



**भारत सरकार Govt. of India**  
**विद्युत् मंत्रालय Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण Central Electricity Authority**  
**नई दिल्ली New Delhi**

**Monthly progress Report of  
Transmission Projects awarded through  
Tariff Based Competitive Bidding (TBCB)  
Route  
(Under Construction Projects)  
(As on 31.07.2023)**

(Published in fulfilment of CEA's obligation under section 73(i) & (j) of the Electricity Act, 2003)

(Disclaimer: The information published in this report is for indicative purpose only and shall not be used as a ground to claim time & cost overrun. Further, in no way this information, as per article 5.8 (Remedial measures) of TSA, relieves the TSP of its obligations in the agreement.)

In this report single star mark (\*) represent that as per Ministry of Power, Govt. of India circular no. 3/1/2020-Trans dated 27th July, 2020, all inter-state projects whose SCOD is beyond 25<sup>th</sup> March, 2020 and which were under construction on 25<sup>th</sup> March, 2020, have been given an extension of 5 months in respect of SCOD.

In this report double star mark (\*\*) represent that as Ministry of Power, Govt. of India circular no. 3/1/2020-Trans dated 12th June, 2021, all inter-state transmission projects which are under construction with SCOD coming after 01 April, 2021 shall get an extension of 3 months in respect of their SCOD.



## **Contents**

<b>S.No</b>	<b>Transmission project</b>	<b>Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)</b>	<b>Parent Company/ Progress Status</b>	<b>Page No.</b>
<b>1.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-A, Phase-II	Powergrid Ramgarh Transmission Limited /REC	PGCIL / Under Construction	6
<b>2.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-B, Phase-II	Powergrid Bhadla Transmission Limited /REC	PGCIL / Under Construction	10
<b>3.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-C, Phase-II	Powergrid Sikar Transmission Limited /REC	PGCIL / Under Construction	13
<b>4.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-D, Phase-II	Powergrid Aligarh Sikar Transmission Limited /PFC	PGCIL / Under Construction	17
<b>5.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-G, Phase-II	Khetri Narela Transmission Limited /PFC	PGCIL / Under Construction	20
<b>6.</b>	Transmission system for evacuation of power from Neemuch Solar Park (1000 MW)	Neemuch Transmission Limited /REC	PGCIL / Under Construction	23
<b>7.</b>	System Strengthening Scheme for Eastern and North Eastern Region	ER NER Transmission Limited/REC	PGCIL / Under Construction	26
<b>8.</b>	Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part B	Khavda II-B Transmission Limited/REC	PGCIL / Under Construction	29
<b>9.</b>	Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C	Khavda II-C Transmission Limited/REC	PGCIL / Under Construction	31
<b>10.</b>	Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE zone	Khavda RE Transmission Limited/REC	PGCIL / Under Construction	34
<b>11.</b>	Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE park	KPS2 Transmission Limited/REC	PGCIL / Under Construction	36
<b>12.</b>	Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE park	KPS3 Transmission Limited/ REC	PGCIL / Under Construction	38
<b>13.</b>	Inter-Regional ER-WR Interconnection	ERWR Power Transmission Limited/REC	PGCIL / Under Construction	40
<b>14.</b>	Transmission System associated with Western Region Expansion Scheme- XXVII (WRES-XXVII)	Raipur Pool Dhamtari Transmission Limited (RPTL)/PFC	PGCIL / Under Construction	42

<b>S.No</b>	<b>Transmission project</b>	<b>Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)</b>	<b>Parent Company/ Progress Status</b>	<b>Page No.</b>
<b>15.</b>	Transmission System associated with Western Region Expansion Scheme-XXVIII (WRES-XXVII) & XIX (WRES-XIX)	Dharamjaigarh Transmission Limited (DTL)/PFC	PGCIL / Under Construction	44
<b>16.</b>	Transmission system associated with LTA applications from Rajasthan SEZ Part-E, Phase-II	Bhadla Sikar Transmission Limited/PFC	PGCIL / Under Construction	46
<b>17.</b>	Additional 400kV Feed to Goa and Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool	Goa-Tamnar Transmission Project Limited/PFC	Sterlite Power TL / Under Construction	49
<b>18.</b>	Establish Transmission System for 400 kV Udupi (UPCL) – Kasargode D/C Line	Udupi Kasargode Transmission Limited./REC	Sterlite Power TL / Under Construction	57
<b>19.</b>	Western Region Strengthening Scheme-XIX (WRSS-XIX) and North Eastern Region Strengthening Scheme-IX (NERSS-IX)	Sterlite Grid 13 Limited(A Subsidiary of Sterlite Power Trans. Limited)/PFC	Sterlite Power TL / Under Construction	61
<b>20.</b>	Establishment of new 220/132kV substation at Nangalbibra	Sterlite Grid 26 Limited (A subsidiary of Sterlite Power Transmission Limited)/PFC	Sterlite Power TL / Under Construction	71
<b>21.</b>	Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs – Connectivity System	Sterlite Grid 24 Limited; (subsidiary of Sterlite Power Transmission Limited) /PFC	Sterlite Power TL / Under Construction	76
<b>22.</b>	Additional inter regional AC link for import into southern region i.e Warora-Warangal and Chilakaluripeta – Hyderabad – Kurnool 765 kV link	Warora Kurnool Transmission Ltd. / PFC	Adani TL / Under construction	80
<b>23.</b>	System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai(RVPL)	NRSS XXXVI transmission Ltd. / REC	Resurgent Power venture Pte Limited / Under construction	84
<b>24.</b>	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC(ERSS XIX)	North Karanpura Transco Ltd / REC	Adani TL / Under Construction	89
<b>25.</b>	Transmission System for Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone) along with LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS	Karur Transmission Limited/PFC	Adani TL / Under Construction	93
<b>26.</b>	Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I	Khavda Bhuj Transmission Limited/PFC	Adani TL / Under Construction	96

<b>S.No</b>	<b>Transmission project</b>	<b>Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)</b>	<b>Parent Company/ Progress Status</b>	<b>Page No.</b>
<b>27.</b>	Transmission scheme for evacuation of 4.5GW RE injection at Khavda P.S. under Phase II-Part A	Khavda II-A Transmission Limited /REC	Adani TL / Under Construction	100
<b>28.</b>	ISTS Network Expansion Scheme In Western Region & Southern Region For Export of Surplus Power During High RE Scenario in Southern Region.	WRSR Power Transmission Limited/REC	Adani TL / Under Construction	103
<b>29.</b>	Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra	Kallam Transmission Limited/REC	IndiGrid Limited / Under Construction	107
<b>30.</b>	Evacuation of power from RE sources in Koppal Wind Energy Zone (Karnataka) (2500MW)	Koppal-Narendra Transmission Ltd./PFC	ReNew Transmission Ventures Private Limited / Under Construction	110
<b>31.</b>	Transmission Scheme for Solar Energy Zone in Gadag (1000 MW), Karnataka – Part-A, Phase-I	Gadag Transmission Limited/REC	ReNew Transmission Ventures Private Limited / Under Construction	114
<b>32.</b>	Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II	Gadag II Transmission Limited/REC	ReNew Transmission Ventures Private Limited / Under Construction	118
<b>33.</b>	Transmission System for evacuation of power from RE projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh	Rajgarh Transmission Limited/ REC	G R Infraprojects Limited/ Under Construction	121
<b>34.</b>	400 kV D/c Khandukhal (Srinagar) – Rampura (Kashipur) line (Twin HTLS*) (KRTL)	Khandukhal Rampura Transmission Limited (KRTL) (Subsidiary of Megha Engineering & Infrastructures Limited (100%)/PFC	Megha Engineering & Infrastructures Limited/ Under Construction	125
<b>35.</b>	System Strengthening in NR for import of power from North Karanpura and other projects outside NR and System Strengthening in WR for import of power from North Karanpura and other projects outside Western Region and also for projects within Western Region.	North Karanpura Transmission Co. Ltd. / REC	Reliance Power Transmission Co. Ltd / Under litigation	128
<b>36.</b>	Augmentation of Talcher-II transmission System	Talcher Transmission Co. Ltd. / REC	Reliance Power Transmission Co. Ltd / Under litigation	130

**Total Transmission Projects Awarded : 83**  
**Transmission Projects Commissioned/Ready for commissioning : 45**

<b>Transmission Projects Under Construction</b>	<b>:</b>	<b>34</b>
<b>Tr. Projects whose construction could not be started due to litigation</b>	<b>:</b>	<b>02</b>
<b>Tr. Project where TSP has requested for closing of project</b>	<b>:</b>	<b>01</b>
<b>Transmission Projects scrapped/cancelled by CERC</b>	<b>:</b>	<b>01</b>

# **1. Transmission system associated with LTA applications from Rajasthan SEZ Part-A, Phase-II**

## **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar & Khetri along with establishment of 765/400kV new substation at Sikar-II & Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves establishment of 400/220kV Ramgarh-II S/s & implementation of Ramgarh-II PS – Fatehgarh-II PS 400kV D/c & Ramgarh –II PS– Jaisalmer-II (RVPN) 400kV D/c lines which shall facilitate in transfer of power from RE sources in Ramgarh complex for onward dispersal of power to various beneficiaries.

## **Scope of Transmission Project-**

### **Transmission Line**

Ramgarh II – Fatehgarh II 400kV D/C line ( Twin HTLS)

Ramgarh II – Jaisalmer-II (RVPNL) 400kV D/C line (Twin HTLS)

### **Substation**

Establishment of 400/220kV , 4X 500 MVA substation at Ramgarh –II (Fatehgarh –III) with 2x 125 MVA Bus reactors

02 No 400kV line bays at Fatehgarh II & Jaisalmer-II

### **General Details**

Special Purpose Vehicle (SPV) subsidiary of POWERGRID)	: POWERGRID Ramgarh Transmission Limited (A
Bid Process Coordinator (BPC)	: REC Ltd.
Estimated Cost	: ₹ 353.85 Cr.
Levellers Tariff	: ₹ 39.053 Cr.
Request for Proposal	: 11.05.20
Letter of Intent	: 29.01.21
Transmission Service Agreement (TSA)	: 11.11.20
SPV acquisition	: 09.03.21
Transmission License by CERC	: 31.05.21
Tariff adoption by CERC	: 05.05.21
Clearance u/s 164	: 20.12.21

Execution plan submitted to CEA	:	To be submitted.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	NOAs issued
Scheduled Date of Completion	:	Sep'22/Dec'22**

### **Status of progress of transmission project:-**

#### **1. Ramgarh II – Fatehgarh II 400kV D/C line ( Twin HTLS)**

Length:	44 km
Locations:	114 Nos.
Foundation completed	114 Nos.
Towers erected	105 Nos.
Stringing completed	11.7 km
Scheduled COD	Sep'22/Dec'22**
Anticipated COD	Sep'23

### **Status of statutory approvals:**

#### **River Crossings**

Total no. of crossings	:	NIL	Nos.
------------------------	---	-----	------

#### **Power line crossing**

Total no. of crossings	:	10	Nos.
Proposal submitted	:	10	Nos.
Approval obtained	:	10	Nos.

#### **Railway crossing**

Total no. of crossings	:	NIL
------------------------	---	-----

#### **National Highway Crossing**

Total no. of crossings	:	1	Nos.
Proposal submitted	:	1	Nos.
Approval obtained	:	1	Nos.

#### **Forest:**

Forest (0.0920 Ha): Online Submission:28.04.21. Stage-I accorded from O/o Sec (Forest), Govt. of Raj on 18.11.2021 Stage-II issued on 20.01.23.

<b>PTCC approval</b>	:	Proposal submitted , under approval.
----------------------	---	--------------------------------------

<b>Defence Aviation</b>	:	NOC Received
-------------------------	---	--------------

<b>Civil Aviation</b>	:	NOC Received
-----------------------	---	--------------

#### **2. Ramgarh II – Jaisalmer-II (RVPNL) 400kV D/C line (Twin HTLS)**

Award placed to M/s KPTL

Length:	50 km
Locations:	129 Nos.
Foundation	129 Nos.
Towers erection	129 No

Stringing	50 km
Scheduled COD	Sep'22/Dec'22**
Anticipated COD	Aug'23

### Status of statutory approvals:

#### River Crossings

Total no. of crossings	:	NIL	Nos.
------------------------	---	-----	------

#### Power line crossing

Total no. of crossings	:	07	Nos.
Proposal submitted	:	07	Nos.
Approval obtained	:	07	Nos.

#### Railway crossing

Total no. of crossings	:	NIL
------------------------	---	-----

#### National Highway Crossing

Total no. of crossings	:	1	Nos.
Proposal submitted	:	1	Nos.
Approval obtained	:	1	Nos.

#### Forest:

Forest (0.1794 Ha): Online Submission:28.04.21. Stage-I clearance accorded on 09.05.22. Working Permission accorded on 20.04.23.Stage-II clearance accorded on 01.05.23.

PTCC approval	:	Proposal submitted , under approval.
---------------	---	--------------------------------------

Defence Aviation	:	NOC Received
------------------	---	--------------

Civil Aviation	:	NOC Received
----------------	---	--------------

**Constraints being faced during execution:** Work affected due to COVID-19 pandemic.

### 3. Status of progress of Substation and Bay Extensions:-

#### (a) 400/220kV New Ramgarh II Substation ( Fatehgarh -III)

Land Acquisition	:	Land Taken over
Civil work completed	:	90%
Equipment supplied	:	85%
Equipment erection	:	70%
Scheduled COD	:	Sep'22/Dec'22**
Anticipated COD	:	Sep'23

#### (b) Extension of 400 Fatehgarh-II Substation

Land Acquisition	:	Available
Civil work completed	:	98%
Equipment supplied	:	98%
Equipment erection	:	95%
Scheduled COD	:	Sep'22/Dec'22**
Anticipated COD	:	Sep'23

#### (c) Extension of 400kV Jaisalmer II Substation

Land Acquisition	:	Available
Civil work completed	:	99%

Equipment supplied	:	99%
Equipment erection	:	99%
Scheduled COD	:	Sep'22/Dec'22**
Anticipated COD	:	Aug'23

**Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.
2. Complete project lies in the GIB Potential area. Clearance from the Supreme court committee received on 18.07.22.

## **2. Transmission system associated with LTA applications from Rajasthan SEZ Part-B, Phase-II**

### **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar &Khetri along with establishment of 765/400kV new substation at Sikar-II &Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves establishment of 400/220kV Bikaner-II S/s & implementation of Bikaner-II – Khetri 400kV D/c &Khetri - Bhiwadi 400kV D/c lines.

### **Scope of Transmission Project-**

#### **Transmission Line**

- Fatehgarh II – Bhadla II 765kV D/C line (2<sup>nd</sup>)

#### **Substation**

- Construction of 02 Nos. of 765 kV line bays at Fatehgarh II for Fatehgarh II – Bhadla II 765kV D/c line along with 2 x 240 MVAR switchable line reactors.
- Construction of 02 Nos. of 765 kV line bays at Bhadla II for Fatehgarh II – Bhadla II 765kV D/c line along with 2 x 240 MVAR switchable line reactors.

#### **General Details**

Special Purpose Vehicle (SPV) (A subsidiary of POWERGRID)	:	<b>POWERGRID Bhadla Transmission Limited</b>
Bid Process Coordinator (BPC)	:	REC Transmission Projects Company Ltd..
Estimated Cost	:	₹ 713.82 Cr.
Levelling Tariff	:	₹ 72.893 Cr.
Request for Proposal	:	05.03.20
Letter of Intent	:	29.01.21
Transmission Service Agreement (TSA)	:	11.11.20
SPV acquisition	:	04.06.21
Transmission License by CERC	:	25.11.22
Tariff adoption by CERC	:	Applied on 16.06.21
Clearance u/s 164	:	22.02.22
Execution plan submitted to CEA	:	To be submitted.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	NOAs issued

Scheduled Date of Completion : Dec'22

**Status of progress of transmission project:-**

**Fatehgarh II – Bhadla II 765kV D/C line (Twin HTLS)**

Award placed to M/s L&T and M/s KEC

- Length: 202.3 km
- Locations: 532 Nos.
- Foundation completed 333 Nos.
- Towers erected 225 Nos
- Stringing completed 1.5 km
- Scheduled COD Dec'22
- Anticipated COD Feb'24

**Status of statutory approvals:**

**River Crossings**

Total no. of crossings : NIL Nos.

**Power line crossing**

Total no. of crossings : 21 Nos.

Proposal submitted : 21 Nos.

Approval obtained : 21 Nos.

**Railway crossing**

Total no. of crossings : 02 Nos.

Proposal submitted : 02 Nos.

Approval obtained : 02 Nos.

**National Highway Crossing**

Total no. of crossings : 02 Nos.

Proposal submitted : 02 Nos.

Approval obtained : 02 Nos.

**Forest:**

Division Name: Jaisalmer & Jodhpur (0.2216)

Forest type: PF (NH-1, Jaisalmer)

Online Proposal submission: 26.04.21. Stage-I accorded on 01.02.2022 from State Govt. of Raj.

Stage-II accorded on 23.11.2022.

**PTCC approval** : Proposal submitted , under approval.

**Defence Aviation** : Proposal approved.

**Civil Aviation** : Proposal approved.

**Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.
2. Supreme Court committee clearance in GIB case received on 18.07.22 with diverted route. Transmission license received on 25.11.22.

## **Status of progress of Substation and Bay Extensions:-**

### **1. Extension of 765kV Fatehgarh II Substation**

Land Acquisition	:	Available.
Civil work completed	:	65%
Equipment supplied	:	65%
Equipment erection	:	30%
Scheduled COD	:	Dec'22
Anticipated COD		Feb'24

### **2. Extension of 765kV Bhadla II Substation**

Land Acquisition	:	Available
Civil work completed	:	75%
Equipment supplied	:	70%
Equipment erection	:	45%
Scheduled COD	:	Dec'22**
Anticipated COD		Feb'24

### **Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.

### 3. Transmission system associated with LTA applications from Rajasthan SEZ Part-C, Phase-II

#### Background

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar & Khetri along with establishment of 765/400kV new substation at Sikar-II & Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves establishment of 400/220kV Bikaner-II S/s & implementation of Bikaner-II – Khetri 400kV D/c & Khetri - Bhiwadi 400kV D/c lines.

#### Scope of Transmission Project-

##### Transmission Line

- Bhadla II – Sikar II 765kV D/C line
- Sikar II – Neemrana 400kV D/C ( Twin HTLS)

##### Substation

- Establishment of 765/400kV Sikar II Substation with 2x 1500 MVA 765/400kV ICTS, 2x 330 MVA, 765kV Bus Reactors and 1x 125 MVA, 400kV Bus Reactor and 2x 330MVA Switchgear line reactors for Bhadla II – Sikar II transmission Line.
- Construction of 02 No 765kV bays at Bhadla II for Bhadla II – Sikar II 765kV D/C Line along with 2/240MVA switchable line reactors.
- Construction of 02 No 400kV bays at Neemrana for Sikar II – Neemrana 400kV D/C line.

##### General Details

Special Purpose Vehicle (SPV) subsidiary of POWERGRID)	:	POWERGRID Sikar Transmission Limited (A
Bid Process Coordinator (BPC)	:	REC Transmission Projects Company Ltd.
Estimated Cost	:	₹ 1562 Cr.
Levelling Tariff	:	₹ 163.705 Cr.
Request for Proposal	:	05.03.20
Letter of Intent	:	01.02.21
Transmission Service Agreement (TSA)	:	14.12.20
SPV acquisition	:	04.06.21
Transmission License by CERC	:	27.05.22
Tariff adoption by CERC	:	05.05.22
Clearance u/s 164	:	19.04.23
Execution plan submitted to CEA	:	Submitted.
NIT issued on	:	NIT for all Pkgs issued.

EPC awarded on	:	NOAs issued
Scheduled Date of Completion	:	Dec'22

### **Status of progress of transmission project:-**

#### **1. Bhadla II – Sikar II 765kV D/C line**

Award placed to M/s KEC

Length:	307 km
Locations:	779 Nos.
Foundation completed	609 Nos.
Towers erected	470 No.
Stringing completed	66 km
Scheduled COD	Dec'22
Anticipated COD	Jun'24

### **Status of statutory approvals:**

#### **River Crossings**

Total no. of crossings	:	NIL	Nos.
------------------------	---	-----	------

#### **Power line crossing**

Total no. of crossings	:	17	Nos.
Proposal submitted	:	17	Nos.
Approval obtained	:	17	Nos.

#### **Railway crossing**

Total no. of crossings	:	03	Nos.
Proposal submitted	:	03	Nos.
Approval obtained	:	03	Nos.

#### **National Highway Crossing**

Total no. of crossings	:	04	Nos.
Proposal submitted	:	04	Nos.
Approval obtained	:	04	Nos.

#### **Forest:**

**Forest (0.6231 Ha):** Online Submission:01.06.2021; Marked to DFO Jodhpur, Nagaur, Sikar:08.07.2021, DFO Jodhpur site visited. DFO, Sikar raised query on 15.07.21 & replied on 09.08.21. DFO, Nagaur raised query on 07.09.21. Reply to concern DFO submitted on 04.02.2022. Documents related to change of area from 0.6231 Ha to 0.7912 Ha are uploaded on 04.02.2022. DFO, Nagaur inspection completed. Vide letter dated 07.03.22, DFO, Sikar has sought additional information from Power Grid.

DFO, Sikar on 20.02.2023 had requested Power Grid to submit hardcopies of forest proposals as per revised area & same were submitted to DFO on 26.04.23. DFO Sikar forwarded proposal on 24.05.23. Compliance of query raised on 05.07.23 by DFO, Nagaur under progress

<b>PTCC approval</b>	:	Proposal under preparation.
----------------------	---	-----------------------------

<b>Defence Aviation</b>	:	Proposal under preparation.
-------------------------	---	-----------------------------

<b>Civil Aviation</b>	:	Proposal under preparation.
-----------------------	---	-----------------------------

#### **2. Sikar II - Neemarana 400kV D/C line (Twin HTLS)**

Award placed to M/s KEC

Length:	142.3 km
Locations:	395 Nos.
Foundation completed	264Nos
Towers erected	166 Nos.
Stringing completed	1.7 km
Scheduled COD	Dec'22
Anticipated COD	Jun'24

**Status of statutory approvals:**

**River Crossings**

Total no. of crossings : NIL Nos.

**Power line crossing**

Total no. of crossings : 19 Nos.

Proposal submitted : 19 Nos.

Approval obtained : 19 Nos.

**Railway crossing**

Total no. of crossings : 02 Nos.

Proposal submitted : 01 Nos.

Approval obtained : 01 Nos.

**National Highway Crossing**

Total no. of crossings : 04 Nos.

Proposal submitted : 03 Nos.

Approval obtained : 03 Nos.

**Forest (13.013 Ha, Rajasthan):** Online proposal submitted on 29.06.2021 & accepted by Nodal on 19.08.2021. Stage-I clearance accorded on 22.12.2022. Compliance Submitted on 11.04.2023. Stage-I compliance under examination with CCF, Jaipur.

**Forest (0.483 Ha, Haryana):** Online proposal submitted on 08.08.2021 & accepted by Nodal on 20.08.2021 and forwarded to concerned DFO on 01.09.2021. Part-II recommendation done by DFO on 10.06.2022. Part-III recommendation done by CF, Gurgaon on 28.06.2022 and forwarded to Nodal Officer, Panchkula. Nodal Officer, Panchkula has sought additional information on 05.08.2022 & reply of the forwarded to Nodal Officer, Panchkula on 29.09.2022. Further, NOC from irrigation department obtained on 13.04.23 & compliance of the same forwarded to Nodal Officer, Panchkula on 26.04.23. Nodal Officer forwarded proposal to Govt. Of Haryana on 09.06.23. Compliance of query rasied from Govt. Of Haryana made on 21.06.23.

**PTCC approval** : Proposal under preparation.

**Defence Aviation** : Proposal under preparation.

**Civil Aviation** : Proposal under preparation.

**Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.
2. Supreme Court Committee clearance received on 13.01.22.
3. Transmission Licence by CERC received on 27.05.22.

## **Status of progress of Substation and Bay Extensions:-**

### **1. 765/400kV Sikar II New Substation**

Land Acquisition	:	Land being purchased through open tender.
Civil work completed	:	to Start
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Dec'22**
Anticipated COD	:	Sep'24

### **2. Extension of 765kV Bhadla II Substation**

Land Acquisition	:	Available
Civil work completed	:	99%
Equipment supplied	:	99 %
Equipment erection	:	99 %
Scheduled COD	:	Dec'22**
Anticipated COD	:	Jun'24

### **3. Extension of 400kV Neemrana Substation**

Land Acquisition	:	Available
Civil work completed	:	99%
Equipment supplied	:	99%
Equipment erection	:	99%
Scheduled COD	:	Dec'22**
Anticipated COD	:	Jun'24

## **Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.
2. Supreme Court Committee clearance received on 13.01.22. Transmission Licence received on 27.05.22.
3. POWERGRID was facing difficulty in purchase of land within BPC specified radius. Issue raised with MoP for increasing the radius. Direction for resolution of issue received in meeting held in May'23 under chairmanship of Secretary Power. Persuasion with Govt. of Rajasthan for commencement of works is under progress.

## 4. Transmission system associated with LTA applications from Rajasthan SEZ Part-D, Phase-II

### Background

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar &Khetri along with establishment of 765/400kV new substation at Sikar-II &Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves establishment of 400/220kV Bikaner-II S/s & implementation of Bikaner-II – Khetri 400kV D/c &Khetri - Bhiwadi 400kV D/c lines.

### Scope of Transmission Project-

#### Transmission Line

Sikar II- Aligarh 765kV D/C line

#### Substation

- Construction of 02 No 765kV bays at Sikar II for Sikar II- Aligarh 765kV D/C Line along with 2x330 MVar switchable line reactors.
- Construction of 02 No 765kV bays at Aligarh for Sikar II- Aligarh 765kV D/C Line along with 2x330 MVar switchable line reactors

#### General Details

Special Purpose Vehicle (SPV) subsidiary of POWERGRID)	:	Sikar II – Aligarh Transmission Limited (A
Bid Process Coordinator (BPC)	:	PFC Consulting Ltd.
Estimated Cost	:	₹ 1006 Cr.
Levelling Tariff	:	₹ 99.701Cr.
Request for Proposal	:	06.03.20
Letter of Intent	:	16.02.21
Transmission Service Agreement (TSA)	:	02.11.20
SPV acquisition	:	08.06.21
Transmission License by CERC	:	28.05.22
Tariff adoption by CERC	:	06.05.22.
Clearance u/s 164	:	20.10.22
Execution plan submitted to CEA :		To be submitted.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	NOAs issued
Scheduled Date of Completion	:	Dec'22

## Status of progress of transmission project:-

### 1. Sikar II – Aligarh 765kV D/C line

Award placed to M/s KPTL

Length:	264.2 km
Locations:	704 Nos.
Foundation completed	665 Nos.
Towers erected	649 Nos.
Stringing completed	239 km
Scheduled COD	Dec'22
Anticipated COD	Jun'24

## Status of statutory approvals:

### River Crossings

Total no. of crossings	:	NIL	Nos.
------------------------	---	-----	------

### Power line crossing

Total no. of crossings	:	36	Nos.
Proposal submitted	:	36	Nos.
Approval obtained	:	36	Nos.

### Railway crossing

Total no. of crossings	:	03	Nos.
Proposal submitted	:	03	Nos.
Approval obtained	:	03	Nos.

### National Highway Crossing

Total no. of crossings	:	06	Nos.
Proposal submitted	:	06	Nos.
Approval obtained	:	06	Nos.

**Forest (15.6043 Ha, Rajasthan):** Online proposal submitted on 26.07.2021 & accepted by Nodal on 03.09.2021 and forwarded to concern DFOs on 03.09.2021. Part-II recommendation for Sikar division done on 13.01.22. Vide letter dated 03.02.22, DFO, Jaipur (N) has sought addition information and compliance for the same submitted to DFO on 21.03.22. Vide letter dated 29.03.22, DFO, Jaipur (N) has requested to submit revised proposal in hard copies. Part-II recommendation for Alwar division done on 01.04.22 & forwarded to CF, Jaipur. Part-III done by CF, Jaipur on 26.04.22 and forwarded to NO, Jaipur. Part-IV done by NO, Jaipur on 12.09.22 and forwarded to Sec (Forest), Govt. of Raj. Forwarded proposal to IRO, Jaipur for Stage-I clearance. REC meeting held on 14.06.23 and proposal recommended for Stage-I approval.

**Forest (15.8589 Ha, Haryana):** Online proposal submitted on 19.08.2021 & accepted by Nodal on 23.09.2021 and forwarded to concerned DFOs on 10.09.2021. Stage-I issued on 08.05.23. Stage-II issued on 13.07.23.

**Forest (1.3668 Ha, UP):** Online proposal submitted on 25.08.2021. Stage-I clearance accorded on 24.06.2022. Demand letter from DFO, Mathura received on 12.07.2022 and payment done on 08.08.22. Stage-I compliance submitted to respective DFOs on 16.08.2022. Working permission accorded on 17.11.22.

**PTCC approval** : Under approval

**Defence Aviation** : NOC received.

**Civil Aviation** : NOC received.

**Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.

**Status of progress of Substation and Bay Extensions:-**

**1. Extension of 765kV Sikar II Substation**

Land Acquisition	:	Land being purchased through open tender.
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Dec'22
Anticipated COD	:	Jun'24

**2. Extension of 765kV Aligarh Substation**

Land Acquisition	:	Available
Civil work completed	:	95%
Equipment supplied	:	95%
Equipment erection	:	92%
Scheduled COD	:	Dec'22**
Anticipated COD	:	Mar'24

**Constraints being faced during execution:**

1. Work affected due to COVID-19 pandemic.

## **5. Transmission system associated with LTA applications from Rajasthan SEZ Part-G, Phase-II**

### **Background**

The Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar & Khetri along with establishment of 765/400kV new substation at Sikar-II & Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves establishment of 765/400kV Narela S/s & implementation of Khetri – Narela 765kV D/c Line & LILO of 765kV S/c Meerut – Bhiwani line at Narela.

### **Scope of Transmission Project-**

#### **Transmission Line**

1. Khetri – Narela 765kV D/c Line
2. LILO of 765kV S/c Meerut – Bhiwani line at Narela.

#### **Substation**

1. Establishment of 765/400 kV, 3X1500 MVA GIS substation at Narela with 765 kV (2x330 MVAR) bus reactor and 400kV (1x125 MVAR) bus reactor.
2. Construction of 02 No 765kV bays at Khetri for Khetri – Narela 765kV D/c Line

### **General Details**

Special Purpose Vehicle (SPV) subsidiary of POWERGRID)	:	Khetri Narela Transmission Limited (A
Bid Process Coordinator (BPC)	:	PFC Consulting Ltd.
Estimated Cost	:	₹ 1618 Cr.
Levelised Tariff	:	₹ 177Cr.
Request for Proposal	:	06.03.20
Letter of Intent	:	28.02.22
Transmission Service Agreement (TSA)	:	07.12.21
SPV acquisition	:	11.05.22
Transmission License by CERC	:	26.09.22

Tariff adoption by CERC	:	23.07.22
Clearance u/s 164	:	27.01.23
Execution plan submitted to CEA	:	To be Submitted.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	NOAs for all package issued except Reactors
Scheduled Date of Completion	:	Nov'23

## 1. **Khetri – Narela 765kV D/C line**

Award placed to M/s TLL

Length:	170 km
Locations:	459 Nos.
Foundation completed	260 Nos.
Towers erected	180 Nos.
Stringing completed	0 km
Scheduled COD	Nov'23
Anticipated COD	Apr'24

### **Status of statutory approvals:**

#### **Power line crossing:**

Total no. of crossings	:	34	Nos.
Proposal submitted	:	34	Nos.
Approval obtained	:	31	Nos.

#### **Railway crossing:**

Total no. of crossings	:	5	Nos.
Proposal submitted	:	2	Nos.
Approval obtained	:	0	Nos.

#### **National Highway Crossing:**

Total no. of crossings	:	6	Nos.
Proposal submitted	:	5	Nos.
Approval obtained	:	1	Nos.

**Forest Rajasthan (3.6619 Ha)** – Online proposal submitted in Nov'22. After submission of compliance, DFO forwarded proposal to Nodal Officer on 04.05.23. Proposal is under examination at Nodal Officer, Jaipur.

**Forest Haryana (15.95 Hectare)** – Proposal submitted on 03.02.23. Proposal discussed in PSC meeting dated 25.05.23. State Forest Deptt was insisting on providing non-forest land for CA which is time consuming. Issue discussed in Inter- ministerial meeting on 03.07.2023, in which submission of DO letter for seeking exemption for providing NFL was asked. DO letter in this regard has been given to Secretary MoEFCC on 15.07.23. Matter further discussed in FAC meeting held on 17.07.23 and proposal for DFL in-principally accepted. MoM awaited.

**PTCC approval** : Under approval.

**Defence Aviation** : Under approval.

**Civil Aviation** : Under approval.

## 2. **LILO of 765kV S/c Meerut – Bhiwani line at Narela**

Award placed to M/s TLL

Length:	30 km
Locations:	97 Nos.

Foundation completed	24 Nos.
Towers erected	2 Nos.
Stringing completed	0 km
Scheduled COD	Nov'23
Anticipated COD	Apr'24

#### **Status of statutory approvals:**

##### **Power line crossing:**

Total no. of crossings	:	6	Nos.
Proposal submitted	:	6	Nos.
Approval obtained	:	3	Nos.

##### **Railway crossing:**

Total no. of crossings	:	2	Nos.
Proposal submitted	:	2	Nos.
Approval obtained	:	1	Nos.

##### **National Highway Crossing:**

Total no. of crossings	:	4	Nos.
Proposal submitted	:	4	Nos.
Approval obtained	:	0	Nos.

**Forest Haryana (3.107 Ha)** – Online proposal submitted on 20.03.23. DFO, Sonipat has requested Power Grid to provide NFL for CA on 18.04.23. Due non availability of land for CA, POWERGRID requested Nodal Officer, Panchkula on 29.05.23 to provide DFL for CA scheme & same has been forwarded to all CCF (T) except South Circle. On 15.06.23, NO, Panchkula has advised CCF, Hisar to identify DFL for CA. Further, CCF, Hisar has conveyed to DFO, Sirsa to identify DFL for CA and same is under process.

#### **Status of progress of Substation and Bay Extensions:-**

##### **1. 765/400kV Narela Substation**

Land Acquisition	:	Land acquired in Mar'23
Civil work completed	:	10%
Equipment supplied	:	05%
Equipment erection	:	
Scheduled COD	:	Nov'23
Anticipated COD	:	Apr'24

##### **2. Extension of 765kV Khetri Substation**

Land Acquisition	:	Available
Civil work completed	:	55%
Equipment supplied	:	50%
Equipment erection	:	10%
Scheduled COD	:	Nov'23
Anticipated COD	:	Apr'24

## 6. Transmission system for evacuation of power from Neemuch Solar Park (1000 MW)

### Background

Establishment of inter-state transmission system for “Transmission System for Evacuation of Power from Neemuch (Special Economic Zone) SEZ”, on build, own, operate and transfer (BOOT) basis from the Bid Process Coordinator - REC Power Development and Consultancy.

The transmission system comprises establishment of around 277 Kms of two 400kV DIC Transmission lines passing through the states of Rajasthan and Madhya Pradesh, a new 2X500 MVA, 400/220kV pooling substation (AIS) at Neemuch (Madhya Pradesh) and 400kV bay extension works. The project is targeted for implementation in 18 months.

### Scope of Works under Neemuch Project:

- a) Establishment of 2x500 MVA, 400/220 kV Pooling Station (AIS) at Neemuch (Singoli tehsil) with  
1x125 MVAr Bus Reactor  
400/220 kV, 500 MVA ICT –2 Nos.  
400 kV ICT bays – 2 Nos.  
220 kV ICT bays – 2 Nos.  
400 kV line bays –4 Nos. (2 each for Chittorgarh & Mandsaur lines)  
220 kV line bays – (2 Nos. of bays to 500 MW Connectivity/LTA granted to M/s RUMSL)  
220kV Bus coupler bay- 1 no.  
220kV Transfer Bus Coupler (TBC) bay - 1 no.  
125 MVAR, 420 kV reactor-1 no.  
420 kV reactor bay – 1 no.
- b) Associated Transmission System:
  - i) Neemuch PS – Chhittorgarh (PG) s/s 400 kV D/C line (conductor with minimum capacity of 2100 MVA/Ckt at nominal voltage).
  - ii) 2 Nos. of 400 kV line bays at Chhittorgarh (PG) 400 kV s/s for Neemuch PS – Chhittorgarh (PG) s/s 400 kV D/C line (conductor with minimum capacity of 2100 MVA/Ckt at nominal voltage).
  - iii) Neemuch PS- Mandsaur s/s 400 kV D/C line (conductor with minimum capacity of 2100 MVA/Ckt at nominal voltage).
  - iv) 2 no. of 400 kV line bays at Mandsaur 400 kV s/s for Neemuch PS- Mandsaur s/s 400 kV D/c line (conductor with minimum capacity of 2100 MVA/Ckt at nominal voltage).

### General Details

Special Purpose Vehicle (SPV)	:	Neemuch Transmission Limited (A subsidiary of POWERGRID)
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	₹ 547 Cr.
Levelized Tariff	:	₹ 78.378
Request for Proposal	:	28.01.22
Letter of Intent	:	07.07.22

Transmission Service Agreement (TSA)	:	24.08.22
SPV acquisition	:	24.08.22
Transmission License by CERC	:	Applied on 31.08.2022
Tariff adoption by CERC	:	Applied on 31.08.2022
Clearance u/s 164	:	
Execution plan submitted to CEA	:	Submitted.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	Awarded
Scheduled Date of Completion	:	Feb'24

### **Status of progress of Transmission Line:**

#### **1. Neemuch PS- Mandsaur s/s 400 kV D/C line**

Award placed on M/s TLL.

Length	:	118.06 km
Locations	:	302 Nos.
Foundation completed	:	143 Nos.
Towers erected	:	98 Nos.
Stringing completed	:	3.25 km
Scheduled COD	:	Feb'24
Anticipated COD	:	Feb'24

#### **Status of statutory approvals:**

**River Crossings** : Survey in progress

**Power line crossing** : Survey in progress

**Railway crossing** : Survey in progress

**National Highway Crossing** : Survey in progress

#### **2. Neemuch PS - Chhittorgarh (PG) 400kV D/c Line**

Award placed on M/s KEC & TLL

Length	:	117.5 km
Locations	:	306 Nos.
Foundation completed	:	171 Nos.
Towers erected	:	130 Nos.
Stringing completed	:	3 km
Scheduled COD	:	Feb'24
Anticipated COD	:	Feb'24

#### **Status of statutory approvals:**

#### **Status of statutory approvals:**

<b>Power line crossing</b>	:	
Total no. of crossings	:	15 Nos.

Proposal submitted	:	15	Nos.
Approval obtained	:	0	Nos.

<b>Railway crossing</b>	:		
Total no. of crossings	:	1	Nos.
Proposal submitted	:	0	Nos.
Approval obtained	:	0	Nos.

<b>National Highway Crossing</b>	:		
Total no. of crossings	:	2	Nos.
Proposal submitted	:	0	Nos.
Approval obtained	:	0	Nos.

**Forest Rajasthan (50 Ha.):** Online submitted on 02.06.23. Discussed in PSC meeting on 15.06.23. Proposal under examination with DFO, Chittorgarh.

**Forest MP (19 Ha.):** Online submitted on 28.02.23. DFO forwarded proposal to NO on 08.06.23.

#### **Status of progress of Substation and Bay Extensions:-**

#### **1. Establishment of 2x500 MVA, 400/220 kV Pooling Station (AIS) at Neemuch with 1x125 MVar Bus Reactor**

Land Acquisition	:	Land handed over by RUMS on 28.01.23
Civil work completed	:	40%
Equipment supplied	:	20%
Equipment erection	:	
Scheduled COD	:	Feb'24
Anticipated COD	:	Feb'24

#### **2. 2 Nos. 400 kV line bays at Mandsaur for Neemuch PS- Mandsaur s/s 400 kV D/c line**

Land Acquisition	:	Available
Civil work completed	:	15%
Equipment supplied	:	10%
Equipment erection	:	
Scheduled COD	:	Feb'24
Anticipated COD	:	Feb'24

#### **3. 2 Nos. 400kV Line bays at Chittorgarh for Neemuch PS - Chhittorgarh 400kV D/c Line**

Land Acquisition	:	Available
Civil work completed	:	65%
Equipment supplied	:	60%
Equipment erection	:	10%
Scheduled COD	:	Feb'24
Anticipated COD	:	Feb'24

## **7. System Strengthening Scheme for Eastern and North Eastern Region**

### **Background**

Inter-State Transmission System - System Strengthening Scheme for Eastern and North Eastern Regions (hereinafter referred to as 'Project') on build, own, operate & transfer basis and to provide transmission service:

#### **A. Eastern Region Strengthening Scheme –XXV (ERSS-XXV):**

1. Creation of 220kV GIS bus at Banka (POWERGRID) S/S
2. 400kV Bus extension works at Banka (POWERGRID) 400/132kV Substation
3. 400/220kV, 2x500MVA ICTs along with associated bays (220kV bays in GIS and 400kV bays in AIS)  
400/220kV, 500MVA ICT – 2 Nos.  
400kV ICT(AIS) bays – 2 Nos.  
220kV ICT (GIS) bays – 2 Nos.
4. 2 nos. of 220kV GIS line bays at Banka (POWERGRID) for termination of Banka (POWERGRID) – Goradih (Sabour New) 220kV D/C line of BSPTCL  
Future provision: Space for future 220kV GIS bays: 6 Nos.

#### **B. North Eastern Region Strengthening Scheme-XV (NERSS-XV):**

1. Upgradation of existing 132kV Namsai (POWERGRID) S/S to 220kV (with 220kV side as GIS)  
**220kV in GIS:**
  - i) ICTs: 220/132kV, 2x160MVA
  - ii) ICT bay : 2 Nos.
  - iii) Bus Reactor: 220kV, 1x50MVAr
  - iv) Bus Reactor Bay: 1 no.
  - v) Line bays: 2 Nos. [for termination of Kathalguri (NEEPCO) – Namsai (POWERGRID) 220kV D/C line]
  - vi) Bus coupler bay: 1 no.
  - vii) Space for future line bays: 4 Nos.  
**132kV:**
  - i) ICT bays: 2 Nos.
  - ii) Space for future line bays: 4 Nos.
2. Kathalguri (NEEPCO) – Namsai (POWERGRID) 220kV D/C line
3. Extension at Kathalguri (NEEPCO) switchyard: 2 Nos. of 220kv GIS line bays for termination of Kathalguri (NEEPCO) – Namsai

**General Details**

Special Purpose Vehicle (SPV)	:	<b>ER NER Transmission Limited (ENTL)</b>
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	₹307.87
Levelized Tariff /Annual Trans. charges	:	₹ 35 Cr
Request for Proposal	:	09.11.2021
Letter of Intent	:	30.08.22
Transmission Service Agreement (TSA)	:	10.10.2022
SPV acquisition	:	10.10.2022
Transmission License by CERC	:	Applied on 17.10.2022
Tariff adoption by CERC	:	Applied on 17.10.2022
Clearance u/s 164	:	Under Application
Execution plan submitted to CEA	:	19.10.2022
NIT issued on	:	NIT for S/s Pkgs issued.
EPC awarded on	:	Awarded
Scheduled Date of Completion	:	09.10.2025

**Status of progress of Transmission Line:****Kathalguri (NEEPCO) – Namsai (POWERGRID) 220kV D/C line**

Length	:	69.6 kms
Locations	:	219 Nos.
Foundation completed	:	11 Nos.
Towers erected	:	0 Nos.
Stringing completed	:	0 km
Scheduled COD	:	Oct'2025
Anticipated COD	:	Oct'2025

**Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

**Extn. of 400kV AIS switchyard and Creation of 220kV GIS at 400/132kV Banka (PG) S/s**

Land Acquisition	:	Available
Civil work completed	:	35%
Equipment supplied	:	02%
Equipment erection	:	-
Scheduled COD	:	Oct'2024
Anticipated COD	:	Oct'2024

**Extn. of 132kV AIS switchyard and Upgradation of existing 132kV Namsai (POWERGRID)**

Land Acquisition	:	Available
Civil work completed	:	10%
Equipment supplied	:	02%
Equipment erection	:	-

Scheduled COD	:	Oct'2025
Anticipated COD	:	Oct'2025

**Extn. of 220kV Kathalguri SS (NEEPCO)**

Land Acquisition	:	Available
Civil work completed	:	02%
Equipment supplied	:	02%
Equipment erection	:	-
Scheduled COD	:	Oct'2025
Anticipated COD	:	Oct'2025

## 8. Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part B

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Ph-II (Part-A to D) would cater to additional 5GW (beyond 3GW) in Khavda area. The scheme comprises KPS2-Lakadia-Ahmedabad-Navsari (new) 765kV D/c corridor. Further, 3x1500MVA, 765/400kV Ahmedabad substation shall be established along with LILO of Pirana(PG)-Pirana(T) 400kV D/c line at Ahmedabad S/s and reconductoring of Pirana(PG)-Pirana(T) line, both with twin HTLS conductor.

### Scope of Transmission Project-

#### Transmission Line

1. 765KV D/C Lakadia PS-Ahmedabad line

#### Substation

2. 2 Nos. 765kV Line Bays at Lakadia PS for 765kV D/C Lakadia PS-Ahmedabad Line
3. 2 Nos. 765kV Line Bays at Ahmedabad for 765kV D/C Lakadia PS-Ahmedabad Line along with 240MVAR Line Reactor on each ckt.

### General Details

Special Purpose Vehicle (SPV)	:	Khavda II-B Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	1711.04 cr.
Levelized Tariff	:	110.64 cr.
Request for Proposal	:	06.05.22
Letter of Intent	:	16.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	17.02.22 - 04.03.22
EPC awarded on	:	18.03.23 - 28.03.23

Scheduled Date of Completion : Mar'25

**Status of progress of Transmission Line:**

**1. 765KV D/C Lakadia PS-Ahmedabad line**

Length	:	184 km
Locations	:	478 Nos.
Foundation completed	:	10 Nos.
Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

**Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

**Status of progress of Substation and Bay Extensions:-**

**2. 2 Nos. 765kV Line Bays at Lakadia PS for 765kV D/C Lakadia PS-Ahmedabad Line**

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

**3. 2 Nos. 765kV Line Bays at Ahmedabad for 765kV D/C Lakadia PS-Ahmedabad Line along with 240MVAR Line Reactor on each ckt.**

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

## 9. Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Ph-II (Part-A to D) would cater to additional 5GW (beyond 3GW) in Khavda area. The scheme comprises KPS2-Lakadia-Ahmedabad-Navsari (new) 765kV D/c corridor. Further, 3x1500MVA, 765/400kV Ahmedabad substation shall be established along with LILO of Pirana(PG)-Pirana(T) 400kV D/c line at Ahmedabad S/s and reconductoring of Pirana(PG)-Pirana(T) line, both with twin HTLS conductor.

### Scope of works under Khavda Phase II- Part C project:

#### Transmission Line

1. 765KV D/C Ahmedabad-South Gujarat (New Navsari) line

#### Substation

2. 765/400kV 3x1500MVA Ahmedabad New SS with 1x330MVAR 765kV Bus Reactor & 1x125MVAR 400kV Bus Reactor
3. 765kV Line Bays at Ahmedabad for 765kV D/C Ahmedabad-South Gujarat (New Navsari) line along with 240MVAR Line Reactor on each ckt.
4. 765kV Line Bays at South Gujarat (New Navsari) for 765kV D/C Ahmedabad-South Gujarat (New Navsari) line

#### **General Details**

Special Purpose Vehicle (SPV)	:	Khavda II-C Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	2810.38 cr.
Levelized Tariff	:	281.69 cr.
Request for Proposal	:	06.05.22
Letter of Intent	:	16.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	

Execution plan submitted to CEA	:	
NIT issued on	:	01.02.22 - 17.05.22
EPC awarded on	:	10.03.23 - 06.04.23
Scheduled Date of Completion	:	Mar'25

### **Status of progress of Transmission Line:**

#### **1. 765KV D/C Ahmedabad-South Gujarat (New Navsari) line**

Length	:	288 km
Locations	:	798 Nos.
Foundation completed	:	15 Nos.
Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

### **Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

### **Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

### **Status of progress of Substation and Bay Extensions:-**

#### **2. 765/400kV 3x1500MVA Ahmedabad New SS with 1x330MVA 765kV Bus Reactor & 1x125MVA 400kV Bus Reactor**

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

3. 765kV Line Bays at Ahmedabad for 765kV D/C Ahmedabad-South Gujrat (New Navsari) line along with 240MVAR Line Reactor on each ckt.

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

4. 765kV Line Bays at South Gujarat (New Navsari) for 765kV D/C Ahmedabad-South Gujrat (New Navsari) line

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

## 10. Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE zone

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Ph-II (Part-A to D) would cater to additional 5GW (beyond 3GW) in Khavda area. The scheme comprises KPS2-Lakadia-Ahmedabad-Navsari (new) 765kV D/c corridor. Further, 3x1500MVA, 765/400kV Ahmedabad substation shall be established along with LILO of Pirana(PG)-Pirana(T) 400kV D/c line at Ahmedabad S/s and reconductoring of Pirana(PG)-Pirana(T) line, both with twin HTLS conductor.

### Scope of works under Khavda Potential RE project:

#### Transmission Line

1. 765KV D/C Banaskantha-Ahmedabad line

#### Substation

1. 2 Nos. 765kV line bays at Banaskantha S/s for 765kV D/C Banaskantha-Ahmedabad line
2. 2 Nos. 765kV line Bays at Ahmedabad SS for 765kV D/C Banaskantha-Ahmedabad line along with 330MVAR line Reactor on each ckt.

#### **General Details**

Special Purpose Vehicle (SPV)	:	Khavda RE Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	1220.14
Levelized Tariff	:	77.33 cr.
Request for Proposal	:	06.05.22
Letter of Intent	:	15.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	03.03.22 - 02.06.22
EPC awarded on	:	10.03.23 - 28.03.23
Scheduled Date of Completion	:	Mar'25

### **Status of progress of Transmission Line:**

#### **1. 765KV D/C Banaskantha-Ahmedabad line**

Length	:	133.3 km
Locations	:	348 Nos.
Foundation completed	:	5 Nos.
Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

### **Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

### **Status of progress of Substation and Bay Extensions:-**

#### **2. 2 Nos. 765kV line bays at Banaskantha S/s for 765kV D/C Banaskantha-Ahmedabad line**

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

#### **3. 2 Nos. 765kV line Bays at Ahmedabad SS for 765kV D/C Banaskantha-Ahmedabad line along with 330MVAR line Reactor on each ckt.**

Land Acquisition	:	
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

## 11. Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE park

### Background:

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Ph-II (Part-A to D) would cater to additional 5GW (beyond 3GW) in Khavda area. The scheme comprises KPS2-Lakadia-Ahmedabad-Navsari (new) 765kV D/c corridor. Further, 3x1500MVA, 765/400kV Ahmedabad substation shall be established along with LILO of Pirana(PG)-Pirana(T) 400kV D/c line at Ahmedabad S/s and reconductoring of Pirana(PG)-Pirana(T) line, both with twin HTLS conductor.

### Scope of works under KPS2 project:

#### Substation

1. 765/400kV 4x1500MVA KPS2 New SS (GIS) with 2x330MVA 765kV Bus Reactor & 2x125MVA 400kV Bus Reactor

#### **General Details**

Special Purpose Vehicle (SPV)	:	KPS2 Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	867.78 cr.
Levelized Tariff	:	69.68 cr.
Request for Proposal	:	28.01.22
Letter of Intent	:	16.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	01.02.22 - 05.12.22
EPC awarded on	:	17.03.23 - 27.03.23
Scheduled Date of Completion	:	Dec'24

#### **Status of progress of Substation and Bay Extensions:-**

1. 765/400kV 4x1500MVA KPS2 New SS (GIS) with 2x330MVA 765kV Bus Reactor & 2x125MVA 400kV Bus Reactor

Land Acquisition	:	Completed
Civil work completed	:	3%
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Dec'24
Anticipated COD	:	Dec'24

**Constraints being faced during execution:**

1. ROU for approach road to KPS2 Pooling Station

## 12. Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE park

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Ph-II (Part-A to D) would cater to additional 5GW (beyond 3GW) in Khavda area. The scheme comprises KPS2-Lakadia-Ahmedabad-Navsari (new) 765kV D/c corridor. Further, 3x1500MVA, 765/400kV Ahmedabad substation shall be established along with LILO of Pirana(PG)-Pirana(T) 400kV D/c line at Ahmedabad S/s and reconductoring of Pirana(PG)-Pirana(T) line, both with twin HTLS conductor.

### Scope of works under KPS3 project:

#### Transmission Line

1. 765KV D/C KPS2-KPS3 line

#### Substation

2. 765/400kV 3x1500MVA KPS-3 S/s with 1x330MVA 765kV Bus Reactor & 1x125MVA 400kV Bus Reactor
3. 2 Nos. 765kV Line Bays at KPS-2 for 765kV D/C KPS-2 KPS3 line

### General Details

Special Purpose Vehicle (SPV)	:	KPS3 Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	888.54 cr.
Levelized Tariff	:	75.53 cr.
Request for Proposal	:	28.01.22
Letter of Intent	:	27.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	31.01.22 - 01.02.22
EPC awarded on	:	23.03.23 - 27.03.23
Scheduled Date of Completion	:	Dec'24

### **Status of progress of Transmission Line:**

#### **1. 765KV D/C KPS2-KPS3 line**

Length	:	15.2 km
Locations	:	40 Nos.
Foundation completed	:	
Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Dec'24
Anticipated COD	:	Dec'24

### **Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

### **Status of progress of Substation and Bay Extensions:-**

#### **2. 765/400kV 3x1500MVA KPS-3 S/s with 1x330MVA 765kV Bus Reactor & 1x125MVA 400kV Bus Reactor**

Land Acquisition	:	Available
Civil work completed	:	1%
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Dec'24
Anticipated COD	:	Dec'24

#### **3. 2 Nos. 765kV Line Bays at KPS-2 for 765kV D/C KPS-2 KPS3 line**

Land Acquisition	:	Available
Civil work completed	:	2%
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Dec'24
Anticipated COD	:	Dec'24

## 13. Inter-Regional ER-WR Interconnection

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

### Scope of works under ER-WR Interconnection project:

#### Transmission Line

1. 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line

#### Substation

2. 2 Nos. 400kV Line bays (GIS) at Jeypore (POWERGRID) SS for 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line
3. 2 Nos. 400kV Line bays at Jagdalpur (CSPTCL) SS for 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line

#### **General Details**

Special Purpose Vehicle (SPV)	:	ERWR Power Transmission Limited
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Ltd
Estimated Cost	:	381.33 cr.
Levelized Tariff	:	29.01 cr.
Request for Proposal	:	21.09.22
Letter of Intent	:	15.02.23
Transmission Service Agreement (TSA)	:	21.03.23
SPV acquisition	:	21.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	
EPC awarded on	:	
Scheduled Date of Completion	:	Mar'25

#### **Status of progress of Transmission Line:**

1. 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line

Length	:	68km
Locations	:	
Foundation completed	:	

Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

**Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

**Status of progress of Substation and Bay Extensions:-**

2. 2 Nos. 400kV Line bays (GIS) at Jeypore (POWERGRID) SS for 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line

Land Acquisition	:	Available
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

3. 2 Nos. 400kV Line bays at Jagdalpur (CSPTCL) SS for 400kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line

Land Acquisition	:	Available
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

## 14. Transmission System associated with Western Region Expansion Scheme- XXVII (WRES-XXVII)

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

### **Scope of works under Raipur Pool Dhamtari Transmission Limited (RPTL) project:**

#### **Transmission Line**

1. 400KV (Q) D/C Raipur Pool-Dhamtari line

#### **Substation**

2. 400kV Line bays at Raipur Pool (POWERGRID) S/s for termination of Raipur Pool-Dhamtari 400KV (Q) D/C line
3. 400kV Line bays at Dhamtari (CSPTCL) S/s for termination of Raipur Pool-Dhamtari 400KV (Q) D/C line

#### **General Details**

Special Purpose Vehicle (SPV)	:	Raipur Pool Dhamtari Transmission Limited
Bid Process Coordinator (BPC)	:	PFCCL
Estimated Cost	:	380 Cr.
Levelized Tariff	:	29.72 cr.
Request for Proposal	:	28.10.22
Letter of Intent	:	01.03.23
Transmission Service Agreement (TSA)	:	28.03.23
SPV acquisition	:	28.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	
EPC awarded on	:	
Scheduled Date of Completion	:	Sep'24

### **Status of progress of Transmission Line:**

1. 400KV (Q) D/C Raipur Pool-Dhamtari line

Length :

Locations	:	225
Foundation completed	:	
Towers erected	:	
Stringing completed	:	
Scheduled COD	:	Sep'24
Anticipated COD	:	Sep'24

**Status of statutory approvals:**

River Crossings	:	Survey in progress
Power line crossing	:	Survey in progress
Railway crossing	:	Survey in progress
National Highway Crossing	:	Survey in progress

**Status of progress of Substation and Bay Extensions:-**

2. 400kV Line bays at Raipur Pool (POWERGRID) S/s for termination of Raipur Pool-Dhamtari 400KV (Q) D/C line

Land Acquisition	:	Available
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Sep'24
Anticipated COD	:	Sep'24

3. 400kV Line bays at Dhamtari (CSPTCL) S/s for termination of Raipur Pool-Dhamtari 400KV (Q) D/C line

Land Acquisition	:	Available
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Sep'24
Anticipated COD	:	Sep'24

## 15. Transmission System associated with Western Region Expansion Scheme- XXVIII (WRES-XXVII) & XIX (WRES-XIX)

### Background

Govt. of India has set a target to establish 500GW renewable capacity by 2030. To fulfill the above target, MNRE/SECI has identified potential RE zones (REZ) comprising solar and wind capacity of about 66.5GW in various renewable resource rich states in the country. Out of 16GW potential identified in Gujarat, 10.5GW potential REZ has been reviewed and earmarked in Khavda area of Gujarat. Further, Khavda RE park in Kutch, Gujarat with a total capacity of 27.7GW is also being taken up. For pooling of RE power from various RE developers, 3 Nos. of locations have already been identified for development of ISTS Pooling stations in Khavda area.

The Transmission Scheme for evacuation of above potential is planned to be implemented in three phases, namely Phase-A (8GW), Phase-B (7GW) and Phase-C (12.7GW). Phase-A (8GW) has been planned to be implemented in two phases, namely Phase-I (3 GW) and Phase-II (5GW). The scheme for evacuation of 3GW of Phase-A is already under implementation.

### Scope of works under Dharamjaigarh Transmission Limited (DTL) project:

#### Substation

1. Creation of 220KV level at 765/400KV Dharamjaigarh S/s with installation of 2x500MVA, 400/220 KV ICTs along with associated bays
2. 2 Nos. 220KV line bays at Dharamjaigarh S/s for termination of 220KV D/c Dharamjaigarh-Chhuri line

#### **General Details**

Special Purpose Vehicle (SPV)	:	Dharamjaigarh Transmission Limited
Bid Process Coordinator (BPC)	:	PFC
Estimated Cost	:	251 cr.
Levelized Tariff	:	28.69 cr.
Request for Proposal	:	26.09.22
Letter of Intent	:	01.03.23
Transmission Service Agreement (TSA)	:	28.03.23
SPV acquisition	:	28.03.23
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	16.09.22 - 19.10.22
EPC awarded on	:	14.03.23 - 19.04.23
Scheduled Date of Completion	:	Mar'25

#### **Status of progress of Substation and Bay Extensions:-**

1. Creation of 220KV level at 765/400KV Dharamjaigarh S/s with installation of 2x500MVA, 400/220 KV ICTs along with associated bays

Land Acquisition	:	Available
Civil work completed	:	8%
Equipment supplied	:	
Equipment erection	:	

Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

2. 2 Nos. 220KV line bays at Dharamjaigarh S/s for termination of 220KV D/c Dharamjaigarh-Chhuri line

Land Acquisition	:	Available
Civil work completed	:	2%
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Mar'25
Anticipated COD	:	Mar'25

## **16. Transmission system associated with LTA applications from Rajasthan SEZ Part-E, Phase-II**

### **Background**

The Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. This includes solar generation potential of about 20 GW in Rajasthan. Transmission system for evacuation of 8.9 GW under phase-I has already been taken up for implementation. Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (11.1 GW – 3 GW through intra state) under Phase II, inter-alia includes evacuation of 1.05GW in Bhadla complex, 2.2GW in Fatehgarh complex, 1.9GW in Ramgarh and 2.95 GW in Bikaner.

For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhadla-II, Fatehgarh-II, Sikar & Khetri along with establishment of 765/400kV new substation at Sikar-II & Narela and 400/220kV new substation at Bikaner-II & Ramgarh-II have been planned.

The subject transmission scheme involves 765kV D/c Bhadla-II Sikar-II line (2<sup>nd</sup>)

### **Scope of Transmission Project-**

#### **Transmission Line**

1. Bhadla II - Sikar II 765kV D/C line (2<sup>nd</sup>)

#### **Substation**

1. Construction of 02 Nos. of 765 kV line bays at Bhadla II for Bhadla II - Sikar II 765kV D/c line along with 2 x 240 MVAR switchable line reactors.
2. Construction of 02 Nos. of 765 kV line bays at Sikar II for Bhadla II - Sikar II 765kV D/c line along with 2 x 330 MVAR switchable line reactors.

### **General Details**

Special Purpose Vehicle (SPV)	:	Bhadla Sikar Transmission Limited
Bid Process Coordinator (BPC)	:	PFC Consulting Ltd..
Estimated Cost	:	₹ 1644 Cr.
Levelised Tariff	:	₹ 163 Cr.
Request for Proposal	:	06.03.20
Letter of Intent	:	03.03.23
Transmission Service Agreement (TSA)	:	26.05.22
SPV acquisition	:	28.03.23
Transmission Licence by CERC	:	Applied on 10.04.23
Tariff adoption by CERC	:	Applied on 10.04.23
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	NOAs issued for Line & Reactor
Scheduled Date of Completion	:	Sep'24

**Status of progress of transmission project:-**

Fatehgarh II – Bhadla II 765kV D/C line (Twin HTLS)  
Award placed to M/s L&T

Length:	300 km
Locations:	786 Nos.
Foundation completed	7 Nos.
Towers erected	0 Nos
Stringing completed	0 km
Scheduled COD	Sep'24
Anticipated COD	Sep'24

**Status of statutory approvals:****River Crossings**

Total no. of crossings : Survey in progress

**Power line crossing** Survey in progress

**Railway crossing** Survey in progress

**National Highway Crossing** Survey in progress

**Forest:** Survey in progress

**PTCC approval** : Survey in progress

**Defence Aviation** : Survey in progress

**Civil Aviation** : Survey in progress

**Status of progress of Substation and Bay Extensions:-****1. Extension of 765kV Bhadla II Substation**

Land Acquisition	:	Available.
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Sep'24
Anticipated COD	:	Sep'24

**2. Extension of 765kV Sikar II Substation**

Land Acquisition	:	Available
Civil work completed	:	
Equipment supplied	:	
Equipment erection	:	
Scheduled COD	:	Sep'24
Anticipated COD	:	Sep'24

## **17. Additional 400kV Feed to Goa and Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool**

### **Background**

Additional 400 kV feed to Goa. The peak demand met by Goa during the year 2014-15 was 489 Mega Watt (MW) and as per the 18th Electric Power Survey (EPS), the peak demand of 815 MW was expected by the end of 12th Plan and 1192 MW by the end of 13th plan.

At present demand of Goa is mainly catered through Mapusa 3x315 Mega Volt Ampere (MVA), 400/220 kV substation, which gets feed from Kolhapur 400 kV substation through a 400 kV line.

Goa system is also connected with Maharashtra and Karnataka through 220 kV lines. To supply the projected power requirement of Goa with reliability, an additional 400 kV in feed to Goa was required. The matter was discussed in the 38th meeting of Standing Committee on Power System Planning in Western Region, held on 17-07-2015 at New Delhi wherein the provision for a new 400kV Substation in Goa at Xeldem along with its interconnections with the Inter State Transmission System was agreed.

Accordingly, following transmission system was discussed and approved in the 39th and 40th Standing Committee Meeting (SCM) of Western Region (WR) held on 30.11.2015 and 01.06.2016 respectively and 39th and 40th SCM of Southern Region (SR) held on 28-29.12.2015 and 19.11.2016 respectively.

Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool - Raigarh (Tamnar) Power Station (PS) has been planned to pool about 3000MW power from Jindal Power Limited (4x600) and TRN Energy Pvt. Ltd. (2X300) generation project and onward transfer of same through 765kV D/c line to Raigarh (Kotra) generation complex. For evacuation of power reliably from Raigarh (Tamnar) PS, a second corridor was planned from this pooling station to Dharamjaygarh 765 kV S/s through 765kV D/c line. Dharamjaygarh sub-station is further connected to Western Region (WR) and Northern Region (NR) grid through Dharamjaygarh – Jabalpur PS 765kV 2xD/c line and onward 765kV transmission system.

Accordingly, Raigarh Pool (Tamnar) – Dharamjaygarh PS (Section B) 765 kV D/c Line was agreed in 38th and 39th SCM of WR held on 17.07.2015 and 30.11.2015 respectively as Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool. Original TDC was 07.06.2018.

The transmission scheme was ratified in 31st Western Regional Power Committee (WRPC) meeting held on 31.03.2016 at Raipur.

### **Scope of transmission project**

1. LILO of one ckt. of Narendra (existing) - Narendra (New) 400kV D/c quad line at Xeldem
2. Xeldem - Mapusa 400kV D/c (quad) line
3. Xeldem (existing) – Xeldem (new) 220kV D/C line
4. Establishment of 2x500MVA, 400/220kV substation at Xeldem
5. Dharamjaygarh Pool section B - Raigarh (Tamnar) Pool 765kV D/c line

### **General Details**

Special Purpose Vehicle	: Goa-Tamnar Transmission Project Limited (Sterlite Grid 5 Limited; a subsidiary of Sterlite Power Transmission Limited)
Bid Process Coordinator (BPC)	: Power Finance Corporation
Estimated Cost (Rs. Cr)	: 1531
Levelized Tariff (Rs. Cr)	: 164.775
Request for Qualification	: 01.02.2017
Request for Proposal	: 01.05.2017
Letter of Intent	: 30.11.2017
Transmission Service Agreement (TSA)	: 28.06.2017
SPV acquisition	: 14.03.2018
Transmission License by CERC	: 13.07.2018
Tariff adoption by CERC	: 13.07.2018
Contract Performance Guarantee	: 05.01.2018
Clearance u/s 164	: 29.11.2018
Execution plan submitted to CEA	: 10.07.2018
NIT issued on	:
EPC contract awarded on	: 29.12.2017
Scheduled Date of Completion	: Nov'21/Jul'22*
Anticipated Date of Completion	: May'25

### **Status of progress of transmission project**

#### **1. LILO of one ckt of Narendra (Existing) - Narendra (New) 400kV D/C Quad line at Xeldem**

Length	: 196 CKm
Locations	: 249 Nos.
Foundation completed	: 68 Nos.
Tower erected	: 0 Nos.
Stringing completed	: 0 ckm
Scheduled COD	: Nov'21/Jul'22*
Anticipated COD	: May'25

### **Constraints/Approval if any:**

1. Delay in grant of Forest clearance for Diversion of 177.091 Ha of forest land. The Proposal was forwarded by Nodal Officer to Govt of Karnataka and the State Govt had returned the proposal to nodal officer for modification of proposal as per SC order dated 7.4.2022 on CEC recommendation.
2. Delay in grant of Wildlife clearance for Diversion of 33.273 Ha of wildlife area. The Proposal was pending with Govt of Karnataka due to petition filed by Goa Foundation in Central Empowered Committee (CEC).
3. The petition filed by Goa Foundation in Central Empowered Committee (CEC) constituted by Supreme court and High Court of Mumbai & Goa. Central Empowered Committee (CEC) has submitted their report to Supreme Court on 23<sup>rd</sup> April 2021 and has recommended some modifications in LILO of one ckt of Narendra (existing) – Narendra (new) 400kV D/C line at Xeldem (XN line). SC vide its order in hearing dated 07.04.2022 has approved the

recommendation made by CEC and directed GTTPL to take suitable steps in accordance with the recommendation made therein.

4. As per Supreme Court order to use Right of way (ROW) of 110 kv line of Supa-Ponda & 220 kV line of Ambewadi -Ponda line for construction of Xeldem-Narendra line, the survey on CEC recommended route is done and TSP has submitted modified proposal for Wild Life in Karnataka to DFO Dandeli.
5. Revised proposal of Forest for Goa State as per CEC Recommendation submitted on 25.08.2022. Parivash Portal was not working due to some technical problem in, resubmitted the proposal on 23.09.2022.
6. As per Supreme court order to use Right of way (ROW) of 110 kv line of Supa-Ponda & 220 kV line of Ambewadi -Ponda line for construction of Xeldem-Narendra line, TSP has applied for permission to use co-orridor to GED, Goa and KPTCL, Karnataka, permission received for GED Portion. Permission from KPTCL is awaited. In principal approval received from KPTCL On 08.09.2022.
7. A letter submitted to PCCF Goa and Karnataka on 05.09.2022 for seeking permission in Eco Sensitive Zone of Bhagwan Mahavir wildlife sanctuary and Dandeli wildlife sanctuary respectively. In preview of Hon'ble Supreme court order dated 03.06.2002 "No permanent Structure is permitted in ESZ area".
8. DCF conveyed his concurrence vide letter dated 26.05.2023 for finalization of forest route in Karnataka as suggested by forest Department.
9. To follow the route suggested by DCF Dandeli concurrence from GED and KPTCL is required to utilize the existing corridor of 220 kV line as proposed by the Karnataka Forest Department.
10. A joint site visit by GTTPL & KPTCL was completed on 10.07.2023 for utilization of 110 & 220 kV corridor and survey report was submitted to GM (Tech) KPTCL by CE (Elec) on 27.07.2023.

### **Status of statutory approvals:**

#### **Forest area**

Details of Tr. Line Falling under Forest	:	
Locations	:	97 Nos. ; Length : 39.94 Kms
Forest area (Ha)	:	185.923 Ha
Forest proposals submitted on	:	Karnataka : 20 Jul'22 ; Goa : 25 Aug'22 (as per CEC Route)
Current status	:	Goa State Forest : Revised Proposal submitted on 25.08.2022.-accepted by Project Screening committee on 22 <sup>nd</sup> Nov'2022. FDP is currently at DFO North Goa.

Karnataka Forest : DFO Dandeli vide letter dated 26.05.2023 provided the concurrence of route. Modified FDP submitted on 03.07.2023 at all the divisions. Currently, the proposal is with DFO for part-II processing.

#### **Wildlife area**

Details of Tr. Line Falling under Forest	:	
Locations	:	36 Nos. ; Length : 13.95 Kms
Wildlife area (Ha)	:	64.347 Ha
Wildlife proposals submitted on	:	Wild Life Goa :-25 Sep'22 Wild Life Karnataka : 20th Jul'22
Current status	:	GOA: Wild Life proposal submitted on 25.09.2022. FDP is currently at DFO North Goa.

Karnataka: Revised proposal submitted on 20th July'22 at DFO Dandeli. Modified FDP submitted on 03.07.2023 at all the divisions. Currently, the proposal is with DFO for part-II processing.

### **Power line crossing**

Total no. of crossings	:	5 Nos. (Subjected to change as per Route change)
Proposal submitted	:	5 Nos.
Approval obtained	:	5 Nos.

### **Railway crossing**

Total no. of crossings	:	1 Nos. (Subjected to change as per Route change)
Proposal submitted	:	1 Nos.
Approval obtained	:	1 Nos.

### **National Highway / SH Crossing**

Total no. of crossings	:	4 Nos. (Subjected to change as per Route change)
Proposal submitted	:	4 Nos.
Approval obtained	:	4 Nos.

### **River Crossings**

Total no. of crossings	:	0 Nos.
Proposal submitted	:	0 Nos.
Approval obtained	:	0 Nos.

### **PTCC approval**

Proposal submitted to Defence	:	Yes
Proposal submitted to BSNL	:	Yes
Proposal submitted to Railways	:	Yes
Current status	:	Received CEA (PTCC) recommendation for Goa portion and received PTCC Approval for Karnataka Portion. (Revised approval Required due to change as per CEC route)

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	:	Yes proposal submitted
Current Status	:	Approved (Revised approval Required due to change as per CEC route)

## 2. Xeldem - Mapusa 400kV D/C Quad Line

Length	: 105.488 CKm
Locations	: 141 Nos.
Foundation completed	: 103 Nos.
Tower erected	: 69 Nos.
Stringing completed	: 0 Ckm
Scheduled COD	: May'21 /Jan22*
Anticipated COD	: Jun'24

### Constraints/Approval if any:

1. The progress is suffered due to petition filed by Goa Foundation in Central Empowered Committee (CEC) constituted by Supreme court and High Court of Mumbai & Goa. Central Empowered Committee (CEC) has submitted their report to Supreme Court on 23<sup>rd</sup> April 2021 and have cleared 400kV D/C Xeldem – Mapusa Line.
2. 9 Location are under Right of way 6 Loc in Amona, 1 Loc in Piligaon, 1 loc in Karapur and 1 loc. In Virdi Village) of Bicholim Taluka of North Goa District.

### Status of statutory approvals:

#### Forest area

Details of Tr. Line Falling under Forest	:
Locations	: 29 Nos.; Length : 7.991 Kms (Changed due to change in SS location)
Forest area (Ha)	: 36.39 Ha.
Forest proposals submitted on	: Goa : 01 July'18
Current status	: Stage-1, Working permission and Stage-2 Approval Received. As per recent Supreme Court order dated 03-06-2022, “no new permanent structure shall be permitted to come up for whatsoever the purpose within the ESZ”. XM Line is falling in ESZ of Bondla wild life sanctuary. Revised survey avoiding ESZ. Revised proposal submitted on 26.09.2022. Proposal has been accepted by Project Screening Committee on 22 <sup>nd</sup> Nov'2022. Part II completed. Currently Proposal is with Nodal officer for Part III processing.

#### Wildlife area

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

**Power line crossing**

Total no. of crossings	: 5 Nos.
Proposal submitted	: 5 Nos.
Approval obtained	: 5 Nos.

**Railway crossing**

Total no. of crossings	: 1 Nos.
Proposal submitted	: 1 Nos.
Approval obtained	: 1 Nos.

**National Highway / SH Crossing**

Total no. of crossings	: 1 Nos.
Proposal submitted	: 1 Nos.
Approval obtained	: 1 Nos.

**River Crossings**

Total no. of crossings	: 5 Nos.
Proposal submitted	: 5 Nos.
Approval obtained	: 5 Nos.

**PTCC approval**

Proposal submitted to Defence	: Yes
Proposal submitted to BSNL	: Yes
Proposal submitted to Railways	: Yes
Current status	: Approved (Revised approval Required due to change in Substation Location)

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: Yes proposal submitted
Current Status	: Approved (Revised approval Required due to change in Substation Location)

**3. Dharamjaygarh Pool Section B - Raigarh (Tamnar) Pool 765kV D/C Line**

Length	: 137 CKm
Locations	: 179 Nos.
Scheduled COD	: July '21 /Mar '22*
Anticipated COD	: 23.06.2022 (Line Charging Completed)

**4. Xeldem (existing) – Xeldem (new) 220kV D/C line**

Length	: 44.19 CKm
Locations	: 65 Nos.
Foundation completed	: 29 Nos.
Tower erected	: 0 Nos.
Stringing completed	: 0 Ckm
Scheduled COD	: May'21 /Jan'22*
Anticipated COD	: Jun'24

**Constraints/Approval if any:**

1. The progress is suffered due to petition filed by Goa Foundation in Central Empowered Committee (CEC) constituted by Supreme court and High Court of Mumbai & Goa. Central Empowered Committee (CEC) has submitted their report to Supreme Court on 23<sup>rd</sup> April 2021 and have cleared 220kV D/C Xeldem – Xeldem Line and Working permission received on 19th Aug 2021.
2. 2 Locations are under the Right of way (1 Loc in Xeldem Village of Quepem Taluka, 1 Loc in Sanvordem Village of Sanguem Taluka), of South Goa District.

**Status of statutory approvals:****Forest area**

Details of Tr. Line Falling under Forest	:	
Locations	:	33 Nos. ; Length : 11.45 Kms
Forest area (Ha)	:	40.09 Ha
Forest proposals submitted on	:	Goa : 02 Aug'18
Current status	:	TSP has submitted revised proposal for avoiding ESZ, on 26.09.2022 in line with above SC order. Proposal accepted by Project Screening committee on 22 <sup>nd</sup> Nov'2022. Currently Proposal is with Nodal officer for Part-III.

**Wildlife area**

Details of Tr. Line Falling under Forest	:	N/A
Locations	:	
Wildlife area (Ha)	:	
Wildlife proposals submitted on	:	
Current status	:	

**Power line crossing**

Total no. of crossings	:	3 Nos.
Proposal submitted	:	3 Nos.
Approval obtained	:	3 Nos.

**Railway crossing**

Total no. of crossings	:	1 Nos.
Proposal submitted	:	1 Nos.
Approval obtained	:	1 Nos.

**National Highway / SH Crossing**

Total no. of crossings	:	1 Nos.
Proposal submitted	:	1 Nos.
Approval obtained	:	1 Nos.

**River Crossings**

Total no. of crossings	:	1 Nos.
Proposal submitted	:	1 Nos.

Approval obtained : 1 Nos.

**PTCC approval**

Proposal submitted to Defence : Yes  
Proposal submitted to BSNL : Yes  
Proposal submitted to Railways : Yes  
Current status : Pending

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation : Proposal submitted  
Current Status : Approved

**5. 2x500 MVA, 400/220 kV S/s at Xeldem (Goa)**

Land Acquired : 100 %  
Civil work completed : 53%  
Equipment supplied : 42 %  
Equipment erection : 05 %  
Scheduled COD : May'21/ Jan'22\*  
Anticipated COD : Jun'24

**Constraints/Approval if any:**

1. The construction work will be started after getting Conversion Sanad from District Collector, South Goa.
2. The progress is suffered due to petition filed by Goa Foundation in Central Empowered Committee (CEC) constituted by Supreme court and High Court of Mumbai & Goa. Central Empowered Committee (CEC) has submitted their report to Supreme Court on 23<sup>rd</sup> April 2021 and have cleared 400/220kV Xeldem Substation.

## 18. Establish Transmission System for 400 kV Udupi (UPCL) – Kasargode D/C Line

### Background :

Udupi– Kasargode 400kV (Quad) D/c line was planned for improving reliability of power supply & stability in Northern area of Kerala and relieving congestion between S1 (Andhra Pradesh, Telangana & Karnataka) – S2 (Tamil Nadu & Kerala) corridor.

### Scope of transmission project

1. Mangalore (Udupi PCL) – Kasargode 400kV (Quad) D/c line
2. Establishment of 2x500MVA, 400/220 kV GIS substation at Kasargode
3. 2 Nos. of 400kV line bays and Bus Bar Extension Works at UPCL switchyard

### General Detail

Special Purpose Vehicle	: Udupi Kasargode Transmission Limited. (Sterlite Grid 14 Limited; a subsidiary of Sterlite Power Transmission Limited)
Bid Process Coordinator (BPC)	: REC Transmission Projects Co. Ltd
Estimated Cost (Rs. Cr)	: 754.87
Levelized Tariff (Rs. Cr)	: 84.744
Request for Qualification	: 15.09.2018
Request for Proposal	: 31.12.2018
Letter of Intent	: 31.07.2019
Transmission Service Agreement (TSA)	: 28.02.2019
SPV acquisition	: 12.09.2019
Transmission License by CERC	: 24-01-2020
Tariff adoption by CERC	: 28-01-2020
Contract Performance Guarantee	: 12.09.2019
Clearance u/s 164	: 14-10-2021
Execution plan submitted to CEA	: 08-01-2020
NIT issued on	:
EPC contract awarded on	: 13-08-2020 (Transmission Line) 12-08-2020 (S/s and Bay extension)
Scheduled Date of Completion	: 12.11.2022 (38 months from Effective Date)/Jul'23
Anticipated COD	: Dec'24

### Status of progress of transmission project

#### 1. Udupi (Mangalore) – Kasargode 400kV D/C line

Length	: 230.94 CKm
Locations	: 277 Nos.
Foundation completed	: 92 Nos.
Tower erected	: 78 Nos.
Stringing completed	: 1.68 Ckm

Scheduled COD : 11<sup>th</sup> Nov 2022/ Feb'23  
Anticipated COD : Dec'24

**Constraints/Approval if any:**

1. Delay due to stay interim order from Hon'ble High Court dated 19/11/2021 has directed UKTL to not take any step to lay the subject transmission line.
2. As per HC order dated 20.03.2023, survey work shall be conducted in the presence of petitioners of WP 19432/2022 and WP 3186/2023, and they shall assist the survey work. Survey report shall be placed on this court before next date of hearing 06.04.2023, based on final report submitted to DC Dakshina kannada on dtd. 19.04.2023. Survey report submitted to the high court and further hearing date yet to confirm.
3. Hon'ble HC of Karnataka vide its final Order dated 29.03.2023 has quashed the prior approval by CEA under Section 68 citing the reason that central government in delegating the authority of granting prior approval to CEA under section 68 of the Act for laying overhead transmission lines is one without authority of law. Further, the Order clearly mentions that the delegate cannot sub-delegate an essential function of decision making. Further, in this regard, clarification has been issued on 21.04.2023 by the Hon'ble HC of Karnataka that the Order is confined only on land of Petitioner of WP20819/2021. Appeal submitted to high court and further hearing completed on 14.06.2023. Vide order dated 27.07.2023 Hon'ble High court of Karnataka has dismissed the orders passed for WP 20819/2021 on dated 29.03.2023 i.e. approval under section 68 for petition land has been treated valid.
4. **Karnataka:** Stage-I received on 27.10.2022. Tree Cutting and working permission pending.  
**Kerala:** Stage-I received on 27.10.2022. Tree Cutting clearance pending, Demand Notices received and payment for demand note made on 21.12.2022.  
As the non-forest CA land was already approved by the REC before issuance of Stage-I clearance, the new degraded forest land also needs to be approved by the REC before replacing it with the non-forest CA land. The matter was discussed in 30th FRCM of IRO Bengaluru in which MoEFCC directed Nodal Officer to submit a request letter to MoEFCC regarding this change. MoEFCC put the case in upcoming REC meeting and conveyed the approval for regularizing the same. Forest tree cutting permission issue is pending with forest department.

**Status of statutory approvals:**

**Forest area**

Details of Tr. Line Falling under Forest :  
Locations : 24 Nos. ; Length : 9.45 Kms  
Forest area (Ha) : 48.152 Ha  
Forest proposals submitted on : Kerala : 03 Nov'20  
Karnataka : 18 Dec'20  
Current status : Kerala : Stage-I received on 27.10.2022. Tree cutting clearance yet to receive.  
Karnataka : Stage-I received on 27.10.2022.  
Tree cutting clearance yet to receive.

**Wildlife area**

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

**Power line crossing**

Total no. of crossings	: 8 Nos.
Proposal submitted	: 8 Nos.
Approval obtained	: 7 Nos.

**Railway crossing**

Total no. of crossings	: 1 Nos.
Proposal submitted	: 1 Nos.
Approval obtained	: 1 Nos.

**National Highway / SH Crossing**

Total no. of crossings	: 10 Nos.
Proposal submitted	: 9 Nos.
Approval obtained	: 7 Nos.

**River Crossings**

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

**PTCC approval**

Proposal submitted to Defence	: Yes
Proposal submitted to BSNL	: Yes
Proposal submitted to Railways	: Yes
Current status	: PTCC Proposal submitted to DET, (PTCC), Chennai. DET(PTCC), Chennai has registered the proposal and forwarded to concerned offices i.e. BSNL & railway. (PTCC)Railway- 1. Southern railway-NOC forwarded to DE,  4. NOC from Southern Railway-Chennai has been received

**Defence/Civil Aviation**

Current Status	: Defence Aviation : Approved Civil Aviation : Approved
----------------	--

**2. Establishment of 2\*500MVA, 400/220kV GIS S/s at Kasargode**

Land Acquired	: 100 %
Civil work completed	: 91.7%
Equipment supplied	: 100%
Equipment erection	: 95.78%
Scheduled COD	: 11 <sup>th</sup> Nov 2022
Anticipated COD	: Dec'24

**Constraints / approval; if any:**

### **3. 2 Nos. of 400kV line bays and Bus Bar extension works at UPCL Switchyard**

Land Acquired	: Space will be provided by UPCL
Civil work completed	: 100%
Equipment supplied	: 100 %
Equipment erection	: 97.19%
Scheduled COD	: 11 <sup>th</sup> Nov 2022/ Feb'23
Anticipated COD	: Test charging completed on 30.07.2023

## **19. Western Region Strengthening Scheme-XIX (WRSS-XIX) and North Eastern Region Strengthening Scheme-IX (NERSS-IX)**

### **Background -**

CERC vide order in Petition Number 151/RC/2022 Dated 25.08.2022 has approved change of name of "Vapi-II - North Lakhimpur Transmission Limited" to "Mumbai Urja Marg Limited". The Project comprises of four parts (Viz. Part-A, Part-B, Part-C, Part-D)

Part A is under Western Region Strengthening Scheme-XIX and planned to address the high loading under high RE scenario.

Part B is under Western Region strengthening scheme-XIX and planned to strengthening the evacuation system associated with Kakrapar Atomic Power Plant (KAPP) and further to meet the increasing demand of Southern Gujarat, UT of Dadra & Nagar Haveli (DNH) and to address the issue of critical loading at Vapi and Kala 400/220 kV substations.

Part C is under Western Region Strengthening Scheme-XIX and planned to ensure supply of power to Mumbai area with reliability and security by providing additional ISTS feed to Navi Mumbai 400/220 kV sub- station along-with 220kV outlets from the substation.

Part D is under North-Eastern Region Strengthening Scheme – IX and planned to reduce overloading of Pare – Naharlagun / Nirjuli 132kV S/c line. Accordingly, the additional transmission system was identified for strengthening the evacuation system associated with Pare HEP.

### **Scope of transmission project-**

- (i) LILO of second circuit of Zerda –Ranchodpura 400 kV D/c line at Banaskantha (PG) PS
- (ii) LILO of KAPP – Vapi 400 kV D/c line at Vapi – II
- (iii) Vapi-II – Sayali D/C 220kV D/C line
- (iv) Padghe (PG) – Kharghar 400 kV D/c (quad) line to be terminated into one ckt. of Kharghar – Ghatkopar 400 kV D/c (quad) line (thus forming Padghe (PG) - Kharghar 400 kV S/c (quad) line, Padghe (PG) - Ghatkopar 400 kV S/c (quad) line)
- (v) LILO of Padghe (PG) – Ghatkopar 400kV S/c line at Navi Mumbai GIS (PG)
- (vi) LILO of Apta – Kalwa/Taloja 220 kV D/c line (i.e. Apta – Kalwa and Apta Taloja 220kV lines) at Navi Mumbai (PG)
- (vii) Pare HEP (NEEPCO) (from near LILO point)– North Lakhimpur (AEGCL) 132 kV D/c line (with ACSR Zebra conductor) along with 2 no. 132 kV line bays at North Lakhimpur end
- (viii) LILO of one circuit of Pare HEP – North Lakhimpur (AEGCL) 132kV D/c line (with ACSR Zebra) at Nirjuli (POWERGRID) substation.
- (ix) Establishment of 2 x 500 MVA, 400/220 kV S/s near Vapi / Ambheti (Vapi – II)
- (x) 125 MVAr bus reactor at Vapi – II Substation

### **General Detail**

Special Purpose Vehicle : Mumbai Urja Marg Limited (erstwhile, Vapi II- North Lakhimpur Transmission Limited)

	(Sterlite Grid 13 Limited; A Subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	: PFCCCL
Estimated Cost (Rs. Cr)	: 2600
Levelized Tariff (Rs. Cr)	: 256.592
Request for Qualification	: 14.08.2018
Request for Proposal	: 13.11.2018
Letter of Intent	: 02.03.2020
Transmission Service Agreement (TSA)	: 07.12.2018
SPV acquisition	: 23.06.2020
Transmission License by CERC	: 01.04.2021
Tariff adoption by CERC	: 01.04.2021
Contract Performance Guarantee	: 23.06.2020
Clearance u/s 164	: 26.10.2021
Execution plan submitted to CEA	: 20.10.2020
NIT issued on	:
EPC contract awarded on	:
Scheduled Date of Completion	: Part-A : Oct-22, Part-B : Apr-23, Part-C : Dec-23 & Dec-22, Part-D : Jun-23

#### **Part A - Additional 400kV outlets from Banaskantha 765/400 kV S/s**

##### **1. LILO of second circuit of Zerda –Ranchodpura 400 kV D/c line at Banaskantha (PG) PS**

Length	: 34.7 CKm
Locations	: 51 Nos.
Scheduled COD	: 23 Oct'22
Anticipated COD	: 29 Jun'22 (Charging Completed)

#### **Part B - Establishment of new substation at Vapi/Ambethi area and its associated transmission line**

##### **2. Establishment of 2 x 500 MVA, 400/220 kV S/s near Vapi / Ambheti (Vapi – II)**

Land Acquired	: 100 %
Civil work completed	: 24.35%
Equipment supplied	: 96.74%
Equipment erection	: 0 %
Scheduled COD	: 22-Apr-2023
Anticipated COD	: Mar-24

### 3. LILO of KAPP – Vapi 400 kV D/c line at Vapi – II

Length	: 0.314 CKm (As per revised substation location)
Locations	: 2 Nos. (As per revised substation location)
Foundation completed	: 0 Nos.
Tower erected	: 0 Nos.
Stringing completed	: 0 Ckm
Scheduled COD	: 22-Apr-2023
Anticipated COD	: Mar-24

#### Status of statutory approvals:

##### Forest area

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Forest area (Ha)	:
Forest proposals submitted on	:
Current status	:

##### Wildlife area

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

##### Power line crossing

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

##### Railway crossing

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

##### National Highway / SH Crossing

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

##### River Crossings

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

**PTCC approval**

Proposal submitted to Defence	: Yes
Proposal submitted to BSNL	: Yes
Proposal submitted to Railways	: Yes
Current status	: Registration completed in CEA and marking completed file forwarded to SDE PTCC, Ahemdabad. DG Signal: NOC issued on 11-07-2022 Railway: NOC issued on 26-08-2022

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: Proposal submitted
Current Status	: Defence Aviation : NOC received Civil Aviation : NOC received

**4. 125 MVar bus reactor at Vapi – II Substation**

Land Acquired	: 100 %
Civil work completed	: 85%
Equipment supplied	: 100%
Equipment erection	: 0 %
Scheduled COD	: 22-Apr-2023
Anticipated COD	: Mar-24

**5. Vapi-II – Sayali D/C 220kV D/C line**

Length	: 45.4 ckm
Locations	: 77 Nos.
Foundation completed	: 63 Nos.
Tower erected	: 52 Nos.
Stringing completed	: 13.32 ckm
Scheduled COD	: 22-Apr-2023
Anticipated COD	: Mar-24

**Status of statutory approvals:****Forest area**

Details of Tr. Line Falling under Forest	:
Locations	: 6 Nos. ; Length : 2 Kms
Forest area (Ha)	: 5 Ha
Forest proposals submitted on	: DNH : 19 Jan'21, Hard copy submission Gujarat : 06 Jan'21, Hard copy submission
Current status	: DNH : Stage-1 and working permission received. Gujarat : Stage-2 and working permission Received

**Wildlife area**

Details of Tr. Line Falling under Forest	:	
Locations	:	5 Nos. ; Length : 1.6 Kms
Wildlife area (Ha)	:	4.388 Ha
Wildlife proposals submitted on	:	DNH : 23 Mar'21,
Current status	:	Stage-I and working permission received.

**Power line crossing**

Total no. of crossings	:	9 Nos.
Proposal submitted	:	8 Nos.
Approval obtained	:	8 Nos.

**Railway crossing**

Total no. of crossings	:	0 Nos.
Proposal submitted	:	0 Nos.
Approval obtained	:	0 Nos.

**National Highway / SH Crossing**

Total no. of crossings	:	1 Nos.
Proposal submitted	:	1 Nos.
Approval obtained	:	1 Nos.

**River Crossings**

Total no. of crossings	:	0 Nos.
Proposal submitted	:	0 Nos.
Approval obtained	:	0 Nos.

**PTCC approval**

Proposal submitted to Defence	:	Yes
Proposal submitted to BSNL	:	Yes
Proposal submitted to Railways	:	Yes
Current status	:	Proposal submitted, Reregistration completed in CEA and marking completed, file has been forwarded to SDE PTCC, Ahmedabad. DG Signal: NOC issued on 11-07-2022 Railway: NOC issued on 26-08-2022

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	:	Proposal submitted
Current Status	:	Defence Aviation : NOC received Civil Aviation : NOC received

**Part C - Additional ISTS feed to Navi Mumbai 400/220 kV substation of PGCIL**

6. Padghe (PG) – Kharghar 400 kV D/c (quad) line to be terminated into one ckt. of Kharghar – Ghatkopar 400 kV D/c (quad) line (thus forming Padghe (PG) - Kharghar 400 kV S/c (quad) line, Padghe (PG) - Ghatkopar 400 kV S/c (quad) line)

Length	: 140 CKm
Locations	: 222 Nos.
Foundation completed	: 104 Nos.
Tower erected	: 80 Nos.
Stringing completed	: 1.928 Ckm
Scheduled COD	: 22-Dec-2023
Anticipated COD	: Jun-2024

**Current Status:** Detailed Survey completed

**Constraints / Approval; if any:**

1. ROW issues at all non-forest locations (16 locations in Raigad and 68 locations in Thane).

**Forest area**

Details of Tr. Line Falling under Forest	:
Locations	: 67 Nos. ; Length : 26.09 Kms
Forest area (Ha)	: 119.99 Ha
Forest proposals submitted on	: MH: 03 Jun'21, Hard copy submission
Current status	: Stage-1 approval received on 30.12.2022. Tree Cutting and working permission received from CCF Thane on 23.01.2023.

**Wildlife area**

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

**Power line crossing**

Total no. of crossings	: 19 Nos.
Proposal submitted	: 18 Nos.
Approval obtained	: 18 Nos.

**Railway crossing**

Total no. of crossings	: 4 Nos.
Proposal submitted	: 4 Nos.
Approval obtained	: 1 Nos.

**National Highway / SH Crossing**

Total no. of crossings	: 7 Nos.
Proposal submitted	: 6 Nos.
Approval obtained	: 2 Nos.

**River Crossings**

Total no. of crossings	: 4 Nos.
Proposal submitted	: 4 Nos.

Approval obtained : 0 Nos.

**PTCC approval**

Proposal submitted to Defence : Submitted on 21.06.23  
Proposal submitted to BSNL : Submitted on 21.06.23  
Proposal submitted to Railways : Submitted on 21.06.23  
Current status : Submitted on 21.06.23

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation : Civil Aviation submitted  
Current Status : Defence Aviation Proposal yet to submit  
Civil Aviation under scrutiny at authority

**7. LILO of Padghe (PG) – Ghatkopar 400kV S/c line at Navi Mumbai GIS (PG)**

Length : 38 CKm  
Locations : 60 Nos.  
Foundation completed : 23 Nos.  
Tower erected : 21 Nos.  
Stringing completed : 1.674 ckm  
Scheduled COD : 22-Dec-2023  
Anticipated COD : 22-June-2024

**Current Status:** Detailed Survey completed.

**Constraints / Approval; if any:**

1. ROW issues at all non-forest locations (27 Locations in Raigad).).

**Status of statutory approvals:**

**Forest area**

Details of Tr. Line Falling under Forest :  
Locations : 23 Nos. ; Length : 7.6 Kms  
Forest area (Ha) : 35.224 Ha  
Forest proposals submitted on : MH : 03 Jun'21, Hard copy submission  
Current status : Stage-1 approval received on 30.12.2022. Tree Cutting working permission received from CCF Thane on 23.01.2023.

**Wildlife area**

Details of Tr. Line Falling under Forest : N/A  
Locations :  
Wildlife area (Ha) :  
Wildlife proposals submitted on :  
Current status :

**Power line crossing**

Total no. of crossings : 3 Nos.

Proposal submitted : 3 Nos.  
Approval obtained : 3 Nos.

**Railway crossing**

Total no. of crossings : 0 Nos.  
Proposal submitted : 0 Nos.  
Approval obtained : 0 Nos.

**National Highway / SH Crossing**

Total no. of crossings : 0 Nos.  
Proposal submitted : 0 Nos.  
Approval obtained : 0 Nos.

**River Crossings**

Total no. of crossings : 0 Nos.  
Proposal submitted : 0 Nos.  
Approval obtained : 0 Nos.

**PTCC approval**

Proposal submitted to Defence : Submitted on 21.06.23  
Proposal submitted to BSNL : Submitted on 21.06.23  
Proposal submitted to Railways : Submitted on 21.06.23  
Current status : Submitted on 21.06.23

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation : Civil Aviation submitted  
Current Status : Defence Aviation Proposal yet to submit  
Civil Aviation under scrutiny at authority

**8. LILO of Apta – Kalwa/Taloja 220 kV D/c line (i.e. Apta – Kalwa and Apta Taloja 220kV lines) at Navi Mumbai (PG)**

Length : 4.8 CKm  
Locations : 8 Nos.  
Foundation completed : 0 Nos.  
Tower erected : 0 Nos.  
Stringing completed : 0 Ckm  
Scheduled COD : 22-Dec-2022  
Anticipated COD : Dec-2023

**Current Status:** Detailed Survey completed

**Constraints / Approval; if any:**

1. ROW issues at all 8 locations.

**Status of statutory approvals:**

**Forest area**

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Forest area (Ha)	:
Forest proposals submitted on	:
Current status	:

#### **Wildlife area**

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

#### **Power line crossing**

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

#### **Railway crossing**

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

#### **National Highway / SH Crossing**

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

#### **River Crossings**

Total no. of crossings	: 0 Nos.
Proposal submitted	: 0 Nos.
Approval obtained	: 0 Nos.

#### **PTCC approval**

Proposal submitted to Defence	: No
Proposal submitted to BSNL	: No
Proposal submitted to Railways	: No
Current status	: Proposal is yet to submit

#### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: No
Current Status	: Proposal is yet to submit

#### **Part D - North Eastern Region Strengthening Scheme – IX**

- 9. Pare HEP (NEEPCO) (from near LILO point)– North Lakhimpur (AEGCL) 132 kV D/c line (with ACSR Zebra conductor) along with 2 no. 132 kV line bays at North Lakhimpur end**

Length	: 61.99 CKm
Locations	: 91 Nos.
Scheduled COD	: 22-Jun-2023
Anticipated COD	: Aug-23

**9(a). Status of 2 no. 132 kV line bays at North Lakhimpur end**

Scheduled COD	: 22-Jun-2023
Anticipated COD	: Aug-23

**10. LILO of one circuit of Pare HEP – North Lakhimpur (AEGCL) 132kV D/c line  
(with ACSR Zebra) at Nirjuli (POWERGRID) substation**

Length	: 33.42 ckm
Locations	: 56 Nos.
Scheduled COD	: 22-Jun-2023
Anticipated COD	: Aug-23

## **20. Establishment of new 220/132 kV substation at Nangalbibra**

### **Background -**

Presently, the state of Meghalaya has one 400/220 kV S/s at Byrnihat (MePTCL) and one 132kV S/s at Khlierhat (POWERGRID). Both of these ISTS substations are on eastern part of Meghalaya. Due to increasing power demand and for providing reliable power supply in the western part of Meghalaya, necessity of 220kV grid substation in the East Garo Hills district of western Meghalaya was felt to further strengthen its interconnection with grid, which is presently connected through 132 lines in radial manner.

System Studies have been carried out for 2022-23 timeframe. The anticipated peak demand of Meghalaya for 2022-23 timeframe is 478MW and the envisaged installed capacity of about 360MW, majority of these are from hydro generations. In low Hydro scenarios, the dispatch from these stations are expected to be limited to about 180MW, thereby creating a deficit in the supply of about 300MW. Accordingly, to simulate the worst case, low hydro peak demand scenario has been chosen to study the requirement of additional connections to meet the growing demand of Meghalaya. Due to the proximity of Bongaigaon TPS from the western part of Meghalaya, a large quantum of power flows through BTPS – Agia – Medinipathar – Nangalbibra corridor making it N-1 non-compliant.

Therefore, a new 220/132kV substation may be required at Nangalbibra which would be fed from Bongaigaon 400/220kV Substation through 400kV D/c line (initially operated at 220kV). This interconnection would reduce the critical loading on BTPS – Agia 220kV D/c line of AEGCL and improve the voltage profile as well as reliability of power supply in the western part of Meghalaya. Further, for drawal of power from Nangalbibra (ISTS), MePTCL has planned to develop Nangalbibra (ISTS) – Nangalbibra (Meghalaya) 132kV (Single Moose) D/c line. In addition, MePTCL has planning to develop Nangalbibra (ISTS) – Mawngap 220kV D/c line so that Bongaigaon (POWERGRID) – Nangalbibra (ISTS) – Mawngap (MePTCL) – Byrnihat (MePTCL) – Bongaigaon (POWERGRID) ring would be completed for power transfer with reliability. Considering future load growth, space for expansion of Nangalbibra (ISTS) 220/132kV S/s to 400kV at a later date would also be kept.

The western most part of Meghalaya is connected through long radial line from Nangalbibra (MePTCL) – Rongkhon – Ampati – Phulbari 132kV link. For reliable supply of power and improved voltage profile in western most part of Meghalaya, a second source from Assam side through Hatsinghmari (AEGCL) – Ampati (MePTCL) 132kV D/c line may be required.

### **Scope of transmission project**

1. Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra
2. Extension at 220kV GIS in Bongaigaon (POWERGRID) 400/220kV S/s: 2 No. of GIS line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV)
3. Extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line
4. Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line
5. Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c (Twin ACSR Moose) line (initially operated at 220kV)
6. Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV (Single ACSR Panther) D/c line

### **General Details**

Special Purpose Vehicle	: Nangalbibra-Bongaigaon Transmission Limited (Sterlite Grid 26 Limited; a subsidiary of Sterlite Power Transmission Limited)
Bid Process Coordinator (BPC)	: Power Finance Corporation Consulting Ltd.
Estimated Cost (Rs. Cr)	: 560
Levelized Tariff (Rs. Cr)	: 55.9
Request for Qualification	: NA
Request for Proposal	: 04.02.2021
Letter of Intent	: 16.12.2021
Transmission Service Agreement (TSA)	: 06.07.2021
SPV acquisition	: 16.12.2021
Transmission License by CERC	: 28.07.2022
Tariff adoption by CERC	: 27.05.2022
Contract Performance Guarantee	: 16.12.2021
Clearance u/s 164	: 28.12.2022.
Execution plan submitted to CEA	: 16.09.2022
NIT issued on	: -
EPC contract awarded on	: Nov-2021
Scheduled Date of Completion	: Dec-2023

### **Status of progress of transmission project**

#### **1. Bongaigaon (POWERGRID) - Nangalbibra 400kV D/c (Twin ACSR Moose) line (initially operated at 220kV)**

Length	: 245 CKm
Locations	: 310 Nos.
Foundation completed	: 223 Nos.
Tower erected	: 106 Nos.
Stringing completed	: 20.86 ckm
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

#### **Constraints/Approval if any:**

1. Facing severe ROW issues at 3 locations (AP40,41/1 & 46/3) in Dhubri Distric. 08 locations (AP1 to AP 7 & AP27) in Kokrajhar District, 05 locations (AP62, AP63, AP64, AP65 & AP66) in Bongaigaon District and 01 locations (AP86) in Goalpara District.

### **Status of statutory approvals:**

#### **Forest area**

Details of Tr. Line Falling under Forest	:
Locations	: 53nos ; Length : 20.58kms
Forest area (Ha)	: 93.188Ha
Forest proposals submitted on	: Assam (61.6 Ha)-28.02.2022, Meghalaya (31.588 Ha)-15.05.2022,
Current status	: Stage-1 clearance and working permission received for Assam and Meghalaya.

#### **Wildlife area**

Details of Tr. Line Falling under Forest	: NIL
Locations	: NIL
Wildlife area (Ha)	: NA
Wildlife proposals submitted on	: NA
Current status	:

#### **Power line crossing**

Total no. of crossings	: 13
Proposal submitted	: 13
Approval obtained	: 13

#### **Railway crossing**

Total no. of crossings	: 4
Proposal submitted	: 4
Approval obtained	: 4

#### **National Highway / SH Crossing**

Total no. of crossings	: 9
Proposal submitted	: 9
Approval obtained	: 0

#### **River Crossings**

Total no. of crossings	: 1
Proposal submitted	: 1
Approval obtained	: 1

#### **PTCC approval**

Proposal submitted to Defence	: Yes
Proposal submitted to BSNL	: Yes
Proposal submitted to Railways	: Yes
Current status	: Proposal submitted on 2nd May 2023

#### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: Civil aviation approved Defense Aviation Proposal yet to submit
--	--

### **2. Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV (Single ACSR Panther) D/c line**

Length	: 37 CKm
Locations	: 57 Nos.
Foundation completed	: 25 Nos.
Tower erected	: 0 Nos.
Stringing completed	: 0 Ckm
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

## **Status of statutory approvals:**

### **Forest area**

Details of Tr. Line Falling under Forest	: N/A
Locations	: 0 Nos. ; Length : 0 Kms
Forest area (Ha)	:
Forest proposals submitted on	:
Current status	:

### **Wildlife area**

Details of Tr. Line Falling under Forest	: N/A
Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

### **Power line crossing**

Total no. of crossings	: 0
Proposal submitted	: N/A
Approval obtained	: N/A

### **Railway crossing**

Total no. of crossings	: 0
Proposal submitted	: N/A
Approval obtained	: N/A

### **National Highway / SH Crossing**

Total no. of crossings	: 0
Proposal submitted	: N/A
Approval obtained	: N/A

### **River Crossings**

Total no. of crossings	: 0
Proposal submitted	: N/A
Approval obtained	: N/A

### **PTCC approval**

Proposal submitted to Defence	: Yes
Proposal submitted to BSNL	: Yes
Proposal submitted to Railways	: Yes
Current status	: Proposal submitted on 2nd May 2023

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: Civil Aviation approved
Current Status	: Defence Aviation Proposal yet to submit

## **3. Establishment of new 220/132kV, 2x160MVA substation at Nangalbibra**

Land Acquired	: 88%
Civil work completed	: 08 %
Equipment supplied	: 63.3 %
Equipment erection	: 0 %
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

**Constraints/Approval if any:**

Land acquisition is balance 3.4 Acre for S/S in Nengkhra, Distt. East Garo Hills, Meghalaya  
Land registry for 26.56 acre has been completed on 7th Sep'2022.

18.07.2023: DC East Garo Hills forwarded the application for the Acquisition of 1.65 acres land to the Secretariat Govt. of Meghalaya.

Landowner of balance 1.85 acres of land (one owner) are not willing to part with their lands.

**4. Extension at 220kV GIS in Bongaigaon (POWERGRID) 400/220kV S/s: 2 No. of GIS line bays for termination of Bongaigaon (POWERGRID) – Nangalbibra 400kV D/c line (initially operated at 220kV)**

Land Acquired	: Space provided by PGCIL
Civil work completed	: 80 %
Equipment supplied	: 51.05 %
Equipment erection	: 0 %
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

**5. Extension at Hatsinghmari (Assam) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) - Ampati (Meghalaya) 132kV D/c line**

Land Acquired	: Space provided by AEGCL
Civil work completed	: 90 %
Equipment supplied	: 70 %
Equipment erection	: 67 %
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

**6. Extension at Ampati (Meghalaya) S/s: 2 No. of 132kV line bays for termination of Hatsinghmari (Assam) – Ampati (Meghalaya) 132kV D/c line**

Land Acquired	: Space provided by MePTCL
Civil work completed	: 96 %
Equipment supplied	: 70 %
Equipment erection	: 46 %
Scheduled COD	: Dec'23
Anticipated COD	: Jun'24

## **21. Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs – Connectivity System**

### **Background -**

A comprehensive transmission system for providing connectivity to three Hydra Electric Projects (HEPs) viz Pakaldul (1000MW), Kiru (624 MW) and Kwar (540 MW) of Chenab Valley Power Projects Limited (CVPPL) in Union Territory of Jammu and Kashmir was agreed in the 1st Northern Region Power Committee- Transmission Planning (NRPC (TP)) meeting held on 24/01/2020. It was also agreed that the above projects would be connected to a common pooling station through 400kV dedicated transmission line to be implemented by developer of these projects. Accordingly, establishment of common pooling station at Kishtwar by LILO of one circuit of Kishenpur — Dulhasti 400kV D/c (Quad) line (Single Circuit Strung) was agreed to be implemented under ISIS to provide connectivity to above projects. Subsequently, during 2nd meeting of NRPC (TP) held on 01/09/2020, transmission system i.e. Kishtwar switching station - Kishenpur 400kV S/c (Quad) line (stringing of second circuit of Dulhasti—Kishenpur 400kV from Kishtwar upto Kishenpur) along with bays at both ends was also agreed to be implemented under ISIS for transfer of 1000MW from Pakaldul HEP to NR on target region on Long-term Access (LTA) basis.

Above transmission system for evacuation of Power from Pakaldul HEP in Chenab valley was also agreed in 48th Northern Region Power Committee (NRPC) meeting held on 02/09/2020 & 3rd National Committee on Transmission (NCT) held on 26th and 28th May, 2020. Subsequently, Ministry of Power, Government of India, vide its Gazette Notification No. CG-DL-E-28092020-222045 dated 25.09.2020 had declared establishment of Kishtwar Switching Station (GIS) including 400kV bay at Kishtwar for stringing of second circuit of Dulhasti—Kishenpur 400kV from Kishtwar upto Kishenpur through tariff based competitive bidding process route as part of "Transmission System for Evacuation of power from Pakaldul HEP in Chenab Valley HEPs – connectivity system".

Further, in 2nd meeting of NRPCTP held on 01.09.2020, JKPDD had intimated that presently, there are three Nos. of 132/33kV GSS in vicinity to proposed Kishtwar Switching Station (GIS). In order to provide reliable power to the area, based on the request of JKPDD implementation of 2x200 MVA, 400/132 kV ICTs at Kishtwar Pooling Station along with 4 no. of 132 kV line bays at Kishtwar PS was agreed as system strengthening scheme in matching timeframe of Kishtwar PS. The matter was also discussed and agreed in. During the 4th meeting of NCT held on 20.01.2021 & 28.01.2021, it was also clarified that as per CERC Sharing Regulations, 2020 that transmission charges for the 400/132 transformers shall be apportioned to J&K only. Further, implementation of 400/132kV transformer at Kishtwar Pooling Station was recommended to be combined with "Transmission system for evacuation of power from Pakaldul HEP in Chenab Valley HEPs - Connectivity System" which has already been notified by MoP in Gazette of India dated 25.09.2020 for implementation through TBCB.

### **Scope of transmission project**

1. Establishment of 400/132 kV pooling station at Kishtwar (GIS) along with Bus Reactors at Kishtwar pooling station by LILO of one circuit of Kishenpur -Dulhasti 400kV D/C (Quad) line (Single Circuit Strung)
2. LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (quad) line at Kishtwar
3. 2 Nos. of 400kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur -Dulhasti 400kV D/C (Quad) line (Single Circuit Strung)
4. 1 No of 400kV line bay at Kishtwar (GIS) for 2<sup>nd</sup> Circuit stringing of Kishtwar – Kishenpur section

5. 7x66.67 MVA I-Phase, 400/132 kV ICT along with associated bays at Kishtwar Pooling Station
6. 4 Nos. of 132kV line bays (GIS) at Kishtwar Pooling Station

### General Detail

Special Purpose Vehicle	: Kishtwar Transmission Limited. (Sterlite Grid 24 Limited; a subsidiary of Sterlite Power Transmission Limited)
Bid Process Coordinator (BPC)	: PFC Consulting Limited.
Estimated Cost (Rs. Cr)	: 311
Levelized Tariff (Rs. Cr)	: 38.846
Request for Qualification	: NA
Request for Proposal	: 04.02.2021
Letter of Intent	: 22.03.2022
Transmission Service Agreement (TSA)	: 17.02.2022*
SPV acquisition	: 06.12.2022
Transmission License by CERC	: 12.05.2023
Tariff adoption by CERC	: 23.03.2023
Contract Performance Guarantee	: 05.12.2022
Clearance u/s 164	: Proposal under preparation.
Execution plan submitted to CEA	: 27.12.2022 (Revised plan submitted on 22.03.2023)
NIT issued on	: -
EPC contract awarded on	: 12.05.2023
Scheduled Date of Completion	: 01.04.2025

\*CTU, CVPPL and KTL signed the TSA unconditionally on 17.02.2022, however, JKPCL signed the TSA with conditions on 15.10.22 and withdrew those condition on 24.11.2022. Due to delay in signing of TSA, SPV acquisition got delayed.

### Status of progress of transmission project

#### 1. LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line at Kishtwar

Length	: 1.72 CKm
Locations	: 5 Nos.
Foundation completed	: NIL
Tower erected	: NIL
Stringing completed	: NIL
Scheduled COD	: 01Apr'25
Anticipated COD	: 01Apr'25

### Constraints/Approval if any:

### Status of statutory approvals:

#### Forest area

Details of Tr. Line Falling under Forest	: NIL
Locations	: NA

Forest area (Ha)	: NA
Forest proposals submitted on	: NA
Current status	:

#### **Wildlife area**

Details of Tr. Line Falling under Forest	: NIL
Locations	: NA
Wildlife area (Ha)	: NA
Wildlife proposals submitted on	: NA
Current status	:

#### **Power line crossing**

Total no. of crossings	: NIL
Proposal submitted	: NA
Approval obtained	: NA

#### **Railway crossing**

Total no. of crossings	: NIL
Proposal submitted	: NA
Approval obtained	: NA

#### **National Highway / SH Crossing**

Total no. of crossings	: NIL
Proposal submitted	: NA
Approval obtained	: NA

#### **River Crossings**

Total no. of crossings	: NIL
Proposal submitted	: NA
Approval obtained	: NA

#### **PTCC approval**

Proposal submitted to Defence	: NIL
Proposal submitted to BSNL	: No
Proposal submitted to Railways	: No
Current status	: Proposal is yet to be submitted

#### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	: NA
Current Status	:

## **2. 400/132 kV (GIS) Pooling Station at Kishtwar**

- Establishment of 400/132 kV pooling station at Kishtwar (GIS) along with Bus Reactor at Kishtwar pooling station by LILO of one circuit of Kishenpur – Dulhasti 400kV D/c (Quad) line (Single Circuit Strung)
- 2Nos. of 400 kV bays at Kishtwar (GIS) for LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c (Quad) line
- 1No. of 400 kV line bay at Kishtwar (GIS) for 2nd circuit stringing of Kishtwar-Kishenpur section

- d. 7X66.67MVA, I-Phase 400/132kV ICT along with associated bays at Kishtwar pooling station
- e. 4Nos. of 132kV bays

Land Acquired	: 70%
Civil work completed	: 0 %
Equipment supplied	: 0 %
Equipment erection	: 0 %
Scheduled COD	: 01Apr'25
Anticipated COD	: 01Apr'25

**Constraints/Approval if any:**

1. Acquisition of balance land (09 acre) is pending for substation.
2. Tree felling permission in land purchased for Substation is awaited.
3. Support sought from DC Kishtwar in resolution of bottle necks in the form of turning Radius or width of the road for substation equipment movement.

## 22. Development of Additional Inter regional AC link for import into Southern region i.e Warora-Warangal and Chilakaluripeta – Hyderabad – Kurnool 765 kV link

### Background

To facilitate import of 16000 MW power to Southern region by 2018-19 based on the pessimistic scenario of non-availability / delay in commissioning of some of the generation projects in Southern region, this 765 kV additional transmission link has been proposed in case of contingencies including total outage of an entire inter-regional link and other critical regional lines for reliability.

### Scope of transmission project

1. Establishment of 765/400 kV substations at Warangal (New) with 2X1500 MVA transformers and 2X240 MVAR bus reactors.

#### **765 kV bay requirement (in Warangal)**

Line bays: 06 No.

Transformer bays: 02 No.

Space for future line bays: 06 No.

#### **400 kV bay requirement (in Warangal)**

Line bays: 02 No.

Transformer bays: 02 No.

Space for future line bays: 08 No.

2. Warora (Pool) – Warangal (New) 765 kV D/C line with 240 MVAR switchable line reactor at both ends
3. Warangal (New) – Hyderabad 765 kV D/C line with 240 MVAR switchable line reactor at Warangal end of each circuit.
4. Warangal (New) – Warangal (existing) 400 kV (quad) D/C line.
5. Hyderabad- Kurnool 765 kV D/C line with 240 MVAR switchable line reactor at Kurnool end of each circuit.
6. Warangal (New) – Chilakaluripeta 765 kV D/C line with 240 MVAR switchable line reactor at both ends of each circuit.
7. 240 MVAR Switchable Line Reactors with Bays at Warora (Pool) end in each circuit of Warora (Pool)- Rajnandgaon 765kV D/c line with NGR (700 Ohm)

### General Detail

Special Purpose Vehicle (SPV)	:	Warora Kurnool Transmission Ltd. (A subsidiary of Adani Transmission Ltd)
Bid Process Coordinator (BPC)	:	PFCCCL
Estimated Cost (Rs. cr)	:	4805
Request for Qualification	:	11.09.2015
Request for Proposal	:	30.11.2015
Letter of Intent	:	29.02.2016
Transmission Service Agreement (TSA)	:	06.01.2016
SPV acquisition	:	06.07.2016
Transmission License by CERC	:	29.09.2016
Tariff adoption by CERC	:	30.08.2016
Contract Performance Guarantee	:	01.07.2016
Clearance u/s 164	:	Gazette publication on 10.07.2017
Execution plan submitted to CEA	:	02.11.2016

NIT issued on	:	
EPC contract awarded on	:	30.08.2016
Scheduled Date of Completion	:	Nov-2019
New SPV acquisition as per CERC Order	:	26.03.2021
Anticipated Date of Completion	:	Aug'23

Ministry of Power(MoP) vide their letter No. 7/1/2017-Trans dated 16.04.2020 conveyed the following.

1. MoP, GoI has decided that M/s WKTL, the developer of Warora-Warangal 765 kV D/C Transmission Line is required to complete the balance works in above line as per the original approved route in the coal bearing area of WCL involving 16 towers without any further delay and also to comply all other decisions of MoP conveyed as per above letter dated 16.04.2020. Further, WKTL is required to complete all the elements in the above Scheme within the framework of the contractual obligations. It is also requested that the latest status and implementation schedule of all the elements of above line may be conveyed to CEA at the earliest.
2. Lead Long Term Transmission Customer(LTTC), i.e., TANGENDCO Ltd, is requested to take necessary action as per TSA to ensure that there is no further delay in completion of the above project.

M/s WKTL was also advised that in case of any constraints in completion of the above project as per established procedure, the developer may approach CERC for redressal of the issues if any, as MoP/CEA only facilitates the project implementation in a time bound manner. The Project was stalled due to force majeure issues including non resolution of issues pertaining to coal bearing areas associated with Western Coal Fields (WCL) and Singareni Coll. Co. Ltd. (SCCL)

#### **Status of progress of transmission project**

##### **1. Establishment of 765/400 kV substations at Warangal (New) with 2X1500 MVA transformers and 2X240 MVAR bus reactors.**

- Schedule completion : Nov'19
- Actual completion : 400kV Yard Charged on 13th June.'23

##### **2. Warora (Pool) – Warangal (New) 765 kV D/C line with 240 MVAR switchable line reactor at both ends**

- Length: 664 ckm
- Locations: 845 Nos.
- Foundation completed: 845 Nos.
- Tower erected: 845 Nos.
- Stringing completed: 664 ckm
- Schedule completion: Nov'19
- Anticipated completion Aug '23

#### **Status of statutory approvals:**

##### **Forest**

Details of Tr. Line Falling under Forest:-

Locations	:	22
Length	:	10.057 Kms
Forest area affected (ha)	:	19.793 ha (2.954 Kms) in Maharastra + 47.592 ha (7.103 Kms) in Telangana
Forest proposals submitted on	:	Maharashtra- 04-08-17, Telengana - 23-08-17
Current status	:	<b>Maharashtra</b> – Stage I received on 05-02-18. and working permission received on 05-10-2021. Stage -2 received on 08 <sup>th</sup> March 2022.

**Telangana** - Stage I received on 13-12-18 Revised demand note received on 21-09-2021. Compliance report submitted on 02-12-2021. **Working permission received on 26th February 2022.** Stage -2 received on 20<sup>th</sup> May 2022. **Final Stage approval received on 05th August 2022.**

### **Wildlife Clearanace**

Details of Tr. Line Falling under Wildlife:-

Locations	:	01 No.
Length	:	0.465 Kms
Forest area affected (ha)	:	3.1142 ha (0.465 Kms) in Telangana
Forest proposals submitted on	:	<b>Telangana</b> – 26-02-18
Current status	:	Proposal forwarded by State Government to Member Secretary (NBWL) on 20-11-18. SBWL Recommended the Proposal on 01-02-20. And subsequently recommended in NBWL meeting dated 05-10-20. Demand note received and payment done.

### **Power line crossing**

Total no. of crossings	:	27 Nos.
Proposal submitted	:	27 Nos.
Approval obtained	:	26 Nos. (01 Crossing approval of TS Transco are overdue.)

### **Railway crossing**

Total no. of crossings	:	05 Nos.
Proposal submitted	:	05 Nos.
Approval obtained	:	05 Nos.

### **National Highway Crossing**

Total no. of crossings	:	05 Nos.
Proposal submitted	:	05 Nos.
Approval obtained	:	05 Nos.

### **River Crossings**

Total no. of crossings	:	01 no. (Major)
Proposal submitted	:	00 Nos.
Approval obtained	:	00 Nos.

### **PTCC approval**

Proposal submitted to Defence on : 07-10-2021  
Proposal submitted to BSNL on : 07-10-2021  
Proposal submitted to Railways on : 07-10-2021  
Current status:

#### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on : Civil & Defence proposal submitted  
Current Status: Defence & Civil Aviation – approval obtained.

#### **Bay extension work at PGCIL Pooling station at Warora:**

Interconnection approval is still pending from PGCIL end. Integration work is being held up for the same. Still Pending

### **3. Warangal (New) – Hyderabad 765 kV D/C line with 240 MVAR switchable line reactor at Warangal end of each circuit.**

- Length: 268 ckm
- Locations: 345 Nos.
- Schedule completion: Nov'19
- Actual completion: Jun'23 (completed)

### **4. Warangal (New) – Warangal (existing) 400 kV (quad) D/C line**

Length: 94.9 ckm  
Locations: 126 Nos.  
Scheduled COD: Nov'19  
Actual COD: Jun'23

### **5. Hyderabad- Kurnool 765 kV D/C line with 240 MVAR switchable line reactor at Kurnool end of each circuit**

- Length: 337 ckm
- Locations: 432 Nos.
- Scheduled COD: Nov'19
- Actual COD: Jul'23

### **6. Warangal (New) – Chilakaluripeta 765 kV D/C line with 240 MVAR switchable line reactor at both ends of each circuit**

- Length: 390 ckm
- Locations: 508 Nos.
- Scheduled COD: Nov'19
- Anticipated COD: Aug'23

### **7. 240 MVAR Switchable Line Reactors with Bays at Warora (Pool) end in each circuit of Warora (Pool)- Rajnandgaon 765kV D/c line with NGR (700 Ohm)**

Scheduled COD: Nov'18

**Under commercial operation w.e.f. 29.03.2019**

## **23. System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai (RRVNL)**

### **Background**

400 kV AC link between Rishikesh and Koteshwar shall improve reliability. It shall improve the power supply to Uttarakhand and also obviate the power transfer constraint on 400 kV Roorkee - Muzaffarnagar line during low hydro generation condition. This link would provide additional outlet from Tehri/ Koteshwar generation complex and independent feed for providing reliable and quality power supply to Rishikesh area.

Babai 400/220 kV substation of RRVNL is under construction and the substation is associated with power evacuation system of Suratgarh Super Critical TPS (2x660MW) and shall be connected to Suratgarh through 400kV D/C line. The 400 kV Sikar - Neemrana D/C line is crossing Babai S/s at a distance of approx. 1 Km. The proposal of LILO of one ckt of Sikar-Neemrana 400kV line at Babai would be helpful for enhancing the reliability of power supply. The proposed LILO would increase the flexibility in this area.

### **Scope of Transmission project**

1. Koteshwar Pooling Station - Rishikesh 400kV D/C (HTLS) line – 83.152 Ckm.
2. 2 Nos. of bays at 400 kV Rishikesh S/S
3. LILO of one ckt of 400 kV D/C Sikar (PG)-Neemrana (PG) line at Babai- 2.922 Ckm.
4. Babai (RRVNL) – Bhiwani (PG) D/C line – 248.61 Ckm.
5. 4 Nos. of bays at 400 kV Babai (RRVNL) substation

### **General Details**

Special Purpose Vehicle (SPV)	:	NRSS XXXVI Trans.Ltd (a subsidiary of Resurgent Power venture Pte Limited)
Bid Process Coordinator (BPC)	:	RECTPCL
Estimated Cost (Rs. Cr.)	:	437
Request for Qualification	:	25.08.2015
Request for Proposal	:	12.11.2015
Date of Letter of Intent	:	29.03.2016
Transmission Service Agreement (TSA)	:	13.01.2016
SPV acquisition	:	22.08.2016
Transmission License by CERC	:	07.12.2016
Tariff adoption by CERC	:	14.12.2016
Contract Performance Guarantee	:	11.08.2016
Clearance u/s 164	:	01.11.2017
Execution plan submitted to CEA	:	20.12.2016
NIT issued on		
EPC awarded on	:	20.01.2017
Scheduled Date of Completion	:	June 2019/Dec 2019
Anticipated Date of Completion	:	Dec'24 / Minimum 27 no. of working months required from the date of resolution of CERC Petitions, IDPL -NOC from Uttarakhand State Govt, DFO (Tehri), DFO (Dehradun), Court proceedings etc

NRSS XXXVI Project has been successfully substituted by PFS (PTC India Financial Services Ltd.) to Resurgent Power Ventures Pte Limited which is a joint venture with TATA Power.

## Status of progress of transmission project

### 1. Koteswar Pooling Station - Rishikesh 400kV D/C (HTLS) line

The route alignment & detailed survey is completed.

Tower Package is awarded. Check survey is under progress.

Length:	81 CKm
Locations:	106 Nos.
Foundation completed:	26 Nos.
Tower erected:	-
Stringing completed:	-
Scheduled COD:	Dec'19
Anticipated COD:	Dec'24 / Minimum 27 no. of working months required from the date of resolution of CERC Petitions, IDPL -NOC from Uttrakhand State Govt, DFO (Tehri), DFO (Dehradun), Court proceedings etc

### Status of statutory approvals:

#### Forest

Details of Tr. Line Falling under Forest:-

Locations: Nos.

Length: 22.2 Km.

Forest area affected (ha) : 96.60 ha

Though forest proposal of Tehri & Narendranagar Forest Division was submitted on 04th Apr 2019.

Forest proposal of Dehradun division is yet to submit.

**Current status:** In the month of Dec 2022 online submission of FDP has been successfully done.

Tree enumeration under Tehri forest division has completed and tree enumeration under Narendranagar & Dehradun forest division is under progress so that hard copy of FDP can be submitted to the Nodal Officer.

#### Power line crossing

Total no. of crossings	:	09 Nos.
Proposal submitted	:	09 Nos.
Approval obtained	:	09 Nos.

#### Railway crossing

Total no. of crossings	:	01 no.
Proposal submitted	:	00 Nos.
Approval obtained	:	00 Nos.

#### National Highway Crossing

Total no. of crossings	:	04 Nos.
Proposal submitted	:	04 Nos.
Approval obtained	:	00 Nos.

#### River Crossings

Total no. of crossings	:	Nil
------------------------	---	-----

Proposal submitted : Nos.  
Approval obtained : Nos.

### **PTCC approval**

Proposal submitted to Defence on :  
Proposal submitted to BSNL on :  
Proposal submitted to Railways on :  
Current status:

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on :  
Current Status:

### **2. 2 Nos. 400 kV bays at Rishikesh S/S**

Land Acquired: NA  
Civil work completed: -  
Equipment supplied: -  
Equipment erection: -  
Scheduled COD Dec'19  
Anticipated COD: Dec 24

### **3. LILO of one ckt of 400kV D/C Sikar PG)–Neemrana(PG) line at Babai (Under Commercial operation).**

Length: 2.922 CKm  
Locations: 06 Nos.  
Scheduled COD: Dec'16  
Deemed COD: 30 Oct '17

### **4. Babai (RRVNL) – Bhiwani (PG) D/C line**

The route alignment & detailed survey is completed.  
Tower Package is awarded.

Length: 221 CKm  
Locations: 304 Nos.  
Foundation completed: 303 Nos.  
Tower erected: 297 Nos.  
Stringing completed: 206 CKM  
Scheduled COD: Jun'19  
Anticipated COD: Jul' 23

### **Constarints where Project Authority requires intervention:**

**Severe RoW issues:** Severe RoW issues are existing in Stringing section 2/0-3/0 of 3.5 km in Tehsil Khetri and 77/4-83/0 foundation work at Tehsil Bhiwani.

**Court Case:** Loc no. 9/1 (Case in Rajasthan high court, Jaipur since 03/03/19) & Loc 47/1-47/2 (Case in Civil Court, Mahendergarh since 08/09/19).

### **Status of statutory approvals:**

#### **Forest**

Details of Tr. Line Falling under Forest:- 3.37 Km

Locations: 06 Nos. (Rajsthan)

Length:

Forest area(ha) : 12.90 Ha (2.80 Kms) Rajsthan + 3.46 Ha (0.57 Kms) Haryana

Forest proposals submitted on 15.05.17 for Haryana and on 11.08.17 for Rajasthan.

Current status: In order to get the stage -II approval & work for permission, the Forest Diversion Proposal for Babai – Bhiwani Transmission line, the payment under CAMPA & NPV has been done for the Rajasthan Portion. However for Haryana Portion revised demand note for payment under CAMPA A/c, matter under review with nodal officer FCA Haryana.

### **Wildlife Clearance**

Details of Tr. Line Falling under Wildlife :-

Locations:

Length:

Wildlife area(ha) : 7.452 Ha (2.80 Kms) Khetri Bansyal Conversion Reserve

Wildlife proposals submitted on : 16-02-2018

Current status: Proposal recommended by NBWL ,recommendations forwarded to State Govt. (Rajasthan) and approval received on 14.02.2019.

### **Power line crossing**

Total no. of crossings	:	20 Nos.	
Proposal submitted	:	20 Nos.	Date:
Approval obtained	:	20 Nos.	Date:

### **Railway crossing**

Total no. of crossings	:	01 no.	
Proposal submitted	:	01 Nos.	Date:
Approval obtained	:	01 Nos.	Date:

### **National Highway Crossing**

Total no. of crossings	:	01 Nos.	
Proposal submitted	:	01 Nos.	Date:
Approval obtained	:	01 Nos.	Date:

### **State Highway Crossing**

Total no. of crossings	:	05 Nos.	
Proposal submitted	:	05 Nos.	Date:
Approval obtained	:	05 Nos.	Date:

### **Canal Crossings (Minor)**

Total no. of crossings	:	14 Nos.	
Proposal submitted	:	14 Nos.	Date:
Approval obtained	:	14 Nos.	Date:

### **PTCC approval : Proposal Under Approval**

Proposal submitted to Defence.

Proposal submitted to BSNL.

Proposal submitted to Railways.

Current status:

### **Defence/Civil Aviation**

Proposal submitted : 13.03.2018

Current Status : Civil Aviation approval received on 31.05.18

Approval from Defence received on 06.06.18

**5. 2 Nos. 400 kV bays at Babai (RRVNL) substation for LILO Line**

Scheduled COD	Dec'16
Deemed COD:	30 Oct'17

**Under commercial operation.**

**6. 2 Nos. 400kV bays at Babai (RRVNL) substation for Bhiwani Line**

Land Acquired:	100%
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	90%
Scheduled COD	Jun'19
Anticipated COD:	May'23 / Minimum 27 no. of working months

required from the date of resolution of CERC Petitions, IDPL -NOC from Uttarakhand State Govt, DFO (Tehri), DFO (Dehradun), Court proceedings etc

## 24. Immediate evacuation for North Karanpura(3x660MW) generation project of NTPC(ERSS-XIX)

### Background

NTPC Ltd. has planned to establish a 1980MW (3x660MW) thermal power project at North Karanpura in the state of Jharkhand. Accordingly, Immediate evacuation system for the same was finalized with following transmission system: (i) North Karanpura – Gaya 400kV D/c (Quad) (ii) North Karanpura – Jharkhand Pool (Chandwa) 400kV D/c (Quad) Further, under the 24x7 power for all scheme, Jharkhand has projected a requirement of about 1000MW in Dhanbad region. In view of the same it is proposed to establishment 400/220kV, 2x500 MVA sub-station at Dhanbad along with LILO of both circuits of Ranchi – Maithon-RB 400kV D/c line at Dhanbad. The same was agreed to be implemented as ISTS scheme to be built under TBCB. For drawl of power from Dhanbad, JUSNL would construct 2 no. 220kV D/c lines, one each to Govindpur and Jainamore 220 kV sub-stations.

### Scope of transmission project:

1. North Karanpura – Gaya 400kV D/c line with quad moose conductor.
  2. North Karanpura – Chandwa (Jharkhand) Pooling Station 400kV D/c line with quad moose conductor.
  3. LILO of both circuits of Ranchi – Maithon-RB 400kV D/c line at Dhanbad
  4. Creation of 400/220 kV sub-station at Dhanbad(ERSS-XIX)
- (i) Establishment of 400/220 kV, 2x500 MVA sub-station at Dhanbad

#### 400 kV

- ICTs: 400/220 kV, 2x500 MVA
- ICTs bays: 2 no.
- Line bays: 4 no.
- 400 kV bus reactor bays: 2 no.
- Bus reactor: 2x125 MVAR
- Space for future bays: 4 no
- Space for future 400/220 kV, 500 MVA ICT along with associated bay

#### 220 kV

- ICTs bays: 2 no.
- Line bays: 4 no.
- Space for future bays: 4 no.

### General Details:

Special Purpose Vehicle (SPV)	: North Karanpura Transco Ltd. (A subsidiary of M/s Adani Transmission Limited)
Bid Process Coordinator (BPC)	: RECTPCL
Estimated Cost (Rs. cr)	: 472 crore for old scope
Request for Qualification	: 30.11.2015
Request for Proposal	: 03.02.2016
Letter of Intent	: 24.05.2016
Transmission Service Agreement (TSA)	: 06.07.2016
SPV acquisition	: 08.07.2016
Transmission License by CERC	: 29.09.2016
Tariff adoption by CERC	: 06.09.2016
Contract Performance Guarantee	: 03.06.2016
Clearance u/s 164	: Authorization on CCL / MoC suggested route received on 05.11.2019 after 80

Execution plan submitted to CEA	:	days from submission. 03.11.2016. Revised Execution plan discussed in meeting with CEA on 23.04.2019.
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	30.09.2019
Revised Scheduled Date of Completion	:	As per CERC directive, it is finalized by CEA and in consultation with NTPC.

- In accordance with the provision of the TSA, NKTL had approached CERC and vide its order dated 20.03.2019 the matter has been disposed off with following decisions:
- NKTL is affected by force majeure on account of non-issue/delay in issue of NOC by MoC/CCL.
  - LTTCs are directed not to take any coercive measures in terms of the TSA till the SCODs are revised taking into account the force majeure events.
  - CERC directed MOC to issue NOC latest by week from issue of the order.
  - Compressed time schedule to implement the project shall be decided by CEA in consultation with NTPC and NKTL.
  - Granted liberty to approach with change in scope and its impact on cost and time overrun.
  - When required to shift line, alternate route shall be provided by MoC.

#### **Status of progress of transmission project:**

##### **1. North Karanpura – Chandwa (Jharkhand) Pooling Station 400kV D/c line (including Multi-circuit portion)**

- Length (as per revised route): 102 Ckm
- Locations (as per revised route): 115 Nos.
- Revised schedule completion date: 14 months from the date of NOC from CCL/MoC (considering receipt of forest approval within 200 days).
- Actual COD: 14.10.2022

##### **2. North Karanpura – Gaya 400kV D/C line (only Double Circuit portion)**

- Length (as per revised route): 196 Ckm
- Locations (as per revised route): 286 Nos.
- Foundation completed: 140 Nos.
- Tower erected: 132 Nos.
- Stringing completed: 37.3 Ckm
- Revised schedule completion date: 23 months from the date of NOC from CCL/MoC (considering receipt of forest approval within 300 days). However, due to delayed Forest Clearance NKTL will be able to complete the NK-G line in 12 clear working months from the date of forest clearance (Working Permission).

#### **Constraints where Project Authority requires intervention:**

Nodal has completed Part-IV and forwarded the proposal to State Govt. Govt. Of Jharkhand for further Part-V process. Further, State Govt. had raised EDS, against which compliance has been submitted by nodal office on 29.11.2022 to State Govt. State Govt has forwarded the proposal to IRO office on 27.01.2023 for further process. REC meeting was held on 21.02.2023 wherein forest proposal for NK-G JH line was discussed. MOM of the meeting has been received on 01.03.2023. EDS raised by IRO in REC meeting have been received by NKTL by 18.03.2023. Compliance against the same has been submitted by NKTL to respective DFOs by 23.03.2023. Stage-I approval was granted on 06.06.2023. Demand notes have been received from DFO Chatra South on 23.06.2023, DFO Chatra North on 26.06.2023 and DFO Latehar on 02.07.2023. Upon verification, same were rejected by PCCF, Ranchi on 21.07.2023 due to errors in calculations. Revised demand notes received from DFO Chatra South & Chatra North on 28.07.2023. Demand notes from Latehar forest division awaited. Demand for cost against Wildlife Management Plan and Soil & Moisture Conservation Plan as per Stage-I conditions has been received from DFO Chatra South & DFO Chatra North. Same is awaited from DFO Latehar.

In Bihar portion, there is severe ROW at 5 Locations at Gaya end being faced.

DM Gaya has issued 2 Nos. of order on 27.05.2023, finalising compensation for 2 Nos. locations and requesting respective landowners for submitting documents by 14.06.2023 for release of compensation and start of work.

Based on compensation payment as per DM Gaya's instructions, foundation has been completed at 116/0.

For another location (114/0), landowners are refusing to accept the compensation order issued by DM Gaya. 3 Nos. of notices have been served to landowners. Work shall be started with police protection.

Compensation order for balance 3 Nos. of locations (114/1, 114/2, 115/0), has been issued by DM Gaya on 16.07.2023. Based on released compensation as per DM Gaya's order, foundation has been completed at 114/1. Based on documents received from respective landowners for location 114/2 & 115/0, compensation payment is under process.

### **Status of statutory approvals:**

#### **Forest (envisaged based on route alignment & excluding multi-circuit portion)**

Details of Tr. Line Falling under Forest:-

Jharkhand(JH) - Locations: 143 Nos. and Length: 42 kms

Bihar(BH) - Location: 5 no. and Length: 1.2 Kms

Forest area affected (ha) : 197.0115 Ha. In JH portion & 5.437 Ha. in BH portion.

Forest proposals submitted on : 20.07.2019 for JH portion & 01.08.2019 for BH portion

**Current status:** Proposal submitted within the timeline committed to CEA on revised route. . JH portion, Stage-I issued on 06.06.2023. Demand note issued by 2/3 Nos. of DFOs. and BH portion In-Principle Stage – I received on 02.09.2021. Working permission received on 08.02.2022.

#### **Power line crossing**

Total no. of crossings : 10 Nos.

Proposal submitted : 10 Nos.

Approval obtained : 10 Nos.

#### **Railway crossing**

Total no. of crossings	:	1	no.
Proposal submitted	:	1	no.
Approval obtained	:	1	no.

### **National Highway Crossing**

Total no. of crossings	:	3	Nos.
Proposal submitted	:	3	Nos.
Approval obtained	:	3	Nos.

### **PTCC approval**

Proposal submitted to BSNL in

Proposal submitted to Railways in

Current status: Submitted on 23-07-2020

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation

Current Status: NOC for Civil Aviation and Defence Aviation obtained

### **3. Establishment of 400/220 kV, 2x500 MVA sub-station at Dhanbad**

- Scheduled completion date: 07.05.2019
- Actual completion date: Progressively Charged from 23-07-2021 to 02-08-2021 and COD declared on 06-08-2021
- 

### **4. LILO of both circuits of Ranchi – Maithon-RB 400kV D/c line at Dhanbad**

- Length: 5.4 Ckm
- Locations: 10 Nos.
- Revised schedule completion date: Jul-21,
- Actual completion date: Progressively Charged from 23-07-2021 to 27-07-2021 and COD declared on 06-08-2021

## **25. Transmission System for Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone) along with LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS**

### **Background**

#### **Evacuation of Power from RE Sources in Karur/ Tiruppur Wind Energy Zone (Tamil Nadu) (1000 MW)**

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. Solar Energy Corporation of India (SECI) in association with MNRE has identified Solar Energy Zones (SEZ) and Wind Energy Zones (WEZ) of 66.5 GW in seven RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) to be evacuated through ISTS. Out of total 66.5 GW REZs, 18.5 GW (Solar-10 GW & Wind 8.5 GW) of potential has been identified in the states of Tamil Nadu, Andhra Pradesh and Karnataka in Southern Region. The transmission system was evolved for integration of 18.5 GW of identified prioritized SEZs and WEZs in states of Tamil Nadu, Andhra Pradesh and Karnataka with the ISTS network in Southern Region. The transmission system associated with potential RE capacity, based on inputs from SECI/ MNRE has been prioritized for implementation into three phases in the meeting held on 30.08.2019 at CEA, New Delhi. Out of the 18.5 GW REZ in Southern Region, 5.5 GW under Phase-I (Part-II) & 5 GW under Phase-II of the prioritized wind and solar zones has been targeted for completion by Dec'21 and balance 8 GW under Phase-III has been targeted for completion beyond Dec'21.

The proposal has been agreed in the 3rd NCT and 4<sup>th</sup> ECT meeting held on 21.12.2018 for implementation through TBCB route with a commissioning schedule of June, 2020.

The 2.5 GW wind potential identified in Karur / Tiruppur area of Tamil Nadu has been prioritized under Phase-III for implementation beyond Dec'21. The subject transmission scheme involves establishment of Karur Pooling Station and its interconnection with ISTS grid for evacuation of wind potential from Karur / Tiruppur area of Tamil Nadu. The transmission system has been agreed in the 1st meeting of Southern Region Standing Committee on Transmission (SRSCCT) held on 07.09.2018. The National Committee on Transmission in its 3rd meeting held on 01.03.2019 has recommended the implementation of the subject transmission scheme through TBCB route. The transmission scheme was also deliberated in the 4th meeting of Empowered committee on Transmission held on 12.07.2019. Ministry of Power vide its letter no. 15/3/2018-Trans-Pt (3) dated 15.10.2019 has forwarded the Gazette Notification dated 10.10.2019 appointing PFCCCL as BPC for implementation of the subject scheme through TBCB route.

### **Scope of transmission project:**

- A) Establishment of 2x500 MVA, 400/230 kV Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone)
- B) LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS

C) Installation 2x125 MVAR, 420 kV Bus reactors at Karur PS 125 MVAR reactors.

### General Detail

Special Purpose Vehicle (SPV)	:	Karur Transmission Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	PFC Consulting Limited
Estimated Cost (Rs. cr)	:	
Request for Qualification	:	21.10.2019
Request for Proposal	:	20.02.2020
Letter of Intent	:	22.12.2021
Transmission Service Agreement (TSA)	:	08.11.2021
SPV acquisition	:	18.01.2022
Transmission License by CERC	:	
Tariff adoption by CERC	:	17.05.2022
Contract Performance Guarantee	:	11.01.2022
Clearance u/s 164	:	03.09.2022
Execution plan to CEA	:	05.05.2022
NIT issued on	:	
EPC contract awarded on	:	Mar-2022
Scheduled Date of Completion	:	July-2023
Anticipated completion	:	Aug-2023

### Status of progress of transmission project:

#### A) Establishment of 2x500 MVA, 400/230 kV Jam Karur PS

- Land acquisition : 100% (Present Scope)
- Engineering : 100%
- Civil Works : 99%
- Equipment supplied : 99%
- Erection works : 95%
- Schedule completion : July-2023
- Anticipated completion : Aug-2023

#### B) LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS-

- Length: 8.51 CKM
- Locations: 9 Nos.
- Foundation completed: 9 Nos.
- Tower erected: 7 Nos.
- Stringing completed: - ckm
- Schedule completion: July-2023
- Anticipated Completion: Aug-2023

**Constraints where Project Authority requires intervention :** Facing severe Right of Way (RoW) issues in transmission line. Landowners have planted coconut trees alongside of corridor and asking undue compensation demand. Matter already appraised to local administration.

**Crusher Strike in TN State:** Construction industry is facing a tough time for the past 8-10 days due to non-supply of crusher materials as strike being carried out by crusher owners in entire

Tamilnadu State since 23.06.2023. Construction activity is on hold due to non-availability of crusher material.

**Delay in shutdown for tapping proposal:** Due to heavy wind generation from Jul -Sept'23, shutdown of existing 400Kv D/C Pugalur HVAC– Pugalur HVDC for tapping shall not be granted due to system constraints.

- **Status of statutory approvals:**

- **Defence Aviation** : NOC received on 10.11.2022.
- **Civil Aviation** : Application submitted on 10.11.2022.
- **Current Status** : NOC received on 22.03.2023.
- **PTCC** : Final NOC received on 13.04.2023.
- **LILO Proposal (PGCIL)** : Final NOC received on 18.04.2023.

**C) Installation 2x125 MVAR, 420 kV Bus reactors at Karur PS 125 MVAR reactors.**

- Land acquisition : 100%
- Engineering : 100%
- Civil Works : 100%
- Equipment supplied : 100%
- Erection works : Work in progress
- Schedule completion : July-2023
- Anticipated completion : July-2023

## **26. Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I**

### **Background :**

Govt. of India has set a target to establish 175GW renewable capacity by 2022. To fulfil above target, MNRE/SECI has identified potential Renewable Energy Zone(REZ) comprising Solar & Wind capacity of about 66.5 GW in various renewable resource rich States in the country. Out of 28GW REZs identified in Western Region, 16GW potential has been identified in the state of Gujarat and transmission system has been taken up for implementation for about 3.5 GW REZ (Bhuj-II: 2GW & Jam Khambhaliya 1.5GW) and implementation of Transmission system for Lakadia (2GW) has been deferred due to land issues. For the balance 10.5GW, Govt. of Gujarat has proposed for allocation of land for new RE projects in Khavda area, instead of the already planned pooling stations under ISTS at Lakadia, Jamnagar, Rapar & Radhanesda.

Transmission schemes for Khavda REZ (8GW) were deliberated and finalised in the 1st WRPC(TP) held on 11.01.2020 and in the 3rd NCT meeting held on 26.05.2020 & 28.05.2020. Out of 8GW, 3GW shall be pooled at Khavda under Phase-I and 4.5GW shall be pooled at Khavda under Ph-II. Balance 0.5GW in Khavda region was agreed to be evacuated through dedicated transmission lines of RE developers at existing Bhuj S/s.

The current scheme is for evacuation of 3 GW RE injection at Khavda P.S. under Phase-I. The subject scheme includes establishment of a new 765/400kV, 3x1500MVA & 400/220kV, 2x500MVA substation at Khavda along with Khavda PS (GIS) – Bhuj PS 765 kV D/c line. The scheme will enable integration of 3 GW REZ in Khavda area under Ph-I with Bhuj PS. Beyond Bhuj PS, onward dispersal of power would be through under implementation Bhuj – Lakadia –Banaskantha/Vadodara 765kV D/c corridor.

### **Scope of transmission project:**

- Establishment of 3X1500 MVA 765/400 kV Khavda (GIS) with 1X330 MVAR 765 kV bus reactor and 1X125 MVAR 420 kV bus reactor
  - 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 No.
  - 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.
- Future Scope: Space for
  - 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 – 7 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.
- Khavda PS (GIS) – Bhuj PS 765 kV D/c line
- 2 Nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line
  - 765 kV AIS line bays – 2 Nos.

## General Detail

Special Purpose Vehicle (SPV) (A subsidiary of Adani Transmission Limited)	:	Khavda Bhuj Transmission Limited
Bid Process Coordinator (BPC)	:	PFC Consulting Limited
Estimated Cost (Rs. Cr.)	:	Rs. 1180 Cr.
Request for Qualification	:	NA (Single Stage Bidding)
Request for Proposal	:	06.05.2021
Letter of Intent	:	22.12.2021
Transmission Service Agreement (TSA)	:	14.10.2021
SPV acquisition	:	18.01.2022
Transmission License by CERC	:	
Tariff adoption by CERC	:	10.05.2022
Contract Performance Guarantee	:	Submitted
Clearance u/s 164	:	02.09.2022
Execution plan to CEA	:	Submitted on 10.05.22
NIT issued on	:	
EPC contract awarded on	:	Awarded
Scheduled Date of Completion	:	Jan 2024
Anticipated completion	:	Jan 2025

## Status of progress of transmission project :

### A) Establishment of 3X1500 MVA 765/400 kV Khavda (GIS)

- Land acquisition : Land lease approval received on 16.06.2023 from revenue department, Gandhinagar. Accordingly, land lease payment intimation received from DC Office-Bhuj, Kutch on 22.06.2023. Demand Drafts for corresponding amount were submitted on dt. 15.07.2023 & 25.07.2023. Necessary Land lease formalities to take place post finalization of stamp duty charges which is under finalization at DC, Kutch.
- Engineering : 92 %
- Civil Works : 05 %
- Equipment supplied : 45%
- Erection works :
- Schedule completion : Jan-2024
- Anticipated completion : Jan 2025

### B) Khavda PS GIS – Bhuj PS 765 kV D/C Line -

- Length: 218 ckm
- Locations: 275 Nos.
- Foundation completed: 265 Nos.
- Tower erected: 163 Nos.
- Stringing completed: 48.34 ckm
- Schedule completion: Jan-2024
- Anticipated Completion: Jan-2025

**2 Nos. of line bays each at Bhuj PS for termination of Khavda PS (GIS) – Bhuj PS 765 kV D/c line**

- Land acquisition : Space for bay construction issued vide mail dated 18.08.2022 by PGCIL, Bhuj
- Engineering : 100 %
- Civil Works : 100 %
- Equipment supplied : 94 %
- Erection works : 25%
- Schedule completion : Jan-2024
- Anticipated completion : Jan-2025

**Issues:**

1. Khavda S/S approach road land proposal is pending with Revenue department, Gandhinagar (Govt of Gujarat) for approval.

**Status of statutory approvals:**

**Forest**

- Details of Tr. Line Falling under Forest : Length: 33.78 KM
- Forest area affected (ha) : 226.32 Ha
- Forest proposal submitted on : 02-09-2020

**Current status:**

Forest proposal: Working Permission received on 21.04.2023.

**Power line crossing**

- Total no. of crossings : 07 no.
- Proposal submitted : 07 no
- Approval obtained : 07 no

**Railway crossing**

- Total no. of crossings : 00 no.
- Proposal submitted : 00 no.
- Approval obtained : 00 no.

**River Crossings**

- Total no. of crossings : 00 no.
- Proposal submitted : 00 no.
- Approval obtained : 00 no

**NH Crossings**

Total no. of crossings	: 01 no.
Proposal submitted	: 01 no.
Approval obtained	: 00 no

**PTCC**

Proposal submitted to BSNL in	: Submitted
Proposal submitted to Railways in	: Submitted
Current status:	: Submitted

**Defence/Civil Aviation**

Current Status	: NOC for Defence Aviation obtained
----------------	-------------------------------------

## 27. Transmission scheme for evacuation of 4.5GW RE injection at Khavda P.S. under Phase II-Part A

### Background :

Govt. of India has set a target to establish 175GW renewable capacity by 2022. To fulfil above target, MNRE/SECI has identified potential Renewable Energy Zone(REZ) comprising Solar & Wind capacity of about 66.5 GW in various renewable resource rich States in the country. Out of 28GW REZs identified in Western Region, 16GW potential has been identified in the state of Gujarat and transmission system has been taken up for implementation for about 3.5 GW REZ (Bhuj-II: 2GW & Jam Khambhaliya 1.5GW) and implementation of Transmission system for Lakadia (2GW) has been deferred due to land issues. For the balance 10.5 GW, Govt. of Gujarat has proposed for allocation of land for new RE projects in Khavda area, instead of the already planned pooling stations under ISTS at Lakadia, Jamnagar, Rapar & Radhanesda.

Transmission schemes for Khavda REZ (8GW) were deliberated and finalised in the 1st WRPC(TP) held on 11.01.2020 and in the 3rd NCT meeting held on 26.05.2020 & 28.05.2020. Out of 8GW, 3GW shall be pooled at Khavda under Phase-I and 4.5GW shall be pooled at Khavda under Ph-II. Balance 0.5GW in Khavda region was agreed to be evacuated through dedicated transmission lines of RE developers at existing Bhuj S/s.

The current scheme is for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase II-Part A. The subject scheme includes establishment of KPS2(GIS)-Lakadia 765 kV D/C line, 2 Nos. of 765kV line bays each at Lakadia PS & KPS2(GIS).

### Scope of transmission project:

- 1) KPS2 (GIS)-Lakadia 765 kV D/C line
- 2) 330 MVAR switchable line reactors at KPS2 end of KPS2(GIS)- Lakadia 765kV D/C line.
  - 330 MVar, 765 kV switchable for 765 kV line reactor- 2 Nos.
  - Switching equipments for 765 kV line reactor- 2 Nos.
  - 1x110 MVar spare bus reactor available at KPS 2(GIS) to be used as spare
- 3) 2 Nos. of 765kV line bays each at Lakadia PS & KPS2(GIS) for Khavda PS2(GIS) - Lakadia PS 765kV D/c line

### General Detail

Special Purpose Vehicle (SPV) (A subsidiary of Adani Transmission Limited)	: Khavda II-A Transmission Limited
Bid Process Coordinator (BPC):	REC Power Development & Consulting Ltd
Estimated Cost (Rs. Cr.)	: Rs. 1270 Cr.
Request for Qualification	: NA (Single Stage Bidding)
Request for Proposal	: 06.05.2022
Letter of Intent	: 16.02.2023
Transmission Service Agreement (TSA)	: 28.03.2023
SPV acquisition	: 28.03.2023
Transmission License by CERC	: Under process

Tariff adoption by CERC	: 06.07.2023
Contract Performance Guarantee	: Submitted
Clearance u/s 164	: Applied on 17.07.2023.
Execution plan to CEA	: Submitted on 16.06.2023.
NIT issued on	:
EPC contract awarded on	: Awarded
Scheduled Date of Completion	: Mar 2025
Anticipated completion	:

### **Status of progress of transmission project:**

#### **A) KPS2(GIS)-Lakadia 765kV D/C line**

- Length: 355 ckm
- Locations: 440 Nos.
- Foundation completed: NIL
- Tower erected: NIL
- Stringing completed: NIL
- Schedule completion: Mar-2025
- Anticipated Completion:

#### **Constraints:**

1. ROU for Transmission Route From KPS2 Pooling Station To India Bridge For transmission Line KPS2(GIS)- Lakadia 765kv D/C.

#### **B) 2 Nos. of line bays at KPS2(GIS) for Khavda PS2(GIS) -Lakadia PS 765kV D/c line**

- Land acquisition : Space to be provided by PGCIL which is pending.
- Engineering : 15% (Reactor Engg. Completed.)
- Civil Works : 0%
- Equipment supplied : 0 %
- Erection works : 0 %
- Schedule completion : Mar-2025
- Anticipated completion :

#### **Issues:**

1. Khavda II-A Transmission Ltd, vide letter dated 07.03.2023 to M/s PGCIL, had sought Engineering inputs & possession of land required for bay construction which is pre-requisite to start the primary engineering & ordering activities. In absence of response on same, follow up letters were sent vide letter dated 10.04.2023, 08.06.2023 & 14.07.2023. PGCIL vide letter dated 19.06.2023 and 15.07.2023 has provided SLD & Layout which is being evaluated. It was informed by PGCIL that land possession is yet to be obtained from GPCL (Govt of Gujarat). Notice of Force Majeure under Article 11 of the TSA served to CTUIL vide letter dated 20.07.2023.

#### **C) 2 Nos. of line bays at Lakadia (PS) for Khavda PS2(GIS) -Lakadia PS 765kV D/c line**

- Land acquisition : Under process
- Engineering : 0%
- Civil Works : 0%
- Equipment supplied : 0 %
- Erection works : 0 %
- Schedule completion : Mar-2025
- Anticipated completion :

### **Status of Statutory approvals:**

#### **Forest**

Details of Tr. Line Falling under Forest : Length: 33.179 KM  
 Forest area affected (ha) : 222.296 Ha  
 Forest proposal submitted on : 19-04-2023

#### **Wildlife**

Details of Tr. Line Falling under WLS : Length: 1.879 KM  
 WLS area affected (ha) : 12.5907 Ha  
 WLS proposal submitted on : 05-05-2023

#### **Power line crossing**

Total no. of crossings : 13 no.  
 Proposal submitted : 00 no  
 Approval obtained : 07 no

#### **River Crossings**

Total no. of crossings : 00 no.  
 Proposal submitted : 00 no.  
 Approval obtained : 00 no

#### **NH Crossings**

Total no. of crossings : 04 no.  
 Proposal submitted : 00 no.  
 Approval obtained : 00 no

#### **PTCC**

Proposal submitted to BSNL in : Under Preparation  
 Proposal submitted to Railways in : Under Preparation  
 Current status: Under Preparation

#### **Defence/Civil Aviation**

Current Status : Under Preparation

## **28. ISTS NETWORK EXPANSION SCHEME IN WESTERN REGION & SOUTHERN REGION FOR EXPORT OF SURPLUS POWER DURING HIGH RE SCENARIO IN SOUTHERN REGION.**

### **Background :**

Government of India has set a target of reaching 500 GW of installed capacity from renewable energy sources by the year 2030. In order to achieve the target, various Solar, Wind, Wind-Solar Hybrid policies have been enunciated by Central and State Governments. Southern Region is envisaged to be amongst leading potential green energy generation hubs, implementing large capacity renewable projects under these policies.

NLDC as part of operational feedbacks has highlighted that high loading beyond Kolhapur which is attributable to multiple factors viz. high generation at Kudgi TPS, low generation at plants in southern Maharashtra, high load around Kolhapur area, high renewable (Solar) generation in Southern Region etc. In addition, a number of large RE based generation projects are envisaged in the Southern Region especially in the prioritized REZs of Koppal, Gadag, Karur and Tuticorin areas. Stage-II Connectivity and LTA applications have already been received / granted from several generation projects in these areas.

Transmission system for integration and immediate evacuation of power from these REZs has already been planned and is under different phases of implementation. However, constraints are observed for export of surplus power from REZs in Southern Region to Western Region under high RE scenario in SR as well as to mitigate operational constraints being faced on Kolhapur (PG) – Kolhapur (MSETCL) – Karad (MSETCL) 400kV D/c corridor.

The scheme was agreed in the 2nd Consultation Meeting for Evolving Transmission Schemes in Western Region (CMETS-WR) held on 28.12.2021 & Southern Region (CMETS-SR) held on 29.12.2021. The scheme was also discussed in the 40th and 41st SRPC meeting held on 31.01.2021 and 02.03.2022 respectively and in 41st WRPC meeting held on 23.02.2022. In the 8th National Committee Meeting (NCT) held on 25.03.2022, the above scheme was recommended for implementation through TBCB route.

The responsibility of the TSP was to establish the following Inter-State Transmission System - ISTS Network Expansion scheme in Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region (hereinafter referred to as 'Project') on build, own, operate & transfer basis and to provide transmission service:

### **Scope of transmission project:**

1. Narendra New (GIS) – Pune (GIS) 765 D/c Line with 1x330 MVar switchable line reactor (SLR) on each ckt at both ends.
  - 765 kV line bays – 2 (GIS) (at Narendra New)
  - 765 kV line bays – 2 (GIS) (at Pune)
  - 765 kV, 330MVar SLR – 2 Nos. (7 x 110 MVar incl. 1 switchable spare unit) at Pune (GIS)
  - 765 kV, 330 MVar SLR – 2 Nos. (6 x 110 MVar) at Narendra New (GIS)
2. Upgradation of Narendra New (GIS) to rated voltage of 765 kV level along with 4 x 1500 MVA transformer and 2 x 330 MVar Bus Reactor
  - 765/400 kV, 1500 MVA – 4 Nos. (13 x 500 MVA incl. 1 spare unit)
  - 765 kV ICT bays – 4 Nos.
  - 400kV ICT bays - 2 Nos.

## General Detail

Special Purpose Vehicle (SPV)	:	WRSR Power Transmission Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	REC Power Development and Consultancy Limited
Estimated Cost (Rs. Cr.)	:	Rs. 2109.45 Cr.
Request for Proposal	:	25.07.2022
Letter of Intent	:	26.12.2022
Transmission Service Agreement (TSA)	:	17.01.2023
SPV acquisition	:	17.01.2023
Transmission License by CERC	:	17.04.2023
Tariff adoption by CERC	:	26.03.2023
Contract Performance Guarantee	:	12.01.2023
Clearance u/s 164	:	In Progress
Execution plan to CEA	:	Submitted on 17.05.23.
EPC contract awarded on	:	3 packages have been awarded under Transmission line as under: <ul style="list-style-type: none"> <li>• RS Infra Projects Pvt Ltd on 19.06.2023.</li> <li>• APS Pvt Ltd on 17.06.2023</li> <li>Tata Projects Limited 13.07.2023</li> </ul> Sub-station EPC Contracts <ul style="list-style-type: none"> <li>• ICT package awarded to M/s Hitachi Ltd on 31.12.2022.</li> <li>• Reactor package awarded to M/s GE T &amp; D India Ltd on 16.01.2023.</li> <li>• GIS package awarded to Hyosung.</li> </ul>
Scheduled Date of Completion	:	Jul'24
Anticipated completion	:	Jul'24

**Status of progress of transmission project:**

### **Upgradation of Narendra New (GIS) Substation to its rated voltage level of 765 kV**

- Land acquisition : N/A
- Engineering : 20 %
- Civil Works : -
- Equipment supplied : -
- Erection works : -
- Schedule completion : 17.07.2024
- Anticipated Completion : 17.07.2024

### **Narendra New (GIS) – Pune (GIS) 765 kV D/c line**

- Length: 635.542 ckm
- Locations: 793 Nos.
- Engineering: 65 %
- Survey: Detailed Survey Completed, Check Survey 50% Completed
- Foundation completed: -
- Tower erected: -
- Schedule completion: 17.07.2024
- Anticipated Completion: 17.07.2024

### **2 Nos. of line bays at Pune (GIS) Substation for termination of Narendra New (GIS) – Pune (GIS) 765 kV D/c line**

- Land acquisition : Space for bay construction issued vide mail dated 18.08.2022 by PGCIL, Bhuj
- Civil Works : -
- Equipment supplied : -
- Erection works : -
- Schedule completion : 17.07.2024
- Anticipated completion : 17.07.2024

### **Current status:**

Details of Tr. Line Falling under Forest : Length: 11.481 KM  
Forest area affected (ha) : 76.8036 Ha  
Forest proposal submitted on : Under Preparation

### **Current status:**

#### **Power line crossing**

Total no. of crossings : 19 no.  
Proposal submitted : 00 no  
Approval obtained : 00 no

#### **River Crossings**

Total no. of crossings (non navigable) : 06 no.  
Proposal submitted : 00 no.  
Approval obtained : 00 no

**NH Crossings**

Total no. of crossings : 12 no.  
Proposal submitted : 00 no.  
Approval obtained : 00 no

**PTCC**

:  
Proposal submitted to BSNL in :  
Proposal submitted to Railways in :  
Current status: : Proposal under preparation

**Defence/Civil Aviation**

Current Status : Proposal under preparation

## 29. Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra

### Background

#### Scope of transmission project

**1. Establishment of 2X500 MVA, 400/220kV substation near Kallam PS**

2X500 MVA, 400/220kV

400 kV ICT bay-2

220 kV ICT bay-2

400 kV line bay-4

220 kV line bay-4

**Space for future Provisions:**

400/220 kV ICTs along with bays:2 Nos.

400 kV line bays including the space for switchable line reactors-6 Nos.

220kV line bays: 4 Nos.

400kV bus reactor along with bays: 1 no.

**2. 1X125 MVar bus reactor at Kallam PS 400 kV reactor bay-1**

**3. LILO of both circuits of Parli(PG)-Pune(GIS) 400 Kv D/c line at Kallam PS**

**4. Provision of new 50 MVar switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam-Pune(GIS) 400 kV D/c line**

2X50 MVar,

400 kV Reactor bays-2

### General Details

Special Purpose Vehicle	: <b>Kallam Transmission Limited</b> (Subsidiary of Consortium of IndiGrid 1 Limited (70%) and IndiGrid 2 Limited (30%))
Bid Process Coordinator (BPC)	: REC Power Development and Consultancy Limited (RECPDCL)
Estimated Cost (Rs. Cr)	: 245
Levelised Tariff(Rs. Cr)	: 16.736
Request for Qualification	:
Request for Proposal	: 05-03-2020
Letter of Intent	: 30-11-2021
Transmission Service Agreement (TSA)	: 30-09-2021
SPV acquisition	: 28-12-2021
Transmission License by CERC	: 18-07-2022
Tariff adoption by CERC	: 01-06-2022
Contract Performance Guarantee	: 21-12-2021
Clearance u/s 164	: 08-06-2022
Execution plan submitted to CEA	: 18-04-2022
NIT issued on	:

EPC contract awarded on	: 14-01-2022
Scheduled Date of Completion	: Jun-2023
Anticipated COD	: Oct-2023

### **Status of progress of transmission project**

#### **1. Establishment of 2X500 MVA, 400/220kV substation near Kallam PS**

- Land acquisition : 100%
- Civil Works : 75%
- Equipment supplied : 98%
- Erection works : 25%
- Schedule completion : Jun-2023
- Anticipated completion : Oct-2023

#### **2. 1X125 MVA bus reactor at Kallam PS 400 kV reactor bay-1**

- Engineering : 100%
- Civil Works : 98%
- Equipment supplied : 100%
- Erection works :
- Schedule completion : Jun-2023
- Anticipated completion : Oct-2023

#### **3. LILO of both circuits of Parli(PG)-Pune(GIS) 400 Kv D/c line at Kallam PS**

- Length: 16.901 KM
- Locations: 47
- Foundation completed: 30
- Tower erected: 12
- Stringing completed: Nil
- Scheduled COD: June-2023
- Anticipated COD: Oct-2023

### **Status of statutory approvals:**

- **RoW** issues were being faced and the work has been resumed in Month of May-23, after 3 months of complete stoppage due to severe RoW . The resolution has been for partial location of Beed district, TSP is getting continuous support from both district administration.
  - **PTCC Approval-** Application submitted.
  - **Aviation Clearance-** Application submitted.
- 4. Provision of new 50 MVA switchable line reactor with 400 ohms NGR at Kallam PS end of Kallam-Pune(GIS) 400 kV D/c line**  
 2X50 MVA,  
 400 kV Reactor bays-2

### **Status:**

Both units have been received at site in the month of June-23. Erection works was scheduled in the month of July but due to monsoon it has been rescheduled in the month of August.

## 30. Evacuation of power from RE sources in Koppal Wind Energy Zone (Karnataka) (2500MW)

### Background

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. Solar Energy Corporation of India (SECI) in association with MNRE has identified Solar Energy Zones (SEZ) and Wind Energy Zones (WEZ) of 66.5 GW in seven RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) to be evacuated through ISTS. Out of total 66.5 GW REZs, 18.5 GW (Solar-10 GW & Wind 8.5GW) of potential has been identified in the states of Tamil Nadu, Andhra Pradesh and Karnataka in Southern Region.

The 2.5 GW wind potential identified in Koppal area of Karnataka has been prioritized under Phase-I (Part-II) for implementation. The Koppal transmission scheme involves establishment of Koppal Pooling Station and its interconnection with ISTS grid for evacuation of wind potential from Koppal area of Karnataka.

### Scope of transmission project

1. Koppal Pooling station – Narendra (New) 400 kV D/c (quad) line
2. 5x500MVA, 400/220 kV Koppal Pooling Station alongwith 2x125 MVar, 420kV bus reactors
3. 400kV GIS Line bay at Narendra (New) & associated works: 2 Nos.

### General Details

Special Purpose Vehicle	: Koppal-Narendra Transmission Limited (a subsidiary of ReNew Transmission Ventures Private Limited)
Bid Process Coordinator (BPC)	: PFC Consulting Limited
Estimated Cost (Rs. Cr)	: 750
Levelised Tariff (Rs. Cr)	: 61.125
Request for Qualification	: 21.10.2019
Request for Proposal	: 19.12.2019
Letter of Intent	: 13.10.2021
Transmission Service Agreement (TSA)	: 26.08.2021
SPV acquisition	: 13.12.2021
Transmission License by CERC	: 28.03.2022
Tariff adoption by CERC	: 25.02.2022
Contract Performance Guarantee	: 02.12.2021
Clearance u/s 164	: 21.07.2022
Execution plan submitted to CEA	: 08.04.2022
NIT issued on	:
EPC contract awarded on	: 10.03.2022
Scheduled Date of Completion	: Phase I – June'23 and Phase II - Dec'23

### Status of progress of transmission project

1. **Koppal Pooling station – Narendra (New) 400 kV D/c (quad) line**

Length	:	276 ckm
Locations	:	352 Nos.

Foundation completed	:	348 Nos. (100% foundation completed in Non-Forest Area)
Tower erected	:	347 Nos.
Stringing completed	:	248 ckm
Scheduled COD	:	June'23
Anticipated COD	:	Sept'23

**Constraints / approval; if any:**

1. Facing severe ROW issues at the following locations for which support of State administration is required in resolving the ROW issues: -

**Erection RoW locations: -**

District	Taluka	Village Name	No. of Location	Loc. No.
Vijayapura	Basavan Begawadi	Muttagi	1	7/0

**Stringing: RoW Stretch**

District	Taluka	Village Name	Stretch Affected (Km)	Stretch
Vijayapura	Nidgundi	Muttagi	5.312	AP6C-AP9
		Unnibhavi	3.690	AP 10-AP11
	Nidgundi	Vadavadigi	3.297	AP16/5-AP17
<b>Total Stringing stretch affected</b>			<b>12.299</b>	

2. Forest proposal submitted on 22.02.2022. Proposal has been approved by State Government on 21.06.2023. On 21.06.2023, proposal was forwarded to IRO, Bengaluru. IRO has raised some observation (EDS) on the forest clearance proposal on 27.06.2023 for compliance by DFO, Koppal. Reply to IRO observation has been submitted on 18.07.2023 to IRO through State Government. Further, Proposal was also discussed in Regional Empowered Committee (REC) held on 31.07.2023. MOM of REC meeting & State-I approval yet to be issued.
3. Issuance of FRA certificate by office of DC, Koppal also pending against request submitted along with forest proposal on 23.05.2022.
4. Orders for RoW Compensation Tadkal Village under Kuknoor Tauka (Koppal District) is awaited. Meeting with land owners for Tadkal village held on 05.09.2022 and order yet to be issued. Due to non-issuance of RoW compensation order, works have been completed with delay.

**Status of statutory approvals:**

**Forest area**

Details of Tr. Line Falling under Forest:-

Locations	:	4 Nos. ; Length :1.644 Kms
Forest area (Ha)	:	7.562 Ha
Online proposal submitted on	:	Submitted on 22.02.2022
Current status	:	Acceptance by Nodal – 17.05.2022

Hard Copies submitted to DFO/DC -23.05.2022  
 Receipts uploaded in Parivesh – 24.05.2022  
 DFO Recommendation- 12.12.2022  
 CCF Recommendation – 07.02.2023.  
 PCCF(HoFF) Recommendation – 03.03.2023.  
 State Govt Approval- 21.06.2023.  
 REC Meeting : held on 31.07.2023..

### **Wildlife area**

Details of Tr. Line Falling under Wildlife:- Nil

Locations	:
Wildlife area (Ha)	:
Wildlife proposals submitted on	:
Current status	:

### **Power line crossing**

Total no. of crossings	:	12 Nos.
Proposal submitted	:	12 Nos.
Approval obtained	:	12 Nos.

### **Railway crossing**

Total no. of crossings	:	1Nos.
Proposal submitted	:	1Nos.
Approval obtained	:	1 Nos.

### **National Highway / SH Crossing**

Total no. of crossings	:	13 Nos.
Proposal submitted	:	13 Nos.
Approval obtained	:	13 Nos.

### **River Crossings**

Total no. of crossings	:	1 no.
Proposal submitted	:	NA (Non navigable)
Approval obtained	:	NA

### **PTCC approval**

PTCC approval	:	Submitted on 28.04.2022
Current status	:	Received on 21.06.2023

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	:	Submitted
--	---	-----------

Current Status	:	Civil Aviation Approval received 30.08.2022 and and Defence Aviation received on 08.08.2022
----------------	---	---

### **Status of progress of Substation/ Extension: -**

**2. (a) 3x500MVA, 400/220 kV Koppal Pooling Station alongwith 2x125 MVar, 420kV bus reactors (Scheduled COD: June'2023)**

Scheduled COD	:	June'23
Actual COD	:	June'23 (Work Completed, CEIG approval received on 13.06.2023)

**(b) 2x500MVA, 400/220 kV ICT at Koppal Pooling Station (Scheduled COD: Dec'2023)**

Land Acquired	:	100%
Civil work completed	:	73%
Equipment supplied	:	52%
Equipment erection	:	29%
Scheduled COD	:	Dec'23
Anticipated COD	:	Dec'23

**3. 400kV GIS Line bay at Narendra (New) & associated works: 2 Nos.**

Scheduled COD	:	June'23 with existing bus)
Actual COD	:	June'23 (Charged on 09.06.23)

## **31. Transmission Scheme for Solar Energy Zone in Gadag (1000 MW), Karnataka – Part-A, Phase-I**

### **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. Solar Energy Corporation of India (SECI) in association with MNRE has identified Solar Energy Zones (SEZ) and Wind Energy Zones (WEZ) of 66.5 GW in seven RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) to be evacuated through ISTS. Out of total 66.5 GW REZs, 18.5 GW (Solar-10 GW & Wind 8.5GW) of potential has been identified in the states of Tamil Nadu, Andhra Pradesh and Karnataka in Southern Region.

The 2.5 GW Solar potential identified in Gadag area of Karnataka and the transmission schemes “Transmission scheme for Solar Energy Zone in Gadag (2500MW), Karnataka – Part A” agreed in NCT meeting for implementation into two phases (Phase-1: 1000 MW, Phase-2: 1500 MW). The Gadag transmission scheme (Part-A, Phase-I, 1000 MW) involves establishment of Gadag Pooling Station and its interconnection with ISTS grid for evacuation of potential Renewable Energy from Gadag area of Karnataka.

### **Scope of transmission project**

1. Gadag Pooling station – Narendra (New) 400 kV D/c line
2. 2x500MVA, 400/220 kV Gadag Pooling Station alongwith 1x125 MVA, 400kV bus reactors
3. 400kV GIS Line bays at Narendra (New) Substation- 2 Nos.

### **General Details**

Special Purpose Vehicle	: Gadag Transmission Limited (a subsidiary of ReNew Transmission Ventures Private Limited)
Bid Process Coordinator (BPC)	: REC Power Development and Consultancy Limited
Estimated Cost (Rs. Cr)	: 350
Levelised Tariff (Rs. Cr)	: 29.70
Request for Proposal	: 09.09.2021
Letter of Intent	: 27.01.2022
Transmission Service Agreement (TSA)	: 10.12.2021
SPV acquisition	: 17.03.2022
Transmission License by CERC	: 18.07.2022
Tariff adoption by CERC	: 08.06.2022
Contract Performance Guarantee	: 17.03.2022
Clearance u/s 164	: 06.10.2022
Execution plan submitted to CEA	: 11.07.2022
NIT issued on	:
EPC contract awarded on	:
Scheduled Date of Completion	: Sept’23
Anticipated Completion	: Dec’23

### **Status of progress of transmission project**

## 1. Gadag Pooling station – Narendra (New) 400 kV D/c line

Length	:	93.2 km
Locations	:	232 Nos.
Foundation completed	:	202 Nos.
Tower erected	:	131 Nos.
Stringing completed	:	12.3 km
Scheduled COD	:	Sept'23
Anticipated COD	:	Dec'23

### Constraints / approval; if any:

1. TSP has requested the office of District Collectors of Bagalkot, Vijayapura, Gadag & Koppal for fixation of compensation towards Right of Way (RoW) to land owners. The status of issuance of DCs order are as under:

District	Tehsil	Status
Bagalkote	Bagalkote, Hungund & Guledagudda	Order issued by office of District Collector, Bagalkote on 04.11.2022 (dated 27.10.2022).
Vijayapura	Basavan Bagewadi, Nidagundi & Kohlara	Order issued by office of District Collector, Vijayapura on 06.03.2023
Koppal	Kushtagi	Order issued by office of District Collector, Koppal on 07.06.2023 (dated 25.05.2023).
Gadag	Gajendragad	Order issued by office of District Collector, Gadag on 04.03.2023

Delay in fixation of RoW compensation rates by District Collectors has severely affecting the construction progress.

2. TSP is facing severe ROW issues at the following locations for which support of State administration is required in resolving the ROW issues: -

District	Taluka	Village Name	No of Locations	Location No
Bagalkote	Bagalkote	Bodnayakdini	2	29/3,27/0
Koppal	Kushtagi	Kodatgeri	1	47/7
Vijayapura	Kolara	Kudgi	1	1/0
	Basavan Begawadi	Mutagi	1	7/2
	Nidgundi	Golsangi	7	9/0,10/0,12/1,13/0,14/0,14/1,14/2
		Budani	2	14/4,14/5
		Benal	14	16/3,16/10,18/1,18/3,19/0,20/0,20A/0,20B/0,21/0,21B/0,22/0,22/1,22A/0,23/0
		Yalgur	1	23/1
		<b>Total</b>	<b>29</b>	

3. Forest proposal vide no. FP/KA/TRANS/400988/2022 was submitted online on Parivesh Portal on 30<sup>th</sup> Aug 2022. However, same has been returned by MOEFCC on 12<sup>th</sup> Sept 2022 for re-submission as per new forms on Parivesh portal. Proposal was re-submitted on 22<sup>nd</sup> September 2022. Queries on the proposal have been received on 07.01.2023 (after 107 days of submission) from DFO, Bagalkot. As per Karnataka Govt revenue records, there is no forest land involved under survey no. 75,76 & 77 of Nellur Village, Gajendragad Taluka under Gadag District, however, Deputy Conservator of Forest, Bagalkot on 07.01.2023 vide letter no. KDF-BGKD0B2(FC)/7/2022-DCF-BGLT has informed that the land under above survey No. 75,76 & 77 falls under forest and TSP need to take the forest clearance for same. Accordingly, reply to the queries including forest in Gadag (private land as per revenue record) district was submitted on 02.02.2023.

DFO, Bagalkote and DFO, Gadag have recommended the proposal on 03.03.2023 & 16.05.2023. Further, reply against PCCF observation also submitted by DFO, Bagalkote & DFO Gadag on 12.07.23 & 07.07.23 respectively. Currently, proposal is pending with PCCF Office, Bengaluru since 13.07.23 for further processing and to forward to State Government for their recommendation.

#### **Status of statutory approvals:**

##### **Forest area**

Locations	:	1 Nos. ; Length 0.933 Kms
Forest area (Ha)	:	4.2920 Ha
Online proposal	:	Submitted on 30.08.2022. Re-submitted on Parivesh 2.0 portal on 22.09.2022.
Current status	:	Proposal is pending with PCCF Office, Bengaluru since 13.07.23 for further processing and to forward to State Government for their recommendation.

##### **Power line crossing**

Total no. of crossings	:	18 Nos.
Proposal submitted	:	18 Nos.
Approval obtained	:	17 Nos.

##### **National Highway / SH Crossing**

Total no. of crossings	:	12 Nos.
Proposal submitted	:	12 Nos.
Approval obtained	:	10 Nos.

##### **River Crossings**

Total no. of crossings	:	1 no.
Proposal submitted	:	NA (Non navigable)
Approval obtained	:	NA

**PTCC approval** : Applied on 06.02.2023  
Current status :

**Defence/Civil Aviation** :  
Current Status : Civil Aviation NOC received : 31.05.23

**2. 2x500MVA, 400/220 kV Gadag Pooling Station alongwith 1x125 MVar, 400kV bus reactors (Scheduled COD: Sept'2023)**

Land Acquired : 100 % land acquired  
Civil work completed : 78%  
Equipment supplied : 98%  
Equipment erection : 43%  
Scheduled COD : Sept'23  
Anticipated COD : Sept'23

**3. 400kV GIS Line bay at Narendra (New) : 2 Nos.**

Land Acquired : 100%. Provided by PGCIL.  
Civil work completed : 100 %  
Equipment supplied : 95 %  
Equipment erection : 71%  
Scheduled COD : Sept'23  
Anticipated COD : Sept'23

## **32. Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II**

### **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. Solar Energy Corporation of India (SECI) in association with MNRE has identified Solar Energy Zones (SEZ) and Wind Energy Zones (WEZ) of 66.5 GW in seven RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) to be evacuated through ISTS. Out of total 66.5 GW REZs, 18.5 GW (Solar-10 GW & Wind 8.5GW) of potential has been identified in the states of Tamil Nadu, Andhra Pradesh and Karnataka in Southern Region.

The 2.5 GW Solar potential identified in Gadag area of Karnataka and the transmission schemes “Transmission scheme for Solar Energy Zone in Gadag (2500MW), Karnataka – Part A” agreed in NCT meeting for implementation into two phases (Phase-1: 1000 MW, Phase-2: 1500 MW). The Gadag II-A transmission scheme (Part-A, Phase-II, 1500 MW) involves Augmentation of Gadag Pooling Station and its interconnection with ISTS grid for evacuation of potential Renewable Energy from Gadag area of Karnataka.

### **Scope of transmission project**

1. 400/220 kV, 3x500MVA ICT Augmentation at Gadag Pooling Station
2. Gadag Pooling station – Koppal PS 400 kV D/C line
3. 400 kV Line bays at both end - 4 Nos.

### **General Details**

Special Purpose Vehicle	: Gadag II- A Transmission Limited (a subsidiary of ReNew Transmission Ventures Private Limited)
Bid Process Coordinator (BPC)	: REC Power Development and Consultancy Limited
Estimated Cost (Rs. Cr)	: 307
Levelised Tariff (Rs. Cr)	: 24.543
Request for Proposal	: 10.02.2022
Letter of Intent	: 19.09.2022
Transmission Service Agreement (TSA)	: 18.11.2022
SPV acquisition	: 18.11.2022
Transmission License by CERC	: 26.02.2023
Tariff adoption by CERC	: 09.02.2023
Contract Performance Guarantee	: 07.11.2022
Clearance u/s 164	: 26.07.2023
Execution plan submitted to CEA	: 17.03.2023
NIT issued on	:
EPC contract awarded on	: 30.12.2022
Scheduled Date of Completion	: May'24
Anticipated Completion	: May'24

### **Status of progress of transmission project**

1. Gadag Pooling station – Koppal Pooling Station 400 kV D/c line

Length	:	100 ckm
Locations	:	127 Nos.
Foundation completed	:	30 Nos.
Tower erected	:	-
Stringing completed	:	-
Scheduled COD	:	May'24
Anticipated COD	:	May'24

**Constraints / approval; if any:**

TSP has requested the office of District Collectors of Koppal & Gadag for fixation of compensation towards Right of Way (RoW) to land owners. The status of issuance of DCs order are as under:

District	Tehsil	Status
Koppal	Yelburga	Request letter submitted on 12.04.2023. Meeting with land owners for Yelburga tehsil has been held on 25.07.2023
Koppal	Kukanuru	Meeting with land owners yet to be scheduled.
Gadag	Gajendragad	Request letter submitted on 30.05.2023. Meeting with land owners yet to be scheduled.

**Status of statutory approvals:**

**Power line crossing**

Total no. of crossings	:	5 Nos.
Proposal submitted	:	4 Nos.
Approval obtained	:	1 Nos.

**National Highway / SH Crossing**

Total no. of crossings	:	4 Nos.
Proposal submitted	:	4 Nos.
Approval obtained	:	2 Nos. (SH)

<b>PTCC approval</b>	:	Submitted on 21.07.2023
<b>Current status</b>	:	

<b>Defence/Civil Aviation</b>	:	Under Preparation
<b>Current Status</b>	:	

**2. 400/220 kV, 3x500MVA ICT Augmentation at Gadag Pooling Station (Schedule COD: May'24)**

Land Acquired	:	100 % (provided by GTL)
Civil work completed	:	58%
Equipment supplied	:	18%
Equipment erection	:	-
Scheduled COD	:	May'24
Anticipated COD	:	May'24

**3. 400kV Line bays at Koppal PS: 2 Nos.**

Land Acquired	:	100 % (provided by KNTL)
Civil work completed	:	71%
Equipment supplied	:	10%
Equipment erection	:	-
Scheduled COD	:	May'24
Anticipated COD	:	May'24

### 33. Transmission System for evacuation of power from RE projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh

#### Background

Government of India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW from Solar and 60 GW from Wind. Solar Energy Corporation of India (SECI) in association with MNRE has identified Solar Energy Zones (SEZ) and Wind Energy Zones (WEZ) of 66.5 GW in seven RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra, and Madhya Pradesh) to be evacuated through ISTS.

The Ministry of Power, Government of India, vide its notification Nos. 15/3/2018-Trans-Pt(1) dated 27/01/2020 & 15/3/2018-Trans-Pt(1) dated 19/07/2021 has appointed REC Power Development and Consultancy Limited (erstwhile REC Transmission Projects Company Limited) to be the Bid Process Coordinator (BPC) for the purpose of selection of Bidder as Transmission Service Provider (TSP) to establish transmission system for “Transmission System For Evacuation of Power From RE Projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh” through tariff based competitive bidding process.

The 2.5 GW solar potential has been identified in Rajgarh area of Madhya Pradesh. The Transmission system for evacuation of Power from RE projects in Rajgarh SEZ in Madhya Pradesh involves the following scheme.

#### Scope of the Transmission Project

Sl. No.	Scope of the Transmission Scheme
1.	<p>Establishment of 400/220 kV, 3x500 MVA at Pachora SEZ PP with 420 kV (125 MVAR) bus reactor</p> <ul style="list-style-type: none"> <li>• 400/220 kV, 500 MVA ICT – 3 Nos.</li> <li>• 400 kV ICT bays – 3 Nos.</li> <li>• 220 kV ICT bays – 3 Nos.</li> <li>• 400 kV line bays – 2 Nos.</li> <li>• 220 kV line bays – 6 Nos.</li> </ul> <p>(4 Nos. for Agar &amp; Shajapur solar park interconnection &amp; 2 Nos. for other RE projects)</p> <ul style="list-style-type: none"> <li>• 125 MVAR, 420 kV reactor-1 no.</li> <li>• 420 kV reactor bay – 1 no.</li> <li>• 220kV Bus coupler bay- 1 no.</li> <li>• 220kV Transfer Bus Coupler (TBC) bay - 1 no.</li> </ul> <p>Space for future Provisions:</p> <ul style="list-style-type: none"> <li>• 400/220kV ICTs along with bays: 6 Nos.</li> <li>• 400kV line bays: 8 Nos.</li> <li>• 220kV line bays: 9 Nos.</li> <li>• 420kV bus reactor along with bays: 1 no</li> <li>• 220kV Bus sectionalizer bay: 2 Nos.</li> </ul> <p>(One no. bay for each Main Bus)</p>
2	<p>Pachora SEZ PP -Bhopal (Sterlite) 400 kV D/c line (Quad/HTLS) (with minimum capacity of 2100 MVA/ckt at nominal voltage) along with 80MVAR switchable line reactors with 400 ohms NGR on each circuit at Pachora end,</p>

	Switchable line Reactors (at Pachora end) –420 kV, 2x80MVA Line reactor bays (at Pachora) – 2 Nos.
3	2 no. of 400 kV line bays at Bhopal (Sterlite) for Pachora SEZ PP-Bhopal (Sterlite) 400 kV D/c line (Quad/HTLS) (with minimum capacity of 2100 MVA/ckt at nominal voltage)

### General Details

<b>Special Purpose Vehicle</b>	: Rajgarh Transmission Limited (A subsidiary of G R Infraprojects Limited)
<b>Bid Process Coordinator (BPC)</b>	: REC Power Development and Consultancy Limited
<b>Estimated Cost (Rs. Cr)</b>	: 486.00 Cr
<b>Levelised Tariff (Rs. Cr)</b>	: 40.819 Cr
<b>Request for Qualification</b>	: NA
<b>Request for Proposal</b>	: 09.09.2021
<b>Letter of Intent</b>	: 31.03.2022
<b>Transmission Service Agreement</b>	: 02.12.2021
<b>SPV acquisition</b>	: 30.05.2022
<b>Transmission License by CERC</b>	: 13.09.2022
<b>Tariff adoption by CERC</b>	: 08/08/2022
<b>Contract Performance Guarantee</b>	: 21.05.2022
<b>Clearance u/s 164</b>	: 28/12/2022
<b>Execution plan submitted to CEA</b>	: 21.09.2022
<b>NIT issued on</b>	: NA
<b>EPC contract awarded on</b>	: KEC International Limited, dated 09/06/2022
<b>Scheduled Date of Completion</b>	: 29-11-2023

### Status of progress of Transmission project

1. Pachora SEZ PP -Bhopal (Sterlite) 400 kV D/c line (Quad/HTLS) (with minimum capacity of 2100 MVA/ckt at nominal voltage) along with 80MVA switchable line reactors with 400 ohms NGR on each circuit at Pachora end, Switchable line Reactors (at Pachora end) – 420 kV, 2x80MVA Line reactor bays (at Pachora) – 2 Nos.

Length	: 287.908 Ckm (Tentative)
Locations	: 357 Nos. (Tentative)
Foundation completed	: 307 Nos.
Tower erected	: 223 Nos.
Stringing completed	: 62 Ckm
Scheduled COD	: 29-11-2023
Anticipated COD	: 29-11-2023

### Status of statutory approvals:

- a. Forest area : Nil
- b. Wildlife area : Nil
- c. Power line crossing

Total no. of crossings	: 14 Nos.
Proposal submitted	: 14 Nos.

Approval obtained : 13 Nos.

**d. Railway crossing**

Total no. of crossings : 02 Nos.

Proposal submitted : 02 Nos.

Approval obtained : 00 Nos.

**e. National Highway**

Total no. of crossings : 03 Nos.

Proposal submitted : 03 Nos.

Approval obtained : 00 Nos.

**f. River Crossings**

Total no. of crossings : 03 Nos.

Proposal submitted : NA (Non navigable)

Approval obtained : NA

**g. PTCC approval**

Current status : Submitted to CEA, Defense, BSNL, Railway

**h. Defence/Civil Aviation**

Current Status : Defence & Civil Aviation Proposal Submitted  
Civil Aviation: NOC obtained 300/357 Nos. Location

**Constraints / approvals; if any:**

1. Obstruction on ROW by landowners at location 6A/0, 6A/3.

**Details of follow-up actions:**

**Status of progress of Substation/ Extension: -**

1. Establishment of 400/220 kV, 3x500 MVA at Pachora SEZ PP with 420 kV (125 MVAR) bus reactor

Land Acquired	:	100 %
Civil work completed	:	72%
Equipment supplied	:	60%
Equipment erection	:	30%
Scheduled COD	:	29-11-2023
Anticipated COD	:	29-11-2023

2. 400 kV line bays at Bhopal (Sterlite) for Pachora SEZ PP-Bhopal (Sterlite) 400 kV D/c line (Quad/HTLS) (with minimum capacity of 2100 MVA/ckt at nominal voltage) - 02 Nos

Land Acquired	:	100 % (provided by Sterlite)
Civil work completed	:	75%

Equipment supplied	:	75%
Equipment erection	:	20 %
Scheduled COD	:	29-11-2023
Anticipated COD	:	29-11-2023

### **34. 400 kV D/c Khandukhal (Srinagar) – Rampura (Kashipur) line (Twin HTLS\*) (KRTL)**

#### **Background**

#### **Scope of transmission project**

1. 400 kV D/c Khandukhal(Srinagar) – Rampura (Kashipur) line (Twin HTLS\*) – 194 Km
2. 1x80MVAR switchable line reactor at Rampura (Kashipur) end on each circuit of Khandukhal (Srinagar) - Rampura (Kashipur) line
  - a) Switching equipment for 420 kV 80 MVAR switchable line reactor –2 Nos.
  - b) 420 kV, 80 MVAR Switchable line reactor- 2 Nos.
3. 1 no. of 400 kV line bay at Rampura (Kashipur) S/s
  - a) 400 kV line bay -1 no.
4. Upgradation of existing 400kV bays at Khandukhal (Srinagar)
  - a) Upgradation works for 400 kV line bays -2 Nos.

#### **General Details**

Special Purpose Vehicle	: Khandukhal Rampura Transmission Limited (KRTL) (Subsidiary of Megha Engineering & Infrastructures Limited (100%))
Bid Process Coordinator (BPC)	: PFC CONSULTING LIMITED (PFCCL)
Estimated Cost (Rs. Cr)	: ----
Levelised Tariff(Rs. Cr)	: 58.720
Request for Qualification	: ----
Request for Proposal	: 11-03-2022
Letter of Intent	: 07-09-2022
Transmission Service Agreement (TSA)	: 07-10-2022
SPV acquisition	: 07-10-2022
Transmission License by CERC	: 27.01.2023
Tariff adoption by CERC	: 12.01.2023
Contract Performance Guarantee	: 07-10-2022
Clearance u/s 164	: NEWS paper Publication done on 31.10.2022 & Application submitted and under process.
Execution plan submitted to CEA	: Will be submitted on or before 05.04.2023 as per TSA
NIT issued on	: 30.12.2022
EPC contract awarded on	: Will be submitted on or before 05.04.2023 as per TSA
Scheduled Date of Completion	: 30.09.2024

## Status of progress of transmission project

### 1. **400 kV D/c Khandukhal(Srinagar) – Rampura (Kashipur) line (Twin HTLS\*) – 194 KM**

Length	:	388 Ckm (Tentative)
Locations	:	487 Nos.
Foundation completed	:	197 Nos.
Tower erected	:	174 Nos.
Stringing completed	:	0 Ckm
Scheduled COD	:	Sept'24
Anticipated COD	:	Sept'24

#### a. **Power line crossing**

Total no. of crossings	:	12 Nos.
Proposal submitted	:	12 Nos.
Approval obtained	:	9 Nos.

#### b. **National Highway**

Total no. of crossings	:	04 Nos.
Proposal submitted	:	04 Nos.
Approval obtained	:	02 Nos.

### 2. **1x80MVar switchable line reactor at Rampura (Kashipur) end on each circuit of Khandukhal (Srinagar) - Rampura (Kashipur) line**

- a) **Switching equipment for 420 kV 80 MVAR switchable line reactor –2 Nos.**
- b) **420 kV, 80 MVar Switchable line reactor- 2 Nos.**

KRTL has requested PTCUL Vide ref: MEIL/PD-Proj/KRTL/1322/2022-23/ 892B Date: 28.10.2022 for handing over of site to initiate the preliminary works i.e. SLD preparations etc.,

CTUIL has communicated PTCUL Vide ref: CTUIL/CMG/2022-23/Khandukal/02, Dt: 17.11.2022 for handing over of site for implementation/upgradation of bay extensions to be carried out.

CTUIL has sought intervention of CEA upon receipt of communication from PTCUL dated 01/02/23 (Addressed to CTUIL and communication of the same received through KRTL)

Meeting communication received from CEA PSPA I division on 20th February'2023 for convening meeting on 24.02.203. Minutes received on 06-03-2023. PTCUL response as per MOM is awaited.

CTUIL has issued letter to Hon'ble. MD, PTCUL to resolve the issue of lese agreement of 400 kV Bay Extensions land vide ref. no. CTUIL/CMG/2023-24/PTCUL Dt: 29.05.2023.

As per the VC meeting held on 08.06.2023, Meeting between TSP and PTCUL held on 17.06.2023 regarding estimation of Bay Extensions area. And decision is yet to be communicated by PTCUL.

**Status of statutory approvals:**

**Forest Land Confirmation** - Forest proposal submitted on 18.04.2023

- DFO approval of Kotdwar range received and DFO approval of Pouri range Under Progress.
- CA land of 434 Hectors of degraded forest land identified. The documents scrutiny and verification is under progress. Online filing expected on or before 31.08.2023 on Parivash Portal

### **35. System strengthening in NR for import of power from North Karanpura and other projects outside NR and system strengthening in WR for import of power from North Karanpura and other projects outside Western Region and also for projects within Western Region (UNDER LITIGATION)**

#### **Background**

Transmission system for power evacuation from North Karanpurahas been evolved in a comprehensive manner along-with evacuation system for Maithon RB and other generation projects of DVC viz. Koderma, BokaroExtn, Mejia Extn, Durgapur and Raghunathpur and Maithon RB. The comprehensive system consists of common and generation specific transmission schemes. Corresponding to injection of power from North Karanpura and the other generation projects in ER, both NR and WR would require system strengthening. Out of the comprehensive plan of system strengthening, the elements identified for commissioning matching with North Karanpura have been covered under this scheme.

#### **Scope of transmission project**

1. Lucknow – Bareilly 765 kV D/C line
2. Bareilly – Meerut 765 kV D/C line
3. Agra – Gurgaon(ITP) 400 kV D/C line
4. Gurgaon(ITP) – Gurgaon (PG) 400 kV D/C line
5. Gurgaon (ITP) 400/220 kV GIS Substation
6. Sipat/Korba pooling station – Seoni 400 kV D/C line

#### **General Details**

Special Purpose Vehicle (SPV)	: North Karanpura Transmission Company Ltd. (A subsidiary of RPTL)
Bid Process Coordinator (BPC)	: Rural Electrification Corporation
Estimated Cost (Rs. Cr)	: 2700
Levelised Tariff(Rs. Cr)	: 258
Request for Qualification	: 06.10.2008
Request for Proposal	: 08.05.2009
Letter of Intent	: 18.12.2009
Transmission Service Agreement (TSA)	: 10.09.2009
SPV acquisition	: 20.05.2010
Transmission License by CERC	: 22.12.2010
Tariff adoption by CERC	: Matter was in CERC for revision of tariff
Contract Performance Guarantee	: 17.05.2010
Clearance u/s 164	: 12.08.2013
Execution plan submitted to CEA	: 13.10.2010 and 28.10.2010
NIT issued on	:
EPC awarded on	: 27.10.2010
Scheduled Date of Completion	: 20.11.2013
Anticipated Date of Completion	: Matter with CERC

#### **Status of progress of transmission project:**

The Company had approached Central Electricity Regulatory Commission (CERC) for allowing tariff revision and Force Majeure due to delay in grant of clearance u/s 164 of Electricity Act (EA).

CERC notified an unfavorable order dated 09.05.2013, which was later challenged by NKTCL in Appellate Tribunal for Electricity (ATE). ATE allowed the appeal filed by company and set aside the unfavorable CERC order.

Pursuant to the ATE Order dated 02.12.2013, written requests were sent to the beneficiaries seeking following main reliefs to mitigate effect of Force Majeure in line with the prayers allowed in appeal:

- a) Re-fixation of implementation time of the Project as was originally envisaged considering zero date as issuance of section 68 approval from MoP.
- b) Tariff Increase to the tune of 160%.

Concerned utilities in Tamilnadu, Gujarat and Maharashtra have appealed against the order of ATE in the Supreme Court of India. First hearing was held on March 07, 2014 in case of Gujarat and April 21, 2014 in case of Maharashtra. The Tamilnadu petition has been merged with Gujarat. The matter is going in the Registrar court and notices are being served on all the beneficiaries. Once the servicing is complete the matter will be argued in Supreme Court. All the petitions filed by beneficiaries have been clubbed together by SC. The petition has been admitted and next hearing is awaited.

Further, on March 04, 2014, CERC reopened Power Grid Corporation of India Limited's (PGCIL) petition Nos. 19 and 20 seeking revocation of license of the company and transferring the project to them on cost plus model and at the risk and cost of Reliance Power Transmission Limited (the Holding Company). CERC notified an order dated 02 Sep 2015, against the said petition for revocation of transmission license. NKTCL filed Appeal No. 200 of 2015 & IA-337 of 2015 in ATE challenging the above mentioned CERC order. ATE rejected the IA meant for stay but allowed the appeal. NKTCL filed a Civil Appeal number 9291 of 2015, in SC against ATE's order. Supreme Court has given a stay order directing no coercive action to be taken by CERC.

SC on 12<sup>th</sup> August has disposed of the appeal and directed ATE to decide on the appeal. An Interim Application (IA Nos. 479 & 480 of 2018) was filed in ATE. APTEL in its hearing dated 01<sup>st</sup> Feb 19 disposed off the case directing to go back to CERC for a fresh treatment - including (but not limited to) the aspect of the very necessity of NK and TT transmission system. A petition has been filed with a stay application in CERC for redressal of grievances. CERC has directed PGCIL to file an affidavit on the necessity of the project. PGCIL has filed an affidavit on 17.08.2020 wherein it has been stated that the transmission scheme under the scope of TSP is presently not required on technical grounds only as either investment in alternate corridors development has already been made or alternate scheme has already been planned for implementation. The case is ongoing in CERC and further hearing date is awaited.

## **36. Augmentation of Talcher-II Transmission System (UNDER LITIGATION)**

### **Background**

Talcher-II (4x500 MW) generation project of NTPC is located in Orissa. All the units of the generation project are already in operation. Earlier total power from this project was allocated to the states of Southern Region. Subsequently in April 2007 power allocation of Talcher-II has been revised.

For power evacuation from this project to the Southern Region a +/- 500kV 200MW HVDC bi-polar line from Talcher in Eastern Region to Kolar in Southern Region and 400 kV lines beyond Kolar is in operation however, under contingency of outage of one pole of HVDC line, there is constraint in evacuation of power from Talcher-II to Southern Region. An outage of one pole also causes jerk in Eastern-Western-Northern Region, which are operating in synchronism and result in overloading on some of the transmission lines in Eastern and Western Regions. The Talcher- Behrampur- Gazuwaka 400 kV D/C line with series compensation and switching station at Behrampur and the Talcher - Rourkela 400 kV D/C Quad line have been evolved to augment the Talcher-II Transmission System so as to provide a backup system to meet the contingency outage of one pole and increase the reliability of the system. With this system, it would be possible to schedule the power flow on Talcher - Kolar HVDC and Gazuwaka HVDC back to back in such a manner that the reliable evacuation of power from Talcher-II would be ensured.

### **Scope of transmission project**

1. Talcher II- Rourkela 400 kV D/C Quad line
2. Talcher II – Behrampur 400 kV D/C line
3. Behrampur- Gazuwaka 400 kV D/C line
4. 2x315 MVA, 400/220 kV Behrampur substation

### **General Details**

Special Purpose Vehicle (SPV)	:	Talcher-II Transmission Company Ltd. (A subsidiary of RPTL)
Bid Process Coordinator	:	Rural Electrification Corporation
Estimated Cost (Rs. cr)	:	1400
Levelised Tariff(Rs. Cr)	:	144
Request for Qualification	:	06.10.2008
Request for Proposal	:	08.05.2009
Letter of Intent	:	18.12.2009
Transmission Service Agreement (TSA)	:	10.09.2009
SPV acquisition	:	27.04.2010
Transmission License by CERC	:	08.11.2010
Tariff adoption by CERC	:	Matter in CERC for revision of tariff
Contract Performance Guarantee	:	22.04.2010
Clearance u/s 164	:	12.08.2013
Execution plan submitted to CEA	:	13.10.2010 and 28.10.2010
Scheduled Date of Completion	:	27.10.2012
Anticipated Date of Completion	:	Matter with CERC

### **Status of progress of transmission project**

1. Talcher II – Rourkela 400 kV D/C (Q) line
2. Talcher II – Behrampur 400 kV D/C line
3. Behrampur – Gazuwaka 400 kV D/C line

#### **4. 2x315 MVA, 400/220 kV Behrampur substation**

The Company had approached Central Electricity Regulatory Commission (CERC) for allowing tariff revision and Force Majeure due to delay in grant of clearance u/s 164 of Electricity Act (EA). CERC notified an unfavorable order dated 09.05.2013, which was later challenged by TTCL in Appellate Tribunal for Electricity (ATE). ATE allowed the appeal filed by company and set aside the unfavorable CERC order.

Pursuant to the ATE order dated 02.12.2013, written requests were sent to the beneficiaries seeking following main reliefs to mitigate effect of Force Majeure in line with the prayers allowed in appeal:

- a) Re-fixation of implementation time of the Projects as was originally envisaged considering zero date as issuance of section 68 approval from MoP.
- b) Tariff Increase to the tune of 90%.

Concerned utilities in Tamil Nadu have appealed against the order of ATE in the Supreme Court of India (SC). First hearing was held on August 1, 2014. The matter is still pending before Supreme Court. All the petitions filed by beneficiaries have been clubbed together by SC. The petition has been admitted and next hearing is awaited.

Further, on March 04, 2014, CERC has reopened Power Grid Corporation of India Limited's (PGCIL) petition Nos. 19 and 20 seeking revocation of license of the company and transferring the project to them on cost plus model and at the risk and cost of Reliance Power Transmission Limited (the Holding Company).

CERC notified an order dated 02 Sep 2015, against the said petition for revocation of transmission license. TTCL filed Appeal No. 201 of 2015 & IA-338 of 2015 in ATE challenging the above mentioned CERC order. ATE rejected the IA meant for stay but allowed the appeal. TTCL filed a Civil Appeal number 13370 of 2015, in SC against ATE's order. Supreme Court has given a stay order directing no coercive action to be taken by CERC.

SC on 12<sup>th</sup> August has disposed of the appeal and directed ATE to decide on the appeal. An Interim Application (IA Nos. 479 & 480 of 2018) was filed in ATE. APTEL in its hearing dated 01<sup>st</sup> Feb 19 disposed off the case directing to go back to CERC for a fresh treatment - including (but not limited to) the aspect of the very necessity of NK and TT transmission system. A petition has been filed with a stay application in CERC for redressal of grievances. CERC has directed PGCIL to file an affidavit on the necessity of the project. PGCIL has filed an affidavit on 17.08.2020 wherein it has been stated that the transmission scheme under the scope of TSP is presently not required on technical grounds only as either investment in alternate corridors development has already been made or alternate scheme has already been planned for implementation. The case is ongoing in CERC and further hearing date is awaited.