end of South Olpad(GIS) – Boisar-II(GIS) 765 kV D/c line (with NGR bypass arrangement)</p> <p>v. LILO of Navsari(New) – Padghe(PG) 765 kV D/c line at Boisar-II</p> <p>vi. Boisar-II (Sec-II) – Velgaon(MH) 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line</p> <p>vii. 2 Nos. of 400 kV line bays at Velgaon(MH) for termination of Boisar-II – Velgaon(MH) 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line</p> <p>viii. LILO of Babhaleswar – Padghe (M) 400 kV D/c line at Boisar-II (Sec-I) using twin HTLS</p>	



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>conductor with minimum capacity of 1700 MVA per ckt at nominal voltage</p> <p>ix. 80 MVAR switchable line reactors at Bosar-II end of Boisar-II – Babhaleswar 400 kV D/c line (with NGR bypass arrangement) formed after above LILO</p> <p>x. ± 200 MVAR STATCOM with 2x125 MVAR MSC, 1x125 MVAR MSR at 400 kV bus section-I of Boisar-II and ± 200 MVAR STATCOM with 2x125 MVAR MSC, 1x125 MVAR MSR at 400 kV bus section-II of Boisar-II</p> <p>xi. ± 300 MVAR STATCOM with 3x125 MVAR MSC, 1x125 MVAR MSR at 400 kV level of Navsari(New)(PG) S/s with 1 No. of 400 kV bay (GIS)</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	
4.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part D</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer</p>	<p>i. Establishment of 2x1500 MVA 765/400 kV & 3x500 MVA 400/220 kV Pune-III (GIS) S/s with 2x330 MVAR, 765 kV bus reactor and 2x125 MVAR, 420 kV bus reactor.</p> <p>ii. Boisar-II – Pune-III 765 kV D/c line</p> <p>iii. 330 MVAR switchable line reactors at Pune-III end of Boisar-II – Pune-III 765 kV D/c line (with NGR bypass</p>	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>arrangement).</p> <p>iv. 2 Nos. of 765 kV line bays at Boisar-II for termination of Boisar-II – Pune-III 765 kV D/c line</p> <p>v. LILO of Narendra (New) – Pune(GIS) 765 kV D/c line at Pune-III</p> <p>vi. 330 MVAR switchable line reactors at Pune-III end of Narendra (New) – Pune-III (GIS) 765 kV D/c line (with NGR bypass arrangement).</p> <p>vii. LILO of Hinjewadi - Koyna 400 kV S/c line at Pune-III(GIS) S/s</p> <p>viii. 80 MVAR, 420 kV switchable Line Reactors on each ckt at Pune-III (GIS) end of Pune-III (GIS) – Koyna 400 kV line formed after above LILO (with NGR bypass arrangement).</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	
5.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E2</p> <p>Tentative Implementation timeframe: 21 months from SPV transfer</p>	<p>i. Augmentation of transformation capacity at KPS2 (GIS) by 2x1500 MVA, 765/400 kV ICT on Bus Section-I (5th & 6th) & 2x1500 MVA, 765/400 kV ICT on Bus section-II (7th & 8th) & 2 Nos. 400 kV bays at Bus Section-I for RE interconnection and 3 Nos. 400 kV bays at Bus Section-II for RE interconnection</p> <p>(Detailed scope as approved by 14th NCT and subsequent</p>	RECPDCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		amendments thereof)	
6.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A</p> <p>Tentative Implementation timeframe: 48 months for Bipole-1 (2x1500MW) and 54 months for Bipole-2 (2x1500MW)</p>	<p>i. Establishment of 6000 MW, ± 800 kV KPS2 (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard</p> <p>ii. Establishment of 6000 MW, ± 800 kV Nagpur (HVDC) [LCC] terminal station (4x1500 MW) along with associated interconnections with 400 kV HVAC Switchyard</p> <p>iii. ± 800 kV HVDC Bipole line (Hexa lapwing) between KPS2(HVDC) and Nagpur (HVDC) (1200 km) (with Dedicated Metallic Return) (capable to evacuate 6000 MW with overload as specified)</p> <p>iv. Establishment of 6x1500 MVA, 765/400 kV ICTs at Nagpur S/s along with 2x330 MVAR (765 kV) & 2x125 MVAR, 420 kV bus reactors along with associated interconnections with HVDC Switchyard. The 400 kV bus shall be established in 2 sections through 1 set of 400 kV bus sectionaliser so that 3x1500 MVA ICTs are placed in each section. The bus sectionaliser shall be normally CLOSED and may be opened based on Grid requirement.</p> <p>v. LILO of Wardha – Raipur 765 kV one D/c line (out of 2xD/c</p>	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>lines) at Nagpur.</p> <p>vi. Installation of 240 MVAR switchable line reactor at Nagpur end on each ckt of Nagpur – Raipur 765 kV D/c line.</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	
7.	<p>Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8GW): Part C</p> <p>Tentative Implementation timeframe: 48 months from SPV transfer</p>	<p>i. Establishment of 2500 MW, ± 500 kV KPS3 (HVDC) [VSC] terminal station (2x1250 MW) at a suitable location near KPS3 substation with associated interconnections with 400 kV HVAC Switchyard</p> <p>ii. Establishment of 2500 MW, ± 500 kV South Olpad (HVDC) [VSC] terminal station (2x1250 MW) along with associated interconnections with 400 kV HVAC Switchyard of South Olpad S/s</p> <p>iii. Establishment of KPS3 (HVDC) S/s along with 2x125MVAR, 420kV bus reactors along with associated interconnections with HVDC Switchyard. The 400 kV bus shall be established in 2 sections through 1 set of 400 kV bus sectionaliser to be kept normally OPEN.</p> <p>400/33 kV, 2x50 MVA transformers for exclusively supplying auxiliary power to HVDC terminal.</p> <p>iv. KPS3 – KPS3 (HVDC) 400 kV 2xD/c (Quad ACSR /AAAC /</p>	RECPDCL



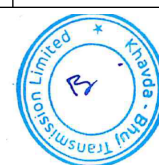
Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>AL59 moose equivalent) line along with the line bays at both substations</p> <p>v. ± 500 kV HVDC Bipole line between KPS3(HVDC) and South Olpad (HVDC) (with Dedicated Metallic Return) (capable to evacuate 2500 MW)</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	
8.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part A</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer</p>	<p>i. Establishment of 4x1500 MVA, 765/400 kV & 5x500 MVA, 400/220 kV Fatehgarh-IV (Section-2) Pooling Station along with 2x240 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor</p> <p>ii. Fatehgarh-IV (Section-2) PS – Bhinmal (PG) 400 kV D/c line (Twin HTLS) along with 50 MVAR switchable line reactor on each ckt. at each end</p> <p>iii. LILO of both ckts of 765 kV Fatehgarh-III- Beawar D/c line (2nd) at Fatehgarh-IV (Section-2) PS along with 330 MVAR switchable line reactor at Fatehgarh-IV PS end of each ckt of 765 kV Fatehgarh-IV- Beawar D/c line (formed after LILO)</p> <p>iv. 2 Nos. of 400 kV line bays at Bhinmal (PG)</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	PFCCCL



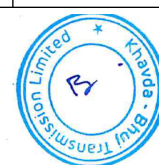
Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
9.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part B</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer</p>	<p>i. Establishment of 2x1500 MVA, 765/400 kV Substation at suitable location near Sirohi along with 2x240 MVAR (765 kV) & 2x125 MVAR (420 kV) Bus Reactor</p> <p>ii. Fatehgarh-IV (Section-2) PS – Sirohi PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end</p> <p>iii. Sirohi PS-Chittorgarh (PG) 400 kV D/c line (Quad) along with 80 MVAR switchable line reactor for each circuit at Sirohi PS end.</p> <p>iv. 2 No. of 400 kV line bays at Chittorgarh (PG) S/s</p> <p>v. 2 No. of 765 kV line bays at Fatehgarh-IV (Section-2) PS</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	RECPDCL
10.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part C</p> <p>Tentative Implementation timeframe: 24 months from SPV transfer</p>	<p>i. Establishment of 3x1500 MVA, 765/400 kV & 5x500 MVA, 400/220 kV Mandsaur Pooling Station along with 2x330 MVAR (765 kV) Bus Reactors & 2x125 MVAR, 420 kV Bus Reactor.</p> <p>ii. Mandsaur PS – Indore(PG) 765 kV D/c Line</p> <p>iii. 1x330 MVAR, 765 kV switchable line reactor (SLR) on each ckt at Mandsaur end of Mandsaur PS – Indore (PG) 765</p>	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		kV D/c Line iv. 2 Nos. of 765 kV line bays at Indore(PG) for termination of Mandsaur PS – Indore(PG) 765 kV D/c Line (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	
11.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part D Tentative Implementation timeframe: 24 months from SPV transfer	i. Beawar- Mandsaur PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end ii. 2 Nos. of 765 kV line bays each at Beawar S/s & Mandsaur S/s (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	RECPDCL
12.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part E Tentative Implementation timeframe: 24 months from SPV transfer	i. Establishment of, 765 kV Substation at suitable location near Rishabdeo (Distt. Udaipur) along with 2x240 MVAR (765 kV) Bus Reactor ii. Sirohi PS- Rishabdeo 765 kV D/c line along with 330 MVAR switchable line reactor for each circuit at Sirohi end iii. Rishabdeo - Mandsaur PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at Rishabdeo end iv. LILO of one circuit of 765 kV Chittorgarh-Banaskanta D/c line at Rishabdeo S/s v. 2 Nos. of 765 kV line bays each	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		at Sirohi PS & Mandsaur S/s (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	
13.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part F [by clubbing Part F1 & F2] Tentative Implementation timeframe: 24 months from SPV transfer	i. Establishment of 3x1500 MVA, 765/400 kV & 2x500 MVA, 400/220 kV Barmer-I Pooling Station along with 2x240 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor ii. Fatehgarh-III (Section-2) PS – Barmer-I PS 400 kV D/c line (Quad) iii. Barmer-I PS– Sirohi PS 765 kV D/c line along with 240 MVAR switchable line reactor for each circuit at each end iv. 2 Nos. of 400 kV line bays at Fatehgarh-III (Section-2) PS v. 2 Nos. of 765 kV line bays at Sirohi PS (Detailed scope as approved by 14th NCT and subsequent amendments thereof)	RECPDCL
14.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part H1 Tentative Implementation timeframe: 24 months from SPV transfer	i. Establishment of 765/400 (2x1500 MVA), 400/220 (2x500 MVA) & 220/132 kV (3x200 MVA) Kurawar S/s with 2x330 MVAR, 765 kV bus reactor and 1x125 MVAR, 420 kV bus reactor. ii. Mandsaur – Kurawar 765 kV D/c line. iii. 240 MVAR switchable line	PFCCCL



Sl. No.	Name of Scheme & Implementation timeframe	Broad Scope	Bid Process Coordinator
		<p>reactors on each ckt at both ends of Mandsaur – Kurawar 765 kV D/c line.</p> <p>iv. 2 Nos. of 765 kV line bays at Mandsaur S/s for termination of Mandsaur – Kurawar 765 kV D/c line.</p> <p>v. LILO of Indore – Bhopal 765 kV S/c line at Kurawar.</p> <p>vi. Kurawar – Ashtha 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line.</p> <p>vii. 2 Nos. of 400 kV line bays at Ashtha (MP) S/s for termination of Kurawar – Ashtha 400 kV D/c line.</p> <p>viii. LILO of one circuit of Indore – Itarsi 400 kV D/c line at Astha</p> <p>ix. 2 Nos. of 400 kV line bays at Ashtha (MP) S/s for LILO of one circuit of Indore – Itarsi 400 kV D/c line at Astha</p> <p>x. Shujalpur – Kurawar 400 kV D/c (Quad ACSR/AAAC/AL59 moose equivalent) line</p> <p>xi. 2 Nos. of 400 kV line bays at Shujalpur(PG) S/s for termination of Shujalpur – Kurawar 400 kV D/c line</p> <p>(Detailed scope as approved by 14th NCT and subsequent amendments thereof)</p>	

V. Modification in the earlier approved/notified transmission schemes:



(a) Revised timeframe of the transmission scheme “Transmission system for evacuation of power from Luhri Stage-I HEP”

The timeframe of the transmission scheme “Transmission system for evacuation of power from Luhri Stage-I HEP”, would be revised to 31st August, 2026, in the matching timeframe of Luhri Stage-I HEP.

(b) Delinking of Fatehgarh-II- Bhadla-III 400 kV D/c line from transmission scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1”:

Revised scope of the scheme “Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1” is as follows:

Revised Scope

Establishment of 2x1500 MVA 765/400 kV & 3x500 MVA 400/220 kV pooling station at Bhadla-3 along with 2x330 MVAR (765 kV) Bus Reactor & 2x125 MVAR (420 kV) Bus Reactor

- 765/400 kV 1500 MVA ICTs: 2 Nos.
(7x500 MVA including one spare unit)
- 765 kV ICT bays - 2 Nos.
- 400/220 kV, 500 MVA ICT – 3 Nos.
- 765 kV line bays -2 Nos.
- 400 kV ICT bays – 5 Nos.
- 220 kV ICT bays - 3 Nos.
- 220 kV line bays: 5 Nos.
- 330 MVAR Bus Reactor-2 Nos. (7x110 MVAR, including one spare unit)
- 765 kV reactor bay- 2 Nos.
- 125 MVAR, 420kV bus reactor - 2 Nos.
- 420 kV reactor bay - 2 Nos.

Future provisions: Space for



Revised Scope
<ul style="list-style-type: none"> • 765/400 kV ICTs along with bays: 2 Nos. • 765 kV line bay along with switchable line reactor: 6 Nos. • 765 kV line bay: 4 Nos. • 765 kV Bus Reactor along with bays: 2 Nos. • 400/220 kV ICTs along with bays: 10 Nos. • 400 kV line bays: 8 Nos. • 400 kV line bays along with switchable line reactor: 8 Nos. • 400 kV Bus Reactor along with bays: 2 Nos. • 400 kV Sectionalization bay: 2 sets • 220 kV line bays: 12 Nos. • 220 kV sectionalization bay: 2 sets
<p>Bhadla-3 PS – Sikar-II S/s 765 kV D/c line along with 330 MVAR Switchable line reactor for each circuit at each end of Bhadla-3 PS – Sikar-II S/s 765 kV D/c line</p> <ul style="list-style-type: none"> • Switching equipment for 765 kV 330 MVAR switchable line reactor – 4 Nos. • 765 kV, 330 MVAR Switchable line reactor- 4 Nos.
<p>765 kV line bays at Sikar-II</p> <ul style="list-style-type: none"> • 765 kV line bays – 2 Nos.
<p>Note:</p> <p>iv. <i>Provision of suitable sectionalization shall be kept at Bhadla-3 at 400 kV & 220 kV level to limit short circuit level.</i></p> <p>v. <i>Developer of Sikar-II S/s to provide space for 2 Nos. of 765 kV line bays at Sikar-II S/s along with space for switchable line reactors.</i></p> <p>vi. <i>Space provision for future 2 Nos. 220 kV Bus Coupler bay and 2 Nos. Transfer Bus Coupler Bay shall be kept for bus switching scheme requirement.</i></p>



Annex-I

List of Participants of the 14th meeting of NCT**CEA:**

1. Sh. Ghanshyam Prasad, Chairperson, CEA and Chairman, NCT
2. Sh. A. K. Rajput, Member (Power Systems)
3. Sh. Ajay Talegaonkar, Member (E&C)
4. Sh. Ishan Sharan, Chief Engineer (PSPA-I)
5. Sh. Upendra Kumar, Chief Engineer (PCD)
6. Sh. B.S. Bairwa, Director (PSPA-II)
7. Sh. Deepanshu Rastogi, Deputy Director (PSPA-II)
8. Sh. Manish Maurya, Deputy Director (PSPA-II)
9. Sh. Pranay Garg, Deputy Director (PSPA-II)
10. Sh. Kanhaiya Singh Kushwaha, Assistant Director (PSPA-I)
11. Sh. Ajay Malav, Assistant Director (PSPA-II)

MoP:

1. Sh. Om Kant Shukla, Director (Trans.)

MNRE:

1. Sh. Tarun Singh, Scientist D

SECI:

1. Sh. Sanjay Sharma, Director
2. Sh. R.K. Agarwal, Consultant

CTUIL:

1. Sh. P.C. Garg, COO
2. Sh. Ashok Pal, Deputy COO
3. Sh. Jasbir Singh, CGM
4. Sh. Sourov Chakraborty, CGM
5. Sh. P.S Das, Senior GM
6. Sh. V Thiagarajan, Senior GM
7. Sh. Kashish Bhambhani, GM
8. Sh. Sandeep Kumawat, DGM
9. Sh. Chinmay Sharma, Chief Manager
10. Sh. Pratyush Singh, Chief Manager

GRID India:

1. Sh. Rajiv Porwal, ED
2. Sh. Surajit Banerjee, CGM
3. Sh. Vivek Pandey, GM
4. Sh. Priyam Jain, Manager

Expert Member:

1. Ms. Seema Gupta
2. Dr. Radheshyam Saha



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:

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



Signature
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



Signature
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.

[Signature]
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.

[Signature]
28/10/2021



Annexure - 4



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय 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-122001

विषय/Subject: Implementation of ISTS Transmission Schemes approved by NCT in its 14th meeting held on 09.06.2023- regarding

महोदय/Sir,

The undersigned is directed to inform that NCT has approved implementation of the following ISTS Transmission Schemes in its 14th meeting held on 09.06.2023, in line with MoP office order dated 28.10.2021, to be implemented through Regulated Tariff Mechanism (RTM) route by agency as indicated below:

I. ISTS schemes costing less than Rs. 100 Crs. approved by NCT::

Sl. No.	Name of Transmission Scheme	Implement ation Mode	Implement ation timeframe	Allocated to	Estimated Cost (Rs Crs)
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8 GW): Part A1 Brief Scope: Conversion of 330 MVAR Fixed LR at Wardha (on each ckt of Wardha – Raipur 765 kV D/c line being LILOed at Nagpur)	RTM	Matching with implement ation of Khavda Phase-V Part A scheme viz. Bipole-1 (2x1500 MW) ± 800 kV	POWER GRID	21



Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs Crs)
	into Bus Reactors at Wardha S/s		Nagpur (HVDC) [LCC] which is 48 months from SPV transfer.		
2.	<p>Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex): Part H2</p> <p><u>Brief Scope:</u></p> <p>Provision of NGR bypass arrangement and inter tripping scheme on 240 MVAR SW LR at Bhopal end of Kurawar – Bhopal 765 kV S/c line (~60 km.):</p>	RTM	In matching timeframe of H1 Scheme	BDTCL i.e. the TSP owing the Indore – Bhopal 765 kV S/c line	0.45

II. ISTS Transmission schemes, costing between Rs 100 Crore to Rs 500 Crore, approved by NCT:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs. Crs)
1.	Augmentation of transformation capacity by 1x1500 MVA (3rd), 765/400 kV ICT at Maheshwaram (PG) substation in Telangana	RTM	21 months	POWERGRID	123.12
2.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV	RTM	24 months	Khavda – Bhuj Transmission Ltd. (Subsidiary)	216



Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Allocated to	Estimated Cost (Rs. Crs)
	(7GW): Part E1			of Adani Transmission limited)	
3.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part E3	RTM	24 months	KPS3 Transmission Limited (Subsidiary of POWERGRID)	216
4.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part E4	RTM	24 months	POWERGRID	235

III.COMMUNICATION SCHEMES APPROVED BY NCT:

Sl. No.	Name of Transmission Scheme	Implementation Mode	Implementation timeframe	Implementing Agency	Estimated Cost (Rs Crs)
1.	Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater to connectivity of RE Gencos	RTM	12 months	POWER GRID	0.6
2.	Requirement of additional FOTE of STM-16 capacity at Bhuj-II substation to cater to connectivity of RE Gencos	RTM	12 months	M/s PBTL	0.3
3.	Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Rep, Bhachau and CGPL Mundra to STM-16 capacity	RTM	12 months	POWER GRID	1.5




I/28786/2023

The above schemes are awarded to CTUIL for 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.

Detailed scope of the schemes are as per minutes of the meeting. Copy of the minutes are enclosed.

Encl.: As above.

 07.07.2023

(ईशान शरण/Ishan Sharan)

मुख्य अभियंता /Chief Engineer &
Member Secretary (NCT)

Copy to:

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



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. No.: CTUIL/OM/09/052023

10th July 2023

1. The Chairman & Managing Director Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001.	2. CGM (TBCB) POWERGRID Bhuj Transmission Ltd. (a subsidiary of Power Grid Corporation of India Ltd.) Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001.
3. CGM (TBCB) KPS3 Transmission Ltd. (a subsidiary of Power Grid Corporation of India Ltd.) Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001.	4. Shri Bhavesh Kundalia Authorized Signatory Khavda-Bhuj Transmission Ltd., (a subsidiary of Adani Transmission Ltd.) Adani Corporate House, Shantigram, S.G. Highway, Ahmedabad 382 421
1. Shri Lokendra Singh Ranawat Head (Regulatory) Bhopal Dhule Transmission Co. Ltd. (a subsidiary of India Grid Trust) Unit No. 101, First Floor, Windsor, Village Kolekalyan, Off CST Road, Vidyanagari Marg, Kalina, Santacruz (East), Mumbai – 400 098	

Sub: Implementation of ISTS Transmission/Communication Schemes approved by NCT in its 14th meeting held on 09-06-2023 under Regulated Tariff Mechanism (RTM).

NCT vide letter dated 07-07-2023 has awarded the following ISTS Transmission/Communication Scheme for its implementation under RTM mode by implementing agencies as indicated in the table below:

Sl. No.	Transmission/Communication Schemes	Implementing Agency
I. ISTS costing less than Rs. 100Cr.:		
1.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8GW): Part A1.	POWERGRID
2.	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5GW) (Jaisalmer/Barmer Complex): Part H2.	BDTCL i.e., the TSP owing the Indore-Bhopal 765kV S/c line.



Sl. No.	Transmission/Communication Schemes	Implementing Agency
II. ISTS costing between Rs. 100Crs. To Rs. 500 Crs.:		
1.	Augmentation of transformation capacity by 1x1500MVA (3 rd), 765/400kV ICT at Maheshwaram (PG) substation in Telangana.	POWERGRID
2.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part E1.	Khavda- Bhuj Transmission Ltd. (Subsidiary of Adani Transmission Ltd.)
3.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part E3.	KPS3 Transmission Ltd. (Subsidiary of POWERGRID)
4.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7GW): Part E4.	POWERGRID
III. Communication schemes approved by NCT:		
1.	Requirement of additional FOTE of STM-16 capacity at Bhuj PS to cater to connectivity of RE Gencos.	POWERGRID
2.	Requirement of additional FOTE of STM-16 capacity at Bhuj-II substation to cater to connectivity of RE Gencos.	M/s PBTL
3.	Upgradation of STM-4 communication link of Dehgam, Ranchhodpura, Santhalpur Rep, Bhachau and CGPL Mundra to STM-16 capacity.	POWERGRID

Copy of NCT letter dated 07-07-2023 in this regard is enclosed at **Annexure-I**. The detailed scope of work along with implementation time frame for the above Transmission/Communication Schemes shall be as per the enclosed letter of NCT.

The implementing agency shall enter into a concession agreement with CTUIL for implementation of aforementioned Transmission/Communication Schemes. However, pending finalization of Concession Agreement, it is requested to initiate necessary actions for implementation of the aforementioned Transmission/Communication Schemes.

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

Yours faithfully,



(Jasbir Singh) 10/7/23
Chief General Manager

Encl.: as stated.



Application Form for Grant of Transmission licence**1. Particulars of the Applicant**

SN	Particulars	Details
i.	Name of the Applicant	Khavda – Bhuj Transmission Ltd (KBTL)
ii.	Status	Public Limited Company
iii.	Address	C 105, Anand Niketan New Delhi 110021
iv.	Name, Designation & Address of the Contact Person	Shri Bhavesh Kundalia, Khavda – Bhuj Transmission Ltd. Adani House, Shantigram, 3 rd Floor, South Wing, SG Highway, Ahmedabad - 382421
v.	Contact Telephone No	9099991282
vi.	Fax No	079-25556601
vii.	Email ID	bhavesh.kundalia@adani.com
viii.	Place of Incorporation/Registration	New Delhi
ix.	Year of Incorporation/Registration	2021
x.	Following documents are to be enclosed	
	a) Certificate of Registration	Annexure 7
	b) Copy of Board resolution	Annexure 9

2. Particulars of the Project for which licence is being sought:

KBTL has been granted licence no. 73/Transmission/2022/CERC by Hon'ble Commission. However, Centra Transmission Utility of India Limited (CTU) has approved implementation of Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E1 on Regulated Tariff Mechanism (RTM). Hence, KBTL has sought Grant of licence for the following:

a) Transmission Lines:

S No	Name (end-points Location)	Voltage Class (kV)	Length (km)	Type (S/C or D/C)
-	-	-	-	-

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
1	Augmentation of transformation capacity at KPS1 (GIS) by 1x1500 MVA, 765/400 kV ICT (8th) on bus section-I	765/400 kV	1 x 1500	1500 MVA, 765/400 kV ICT – 1 No.	765 kV bays – 2 Nos. on bus Section-I (including 1 No bay for Dia completion) 400 kV bays – 2 Nos. on bus section-I (including 1 No bay for Dia completion)

c) Commissioning Schedule: 24 months from issue of OM by CTU dated 10.07.2023

d) Identified Long-Term transmission customers of the Project:

1. Adani Renewable Energy Holding Four Limited

e) Any other relevant information: Nil

3. Levelised transmission charges in case of project selected through the transparent process of competitive bidding and estimated completion cost of the project in other cases:- This project is Awarded by CTU through RTM route. The Estimated Cost of the project is Rs. 250 Crs.

4. In case applicant has been selected in accordance with the guidelines for competitive bidding, enclose:

(a) Recommendation of selection by the Empowered Committee:- Not Applicable

(b) Evaluation report made public by the Bid Process Coordinator:- Not applicable

5. List of documents enclosed:

Name of the Document

- a) Certificate of Registration: Annexure 7
- b) MoA & AoA: Annexure 8
- c) Copy of Board Resolution: Annexure 9

Bruno...

(Signature of the Applicant)

Dated: 04.09.2023

Place: Ahmedabad.





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]

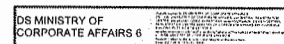
I hereby certify that KHAVDA-BHUJ TRANSMISSION LIMITED is incorporated on this Seventeenth day of May Two thousand twenty-one under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U40108DL2021GOI381217.

The Permanent Account Number (PAN) of the company is **AAICK7951K** *

The Tax Deduction and Collection Account Number (TAN) of the company is **DELK22825F** *

Given under my hand at Manesar this Eighteenth day of May Two thousand twenty-one .



Digital Signature Certificate

Mr Parvinder Singh

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:

KHAVDA-BHUJ TRANSMISSION LIMITED

Urjanidhi, First Floor, 1, Barakhamba, Lane, Connaught Place., DELHI,

Central Delhi, Delhi, India, 110001



* as issued by the Income Tax Department



[Pursuant to Schedule I (see Sections 4 and 5) to the Companies Act, 2013)] FORM NO. INC-34

SPICE⁺ AOA

(e-Articles of Association)

*Table ☐ F as notified under schedule I of the companies Act, 2013 is applicable to the company

KHAVDA-BHUJ TRANSMISSION LIMITED

A COMPANY LIMITED BY SHARES

Check if not applicable	Check if altered	Article No	Description
			Interpretation
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>(1) In the interpretation of these Articles, unless repugnant to the subject or context:-</p> <p>The Act means The Companies Act, 2013 as amended from time to time and includes any statutory modification or re-enactment thereof for the time being in force.</p> <p>Articles means the articles of association of a company as originally framed or as altered from time to time or applied in pursuance of any previous company law or of this Act.</p> <p>Auditor(s) mean and include persons appointed as such for the time being by the Comptroller & Auditor General of India.</p> <p>Board or Board of Directors, in relation to a company, means the collective body of the directors of the company.</p> <p>Books of account includes records maintained in respect of:</p> <p>(i) all sums of money received and expended by a company and matters in relation to which the receipts and expenditure take place;</p> <p>(ii) all sales and purchases of goods and services by the company;</p> <p>(iii) the assets and liabilities of the company; and</p> <p>(iv) the items of cost as may be prescribed under section 148 in the case of a company which belongs to any class of companies specified under that section.</p> <p>Capital means the share capital for the time being raised or authorized to be raised for the purpose of the Company.</p> <p>Company Shall means KHAVDA-BHUJ TRANSMISSION LIMITED</p> <p>Debenture includes debenture stock, bonds or any other instrument of a company evidencing a debt, whether constituting a charge on the assets of the company or not.</p> <p>Director means a director appointed to the Board of a company under Section 2(34) of the Act.</p> <p>Dividend includes any interim dividend.</p> <p>Financial Institution includes a scheduled bank, and any other financial institution defined or notified under the Reserve Bank of India Act, 1934.</p> <p>Gender Words importing the masculine gender also include the feminine gender.</p> <p>Generation Company shall mean any entity engaged in the business of generation of electricity.</p> <p>In writing and Written include printing, lithography and other modes of representing or reproducing words in a</p>



[Handwritten signature]



visible form.

Key managerial personnel, in relation to a company, means
 (i) the Chief Executive Officer or the managing director or the manager;
 (ii) the company secretary;
 (iii) the whole-time director;
 (iv) the Chief Financial Officer; and
 (v) such other officer as may be prescribed.

Meeting means Annual General Meeting or Extraordinary General Meeting of Members duly called and constituted including an adjourned meeting. In the context of Board of Directors, it shall mean the meeting of the Directors including an adjourned meeting.

Member, in relation to a company, means
 (i) the subscriber to the memorandum of the company who shall be deemed to have agreed to become member of the company, and on its registration, shall be entered as member in its register of members;
 (ii) every other person who agrees in writing to become a member of the company and whose name is entered in the register of members of the company;
 (iii) every person holding shares of the company and whose name is entered as a beneficial owner in the records of a depository.

Month means a calendar month.

Office means the Registered Office of the company for the time being.

Paid-up share capital or share capital paid-up means such aggregate amount of money credited as paid-up as is equivalent to the amount received as paid up in respect of shares issued and also includes any amount credited as paid-up in respect of shares of the company, but does not include any other amount received in respect of such shares, by whatever name called;

Persons include Corporations and firms as well as individuals.

Power / Transmission Utility shall mean any entity engaged in the business of power / transmission.

Proxy includes Attorney duly constituted under a valid Power of Attorney.

Project-In-Charge, a Director of the Company designated as Project In-charge for administering day to day activities of the Company.

"Public Company" means a company which is not a private company and
 b. has a minimum paid-up share capital as may be prescribed

Provided that a company which is a subsidiary of a company, not being a private company, shall be deemed to be public company for the purposes of this Act even where such subsidiary company continues to be a private company in its articles ;

Registrar means a Registrar, an Additional Registrar, a Joint Registrar, a Deputy Registrar or an Assistant Registrar, having the duty of registering companies and discharging various functions under this Act.

Register of Members means the Register of Members to be kept pursuant to the Act.

Section 2(76) of the Act describes related party, with reference to a company, which means

(i) a director or his relative;
 (ii) a key managerial personnel or his relative;
 (iii) a firm, in which a director, manager or his relative is a partner;
 (iv) a private company in which a director or manager is a member or director;
 (v) a public company in which a director or manager is a director or holds along with his relatives, more than two per cent. of its paid-up share capital;
 (vi) anybody corporate whose Board of Directors, managing director or manager is accustomed to act in accordance with the advice, directions or instructions of a director or manager;
 (vii) any person on whose advice, directions or instructions a director or manager is accustomed to act:
 Provided that nothing in sub-clauses (vi) and (vii) shall apply to the advice, directions or instructions given in a professional capacity;



		<p>(viii) any company which is (A) a holding, subsidiary or an associate company of such company; or (B) a subsidiary of a holding company to which it is also a subsidiary; (ix) such other person as may be prescribed.</p> <p>Seal means the common seal of the company for the time being.</p> <p>Securities and Exchange Board means the Securities and Exchange Board of India established under section 3 of the Securities & Exchange Board of India Act, 1992.</p> <p>Securities means the securities as defined in clause (h) of section 2 of the Securities Contracts (Regulation) Act, 1956.</p> <p>Share means a share in the share capital of a company and includes stock.</p> <p>Share Capital means the total equity share capital of the Company agreed to be issued and called the Authorized Capital of the Company, as mentioned in the Memorandum of Association of the Company.</p> <p>Singular Number Words importing the singular number include, where the context admits the plural number and vice-versa.</p> <p>State Electricity Board means the Electricity Board or Vidyut Board or any other body by whatever name called, set up by the State Governments under Electricity (Supply) Act 1948, as amended, which expression shall include its successors, administrators, authorized representatives and permitted assigns.</p> <p>Transmission Company shall mean any entity engaged in the business of transmission of electricity.</p> <p>Year means English calendar year and Financial Year shall have the meaning assigned thereto by Section 2(41) of the Act.</p> <p>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.</p> <p>Marginal Notes are for ease of reference only and shall not affect the construction and interpretation of these Articles.</p> <p>Other words or expressions contained in these Articles shall bear the same meaning as are assigned to them in the Act or any statutory modifications thereof.</p> <p>Table F not to Apply The regulations contained in Table F in the First Schedule to the Companies Act, 2013, shall not apply except to the extent that the same are repeated or contained or expressly made applicable by these Articles or by the Act but the regulations for the management of the Company and for the observance of the members thereof and their representatives shall, subject to any exercise of the statutory powers of the Company with reference to the repeal or alteration of, or addition to its regulations by Special Resolution, as prescribed by the said Companies Act, 2013 be such as contained in these Articles.</p> <p>Business Purpose The Company shall be engaged in the business of Transmission of Electricity, including construction, operation, maintenance and other related activities.</p>
		Share capital and variation of rights
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>1.1 Share Capital / Increase of capital by the Company and how carried into effect</p> <p>The Authorized Share Capital of the Company is as mentioned in clause V of the Memorandum of Association of the Company. The Company in General Meeting may from time to time, by resolution, increase its authorized share capital by creation of new shares, such increase to be of such aggregate amount and to be divided into shares of such respective amounts as may be determined by the General Meeting subject to the provisions of the Act.</p> <p>1.2 New Capital same as existing capital</p> <p>Any capital raised by the creation of new shares shall be considered as part of the original capital, and shall be subject to the same provisions herein contained, with reference to the payment of calls and installments, forfeiture, lien, surrender, transfer and transmission, voting and otherwise.</p>

II





		1	<p>1.3 Reduction of Capital</p> <p>The Company may, from time to time, by special resolution reduce its capital, which may be paid off either with or without extinguishing or reducing liability on shares, which is in excess of the wants of the company or canceling such share capital which has been lost or is unrepresented by available assets.</p> <p>1.4 Subdivision and consolidation of shares</p> <p>The Company in general meeting may, from time to time, sub-divide or consolidate its shares or any of them and exercise any of the other powers conferred by Section 61 of the Act and shall file with the Registrar such notice of exercise of any such powers as may be required by the Act.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	<p>2.1 Register and Index of Members/Beneficial owners</p> <p>The Company shall cause to be kept a Register and also an Index of Members and Debenture-holders in accordance with Sections 88 of the Act. Further, as permissible under Section 88 of the Act, the register and Index of beneficial owners maintained by a Depository shall be deemed to be the corresponding Register and Index for the purpose of this Act.</p> <p>2.2 Foreign Register of members</p> <p>The Company shall be entitled to keep in any country outside India a Foreign Register of members resident in that country, subject to compliance with the provisions of Section 88 of the Act.</p> <p>2.3 Shares to be numbered distinctively</p> <p>The shares in the capital held otherwise than in the depository mode shall be numbered progressively in sequence and given distinctive number, Except and in the manner herein mentioned, no share shall be forfeited or surrendered and shall continue to bear the number which it had originally borne.</p> <p>2.4 Share Application Money</p> <p>The Company shall ensure that the share application money paid is held by it in an account with a Scheduled Commercial Bank (in the name of the Company)</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	<p>3. Further Issue of Capital</p> <p>(a) Where at any time the Company wishes to raise its subscribed share capital by issue of further shares, it shall first offer such shares to its existing shareholders in proportion to their existing shareholdings on the date of such issue. Such offer to the existing shareholders shall be in accordance with the provisions of Section 62 of the Act.</p> <p>(b) The Company shall subject to applicable provisions of the Act and Articles of Association, make uniform calls from time to time upon all the Shareholders in respect of the moneys remaining unpaid on the issued share capital within 30 days or such time, as the Board may deem fit and appropriate.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4	<p>4. Shares under control of Directors</p> <p>Subject to the provisions of these Articles and of the Act, the shares including any shares forming part of any increased capital of the Company shall be under the control of the Directors, who may allot or otherwise dispose off the shares to such persons in such proportion, on such terms and conditions and at such times as the Directors may think fit and subject to the sanction of the Company in General Meeting, subject to the provisions of Sections 52 and section 54 of the Act at a premium or par and such option being exercisable for such time and for such consideration as the Directors think fit. The Board shall cause to be filed the returns as to allotment provided for in Section 39(4) of the Act.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>5.1 Issue of shares for consideration other than cash</p> <p>Subject to these Articles and the provisions of the Act, if any, the Board may issue and allot shares in the capital of the Company as payment or in consideration or as part payment or in part consideration of the purchase or acquisition of any property or for services, rendered to the Company in the conduct of its business and shares which may be so issued or allotted shall be credited or deemed to be credited as fully paid up or partly paid up shares.</p> <p>5.2 Power of Company to Issue Shares</p>

		5	<p>The Company in General Meeting may subject to the provisions of Section 42 & 62 of the Act provide that any shares (whether forming part of the original capital or of any increased capital of the Company) shall be offered to such persons (whether a Member or not), in such proportion and on such terms and conditions of the Act) at a premium or at par or at a discount, as such General Meeting shall determine and with full power to give any person (whether a Member or not) the option to call for or be allotted shares of any class of the Company either subject to compliance with the provisions of Sections 52 and 54 of the Act at a premium or at par or at discount, such option being exercisable at such times and for such consideration as may be directed by such General Meeting or the Company in General Meeting may make any other provisions whatsoever for the issue, allotment or disposal of any shares.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6	<p>6.1 Acceptance of shares</p> <p>Any person applying for shares in the Company followed by an allotment of any shares and subscribers to the Memorandum, shall be a shareholder within the meaning of these Articles, and every person whose name is on the Register of Members shall, for the purposes of these Articles, be a Member of the Company.</p> <p>6.2 Deposit & call to be a debt payable Immediately</p> <p>The Money, (if any), which the Board shall, on the application for allotment of any shares being made by them, require or direct to be paid by way of deposit, call or otherwise, in respect of any shares allotted by them, shall immediately on the insertion of the name of the allottee in the Register of Members as the name of the holder of such shares, become a debt due to and recoverable by the Company from the allottee thereof, and shall be paid by him accordingly.</p> <p>6.3 Liability of Members</p> <p>Every Member, or his heirs, executors or administrators, shall pay to the Company the portion of the capital and premium, if any, represented by or payable on, his share or shares which may, for the time being, remain unpaid thereon, in such amounts, at such time or times and in such manner as the Board shall, from time to time, in accordance with the Company's regulations, require or fix for the payment thereof.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>7.1 Share Certificates</p> <p>A certificate, issued under the common seal of the company, specifying the shares held by any person, shall be prima facie evidence of the title of the person to such shares.</p> <p>(a) Every Member or allottee of shares who is holding such shares in the physical form shall be entitled, without payment, to receive certificate specifying the name of the person in whose favour it is issued, the shares to which it relates and the amount paid-up thereof. Such certificates shall be issued only in pursuance of a resolution passed by the Board and on surrender to the Company of the letter of allotment or the fractional coupons of requisite value, save in case of issues against letters of acceptance or of renunciation or in cases of issue of bonus shares. Every such certificate shall be issued under the seal of the Company, which shall be affixed in the presence of two Directors and the Secretary or some other person appointed by the Board for the purpose, and the two directors and the Secretary or other persons as authorized by the Board shall sign the share certificate. Provided, if the composition of the Board permits of it, at least one of the aforesaid two directors shall be a person other than a Managing or a Whole Time Director. Particulars of every share certificate issued shall be entered in the Register of Members against the name of the person, to whom it has been issued, indicating the date of issue. For issue of any further duplicate certificate, the Board shall be entitled to charge such amount which shall not exceed fifty Rupees per Certificate.</p> <p>(b) A Director may sign a share certificate by affixing his signature thereon by means of any machine, equipment or other mechanical means such as engraving in metal or lithography, but not by means of a rubber stamp. PROVIDED that the Director shall be personally responsible for the safe custody of such machine equipment or other material used for the purpose.</p> <p>7.2 Renewal of Share Certificates</p> <p>(a) No certificate of any share or shares shall be issued either in exchange for those which are sub-divided or consolidated or in replacement of those which are defaced, mutilated, torn or old, decrepit, destroyed or where the pages on the reverse for recording transfers have been duly utilized, unless the certificate in lieu of which it is issued is surrendered to the Company and for issuing such share certificate the company may charge such fee as the Board thinks fit, not exceeding twenty rupees per certificate.</p> <p>(b) When a new share certificate has been issued in pursuance of clause (a) of this Article, it shall state on the face of it and against the stub or counterfoil to the effect that it is Issued in lieu of share certificate No</p>





			<p>_____ sub-divided/replaced/on consolidation.</p> <p>(c) If a share certificate is lost or destroyed a new certificate in lieu thereof shall be issued only with the prior consent of the Board and on such reasonable terms, such as furnishing supporting evidence and indemnity and the payment of out-of-pocket expenses incurred by the Company in investigating evidence produced, as the Board thinks fit.</p> <p>(d) When a new share certificate has been issued in pursuance of clause (c) of this Article, it shall state on the face of it and against the stub or counterfoil to the effect that it is duplicate issued in lieu of share certificate No. _____ and the word duplicate shall be stamped or printed prominently on the face of the share certificate.</p> <p>(e) Where a new share certificate has been issued in pursuance of clause (a) and/ or clause (c) of this Article, particulars of every such share certificate shall be entered in a Register of Renewed and Duplicate Share Certificates indicating against the name(s) of the person(s) to whom the certificate is issued, the number and date of issue of the share certificate in lieu of which the new certificate is issued and the necessary changes indicated in the Register of Members by suitable cross reference in the Remarks column.</p> <p>(f) All blank forms to be used for issue of share certificates shall be printed and the printing shall be done only on the authority of a resolution of the Board and the blank forms shall be consecutively machine-numbered and the forms and the blocks, engravings, facsimiles relating to the printing of such forms shall be kept in the custody of the Secretary or of such other person as the Board may appoint for the purpose; and the Secretary or the other person aforesaid shall be responsible for rendering an account of these forms to the Board.</p> <p>(g) The Committee of the Board, Company Secretary of the Company or a Director specifically authorized by the Board for such purpose shall be responsible for the maintenance, preservation and safe custody of all books and documents relating to the issue of share certificates including the blank forms of share certificates referred to in clause (f).</p> <p>(h) All books referred to in clause (g) shall be preserved in good order for not less than thirty years and in disputed cases shall be preserved permanently.</p> <p>7.3 Joint holders</p> <p>(a) Where two or more persons are registered as the holders of any share, they shall be treated as a single shareholder and shall be deemed to hold the same as joint holders with benefits of survivorship subject to the following and other provisions contained in these Articles.</p> <p>(b) The Company shall be entitled to decline to register more than four persons as the holders of any share.</p> <p>(c) The Joint holders of any share shall be liable, severally as well as jointly, for and in respect of all calls and other payments which ought to be made in respect of such shares.</p> <p>(d) On the death of any such joint holder, the survivor or survivors shall be the only person or persons recognized by the Company as having any title to the share, but the Directors may require such evidence of death as they may deem fit and nothing herein contained shall be taken to release the estate of the deceased joint holder from any liability on shares held by him jointly with any other person.</p> <p>(e) Delivery of share certificate to any one of such joint holders shall be deemed to be delivery to all of them and any one of such joint holders may give effectual discharge and receipts for any dividends or other moneys payable in respect of such shares and/or in respect of any other obligation of the Company towards them.</p> <p>(f) Only the person whose name stands in the Register of Members as the first of the joint holders of any shares shall be entitled to delivery of the certificate relating to such share or to receive notices from the Company, and any notice given to such person shall be deemed proper notice to all joint holders.</p> <p>(g) Any one of two or more joint holders may vote at any meeting either personally or by proxy in respect of such share as if he were solely entitled thereto, and if more than one of such joint holders be present at any meeting personally or by proxy, the holder whose name stands first or higher (as the case may be) on the Register of Members in respect of such share shall alone be entitled to vote in respect thereof.</p> <p>PROVIDED always that a member present at any meeting personally shall be entitled to vote in preference to a person present by proxy although the name of such person present by proxy stands first on the Register of Members in respect of such shares.</p>
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<input type="checkbox"/>	<input type="checkbox"/>	8	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
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9	<p>9. Company to have lien on shares</p> <p>The Company shall have a first and paramount lien upon all shares (other than fully paid up shares) registered in the name of each member (whether solely or jointly with others) and upon the sale proceeds thereof, for all moneys (whether presently payable or not) called or payable at a fixed time in respect of all such shares (not being fully paid up) for all moneys presently payable by him or his estate to the Company. Any such lien shall extend to all dividends payable and bonuses declared from time to time declared in respect of such shares.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10	<p>10. Enforcing lien by sale</p> <p>For the purpose of enforcing such lien, the Board may sell the shares subject thereto in such manner as they shall think fit, and for that purpose it may cause to be issued a duplicate certificate in respect of such shares and may authorize one of their Directors to execute a transfer thereof on behalf of and in the name of the Board. No sale shall be made until notice period for making call as aforesaid have expired and until notice in writing of the intention to sell shall have been made known to the shareholder for default in payment and default has been made by him in the payment of money called in respect of such shares for thirty days after the date of such notice. Upon issue of a duplicate certificate or certificates in lieu of the original share, the certificate or certificates originally issued shall stand cancelled and become null and void and the same shall have no effect.</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	12	<p>12. Application of proceeds of sale</p> <p>The net proceeds of any such sale shall be received by the Company and applied in or towards payment of such part of the amount as is presently payable and the residue, if any, shall (subject to a like lien for sums not presently payable as existed upon the shares before sale) be paid to the person entitled to the shares, at the date of the sale.</p>
			Calls on shares
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13	<p>13.1 Directors may make calls</p> <p>The Board may, from time to time, subject to the terms on which any shares may have been issued and subject to the conditions of allotment, by a resolution passed at a meeting of the Board (and not by resolution by circulation) make such call as it thinks fit upon the Members in respect of all moneys unpaid on the shares held by them respectively and each member shall pay the amount of every call so made on him to the person or persons and at the times and places appointed by the board. A call may be made payable by instalments.</p> <p>13.2 Notice of calls</p> <p>Not less than thirty days? notice in writing of any call shall be given by the Company specifying the time and place of payment, and the person or persons to whom such call shall be paid.</p> <p>13.3 When call made</p> <p>A call shall be deemed to have been made at the time when the resolution of the Board authorizing such call was passed at a meeting of the Board and demand notice is issued.</p> <p>13.4 Calls may be revoked or postponed</p> <p>A call may be revoked or postponed at the discretion of the Board.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	14	<p>14. Directors may extend time</p> <p>The Board may, from time to time at its discretion, extend the time fixed for the payment of any call, and may extend such time as to all or any of the Members for reasons which the Board may consider satisfactory, but no Member shall be entitled to such extension save as a matter of grace.</p>





<input checked="" type="checkbox"/>	<input type="checkbox"/>	15	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	16	<p>16. Calls to carry interest</p> <p>If any Member fails to pay any call due from him on the day appointed for payment thereof, or any such extension thereof as aforesaid, he shall be liable to pay interest on the same from the day appointed for the payment thereof to the time of actual payment at rate not exceeding 10 per cent per annum as maybe decided by the Board, but the Board may in its absolute discretion and in special circumstances waive or reduce the levy of interest as deemed appropriate.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	17	<p>17. Sums deemed to be call</p> <p>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 Articles be deemed to be a call duly made and payable on the date on which by the terms of issue the same becomes payable, and in case of non-payment all the relevant provisions of these Articles 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.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	18	<p>18.1 Partial payment not to preclude Forfeiture</p> <p>Neither the receipt by the Company of a portion of any money which shall from time to time be due from any Member to the Company in respect of his shares, either by way of principal or interest nor any indulgence granted by the Company in respect of the payment of any such money, shall preclude the Company from thereafter proceeding to enforce a forfeiture of such shares as hereinafter provided.</p> <p>18.2 Payment in anticipation of calls may carry interest</p> <p>The Board may, if it thinks fit, agree to and in anticipation receive from any Member willing to advance the same, all of calls money or any part of the amounts of his respective shares beyond the sums actually called up, and upon the moneys so paid in advance, or upon so much thereof, from time to time, and at any time thereafter as exceeds the amount of the calls then made upon and due in respect of the shares on account of which such advances are made, the Board may pay or allow interest, at such rate as the Member paying the sum in advance and the Board agree upon. The Board may agree to repay at any time any amount so advanced or may at any time repay the same upon giving to the Member three months' notice in writing.</p> <p>PROVIDED that moneys paid in advance of calls on any shares may carry interest but shall not confer a right to dividend or to participate in profits.</p> <p>(b) No Member paying any such sum in advance shall be entitled to voting rights in respect of the moneys so paid by him until the same would but for such payment become presently payable.</p>
			<i>Transfer of shares</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	19	<p>19.1 Register of Transfers</p> <p>The Company shall maintain a Register of Transfers and therein shall be fairly and distinctively enter the particulars of every transfer or transmission of any share in the physical form.</p> <p>19.2 Form of transfer</p> <p>The instrument of transfer shall be in writing and in such form as prescribed under the Act. All the provisions of Section 56 of the Act shall be duly complied with in respect of all transfers and of the registration thereof. The Company shall not charge any fee for registration of a transfer of shares or debentures.</p> <p>19.3 Instrument of Transfer to be completed and presented to the Company</p> <p>The Instrument of Transfer duly stamped and executed by the transferor and the transferee shall be delivered to the Company in accordance with the provisions of the Act. The instrument of transfer shall be accompanied by the Share Certificate or such evidences the Board may require to prove the title of transferor and his right to transfer the shares and every registered Instrument of Transfer shall remain in the custody of the Company until destroyed by order of the Board. Any instrument of transfer which the Directors may decline to register shall be returned to the person depositing the same.</p> <p>19.4 Transferor deemed to be holder</p>

			<p>The transferor shall be deemed to be the holder of such shares until the name of the transferee shall have entered in the Register of Members in respect thereof. Before the registration of a transfer, the certificate or certificates of the shares must be delivered to the Company along with Transfer Deed.</p> <p>19.5 No transfer to insolvent etc.</p> <p>No transfer shall be made to a person of unsound mind or to an insolvent.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	20	<p>20. Closure of Register of Members/Debenture holders</p> <p>The Directors shall have power, on giving not less than seven days' previous notice as required by Section 91 of the Act, to close the Register of Transfer, Register of Members or Register of Debenture holders or the register of other security holders of the Company for any period or periods not exceeding in the aggregate forty-five days in each year (but not exceeding thirty days at any one time) as they may determine.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	21	<p>21. Nomination by shareholder</p> <p>Every share-holder or debenture holder may at any time, nominate in the prescribed manner, a person to whom his shares or debenture shall vest in the event of his death, as provided in Section 72 of the Act.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	22	<p>22. Title to shares of deceased holder</p> <p>In the event there is no nomination, the executors or administrators of a deceased Member or the holder of a Succession Certificate in respect of the shares of a deceased Member (not being one of two or more joint holders) shall be the only persons whom the Company will be bound to recognize as having any title to the shares registered in the name of such Member, and the Company shall not be bound to recognize such executors or administrators or holders unless such executors, administrators or holders shall have first obtained probate or Letters of Administration or Succession Certificate as the case may be, from a duly constituted Court in India.</p> <p>PROVIDED that the Directors may, at their absolute discretion dispense with production of Probate, Letters of Administration or Succession Certificate upon such terms as to indemnity or otherwise as they think fit and may enter the name of the person who claims to be absolutely entitled to the shares standing in the name of a deceased Member, as a Member</p>
			Transmission of shares
<input type="checkbox"/>	<input checked="" type="checkbox"/>	23	<p>23.1 Transmission of Shares</p> <p>Subject to the provisions of the Act, any person becoming entitled to any share in consequence of the death, lunacy or insolvency of any Member or by any lawful means other than by a transfer in accordance with these Articles, may, with the consent of the Directors (which they shall be under no obligation to give) and upon producing such evidence that he sustains the character in respect of which he proposes to act under this Article or of his title as the Directors may require, and upon such indemnity as the Directors may require, either be registered as a Member in respect of such shares or elect to have some person nominated by him and approved by the Directors registered as a Member in respect of such shares. PROVIDED that if such persons shall elect to have his nominee registered, he shall testify his election by executing in favor of his nominee an instrument of transfer in accordance with these Articles, and until he does so he shall not be freed from any liability in respect of such shares.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	24	<p>24. Right of Board to decline or suspend registration</p> <p>(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-</p> <p>(a) to be registered himself as holder of the share; or</p> <p>(b) to make such transfer of the share as the deceased or insolvent member could have made.</p> <p>(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.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>25. The Company not liable for disregard of notice prohibiting registration of transfer</p> <p>The Company shall incur no liability or responsibility whatever in consequence of its registering or giving effect</p>





		25	to any transfer of shares made or purported to be made by any apparent legal owner thereof (as shown or appearing in register of Members) to the prejudice of persons having or claiming any equitable right, title or interest to or in the same shares, notwithstanding that the Company may have had notice of such equitable right, title or interest or notice prohibiting registration of such transfer, and may have entered such notice or referred to it in any book, or attended or given effect to any notice which may have been given to it of any equitable right, title or interest or be under any liability whatsoever for refusing or neglecting so to do though it may have been entered or referred to in some book of the Company, but the Company shall nevertheless be at liberty to regard and attend to any such notice and give effect thereto, if the Directors shall so think fit.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	26	<p>26. Rights of successors</p> <p>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 have been entitled if he were the registered holder of the shares, except that he shall not, before being registered as a Member in respect of the shares, be entitled to exercise any right conferred by membership in relation to meetings of the Company. PROVIDED that the Directors shall, at any time, give notice requiring any such person to elect to be registered himself or to transfer the shares, and if the notice is not complied within ninety days from the date of issue of the notice, the Directors may thereafter withhold payment of all dividends, bonuses or other moneys payable in respect of the shares until the requirements of the notice have been complied with.</p>
			Forfeiture of shares
<input type="checkbox"/>	<input checked="" type="checkbox"/>	27	<p>27.1 If money payable on shares not paid notice to be given to members</p> <p>If any Member fails to pay any call, or installment of a call, on or before the day appointed for the payment of the same or any such extension thereof as aforesaid, 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 him to pay the same together with any interest which may have accrued and all expenses that may have been incurred by the Company by reason of such non-payment.</p> <p>27.2 Contents of Notice</p> <p>The notice shall name a further day (not being less than fourteen days from the date of the service of notice) and a place or places on and at which such call or installment and such interest thereon at such rate as the Directors shall determine from the day on which such call or installment ought to have been paid and expenses as aforesaid are to be paid. The notice shall also state that in the event of the non-payment on or before the day, at or before the time and at the place appointed, the shares in respect of which the call was made or installment is payable, shall be liable to be forfeited.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	28	<p>28. In default of payment, shares to be Forfeited</p> <p>If the requirement of any such notice as aforesaid are not complied with, every or any share in respect of which such notice has been given may, at any time thereafter, but before payment of all calls or installments, interest and expenses due in respect thereof, be forfeited by a resolution of the Board to that effect. Such forfeiture shall include all dividends declared or any other moneys payable in respect of the aforesaid share and not actually paid before the forfeiture. In default of payment, shares to be Forfeited</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	29	<p>29. Notice of forfeiture to a Member</p> <p>When any share shall have been so forfeited, notice of the forfeiture shall be given to the Member in whose name it stood immediately prior to the forfeiture, and an entry of the forfeiture, with the date thereof, shall forthwith be made in the Register of Members, but no forfeiture shall be in any manner invalid by any omission or neglect to make any such entry as aforesaid in the Register.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	30	<p>30. Forfeited share to be property of the Company and may be sold etc.</p> <p>Any share so forfeited shall be deemed to be the property of the Company, and may be sold, re-allotted, or otherwise disposed of, either to the original holder thereof or to any person, upon such terms and in such manner as the Board shall think fit.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	31	<p>31. Member still liable to pay calls owing at the time of forfeiture and interest</p> <p>Any members whose shares have been forfeited shall notwithstanding the forfeiture be liable to pay and shall forthwith pay to the Company, on demand, all calls, installment, interest and expenses owing upon or in respect of such shares at the time of the forfeiture together with interest accrued thereon at the time of the forfeiture at such rate as the Board may determine, and the Board may enforce the payment thereof, if it thinks fit.</p>

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>32.1 Effect of forfeiture</p> <p>The forfeiture of a share shall involve extinction, at the time of the forfeiture, of all interest in and all claims and demands against the Company, in respect of the share and all other rights incidental to the share, except only such of those rights as by these Articles are expressly saved.</p> <p>32.2 Evidence of forfeiture</p> <p>A declaration in writing by Chairman or Managing Director of the Company or by any person duly authorised in this regard that certain shares in the Company have 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 shares and such declaration, and the receipt of the Company for the consideration, if any, given for the shares on the sale or disposition thereof shall constitute a good title to such shares and the person to whom the shares are sold shall be registered as the holder of such shares and shall not be bound to see as to the application of the purchase money nor shall his title to such shares be affected by any irregularity or invalidity in the proceedings in reference to such forfeiture, sale or disposition.</p> <p>32 32.3 Validity of sale under Articles of forfeited shares</p> <p>Upon any sale after forfeiture or for enforcing a lien in purported exercise of the powers herein before given, the board may appoint some person to execute an instrument of transfer of the shares sold and cause the purchaser's name to be entered in the Register of Members in respect of the shares sold, and the purchaser shall not be bound to see the regularity of the proceedings, or to the application of the purchase money, and after his name has been entered in the Register in respect of such shares the validity of the sale shall not be impeached by any person and the remedy of any person aggrieved by the sale shall be in damages only and against the Company exclusively.</p> <p>32.4 Cancellation of Share Certificates in respect of forfeited shares</p> <p>Upon any sale, re-allotment or other disposal under the provisions of the preceding Articles, the certificate or certificates originally issued in respect of the relative shares shall (unless the same shall on demand by the Company have been (previously) surrendered to it by the defaulting member) stand cancelled and become null and void and of no effect, and the Directors shall be entitled to issue a duplicate certificate or certificates in respect of the said shares to the person or persons entitled thereto.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>33 33. Power to annul forfeiture</p> <p>The Board may at any time before any share so forfeited, shall have been sold, re-allotted or otherwise disposed of, annul the forfeiture thereof upon such terms and conditions as it thinks fit.</p>
		<i>Alteration of capital</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	34
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>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.</p> <p>35. Subject to the provisions of section 61, the company may, by ordinary resolution, the Company may from time to time:--</p> <p>(a) consolidate and divide all or any of its share capital into shares of larger amount than its existing shares;</p> <p>(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;</p> <p>(c) Sub-divide its shares, or any of them into shares of smaller amount than is fixed by the memorandum, so, however, that in the sub-division the proportion between the amount paid and the amount, if any, unpaid on each reduced share shall be the same as it was in the case of the share from which the reduced share is derived.;</p> <p>35 (d) Cancel any shares which as the date of the passing of the resolution, have not been taken or agreed to be taken by any person and diminish the amount of its share capital by the amount of the shares so cancelled.</p> <p>The resolution whereby any share is sub-divided may determine that, as between the holders of the shares resulting from such sub-division, one or more of such shares shall have some preference or special advantage as regards dividend, capital, voting or otherwise over or as compared with the others or other, subject, to the</p>





			provisions of the Act.
			<p>Subject to the provisions of Sections 66 of the Act, the Board may accept from any member the surrender on such terms and conditions as shall be agreed of all or any of his shares.</p> <p>The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law, --</p> <p>(a) its share capital;</p> <p>(b) any capital redemption reserve account; or</p> <p>(c) any share premium account.</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	36	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	37	
			Capitalisation of profits
<input type="checkbox"/>	<input checked="" type="checkbox"/>	38	<p>38. (1) Any General Meeting of the Company may resolve that any amounts standing to the credit of the Free Reserve or Share Premium Account or the Capital Redemption Reserve Account or any moneys, investment or other assets forming part of the undivided profits including profits or surplus moneys arising from the realization and (when permitted by the law) from the appreciation in value of any capital assets of the Company standing to the credit of the General Reserve or any other Reserve or Reserve Fund or any other Fund of the Company or in the hands of the Company and available for dividend be capitalized:-</p> <p>(a) by the issue and distribution of shares, as fully paid-up, and to the extent permitted by the Act, debentures, debenture stock, bonds or other obligations of the Company ; or</p> <p>(b) by crediting share of the Company, which may have been issued and are not fully paid-up, with the whole or any part of the sum remaining unpaid thereon;</p> <p>PROVIDED that any amounts standing to the credit of the Share Premium Account or the Capital Redemption Reserve Account shall be applied only in crediting the payment of capital on shares to be issued to Members as fully paid bonus shares (Further capitalization of reserve created by the revaluation of assets are not to be used for issuance of Bonus Shares as per section 63 of the Act).</p> <p>(2) Such issue and distribution under sub-clause (1) (a) of this Article and payment to the credit of unpaid share capital under sub-clause (1) (b) of this Article shall be made among and in favour of the Members or any class of them or any of them entitled thereto and in accordance with their respective rights and interests and in proportion to the amount of capital paid-up on the shares held by them respectively in respect of which such distribution or payment shall be made, on the footing that such Members become entitled thereto as capital.</p> <p>(3) The Directors shall give effect to any such resolution and for the said purpose the Board may settle any difficulty which may arise in regard to distribution as it thinks expedient including in regard to fractional entitlements, and shall apply such profits, General Reserve, other Reserve or any other Fund or account as aforesaid as may be required for the purpose of making payment in full on the shares, or other obligations of the Company so distributed under sub clause (1) (a) of this Article or (as the case may be) for the purpose of paying, in whole or in part, the amount remaining unpaid on the shares which may have been issued and are not fully paid-up under sub-clause (1)(b) above.</p> <p>PROVIDED that no such distribution or payment shall be made unless recommended by the Directors, and, if so recommended, such distribution and payment shall be accepted by such Members as aforesaid in full satisfaction of their interest in the said capitalized fund.</p> <p>(4) For the purpose of giving effect to any such resolution, the Directors may settle any difficulty which may arise in regard to the distribution or payment as aforesaid as they think expedient, and, in particular, they may issue fractional certificates and may fix the value for distribution of any specific asset and may determine that any cash payment be made to any Members on the footing of the value so fixed and may vest any such cash, shares, debentures stock, bonds or other obligations in trustees upon such trusts for the persons entitled thereto as may seem expedient to the directors, and generally may make arrangement for the acceptance, allotment and sale of such shares, debentures, debentures stock, bonds or other obligations and fractional certificates or otherwise as they may think fit.</p> <p>(5) When deemed requisite, a proper contract shall be filed in accordance with the Act and the Board may appoint any person to sign such contract on behalf of the Members entitled as aforesaid.</p>

<input type="checkbox"/>	<input checked="" type="checkbox"/>	39	<p>39. Subject to the provisions of the Act and these Articles, in cases where some of the shares of the Company are fully paid and others are partly paid, such capitalization may be effected by the distribution of further shares in respect of the fully paid shares and by crediting the partly paid shares with the whole or part of the unpaid liability thereon, but so that as between the holders of the fully paid shares and the partly paid shares, the sums so applied in the payment of such further shares and in the extinguishment or diminution of the liability on the partly paid shares shall be applied pro rata in proportion to the amount then already paid or credited as paid on the existing fully paid and partly paid shares respectively.</p>
			Buy-back of shares
<input type="checkbox"/>	<input checked="" type="checkbox"/>	40	<p>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.</p>
			General meetings
<input type="checkbox"/>	<input checked="" type="checkbox"/>	41	<p>41.1 Annual General Meeting</p> <p>The Company shall in each year hold a General Meeting as its Annual General Meeting in addition to any other meeting in that year. All General Meetings other than Annual General Meetings shall be called Extraordinary General Meetings. If for any reason beyond the control of the Board, the general meeting (including an Annual General meeting) cannot be held on the appointed day, the Board shall have power to postpone the General meeting of which a notice should be given to the members. Every member of the Company shall be entitled to attend either in person or by proxy and the Auditor of the Company shall have the right to attend and to be heard at any General Meeting which he attends on any part of the business which concerns him as Auditor.</p> <p>41.2 Extraordinary General Meeting</p> <p>The Board may, whenever it thinks fit, call an Extraordinary General Meeting of the Company. The Board shall at the requisition in writing by a Member or Members holding in the aggregate not less than one-tenth of such of the paid-up capital of the company on that date and carries the right of voting in regard to the matter in respect of which the requisition has been made.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	42	<p>42.1 Requisition of Members to state object of Meeting</p> <p>Any valid requisition so made by Members must state the object or objects of the meeting proposed to be called, and must be signed by the requisitionists and deposited at the registered office of the company. PROVIDED that such requisition may consist of several documents in like form, each signed by one or more requisitionists.</p> <p>42.2 On receipt of requisition Directors to call meeting and in default requisitionists may do so</p> <p>Upon the receipt of any such requisition, the Board shall forthwith call an Extraordinary General Meeting, and if they do not proceed within twenty-one days from the date of the requisition being deposited at the Registered Office to cause a meeting to be called on a day not later than forty-five days from the date of deposit of the requisition, the requisitionists, or such of their number as represent either a majority in value of the paid-up share capital held by all of them or one-tenth of such of the paid-up share capital of the Company as is referred to in Section 100(2) of the Act, whichever is less, may themselves call the meeting, but in either case, any meeting so called shall be held within three months from the date of the deposit of the requisition, as aforesaid.</p> <p>42.3 Meeting called by requisitionists</p> <p>Any meeting called under the foregoing Articles by the requisitionists shall be called in the same manner, as nearly as possible, as that in which meetings are to be called by the Board.</p> <p>42.4 Twenty-one days notice of meeting to be given</p> <p>A general meeting of a Company may be called by giving not less than clear twenty-one days' notice either in writing or through electronic mode in such a manner as may be prescribed, Every notice of a meeting shall specify the place, date, day and the hour of meeting, and shall contain statement of the business to be transacted at such meeting. And, The notice of every meeting shall be given to every member of the Company, Legal Representative of any deceased member or the assignee of an insolvent member, auditor or auditors of</p>





		<p>the Company and every director of the Company and all such persons as are under these Articles entitled to receive notice from the Company</p> <p>"Provided that a general meeting may be called after giving shorter notice than that specified in this sub-section if consent, in writing or by electronic mode, is accorded thereto?</p> <p>(i) in the case of an annual general meeting, by not less than ninety-five per cent. of the members entitled to vote thereat; and (ii) in the case of any other general meeting, by members of the company? (a) holding, if the company has a share capital, majority in number of members entitled to vote and who represent not less than ninety-five per cent. of such part of the paid-up share capital of the company as gives a right to vote at the meeting; or (b) having, if the company has no share capital, not less than ninety-five per cent. of the total voting power exercisable at that meeting:</p> <p>Provided further that where any member of a company is entitled to vote only on some resolution or resolutions to be moved at a meeting and not on the others, those members shall be taken into account for the purposes of this sub-section in respect of the former resolution or resolutions and not in respect of the latter."</p>
		<i>Proceedings at general meetings</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>43.1 Business to be transacted at the General Meeting and nature thereof</p> <p>In the case of an Annual General Meeting, all business to be transacted thereat shall be deemed special, other than (i) the consideration of the financial statements and the reports of the Board of Directors and Auditors; (ii) the declaration of any dividend; (iii) the appointment of Directors in place of those retiring; (iv) the appointment of, and the fixing of the remuneration of, the Auditors, and in the case of any other meeting, all business shall be deemed to be Special Business, and there shall be annexed to the notice of the Meeting an Explanatory statement setting out all material facts concerning each such item of special business, including in particular the nature of the concern or interest, financial or otherwise, if any, therein of (i) every Director, and the Manager (if any); (ii) every other key managerial personnel; and relatives of the persons mentioned in sub clauses (i) and (ii). Where any such item of Special Business relates to, or affects any other company, the extent of shareholding interest in such other company of every promoter, director and the manager, if any, and of every other key managerial personnel of the Company shall also be set out in the statement if the extent of such shareholding interest is not less than two per cent of the paid-up share capital of that other company and where any item of business consists of the according of approval to any documents by the meeting, the time and place where the document can be inspected shall be specified in the statement aforesaid. The annual general meeting shall be called during business hours on any day that is not a National Holiday and it is to be held either at the registered office of the company or at some other place within the city in which the registered office of the company is situate.</p> <p>43.2 Omission to give notice not to invalidate a resolution passed</p> <p>The accidental omission to give any such notice as aforesaid to any of the Members, or the non-receipt thereof, shall not invalidate any resolution passed at any such meeting.</p> <p>43.3 Meeting not to transact business not mentioned in notice</p> <p>No General Meeting, Annual or Extraordinary, shall be competent to enter upon, discuss or transact any business which has not been mentioned in the notice or notices, upon which it was convened.</p> <p>43.4 Body Corporate deemed to be personally present</p> <p>A body corporate being a Member shall be deemed to be personally present if it is represented in accordance with Section 113 of the Act.</p> <p>43.5 Quorum at General Meeting</p> <p>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. Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103 of the Companies Act, 2013</p>

			<p>43.6 If quorum not present meeting to be dissolved or adjourned</p> <p>If, at the expiration of half an hour from the time appointed for holding a general meeting of the Company, a quorum is not present, the meeting, if convened by or upon the requisition of Members, shall stand dissolved, but in any other case, the meeting shall stand adjourned to the same day in the next week or, if that day is a public holiday, until the next succeeding day which is not a public holiday, at the same time and place, or to such other day and at such other time & place as the Board may determine, and if at such adjourned meeting a quorum is not present at the expiration of half an hour from the time appointed for holding the meeting, the Members present shall form the quorum, and may transact the business for which the meeting was called.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	44	<p>44.1 Chairman of General Meeting</p> <p>The Chairman of the Board shall be entitled to take the Chair at every General Meeting whether Annual or Extraordinary. If at any meeting the Chairman is not present within fifteen minutes of the time appointed for holding such meeting or he has informed that he shall be unable or unwilling to take the Chair then any one of directors with mutual consent shall so preside at the meeting. If no Director be present or if all the Directors present decline to take the Chair, then the Members present shall elect one of the members to be the Chairman of the Meeting</p> <p>44.2 No Business whilst chair vacant</p> <p>No business shall be discussed at any General Meeting except the election of a Chairman, whilst the Chair is vacant.</p> <p>44.3 Chairman with consent may adjourn meeting</p> <p>The Chairman, with the consent of the Members, may adjourn any meeting from time to time and from place to place within the city, town or village in which the Registered Office of the Company is situated, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. Notwithstanding, the provision as above in the event of disorder at a validly convened meeting the Chairman may adjourn the meeting provided that such an adjournment shall not be a longer period than the Chairman considers necessary to bring order at the meeting and Chairman communicates his decision to those present in so far as it is possible.</p> <p>44.4 Questions at General Meeting how Decided</p> <p>Every question submitted to a meeting shall be decided in the first instance unless a poll is demanded, on a show of hands. Before or on the declaration of the result of the voting on any resolution on a show of hands, a poll may be ordered to be taken by the Chairman of the meeting on his own motion and shall be ordered to be taken by him on a demand made in that behalf by any member or members present in person or by proxy, and holding shares in the Company, which confer a power to vote on the resolution not being less than one-tenth of the total voting power in respect of the Resolution or on which an aggregate sum of not less than five lakh rupees has been paid up. The demand for a poll may be withdrawn at any time by the person or persons making the demand. Unless a poll is so demanded, a declaration by the Chairman that a resolution has, on show of hands, been carried through unanimously or by a particular majority or lost and an entry to that effect in the Minutes Book of the Company shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against the resolution.</p> <p>44.5 Chairman s Casting Vote</p> <p>In the case of an equality of votes, the Chairman shall have a casting vote in addition to the vote or votes to which he may be entitled otherwise.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	45	<p>45.1 Poll to be taken, if demanded</p> <p>If a poll is demanded as aforesaid, the same shall be taken at such time (not later than forty-eight hours from the time when the demand was made) and place in the city or town in which the Registered office of the Company is for the time being situated, as the Chairman shall direct, either at once or after an interval or adjournment and the result of the poll shall be deemed to be the resolution of the meeting.</p> <p>45.2 In which case poll taken without Adjournment</p> <p>Any poll duly demanded on the election of the Chairman of a meeting or on any question of adjournment shall be taken at the meeting forthwith.</p> <p>45.3 Demand for poll not to prevent transaction of other business</p>





			The demand for a poll except on the questions of the election of the Chairman and of an adjournment shall not prevent the continuance of a meeting for the transaction of any business other than the question on which the poll has been demanded.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	46	<p>46.1 Minutes of General Meetings</p> <p>(a) The Company shall cause minutes of the proceedings of every General Meeting or every resolution passed by postal ballot to be kept by making within thirty days of the conclusion of every such meeting concerned, record thereof kept with Minute Book for that purpose with their pages consecutively numbered.</p> <p>(b) Each page of every such book shall be initialed or signed and the last page of the record of proceedings of each meeting in such book shall be dated and signed by the Chairman of the same meeting within the aforesaid period of thirty days or in the event of the death or inability of that Chairman within that period, by a Director duly authorised by the Board for the purpose.</p> <p>(c) In no case the minutes of proceedings of a meeting shall be attached to any such book as aforesaid by pasting or otherwise.</p> <p>(d) The minutes of each meeting shall contain a fair and correct summary of the proceedings thereat.</p> <p>(e) All decisions taken and appointments of officers made at any meeting aforesaid shall be included in the minutes of the meeting.</p> <p>(f) Nothing herein contained shall require or be deemed to require the inclusion in any such minutes of any matter which in the opinion of the Chairman of the meeting (a) is or could reasonably be regarded as defamatory of any person, or (b) is irrelevant or immaterial to the proceedings, or (c) is detrimental to the interests of the Company. The Chairman of the meeting shall exercise an absolute discretion in regard to the inclusion or non-inclusion of any matter in the minutes on the aforesaid grounds.</p> <p>(g) Any such minutes shall be evidence of the proceedings recorded therein. Where the minutes have been kept in accordance with section then, until the contrary is proved, the meeting shall be deemed to have been duly called and held, all appointments of directors, key managerial personnel, auditors or company secretary in practice, shall be deemed to be valid. No document purporting to be a report of the proceedings of any general meeting of a company shall be circulated or advertised at the expense of the company, unless it includes the matters required to be contained in the minutes of the proceedings of such meeting. The company shall observe secretarial standards with respect to general and Board meetings specified by the Institute of Company Secretaries of India constituted under section 3 of the Company Secretaries Act, 1980, and approved as such by the Central Government.</p> <p>(h) The book containing the minutes of the proceedings of any general meeting of the Company or of a resolution passed by postal ballot, shall be kept at the registered office of the Company and shall be open, during business hours, to the inspection by any member without any charge, for such period not being less than two hours in each business day are allowed for inspection.</p>
			Adjournment of meeting
<input type="checkbox"/>	<input checked="" type="checkbox"/>	47	<p>47. Adjournment of Meeting</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
			Voting rights

<input type="checkbox"/>	<input checked="" type="checkbox"/>	48. Members in arrears not to vote
		48 No member shall be entitled to vote either personally or by proxy at any General Meeting or Meeting of a class of shareholders either upon a show of hands or upon a poll in respect of any shares registered in his name on which any calls or other sums presently payable by him have not been paid or in regard to which the Company has exercised any right of lien.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	49. Number of votes to which Member Entitled
		49 Subject to the provisions of these Articles and without prejudice to any special privileges or restrictions as to voting for the time being attached to any class of shares for the time being forming part of the capital of the Company, every Member shall be entitled to be present, and to speak and vote at such meeting by show of hand for which the Member present in person shall have one vote. On a poll taken at a meeting of a company, a member entitled to more than one vote, or his proxy, need not to use all his votes or cast in the same way all the votes he uses.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	50. Votes by a Member entitled to more than one vote
		50 On a poll taken at a meeting of the Company, a Member entitled to more than one vote by virtue of his shareholding or his proxy or other person entitled to vote for him, as the case may be, need not, if he votes, use all his votes or cast in the same way all the votes he uses and he may vote in different manner as he deems fit.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	51. Vote of Member who is a minor
		51 If any shareholder be a minor, the vote in respect of his share or shares shall be by his guardian, or any one of his guardians, if more than one, to be selected in case of dispute by the Chairman of the meeting.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	52. Votes of Joint Members
		52 If there be joint registered holders of any shares, 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. For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	53. Voting in person or by proxy or Representative
		53 Subject to the provisions of these Articles, votes may be given either personally or by proxy. A body corporate being a Member may vote either by proxy or by a representative duly authorised in accordance with Section 113 of the Act and such representative shall be entitled to exercise the same rights and powers (including the right to vote by proxy) and by postal ballot, on behalf of the body corporate which he represents as that body could exercise if it were an individual Member of the Company.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	54.1 Votes in respect of shares of Deceased
		Any person entitled under the Transmission Clause to transfer any shares may vote at any General Meeting in respect thereof in the same manner as if he were the registered holder of such shares. PROVIDED that forty-eight hours at least before the time of holding the meeting or adjourned meeting, as the case may be, at which he proposes to vote he shall satisfy the Chairman of his right to transfer such shares and give such indemnity (if any) as the Chairman may require or the Chairman shall have previously admitted his right to vote at such meeting in respect thereof.
		54.2 Time for objection to vote
		54 No objection shall be made to the validity of any vote, except at the meeting or poll at which such vote was tendered, and every vote whether given personally or by proxy, not disallowed at such meeting or poll, shall be deemed valid for purposes of such meeting or poll whatsoever.
		54/3 Chairman of the meeting to be the judge of the validity of any Vote
		The Chairman of any meeting shall be the sole judge of the validity of every vote tendered at such meeting. The Chairman present at the taking of a poll shall be the sole judge of the validity of every vote tendered at such poll.
		Proxy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	55.1 Appointment of proxy
		A person can act as proxy on behalf of members not exceeding fifty and holding in the aggregate not more than ten percent of the total share capital of the company carrying voting rights:





		55	<p>Provided that a member holding more than ten percent of the total share capital of the Company carrying voting rights may appoint a single person as proxy and such person shall not act as proxy for any other person or shareholder.</p> <p>Every proxy shall be appointed in writing under the hand of the Member or if such Member is a body corporate under the common seal of such corporation, or be signed by an appointer or his attorney duly authorised in writing. The proxy so appointed shall not have any right to speak at the meetings.</p> <p>55.2 Deposit of instrument of Proxy etc.</p> <p>The instrument appointing a proxy and the power of attorney or other authority (if any), under which it is signed or a notarized copy of that power or authority, shall be deposited at the Registered Office of the Company not later than forty-eight hours before the time for holding the meeting at which the person named in the instrument proposes to vote, and in default, the instrument of proxy shall not be treated as valid. No instrument appointing a proxy shall be valid after the expiration of twelve months from the date of its execution.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	56	<p>56. Form of proxy</p> <p>An instrument appointing a proxy shall be in the form No. MGT-11 as prescribed in the rules made under section 105 of the Companies Act, 2013</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	57	<p>57. Proxy either for specified meeting or for a period</p> <p>An instrument of proxy may appoint a proxy either for the purpose of a particular meeting specified in the instrument and any adjournment thereof or it may appoint for the purpose of every meeting of the Company, or of every meeting to be held before a date specified in the instrument and every adjournment of any such meeting.</p> <p>57.2 Validity of votes given by proxy notwithstanding death of Member</p> <p>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.</p> <p>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.</p>
			Board of Directors
<input type="checkbox"/>	<input checked="" type="checkbox"/>	58	<p>58.1 Management of Affairs</p> <p>The day to day management of the business and affairs of the Company shall be vested with Project-in-charge under the supervision, direction & control of the Board. The Board, may exercise all such powers of the Company and do all such acts, deeds and things as are not prohibited by the Act or any other statute or by the Memorandum of Association of the Company and without prejudice to the foregoing, shall be responsible for all policy matters and the supervision, direction and control of the conduct of the business, affairs & operations of the Company.</p> <p>58.2 First Directors</p> <p>Shri Sanjay Nayak, Shri Dharuman Manavalan and Shri Sachin Shukla shall be the First Directors of the Company</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>59.1 Number and appointment of Directors</p> <p>The Board of Directors of the Company shall consist of not less than 3 but not more than 15 Directors. A Director shall not be required to hold any qualification shares in the Company.</p> <p>Notwithstanding anything to the contrary contained in these Articles, so long as any moneys remain owing by the Company to a Financial Institution or any other person by the Company or the Company has entered into any agreement or undertaking or arrangement (hereinafter refer as 'agreement') with Bodies (like State Electricity Board/Nigam) or the Board of Directors have decided to seek nomination on the Board from the beneficiary state or any Financial Institution or PFC Consulting Limited or person holds Debentures in the Company by direct subscription or private placement, the Company may agree to grant to such Financial Institution, PFC Consulting Limited, person or other Bodies as a condition of such loan or subscription to Debenture or any other agreement or to a Debenture Trustee, the right to appoint from time to time any person</p>

or persons as Director or Directors of the Company, (which director or directors is /are hereinafter referred to as ?Nominee Director(s)?), retiring or non-retiring, subject to and on such terms and conditions as the Company may agree with such Financial Institutions, PFC Consulting Limited, Person, other Bodies and/or Debenture Trustee. The Company shall have a right to remove from office Nominee Director(s) at the option of the Company in consultation with Financial Institutions, PFC Consulting Limited, Bodies, persons or Debenture Trustee.

Such Nominee Director(s) shall not be required to hold any Share qualification in the Company. Also at the option of the Company such Nominee Director(s) shall not be liable to retirement by rotation of the Directors. Subject as aforesaid, the Nominee Director(s) shall be entitled to the same rights and privileges and be subject to the same obligations as any other Director of the Company.

The Nominee Director(s) so appointed shall hold the said office only so long as moneys remain owing by the Company to the Financial Institution or so long as the Debenture Trustee hold debenture in the Company or operation of agreement and the Nominee Director/s so appointed in the exercise of the said person shall ipso facto vacate such office immediately the money owing by the Company to the Financial Institution, or on the Debenture Trustee ceasing to hold Debentures/ Shares on the satisfaction of liability of the Company arising out of any Guarantee furnished by the Financial Institutions or satisfactory completion of term of agreement with Bodies.

The Nominee Director(s) appointed under this article shall be entitled to receive all notice of and attend all General meeting, Board Meeting and of the meetings of the Committee of which the Nominee Director(s) is/are member(s) as also the minutes of meetings. The financial institutions/Debenture Trustee/persons/bodies shall also be entitled to receive all such notice and minutes.

The Company shall pay to the Nominee Director(s) sitting fees and expenses which other Director of the Company are entitled, but if any other fees, commission, remuneration in any form is payable to the Director of the Company the fees, commission, money and remuneration in relation to such Nominee Director(s) shall accrue to Debenture Trustee and same shall accordingly be paid by the Company directly to the debenture trustee. Any expenses that may incurred by the financial institution or such Nominee Director(s) in connection with their appointment or Directorship shall also be paid or reimbursed by the Company to the financial Institution or as the case may be to such Nominee Director(s).

Provided that if any such Nominee Director(s) is/are an officer of the Financial Institution, the sitting fees in relation to such Nominee Director(s) shall also accrue to the Financial Institute and the same shall accordingly be paid by the Company directly to that Financial Institution.

- 59 Provided further that if such Nominee Director(s) is/are an official of any of the Reserve Bank of India, the sitting fees in relation to such Nominee Director(s) shall also accrue to Financial Institution to whom he represents as Nominee Director from Reserve Bank of India and the same shall accordingly be paid by the Company directly to that Financial Institution.

Provided also that in the event of the Nominee Director(s) being appointed as Whole Time Director(s) such Nominee Director(s) shall exercise such powers and duties as may be approved by the Lenders or Bodies in consultation with Board and have such rights as are usually exercised or available to a Whole Time Director, in management of the Borrower or Bodies and such Nominee Director(s) shall be entitled to receive such remuneration fees commission and moneys as may be approved by the Lenders or Bodies in consultation with Board.

59.2 Company may increase the number of Directors

Subject to Section 149 of the Act, the Company may subject to special resolution in General Meeting increase the maximum number of Directors.

Further the Company may, subject to the provisions of Section 169 of the Act, by passing the ordinary resolution in the General Meeting of the members, may remove any Director before the expiration of his period of office and appoint another person in the place of director so removed.

59.3 Appointment of Alternate Directors

In accordance with Section 161 and other applicable provisions (if any) of the Act, the Board shall have power at any time and from time to time, to, appoint a person, not being a person holding any alternate directorship for any other Director in the Company, to act as an alternate director for a director (hereinafter called the original Director) during his absence for a period of not less than three months from India.

59.4 Directors power to fill up casual Vacancies





		<p>Casual vacancies among Directors may be filled by the Board of Directors at their meeting and any person so appointed shall hold the office as per the provision of section 161.</p> <p>59.5 Appointment of Additional Director</p> <p>Subject to the provisions of Section 161 and other applicable provisions (if any) of the Act, the Board shall have power at any time and from time to time, to appoint a person as an Additional Director but so that the total number of Directors shall not at any time exceed the maximum number fixed by these Articles. The Additional Director so appointed shall retire from Office at next following Annual General Meeting but shall be eligible for election by the company at that meeting as a Director.</p> <p>59.6 Directors may act notwithstanding any vacancy</p> <p>The continuing Directors may act notwithstanding any vacancy in their body, but if, and so long as their number is reduced below the minimum number fixed by Article 100 thereof, the continuing Directors may act for the purpose of increasing the number of Directors to that number, or of summoning a General Meeting for that purpose.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>60.1 Remuneration of Directors</p> <p>Subject to the provisions of the Act, the Chairman or Managing Director or any other functional Directors who is/are in the whole-time employment of the Company may be paid remuneration either by way of a monthly payment or at a specified percentage of the net profit of the Company or partly by one way and partly by the other, keeping in view the limiting provisions governing the Managerial remuneration under the provisions of the Act.</p> <p>Subject to the provisions of the Act, a Director, who is neither in the whole-time employment nor a Chairman cum Managing Director of the Company may be paid remuneration either:-</p> <p>(a) by way of monthly, quarterly or annual payment with the approval of the Central Government, or</p> <p>(b) by way of commission if the Company by a special resolution authorizes such payment; and</p> <p>60 The sitting fee payable to a Director (excluding Whole-time Director) for attending a meeting of the Board or Committee thereof shall be such sum as may be fixed by the Board provided that the same shall not exceed Rs. 1,00,000/- or such other sum as prescribed in the Act as amended from time to time.</p> <p>60.2 Travelling expenses incurred by Director going out on Companys Business</p> <p>The Board may allow and pay to any Director who is not a bona-fide resident of the place where the Registered Office of the Company or where the meetings of the Board are actually held and who has to come to such place for the purpose of attending any meeting, such sum as the Board may consider fair compensation for travelling, boarding, lodging and other actual incidental expenses, in addition to his fee for attending such meeting as specified above. If any Director be called upon to go or reside out of the bonafide place of his residence on the Companys business, he shall be entitled to be paid and reimbursed any travelling or other actual expenses incurred by him in connection with the business of the Company.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>61. When office of Directors to become Vacant</p> <p>Subject to Section 167 of the Act, the office of a Director shall become vacant if:-</p> <p>(a) he incurs any of the disqualifications specified in section 164 under the act;</p> <p>(b) he absents himself from all the meetings of the Board of Directors held during a period of twelve months with or without seeking leave of absence of the Board;</p> <p>(c) he acts in contravention of the provisions of entering into contracts or arrangements in which he is directly or indirectly interested;</p> <p>61 (d) he fails to disclose his interest in any contract or arrangement in which he is directly or indirectly interested;</p> <p>(e) he becomes disqualified by an order of a court or the Tribunal;</p> <p>(f) he is convicted by a court of any offence, whether involving moral turpitude or otherwise and sentenced in respect thereof to imprisonment for not less than six months;</p> <p>Provided that the office shall be vacated by the director even if he has filed an appeal against the order of such</p>

		<p>court;</p> <p>(g) he is removed in pursuance of the provisions of this Act;</p> <p>(h) he, having been appointed a director by virtue of his holding any office or other employment in the holding, subsidiary or associate company, ceases to hold such office or other employment in that company.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>62. Directors may contract with Company</p> <p>Except with the consent of the Board of Directors given by a resolution at a meeting of the Board and subject to such conditions, the company shall not enter into any contract or arrangement with a related party with respect to?</p> <p>(a) sale, purchase or supply of any goods or materials;</p> <p>(b) selling or otherwise disposing of, or buying, property of any kind;</p> <p>(c) leasing of property of any kind;</p> <p>(d) availing or rendering of any services;</p> <p>(e) appointment of any agent for purchase or sale of goods, materials, services or property;</p> <p>(f) such related party's appointment to any office or place of profit in the company, its subsidiary company or associate company;</p> <p>(g) underwriting the subscription of any securities or derivatives thereof, of the company.</p> <p>Every contract or arrangement entered as related party transaction shall be referred in the Board's report to the shareholders along with the justification for entering into such contract or arrangement.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>63.1 Disclosure of interest by Directors</p> <p>1) Every Director of the Company, who is in any way, whether directly or indirectly, concerned or interested in a contract or arrangement, or proposed by Directors interested in a contract or arrangement, or proposed contract or arrangement entered into or to be entered into, by or on behalf of the Company, shall disclose the nature of his concern or interest at every financial year or whenever there is change in the disclosure of interest.</p> <p>(2) Nothing in sub-clause (1) of this Article shall apply to any contract or arrangement entered into or to be entered into between the Company and any other company, where any of the Directors of the Company or two or more of the Directors together holds or hold not more than two per cent of the paid-up share capital in the other company</p> <p>63.2 Interested Directors not to participate or vote in Board's proceedings</p> <p>An interested director, who is in any way, whether by himself or through any of his relatives or firm, body corporate or other association of individuals in which he or any of his relatives is a partner, director or a member, interested in a contract or arrangement, or proposed contract or arrangement, entered into or to be entered into by or on behalf of a company, shall, take any part in the discussion of, or vote on any contract or arrangement entered into, or to be entered into, by or on behalf of the Company, if he is in any way, whether directly or indirectly, concerned or interested in such contract or arrangement, nor shall his presence count for the purpose of forming a quorum at the time of any such discussion or vote, and if he does vote, his vote shall be void.</p> <p>A contract or arrangement entered into by the company without disclosure or with participation by a director who is concerned or interested in any way, directly or indirectly, in the contract or arrangement, shall be voidable at the option of the company.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>64.1 Register of Contracts in which Directors are interested</p> <p>The company shall keep registers in accordance with Section 189(1) giving separately the particulars of all contracts or arrangements to which to matter of disclosure of interest by directors and related party transaction applies, in such manner and containing such particulars as may be prescribed and after entering the particulars, such registers shall be placed before the next meeting of the Board and signed by all the directors present at the meeting and shall within thirty days of appointment make such disclosure as are necessary for the purpose of same.</p> <p>The Register shall be kept at the Registered office of the Company and shall be open to inspection at such office shall be open for inspection at such office during business hours and extracts may be taken there from, and copies thereof as may be required by any member of the company shall be furnished by the company to such extent, in such manner, and on payment of same fee as in the case of the Register of Members of the Company.</p> <p>64.2 Director may be Director of companies promoted by the Company</p>





		<p>A Director may become a Director of any other company promoted by the Company, or in which it may be interested as a vendor, shareholder, or otherwise and no such Director shall be accountable for any benefits received as Director or shareholder of such a company except in so far as Section 188 of the Act may be applicable.</p> <p>64.3 Register of Directors and key managerial personnel and their Shareholding</p> <p>The Company shall keep at its registered office a Register containing such particulars of its Directors and key managerial personnel, Manager as may be prescribed under Section 170 of the Act and shall comply with the provisions of the said Section in all respects. The register shall include the details of securities held by each of them in the company or its holding, subsidiary, subsidiary of companys holding company or associate companies.</p>
		<i>Proceedings of the Board</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>65.1 Meetings of Directors</p> <p>The Directors may meet together as a Board for the dispatch of business from time to time, so that at least four such meetings shall be held in every year in such a manner that not more than one hundred and twenty days shall intervene between two consecutive meetings of the Board. The Directors may adjourn and regulate their meetings as they think fit.</p> <p>65</p> <p>65.2 Board may appoint Chairman</p> <p>All meetings of the Directors shall be presided over by the Chairman, if present, but if at any meeting of the Directors, the Chairman is not present at the time appointed for holding the same then in that case the Directors shall choose one of the Directors present to preside over the meeting.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>66. Certain persons not to be appointed Chairman & Managing Directors & Functional Director</p> <p>66</p> <p>The Company shall not appoint a person as its Chairman, Managing Director or Whole-time Director who:- (a) is an undischarged insolvent, or had at any time been adjudged an insolvent; (b) is or has at any time been, convicted by a Court of an offence involving moral turpitude.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>67.1 Notice of Directors Meeting</p> <p>A meeting of the Board shall be called by giving not less than seven days notice in writing to every director at his address registered with the company and such notice shall be sent by hand delivery or by post or by electronic means. Board may be called at shorter notice to transact urgent business where at least one independent director, if any, shall be present.</p> <p>Every notice convening a meeting of the Board of Directors shall set out the agenda of the business to be transacted thereat in sufficient detail provided however that the meeting may consider any other business with the permission of the chair.</p> <p>67.2 When meeting to be convened</p> <p>67</p> <p>The Company Secretary or any director of the Company may, as and when directed by the Chairman to do so, convene a meeting of the Board by giving a notice in writing to every Director.</p> <p>67.3 Quorum at Board Meeting</p> <p>No business shall be transacted at any Board meeting unless a quorum of Board of Director is present at the time when the meeting proceeds to business. Save as otherwise provided herein, the quorum for the Board meetings shall be as provided in section 174 .</p> <p>67.4 Questions at Board meetings how to be decided</p> <p>All questions arising at a Meeting of the Board or any committee thereof shall be decided by majority of votes of directors present and in case of equality of votes, the Chairperson shall have a second and casting vote.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>68.1 Committee of Board</p> <p>Subject to the restrictions contained in Section 179, 180 and other applicable provisions of the Act and</p>

		<p>preceding Articles, the Board may delegate any of its powers to Committees of the Board consisting of such member or members of its body as it may think fit.</p> <p>PROVIDED that the Board may, from time to time, revoke, modify and discharge any such Committee of the Board either wholly or in part. Every Committee of the Board so formed shall in the exercise of the powers so delegated conform to any Policy/regulations that may, from time to time, be laid down by the Board. All acts done by any such Committee of the Board in conformity with such regulations and in fulfillment of the purposes of their appointment shall have the like force and effect as if done by the Board</p> <p>68.2 Meeting of Committee how to be Governed</p> <p>The meetings and proceedings of any such Committee of the Board consisting of two or more members shall be governed by the provisions of the act and guidelines laid down for regulating the meetings and proceedings of the Directors, so far as the same are applicable thereto and are not superseded by any regulations made by Directors under the last preceding Article.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>69. Resolution by circulation</p> <p>No resolution on matters shall be deemed to have been duly passed by the Board or by a Committee thereof by circulation, unless the resolution has been circulated in draft, together with the necessary papers, if any, to all the Directors, or members of the Committee, as the case may be, at their addresses registered with the company in India by hand delivery or by post or by courier, or through such electronic means as may be prescribed and has been approved by a majority of the directors or members, who are entitled to vote on the resolution. Resolution passed in such circulation shall be made part of the minutes of such meeting.</p> <p>Provided that, where not less than one-third of the total number of directors of the company for the time being require that any resolution under circulation must be decided at a meeting, the chairperson shall put the resolution to be decided at a meeting of the Board.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>70. Defects in appointment of Directors not to invalidate actions taken</p> <p>All acts done by any meeting of the Board, or by a Committee of the Board, or by any person acting as a Director shall notwithstanding that it was subsequently noticed that there was some defect in the appointment of such Director or persons acting as aforesaid, or that they, or any of them, were disqualified or had vacated office or that the appointment of any of them had been terminated by virtue of any provisions contained in the Act or these Articles, be as valid as if every such person had been duly appointed and was qualified to be a Director and had not vacated his office or his appointment had not been terminated.</p> <p>PROVIDED that nothing in this Article shall be deemed to give validity to acts done by a Director after his appointment had been noticed by the Company to be invalid or to have terminated.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>71. Minutes of proceedings of meetings of the Board</p> <p>(a) The Company shall cause minutes of all proceedings of every meeting of the Board and committee thereof to be kept by making within thirty days of the conclusion of every such meeting record thereof in Minute Book kept for that purpose with their pages consecutively numbered.</p> <p>(b) Each page of every such book shall be initialed or signed and the last page of the record of proceedings of each meeting in such book shall be dated and signed by the Chairman of the said meeting or the Chairman of the next succeeding meeting.</p> <p>The minute books of the Board and committee meetings shall be preserved permanently and kept in the custody of the company secretary of the company or any director duly authorized by the Board for the purpose and shall be kept in the registered office or such place as Board may decide.</p> <p>The minutes shall also contain:-</p> <p>(i) the names of the Directors present at the meeting; And</p> <p>(ii) in the case of each resolution passed at the meeting, the names of the Directors, if any, dissenting from, or not concurring with the resolution.</p> <p>Nothing deemed to require the inclusion in any such minutes of any matter which, in the opinion of the Chairman of the meeting ?</p> <p>(i) is, or could reasonably be regarded as, defamatory of any person.</p>





			<p>(ii) is irrelevant or immaterial to the proceedings, or</p> <p>(iii) is detrimental to the interests of the Company. The Chairman shall exercise an absolute discretion in regard to the inclusion or non-inclusion of any matter in the minutes on the grounds specified in this sub-clause.</p> <p>(c) Minutes of meetings kept in accordance with the aforesaid provisions shall be evidence of the proceedings recorded therein.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	72	<p>72. Powers of Board</p> <p>The Board may exercise all such powers of the Company and do all such acts and things as it is entitled to do under section 179 of the Act and rules made thereunder, or by the Memorandum or Articles of the Company but shall not decide matters required to be exercised or done by the Company in General Meeting, Subject to these Articles no regulation made by the Company in General Meeting shall invalidate any prior act of the Board which would have been valid if that regulation had not been so made.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>73. Certain powers of the Board</p> <p>Without prejudice to the general powers conferred by the Act and preceding Article and so as not in any way to limit or restrict those powers, and without prejudice to the other powers conferred by these Articles and by General Body, it is hereby declared that the Directors shall have the following powers, that is to say, power:-</p> <p>(1) to pay and charge to the capital account of the Company any commission or interest lawfully payable there out under the provisions of Sections 40 of the Act;</p> <p>(2) Subject to Sections 179 and 180 of the Act, to purchase or otherwise acquire for the Company any property, rights or privileges which the Company is authorised to acquire, at or for such price or consideration and generally on such terms and conditions as they may think fit, and in any such purchase or other acquisition to accept such title as the Directors may believe or may be advised to be reasonably satisfactory;</p> <p>(3) At their discretion and subject to the provisions of the Act, to pay for any property, rights or privileges acquired by, or services rendered to, the Company either wholly or partially, in cash or in shares, bonds, debentures, mortgages, or other securities of the Company, and any such shares may be issued either as fully paid-up or with such amount credited as paid-up thereon as may be agreed upon, and any such bonds, debentures, mortgages or other securities may be either specially charged upon all or any part of the property of the Company and its uncalled capital or not so charged;</p> <p>(4) To secure the fulfillment of any contract or engagement entered into by the Company in the normal course of business, by mortgage or charge any of the property of the Company and its uncalled capital for the time being or in such manner as they may think fit;</p> <p>(5) To accept from any Member, as far as may be permissible by law, a surrender of his shares or any part thereof, on such terms and conditions as shall be agreed upon;</p> <p>(6) To appoint any person to accept and hold in trust for the Company any property belonging to the Company, in which it is interested, or for any other purposes and to execute and do all such deeds and things as may be required in relation to any such trust, and to provide for the remuneration of such trust or trustees;</p> <p>(7) 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 allow time for payment or satisfaction of any debts due and of any claim or demand by or against the Company and to refer any differences to arbitration, and observe and execute any awards made thereon;</p> <p>(8) To act on behalf of the Company in all matters relating to bankruptcy and insolvency;</p> <p>(9) To make and give receipts, releases, and other discharges for moneys payable to the Company and for the claims and demands of the Company;</p> <p>(10) Subject to applicable provisions of the Act, to invest and deal with any moneys of the Company not immediately required for the purposes thereof upon such security (not being shares of this Company), or without security and in such manner as they may think fit, and from time to time to vary or realise such investments. Save as provided in Section 187 of the Act, all investments shall be made and held in the Company's own name;</p> <p>(11) To execute, in the name and on behalf of the Company, in favour of any Director or other person who may incur or going to incur any personal liability whether as principal or surety, for the benefit of the Company, such</p>

mortgages of the Company's property (present and future) as they think fit, and any such mortgage may contain a power of sale and such other powers, provisions covenants as shall be agreed upon;

(12) To open account with any bank or banks and to determine from time to time who shall be entitled to sign, on the Company's behalf bills, notes, receipts, acceptances, endorsements, cheques dividend warrants, releases, contracts and documents and to issue the necessary authority for such purpose;

(13) To distribute by way of bonus or commission amongst the staff of the Company on the profits of any particular business or transaction, and to charge such bonus or commission as part of the working expense of the Company;

(14) To provide for the welfare of employees or ex-employees of the Company and their families or connections of such persons, by building or contributing to the building of houses, dwellings or chawls, or by grants of money, pension, gratuities, allowances, bonus or other payments, or by creating, and from time to time subscribing or contributing to provident and other funds, associations, institutions or trusts and by providing or subscribing or contributing towards places of instrument and recreation, hospitals and dispensaries, medical and other attendance and other assistance as the Board shall think fit; and to subscribe or contribute or otherwise to assist or to guarantee money to charitable, benevolent, religious, scientific, national or other institutions or objects which shall have any moral or other claim to support or aid by the Company either by reason of locality of operation, or of public and general utility or otherwise;

73 (15) Before recommending any dividend, to set aside out of the profits of the Company such sums as they may think proper for depreciation or to a Depreciation Fund, or to an Insurance Fund, or as a Reserve Fund or Sinking Fund or any Special Fund to meet contingencies or to repay debentures or debenture stock; or for special dividends or for equalizing dividends or for repairing, improving, extending and maintaining any of the property of the Company and for such other purposes (including the purposes referred to in the preceding clause), as the Board may, in their absolute discretion, think conducive to the interest of the Company, and subject to Section 179 of the Act, to invest the several sums so set aside or so much thereof as required to be invested, upon such investments (other than shares of the Company) as they may think fit, and from time to time to deal with and vary such investments and dispose of and apply and expend all or any part thereof for the benefit of the Company, in such manner and for such purposes as the Board, in their absolute discretion, think conducive to the interest of the Company notwithstanding that the matters to which the Board apply or upon which they expend the same or any part thereof, may be matters to or upon which the capital moneys of the Company might rightly be applied or expended, and to divide the Reserve Fund or division or a reserve Fund to another Reserve Fund or division of a Reserve Fund and with full power to employ the assets constituting all or any of the above funds, including the Depreciation Fund, in the business of the Company or in the purchase or repayment of Debentures or debenture stock, and without being bound to keep the same separate from the other assets, and without being bound to pay interest on the same with power however to the Board at their discretion to pay or allow to the credit of such funds interest at such rate as the Board may think proper;

(16) To appoint and at their discretion remove or suspend such officers such as Executive Director, general managers, managers, secretaries, assistants, supervisors, clerks, agents and servants etc. for permanent, temporary or special services as they may from time to time think fit, and to determine their powers and duties and fix their salaries or emoluments or remunerations and to require security in such instances and to such amounts as they may think fit. And also from time to time to provide for the management and transaction of the affairs of the Company in any specified locality in India or abroad in such manner as they think fit, and the provisions contained in the following sub-clauses shall be without prejudice to the general powers conferred by this sub clause;

(17) From time to time and at any time to establish any number of offices and establishment for properly managing the affairs of the Company in any specified locality in India or elsewhere and to appoint staff for such offices and to fix their remuneration;

(18) Subject to the provisions of the Act, from time to time and at any time, to delegate to any such local Board, or any member or members thereof or any managers or agents so appointed or to any other person(s) any of the powers, authorities, and discretions for the time being vested in the Board, and to authorise the members for the time being of any such local Board, or any of them to fill up any vacancies, therein and to act notwithstanding vacancies and any such appointment or delegation under the preceding and this sub-clause may be made on such terms and subject to such conditions as the Board may think fit, and the Board may at any time remove any person so appointed, and may annul or vary any such delegation;

(19) At any time and from time to time by Power of Attorney under the Seal of the Company, to appoint any person or persons to be the Attorney or Attorneys of the Company for such purposes and with such powers, authorities and discretions (not exceeding those vested in or exercisable by the Board under these presents and excluding the power to make calls and excluding also those which are to be exercised by the Board, in its





			<p>Meetings) and for such period and subject to such conditions as the Board may from time to time think fit, and any such appointment may (if the Board thinks fit) be made in favour of the members or any of the members of any local Board, established as aforesaid or in favour of any company, or the shareholders, directors, nominees, or managers or any company or firm or otherwise in favour of any persons whether appointed by name or designation by the Board and any such Power of Attorney may contain such powers for the protection or convenience of such Attorney as the Board may think fit, and Board may specifically bestow powers enabling any such delegate or attorneys to sub-delegate all or any of the powers, authorities and discretions for the time being vested in them;</p> <p>(20) Subject to Sections 188 of the Act, for or in relation to any of the matters aforesaid or otherwise for the purposes of the Company, to enter into such negotiations and contracts and rescind and vary such contracts, and execute and do all such acts deeds and things in the name and on behalf of the Company as they may consider expedient;</p> <p>(21) From time to time to make vary and repeal bye-laws for the regulations of the business of the Company regulate employment of its officers and servants by making service Rules and Regulations;</p> <p>(22) Maintain proper records at places as per provisions of the Act and where the Company has a branch office, whether in or outside India, the Company shall be deemed to have complied with this Article if proper Books of Account relating to the transactions effected at the branch office are kept at the branch office and proper summarized returns, made up-to-date at intervals of not more than three months, are sent by the branch office to the Company at its Office or other place in India, at which the Company's Books of Accounts are kept as aforesaid;</p> <p>(23) Ensure proper maintenance of the Books of Account which shall give a true and fair view of the state of the affairs of the Company or branch office, as the case may be, and explain its transactions. The Books of Account and other books and papers shall be open to inspection by any Director during business hours.</p>
			Chief Executive Officer, Manager, Company Secretary or Chief Financial Officer
<input type="checkbox"/>	<input checked="" type="checkbox"/>	74	<p>Subject to the provisions of the Act, --</p> <p>(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;</p> <p>(ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	75	<p>A provisions 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.</p>
			The Seal
<input type="checkbox"/>	<input checked="" type="checkbox"/>	76	<p>76.1 The Seal its custody and use</p> <p>The Board shall provide a Common Seal for the purpose of the Company, and shall have power, from time to time, to destroy the same and substitute a new Seal in lieu thereof, and the Board shall provide for the safe custody of the Seal for the time being, and the seal shall never be used except on the authority of the Board or by Committee of the Board as authorised.'</p> <p>76.2 Deeds how executed</p> <p>Every deed or other instrument, to which the Seal of the Company is required to be affixed, shall unless the same is executed by a duly constituted attorney issued under the seal; be signed by two Directors or one Director and Secretary or some other person authorised by the Board for the purpose:</p> <p>PROVIDED that in respect of the Share Certificate, the Seal shall be affixed in accordance with Article as mentioned above .</p>
			Dividends and Reserve

<input type="checkbox"/>	<input checked="" type="checkbox"/>	77	<p>77. Division of profits and dividends in proportion to amount paid-up</p> <p>(a) The profits of the Company, subject to any special rights relating thereto created or authorised to be created by these Articles and subject to the provisions of these Articles, shall be divisible among the Members in proportion to the amount of capital paid-up or credited as paid-up on the shares held by them.</p> <p>(b) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares held 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 from a particular date, such share shall rank for dividend accordingly.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	78	<p>78.1 The Company in General Meeting may declare a dividend</p> <p>Company in General Meeting may declare dividends to be paid to Members according to their respective rights, but no dividends shall exceed the amount recommended by the Board, but the Company in General Meeting may declare a smaller dividend.</p> <p>78.2 Dividends only to be paid out of Profits</p> <p>a) No dividend shall be declared or paid by the Company for any financial year except out of its profits for that year arrived at in the manner set out in Section 123 of the Act.</p> <p>(b) Where, owing to inadequacy or absence of profits in any financial year, any Company proposes to declare dividend out of the accumulated profits earned by it in previous years and transferred by the company to reserves, such declaration of dividend shall not be made except in accordance with such rules as may be made in that behalf.</p> <p>(c) No dividend shall be declared or paid by a company from its reserves other than free reserves.</p> <p>78.3 Interim Dividend</p> <p>Subject to the provisions of Section 123, the Board may, from time to time, pay the Members such interim dividend as appear to it to be justified by the profits of the Company.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	79	<p>79. Capital paid - up in advance to carry Interest</p> <p>Where capital is paid in advance of calls such capital may carry interest but shall not in respect thereof confer a right to dividend or participate in profits .</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	80	<p>80.1 Retention of dividends until completion of transfer</p> <p>The Board may retain the dividends payable on shares in terms of Section 126 in respect of which any person is entitled to become a Member, or on completion any person under those Articles is entitled to transfer, or until such person shall become a Member in respect of such shares or shall duly transfer the same.</p> <p>80.2 Transfer of shares must be Registered</p> <p>A transfer of shares shall not pass the right to any dividend declared thereon before the registration of transfer. Provided that where any instrument of transfer of shares has been delivered to the Company for registration and the transfer of such shares has not been registered by the Company, it shall, notwithstanding anything contained in any other provision of this Act</p> <p>a) transfer the dividend in relation to such shares to the Unpaid Dividend Account referred to in Section 124 of the Act unless the Company is authorised by the registered holder of such shares in writing to pay such dividend to the transferee specified in such instrument of transfer ;and</p> <p>(b) keep in abeyance in relation to such shares, any offer of rights shares under clause (a) of sub-section (1) of section 62 of the Act and any issue of fully paid-up bonus shares in pursuance of first proviso to sub-section (5) of section 123 of the Act.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	81	<p>81. No Member to receive dividend whilst indebted to the Company & Company s right of reimbursement Thereon</p> <p>No Member shall be entitled to receive payment as interest or dividend in respect of his shares, whilst any money may be due or owing from him to the Company in respect of such share or shares or otherwise howsoever, either alone or jointly with any person or persons, and the Board may deduct from the interest or dividend payable to any Member all sums of money so due from him to the Company.</p>





<input type="checkbox"/>	<input checked="" type="checkbox"/>	82. Dividends how remitted
		<p>(1) Unless otherwise directed any dividend payable in cash may be paid by cheque or warrant or in any electronic mode or by a pay slip or receipt or in any other manner having the force of a cheque or warrant sent through the post to the registered address of the Member or person entitled or in case of joint holders to that one of them first named in the Register in respect of the joint holdings. Every such cheque or warrant shall be made payable to the order of the person to whom it is sent the Company shall not be liable or responsible for any cheque or warrant or pay slip or receipt lost in transmission, or for any dividend lost to the Member or person entitled thereto by the forged endorsement of any cheque or warrant or the forged signature of any pay slip or receipt or the fraudulent recovery of the dividend by any other means.</p> <p>(2) Notwithstanding anything contained in these Articles any dividend declared, may be paid by Electronic Clearing System through any Sponsor Bank, after getting registration with the Reserve Bank of India for using this facility and collecting from the members necessary bank mandate in the prescribed format.</p>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	83. Dividends and call together
		Any General Meeting declaring a dividend, may, on the recommendation of the Board, make a call on the Members of such amount as the meeting may fix, but so that the call on each Member shall not exceed the dividend payable to him and so that the call be made payable at the same time as the dividend, and the dividend may, if so arranged between the Company and the Member, be set off against the calls.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	84. Unclaimed dividend
		No unclaimed dividend shall be forfeited and all unclaimed dividends shall be dealt with in accordance with the provisions of Section 124 and other applicable provisions of the Act.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	85. No interest against Dividend
		No dividend shall bear interest against the company.
		Accounts
<input type="checkbox"/>	<input checked="" type="checkbox"/>	86.1 Directors to keep true accounts
		<p>(a) Every company shall prepare and keep at its registered office including its branch office or offices or at such other place in India as the Board thinks fit, Books of Accounts and other relevant books and papers and financial statement for every financial year which give a true and fair view of the state of the affairs of the company in accordance with Section 128 of the Act with respect to-</p> <p>(i) all sums of money received and expended by the Company and the matters in respect of which the receipts and expenditure take place;</p> <p>(ii) all sales and purchases of goods by the Company;</p> <p>(iii) the assets and liabilities of the Company.</p> <p>(iv) state of affairs of the company.</p> <p>(b) Where the Board decides to keep all or any of the Books of Account at any place other than the Office of the Company, the Company shall within seven days of the decision file with the Registrar a Notice in writing giving the full address of that other place in accordance with Section 128 of the Act.</p> <p>(c) The company may keep such books of account or other relevant papers in electronic mode in such manner as may be prescribed.</p> <p>(d) The Company shall preserve in good order the Books of Account relating to a period of not less than eight financial years immediately preceding a financial year. The books of account and other relevant books and papers maintained in electronic mode shall remain accessible in India so as to be usable for subsequent reference together with the vouchers relevant to any entry in such Books of Account.</p>
		86.2 Inspection of accounts or record by members
		No Member (not being a director) shall have any right of inspecting any account or books or documents of the Company except as conferred by Section 94 of the Act or authorised by the Board or by the company in general meeting.
		The Board may determine whether and to what extent and at what time and place and under what conditions or regulations the accounts and books of the Company or any of them may be open to inspection of the Members. Notwithstanding anything to the contrary contained hereinabove, the authorised representative of

		<p>Promoters shall have a right to inspect the accounts books, plant, facility, documents, records, premises, equipment and machinery and all other property of the Company at convenient time(s), after giving advance notice to the Company.</p> <p>86.3 Statement of Accounts to be furnished to General Meeting</p> <p>The Directors shall, from time to time, in accordance with Sections 129 and 134 and other applicable provisions of the Act, cause to be prepared and to be laid before the Company in General Meeting, such Balance Sheets, Profit and Loss Accounts and Reports as are required by these Sections.</p> <p>86.4 Copies shall be sent to each Member</p> <p>Without prejudice to the provisions of Section 101 and subject to the provisions of Section 136 of the Act, a copy of the financial statements, including consolidated financial statements, auditors report and every other document required by law to be annexed or attached to the Balance Sheet shall at least twenty-one days before the General Body Meeting at which the same are to be laid before the members, be sent to the members of the company, to every trustee for every holder of any debenture issued by the company and to all persons other than such members or trustee, being the person so entitled to attend the General Body Meeting.</p> <p>86.5 Copy of financial statement to be filed with registrar</p> <p>The Company shall comply with Section 137 of the Act as to filing copies of the Balance Sheet and Profit and Loss Account and documents required to be annexed or attached thereto with the Registrar.</p>
		<i>Winding up</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>87. If the Company shall be wound up and the assets available for distribution among the members as such shall be insufficient to repay the whole of the paid up capital such assets shall be distributed so that as nearly as may be the losses shall be borne by the members in proportion to the capital paid up or which ought to have been paid up at the commencement of the winding-up on the shares held by them respectively. And if in a winding-up the assets available for distribution among the members shall be more than sufficient to repay the whole of the capital paid up at the commencement of the winding-up, the excess shall be distributed amongst the members in proportion to the capital at the commencement of the winding-up paid up or which ought to have been paid up on the shares held by them respectively. But this Article is to be without prejudice to the rights of the holders of shares issued upon special terms and conditions.</p> <p>If the Company shall be wound up, whether voluntarily or otherwise, the liquidators may, with the sanction of a Special Resolution, divide among the contributions, in specie or kind, any part of the assets of the Company and may, with the like sanction, vest any part of the assets of the Company in Trustees upon such trusts for the benefit of the contributories, or any of them, as the liquidators, with the like sanction, shall think fit.</p>
		<i>Indemnity</i>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>88. Officers to be indemnified</p> <p>Subject to provisions of the Act, 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.</p> <p>Provided that if such person is proved to be guilty, the premium paid on such insurance shall be treated as part of the remuneration.</p>
<input checked="" type="checkbox"/>		<i>Others</i>
		<p>89. Company not bound to recognize holding of shares on trust or any interest in shares other than that of registered holder</p> <p>Except as ordered by a Court of competent jurisdiction or as required by law, the Company shall not be bound to recognize holding of any share upon any trust and to recognize any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share (except only as is by these Articles otherwise expressly provided) any right in respect of a share other than an absolute right thereto, in accordance with these Articles, in the person from time to time registered as the holder thereof, but the Board shall be at liberty at their sole discretion to register any share in the joint names of any two or more persons or</p>





the survivor or survivors of them.

90. Funds etc. of Company may not be applied in purchase of shares of the Company

The Company shall not give, either directly or indirectly, and either by means of a loan, guarantee, the provision of security or otherwise, any financial assistance for the purpose of or in connection with the purchase or subscription made or to be made by any person for purchase of any shares in the Company except in conformity with the provisions of Section 67 of the Act.

91. Underwriting and Brokerage

91.1 Commission may be paid

Subject to the provisions of Section 40 of the Act, the Company may at any time pay a commission to any person in consideration of his subscribing or agreeing to subscribe for any shares in or debentures of the Company, or procuring, or agreeing to procure subscriptions for any shares in or debentures of the Company, but so that the commission shall not exceed in case of shares, five percent of the price at which the shares are issued, and in case of debentures, two and a half percent of the price at which the debentures are issued. Such commission may be satisfied by payment in cash or by allotment of fully or partly paid shares or debentures or partly in one way and partly in the other.

91.2 Brokerage

The Company may also on any issue of shares or debentures, pay such brokerage as may be lawful.

92. Interest out of Capital

Interest may be paid out of capital

Where any shares are issued for the purpose of raising money to defray the expenses of the construction of any work or building or the provision of any plant, which cannot be made profitable for a lengthy period, the Company may pay interest on so much of that share capital as is for the time being paid up, for the period, at the rate and subject to the conditions and restrictions provided by the Company Act, 2013 and may charge the same to capital as part of the cost of construction of the work or building, or the provision of plant.

93. Annual Returns

The Company shall comply with the provisions of Sections 92 of the Act as to the making of Annual Returns.

94. Borrowing powers

94.1 As per the provisions of Section 73, 76, 179, 180 and other applicable provisions of the Act, the Board of Directors may, from time to time at its discretion, by resolution at a meeting of the Board and subject to the approval of the shareholders in General Meeting, accept deposits from Members, either in advance of calls or otherwise, and generally raise or borrow or secure the payment of any sums of money for the purpose of the Company. Provided however, where the moneys already borrowed (apart from temporary loans obtained from the Company's bankers in the ordinary due course of business) exceed the aggregate of the paid-up capital of the Company, its free reserves (not being reserves set apart for any specific purpose) and the securities premium, the Board shall not borrow such moneys without the consent of the Company in General Meeting.

94.2 Payment or repayment of borrowed Moneys

Subject to the provisions of Article 64 hereof, the payment and repayment of moneys borrowed as aforesaid may be secured in such manner and upon such terms and conditions in all respects as the Board of Directors may think fit, by resolutions passed at a meeting of the Board and in particular, by the issue of bonds or debentures of the Company whether unsecured or secured by a mortgage or charge over all or any part of the property of the Company (both present and future) including its uncalled capital for the time being, and debentures and other securities may be made assignable free from any equities between the Company and the person to whom the same may be issued.

94.3 Terms of issue of Debentures

Any debentures or other securities may be issued or otherwise and may be issued on condition that they shall be convertible into shares of any denomination, and with any privileges and conditions to redemption, surrender, drawing, allotment of shares and attending (but not voting) at General Meetings. Debentures with the right to conversion into or allotment of shares shall be issued only with the consent of the Company in

General Meetings accorded by special resolution.

94.4 Register of charges to be Kept

The Board shall cause a proper Register to be kept in accordance with the provisions of Section 85 of the Act of all charges and floating charges affecting the property or assets of the Company or any of its undertakings and shall cause the requirements of Sections 77, 79, and 81 to 87 (both inclusive) of the Act in that behalf to be duly complied with, so far as they are required to be complied with by the Board.

94.5 Register of Debenture holders

The Company shall, if at any time it issues debentures, keep a Register and Index of Debenture holders in accordance with Section 88 of the Act. The Company shall have the power to keep in any Country outside India a Register of Debenture holders residing outside India, in such manner as may be prescribed.

94.6 Application to Debentures and other securities

The provisions of the Articles shall apply mutatis mutandis to debentures, bonds or other securities issued by the company.

95. Dematerialization of Securities

95.1 Definitions :

For the purpose of this Article :

"Depository" means a depository as defined in clause (e) of sub-section (1) of section 2 of the Depositories Act, 1996.

"Beneficial Owner" means a person or persons whose name is recorded in the Register maintained by a Depository under the Depository Act, 1996.

"SEBI" means the Securities and Exchange Board of India established under section 3 of the Securities & Exchange Board of India Act, 1992.

"Securities" means the securities as defined in clause (h) of section 2 of the Securities Contracts (Regulation) Act, 1956;

95.2 Dematerialization of Securities

Notwithstanding anything contained in these Articles, the Company shall be entitled to dematerialize its existing securities, rematerialize its securities held in the Depositories and / or offer its fresh securities in dematerialized form pursuant to the provisions of the Depositories Act, 1996 and the rules framed there under, if any.

95.3 Option for investors

Every person subscribing to or holding securities of the Company shall have the option to receive securities certificates or to hold the securities with the Depository. Such a person who is the beneficial owner of the securities can at any time opt out of the Depository, if permitted by the law, in respect of any security in the manner and within the time prescribed, issued to the beneficial owner the required certificate of the securities. If a person opts to hold his securities with a Depository, the Company shall intimate such Depository, the details of allotment of the security and on receipt of the information, the depository shall enter in its records the name of the allottees as the beneficial owner of the securities.

95.3 Securities in Depository to be in Fungible Form

All securities held by a Depository shall be dematerialized and be in fungible form. Nothing contained in Section 88, 89, 112 and 186 of the Act shall apply to a Depository in respect of the securities held by it on behalf of the Beneficial Owners.

95.4 Rights and Liabilities of Beneficial Owner

(a) Notwithstanding anything to the contrary contained in the Act or these Articles, a Depository shall be deemed to be the registered owner for the purposes of effecting transfer of ownership of security on behalf of the beneficial owners.





(b) Save as otherwise provided in (a) above, the Depository as the registered owner of the securities shall not have any voting rights or any other rights in respect of the securities held by it.

(c) Every person holding securities of the Company and whose name is entered as the beneficial owner in the records of the Depository shall be deemed to be a member of the Company. The beneficial owner of securities shall be entitled to all the rights and benefits and be subject to all the liabilities in respect of his securities, which are held, by a Depository.

95.5 Service of Documents

Notwithstanding anything to the contrary contained in the Act or Articles to the contrary, where securities are held in a Depository, the records of the beneficial ownership may be served by such Depository on the Company by means of electronic mode or by delivery of floppies or discs.

95.6 Provisions of Articles to apply to shares held in Depository

89 Nothing contained in Section 56 of the Act or these Articles shall apply to a transfer of securities effected by a transferor and transferee both of whom are entered as beneficial owners in the records of a Depository.

95.7 Allotment of Securities dealt within a Depository

Notwithstanding anything in the Act or these Articles, where securities are dealt with by the Depository, the Company shall intimate the details thereof to the Depository immediately on allotment of such securities.

95.8 Distinctive numbers of securities held in the depository Mode

Nothing contained in the Act or these Articles regarding the necessity of having distinctive numbers on securities issued by the Company shall apply to securities held with a Depository.

95.9 Register and Index of Beneficial Owners

The Register and Index of Beneficial Owners maintained by a Depository under the Depositories Act, 1996 shall be deemed to be the Register and Index of member and security holder for the purpose of these Articles.

96. Conversion of Shares into Stock and Reconversion

96.1 Shares may be converted into stock and reconverted

The Company in General Meeting may convert any paid up shares into stock and when any shares shall have been converted into stock, the several holders of such stock may henceforth transfer their respective interest therein, or any part of such interest, in the same manner and subject to the same regulations, as if no such conversion had taken place, or as near thereto as circumstances will admit. The Company may at any time reconvert any stock into paid-up shares.

96.2 Rights of stock holders

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

97 Audit

97.1 Accounts to be audited

The Auditors of the Company shall be appointed or reappointed by the Comptroller and Auditor General of India and their remuneration, rights and duties shall be regulated by Section 139 to 143 and 145 to 148 of the Act.

97.2 Powers of the Comptroller and Auditor General of India.

The Comptroller and Auditor General of India shall have the powers:-

(a) to direct the manner in which the Company's accounts shall be audited by the auditors appointed in pursuance of Article hereof and to give such auditors instruction in regard to any matter relating to the performance of their functions as such.

(b) to conduct a supplementary or test audit of the financial statement of the Company by such person or

persons as he may authorize in this behalf, and for the purposes of such audit, to have access at all reasonable times, to all accounts, account books, vouchers, documents and other papers of the Company and to require information or additional information to be furnished to any person or persons so authorized on such matters, by such person or persons and in such form as the Comptroller and Auditor General may, by general or special order, direct.

97.3 Comments upon or supplement to audit report by the Comptroller & Auditor General of India to be placed before the annual general meeting

The auditors aforesaid shall submit a copy of his / her audit report to the Comptroller and Auditor General of India who shall have the right to comment upon or supplement such audit report in such manner as he may think fit. Any such comments upon or supplement to the audit report shall be placed before the Annual General Meeting of the Company at the same time and in the same manner as the audit report.

98. Service of Documents

98.1 Manner of Service of Documents

A document or notice may be served or given by the Company to any Member either through speed post, registered post or through electronic mode to his registered address or (if he has no registered address in India) to the address, if any, in India supplied by him to the Company for serving documents or notices on him. Notice is to be sent by the company through its authorized and secured computer programme which is capable of producing confirmation and keeping record of such communication addressed to the person entitled to receive such communication at the last electronic mail address provided by the member.

The notice may be sent through e-mail as a text or as an attachment to e-mail or as a notification providing electronic link or Uniform Resource Locator for accessing such notice through in-house facility or its registrar and transfer agent or authorise any third party agency providing bulk e-mail facility.

98.2 When notices or documents served on Members

Where a document or notice is sent by post, service of the document or notice shall be deemed to be effected by properly addressing, prepaying and posting a letter containing the document or notice.

When notice or notifications of availability of notice are sent by e-mail, the company should ensure that it uses a system which produces confirmation of the total number of recipients e-mailed and a record of each recipient to whom the notice has been sent and copy of such record and any notices of any failed transmissions and subsequent re-sending shall be retained by or on behalf of the company as "proof of sending".

Provided that the member shall provide the updated email address to the company and for that company will provide an advance opportunity atleast once in a financial year, to the member to register his e-mail address and changes therein and such request may be made by only those members who have not got their email id recorded or to update a fresh email id. Notice will also be simultaneously updated in the website of the company.

98.3 By Advertisement

A document or notice advertised in a newspaper circulating in the neighborhood of the Registered Office shall be deemed to be duly served or sent on the day on which the advertisement appears on or to every Member who has no registered address in India and has not supplied to the Company an address within India for the serving of documents on sending the notices to him. Explanatory Statement of material facts under Section 102 need not be advertised but it will be mentioned in the advertisement that the Statement has been forwarded to the Members.

98.4 On personal representatives etc.

A document or notice may be served or given by the Company on or to the persons entitled to a share in consequence of the death or insolvency of a Member by sending it through the post in prepaid letter addressed to them by name or by the title of representative of the deceased, or assignee of the insolvent or by any like description, at the address (if any) in India supplied for the purpose by the persons claimed to be entitled, or until such an address has been so supplied by serving the document or notice in any manner in which the same might have been given if the death or insolvency had not occurred.

98.5 To whom documents or notices must be served or given

Documents or notices of every General Meeting shall be served or given in same manner as herein before or





to (a) every member of the company, legal representative of any deceased member or the assignee of an insolvent member, (b) the auditor or auditors of the company; and (c) every director of the company.

98.6 Members bound by documents or notices served on or given to previous holders

Every person who, by operation of law, transfer or other means whatsoever, shall become entitled to any share, shall be bound by every document or notice in respect of such share, which previously to his name and address being entered in the Register of Members, shall have been duly served on or given to the person from whom he derives his title to such shares

98.7 Documents or notice by Company and signature thereto

Any document or notice to be served or given by the Company may be signed by a director or key managerial personnel or an officer of the company duly authorised by the Board in this behalf.

98.8 Service of document or notice by Member

All documents or notices to be served or given by Members on or to the Company or any officer thereof shall be served or given by sending it to the Company or Officer at the Office by post or through electronic mode under a certificate of posting or by registered post, or through email.

99. Secrecy

(a) Every Director, Manager, Auditor, Treasurer, Trustee, member of a committee, officer, servant, agent, accountant or other person employed in the business of the Company, shall, if so required by the Directors, before entering upon his duties, sign a declaration pledging himself to observe strict secrecy respecting all transactions and affairs of the Company with the customers and the state of the accounts with individuals and in matters relating thereto, and shall by such declaration pledge himself not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required so to do by the Directors or by law or by the person to whom such matters relate and except so far as may be necessary in order to comply with any of the provisions in these presents contained.

(b) No Member shall be entitled to visit or inspect any work of the Company without the permission of the Directors or to require discovery of or any information respecting any details of the Company's trading, or any matter which is or may be in the nature of a trade secret, mystery of trade, secret process or any other matter which may relate to the conduct of the business of the Company and which in the opinion of the Directors, it would be in expedient in the interest of the Company to disclose.

100. Copies of Memorandum and Articles of Association to be sent by the Company

Copies of the Memorandum and Articles of Association of the Company and other documents referred to in Section 17 of the Act shall be sent by the Company to every Member at his request within seven days of the request on payment of such fees as may be prescribed.

Subscriber Details					
S. NO	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1	PFC CONSULTING LIMITED, having its Registered office at First Floor, Urjanidhi, 1 Barakhamba Lane, Cannaught Place ND 110001, through Sh. Manish Kumar Agarwal, S/o Sh. Narender Agarwal, R/o 41, 2nd floor, Gyan Khand-III, Indirapuram, Shipra Sun City, Ghaziabad, Uttar Pradesh 201014, Occupation Service(as Authorised Signatory of PFC Consulting Limited)	AIEPK3387Q	NEW DELHI	MANISH KUMAR AGARWAL <small>Digitally signed by MANISH KUMAR AGARWAL Date: 2021.05.14 13:03:55 +05'30'</small>	14/05/2021
2	MANOJ KUMAR RANA, R/o A-32/E, DDA Flats, Munirka ND 110067, Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	02263302	NEW DELHI	MANISH KUMAR AGARWAL <small>Digitally signed by MANISH KUMAR AGARWAL Date: 2021.05.14 13:11:56 +05'30'</small>	14/05/2021
3	DHARUMAN MANAVALAN, R/o A-703, Saheta Apartment, Plot No-30, Dwarka Sector 4 ND-110078, Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	08102722	NEW DELHI	D MANAVALAN <small>Digitally signed by D MANAVALAN Date: 2021.05.14 13:01:38 +05'30'</small>	14/05/2021
4	MILIND MADHUSUDAN DAFADIO, R/o Flat C-31, Aishwarya Appt. Sec-4 Plot No. 17, Dwarka, ND 110078, Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	AAHPD8722F	NEW DELHI	MILIND MADHUSUDAN DAFADIO <small>Digitally signed by MILIND MADHUSUDAN DAFADIO Date: 2021.05.14 13:05:44 +05'30'</small>	14/05/2021
5	NEERAJ SINGH, R/o C-703, F-2 , The Crescent Apartment Sec 50, Noida, Gautam Budha Nagar, UP- 201301 Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	08613892	NEW DELHI	NEERAJ SINGH <small>Digitally signed by NEERAJ SINGH Date: 2021.05.14 12:56:32 +05'30'</small>	14/05/2021
6	SANJAY NAYAK, R/o K-713, Jalvayu Tower Sec 56, Gurgaon, Haryana, 122011, Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	08197193	NEW DELHI	SANJAY KUMAR NAYAK <small>Digitally signed by SANJAY KUMAR NAYAK Date: 2021.05.14 12:52:59 +05'30'</small>	14/05/2021
7	SACHIN SHUKLA, R/o C 5/804 PW O Complex Sec 43, Galleria DLF-Iv Gurgaon 122009 Description (As a Nominee of PFC CONSULTING LIMITED), Occupation : Service	08613963	NEW DELHI	SACHIN SHUKLA <small>Digitally signed by SACHIN SHUKLA Date: 2021.05.14 12:53:47 +05'30'</small>	14/05/2021

Signed Before Me

Name	Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	Place	DSC	Dated
ACS	ANURADHA JAIN	D-427, 2nd Floor, Ramphal Chowk, (Backside of Goyalsons) Palam Extn, Sector 7, Dwarka, New Delhi-110075, Occupation Practicing Company Secretary	36639	NEW DELHI	ANURADHA JAIN <small>Digitally signed by ANURADHA JAIN Date: 2021.05.14 11:02:37 +05'30'</small>

Checkform

Modify



[Pursuant to Schedule I (see sections 4 and 5) to the Companies Act, 2013] FORM NO. INC-33

SPICE+MOA
(e-Memorandum of Association)

* Table applicable to company as notified under schedule I of the companies Act, 2013

A

Table A- MEMORANDUM OF ASSOCIATION OF A COMPANY LIMITED BY SHARES

1. The Name of the Company is

KHAVDA-BHUJ TRANSMISSION LIMITED

2. The Registered office of the company will be situated in the state of

Delhi-DL

3.(a) The objects to be pursued by the company on its incorporation are

(i) To develop Power System Network

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 state, 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.

(ii) To study, investigate, collect information and data

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.

(iii) To act as Consultants/ Technical Advisers of public/ private sector enterprises etc.

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, distribution and sale of power.

3.(b) Matters which are necessary for furtherance of the objects specified in clause 3(a) are

(i) To obtain authority etc. to carry out its objects

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.

(ii) To obtain charters, concession etc.

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.

(iii) To enter into Implementation/ Construction Agreement

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.





- (iv) To carry on the business or purchasing, importing, exporting and trading power
To carry on the business or purchasing, importing, exporting and trading of power subject to the provisions of Electricity Act, 2003 and to supply electric power generated by other plants to distribution companies, trading companies, other generation companies and other Persons, and in this regard execute agreements with Central and State generating authorities, departments or companies, Independent Power Producers and other Persons.
- (v) To enter into Agreements; etc.
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.
- (vi) To execute transmission service Agreements
To execute Transmission Service Agreements or other agreements for transmission of power to distribution, trading, and other companies, State Electricity Boards, State Utilities and any other organization and Persons.
- (vii) To co-ordinate with Central Transmission Utility
To coordinate with the Central Transmission Utility for transmission of electricity under the provisions of Electricity Act 2003.
- (viii) To borrow money
Subject to provisions of Sections 73, 179, 180 and other applicable provisions of the Companies Act, 2013 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.
- (ix) To lend money
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.
- (x) To acquire, own, lease or dispose off the property
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.
- (xi) To deal in Scrips/Govt. Securities
Subject to applicable provisions of law, 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.
- (xii) To create funds and appropriate profits
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.
- (xiii) To purchase or otherwise acquire companies
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.
- (xiv) To enter into partnership Agreement or Merge /amalgamate
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.
- (xv) To have agencies and branch offices in India and abroad
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.
- (xvi) To promote institutions or other companies
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.
- (xvii) (a) To acquire know how and import-export of machinery and tools etc.
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.

(xvii) (b) To negotiate and enter into agreements etc.

To negotiate and enter into agreements and contracts for execution of turnkey jobs, works, supplies and export of plant, machinery, tools and accessories etc.

(xviii) To enter into contracts/arrangements in connection with issue of shares/securities. 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.

(xix) To enter into contracts of indemnity and/or guarantee

To enter into contracts of indemnity and get guarantee and allocations for the business of the Company.

(xx) To arrange for Training and Development

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.

(xxi) To promote conservation, protect environment, theft etc.

To promote conservation and protection of electricity from theft, safety of life and to protect environments including air, land and water etc.

(xxii) To provide for welfare of employees

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 of 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.

(xxiii) To take Insurance

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.

(xxiv) To share the profits pay, dividends and provide bonus etc

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.

(xv) To institute and defend the legal proceedings

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.

(xxvi) To pay and subsequently write off preliminary expenses

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.

(xvii) To contribute and make donations

Subject to provisions 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.

(xviii) To open accounts in Banks

To open an account or accounts with any individual, firm or company or with any bank bankers or shrofs and to pay into and withdraw money from such account or accounts.

(xix) To accept gifts, donations etc.

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.

(xxx) To pursue the objects of the Company as principal, agents, trustee or in any other capacity

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.

(xxxi) To enter into Contracts

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.





(xxxii) To contribute towards promotion of trade and industry
To aid pecuniary 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.

(xxxiii) To take all necessary steps for winding up of the company
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.

(xxxiv) To do and perform all coincidental and ancillary acts for the attainment of its objects
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.

(xxxv) To take up studies and research experiments.
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.

(xxxvi) To evolve scheme for restructuring or arrangement.
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.

(xxxvii) To apply for purchase, or otherwise acquire.
To apply for purchase, or otherwise acquire any trademarks, 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.

(xxxviii) To sell, dispose or hive off an undertaking of the Company
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.

(xxxix) To sell, improve, manage, develop
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.

(xxxx) To outsource parts of its activities
To outsource parts of its activities to achieve higher efficiencies and throughputs in the achievement of its business goals.

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 share capital of the company is

100,000.00

rupees, divided into,

10,000.00	Equity	shares of	10.00	rupees each	, and
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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:

☐ I, whose name and address is given below, am desirous of forming a company in pursuance of this memorandum of association and agree to take all the shares in the capital of the company (Applicable in case of one person company):

S.No.	Subscriber Details					
	Name, Address, Description and Occupation	DIN/PAN/Passport Number	No. of shares taken		DSC	Dated
1	PFC CONSULTING LIMITED, having its Registered Office at First Floor Urjanidhi 1, Barakhamba Lane, Cannaught palace, ND 110001. through Sh. Manish Kumar Agarwal, S/o Sh. Narender Agarwal, R/o 41, 2nd Floor, Gyan Khand-III, Indirapuram, Shipra Sun City, Ghaziabad, Uttar Pradesh 201014 Occupation: Service (as Authorised Signatory of PFC Consulting Limited)	AIEPK3387Q	9,400	Equity	MANISH KUMAR AGARWAL Digitally signed by MANISH KUMAR AGARWAL Date: 2021.05.14 13:05:01 +05'30'	14/05/21
				Preference		
2	MANOJ KUMAR RANA A-32/E DDA Flats, Munirka, ND-110067 Occupation: Service (as Nominee of PFC Consulting Limited)	02263302	100	Equity	MANOJ KUMAR RANA Digitally signed by MANOJ KUMAR RANA Date: 2021.05.14 13:15:43 +05'30'	14/05/21
				Preference		
3	DHARUMAN MANAVALAN A-703, Saheta Apartment Plot No. 30, Dwarka Sector-4 Delhi 110078 Occupation: Service (as Nominee of PFC Consulting Limited)	08102722	100	Equity	D MANA VALAN Digitally signed by D MANA VALAN Date: 2021.05.14 12:58:55 +05'30'	14/05/21
				Preference		
4	MILIND MADHUSUDAN DAFADE C-31, Aishwarayan Apartment Sec-4, Plot No. 17, Dwarka, ND 110078 Occupation: Service (as Nominee of PFC Consulting Limited)	AAHPD8722F	100	Equity	MILIND MADHUSUDAN DAFADE Digitally signed by MILIND MADHUSUDAN DAFADE Date: 2021.05.14 13:07:04 +05'30'	14/05/21
				Preference		
5	NEERAJ SINGH, C-703, F-2 the Cresnet Apartment, Sec 50, Noida Gautam Buddha Nagar UP- 201301 Occupation: Service (as Nominee of PFC Consulting Limited)	08613892	100	Equity	NEERAJ SINGH Digitally signed by NEERAJ SINGH Date: 2021.05.14 12:58:01 +05'30'	14/05/21
				Preference		
6	SANJAY NAYAK K713, Jalvayu Tower Sec.56 , Gurgaon 122011 Occupation: Service (as Nominee of PFC Consulting Limited)	08197193	100	Equity	SANJAY KUMAR NAYAK Digitally signed by SANJAY KUMAR NAYAK Date: 2021.05.14 12:50:52 +05'30'	14/05/21
				Preference		
7	SACHIN SHUKLA C/5 804, PW O House Complex Sec-43 Galleria DLF-Iv, gurgaon 122009 Occupation: Service (as Nominee of PFC Consulting Limited)	08613963	100	Equity	SACHIN SHUKLA Digitally signed by SACHIN SHUKLA Date: 2021.05.14 12:55:19 +05'30'	14/05/21
				Preference		
Total Shares taken			10,000.0	Equity		
				Preference		
Signed before Me						
				DIN/PAN/Passport		



Name		Address, Description and Occupation	Number/ Membership Number	DSC	Dated
ACS	ANURADHA JAIN	D-427, 2nd Floor, Ramphal Chowk, (Backside of Goyalsons) Palam Extn, Sector 7, Dwarka, New Delhi-110075 Occupation: Practicing Company Secretary	36639	ANURADHA JAIN Digitally signed by ANURADHA JAIN Date: 2021.05.14 11:05:23 +05'30'	14/05/21

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CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS OF KHAVDA-BHUJ TRANSMISSION LIMITED HELD ON 18TH JANUARY 2022

SUB: AUTHORISATION TO MAKE APPLICATION BEFORE CENTRAL ELECTRICITY REGULATORY COMMISSION

"RESOLVED THAT Mr. M.R. Krishna Rao, Mr Hitesh Vaghasiya, Mr. Sameer Ganju, Mr. Tanmay Vyas, Mr. Anupam Sawhney, Mr. Praveen Tamak, Mr. Narendra Ojha, Mr. Bhavesh Kundalia, Mr. Matulya Shah, Mr. Rajesh Sirigirishetty, Mr Atul Kumar Singh, and Mr. Afak Pothiawala, (hereinafter referred to as Authorised Signatories) be and are hereby severally authorised to sign and submit petitions, affidavits, agreements, declarations, undertakings, deeds, Bills, Availability Certificates and other documents in connection therewith or incidental thereto before Central Electricity Regulatory Commission (CERC) or Appellate Tribunal for Electricity (APTEL) and other regulatory authorities for and on behalf of the Company.

RESOLVED FURTHER THAT Authorised Signatories be and are hereby severally authorised (a) to issue notices, affidavit and other documents, communications to Long Term Transmission Customers and other Parties / agencies, including Central Transmission Utility of India Limited. and WRLDC/SRLDC (b) to file Petition, Affidavit, Notices and other documents before Regulatory Commission or other Electricity body, Appellate Tribunal for Electricity and Supreme Court for issues arising out of Transmission Service Agreement and Bulk Power Transmission Agreement, (c) to engage, appoint or remove any pleaders or advocates, and sign vakalatnamas, power of attorney for such engagement or appointment and (d) to file appeal and defend the interest of the Company."

Certified True Copy
For Khavda-Bhuj Transmission Limited


Shashank Sharma
Director
(DIN: 09336142)



KHAVDA-BHUJ TRANSMISSION LIMITED
Adani Corporate House
Shantigram, Near Vaishnav Devi Circle,
S. G. Highway, Khodiyar,
Ahmedabad 382 421
Gujarat, India
CIN: U40108DL2021GOI381217

Tel +91 79 2555 7555
Fax +91 79 2555 7177
info@adani.com
www.adanitransmission.com

Registered Office: C-105, Anand Niketan, New Delhi - 110 021.

