



**Monthly progress Report of  
Transmission Projects awarded  
through  
Tariff Based Competitive Bidding  
(TBCB) Route  
(As on 29.02.2020)**

**Government of India  
Ministry of Power  
Central Electricity Authority  
New Delhi**

## Contents

S.No	Transmission project	Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)	Parent Company/ Progress Status	Page No.
1.	Transmission system associated with IPPs of Nagapattinam / Cuddalore Area- Package A	Powergrid Nagapattinam Transmission Ltd. / PFC	PGCIL / <b>Commissioned</b>	5
2.	Transmission System associated with IPPs of Vemagiri Area-Package A	Powergrid Vemagiri Transmission Ltd / REC	PGCIL / Cancelled by CERC	6
3.	Transmission system for Strengthening in SR for Import of Power from ER.	Powergrid Vizag Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	8
4.	ATS of Unchahar TPS	Powergrid Unchhahar Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	10
5.	NR System strengthening Scheme- NRSS-XXXI(Part-A)	Powergrid Kala Amb Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	11
6.	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-A)	Powergrid Warora Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	13
7.	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-B)	Powergrid Parli Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	16
8.	Transmission System Strengthening associated with Vindhyachal - V	Powergrid Jabalpur Transmission Ltd / REC	PGCIL / <b>Commissioned</b>	18
9.	Strengthening of Transmission system beyond Vemagiri	Powergrid Southern Interconnector Transmission System Ltd. / REC	PGCIL / <b>Commissioned</b>	20
10.	765 kV System Strengthening Scheme in Eastern Region. ERSS- XVIII	Medinipur-Jeerat Transmission Limited / PFC	PGCIL / Under Construction	23
11.	System Strengthening Scheme in Eastern Region ERSS XXI	ERSS XXI Transmission Limited/REC	PGCIL / Under Construction	30
12.	New WR-NR 765 kV Inter- Regional Corridor	WR-NR Power Transmission Limited / REC	PGCIL / Under Construction	37
13.	Transmission system associated with LTA applications from Rajasthan SEZ Part-C	Powergrid Khetri Tansmision System Ltd./REC	PGCIL / Under Construction	40
14.	Transmission system associated with LTA applications from Rajasthan SEZ Part-A	Ajmer Phagi Transco Limited/REC	PGCIL / Under Construction	44
15.	Transmission system associated with LTA applications from Rajasthan SEZ Part-B	Fatehgarh-II Transco Limited/PFC	PGCIL / Under Construction	47
16.	Transmission System for providing connectivity to RE Projects at Bhuj-II (2000 MW ) in Gujarat	Bhuj-II Transmission Limited/PFC	PGCIL / Under Construction	49
17.	System strengthening for WR	Bhopal Dhule Transmission Co. Ltd. / PFC	Sterilite Power TL / <b>Commissioned</b>	52

S.No	Transmission project	Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)	Parent Company/ Progress Status	Page No.
18.	System strengthening common for WR and NR	Jabalpur Transmission Company Ltd. / PFC	Sterilite Power TL / <b>Commissioned</b>	54
19.	Scheme for enabling import of NER/ER surplus by NR	East-North Interconnection Ltd / PFC	Sterilite Power TL / <b>Commissioned</b>	55
20.	Part ATS for RAPP U-7&8 in Rajasthan	RAPP Transmission Company Ltd. / PFC	Sterilite Power TL / <b>Commissioned</b>	56
21.	Eastern Region System Strengthening Scheme-VII	Purulia Kharagpur Transmission Co. Ltd. / PFC	Sterilite Power TL / <b>Commissioned</b>	57
22.	Northern Regional System Strengthening Scheme, NRSS-XXIX	NRSS XXIX Transmission Ltd. / REC	Sterilite Power TL / <b>Commissioned</b>	58
23.	Connectivity lines for Maheshwaram 765/400 kV S/S	Maheshwaram Trans. Ltd. / REC	Sterilite Power TL / <b>Commissioned</b>	60
24.	Common Transmission system for phase-II generation projects in Orissa and immediate evacuation system for OPGC project (Orissa)	Orissa Generation Phase-II Transmission Ltd. / PFC	Sterilite Power TL / <b>Ready for Commissioning</b>	62
25.	Creation of new 400 kV GIS substations in Gurgaon area and Palwal as a part of ISTS	Gurgaon Palwal Transmission Ltd. / PFC	Sterilite Power TL / Under Construction	65
26.	Connectivity system for Khargone TPP (2x660MW)	Khargone Transmission Limited / REC	Sterilite Power TL / Under Construction	70
27.	NER System Strengthening Scheme II	NER II Transmission Limited / REC	Sterilite Power TL / Under Construction	75
28.	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	Sterilite Power TL / Under Construction	84
29.	Establish Transmission System for 400 kV Udupi (UPCL) – Kasargode D/C Line	Udupi Kasargode Transmission Limited./REC	Sterilite Power TL / Under Construction	90
30.	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	Sterilite Power TL / Under Construction	91
31.	WRSS – 21 Part – B – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS	Sterlite Grid 18 Limited(A Subsidiary of Sterlite Power Trans. Limited)/PFC	Sterilite Power TL / Under Construction	92
32.	Eastern Region System Strengthening Scheme-VI	Darbhanga Motihari Transmission Co. Ltd. / PFC	Essel Infra / <b>Commissioned</b>	93
33.	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-B)	NRSS XXXI(B) Transmission Ltd. / REC	Essel infra / <b>Commissioned</b>	95
34.	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	Essel Infra / Under construction	97

S.No	Transmission project	Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)	Parent Company/ Progress Status	Page No.
35.	System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai(RVPNL)	NRSS XXXVI transmission Ltd. / REC	Essel Infra / Under construction	108
36.	Western Region System Strengthening – II under Project – B (Maharashtra)	Western Transco Power Ltd. (A subsidiary of Adani Transmission Limited)	Adani TL / <b>Commissioned</b>	116
37.	Western Region System Strengthening – II under Project – C (Gujarat)	Western Transmission (Gujarat) Ltd. (A subsidiary of Adani Transmission Limited)	Adani TL / <b>Commissioned</b>	118
38.	Additional system strengthening for Sipat STPS	Sipat Transmission Ltd. / PFC	Adani TL/ <b>Commissioned</b>	119
39.	Additional system strengthening for Chhattisgarh (B)	Raipur Rajnandgaon Warora Transmission Ltd. / PFC	Adani TL / <b>Commissioned</b>	120
40.	System strengthening for IPPs in Chhattisgarh and other generation projects in western region	Chhattisgarh WR Transmission Ltd. / PFC	Adani TL / <b>Commissioned</b>	122
41.	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC(ERSS XIX)	North Karanpura Transco Ltd / REC	Adani TL / Under Construction	125
42.	Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan	Fatehgarh-Bhadla Transmission Limited/PFC	Adani TL / Under Construction	130
43.	Transmission System Associated with LTA applications from Rajasthan SEZ Part-D	Bikaner-Khetri Transmission Limited./PFC	Adani TL / Under Construction	134
44.	Transmission System for Western Region Strengthening Scheme – 21 (WRSS – 21) Part – A – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS	WRSS XXI(A) Transco Limited./REC	Adani TL / Under Construction	137
45.	Transmission System for Transmission System Associated with RE Generations at Bhuj-II, Dwarka & Lakadia	Lakadia Banaskantha Transco Limited/REC	Adani TL / Under Construction	141
46.	Transmission System for Jam Khambaliya Pooling Station and Interconnection of Jam Khambaliya Pooling Station for Providing Connectivity to RE Projects (1500 MW) in Dwarka (Gujarat) and Installation of 400/220 kV ICT along with Associated Bays at CGPL Switchyard	Jam Khambaliya Transco Limited./REC	Adani TL / Under Construction	144

<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>47.</b>	Transmission System required for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Ltd.	Kudgi Transmission Company Ltd. / REC	L&T / <b>Commissioned</b>	147
<b>48.</b>	Transmission System for Patran 400kV S/S	Patran Transmission Ltd. / PFC	Techno Electric / <b>Commissioned</b>	148
<b>49.</b>	Transmission System Associated with Krishnapattanam UMPP- Synchronous interconnection between SR and WR (Part-B)	Raichur Sholapur Transmission Company Ltd. / REC	RSTCL / <b>Commissioned</b>	150
<b>50.</b>	Transmission system strengthening in Indian system for transfer of power from new HEP's in Butan	Alipurduar Transmission Ltd. / REC	Kalpataru / <b>Commissioned</b>	151
<b>51.</b>	North Eastern Region Strengthening Scheme (NERSS-VI)	Kohima-Mairani Transmission Limited / PFC	Kalpataru / Under Construction	153
<b>52.</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	161
<b>53.</b>	Augmentation of Talcher-II transmission System	Talcher Transmission Co. Ltd. / REC	Reliance Power Transmission Co. Ltd / Under litigation	163
<b>54.</b>	Transmission System associated with DGEN TPS (1200 MW) of Torrent Power Ltd.	DGEN Transmission Company Ltd. / PFC	Instalaciones Inabensa S A Spain / TSP requested for closing	165

<b>Total Transmission Projects</b>	<b>:</b>	<b>54</b>
<b>Transmission Projects Commissioned/Ready for commissioning</b>	<b>:</b>	<b>27</b>
<b>Transmission Projects Under Construction</b>	<b>:</b>	<b>23</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) Name of transmission project - Transmission system associated with IPPs of Nagapattinam/ Cuddalore Area – Package A**

### **Background**

This transmission scheme has been planned for evacuation of power from various generating station being developed by IPPs in Nagapattinam/ Cuddalore area.

### **Scope of transmission project**

1. Nagapattinam Pooling Station-Salem 765 kV D/C line
2. Salem - Madhugiri 765 kV S/C line

### **General Details**

Special Purpose Vehicle (SPV)	:	Powergrid Nagapattinam-Madhugiri Transmission Limited (A subsidiary of PGCIL)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs in crs)	:	1025
Levellised Tariff (Rs. Crs)	:	98.70
Request for Qualification	:	28.05.2011
Request for Proposal	:	20.09.2011
Letter of Intent	:	06.03.2012
Transmission Service Agreement (TSA)	:	02.02.2012
SPV acquisition	:	29.03.2012
Transmission License by CERC	:	20.06.2013
Tariff adoption by CERC	:	09.05.2013
Contract Performance Guarantee	:	29.03.2012
Clearance u/s 164 of EA2003	:	09.12.2013
Execution plan submitted to CEA	:	28.05.2011
NIT issued on	:	13.07.2012
EPC contract awarded on	:	16.05.2014
Scheduled Date of Completion	:	28.12.2015
<b>Actual Date of Completion</b>	:	<b>Jan' 2019</b>

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

Work awarded on 16.5.2014 to M/s Gammon and M/s ICOMM.

1. Nagapattinam Pooling Station-Salem 765 kV D/C line

Length	203 Km
Locations	543 Nos.

**Line commissioned on 23.10.16.**

2. Salem - Madhugiri 765 kV S/C line

Length	219 km
Locations	575 nos.

**Line completed on 31.12.18. DoCo declared on 26.01.19.**

**Transmission Project commissioned in Jan, 2019.**

## (2) Name of transmission project -Transmission System associated with IPPs of Vemagiri Package-A

### Background

The transmission corridor covered under the present project has been evolved to evacuate power from the proposed IPP generation projects in the Vemagiri area, Andhra Pradesh. Vemagiri area in Andhra Pradesh has huge potential of Gas based generation projects due to availability of Gas in Krishna-Godavari basin. The availability of the Gas as fuel has attracted many IPP developers to establish power plants in the vicinity. In this regard, 4 nos. of IPP generation projects with the total installed capacity of about 5400 MW have been granted LTA for quantum of 5150 MW. Further, as per the connectivity applications made, there are few more generation capacities likely to be available in the vicinity.

In view of above, considering the huge generation potential in this area a comprehensive transmission system has been planned so as to take care of the evacuation needs of generation projects of Vemagiri area. For this a 765/400 kV pooling station at Vemagiri (GIS) is to be established through LILO of Gazuwaka – Vijayawada 400kV S/c with bypass arrangements. All the power from different power plants will be pooled at this pooling station through 400kV transmission lines. The power so pooled at Vemagiri Pooling Station shall be further dispersed through high capacity transmission corridors of 1xD/c 765kV lines towards Hyderabad via Khammam to supply target beneficiaries in Southern region through displacement.

Further the generation project has target beneficiaries in Western Region & Northern Region of about 1230MW & 450 MW respectively, for this power transfer a 765kV high capacity corridor have been planned viz. Hyderabad – Wardha – Jabalpur Pooling station 765 kV D/c lines. These high capacity transmission lines in conjunction with the already planned High Capacity Power Transmission Corridor – IX i.e. Jabalpur Pooling Station – Orai – Bulandshahr 765 kV S/c shall provide adequate transmission capacity for transfer of power to target regions.

### Scope of transmission project

- 1 Vemagiri Pooling Station–Khammam 765 kV D/C line -I
2. Khammam - Hyderabad 765 kV D/C line-I

### General Details:

Special Purpose Vehicle (SPV)	:	Powergrid Vemagiri Transmission Limited (A subsidiary of PGCIL)
Bid Processor Coordinator (BPC)	:	Rural Electrification Corporation (RECTPL)
Request for Qualification	:	Not Applicable as project scrapped
Request for Proposal	:	Not Applicable as project scrapped
Letter of Intent	:	Not Applicable as project scrapped
Transmission Service Agreement (TSA)	:	Not Applicable as project scrapped
SPV acquisition	:	18.04.2012
Transmission License by CERC	:	<b>Not Applicable as project is scrapped</b>
Tariff adoption by CERC	:	----do---
Contract Performance Guarantee	:	----do---
Clearance u/s 164	:	----do---
Execution plan submitted to CEA	:	----do---
NIT issued on	:	----do---

EPC awarded on	:	----do---
Scheduled Date of Completion	:	17.04.2015
Anticipated Date of Completion	:	Project scrapped

**Status of Progress of transmission project:**

Project has been scrapped Vide Order dated. 06.04.2015, CERC has directed that Project is not required to be implemented and ordered Generator/CTU to pay the cost of SPV to POWERGRID in 80:20 ratios. Generator has challenged the CERC order in Appellate Tribunal and outcome is still awaited. Regulatory approval for the Project has been withdrawn by CERC.



### **(3) Name of transmission project -Transmission system for Strengthening in Southern Region for import of Power from ER**

#### **Background**

A Common High Capacity Transmission Corridor was planned for ISGS generations in Srikakulam area, which includes Srikakulam Pooling Station – Angul 765kV D/C line and Angul – Jharsuguda - Dharamjaigarh 765kV D/C lines. However, developments in coal regulation in Indonesia, Australia and other countries have resulted in slowing down of capacity addition based on imported coal. As a consequence, the Southern Region is expected to be a net importer of power from neighbouring regions. Under such uncertainty of generation projects and delay in implementation, the Southern Region may need to import huge quantum of power, which may need augmentation of existing / under implementation / planned inter-regional links. Under this transmission scheme, an additional inter-regional AC interconnection between Southern and Eastern regions is being established through Srikakulam Pooling Station to Vemagiri 765kV D/C line. This additional inter-regional link shall facilitate import of power to meet the requirement of power from other surplus regions. However, with the import through this link, beyond Khamman towards N'Sagar, critical loadings were observed and therefore, Khammam – N'Sagar 400kV D/C line is being envisaged to address such critical loadings. This line shall facilitate in dispersal of power to Southern Region constituents beyond Khammam.

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

1. Srikakulam PP – Vemagiri-II Pooling Station 765kV D/c line.
2. Khammam – NagarjunaSagar 400 kV D/c line.

#### **General Details:**

Special Purpose Vehicle (SPV)	:	Powergrid Vizag Transmission Limited (A subsidiary of PGCIL)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	1180
Levellised Tariff (Rs. Crs)	:	231.134
Request for Qualification	:	26.10.2012
Request for Proposal	:	06.03.2013
Letter of Intent	:	31.07.2013
Transmission Service Agreement(TSA)	:	14.05.2013
SPV acquisition	:	30.08.2013
Transmission License by CERC	:	08.01.2014
Tariff adoption by CERC	:	23.01.2014
Contract Performance Guarantee	:	29.08.2013
Clearance u/s 164	:	21.05.2014
Submission of execution plan to CEA	:	Dec.'2013
NIT issued on	:	08.10.2013
EPC Contract awarded on	:	12.03.2014
Scheduled Date of Completion	:	29.08.2016
<b>Actual Date of Completion</b>	:	<b>Sep' 2016</b>

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

Work awarded on 20.05.2014 to M/s TPL, M/s ICOMM, M/S L&T and M/s Gammon

**1. Srikakulam PP – Vemagiri-II PS 765 kV D/C line**

- Length 668 CKm, Locations: 877 nos.

**Line completed on 30.09.16**

**2. Khammam (existing) – Nagarjunasagar 400 kV D/C line**

- Length 145 ckm, Tower Locations 388 nos

**Line commissioned on 31.12.15**

**Project Commissioned in Sep-16.**

#### **(4) Name of transmission project - ATS of Unchahar TPS**

##### **Background**

Feroz Gandhi Unchahar TPP-I to III (5x210MW) in District Raebareli, Uttar Pradesh is an existing generation of M/s NTPC Limited. The generations are at 220kV and are being evacuated through 220kV lines. M/s NTPC has now proposed augmentation of generation capacity by developing 1x500 MW at Feroz Gandhi Unchahar TPP (FGUTPP-IV). The beneficiaries along with quantum as informed by M/s NTPC are UPPCL (167.38MW), UPCL (23.19MW), Delhi Discoms (72.39MW), Haryana Discoms (33 MW), Rajasthan Discoms (64.67 MW), HPSEB (18.91 MW), PDD (38.4MW), EDC (Union Territory of Chandigarh) (3.46MW). The step up voltage of the generator is at 400kV and the proposed generating station is 1km route length from existing generating station. M/s NTPC Limited had submitted application for connectivity and Long Term Access and was discussed during the Connectivity and Long Term Access meeting held on 19/12/2011. During the meeting, it was discussed and agreed to connect the new generation directly to Fatehpur 765/400kV Substation of POWERGRID through 400kV D/C. Fatehpur is a major substation in Northern Region. Beyond Fatehpur, there would be two numbers of 765kV Lines to Agra. Agra is also well connected with high capacity 400kV and 765kV lines. Hence, no constraint is envisaged in evacuation of power to its beneficiary.

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

1. Unchahar – Fatehpur 400 kV D/C line

##### **General Details**

Special Purpose Vehicle (SPV)	:	Powergrid Unchahar Transmission Limited (A subsidiary of PGCIL)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	70
Levellised Tariff (Rs. Crs)	:	16.771
Request for Qualification	:	11.01.2013
Request for Proposal	:	17.10.2013
Letter of Intent	:	14.02.2014
Transmission Service Agreement(TSA)	:	20.12.2013
SPV acquisition	:	24.03.2014
Transmission License by CERC	:	21.07.2014
Tariff adoption by CERC	:	03.07.2014
Contract Performance Guarantee	:	20.03.2014
Clearance u/s 164	:	06.05.2015
Execution plan submitted to CEA	:	July'14
NIT issued on	:	25.07.2014
EPC contract awarded on	:	21.01.2015
Scheduled Date of Completion	:	24.09.2016
<b>Actual Date of Completion</b>	:	<b>Dec' 2016</b>

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

###### **1. Unchahar – Fatehpur 400 kV D/C line**

- Length: 106 ckm, Locations: 145 nos.
- Line completed on 24th Sep'16. The power flow started only after completion of NTPC Unchahar bays in Dec.'16.

**Project Commissioned in Dec-16.**

## **(5) Name of transmission project- NR System strengthening Scheme-NRSS-XXXI (Part-A)**

### **Background**

Kala Amb/ Poanta/ Giri area is an existing load centre in Himachal Pradesh with a present power demand of about 350 MVA, which is likely to increase about 500 MVA. However, the available generation and transmission network in the area is not adequate to meet the present load. In order to meet the present and future load requirement of the area, this transmission scheme has been proposed. Further considering the issue of hilly terrain & scarcity of land in Himachal Pradesh, the substation shall be established as GIS station and the LILO would be carried out on Multi-Circuit Towers to conserve R-o-W. Karcham-Wangtoo-Abdullapur 400kV D/C line is an existing Quad conductor line and is connected in the grid in parallel to triple snowbird lines. In order to increase the loadability of this line for better sharing of load, 40% series compensation on 400 kV Karcham Wangtoo – Abdullapur D/c line is proposed under the scheme. This would not only improve the loadability of 400kV Karcham Wangtoo 400kV D/C line but also help in reducing the oscillations in the area.

### **Scope of transmission project**

1. Establishment of a 7 x 105 MVA (1- ph.), 400/220 kV GIS substation at Kala Amb

#### **400 kV**

- Line Bays: 4 No.
- 400/220 kV ICT: 7 x 105 (1-ph)
- ICT bays: 2 no.
- Bus Reactor (80 MVAR): 2 no.
- Bus Reactor Bay: 2 no.
- Space for line/ICT bays: 4 no.
- Space for ICT: 1 no.

#### **220 kV**

- Line Bays: 6 no.
- ICT bays: 2 no.
- Space for line/ICT bays: 4 no.

2. LILO of both circuits of Karcham Wangtoo – Abdullapur 400 kV D/C (Quad Moose) line at Kala Amb (on multi Ckt towers)
3. 40% Series Compensation on 400 kV KarchamWangtoo – Kala Amb quad D/C line at Kala Amb ends

### **General Detail**

Special Purpose Vehicle(SPV) Limited	:	Powergrid Kala Amb Transmission (A subsidiary of PGCIL)
Bid Process Coordinator(BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	225
Levellised Tariff (Rs. Crs)	:	59.434
Request for Qualification	:	01.08.2013
Request for Proposal	:	09.12.2013

Date of Letter of Intent	:	26.02.2014
Transmission Service Agreement (TSA)	:	02.01.2014
SPV acquisition	:	12.05.2014
Transmission License by CERC	:	21.07.2014
Tariff adoption by CERC	:	03.07.2014
Contract Performance Guarantee	:	08.05.2014
Clearance u/s 164	:	27.04.2016
Execution plan submitted to CEA	:	Sept'14
NIT issued on	:	21.04.2014
EPC contract awarded on	:	09.12.2015
Scheduled Date of Completion	:	12.07.2017
Anticipated date of completion	:	12.07.2017
<b>Actual Date of Completion</b>	:	<b>Jul' 2017</b>

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

1. 7x105 MVA, 400/220 kV GIS at Kala amb with 40% series compensation on 400 kV Karcham Wangtoo – Kala Amb D/C line at Kala Amb end

**Work completed and DOCO declared w.e.f. 12.07.17**

2. LILO of both ckt of Karcham Wangtoo - Abdullapur 400 kV D/C line at Kala Amb

**Work completed and DOCO declared w.e.f. 12.07.17.**

**Project Commissioned in July 2017.**

## 6) Transmission System associated with Gadawara STPS (2x800 MW) of NTPC (Part-A)

### Background

NTPC Limited (NTPC) is establishing coal based Gadawara STPS (2x800 MW) generation project at Gadawara, Narsinghpur District in the State of Madhya Pradesh. NTPC Limited has been granted LTA for 1586.51 MW as per the LTA application and the details of drawl of power is given below:-

CSPDCL	63.46 MW,	MPTradeco	793.25 MW
GUVNL	209.86 MW,	MSEDCL	261.49 MW
Goa	10.47 MW,	DNH	6.03 MW
DD	3.96 MW,	Unallocated	237.99 MW

Transmission Scheme was planned for the evacuation and supply of power from Gadawara STPS to the beneficiaries of the generation project. This transmission system strengthening shall facilitate immediate evacuation as well as supply of power to its beneficiaries with reliability and security. Beyond Solapur dispersal of power to the beneficiaries of the generation project shall be through existing/planned transmission network under inter-state Transmission System. The Transmission System has been split into two parts viz. Part A and Part B and both part-A and Part-B of Transmission scheme is to be implemented in the same time frame.

### Scope of transmission project:

1. Gadawara STPS – Jabalpur Pool 765 kV D/C line\*  
\*Considering the time schedule of generation project, an interim arrangement through LILO of existing Seoni – Bina 765 kV S/C line shall be established at Gadawara STPP. At a later date, LILO portion would be de-linked from Seoni – Bina 765 kV S/C line to restore the Seoni – Bina 765 kV S/C direct line, and the LILO portion shall be extended to Jabalpur 765/400 kV pooling station to form Gadawara STPS – Jabalpur Pool 765 kV D/C line.
2. Gadawara STPS – New Pooling Station near Warora 765 kV D/C line.
3. LILO of both circuits of Wardha – Parli (PG) 400 kV D/C Quad line at Pooling Station (Near Warora) (2 x D/C).
4. Establishment of 2x1500 MVA, 765/400 kV New Pooling Station near Warora.

### 765 kV

ICTs: 7 x 500 MVA, 765/400 kV (1 spare unit)

ICT bays: 2 no.

Line bays: 6 no.

Bus reactor: 3 x 110 MVAR

Bus reactor bay: 1 no.

Line reactors: 7 x 110 MVAR (1 unit spare) (for Gadawara line)

Line reactors switchable: 6 x 110 MVAR (for Parli line)

Space for future bays: 4 nos.

### 400 kV

ICT bays: 2 nos.

Line bays: 4 nos.

Space for future 400 kV bays: 4 nos.

**General Details:-**

Special Purpose Vehicle (SPV)	:	Powergrid Warora Transmission Ltd
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levelling Tariff	:	₹ 290.147 Cr
Request for Qualification	:	14.08.2014
Request for Proposal	:	14.11.2014
Letter of Intent	:	11.03.2015
Transmission Service Agreement (TSA)	:	09.02.2015
SPV acquisition	:	24.04.2015
Transmission License by CERC	:	05.08.2015
Tariff adoption by CERC	:	23.06.2015
Contract Performance Guarantee	:	18.04.2015
Clearance u/s 164	:	22.04.2017
Execution plan submitted to CEA	:	Jul'15
NIT issued on	:	08.06.2015
EPC contract awarded on	:	Sept.'15 onwards
Scheduled Date of Completion	:	November 2017*
*Revised Schedule Agreed by LTCs	:	January 2018
Actual date of completion	:	<b>July 2018</b>

**Status of progress of transmission project:**

- (1) Gadarwara STPS - Jabalpur PS 765 kV D/C line  
Awarded to M/s KEC on Dec'15.

Stage-1: Initially from Gadarwara to be LILO of Seoni-Bina 765kV S/C line,

- Length: 15.5 km
- Locations: 43 nos.
- Completion Target: Nov'16
- Actual completion: Nov'16

**Status: Line completed on 23.11.2016 and DOCO declared on 30.11.2016.**

Stage-2 : Dismantle the LILO and extend Line upto Jabalpur S/S,

- Length: 87.5 ckm
- Locations: 227 nos.
- Completion target: May'17
- Actual completion: May'17

**Status: Line completed on 23.05.2017 and DOCO declared on 31.05.2017.**

- (2) Gadarwara STPS- Warora P.S. (New) 765kV D/C line  
(Awarded to M/s Simplex on Dec'15)

- Length 313.3 km
- Locations 837 nos.
- Scheduled COD Nov'17
- Actual COD July'18

**Status: Line commissioned on 10.07.2018**

**3. LILO of both Ckts. of Wardha - Parli at Warora (New) Pooling Station**

(Awarded to M/s Gammon in Jan'16)

- Length : 98 Km
- Locations : 269 Nos.
- Scheduled COD : Nov'17
- Actual COD : May'18

**Status: Line commissioned in May'18.**

**4. 7x500 MVA, 765/400 kV Warora (New) pooling station**

(Substation Supply and Erection Package Award to M/s Siemens in Sep'15)

- Scheduled COD : Nov'17
- Revised Schedule : Jan' 18
- Actual COD : July' 18



## 7) Transmission System associated with Gadawara STPS (2x800 MW) of NTPC (Part-B)

### Background

NTPC Limited (NTPC) is establishing coal based Gadawara STPS (2x800 MW) generation project at Gadawara, Narsinghpur District in the State of Madhya Pradesh. NTPC Limited has been granted LTA for 1586.51 MW as per the LTA application and the details of drawl of power is given below:

CSPDCL	63.46 MW,	MPTradeco	793.25 MW
GUVNL	209.86 MW,	MSEDCL	261.49 MW
Goa	10.47 MW,	DNH	6.03 MW
DD	3.96 MW,	Unallocated	237.99 MW

Transmission Scheme was planned for the evacuation and supply of power from Gadawara STPS to the beneficiaries of the generation project. This transmission system strengthening shall facilitate immediate evacuation as well as supply of power to its beneficiaries with reliability and security. Beyond Sholapur dispersal of power to the beneficiaries of the generation project shall be through existing/planned transmission network under inter-state Transmission System. The Transmission System has been split into two parts viz. Part A and Part B and both part-A and Part-B of Transmission scheme is to be implemented in the same time frame.

### Scope of transmission project:

1. Warora (Pooling Station) – Parli (New) 765 kV D/C line.
2. Parli (New) – Solapur 765 kV D/C line.
3. Parli (New) – Parli (PG) 400 kV D/C (Quad) line.
4. Establishment of 2 x 1500 MVA 765/400 kV Parli (New) S/s.

### 765 kV

ICTs: 7 x 500 MVA, 765/400 kV (1 spare unit)

ICT bays: 2 no.

Line bays: 4 no.

Bus reactor: 3 x 110 MVAR

Bus reactor bay: 1 no.

Line reactors: 7 x 110 MVAR (1 unit spare) (for Warora-Parli (new) 765kV D/c line)

Space for future bays: 4 no.

### 400 kV

ICT bays: 2 no.

Line bays: 2 no.

Space for future 400 kV bays: 4 no.

### General Details

Special Purpose Vehicle (SPV)	:	Powergrid Parli Transmission Ltd.
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levelling Tariff	:	₹ 256.727 Cr
Request for Qualification	:	07.08.2014
Request for Proposal	:	14.11.2014
Letter of Intent	:	11.03.2015
Transmission Service Agreement (TSA)	:	09.02.2015
SPV acquisition	:	24.04.2015

Transmission License by CERC	:	10.07.2015
Tariff adoption by CERC	:	23.06.2015
Contract Performance Guarantee	:	18.04.2015
Clearance u/s 164	:	Jun'17
Execution plan submitted to CEA	:	Nov'16
NIT issued on	:	22.06.2015
EPC contract awarded on	:	Sept.'2015
Scheduled Date of Completion	:	January 2018
<b>Actual Date of Completion</b>	:	<b>June' 2018</b>

**Status of progress of transmission project:**

**1.Warora Pooling Station - Parli (New) 765 kV D/C line**

Length:	347 km
Locations:	920 nos.
Scheduled COD	Jan'18

- **Line Commissioned in June'2018.**

**2.Parli (New) - Solapur 765 kV D/C line**

Length:	118 Km
Locations:	311 Nos.
Scheduled COD	Jan'18

- **Line commissioned, DoCo declared on 27.04.2018**

**3.Parli (New) – Parli (PG) 400 kV D/C (Q) line**

Length:	18.2km
Locations:	52 nos.
Scheduled COD	Jan'18

- **Line commissioned, DoCo declared on 27.04.2018**

**4.2x1500 MVA, 765/400 kV Parli (New) sub station**

Scheduled COD	:	Jan'18
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- **Substation partly commissioned on 27.04.2018, balance commissioned in June'18.**

## 8) Transmission System Strengthening associated with Vindhyachal-V

### **Background**

NTPC Limited (NTPC) is augmenting 1x500MW unit at Vindhyachal generation project at Vindhyachal, Dist. Singrauli in the State of Madhya Pradesh. NTPC Limited has been granted LTA for 495.78 MW as per the LTA application and the details of drawl of power is given below:

CSPDCL	32.90 MW,	MPTradeco	129.04 MW
GUVNL	110.34 MW,	MSEDCL	138.29 MW
Goa	5.47 MW,	DNH	3.24 MW
DD	2.09 MW,	Unallocated	74.41 MW

Transmission scheme was planned for the evacuation and supply of power from the Vindhyachal-V to the beneficiaries of the generation project. This transmission scheme shall facilitate supply of power to its beneficiaries with reliability and security. Beyond Jabalpur Pooling Station, dispersal of power to the beneficiaries of the generation project shall be through existing/planned transmission network under Inter-State Transmission System.

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

Vindhyachal Pooling Station-Jabalpur Pooling Station 765kV D/c Line

### **General Details:**

Special Purpose Vehicle (SPV)	:	Powergrid Jabalpur Transmission Limited
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levelling Tariff	:	₹ 210.998 Cr
Request for Qualification	:	20.08.2014
Request for Proposal	:	22.10.2014
Letter of Intent	:	10.02.2015
Transmission Service Agreement (TSA)	:	19.11.2014
SPV acquisition	:	26.02.2015
Transmission License by CERC	:	15.06.2015
Tariff adoption by CERC	:	28.05.2015
Contract Performance Guarantee	:	25.02.2015
Clearance u/s 164	:	Sep' 16
Submission of execution plan to CEA	:	July' 15
NIT issued on	:	26.06.2015
EPC contract awarded on	:	23.03.2016
Scheduled Date of Completion	:	26.06.2018
<b>Actual date of completion</b>	:	<b>31.12. 2018</b>

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

#### **1. Vindhyachal Pooling Station - Jabalpur Pooling Station line 765 kV D/C line**

Awarded to M/s Tata & M/s. KEC on Mar'15.

Length: 374.5 Km

Locations:	1010 nos.
Scheduled COD:	June'18
<b>Actual COD</b>	<b>Jan'19</b>

**Status:** Line completed on 31.12. 2018 & **commissioned w.e.f. 01.01.2019.**

## 9) Strengthening of Transmission System beyond Vemagiri

### Background

Presently Southern Region is facing severe power shortage. As per Operational data, the region faced Power deficit of about 8.4% (i.e. about 3270 MW) during 2014-15 (Apr'14-Feb'15). This power deficit situation has arisen mainly due to (i) delay/deferment of anticipated generation projects and (ii) also due to non-availability of gas for existing gas projects in Southern Region. Presently the existing/planned system can facilitate import of about 9000 - 10000 MW into Southern Region. However under certain scenarios of non-availability / delay in commissioning of some of the generation projects in Southern region expected power transfer requirement is about 16000 MW by 2018-19. In view of large deficit and requirement of transmission system to meet future power transfer requirements, high capacity Inter-regional strengthening schemes were identified. The Present Scheme is part of the above identified scheme.

To facilitate import of power from North-East-West (NEW) grid to Southern Region grid, Angul – Srikakulam – Vemagiri corridor was envisaged and is under implementation. Under present proposed scheme, a 765kV D/c from Vemagiri to Cuddapah via Chilakaluripeta, wherein a 765/400kV Substation has been proposed, which would facilitate dispersal of power beyond Vemagiri. Further High capacity 400kV D/c have been proposed from Vemagiri, Chilakaluripeta and Cuddapah for Injection/ dispersal of power.

### Scope of transmission project-

#### Transmission Lines

1. Vemagiri-II – Chilakaluripeta 765kV D/c line with 240 MVAR switchable line reactors at both ends.
2. Chilakaluripeta – Cuddapah 765kV D/c line with 240 MVAR switchable line reactors at both ends.
3. Chilakaluripeta – Narsaraopeta 400kV (quad) D/c line.
4. Cuddapah – Madhugiri 400kV (quad) D/c line with 80 MVAR switchable line reactors at both ends.
5. Srikakulam Pooling Station – Garividi 400 kV (Quad) D/c line with 80 MVAR switchable line reactors at Garividi end.

#### Substation

1. Establishment of 765/400 kV substation at Chilakaluripeta with 7x500 MVA (one spare unit) transformers and 2x240 MVAR bus reactors each.  
765/400kV Transformers bays at Chilakaluripeta: 2 nos.  
765 kV  
Line bays : 4 nos., Spare bays : 6 nos.  
400 kV  
Line bays : 2 nos., Spare bays : 8 nos.

#### General Details

Special Purpose Vehicle (SPV) : Powergrid Southern Interconnector Transmission Limited (A subsidiary of PGCIL)

Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levelling Tariff	:	₹ 359.255 Cr.
Request for Qualification	:	12.04.2015
Request for Proposal	:	10.07.2015
Letter of Intent	:	29.10.2015
Transmission Service Agreement (TSA)	:	31.08.2015
SPV acquisition	:	04.12.2015
Transmission License by CERC	:	14.03.2016
Tariff adoption by CERC	:	09.02.2016
Contract Performance Guarantee	:	26.11.2015
Clearance u/s 164	:	16.08.2017
Execution plan submitted to CEA:	:	Mar'16
NIT issued on	:	18.12.2015
EPC awarded on	:	19.03.2016
Scheduled Date of Completion	:	03.04.2019
<b>Actual date of completion</b>	:	<b>16.01. 2020</b>

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

#### **1. Vemagiri - Chilakaluripeta 765kV D/C Line**

(Award placed in Mar'16 to M/s. KPTL)

Length: 279 Kms  
Locations: 748 nos.

- **Line completed and charged on 16.1.20.**

#### **2. Chilakaluripeta - Cudappah 765 kV D/C Line**

Length: 288 km  
Locations: 768 nos.

- **Line charged on 29.07.19 & completed trial operation on 30.07.19.**

#### **3. Cudappah - Madhugiri 400 kV D/C (Quad Moose) Line**

Length: 243 Km  
Locations: 650 nos.

- **Line commissioned on 26.02.19**

#### **4. Srikakulam - Garividi 400 kV (Quad Moose) D/C Line**

Length: 144 Km  
Locations: 393 nos.

- **Line commissioned on 04.08.18 & put under commercial operation w.e.f. 06.08.18.**

**5. Chilkaluraipeta - Narasaraopeta 400 kV (Quad Moose) D/C Line**

Length: 30 Km  
Locations: 81 nos.

- **Line commissioned w.e.f. 31.07.19.**

**6. 765/400kV Chilakularipeta Substation**

(Awarded to M/s GE T&D INDIA LTD)

- **765/400kV substation at Chilakaluripeta along with all bays and Equipment charged on 29.03.2019 & 30.03.2019 and completed trial operation on 31.03.2019**
- **2 nos. 400kV Line Bays associated with Chilakularipeta – Narasaraopeta Line are declared under Commercial Operation w.e.f. 31.07.19**

**7. Satenapalli (Narasaraopeta) 400 kV Substation extension**

(Awarded to M/s GE T&D INDIA LTD)

- **Substation commissioned & put under Commercial Operation w.e.f. 31.07.19.**

**8. Garividi 400 kV Substation extension**

**S/s commissioned & under commercial operation w.e.f. 06.08.2018.**

## **10) Eastern Region Strengthening Scheme-XVIII**

### **Background**

The major generation projects in ER in future are envisaged in the central and western part of the region (Odisha, Jharkhand and Bihar); however, no major generation addition is expected in the eastern part (West Bengal). Thus, in order to provide reliable and secure power supply within the region from various future generation sources and also to facilitate power exchange with the neighbouring regions under various operating conditions, it was felt necessary to build a strong transmission network interconnecting eastern and western part of ER.

Accordingly, implementation of high capacity Ranchi – Medinipur – Jeerat 765kV D/c line along with establishment of 765/400kV substations at Medinipur and Jeerat, was approved in the 17th Standing Committee Meeting on Power System Planning of ER to provide a strong East – West connection in the Eastern Region as well as to feed large load centres of West Bengal viz. Jeerat and Subhashgram area. For further dispersal of power from these 765/400kV sub-stations, various 400kV lines have been planned.

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

#### **Transmission Lines:**

- Ranchi (New) – Medinipur 765kV D/c line with Hexa ACSR Zebra conductor along with 765kV, 240 MVAR switchable line reactor with 750Ω NGR in each circuit at Medinipur end (total: 765kV, 7x80 MVAR single phase units, 1 unit as spare).
- Medinipur - Jeerat (New) 765kV D/c line with Hexa ACSR Zebra conductor along with 765kV, 240 MVAR switchable line reactor with 600 Ω NGR in each circuit at Jeerat (New) end (total: 765kV, 7x80 MVAR single phase units, 1 unit as spare).
- Jeerat (New) – Subhasgram 400kV D/c line (ACSR Quad Moose)
- Jeerat (New) – Jeerat (WBSETCL) 400kV D/c line (ACSR Quad Moose)
- LILO of both circuits of Chandithala – Kharagpur 400kV D/c line at Medinipur.
- LILO of Jeerat (WBSETCL) – Subhasgram (PG) 400kV S/c section at Rajarhat (POWERGRID) [Line deleted from scope]

#### **Substation:**

##### **(1) Establishment of 765/400kV, 2×1500MVA substation at Medinipur**

#### **765kV**

- ICTs: 7×500 MVA, 765/400kV (1 spare unit)
- ICT bays: 2 no.
- Line bays: 4 no.
- Bus reactor: 7×110 MVAR single phase units including one (1) spare unit
- Bus reactor bay: 2 no.
- Space for future line bays (along with space for switchable line reactor): 4 no.
- Space for future ICT bays: 2 no.
- Space for future 765/400 kV ICT: (6x500MVA single phase units)

#### **400kV**

- ICT bays: 2 no.
- Line bays: 4 no.



- Bus reactor: 2×125 MVAR
- Bus reactor bay: 2 no.
- Space for future line bays (along with space for switchable line reactor): 6 no.
- Space for future ICT bays: 2 no.

## **(2) Establishment of 765/400kV, 2x1500MVA substations at Jeerat (New)**

### **765kV**

- ICTs: 7×500MVA, 765/400kV (1 spare unit)
- ICT bays: 2 no.
- Line bays: 2 no.
- Bus reactor: 7×110 MVAR single phase unit including one (1) spare unit
- Bus reactor bay: 2 no.
- Space for future line bays (along with space for switchable line reactor): 4 no.
- Space for future ICT bays: 2 no.
- Space for future 765/400 kV ICT: (6x500MVA single phase units)

### **400kV**

- ICT bays: 2 no.
  - Line bays: 4 no.
  - Bus reactor: 2×125 MVAR
  - Bus reactor bay: 2 no.
  - Space for future line bays (along with space for switchable line reactor): 4 no.
  - Space for future ICT bays: 2 no.
- 2 no. 400kV GIS line bays at Jeerat (WBSETCL)

### **General Details:**

Special Purpose Vehicle (SPV)	:	Powergrid Medinipur-Jeerat Transmission Limited (A subsidiary of POWERGRID)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Levellised Tariff	:	₹ 498.652 Cr
Request for Qualification	:	14-Jun-2016
Request for Proposal	:	06-Oct-2016
Letter of Intent	:	21-Feb-2017
Transmission Service Agreement (TSA)	:	17-Nov-2016
SPV acquisition	:	28-Mar-2017
Transmission License by CERC	:	20-June-2017
Tariff adoption by CERC	:	12-June-2017
Contract Performance Guarantee	:	28-Mar-2017
Clearance u/s 164	:	15- Feb-2018
Execution plan submitted to CEA	:	2-June-2017
NIT issued on	:	02-Nov-2016
EPC awarded on	:	31-Mar-2017
Scheduled Date of Completion	:	28-Jul-2020
Anticipated Date of Completion	:	28-Jul-2020

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

#### **1. Ranchi – Medinipur 765kV D/C line**

Award placed on 31.03.2017 to M/s L&T

- Length : 269 Km
- Locations : 717 nos.
- Foundation completed : 712 nos.
- Towers erected : 704 nos.
- Stringing : 250.5 Km
- Scheduled COD July' 2020
- Anticipated COD July' 2020

### **Forest :**

Details of Tr. Line Falling under Forest: Length: 10.40 kms

Forest area affected (ha) : 69.7 km

Forest proposals submitted on:

**Jharkhand portion:** - 6.45 Km (43.26 ha.). The proposal had been submitted on 12.04.18. **Stage-I approval obtained on 22.08.2019. Working permission received in Dec'19.** Tree cutting permission received in Jan'20.

**West Bengal portion:** - 3.95 km (26.526 ha.). Revised proposal had been submitted on 30.06.2018. It was further found that there is an involvement of 2.66 km (17.87 Ha) forest land only & accordingly the compliance statement had been prepared and submitted to forest department on 25.08.18. Stage-I approval obtained on 16.01.19. **Working permission obtained on 14.03.19 & 18.03.19. Stage-II approval under progress.**

### **Power line crossing (66kV and above)**

Total no. of crossings	:	14	nos.	
Proposal submitted	:	07	nos.	Date: 26.03.18
		06	nos.	Date: 23.04.18
		01	no.	Date: 10.07.18
Approval obtained (WB+JH)	:	14	nos.	[7 nos (WB) on 19/6, 21/8, 27/7, 29/8, 8/5/18 & 2 nos. on 9/8/18]

### **Railway crossing**

Total no. of crossings	:	04	nos. + 01 No. (Proposed line)	
Proposal submitted	:	01	no.	Date: 16.03.18
		02	no.	Date: 26.03.18
		01	no.	Date: 22.06.18
Approval obtained	:	04	nos.	[ 29/09/18, 5/11/18 & 31/12/18 ]

### **National Highway Crossing**

Total no. of crossings	:	05	nos.	
Proposal submitted	:	01	no.	Date: 15.03.18
		02	nos.	Date: 26.03.18
		01	no.	Date: 21.06.18
		01	no.	Date: 23.07.18
Approval obtained	:	05	no.	06/08, 06/09 & 16/11/18

**River Crossings** NIL

**PTCC approval** : 09.05.18 Online submission for Jharkhand  
Approved for West Bengal.  
Approval obtained 27.12.2019

**Defence/Civil Aviation** : Online proposal approved for Jharkhand.

## 2. Medinipur - Jeerat (New) 765kV D/C line

Award placed on 31.03.2017 to M/s. L&T

Completion Target: July'2020

- Length: 169 Km
- Locations: 461 nos.
- Foundation completed 444 nos.
- Towers erected 415 nos.
- Stringing completed 101 Km

Scheduled COD July' 2020

Anticipated COD July' 2020

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

Status of statutory approvals:

**Forest:** Nil

### **Power line crossing (66kV and above)-**

Total no. of crossings	:	17	nos.	
Proposal submitted	:	10	nos.	Date: 26.03.18
		03	nos.	Date: 13.04.18
		01	nos.	Date: 24.04.18
		01	nos.	Date: 12.05.18
		01	nos.	Date: 14.09.18
Approval obtained	:	17	nos.	Approval obtained in Jun-Nov'18

### **Railway crossing**

Total no. of crossings	:	05	nos.	
Proposal submitted	:	05	nos.	Date: 26.03.18 & 27.03.18.
Approval obtained	:	05	nos.	

### **National Highway Crossing**

Total no. of crossings	:	02	nos.	
Proposal submitted	:	01	nos.	Date: 26.03.18
		01	nos.	Date: 25.05.18
Approval obtained	:	02	nos.	Date: 07/12/18 & 04/01/19

**River Crossings** : 01 No. Proposal submitted on 22/01/19.  
Approved

**PTCC approval** : Approved.

**Defence/Civil Aviation** : Online Proposal submitted on 20.09.18.

**Severe RoW being faced at 13 locations, Court case at 3 locations.**

## 3. Jeerat (New) – Subhasgram 400kV D/C line

(Award placed on 31.03.2017 to M/s. L&T)

- Length: 107 Km
- Locations: 320 nos.

- Foundation 132 nos .
- Tower erection 81 nos.
- Stringing NIL

Scheduled COD July' 2020  
Anticipated COD July' 2020

**Constarints where Project Authority requires intervention:**

Severe RoW being faced. Administration support required for clearance of fronts. Letter written to Chief Secretary, Govt of West Bengal seeking help in resolution of RoW

**Forest:** Nil

**Power line crossing (66kV and above)**

Total no. of crossings : 11 nos.  
Proposal submitted : 11 nos. Date: 3 nos. each in Jul & Nov'18  
Approval obtained : 06 nos. Date: 3 nos each in Sep & Nov'18

**Railway crossing**

Total no. of crossings : 03 nos.  
Proposal submitted : 03.  
Approval obtained : NIL

**National Highway Crossing**

Total no. of crossings : 01 nos.  
Proposal submitted : Submitted.  
Approval obtained : NIL

**River Crossings** : NIL

**PTCC approval** : Submitted.

**Defence/Civil Aviation** : Online Proposal submitted.

**4. Jeerat (New) – Jeerat (WBSETCL) 400kV D/C line**

Award placed on 31.03.2017 to M/s. L&T

Completion Target: July'2020

- Length: 25 Km
- Locations: 81 nos.
- Foundation completed: 77 nos.
- Tower Erection 73 nos.
- Stringing 16.5 Km

Scheduled COD : July' 2020  
Anticipated COD : July' 2020

**Constarints where Project Authority requires intervention:**

Severe RoW being faced. Administration support required for clearance of fronts.

**Forest:** NIL

**Power line crossing (66kV and above)**

Total no. of crossings	:	07	nos.	
Proposal submitted	:	04	nos.	Date: 06.04.18
		01	nos.	Date: 13.04.18
		02	nos.	Date: 26.05.18
Approval obtained	:	04	nos.	Date: Jul'18
		01	nos.	Date: Aug'18
		02	nos.	Date: Dec'18

**Railway crossing** NIL

**National Highway Crossing** NIL

**River Crossings** NIL

**PTCC approval** : Proposal submitted on 02.06.18.

**Defence/Civil Aviation** : Proposal submitted on 11.09.18

**5. LILO of Jeerat (WBSETCL) – Subhasgram (PG) 400kV at Rajarhat**

(Award placed on 31.03.2017 to M/s. L&T)

- Length : 12 Km
  - Locations : 37 nos.
- Scheduled COD : Jul' 20

**Status:** Scope Deleted vide CEA letter dated 04.04.18.

**6. LILO of both circuits of Chandithala – Kharagpur 400kV D/C line at Medinipur**

(Award placed on 31.03.2017 to M/s. L&T)

- Length : 73 Km
  - Locations : 199 Nos.
  - Foundation completed : 197 Nos.
  - Towers erected : 194 Nos.
  - Stringing : 68 Km
- Scheduled COD : July' 2020  
Anticipated COD : July' 2020

Status of statutory approvals:

**Forest:** 0.108 Km (0.497 ha.). The proposal had been submitted on 02.07.2018. Stage-I approval obtained on 16.01.19. Working permission obtained on 14.03.19 & 18.03.19. Stage-I compliances has been submitted on 16.07.19. Stage-II approval under process.

**Power line crossing (66kV and above)**

Total no. of crossings	:	02	Nos.	
Proposal submitted	:	02	Nos.	Date: 19.03.18
Approval obtained	:	02	Nos.	Date: 18/05, 3/8/18

**Railway crossing** : NIL

<b>National Highway Crossing</b>	:	NIL
<b>River Crossings</b>	:	NIL
<b>PTCC approval</b>	:	Approval received 27.12.19
<b>Defence/Civil Aviation</b>	:	Proposal submitted on 11/09/18. NOC recieved. Approved on 22.04.19 & 10.05.19

**7. 2x1500 MVA , 765/400 kV Substation at Medinipur**

(Award placed on 29.09.2017 to M/s BHEL)

- Work was stalled from Nov' 19 to Dec' 19 due to agitation by local tribals. Restarted slowly from 10.12.19
- Work is being affected due to political unrest since Dec' 19

Land acquired	:	100 %
Civil work completed	:	85 %
Equipment supplied	:	90 %
Equipment erection	:	37 %
Scheduled COD	:	July' 2020
Anticipated COD	:	July' 2020

**8. 2x1500 MVA , 765/400 kV Substation at Jeerat (New)**

(Award placed on 29.09.2017 to M/s BHEL)

- Work under progress.

Land acquired	:	100 %
Civil work completed	:	42 %
Equipment supplied	:	90 %
Equipment erection	:	17 %
Scheduled COD	:	July' 2020
Anticipated COD	:	July' 2020

- Work is being affected due to political unrest since Dec' 19

**9. Extension of 400 kV Substation at Jeerat (WBSETCL)**

(Work being executed by WBSETCL.)

Completion Target	:	July' 2020
Civil work completed	:	85 %
Equipment supplied	:	92 %
Equipment erection	:	20 %
Scheduled COD	:	July' 2020
Anticipated COD	:	July' 2020

## 11) Eastern Region Strengthening Scheme-XXI

### Background:

Demand of Bihar has touched 3717 MW under unrestricted condition in FY 2016-17 and may go up to 8774MW by 2018-19 due to segregation of agricultural feeders. The demand is expected to reach about 11000 MW by the end of 13th plan (FY 2021-22). For meeting this demand, ISTS network including two (3) 400kV sub-stations at Sitamarhi, Saharsa and Chandauti (Gaya) (Total transformation capacity of 4900 MVA) along with augmentation of 400/132 kV Motihari S/s and associated 400kV transmission lines (about 500 ckm) have been planned.

### Scope of transmission project:-

#### Transmission Lines:

1.	Darbhanga – Sitamarhi (New) 400kV D/c line with Triple Snowbird conductor
2.	Sitamarhi (New) – Motihari 400kV D/c line with Triple Snowbird conductor
3.	LILO of both circuits of Nabinagar-II – Gaya 400kV D/c (Quad Moose) line of PGCIL at Chandauti (New)
4.	LILO of Kishanganj – Patna 400kV D/c (Quad Moose) line of PGCIL at Saharsa (New)

#### Substation

1.	<p>Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Sitamarhi (New)</p> <p><b>400 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 400/220 kV, 2x500 MVA</li> <li>• ICTs bays: 2 nos.</li> <li>• Line bays with space for switchable line reactor: 4 nos. [2 nos. for Darbhanga – Sitamarhi (New) 400kV D/c line with Triple Snowbird conductor and 2 nos. for Sitamarhi (New) – Motihari 400kV D/c line with Triple Snowbird conductor]</li> <li>• Bus reactor: 420kV, 2x125 MVAR</li> <li>• Bus reactor bay: 2 nos.</li> <li>• Space for future line bays (including space for switchable line reactor): 6 nos.</li> <li>• Space for future ICT bays: 2 nos.</li> </ul>
	<p><b>220 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 220/132 kV, 2x200 MVA</li> <li>• ICTs bays: 4 no.</li> <li>• Line bays: 4 no. [2 no. for Sitamarhi (New) – Motipur (BSPTCL) and 2 no. for Sitamarhi (New) – Motihari (New of BSPTCL) 220kV D/c lines]</li> <li>• Space for future line bays: 4 nos.</li> <li>• Space for future ICT bays: 4 nos.</li> </ul>

	<p><b>132 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs bays: 2 no.</li> <li>• Line bays: 4 no. [2 no. for Sitamarhi (New) – Sitamarhi 132kV D/c (Single Moose) line and 2 no. for Sitamarhi (New) – Pupri 132kV D/c line]</li> <li>• Space for future line bays: 4 nos.</li> <li>• Space for future ICT bays: 2 nos.</li> <li>• Space for future 400/220 kV, 2x500 MVA ICTs</li> <li>• Space for future 220/132 kV, 2x200 MVA ICTs</li> </ul>
2.	Establishment of 400/220/132 kV, 3x500 MVA + 3x200 MVA S/s at Chandauti (New)
	<p><b>400 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 400/220 kV, 3x500 MVA</li> <li>• ICTs bays: 3 no.</li> <li>• Line bays with space for switchable line reactor: 4 no. [4 no. for LILO of both circuits of Nabinagar-II – Gaya 400kV D/c (Quad Moose) line of PGCIL at Chandauti (New)]</li> <li>• Bus reactor: 420kV, 2x125 MVAR</li> <li>• Bus reactor bay: 2 nos.</li> <li>• Space for future line bays (including space for switchable line reactor): 6 no.</li> <li>• Space for future ICT bays: 2 nos.</li> </ul>
	<p><b>220 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 220/132 kV, 3x200 MVA</li> <li>• ICTs bays: 6 nos.</li> <li>• Line bays: 4 nos. [4 no. for LILO of Gaya (PGCIL) – Sonenagar 220kV D/c at Chandauti (New). Gaya (PGCIL) – Sonenagar shall be LILOed at Bodhgaya (BSPTCL) also, so as to form Gaya (PGCIL) – Bodhgaya (BSPTCL) – Chandauti (New) – Sonenagar 220kV D/c line]</li> <li>• Space for future line bays: 4 nos.</li> <li>• Space for future ICT bays: 4 nos.</li> </ul>
	<p><b>132 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs bays: 3 nos.</li> <li>• Line bays: 4 nos. [2 no. for LILO of Chandauti (BSPTCL) – Rafiganj and 2 no. for LILO of Chandauti (BSPTCL) – Sonenagar 132kV S/c (HTLS conductor of 240MVA, ampacity - 1050A) lines at Chandauti (New)]</li> <li>• Space for future line bays: 4 no.</li> <li>• Space for future ICT bays: 2 no.</li> <li>• Space for future 400/220 kV, 2x500 MVA ICTs</li> <li>• Space for future 220/132 kV, 2x200 MVA ICTs</li> </ul>
3.	Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Saharsa (New)



	<p><b>400 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 400/220 kV, 2x500 MVA</li> <li>• ICTs bays: 2 no.</li> <li>• Line bays with space for switchable line reactor: 4 no.[4 no. for LILO of Kishanganj – Patna 400kV D/c (Quad Moose) line of PGCIL at Saharsa (New)]</li> <li>• Bus reactor: 420kV, 2x125 MVAR</li> <li>• Bus reactor bay: 2 no.</li> <li>• Space for future line bays (including space for switchable line reactor): 6 no.</li> <li>• Space for future ICT bays: 2 no.</li> </ul>
	<p><b>220 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 220/132 kV, 2x200 MVA</li> <li>• ICTs bays: 4 no.</li> <li>• Line bays: 4 no. [2 no. for Saharsa (New) – Begusarai and 2 no. for Saharsa (New) – Khagaria (New) 220kV D/c lines]</li> <li>• Space for future line bays: 4 no.</li> <li>• Space for future ICT bays: 4 no.</li> </ul>
	<p><b>132 kV</b></p> <ul style="list-style-type: none"> <li>• ICTs bays: 2 no.</li> <li>• Line bays: 2 no. [2 no. for Saharsa (New) – Saharsa 132kV D/c line]</li> <li>• Space for future line bays: 6 no.</li> <li>• Space for future ICT bays: 2 no.</li> <li>• Space for future 400/220 kV, 2x500 MVA ICTs Space for future 220/132 kV, 2x200 MVA ICTs</li> </ul>
4.	<p><b>Substation extension at Darbhanga S/s</b></p> <ul style="list-style-type: none"> <li>• 400kV Line bays with space for switchable line reactor: 2 no. [2 no. for Darbhanga – Sitamarhi (New) 400kV D/c line with Triple Snowbird conductor]</li> </ul>
5.	<p><b>Substation extension at Motihari S/s</b></p> <p><b>400kV</b></p> <ul style="list-style-type: none"> <li>• ICTs: 400/132 kV, 315 MVA (3rd)</li> <li>• ICT bays: 1 no.</li> <li>• Line bays with space for switchable line reactor: 2 no.[2 no. for Sitamarhi (New) – Motihari 400kV D/c line with Triple Snowbird conductor]</li> </ul> <p><b>132kV</b></p> <p>ICT bays: 1 no.</p>

**General Detail:**

Special Purpose Vehicle (SPV)	:	ERSS XXI Transmission Limited
Bid Process Coordinator (BPC)	:	REC TPCL
Estimated Cost	:	₹ 1321 Cr
Levellised Tariff	:	₹ 138.586 Cr
Request for Qualification	:	28.12.2016
Request for Proposal	:	11.08.2017
Letter of Intent	:	27.09.2017

Transmission Service Agreement (TSA) :	22.12.2017
SPV acquisition :	12.01.2018
Transmission License by CERC :	24.04.2018
Tariff adoption by CERC :	25.04.2018
Contract Performance Guarantee :	Submitted on 11.01.2018
Clearance u/s 164 :	14.05.19
Execution plan submitted to :	29.01.2018
EPC awarded on :	24.01.2018
Scheduled Date of Completion :	12.03.2021
Anticipated Date of Completion :	12.03.2021

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

### **1. Darbhanga – Sitamarhi (New) 400kV D/C line**

(Award placed on 24.01.2018 to M/s TATA)

- Locations: 221 Nos.
- Length 80.5 Km
- Foundation completed: 195 Nos.
- Tower Erected: 181 Nos.
- Stringing: 35.5 Km
- Scheduled COD : Jan'21
- Anticipated COD : Jan'21

#### **Power line crossing**

Total no. of crossings	:	07	Nos.	
Proposal submitted	:	07	Nos.	Date: 30.09.2018, 29.07.2019
Approval obtained	:	7/7	Nos.	

#### **Railway crossing**

Total no. of crossings	:	02	Nos.	
Proposal submitted	:	02	Nos.	Date: 04.01.2019
Approval obtained	:	02/02	Nos.	

#### **National Highway Crossing**

Total no. of crossings	:	03	Nos.	
Proposal submitted	:	03	Nos.	Date: 30.09.2018
Approval obtained	:	NIL		

**Forest:** 0.95 ha (2 divisions i.e; DBG, SMH)

FRA Certificate from DM (Darbhanga) & Sitamarhi received & forwarded to Nodal officer. Proposal is currently at MoEF, Ranchi. **Stage-I approval expected shortly.**

**PTCC :** Submitted on 04.01.2020 . Approval awaited.

**Work Progress severely affected due to RoW and waterlogging. Severe RoW at 16 locations near Darbhanga.**

## 2. Sitamarhi (New) – Motihari 400kV D/C line

Award placed on 24.01.2018 to M/s. TATA

Completion Target: Mar' 21

- Length: 85.3 Km
- Locations: 229 Nos.
- Foundation completed: 210 Nos.
- Tower Erected: 188 Nos.
- Stringing 44 Km

Scheduled COD : Jan'21

Anticipated COD : Aug'20

### Work Progress severely affected due to waterlogging

#### Power line crossing

Total no. of crossings : 03 Nos.  
Proposal submitted : 03 [ 2 Nos. on 30.09.2018 & 1 no. on 24.12.2018 ]  
Approval obtained : 03/ 03 Nos.

#### Railway crossing

Total no. of crossings : 02 Nos.  
Proposal submitted : 02 No. Date: 04.01.2019  
Approval obtained : 02/ 02 Nos.

#### National Highway Crossing

Total no. of crossings : 05 Nos.  
Proposal submitted : 05 Nos. Date:30.09.2018  
Approval obtained : NIL

**Forest:** 0.186 ha (3 divisions i.e; E. Chap, Sheohar, Sitamarhi)

Prosposal submitted on 16.10.2018. Presently at PCCF, Patna.

**Stage-I approval expected by 15.02.20.**

**PTCC:** Submitted. Approval awaited

## 3. LILO of both circuits of Nabinagar-II – Gaya 400KV D/c (Quad Moose) line of PGCIL at Chandauti (New)

Award placed on 24.01.2018 to M/s. TATA

- Length: 2.9 Km
- Locations: 9 Nos.
- Foundation completed: 9 Nos.
- Tower Erection : 7 Nos.
- Stringing : 1 Km

Scheduled COD : Mar'21

Anticipated COD : July' 20

**Crossings:** NIL

**Forest:** NIL

**PTCC :** Submitted. Presently at CEA

#### 4 LILO of Kishanganj – Patna 400KV D/c (Quad Moose) line of PGCIL at Saharsa (New)

Award placed on 24.01.2018 to M/s. TATA

- Length: 75 Km
- Locations: 211 Nos.
- Foundation completed: 136 Nos.
- Tower Erected: 126 Nos.
- Stringing: 17 km
- Scheduled COD : Mar'21
- Anticipated COD : Mar'21

**Work Progress severely affected due to water logged condition**

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

Total no. of crossings : 8 nos.  
Proposal submitted : 8 nos. Date: 26.03.2019  
Approval obtained 08/08 Nos.

##### **Railway crossing**

Total no. of crossings : 2 nos.  
Proposal submitted : 2 nos. Date: 12.03.2019  
Approval obtained : 02/02 Nos.

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

Total no. of crossings : 6 nos.  
Proposal submitted : 6 nos. Date: 26.03.2019  
Approval obtained : 01/06

**Forest: 2.9 Ha in Saharsa.** Proposal submitted on 08.03.2019.

Joint verification done. Report is with PCCF, Patna. Stage-I approval expected by 15.02.20.

**PTCC:** Submitted. Presently at CEA.

#### 5 Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Sitamarhi (New)

- Awarded on 27.02.2018 to M/s KEC

Land acquired : 98%  
Civil work completed : 45 %  
Equipment supplied : 85 %  
Equipment erection : 12 %  
Scheduled COD : Jan'21  
Anticipated COD : Jan'21

#### 6 Establishment of 400/220/132 kV, 3x500 MVA + 3x200 MVA S/s at Chandauti (New)

- Awarded on 20.03.2018 to M/s ABB
- Land Acquired.

Land acquired	:	100 %
Civil work completed	:	80 %
Equipment supplied	:	78 %
Equipment erection	:	30 %
Scheduled COD	:	Mar'21
Anticipated COD	:	July' 20

**Work Progress was affected due to rain & floods.**

#### **7 Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Saharsa (New)**

- Awarded on 20.03.2018 to M/s ABB.

Land acquired	:	95.5 %
Civil work completed	:	28 %
Equipment supplied	:	36 %
Equipment erection	:	0 %
Scheduled COD	:	Mar'21
Anticipated COD	:	Mar'21

**Work was stalled due to heavy rain & flood.**

#### **8 Substation extension at Darbhanga S/s**

- Awarded on 27.02.2018 to M/s KEC

Civil work completed	:	90 %
Equipment supplied	:	80 %
Equipment erection	:	40 %
Scheduled COD	:	Jan'21
Anticipated COD	:	Jan'21

#### **9 Substation extension at Motihari S/s**

- Awarded on 27.02.2018 to M/s KEC

Civil work completed	:	85 %
Equipment supplied	:	80 %
Equipment erection	:	40 %
Scheduled COD	:	Jan'21
Anticipated COD	:	Jan'21

## 12) New WR- NR 765 kV Inter-Regional corridor

### **Background**

The transmission scheme has been approved in the 38th Standing Committee on Power System Planning of Northern Region held on 30th May, 2016 and 40th Standing Committee Meeting on Power System Planning in WR held on 01.06.2016. The corridor shall provide strong connectivity of NR and WR grid and would facilitate flow of power under various contingencies.

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

- 765 kV D/C Vindhyachal Pooling Station- Varanasi D/C Transmission Line

### **General Detail:**

Special Purpose Vehicle (SPV)	:	WR-NR Power Transmission Limited
Bid Process Coordinator (BPC)	:	REC TPCL
Estimated Cost	:	₹ 916 Cr
Levellised Tariff	:	₹ 92.733 Cr
Request for Qualification	:	19.12.2016
Request for Proposal	:	22.09.2017
Letter of Intent	:	01.03.2018
Transmission Service Agreement (TSA)	:	27.04.2017
SPV acquisition	:	27.03.2018
Transmission License by CERC	:	27.08.2018
Tariff adoption by CERC	:	05.09.2018
Contract Performance Guarantee	:	Submitted on 27.03.2018
Clearance u/s 164	:	14.03.2019
Execution plan	:	Submitted in April'18
EPC awarded on	:	Awarded 11.04.2018
Scheduled Date of Completion	:	27.07.2021
Anticipated Date of Completion	:	27.07.2021

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

Line awarded on 11.04.2018 to M/s KPTL.

• Length	:	189.5 Km
• Locations	:	521 Nos.
• Foundation completed	:	380 Nos.
• Tower Erection	:	339 Nos.
• Stringing	:	45.06 Km
Scheduled COD	:	July' 2021
Anticipated COD	:	July' 2021

### **Western Region portion:**

**Forest :**

Forest proposal's soft copy uploaded on Forest portal on 01.09.2018.

Hard copy in 06 sets submitted on 08.09.2018.

**Stage-I approval obtained on 27.05.19.**

Demand note for CA scheme, NPV & Medicinal scheme obtained from all three division i.e Singrauli, Sidhi and Rewa .

Working Permission of Rewa forest division obtained on 25.06.2019

Demand Note for tree vidohan for Rewa division obtained on 10.07.2019 and subsequently amount deposited on 18.07.2019 .

Stage one working permission for Singrauli Forest also obtained on 30.07.19.

Working permission for singrauli forest (where trees are not there ) obtained on 30.08.2019 .

Permission for tree cutting (affected under tower area only) for Rewa obtained on 30.08.2019 .

Working Permission of Sidhi forest division obtained on 05.09.2019.

Demand Note for tree vidohan from Sidhi Forest obtained on 09.09.2019. tree vidohan amount deposited to Sidhi on 24.09.2019.

**Wildlife (Son Ghariyal wildlife sanctuary):** Letter regarding permission for construction of T/L over Son & Gopad river submitted on 14.03.19.

Part-I & Part-II of Son Ghariyal wildlife sanctuary crossing over Son & Gopad river submitted online on 23.05.19 and hard copy of the proposal submitted on 26.05.19.

Further, part-III of the proposal has been filled and hard copy of the proposal forwarded to APCCF Bhopal on 26.06.19.

Proposal got clearance from State Wild life Board on 11.10.2019. Proposal cleared in the NBWL meeting held on 17.12.19 and minutes issued on 21st Jan'20.

**Power line crossing**

Total no. of crossings	:	15 Nos.
Proposal submitted	:	15 Nos      Date: 16.10.18
Approval obtained	:	7 Nos. for 400 kV approved on 11.12.18 5 Nos. for 765 kV approved on 03.01.19
*Powerline crossing of MPPTCL	:	3 Nos. for 132kV approved on 29.03.19

**Railway Crossing**

Proposal submitted	:	2 Nos.      Date: 28.09.18
Approval obtained	:	NIL ( Railway authorities provided letter for feasibility of proposal and submission of applicaion charges on 03.09.2019 and subsequently amount deposited on 19.09.2019)

**National Highway Crossing**

Proposal submitted	:	1 No.      Date: 06.09.18
Approval obtained	:	(Sidhi-Singrauli NH-75-E) Approval obtained on 06.08.2019

**PTCC**

Proposal submitted	:	Proposal submitted on 02.05.19 Proposal from PTCC Mumbai forwarded to Central Electricity Authority on 20.08.2019 .
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**Civil Aviation**

Proposal submitted	:	Submitted on 20.06.19. Resubmitted on 16.07.19
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Civil aviation approval received on 03.09.2019 ( for two parts ) and 11.09.2019 for three parts ).\*Application was splited into five parts\*

### **Defence Aviation**

Proposal submitted : Proposal sent in hard copy on 26.06.19.  
Defence Aviation NOC obtained on 04.10.2019 .

### **Northern Region portion:**

#### **Forest proposal (30 Km, Mirzapur : 210 Ha, Varanasi : 0.28 Ha) :**

NoC received from PWD, Irrigation, Railway & NHAI.

Forest proposal was initially uploaded on Forest portal on 17.09.2018. Subsequently, due to change in forest area of NHAI crossing, total forest area changed. Accordingly, revised forest proposal has been uploaded on 05.08.2019. Further, NOCs have been obtained from PWD, Irrigation, Railways and NHAI.

**Present status:** Query was raised by State Government (Ministry), now the proposal is pending at DFO office, Mirzapur. Proposal is under approval with State Government

#### **Power line crossing**

Total no. of crossings	:	13 Nos.	
Proposal submitted	:	13 Nos	Date: 16.10.18
Approval obtained	:	13 Nos.	[Date: 13.12.18, 21.12.18, 07.05.19, 12.06.19,02.08.19]

#### **Railway Crossing**

Total no. of crossings	:	2 Nos.	
Proposal submitted	:	2 No.	Date: 30.10.18
Approval obtained	:	1 No.	Date: 16.04.19

[Second Crossing Proposal is under approval with Railways at Allahabad.]

#### **National Highway Crossing**

Total no. of crossings	:	2 Nos.	
Proposal submitted	:	2 Nos.	Date: 04.10.18
Approval obtained	:	2 Nos.	Date : 30.08.19 & 04.10.19

#### **River crossing (Ganga): (1 Pile & 2 RC)**

Pile foundation:- 40/48 nos.of pile completed.

**PTCC:** Proposal submitted to Central Electricity Authority, New Delhi on 02.09.2019.

**Aviation (Civil):** NOC obtained.



### **13) Transmission system associated with LTA applications from Rajasthan SEZ Part-C**

#### **Background**

India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW Solar, 60 GW Wind generation capacity. To identify ISTS connectivity of renewable energy projects from potential solar energy zones (SEZs) and potential wind energy zones (WEZs) of about 50 GW and 16.5 GW respectively, MNRE vide its order dated 08.06.2018 had constituted a Sub-Committee. SEZs and WEZs envisaged in 7 RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) were identified by SECI in association with MNRE in consultation with RE power developers. To ease the implementation of transmission infrastructure, it has been proposed to bifurcate these requirements in two phases. A total of 20GW solar & 9 GW wind projects has been planned in Phase-I (up to Dec. 2020) and 30 GW solar & 7.5 GW wind has been planned for Phase-II (December 2021)

#### **Project Description**

Transmission system for 8.9 GW of solar RE projects from Bhadla (3.55 GW), Fatehgarh (3.5 GW), Bikaner (1.85 GW) complexes in Rajasthan was technically agreed in the 2<sup>nd</sup> meeting of NRSCT held on 13.11.2018. The scheme is required for evacuation of power from balance 6050 MW of RE potential out of total quantum of 8.9 GW (2.850 GW LTA already granted)

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

##### **Transmission Lines**

1. Khetri – Sikar (PG) 400kV D/c line (AL59)  
400kV line bays at Sikar (PG) for Khetri – Sikar (PG) 400kV D/c line (Twin AL59)
2. Khetri– Jhatikara 765kV D/c line  
765kV bays at Jhatikara for Khetri– Jhatikara 765kV D/c line  
1x240 MVAR Switchable Line reactors for each circuit at Jhatikara end of Khetri – Jhatikara 765kV D/c line along with reactor bays

##### **Substation**

1. Establishment of 765/400kV, 2X1500 MVA S/s at suitable location near Khetri with 765kV (2x240MVAR) and 400kV (1x125 MVAR) bus reactor along with bays. Following line bays shall also be constructed under present scope of work:  
400kV line bay-2  
765kV line bay-2  
220kV line bays-7
2. 400kV line bays at Sikar (PG) for Khetri – Sikar (PG) 400kV D/c line (Twin AL59).
3. 765kV bays at Jhatikara for Khetri– Jhatikara 765kV D/c line.

## **General Details**

Special Purpose Vehicle (SPV)	:	POWERGRID KHETRI TRANSMISSION SYSTEM LTD
Bid Process Coordinator (BPC)	:	REC Transmission Projects Company Ltd.
Levellised Tariff	:	₹ 122.042Cr.
Request for Qualification	:	12.01.2019
Request for Proposal	:	13.03.2019
Letter of Intent	:	31.07.2019
Transmission Service Agreement (TSA)	:	23.04.2019
SPV acquisition	:	29.08.2019
Transmission License by CERC	:	Applied on 04.09.2019
Tariff adoption by CERC	:	Applied on 04.09.2019
Contract Performance Guarantee	:	30.08.2019
Clearance u/s 164	:	Notice Published in Newspaper on 07.11.2019 & 14.11.2019
Execution plan submitted to CEA :	:	is being prepared.
NIT issued on	:	All NOAs to Execution Agency issued.
EPC awarded on	:	All NOAs to Execution Agency issued
Scheduled Date of Completion	:	Dec'2020

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

1. Khetri– Jhatikara 765kV D/c line  
(Award placed in Sep'19 to M/s. TRANSRAIL)

Length:	142.577Kms
Locations:	404 nos.
Foundation completed	160 nos.
Towers erected	50 nos.
Stringing completed	NIL km

Scheduled COD	Dec'20
Anticipated COD	<b>Dec'20</b>

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

- Online Proposal submitted on 22.11.2019. **Stage-I approval completed on 20.02.2020 by regional office.**

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

**Forest** : Forest proposal submitted for Delhi & Haryana.

### **Power line crossing**

Total no. of crossings	:	32	nos.
Proposal submitted	:	32	nos.
Approval obtained	:	16	nos.

**Railway crossing**

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

**National Highway Crossing**

Total no. of crossings	:	2	nos.
Proposal submitted	:	2	nos.
Approval obtained	:	NIL	nos.

**River Crossings**

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

**PTCC approval** : Proposal is being prepared

**Defence/Civil Aviation** : Proposal is being prepared

**2. Khetri– Sikar (PG) 400kV D/c line**

(Award placed in Sep'19 to M/s. TRANSRAIL)

Length:	78.610Kms
Locations:	221 nos.
Foundation completed	114 nos.
Towers erected	22 nos
Stringing completed	NIL km

Scheduled COD	Dec'20
Anticipated COD	<b>Dec'20</b>

**Constraints where Project Authority requires intervention:****Work is under progress.****Status of statutory approvals:**

**Forest** : not encountered.

**Power line crossing**

Total no. of crossings	:	10	nos.
Proposal submitted	:	10	nos.
Approval obtained	:	NIL	nos.

**Railway crossing**

Total no. of crossings	:	2	nos.
Proposal submitted	:	2	nos.

Approval obtained : NIL nos.

**National Highway Crossing**

Totalno. of crossings : NIL nos.

Proposal submitted : NIL nos.

Approval obtained : NIL nos.

**PTCC approval** : Proposal is being prepared

**Defence/Civil Aviation** : Propsoal is being prepared

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

NOA to Execution Agency for New 765kV Khetri Substation, Bay Extension at 765kV Jhatikara and 400kV Sikar Substation awarded and Engineering activities and contouring at existing site is in progress.

## **14) Transmission system associated with LTA applications from Rajasthan SEZ Part-A**

**SPV Name: AJMER PHAGI TRANSCO LTD.**

### **Background**

India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW Solar, 60 GW Wind generation capacity. To identify ISTS connectivity of renewable energy projects from potential solar energy zones (SEZs) and potential wind energy zones (WEZs) of about 50 GW and 16.5 GW respectively, MNRE vide its order dated 08.06.2018 had constituted a Sub-Committee. SEZs and WEZs envisaged in 7 RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) were identified by SECI in association with MNRE in consultation with RE power developers. To ease the implementation of transmission infrastructure, it has been proposed to bifurcate these requirements in two phases. A total of 20GW solar & 9 GW wind projects has been planned in Phase-I (up to Dec. 2020) and 30 GW solar & 7.5 GW wind has been planned for Phase-II (December 2021)

### **Project Description**

The subject transmission scheme involves implementation of Ajmer (PG) – Phagi 765 kV D/c line which shall facilitate in transfer of power from RE sources in above complexes for onward dispersal of power to various beneficiaries.

The proposal has been technically agreed in the 2nd meeting of Northern Region Standing Committee on Transmission (NRSCT) held on 13.11.2018. The same was agreed in the 3rd ECT meeting held on 21.12.2018 for implementation through TBCB route with commissioning schedule as September, 2020

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

#### **Transmission Lines**

1. Ajmer (PG) – Phagi (RVPN) 765kV D/C line.

#### **Substation**

1. 2 nos 765kV line bays (AIS) at Ajmer (PG) S/s for Ajmer (PG) –Phagi (RVPN) 765kV D/c line.
2. 01 no of 765kV bay (AIS) & 01 complete GIS DIA 765kV (2 main Breakers & 1 Tie Breaker) at Phagi S/S for Ajmer (PG) – Phagi (RVPN) 765kV D/c line.
3. 3 x 80 MVAR 765kV bus reactor with GIS bay (2main bay of new DIA being created for termination of 765kV D/c line from Ajmer) at Phagi S/s along with 1X80 spare MVAR, 765kV reactor (Spare).

#### **General Details**

Special Purpose Vehicle (SPV) : AJMER PHAGI TRANSCO LIMITED

Bid Process Coordinator (BPC)	:	REC Transmission Projects Company Ltd
Levellised Tariff	:	₹ 61.331Cr.
Request for Qualification	:	12.01.2019
Request for Proposal	:	13.03.2019
Letter of Intent	:	29.08.2019
Transmission Service Agreement (TSA)	:	23.04.2019
SPV acquisition	:	03.10.2019
Transmission License by CERC	:	Applied on 07.10.2019
Tariff adoption by CERC	:	Applied on 07.10.2019
Contract Performance Guarantee	:	30.08.2019
Clearance u/s 164	:	Newspaper Notice Published on 23.11.2019
Execution plan submitted to CEA :		is being prepared.
NIT issued on	:	All NOAs to Execution Agency issued.
EPC awarded on	:	NOAs for S/Stn, T/L & B/R issued
Scheduled Date of Completion	:	Dec'2020

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

#### **1. Ajmer (PG) – Phagi (RVPN) 765kV D/C line**

Award placed to M/s BAJAJ Electricals Ltd. (BAJAJ)

Length:	134.196km
Locations:	360 nos.
Foundation completed	135 nos.
Towers erected	58 nos.
Stringing completed	NIL km
Scheduled COD	Dec'20
Anticipated COD	<b>Dec'20</b>

#### Status of statutory approvals:

**Forest** : Online proposal submitted on 17.01.2020.  
File is with Division (Ajmer Territorial since 26.02.2020).

#### **Power line crossing**

Total no. of crossings	:	9	nos.
Proposal submitted	:	8	nos.
Approval obtained	:	0	nos.

#### **Railway crossing**

Total no. of crossings	:	2	nos.
Proposal submitted	:	2	nos.
Approval obtained	:	NIL	nos.

#### **National Highway Crossing**

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

**PTCC approval** : Proposal is being prepared

**Defence/Civil Aviation** : Proposal is being prepared

**2. Status of progress of Bay Extensions project:**

NOAs for AIS Type 765kV Bay Extensions both at Ajmer and Phagi is placed to M/s ABB and GIS Type 765kV Bays at Phagi to M/s GE T&D India Ltd.  
Civil works are in progress.

- Bus Reactor Package awarded to M/s T&R on 27.11.2019
- 1 No additional 1-Ph 80MVAR reactor is added at later date of RFP- awarded to M/s BTW on 28.2.20.

## 15) Transmission system associated with LTA applications from Rajasthan SEZ Part-B

**SPV Name: FATEHGARH-II TRANSCO LTD.**

### **Background**

India has set a target for establishing 175 GW renewable capacity by 2022, which includes 100 GW Solar, 60 GW Wind generation capacity. To identify ISTS connectivity of renewable energy projects from potential solar energy zones (SEZs) and potential wind energy zones (WEZs) of about 50 GW and 16.5 GW respectively, MNRE vide its order dated 08.06.2018 had constituted a Sub-Committee. SEZs and WEZs envisaged in 7 RE rich states (Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Maharashtra and Madhya Pradesh) were identified by SECI in association with MNRE in consultation with RE power developers. To ease the implementation of transmission infrastructure, it has been proposed to bifurcate these requirements in two phases. A total of 20GW solar & 9 GW wind projects has been planned in Phase-I (up to Dec. 2020) and 30 GW solar & 7.5 GW wind has been planned for Phase-II (December 2021)

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

#### **Transmission Line**

1. Fatehgarh-II – Bhadla-II 765kV D/c line.

#### **Substation**

1. 2 nos of 765kV bays each at Fatehgarh-II and Bhadla-II S/s for Fatehgarh-II – Bhadla-II 765kV D/c line.
2. 240MVAR switchable line reactor with NGR of 400ohm on each circuit of Fatehgarh-II – Bhadla-II 765kV D/c line at Fatehgarh-II end.

#### **General Details**

Special Purpose Vehicle (SPV)	:	FATEHGARH-II TRANSCO LIMITED
Bid Process Coordinator (BPC)	:	PFC Consulting Ltd.
Levelling Tariff	:	₹ 71.558 Cr.
Request for Qualification	:	19.02.2019
Request for Proposal	:	03.06.2019
Letter of Intent	:	11.09.2019
Transmission Service Agreement (TSA)	:	16.07.2019
SPV acquisition	:	14.10.2019
Transmission License by CERC	:	Applied on 16.10.2019
Tariff adoption by CERC	:	Applied on 16.10.2019
Clearance u/s 164		Newspaper Notice Published on 30.11.2019



Execution plan submitted to CEA :	is being prepared.
NIT issued on :	NIT for all Pkges issued.
EPC awarded on :	NOAs except L/R Package issued
Scheduled Date of Completion :	Dec'2020

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

1. Fatehgarh-II – Bhadla-II 765kV D/c line.  
Award placed to M/s SKIPPER BAJAJ Electricals Ltd. (BAJAJ)

Length:	184.977 kM
Locations:	497 nos.
Foundation completed	60 nos.
Towers erected	14 nos.
Stringing completed	NIL km
Scheduled COD	Dec'20
Anticipated COD	<b>Dec'20</b>

### Status of statutory approvals:

<b>Forest</b>	:	As per the Route Alignment No Forest is expected to Encountering to Line Route, however, exact Line Length or area could be assessed only after completion of detailed survey.
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### **Power line crossing**

Total no. of crossings	:	14	nos.
Proposal submitted	:	10	nos.
Approval obtained	:	NIL	nos.

### **Railway crossing**

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

### **National Highway Crossing**

Totalno. of crossings	:	3	nos.
Proposal submitted	:	2	nos.
Approval obtained	:	NIL	nos.

<b>PTCC approval</b>	:	Proposal is being prepared
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<b>Defence/Civil Aviation</b>	:	Propsoal is being prepared
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### **Status of progress of Bay Extensions project:-**

NOAs for 765kV Bay Extensions both at Fathegarh-II(PG) Substation and Bhadla-II Substation (PG) is placed to M/s BHEL.  
Presently detailed Engineering for both the sites are in progress.

## **16) Transmission System for providing connectivity to RE Projects at Bhuj-II (2000 MW ) in Gujarat**

**SPV NAME: POWERGRID BHUJ TRANSMISSION LIMITED (Formerly as Bhuj-II Transmission Ltd)**

### **Background**

Govt. of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. This includes installation of 3.5 GW, 4.5 GW & 20 GW of solar/wind capacity in WR under Phase-I (Dec'20/Mar'21), Phase-II (Dec'21) & Phase-III (Beyond Dec'21) respectively.

For integration and evacuation of power from envisaged wind potential in Bhuj (2GW)/Dwarka (1.5GW) areas under Phase-I and Lakadia (2GW) under Phase-II, a high capacity 765kV and 400kV transmission system interconnecting Bhuj, Lakadia, Banaskantha, Vadodara & Dwarka along with establishment of 765/400/220kV new substations at Bhuj-II & Lakadia and 400/220kV new substation at Jam Khambhaliya (Dwarka) have been planned.

The subject transmission scheme involves implementation of Bhuj-II PS along with reconfiguration of Bhuj-PS – Lakadia PS 765kV D/C line so as to establish Bhuj II – Lakadia 765 kV D/C line as well as Bhuj- Bhuj II 765kV D/C line. This would help in providing a strong ISTS Grid connectivity to various RE projects envisaged in the vicinity of the proposed Bhuj-II Pooling station.

The proposed Transmission System was discussed and agreed in the 1<sup>st</sup> meeting of Western Region Standing Committee on Transmission (WRST) held on 5.9.2018. Further in the 2<sup>nd</sup> WRST meeting held on 21.05.2019, 1×240 MVAR, 765 kV switchable line reactor in each circuit at Bhuj-II PS end of Bhuj II – Lakadia 765 kV D/c line was also agreed due to shift in location of Bhuj-II PS.

The Transmission System has also been agreed in 38<sup>th</sup> WRPC meeting held on 28.06.2019. Hon'ble Commission i.e CERC has also granted Regulatory Approval for the same vide order dated 10.10.2019 in petition No. 197/MP/2019.

### **Scope of Transmission Project:**

#### **Transmission Line**

1. Reconfiguration of Bhuj PS – Lakadia PS 765kV D/c line so as to establish Bhuj-II – Lakadia 765 kV D/C line as well as Bhuj-Bhuj-II 765kV D/C line

#### **Substation**

1. Establishment of 2×1500 MVA (765/400kV), 4×500 MVA (400/220kV) Bhuj-II PS (GIS) with 765kV (1×330 MVAR) and 420kV (1×125 MVAR) bus reactor  
(2×1500MVA (765/400kV), 4×500MVA (400/220kV)), 1×500 MVA (765/400kV), 1-ph ICT (spare unit);  
400 kV ICT bay-6nos.; 765 kV ICT bay-2nos.; 220 kV ICT bay-4 nos.; 765 kV line bay-4 nos.; 220 kV line bay -7nos.; 1×330 MVAR, 765 kV; 1×125 MVAR, 420 kV; 765 kV

reactor Bays -1 no.; 400 kV reactor Bays -1 no.; 1x110 MVAR, 765 kV, 1-ph Reactor (spare unit).

Space for Future provisions:

765/400 kV ICTs along with bays: 2 nos.; 400/220 kV ICTs along with bays: 5 nos.; 765 kV line bays: 4 nos.; 400 kV line bays: 6 nos.; 220 kV line bays: 9 nos.; 765 kV bus reactor along with bays: 1 no.; 400 kV bus reactor along with bays: 1 no

2. 1x240MVAR switchable Line reactor for each circuit at Bhuj-II PS end of Bhuj-II- lakadia 765 kV D/c line (2x240 MVAR, 765 kV with 400-ohm NGR; 765 kV Reactor Bays-2 no.; 1x80 MVAR, 765 kV, 1ph switchable line Reactor (spare unit) at Bhuj-II end).

### **General Details**

Special Purpose Vehicle (SPV)	:	POWERGRID BHUJ TRANSMISSION LTD.
Bid Process Coordinator (BPC)	:	PFC Consulting Ltd.
Levellised Tariff	:	₹ 106.57 Cr.
Request for Proposal	:	12.06.2019
Letter of Intent	:	31.07.2019
Transmission Service Agreement (TSA)	:	23.04.2019
SPV acquisition	:	16.10.19
Transmission License by CERC	:	Application filed on 22.10.19
Tariff adoption by CERC	:	Application filed on 22.10.19
Clearance u/s 164	:	Under process
Execution plan submitted to CEA	:	Under preparation.
NIT issued on	:	NIT for all Pkges issued.
EPC awarded on	:	All Package awarded
Scheduled Date of Completion	:	Dec'2020

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

2. **Reconfiguration of Bhuj PS – Lakadia PS 765kV D/c line so as to establish Bhuj-II –Lakadia 765 kV D/C line as well as Bhuj-Bhuj-II 765kV D/C line**  
**Award placed to M/s Transrail Lighting Limited**

Awarded to M/s Translail Lighting limited

Length:	103.4 kM
Locations:	270 nos.
Foundation completed:	12 nos.
Towers erected :	NIL nos.
Stringing completed:	NIL km
Scheduled COD	Dec'20
Anticipated COD	Dec'20

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

**Forest** : **Area-100 Ha; Proposal submitted on 17.01.2020 for 99.24Ha..**

#### **Power line crossing**

Total no. of crossings : 7 nos.

Proposal submitted : NIL nos.  
Approval obtained : NIL nos.

**PTCC approval** : Proposal is being prepared

**Defence/Civil Aviation** : Propsoal is being prepared

3. **Establishment of 765/400/220kV, Bhuj-II PS (GIS)**

- Awarded to M/s KEC & M/s NHVS

Land acquired : Land handed over to agency

Civil work completed : Under Progress.

Equipment supplied : Nil

Equipment erection : Nil

Scheduled COD : Dec'20

Anticipated COD : Dec'20

1. Contouring completed and FGL finalized.
2. Engineering activities and cutting levelling at substation site is in progress.

## 17) System strengthening for WR

### Background

A large number of IPP projects totaling to an installed capacity of 35000 MW are proposed to come in Chhattisgarh, MP, Odisha, Jharkhand and West Bengal and scheduled to commissioned by 12<sup>th</sup> plan and targeted beneficiaries are constituents of NR & WR. For evacuating power from these IPPs and delivering it to the target beneficiaries a comprehensive system has been evolved. The evolved transmission system consists of (i) dedicated transmission system from generating station to pooling point and their interconnection (ii) System strengthening common to WR and NR (iii) System strengthening in WR (iv) System strengthening in NR. This scheme is part of High Capacity Power Transmission Corridor(HPTC)-I & V, which has been planned for evacuation of power from Phase-I generation projects in Odisha and system strengthening of WR respectively.

### Scope of transmission project

1. Jabalpur-Bhopal 765 kV S/C line
2. Bhopal-Indore 765 kV S/C line
3. Bhopal-Bhopal (MP) 400 kV D/C line
4. Aurangabad-Dhule 765 kV S/C line
5. Dhule-Vadodara 765 kV S/C line
6. Dhule - Dhule(Mah) 400 kV D/C Line
7. 2x1500 MVA 765/400 kV s/s at Bhopal
8. 2x1500 MVA, 765/400 kV s/s at Dhule

### General Details

Special Purpose Vehicle (SPV)	:	Bhopal Dhule Trans. Co. Ltd. (SPTL)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	2900
Levellised Tariff (Rs. Crs)	:	199.5
Request for Qualification	:	02.03.2010
Request for Proposal	:	10.01.2011
Letter of Intent	:	19.01.2011
Transmission Service Agreement (TSA)	:	07.12.2010
SPV acquisition	:	31.03.2011
Transmission License by CERC	:	12.10.2011
Tariff adoption by CERC	:	28.10.2011
Clearance u/s 164	:	29.01.2013
Execution plan submitted to CEA	:	
Scheduled Date of Completion	:	<b>30.03.2014</b>
Actual Date of Completion	:	<b>Jun'2015</b>

### Status of progress of transmission project

- |  |   |                              |
|--|---|------------------------------|
| 1. Jabalpur-Bhopal 765 kV S/C line     | : | Line commissioned on 06/2015 |
| 2. Bhopal-Indore 765 kV S/C line       | : | Line commissioned on 10/2014 |
| 3. Bhopal-Bhopal (MP) 400 kV D/C line. | : | Line commissioned on 07/2014 |
| 4. Aurangabad-Dhule 765 kV S/C line    | : | Line commissioned on 10/2014 |

- |   |   |                              |
|---|---|------------------------------|
| 1. Dhule-Vadodara 765 kV S/C line       | : | Line commissioned on 02/2015 |
| 2. Dhule - Dhule(Mah) 400 kV D/C Line   | : | Line commissioned on 11/2014 |
| 3. 2x1500 MVA 765/400 kV s/s at Bhopal: |   | S/s commissioned on 07/2014  |
| 8. 2x1500 MVA, 765/400 kV s/s at Dhule: |   | S/s Commissioned on 11/2014  |

**Transmission project commissioned on Jun-2015.**

## **18) Name of transmission project - System strengthening for WR and NR**

### **Background**

A large number of IPP projects totaling to an installed capacity of 35000 MW are proposed to come in Chhattisgarh, MP, Odisha, Jharkhand and West Bengal and scheduled to commissioned by 12<sup>th</sup> plan and targeted beneficiaries are constituents of NR & WR. For evacuating power from these IPPs and delivering it to the target beneficiaries a comprehensive system has been evolved. The evolved transmission system consists of (i) dedicated transmission system from generating station to pooling point and their interconnection (ii) System strengthening common to WR and NR (iii) System strengthening in WR (iv) System strengthening in NR. This scheme is part of High Capacity Power Transmission Corridor (HPTC)-II, which has been planned for strengthening of transmission system required for transfer of power from Generating projects in Jharkhand to NR/WR.

### **Scope of transmission project**

1. Dhramjaygarh -Jabalpur 765 kV D/C line
2. Jabalpur-Bina 765 kV S/C line

### **General Details**

Special Purpose Vehicle(SPV)	:	Jabalpur Transmission Company Limited (Sterlite Power Trans. Limited)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1720
Levellised Tariff (Rs. Crs)	:	142.1
Request for Qualification	:	
Request for Proposal	:	28.12.2010
Letter of Intent	:	31.01.2011
Transmission Service Agreement(TSA)	:	12.11.2013
SPV acquisition	:	31.03.2011
Transmission License by CERC	:	12.10.2011
Tariff adoption by CERC	:	28.10.2011
Contract Performance Guarantee	:	
Clearance u/s 164	:	2.07.2013
Execution plan submitted to CEA	:	
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	30.03.2014
Actual Date of Completion	:	Sep' 2015

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

1. Dhramjaygarh -Jabalpur 765 kV D/C lines - Line commissioned on 09/2015
2. Jabalpur-Bina 765 kV S/C line - Line commissioned on 06/2015

**Transmission project commissioned on September, 2015.**

## **19) Name of transmission project - Scheme for enabling import of NER/ER surplus by Northern Region**

### **Background**

For meeting its power requirements in the XI plan and beyond, NR would need to import substantial amount of power from other regions. Most of this power would be imported from surplus ER and NER. For import of power by NR from generation projects proposed to come up in northern part of ER and NER, system strengthening would be required in the transmission corridors connecting from NER to ER and in the eastern part of ER. This transmission project has been proposed for strengthening of NER-ER transmission corridor. Though the scheme is physically located in North eastern and eastern region it has been conceived as an extension of NR network as this will be utilized mainly by NR for meeting its power import requirement from projects located in NER and Sikkim in ER. Substantial exportable power would be available in the NER after commissioning of Tripura Gas (740 MW), Bongaigaon TPS (9750 MW), Kameng HEP (600 MW). Subansiri HEP (2000 MW) would add further to the exportable surplus of NER. Power from hydro projects in Sikkim would also be imported by NR. The constituents of NR are likely to be allocated power from hydro projects of Kameng and Subansiri.

### **Scope of transmission project**

1. Bongaigaon - Siliguri 400 kV D/C line
2. Purnea – Bihar Sharif 400 kV D/C line

### **General Details**

Special Purpose Vehicle (SPV)	:	East-North Interconnection Company Ltd (A subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1700
Levelling Tariff (Rs. Crs)	:	118.8
Request for Qualification	:	
Request for Proposal	:	20.10.2008
Letter of Intent	:	07.01.2010
Transmission Service Agreement	:	10.08.2009
SPV acquisition	:	31.03.2010
Transmission License by CERC	:	28.10.2010
Tariff adoption by CERC	:	28.10.2010
Contract Performance Guarantee	:	
Clearance u/s 164	:	19.05.2011
Execution plan submitted to CEA	:	20.10.2008
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	
Actual Date of Completion	:	<b>Nov' 2014</b>

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

1. Bongaigaon-Siliguri 400 kV (Q) D/C: Line commissioned on 11/2014
2. Purnea-Bihar Sharif 400 kV D/C (Q): Line commissioned on 09/2013

**Transmission project commissioned on November, 2014.**



## **20) Name of transmission project- Part ATS for RAPP U-7&8 in Rajasthan**

### **Background**

For evacuation of power from RAPP-5 to 8(1840 MW), RAPP-5&6 (440 MW) and RAPP-7&8 (2x700 MW), following composite system was evolved and planned to be developed in a phased manner matching with generation projects.

For RAPP -5&6 generation, following transmission system have been commissioned and are in operation;

- RAPP – Kankroli 400kV D/C line
- RAPP – Kota 400kV S/C line

For RAPP -7&8 generation, following transmission system have been planned

- RAPP – Jaipur 400kV D/C line with one ckt via Kota
- RAPP – Shujalpur 400kV D/C line

While element 1 is being taken by PGCIL, the element 2 is proposed under TBCB. This 400 kV line would also act as an inter-regional link between NR and WR. The link would also help in evacuation of power from the complex even in case of any grid constraints in NR.

### **Scope of transmission project**

1. RAPP – Shujalpur 400 kV D/C line

### **General Details**

Special Purpose Vehicle(SPV)	:	RAPP Transmission Company Limited (A subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	310
Levellised Tariff (Rs. Crs)	:	36.5
Request for Qualification	:	10.01.2013
Request for Proposal	:	09.09.2013
Letter of Intent	:	17.09.2013
Transmission Service Agreement(TSA)	:	24.07.2013
SPV acquisition	:	12.03.2014
Transmission License by CERC	:	31.07.2014
Tariff adoption by CERC	:	23.07.2014
Contract Performance Guarantee	:	23.11.2013
Clearance u/s 164	:	07.01.2015
Execution plan submitted to CEA	:	30.06.2014
NIT issued on	:	08.11.2013
EPC contract awarded on	:	18.09.2014
Scheduled Date of Completion	:	28.02.2016
Actual Date of completion	:	November, 2016

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

- (1) RAPP - Shujalpur 400kV D/C line : Line Charged on 15<sup>th</sup> November 2016  
**Transmission project commissioned on Nov-16.**

## **21) Name of transmission project - Eastern Region System Strengthening Scheme-VII**

### **Background**

In view of the growth of generation projects in different pockets of ER, it is felt desirable to strengthen the interconnection of the state grids with the regional grid to facilitate exchange of additional power between them. This scheme has been planned as the system-strengthening scheme for exchange of power between West Bengal grid and inter-state transmission system (ISTS).

### **Scope of transmission project**

1. Purulia PSPP – Ranchi 400 kV D/C line
2. Kharagpur – Chaibasa 400 kV D/C line

### **General Details**

Special Purpose Vehicle (SPV):	Purulia & Kharagpur Transmission Company Limited (A subsidiary of Sterlite Power Trans. Limited)	
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	370
Levelling Tariff (Rs. Crs)	:	58.9
Request for Qualification	:	28.12.2012
Request for Proposal	:	06.09.2013
Letter of Intent	:	17.09.2013
Transmission Service Agreement (TSA)	:	06.08.2013
SPV acquisition	:	09.12.2013
Transmission License by CERC	:	30.05.2014
Tariff adoption by CERC	:	20.08.2014
Contract Performance Guarantee	:	22.11.2013
Clearance u/s 164	:	20.05.2015
Execution plan submitted to CEA	:	10.03.2014
NIT issued on	:	08.11.2013
EPC contract awarded on	:	02.12.2014 (For KC Line) & 27.05.2015 (For PR line)
Scheduled Date of Completion	:	April 2016
Actual Date of completion	:	January, 2017

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

1. Purulia PSP (WB) – Ranchi (PG) 400 kV D/C line
  - Length: 223.4 Ckm .Line commissioned on 07-Jan-17
2. Chaibasa – Kharagpur 400 kV D/C line
  - Length: 323 Ckm                      Locations: 426 nos

**Line Completed on Jun-16, Project Commissioned on Jan-17.**

## 22) Name of transmission project - Northern Region System Strengthening Scheme(NRSS-XXIX)

### Background

Presently the power supply to the valley is through Kishenpur – Wagoora 400 kV D/C line, Kishanpur- Pampore 220 kV D/C line and Udampur – Pampore 132 kV D/C line. Kishanpur -newwanpoh 400 kV D/C Line is under construction. All the existing and under construction line are routed through Udampur – Batote – Banihal – Pir Panjal pass. The common corridor of the transmission line is highly prone to snow storm, landslides and other natural calamities making power supply to the Kashmir valley vulnerable. There was a complete collapse of power supply to Kashmir valley on 6th and 7th Jan.'12 due to heavy snowfall and breakdown/tripping of all three existing links between Jammu region and Kashmir valley. Further power supply to Jammu and Kashmir is basically through 400/220 kV Kishanpur substation and there is an immediate need for providing an alternate route for transfer of power from Jammu region to Kashmir valley. Further to need the high load growth anticipated in northern part of Kashmir and to cater to projected loads, a 400/220 kV substation at Amargarh in North Kashmir area is required. Accordingly, to mitigate above constraints present scheme has been proposed.

### Scope of transmission project

1. Establishment of 7 x 105 MVA, 400/220 kV GIS substation at Amargarh
2. Jalandhar – Samba 400 kV D/C line
3. Samba – Amargarh 400 kV D/C routed through Akhnoor & Rajouri
4. LILO of both circuits of Uri – Wagoora 400 kV D/c line at Amargarh

### General Details

Special Purpose Vehicle (SPV)	:	NRSS-XXIX Transmission Limited (Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	2621
Levelised Tariff(Rs. Crs)	:	437.705
Request for Qualification	:	02.08.2013
Request for Proposal	:	09.05.2014
Letter of Intent	:	23.05.2014
Transmission Service Agreement (TSA)	:	02.01.2014
SPV acquisition	:	04.08.2014
Transmission License by CERC	:	14.11.2014
Tariff adoption by CERC	:	10.12.2014
Contract Performance Guarantee	:	26.06.2014
Clearance u/s 164	:	30.09.2015
Execution plan submitted to CEA	:	07.11.2014
NIT issued on	:	15.09.2014(For J-S Line), 05.03.2015(For S-A line) & 18.09.2014(For Amargarh S/S)
EPC contract awarded on	:	15.12.2014(for JS Line), 29.07.2015 (for SA Line) & 21.12.15 (for Amargarh S/S)
Scheduled Date of Completion	:	04.10.2018
Actual Date of completion	:	August, 2018

## **Status of progress of transmission projects**

### **1. Jullandhar – Samba 400 kV D/C line**

Length: 270 Ckm .

**Line Commissioned on June-16.**

### **2. Samba – Amargarh 400 kV D/C line**

Length: 546.8 Ckm .

Locations: 761 nos

**Line Commissioned in Aug'18.**

### **3. 7x105 MVA, 400/220 kV Amargarh GIS**

**Substation commissioned in May'18.**

### **4. LILO of both circuit of Uri – Wagoora 400 kV D/C line at Amargarh**

Length: 13.64 ckm

Locations: 23 nos.

**Line commissioned in Mar'18/Apr'18.**

**Transmission Project commissioned on Aug'18.**

## **23) Name of transmission project - Connectivity lines for Maheshwaram 765/400 kV Pooling Station**

### **Background**

Presently Southern Region is facing severe power shortage. This power deficit situation has arisen mainly due to (i) delay/deferment of anticipated generation projects and (ii) also due to non-availability of gas for existing gas projects in Southern Region. Presently the existing/planned system can facilitate import of about 9000 - 10000 MW into Southern Region. However, under certain scenarios of non-availability / delay in commissioning of some of the generation projects in Southern region expected power transfer requirement is about 16000 MW by 2018-19. In view of large deficit and requirement of transmission system to meet future power transfer requirements, high capacity Inter-regional strengthening schemes were identified. The Present Scheme is part of the above identified scheme.

### **Scope of transmission project**

1. Maheshwaram (PG) – Mehboob Nagar 400 kV D/C line
2. Nizamabad – Yeddumailaram (Shankarpalli) 400kV D/c line
3. 2 No. of 400 kV line bays at Mehboob Nagar S/S of TSTRANSCO
4. 2 No. of 400 kV line bays at Yeddumailaram S/S of TSTRANSCO.

### **General Detail**

Special Purpose Vehicle (SPV)	:	Maheshwaram Transmission Ltd. (Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	534
Levellised Tariff (Rs. Crs)	:	55.251
Request for Qualification	:	21.08.2014
Request for Proposal	:	03.08.2015
Letter of Intent	:	21.07.2015
Transmission Service Agreement (TSA)	:	10.06.2015
SPV acquisition	:	20.08.2015
Transmission License by CERC	:	23.11.2015
Date of tariff adoption by CERC	:	24.11.2015
Contract Performance Guarantee	:	18.08.2015
Clearance u/s 164	:	23.09.2016
NIT issued on	:	02.11.2015
EPC contract awarded on	:	13.01.2016
Execution plan submitted to CEA	:	01.12.2015
Scheduled Date of Completion	:	20.06.2018
Actual Date of completion	:	December, 2017

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

#### **1. Maheshwaram – Mahboobnagar 400 kV D/C line**

- Length: 197.178 ckm
- Locations: 255 nos

**Line commissioned on Dec'17.**

**2. Nizamabad – Yeddumailaram (Shankarpalli) 400 kV D/C line**

- Length: 279.326 ckm
- Locations: 367 nos

**Line commissioned on Oct'17.**

**3. 2 No. of 400 kV line bays at Mehboob Nagar S/S of TSTRANSCO**

**Bay commissioned on Dec'17**

**4. 2 No. of 400 kV line bays at Yeddumailaram S/S of TSTRANSCO.**

**Bay commissioned on Oct'17.**

**Transmission Project commissioned on Dec'17.**

## **24) Name of transmission project - Common Transmission system for phase-II generation projects in Orissa and immediate evacuation system for OPGC project (Orissa)**

### **Background**

Various IPPs, expected to be commissioned in Odisha, had applied for grant of connectivity and LTOA/LTA. Seven IPPs were considered under phase-I and transmission system for the same under implementation under HCTPC-I scheme. Further following 5 projects were considered under phase-II generation projects in Odisha;

Sterlite Energy Ltd (Ph-I project) (LTA of 1000 MW under Ph-II)	2400 MW
GMR Kamalanga Energy Ltd(Ph-II)	350 MW
OPGC	1350 MW
Darlipalli(NTPC)	1600 MW
NSL Nagapatnam Power & Infratech	1320 MW

and following transmission system has been finalized for evacuation of power from above mentioned generation projects;

#### **1. Immediate evacuation system for Ph-II generation projects in Odisha**

- Sterlite TPP – Jharsuguda 400 kV D/C line
- GMR – Angul 400 kV D/C line
- OPGC – Jharsuguda 400 kV D/C line
- Darlipalli –Jharsuguda 400 kV D/C line
- NSL Nagapatnam – Angul 400 kV D/C line

#### **2. Common transmission system associated with Ph-II generation projects in Odisha**

- Angul – Jharsuguda – Dharamjaygarh 765 kV D/C line(2<sup>nd</sup>)
- Jharsuguda – Raipur pool 765 kV D/C line
- LILO of Rourkela – Raigarh 400 kV D/C line(2<sup>nd</sup>) at Jharsuguda
- Addition of 2x1500 MVA, 765/400 kV ICT at Jharsuguda
- Addition of 2x1500 MVA, 765/400 kV ICT at Angul
- Split bus arrangement at 400 kV and 765 kV bus in both Angul and Jharsuguda

### **Scope of transmission project**

1. Jharsuguda – Raipur pool 765 kV D/C line
2. OPGC – Jharsuguda 400 kV D/C line

### **General Detail**

Special Purpose Vehicle (SPV)	:	Odisha Generation Phase-II Trans. Limited (A subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1698
Levellised Tariff (Rs. Crs)	:	139.793
Request for Qualification	:	23.04.2015
Request for Proposal	:	15.12.2015
Letter of Intent	:	06.01.2016
Transmission Service Agreement	:	20.11.2015

SPV acquisition	:	08.04.2016
Transmission License by CERC	:	30.06.2016
Tariff adoption by CERC	:	31.05.2016
Contract Performance Guarantee	:	28.01.2016
Clearance u/s 164	:	07.03.2017
Execution plan submitted to CEA	:	14.07.2016
NIT issued on	:	10.01.2016
EPC contractor awarded on	:	23.06.2016
Scheduled Date of Completion	:	08.08.2019
Anticipated Date of Completion	:	Jan'19

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

### **1. Jharsuguda – Raipur 765 kV D/C (hexa) line**

Length:	609.9 CKm
Locations:	782 nos
Foundation completed:	782 nos
Tower erected:	782 nos
Stringing completed:	609.9 CKm
Scheduled COD:	Aug'19

Received Approval for Energization certificate from CEA on 14.12.18 and line is ready for charging.

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

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

#### **Forest**

Details of Tr. Line Falling under Forest:-

##### **Chattisgarh Portion-**

Locations	:	27 nos.
Length	:	40 km
Forest area affected (ha)	:	71.76 ha
Forest proposals submitted on	:	13.09.2016
Current status	:	Stage-I Approval / tree cutting permission received

##### **Odisha Portion-**

Locations	:	31 nos.
Length	:	25 km
Forest area affected (ha)	:	94.65 ha
Forest proposals submitted on	:	03.10.2016
Current status:	:	Stage-I Approval / tree cutting permission received.

#### **Power line crossing**

Total no. of crossings	:	46	nos.
Proposal submitted	:	46	nos.
Approval obtained	:	46	nos.



**Railway crossing**

Total no. of crossings	:	6	nos.
Proposal submitted	:	6	nos.
Approval obtained	:	6	nos.

**National Highway Crossing**

Total no. of crossings	:	6	nos.
Proposal submitted	:	6	nos.
Approval obtained	:	6	nos.

**River Crossings**

Total no. of crossings	:	0	nos.
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**PTCC approval (Chattisgarh Portion)**

Proposal submitted to Defence on	:	23.06.2016
Proposal submitted to BSNL on	:	23.06.2016
Proposal submitted to Railways on	:	23.06.2016
Current status	:	Received

**PTCC approval (Odisha Portion)**

Proposal submitted to Defence on	:	23.06.2016
Proposal submitted to BSNL on	:	23.06.2016
Proposal submitted to Railways on	:	23.06.2016
Current status: Approval Obtained on	:	05.09.2017

**Defence/Civil Aviation**

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

**2. OPGC TPS– Jharsuguda 400 kV D/C (triple) line**

- Length: 102.5 ckm
- Locations: 152 nos

**Line commissioned on Dec'17.**

## **25) Creation of new 400 kV GIS in Gurgaon area and Palwal as a part of ISTS**

### **Background**

HVPNL furnished district wise load projections of Haryana for 13th Plan (2021-22). Looking at the load growth in Prithala and around Gurgaon areas, new three-400kV substation one at Kadarapur, other at Sohna Road in Gurgaon area and 400kV substation at Prithla in Palwal area as a part of Inter State Transmission System (ISTS) has been proposed to cater the load demand of Gurgaon and Palwal. The first two S/S are to cater the load demand of sector 58 to sector 67 and sector 68 to sector 80 sectors of Gurgaon respectively. The creation of Prithala S/S would meet the power demand of the area to be developed under Prithala Development Plan. Beside this it will also act as a main feeding source to Palwal, Rangla Rajpur and Meerpur Kurli.

### **Scope of transmission project**

1. Aligarh-Prithala 400 kV D/C HTLS line
2. Prithala-Kadarapur 400 kV D/C HTLS line
3. Kadarapur-Sohna road 400 kV D/C HTLS line
4. LILO of Gurgaon – Manesar 400 kV D/C (Q) line at Sohna Road
5. Neemrana(PG) – Dhanonda 400 kV D/C HTLS line
6. 2x500 MVA, 400/220 kV GIS at Kadarapur (Gurgaon)
7. 2x500 MVA, 400/220 kV GIS at Sohna Road (Gurgaon)
8. 2x500 MVA, 400/220 kV GIS at Prithala(Palwal)
9. 2 nos. of 400kV bays at Dhanonda S/S

### **General Detail**

Special Purpose Vehicle (SPV)	:	Gurgaon Palwal Transmission Limited. (Sterlite Grid 4 Limited; a subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1640
Levellised Tariff (Rs. Crs)	:	125.542
Request for Qualification	:	15.10.2015
Request for Proposal	:	07.03.2016
Letter of Intent	:	17.03.2016
Transmission Service Agreement (TSA)	:	04.03.2016
SPV acquisition	:	14.07.2016
Transmission License by CERC	:	29.09.2016
Tariff adoption by CERC	:	06.09.2016
Contract Performance Guarantee	:	11.07.2016
Clearance u/s 164	:	31.03.2017
Execution plan submitted to CEA	:	09.11.2016
NIT issued on	:	24.06.2016 (For Transmission Line) 21.04.2016 (For S/s- Pre-Bid tie up)
EPC contract awarded on	:	25.11.2016 (For Transmission Line) 28.10.2016 (For Substation)
Scheduled Date of Completion	:	Sep'19 (38 months)

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

### **1. Aligarh-Prithala 400 kV D/C HTLS line**

Length: 98.92 CKm

Locations: 108 nos.

**Line declared deemed commissioned in July'19.**

### **2. Prithala-Kadarpur 400 kV D/C HTLS line**

Length: 57.9 Ckm

Locations: 69 nos.

Foundation completed: 69 nos

Tower erected: 69 nos

Stringing completed: 57.9 ckm

Scheduled COD: May'19

Received Approval for Energization certificate from Electrical Inspector, CEA on 27-11-2019 and declared DOCO on 7-12-2019

### **3. Kadarpur-Sohna road 400 kV D/C HTLS line**

Length: 20.56 Ckm

Locations: 29 nos.

Foundation completed: 29 nos

Tower erected: 29 nos

Stringing completed: 20.56 ckm

Scheduled COD: Sep'19

Electrical Inspection was held on 27-02-2020 and the approval for Energization certificate is expected by 6<sup>th</sup> Mar 2020. .

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

1. Environment Pollution Control Authority (EPCA) construction Ban has prevented and unavoidably delayed the construction work.
2. RoW issue raised in village Tehsil – Badshahpur, Gurgaon which has delayed construction.

## **Status of statutory approvals:**

### **Forest**

Details of Tr. Line Falling under Forest:- Locations: 7 nos.

Length: 3146 mtrs

Forest area affected (ha) : 14.4716

Forest proposals submitted on .04.10.17

Current status: Stage-II Received.

### **Power line crossing**

Total no. of crossings : 3 nos.

Proposal submitted : 3 nos.

Approval obtained : 3 nos.

Date:

Date:

### **Railway crossing**

Total no. of crossings : 0 nos.

Proposal submitted	:	0	nos.	Date:
Approval obtained	:	0	nos.	Date:

### National Highway Crossing

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

### River Crossings

Total no. of crossings	:	0	nos.
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### PTCC approval

Proposal submitted to Defence on .....

Proposal submitted to BSNL on .....

Proposal submitted to Railways on .....

Current status : Approval Received

### Defence/Civil Aviation

Proposal submitted to Defence/Civil Aviation

Current Status: Received Civil and Defence clearance..

## 4. LILO of Gurgaon – Manesar 400 kV D/C (Q) line at Sohna Road

Length:	2.16 Ckm
Locations:	6 nos.
Foundation completed:	6 nos
Tower erected:	6 nos
Stringing completed:	2.16 nos
Scheduled COD:	Sep'19

Electrical Inspection was held on 27-02-2020 and the approval for Energization certificate is expected by 6<sup>th</sup> Mar 2020

### Constraints where Project Authority requires intervention:

1. Environment Pollution Control Authority (EPCA) construction Ban has prevented and unavoidably delayed the construction work

### Status of statutory approvals:

#### Forest

Details of Tr. Line Falling under Forest:- Locations:0 nos. Length: 0 kms

Forest area affected (ha) : **Nil**

Forest proposals submitted on .....

Current status:

#### Power line crossing

Total no. of crossings	:	0	nos.	
Proposal submitted	:	0	nos.	Date:
Approval obtained	:	0	nos.	Date:

**Railway crossing**

Total no. of crossings	:	0	nos.	
Proposal submitted	:	0	nos.	Date:
Approval obtained	:	0	nos.	Date:

**National Highway Crossing**

Total no. of crossings	:	0	nos.	
Proposal submitted	:	0	nos.	Date:
Approval obtained	:	0	nos.	Date:

**River Crossings**

Total no. of crossings	:	0	nos.
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**PTCC approval**

Proposal submitted to Defence on .....

Proposal submitted to BSNL on .....

Proposal submitted to Railways on .....

Current status: **Approval Received**

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on.....

Current Status: **Received Civil and Defense clearance**

**5. Neemrana(PG) – Dhanonda 400 kV D/C HTLS line**

Length:	93.43 Ckm
Locations:	111 nos.

**Transmission line commissioned in Feb'19**

**6. 2x500 MVA, 400/220 kV GIS at Kadarpur (Gurgaon)**

Land Acquired:	100%.
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	100%
Scheduled COD	May'19

Received Approval for Energization certificate from Electrical Inspector, CEA on 27-11-2019 and declared DOCO on 11-12-2019

**7. 2x500 MVA, 400/220 kV GIS at Sohna Road (Gurgaon)**

Land Acquired:	100%.
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	100%
Scheduled COD	Sep'19

Electrical Inspection was held on 27-02-2020 and the approval for Energization certificate is expected by 6<sup>th</sup> Mar 2020

**8. 2x500 MVA, 400/220 kV GIS at Prithala(Palwal)**

Scheduled COD May'19

**Substation declared deemed commissioned in July'19**

**9. 2 nos. of 400kV bays at Dhanonda S/S**

Scheduled COD May'19

**Bays charged on 20-06-2018 and 14-07-2018**

## **26) Name of transmission project - Connectivity system for Khargone TPP (2x660 MW)**

### **Background**

NTPC Ltd. has planned to establish a 1320MW (2x660MW) thermal power project at Khargone in the state of Madhya Pradesh. Accordingly, transmission system for evacuation of power from generation project has been evolved.

### **Scope of transmission project**

1. LILO of one ckt of Khandwa - Rajgarh 400kV D/C line at Khargone TPP  
(The LILO shall be used for start-up power and commissioning activities requirement. After commissioning of balance transmission system, the LILO would be bypassed at Khargone generation switchyard and may be utilized only under contingency condition)
2. Khargone TPP – Khandwa pool 400 kV D/C (Quad) line
3. System strengthening in WR
  - i. Khandwa Pool – Indore 765kV D/C line
  - ii. Khandwa Pool – Dhule 765 kV D/C line
  - iii. Establishment of 765/400kV, 2x1500MVA pooling station at Khandwa  
**765 kV:**
    - ICTs: 7x500MVA, 765/400 kV (1 spare unit)
    - ICT bays: 2 no.
    - Line bays: 4 no. (2 no. for Khandwa pool – Indore 765 kV D/C & 2 no. for Khandwa Pool – Dhule 765 kV D/C)
    - Bus reactor: 3 X 80 MVAR
    - Bus reactor bay: 1 no.
    - Switchable Line reactors: 7 X 80 MVAR (1 unit is as a spare unit) for Khandwa Pool – Dhule 765 kV D/C (each 240 MVAR reactor with 800  $\Omega$  NGR along with its auxiliaries)
    - Space for line bays (future): 4 no.
    - Space for ICT bays (future): 3 no.
    - Space for 1500 MVA, 765/400 kV ICTs (future): 3 no.**400 kV:**
    - ICT bays: 2 no.
    - Line bays for termination of Khargone TPP– Khandwa PS 400 kV D/C line: 2 no.
    - Bus reactor: 1 X 125 MVAR
    - Bus reactor bay: 1
    - Space for line bays (future): 6 no.
    - Space for ICT bays (future): 3 no.
  - iv. 2 nos. of 765 kV line bays and 7 X 80 MVAR Switchable line reactors (1 unit as spare) along with 800  $\Omega$  NGR & its auxiliaries for Khandwa Pool – Dhule 765 kV D/C at Dhule 765/400 kV substation of M/s BDTCL.

## General Details

Special Purpose Vehicle (SPV)	: Khargone Transmission Limited (Sterlite Grid 4 Limited; a subsidiary of Sterlite Power Transmission Limited))
Bid Process Coordinator (BPC)	: RECTPCL
Estimated Cost (Rs. crs)	: 2136
Levellised Tariff (Rs. Crs)	: 159.11334
Request for Qualification	: 30.11.2015
Request for Proposal	: 11.02.2016
Letter of Intent	: 26.05.2016
Transmission Service Agreement (TSA)	: 14.03.2016
SPV acquisition	: 22.08.2016
Transmission License by CERC	: 17.11.2016
Tariff adoption by CERC	: 11.11.2016
Contract Performance Guarantee	: 08.07.2016
Clearance u/s 164	: 05.07.2017
Execution plan submitted to CEA	: 18.12.2016
NIT issued on	: 27.05.2016 (For Transmission Lines) 29.06.2016 (For Substation)
EPC contract awarded on	: 25.11.2016 (For Transmission Lines)
Scheduled Date of Completion	: July 2019

### Status of progress of transmission project;

#### 1. LILO of one ckt of Khandwa - Rajgarh 400kV D/C line at Khargone TPP

Length	:13.574 CKm
Locations	:21 nos.

#### Line Commissioned in Feb, 2018.

#### 2. Khargone TPP – Khandwa pool 400 kV D/C (Quad) line

• Length:	50.1 CKm
• Locations:	66 nos.
• Foundation completed:	66 nos
• Tower erected:	64 nos
• Stringing completed:	39 ckm
• Scheduled COD:	Jul'19

### Constraints where Project Authority requires intervention:

1. KTL had to divert the route for construction of KK line in order to avoid interception of KK Line with under progress NTPC Railway line.
2. RoW issues at Location 19/1 (Village – Delwada, Tehsil – Sanawad, District - Khargone) and 20/0 (Village – Mortakka Mafi, Tehsil – Punas, District – Khandwa). Apart from this, farmers from Mortakka and Moraghadi (Tehsil – Punasa, District – Khandwa) are creating hinderance for 33kV line required for Substation Auxiliary power.

### Status of statutory approvals:

#### Forest

Details of Tr. Line Falling under Forest: Locations: 0 nos. Length: 1095.69 Mtr.  
Forest area affected (ha): 0.828 (Barwah Division)



Forest proposals submitted on 16 Nov 2016

Current status: **Approval IN-PRINCIPLE (Working Permission Recieved) Stage-II Approval under progress**

#### **Power line crossing**

Total no. of crossings : 6 nos.

Proposal submitted 6 nos

Approval obtained : 6 nos

#### **Railway crossing**

Total no. of crossings : 0 nos.

Proposal submitted : 0 nos. Date:

Approval obtained : 0 nos. Date:

#### **National Highway Crossing**

Total no. of crossings : 0 nos.

Proposal submitted : 0 nos. Date:

Approval obtained : 0 nos. Date:

#### **River Crossings**

Total no. of crossings : 0 nos.

#### **PTCC approval**

Proposal submitted to Defence on 29-06-17

Proposal submitted to BSNL on 17-06-17

Proposal submitted to Railways on 19-06-17

Current status: NOC Recieved

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

Proposal submitted to Defence/Civil Aviation on 13-07-17 (DA) / NR (CA)

Current Status: NOC received vide letter no. AirHQ/S 17726/4/ATS(ty BM-DCCI) dated 16th Oct'17.

### **3. System strengthening in WR**

#### **i. Khandwa Pool – Indore 765kV D/C line**

Length: 180.08 CKm

Locations: 243 nos.

Foundation completed: 243 nos.

Tower erected: 243 nos.

Stringing completed: 180.08 ckm

Scheduled COD: Jul'19

Received Approval for Energization certificate from Electrical Inspector, CEA on 06<sup>th</sup> Feb 2020.

#### **ii. Khandwa Pool – Dhule 765 kV D/C line**

Length: 378.88 CKm

Locations: 492 nos.

Foundation completed: 476 nos.

Tower erected: 474 nos.

Stringing completed: 350.44 ckm

**Constraints where Project Authority requires intervention:**

1. Objection has been raised by D.C., Dhule for traversing of line through submergence area of proposed Jamphal Dam in Maharashtra and diversion of line is requested. Work is stopped now.
2. Construction site of Jamphal dam area was visited by CEA officers on 05.07.2019 and it was found that construction work of dam is running in full swing. During the meeting with District Collector (DC), in his office at Dhule, it was informed that being a location specific project, construction of line in submergence area can't be allowed. However, he had assured to provide full support in getting clearance from various agencies for diversion of line.
3. Based on site visit and meeting with DC, Dhule in July 2019, CEA had advised M/s KTL for diversion of the route of transmission line. Now re-routing work of line has been started and the Forest Diversion Proposal has been submitted to MoEF. Approval under Section 164 of Electricity Act, if required, will be processed on fast track.
4. Forest clearance proposal for diverted route is pending with Nodal officer, MoEF.

**Status of statutory approvals:**

**Forest**

Details of Tr. Line Falling under Forest: Locations: 62 nos. Length: 61144Mtrs.

Forest area affected (ha): 159.126 [KD-MP: 39.437 {11.866 (Barwah Division) + 27.571 (Sendhwa Division)} + KD-MH: 119.689 (Dhule Division)]

Forest proposals submitted on KD-MP: 30 Nov 2016 KD-MH: 03 Dec 2016

Current status:

KD-MP: Stage I Received (Working Permission Received) Stage II Approval under progress

KD-MH: REC meeting done, Stage I clearance received, Stage II Approval under progress

**Power line crossing**

Total no. of crossings : 9 (EB-MP), 1 (EB-MH), 2 (PG-KNW), 2(BDTCL), 1(KTL) nos.

Proposal submitted : 9 (EB-MP), 1 (EB-MH), 2 (PG-KNW) nos. Date: 29-06-17 (EB-MP), 30-05-17 (EB-MH), 21-02-17 (PG-KNW) , 01-07-17 (BDTCL) ;2Nos.

1Nos. Submission pending(For U/C line KTL)

Approval obtained : 7nos. (EB-MP) Date: 16-10-17, 20-11-17, 26-11-17, 29-11-17, 1no. (EB-MH) Date: 19-07-17, 2nos. (PG-KNW) Date: 19-08-17, 2nos. (U/C EB-MP) Date: 26-02-18

**Railway crossing**

Total no. of crossings : 1 no.

Proposal submitted : 1 nos., 07-05-17 (NH3)

Approval obtained : 1 no

**National Highway Crossing**

Total no. of crossings : 1 nos.

Proposal submitted : 1 nos., 07-05-17 (NH3)

Approval obtained : 1 no

### **River Crossings**

Total no. of crossings : 1 no.

Proposal submitted : Not Required 1 no. Date:

Approval obtained: Not Required 1 no. Date:.

### **PTCC approval**

Proposal submitted to Defence on 20-05-17

Proposal submitted to BSNL on 12-05-17

Proposal submitted to Railways on 19-06-17

Current status: **NOC Recieved**

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on 13-07-17 (DA) / NR (CA)

Current Status: NOC received vide letter no. AirHQ/S 17726/4/ATS(ty BM-DCCI) dated 16th Oct'17.(DA).

#### **iii. Establishment of 2x1500MVA, 765/400kV, pooling station at Khandwa**

Land Acquired: 100%

Civil work completed: 100%

Equipment supplied: 100%

Equipment erection: 100%

Scheduled COD Jul'19

Received Approval for Energization certificate from CEA on 13-01-2020

#### **iv. 2 No. of 765 kV line bays at Dhule S/S of BDTCL for Khandwa Pool – Dhule 765kV D/C Line**

Land Acquired: 100%

Civil work completed: 100%

Equipment supplied: 100%

Equipment erection: 100%

Scheduled COD Jul'19

Anticipated COD: 15-Oct-2018 (Electrical Inspection Done on 18-Sept-2018)

## **27) Transmission project - Transmission system for NER System Strengthening Scheme-II (Part-B) and V (NER-IIB & V)**

### **Background**

This scheme has been planned to strengthen the interconnection between the states of Assam and Arunachal Pradesh and strong interconnection between northern and southern part of North Eastern Region and would also facilitate dispersal of power from central sector/private generation projects to various parts of NER.

### **Scope of transmission project**

1. Establishment of 400/132 kV, 7x105MVA single phase (including one spare) S/s at Surajmaninagar

#### **400kV**

- ICTs: 400/132 kV, 7x105 MVA single phase (including one spare)
- ICTs bays: 2 no.
- Line bays: 2 no.  
[2 no. for Palatana – Surajmaninagar and 2 no. for Surajmaninagar – PK Bari 400 kV D/C Line]
- Bus reactor bays: 2x125 MVAR
- Bus reactor bays: 2 no.
- Space for future line bays (incl. space for sw. line reactor): 6 no.
- Space for ICT bays: 1 no.

#### **132 kV**

- ICTs bays: 2 no.
- Line bays: 2 no.  
[2 no. for Surajmaninagar (TSECL) - Surajmaninagar (TBCB) 132 kV Line with high capacity/HTLS (equivalent to single moose)]
- Space for future line bays: 6 no.
- Space for ICT Bays: 1 no.  
Space for future 400/132 kV, 315MVA ICT  
TSP is free to choose the location of Surajmaninagar S/s within a radius of 10 km from the Surajmaninagar (TSECL) S/s.

2. Establishment of 400/132 kV, 7x105 MVA Single phase (including one spare) S/s at P.K. Bari.

#### **400 kV**

- ICTs 400/132 kV, MVA single (including one spare)
- ICTs bays: 2 no.
- Line bays: 4 no.  
[2 no. for Surajmaninagar – P. K. Bari and 2 no. for P. K. Bari – Silchar 400 kV D/C line]
- Bus reactor: 2x125 MVAR
- Bus reactor bays: 2 no.
- Space for future line bays (including space for sw. line reactor): 6 no.  
Space of ICT bays: 1 No

### **132 kV**

- ICTs bays; 2 no.
  - Line bays: 2 no.  
[2 no. for P.K. Bari (TSECL) – P. K. Bari (TBCB) 132kV D/C line with high Capacity/HTLS (equivalent of single moose)]
  - Space for future line bays: 6 no.
  - Space for ICT bays: 1 no.  
Space for future 400/132 kV, 315 MVA ICT
3. Surajmaninagar - P. K. Bari 400 kV D/c line (Twin ACSR Moose)
4. AGTPP (NEEPCO) – P.K. Bari (TSECL) 132 kV D/c line with high capacity HTLS conductor (equivalent to single moose ampacity at 85°C)
5. Biswanath Chariyalli (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line
6. Silchar (POWERGRID) – Misa (POWERGRID) 400kV D/c (Quad) line.
7. LILO of one circuit of Biswanath Chariyalli (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line at Gohpur (AEGCL)
8. Line Bays:
- 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line at AGTPP (NEEPCO) Switchyard:
  - 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line at P.K. Bari (TSECL) S/s:
  - 2 nos. 132kV line bays for termination of Biswanath Chariyalli (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line at Itanagar S/s (Ar. Pradesh)
  - 2 no. 400 kV line bays at Palatana GBPP switchyard for termination of Palatana - Surajmaninagar 400kV D/c line.

### **General Details**

Special Purpose Vehicle	:	NER II Transmission Limited (Sterlite Grid 4 Limited; a subsidiary of Sterlite Power Transmission Limited)
Bid Process Coordinator	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	2471
Levellised Tariff (Rs. Crs)	:	431.653
Request for Qualification	:	29.12.2015
Request for Proposal	:	18.01.2017
Letter of Intent	:	22.02.2017
Transmission Service Agreement (TSA)	:	27.12.2016
SPV acquisition	:	31.03.2017
Transmission License by CERC	:	20.06.2017
Tariff adoption by CERC	:	12.06.2017
Contract Performance Guarantee	:	27.03.2017
Clearance u/s 164	:	31.08.2018
Execution plan submitted to CEA	:	24.07.2017

Scheduled Date of Completion : Nov 2020

**Status of progress of transmission project;**

**1. 2x315 MVA, 400/132 kV S/S at Surajmaninagar**

Land Acquired	:95%
Civil work completed	:65%
Equipment supplied	:100%
Equipment erection	: 21%
Scheduled COD	:Jul'20

**Constraints/Approval if any:**

1. Allotment of 1.02 acres of Government land is pending with Collector, West Tripura.

**2. 2x315 MVA, 400/132 kV S/S at P.K. Bari**

• Land Acquired	:95%
• Civil work completed	:70%
• Equipment supplied	:100%
• Equipment erection	:34%
• Scheduled COD	:Jul'20

**Constraints/Approval if any:**

1. Allotment of 1.17 acres of Government land is pending with Collector, Unakoti.

**3. Surajmaninagar - P. K. Bari 400 kV D/C line**

Length	: 154.212 ckm
Locations	: 208 nos
Foundation completed	: 175 nos
Tower erected	: 147 nos
Stringing completed	: 41 ckm
Scheduled COD	: Jul'20

**Constraints where Project Authority requires intervention:**

1. The proposal for PLCC Carrier frequency has been submitted to Ministry of Commnication (WPC Wing) and the approval is still awaited

**Status of statutory approvals:**

**Forest**

Details of Tr. Line Falling under Forest:-

Locations	: 79 nos.
Length	: 30.41 Km (36.632 KM forest affected stretch)
Forest area (ha)	: 139.931 ha
Forest proposals submitted on	: Submitted online on 09-Jan-18
Current status	: Stage-I & tree cutting permission received

**Power line crossing**

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

**Railway crossing**

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

**National Highway Crossing**

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

**River Crossings**

Total no. of crossings	:	0	nos.
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**PTCC approval**

Proposal submitted to Defence on – 17-Apr-18

Proposal submitted to BSNL on – 28-Apr-18

Proposal submitted to Railways on - 19-Apr-18

Current status: PTCC Approval received.

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on - Civil Aviation Submitted and NOC from Defence Received

Current Status: Civil Aviation Approval Awaited

**4. AGTPP (NEEPCO) – P.K. Bari (TSECL) 132 kV D/c line**

Detailed Survey is completed.

Length	:	166.85 ckm
Locations	:	239 nos.
Foundation completed	:	225 nos
Tower erected	:	173 nos
Stringing completed	:	45 ckm
Scheduled COD	:	Mar'20

**Constraints where Project Authority requires intervention:**

1. The proposal for PLCC Carrier frequency has been submitted to Ministry of Communication (WPC Wing) and the approval is still awaited

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

Details of Tr. Line Falling under Forest:-

Locations: 20nos.

Length: 6.5km (7.65 KM forest affected stretch)

Forest area affected (ha) : 17.569 ha

Forest proposals submitted on 10-01.18

Current status: Stage-I received on 12 OCT'18, Final Tree cutting permission received

**Power line crossing**

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

**Railway crossing**

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

**National Highway Crossing**

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

**River Crossings**

Total no. of crossings	:	0	nos.
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**PTCC approval**

Proposal submitted to Defence on - 17-Apr-18

Proposal submitted to BSNL on - submitted

Proposal submitted to Railways on - 19-Apr-18

Current status: PTCC clearance received on 20 Sep'18.

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on - submitted

Current Status: Civil Aviation Submitted and NOC from Defence received.

**5. Biswanath Chariyalli (PG) – Itanagar 132kV D/c (Zebra) line**

Detailed Survey Completed

Length	:	133.64 ckm
Locations	:	211 nos
Foundation completed	:	151 nos
Tower erected	:	121 nos
Stringing completed	:	33 ckm
Scheduled COD	:	Mar'20

**Constraints where Project Authority requires intervention:**

1. Due to Non-grant of NOC, re-routing of line has been proposed by AAI. and proposal for the same has been submitted . AAI has not issued NOC certificate for 8 tower locations
2. Right of Way (RoW) issue in Biswanath Chariyalli (PG) – Itanagar 132kV D/c (Zebra) line at Loc No. AP 101-105 in village - Chimpu, District – Papum Pare as the land owners are asking for undue compensation.
3. RoW issue in Forest area of Biswanath Chariyalli (PG) – Itanagar 132kV D/c (Zebra) line by Forest Dwellers in District – West Tripura, Khowai and Dhalai

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

Details of Tr. Line Falling under Forest:-

Locations	:	68nos.
Length	:	21.631km
Forest area affected (ha)	:	48.147



Forest proposals submitted on : 31.07.2017(online submission date) Revised on 06.03.18  
Current status : Assam state forest Stage-I received, Received

Tree Cutting permission

**Power line crossing**

Total no. of crossings : 2 nos.  
Proposal submitted : 2 nos.  
Approval obtained : 2 nos.

**Railway crossing**

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

**National Highway Crossing**

Total no. of crossings : 2 nos.  
Proposal submitted : 2 nos.  
Approval obtained : 2 nos.

**River Crossings**

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

**PTCC approval**

Proposal submitted to Defence on - submitted  
Proposal submitted to BSNL on - submitted  
Proposal submitted to Railways on - submitted  
Current status: Received PTCC Approval

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on - submitted  
Current Status: NOC from Defence received and NOC from Civil Aviation is awaited

**6. Silchar (PG) – Misa (PG) 400kV D/c (Q) line**

Detailed Survey Completed

Length : 356.56 ckm  
Locations : 487 nos  
Foundation completed : 461 nos  
Tower erected : 386 nos  
Stringing completed : 166 Ckm  
Scheduled COD : Nov'20

**Constraints where Project Authority requires intervention:**

1. PGCIL bays at Silchar and Misa end has to be completed so as to match with the transmission line schedule.
2. The proposal for PLCC Carrier frequency has been submitted to Ministry of Commnication (WPC Wing) and the approval is still awaited
3. RoW issue in 400kV D/C Silchar – Misa Transmission line as the land owners are asking for undue compensation. The details are as per the below details:

- a. Location No. AP 29 in village - Barjatrapur, Teshil – Katigorah, District – Cachar
- b. Location No. 184/2, AP 185, 185/1, 185/2, 185/3, AP 186 and 186/1 in village - Dithur, Teshil – Umrangso, District – Dima Hasao
- c. Location No. 218/4 in village - Borphura gaon, Teshil – Donka Mokam, District – West Karbi Anglong

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

#### **Forest**

Details of Tr. Line Falling under Forest:-

Locations	:	62nos.
Length	:	24.24km
Forest area (ha)	:	108.162
Forest proposals submitted on:	4-Aug-17 (online submission date)	
Current status	:	Stage-1 & tree cutting permission received

#### **Power line crossing**

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

#### **Railway crossing**

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

#### **National Highway Crossing**

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

#### **River Crossings**

Total no. of crossings	:	0	nos.
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#### **PTCC approval**

Proposal submitted to Defence on - Submitted  
 Proposal submitted to BSNL on - Submitted  
 Proposal submitted to Railways on - Submitted  
 Current status: Received

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

Proposal submitted to Defence/Civil Aviation on - Submitted  
 Current Status: Approvals Received

### **7. LILO of one circuit of Biswanath Chariyalli (PG) ) – Itanagar 132kV D/C (Zebra) line at Gohpur (AEGCL)**

Detailed survey Completed.

Length	:	17.028 ckm
Locations	:	30 nos.
Foundation completed	:	20 nos.

Tower erected	: 2 nos
Stringing completed	: 0
Scheduled COD	: Mar'20

**Constraints where Project Authority requires intervention:**

1. Non-finalization of terminal bays at Gohpur S/s by AEGCL for the termination of LILO of one ckt of Biswanath Chariyalli – Itanagar 132kV D/C line at Gohpur S/s for utilization of LILO line

**Status of statutory approvals:**

**Forest**

Details of Tr. Line Falling under Forest:-

Locations	: 18 nos.
Length	: 5.1km
Forest area (ha)	: 23.782

Forest proposals submitted on - 31.07.2017(online submission date)  
Current status: Stage-I received, Received Tree Cutting Permission.

**Power line crossing**

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

**Railway crossing**

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

**National Highway Crossing**

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

**River Crossings**

Total no. of crossings	: 0	nos.
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**PTCC approval**

Proposal submitted to Defence on - Submitted  
Proposal submitted to BSNL on - submitted  
Proposal submitted to Railways on - Submitted  
Current status: Received PTCC Approval

**Defence/Civil Aviation** Proposal submitted to Defence/Civil Aviation on - submitted  
Current Status: Received

**8. Line bays**

- a) 2 no. 400 kV line bays at Palatana GBPP switchyard for termination of Palatana - Surajmaninagar 400kV D/c line

Land Acquired:	Space will be provided by OTPC
Civil work completed:	0

Equipment supplied:	0
Equipment erection:	0
Scheduled COD	Jul'20

**Constraints/Approval if any:**

1. The progress update is awaited from OTPC

**b. 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line at AGTPP (NEEPCO) Switchyard**

Land Acquired:	Space will be provided by NEEPCO
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	100%
Scheduled COD	Mar'20

Filed Application for Electrical Inspection on 12-11-2019

**c. 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line at P.K. Bari (TSECL) S/s**

Land Acquired:	Space will be provided by TSECL
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	100%
Scheduled COD	Mar'20

Filed Application for Electrical Inspection on 12-11-2019

**d. 2 nos. 132kV line bays for termination of Biswanath Chariyalli (PG) – Itanagar 132kV D/c (Zebra) line at Itanagar S/s (Ar. Pradesh)**

Land Acquired:	Space will be provided by DoP, AP
Civil work completed:	100%
Equipment supplied:	100%
Equipment erection:	95%
Scheduled COD	Mar'20

## **28) Name of transmission project - Additional 400kV Feed to Goa and Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool**

### **Background**

#### **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. Establishment of 2x500MVA, 400/220kV substation at Xeldem
4. 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. Crs)	: 1531
Levelised Tariff(Rs. Crs)	: 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

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

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

Length:	188.32 CKm
Locations:	233 nos.
Foundation completed:	2 nos.
Tower erected:	0 nos
Stringing completed:	0 ckm
Scheduled COD:	14 Nov'21

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

1. Delay in getting forest and wildlife clearances.

## **Status of statutory approvals:**

### **Forest area**

Details of Tr. Line Falling under Forest:-

Locations	:	91 nos.	; Length :36.77 Kms
Forest area (Ha)	:	183 Ha	
Forest proposals submitted on	:	Karnataka :12 Oct'18,Goa : 24 Aug '18	

Current status	:	Goa State Forest : at MoEF Karnataka Forest : at DFO
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### **Wildlife area**

Details of Tr. Line Falling under Wildlife:-

Locations	:	23 nos.	; Length : 9.031 Km
Wildlife area (Ha)	:	42 Ha	
Wildlife proposals submitted on	:	Wild Life Goa :25 Aug'18 Wild Life Karnataka : 13 Oct'18	

Current status	:	Goa – at SBWL Karnataka – at DFO Level
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### **Power line crossing**

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

### **Railway crossing**

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

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

Total no. of crossings	:	4nos.
Proposal submitted	:	4nos.
Approval obtained	:	2nos.

### **River Crossings**

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

### **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 and Karnataka portion.

### **Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation	:	Yes proposal submitted
Current Status:	:	approved

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

Length:	109.6 CKm
Locations:	148 nos.
Foundation completed:	8 nos.
Tower erected:	2 nos
Stringing completed:	0 ckm
Scheduled COD:	14 May'21

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

1. Delay in getting forest clearance.

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

#### **Forest area**

Details of Tr. Line Falling under Forest:-

Locations	:	40 nos.	; Length : 15.162 Km
Forest area (Ha)	:		
Forest proposals submitted on	:	01 July'18	
Current status	:	at MoEF	

#### **Wildlife area**

Details of Tr. Line Falling under Wildlife:-N/A

Locations	:	nos.	; Length : mtrs
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 on	:	1
Proposal submitted to BSNL on	:	1
Proposal submitted to Railways on	:	1
Current status	:	approved

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation on : Yes proposal submitted  
 Current Status: approved

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

Length: 137 CKm  
 Locations: 182nos.  
 Foundation completed: 2 nos.  
 Tower erected: 0 nos  
 Stringing completed: 0 ckm  
 Scheduled COD: 14 July '21

**Constraints/Approval if any:**

1. Delay in getting forest clearance.

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

Details of Tr. Line Falling under Forest:-

Locations : 65 nos. ; Length : 20.45 mtrs  
 Forest area (Ha) : 137.014  
 Forest proposals submitted on : 10 Aug'18  
 Current status : at State Government

**Wildlife area**

Details of Tr. Line Falling under Wildlife:- N/A

Locations : nos. ; Length : mtrs  
 Wildlife area (Ha) :  
 Wildlife proposals submitted on :  
 Current status :

**Power line crossing**

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

**Railway crossing**

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

**National Highway / SH Crossing**

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

**River Crossings**

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



**PTCC approval**

Proposal submitted to Defence : Yes  
 Proposal submitted to BSNL :yes  
 Proposal submitted to Railways :Yes  
 Current status : Approval Recieved

**Defence/Civil Aviation**

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

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

Length: 40 CKm  
 Locations: 66 nos.  
 Foundation completed: 0 nos.  
 Tower erected: 0 nos  
 Stringing completed: 0 ckm  
 Scheduled COD: 14 May'21

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

Details of Tr. Line Falling under Forest:-

Locations :19 nos. ; Length : 8.8 Kms  
 Forest area (Ha) : 28.24 Ha  
 Forest proposals submitted on : 02 Aug'18  
 Current status : at MoEF

**Wildlife area**

Details of Tr. Line Falling under Wildlife:-N/A

Locations : nos. ; Length : mtrs  
 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 : 1nos.  
 Proposal submitted : 1 nos.  
 Approval obtained : 0nos.

**National Highway / SH Crossing**

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

**River Crossings**

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

**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 on : Proposal Submitted  
Current Status: approved

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

Land Acquired:	100%.
Civil work completed:	0%
Equipment supplied:	0 %
Equipment erection:	0%
Scheduled COD	14 May'21

## 29) Name of transmission project – 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 (SPV)	:	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. Crs)	:	754.87
Levellised Tariff (Rs. Crs)	:	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	:	
Execution plan submitted to CEA	:	08-01-2020
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	12.11.2022 (38 months from Effective Date)

Remark: SPV has been acquired on 12.09.2019

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

#### **Background -**

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

#### **General Detail**

Special Purpose Vehicle (SPV)	:	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. Crs)	:	
Levellised Tariff (Rs. Crs)	:	
Request for Qualification	:	14.08.2018
Request for Proposal	:	13.11.2018
Letter of Intent	:	02.03.2020
Transmission Service Agreement (TSA)	:	
SPV acquisition	:	
Transmission License by CERC	:	
Tariff adoption by CERC	:	
Contract Performance Guarantee	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	

### 31) WRSS – 21 Part – B – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS

**Background** - The scheme involves implementation of Lakadia – Vadodara 765kV D/c line which helps in transfer of power from RE sources in the Kutchh area of Gujarat to Vadodara for onward dispersal of power to their respective beneficiaries

#### Scope of transmission project:

1. Lakadia – Vadodara 765kV D/c line
2. 330MVAR switchable line reactors at both ends of Lakadia – Vadodara 765kV D/c line along with 500 ohms NGR at both ends of Lakadia – Vadodara 765kV D/c line (330 MVAR line reactor - 4 nos. & 765kV Reactor bay - 4 nos.)
3. 2 nos of 765kV bays each at Lakadia and Vadodara S/s for Lakadia – Vadodara 765kV D/c line (765kV line bay - 4 nos.)

#### General Detail

Special Purpose Vehicle (SPV)	:	Lakadia – Vadodara Transmission Project Limited; Sterlite Grid 18 Limited(A Subsidiary of Sterlite Power Trans. Limited)
Bid Process Coordinator (BPC)	:	PFCCCL
Estimated Cost (Rs. Crs)	:	
Levellised Tariff (Rs. Crs)	:	
Request for Qualification	:	17.01.2019
Request for Proposal	:	18.03.2019
Letter of Intent	:	31.07.2019
Transmission Service Agreement (TSA)	:	23.04.2019
SPV acquisition	:	26.11.2019
Transmission License by CERC	:	04.03.2020
Tariff adoption by CERC	:	05.03.2020
Contract Performance Guarantee	:	26.11.2019
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	

## **32) Name of transmission project - Eastern Region System Strengthening Scheme-VI(ERSS-VI)**

### **Background**

Future demand projection given by Bihar indicates a power demand of about 5600 MW by the year 2016-17. Out of this 2100 MW power demand is in northern part and 3500 MW power demand is in southern part of the state. Regarding power availability, Bihar would have additional share of 2500 MW from Central generation project. Northern part of Bihar has only 2 nos. s/s (Purnea and Muzaffarpur) with total capacity of 1260 MVA as against projected demand of 2100 MW during 2016-17. Keeping in view the load growth requirement by 2016-17, this ISTS scheme has been proposed.

### **Scope of transmission project**

1. Muzaffarpur(PG)- Darbhanga 400 kV D/C line with triple snowbird conductor
2. LILO of Barh –Gorakhpur 400 kV 2xD/C line at Motihari.
3. 2x500 MVA, 400/220 kV Darbhanga GIS with space for future extension
4. 2x500 MVA, 400/132 kV Motihari GIS with space for future extension

### **General Detail**

Special Purpose Vehicle (SPV)	:	Darbhanga Motihari Trans. Company Ltd (A subsidiary of Essel Infraprojects Ltd)
Bid Process Coordinator	:	PFCCL
Estimated Cost (Rs. crs)	:	540
Levellised Tariff (Rs. Crs)	:	117.4
Request for Qualification	:	08.02.2013
Request for Proposal	:	27.05.2013
Letter of Intent	:	17.10.2013
Transmission Service Agreement (TSA)	:	06.08.2013
SPV acquisition	:	10.12.2013
Transmission License by CERC	:	30.05.2014
Tariff adoption by CERC	:	20.05.2014
Contract Performance Guarantee	:	05.12.2013
Clearance u/s 164	:	04.09.2014
Execution plan submitted to CEA	:	16.04.2014
NIT issued on	:	
EPC contract awarded on	:	04.03.2014
Scheduled Date of Completion	:	(Darbhanga Element – Jun 16, Motihari- Aug 16)
Actual Date of completion	:	August, 2017

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

#### **1. Muzaffarpur (PG) - Darbhanga 400 kV D/c line with triple snowbird conductor**

- Length: 125.6 ckm
- Locations: 178

Transmission Line successfully Charged and Presently in Commercial Operation from **Apr 2017**.

#### **2. LILO of Barh –Gorakhpur 400 kV 2xD/c line at Motihari**

- Length: 151.558 ckm
- Locations: 210 nos.

Transmission Line successfully Charged and Presently in Commercial Operation from **Aug 2017**.

**3. 2x500 MVA, 400/220 kV Darbhanga GIS with space for future extension**

GIS Sub-station successfully charged and presently in commercial operation from **Apr 2017**.

**4. 2x200 MVA, 400/132 kV Motihari GIS with space for future extension.**

400 kV GIS Substation charged and presently in commercial operation from **31st July 2017**.

**Transmission Project commissioned on August 2017.**

### **33) Name of transmission project - Northern Region System Strengthening Scheme(NRSS) - XXXI (Part-B)**

#### **Background**

A 2x315 MVA 400/220kV substation of PGCIL is existing at Amritsar and connected to Jalandhar through a 400 kV S/C line. To meet growing power demand at Amritsar a 500MVA 400/220 kV ICT is under implementation. To augment supply of power to Amritsar S/s 400kV connectivity to Parbati Pooling station and Makhu (PSTCL substation) is under implementation. However, the power supply to Amritsar area would be mainly through Jalandhar 400kV substation as during winters the generation of hydro projects would reduce to very low level as well as in case of low generation at Talwandi Saboo TPS, Makhu S/s may also draw power from Amritsar. Hence there is a necessity that power supply arrangement to Amritsar S/s is augmented. A HVDC station at Kurukshetra is being established for supply of power from pit head generating station of Chhattisgarh. Accordingly, for augmenting power supply to Amritsar S/s, this transmission scheme has been proposed under NRSS-XXXI – Part-B.

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

1. Kurukshetra – Malerkotla 400 kV D/C line
2. Malerkotla – Amritsar 400 kV D/C line.

#### **General Details**

Special Purpose Vehicle (SPV)	:	NRSS XXXI (B) Transmission Limited. (A subsidiary of Essel Infra projects Ltd.)
Bid Process Coordinator (BPC)	:	RECTPCL
Estimated Cost (Rs. Crs)	:	370
Levelised Tariff(Rs. Crs)	:	88.65
Request for Qualification	:	31.07.2013
Request for Proposal	:	09.12.2013
Letter of Intent	:	26.02.2014
Transmission Service Agreement (TSA)	:	02.01.2014
SPV acquisition	:	12.05.2014
Transmission License by CERC	:	25.08.2014
Tariff adoption by CERC	:	07.08.2014
Contract Performance Guarantee	:	18.03.2014
Clearance u/s 164	:	15.10.2014
Execution plan submitted to CEA	:	01.08.2014
NIT issued on	:	
EPC contract awarded on	:	17.09.2014
Scheduled Date of Completion	:	Sep 2016
Actual Date of Completion	:	April, 2017

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

##### **1. Kurukshetra – Malerkotla 400 kV D/C line**

- Length: 278.4 ckm



Under Commercial Operation from **Jan 2017**

**2. Malerkotla – Amritsar 400 kV D/C line.**

- Length: 151.558 ckm
- Locations: 210 nos.

Under Commercial operation from **Apr 2017**.

**Transmission Project commissioned on April 2017.**

### **34) Name of transmission project - 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 Essel Infraproj. Ltd)
Bid Process Coordinator (BPC)	:	PFCCL
Estimated Cost (Rs. crs)	:	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
Anticipated Date of Completion	:	Minimum 13 no. of working months required from the date of resolution of coal mining issue related to WCL and SCCL

The Project is stalled for non resolution of Coaliries issue.

## **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.**

Land Acquired:	100%.
Civil work completed:	47%
Equipment supplied:	60% substation material 10 no. of reactors
Equipment erection:	Structure erection & earthing work is in progress
Scheduled COD:	Nov'19
Anticipated COD:	_____Waiting for resolution of coaliries issue
Constraints/Approval if any:	Nil

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

Length:	645.742 ckm
Locations:	827 nos.
Foundation completed:	774 nos.
Tower erected:	425 nos.
Stringing completed:	58.6 CKM
Scheduled COD:	Nov'19
Anticipated COD:	_____Waiting for resolution of coaliries issue

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

- **RoW issue:** Severe RoW issue in the stretch of AP 5B - AP 6, AP 15 – AP 16, AP 27– AP 28 , AP 58, AP 99A – AP 102, AP 89 – AP 90, AP 95–AP 96, AP 100A/1, AP 100A/2, AP 100A/3, AP 100A/5 and, AP 116 /8, AP 116/9, AP 116/11, AP 116/12, AP 116/14, AP 116/17, AP 116/18, AP 118/1, AP 118/3, AP 118A/0, AP 118A/4, AP 118A/1, AP 118B/1, AP 118/6.
- The work execution in 765 kV D/C Warora (Pool) – Warangal (New) Transmission line, under state Maharashtra is stopped completely from 05th Oct 2018 due to farmer agitation demanding higher compensation for the construction of transmission line at their fields. This agitation is being led by a local political leader-cum-MLA and land owners of entire area are not allowing project executing team to enter in their fields at any cost, though WKTL have already settled the RoW compensation as per demand provided by Govt. Land and Revenue Department after conducting the TLR survey. Under the continuously extended support by District Administration, the work could only be taken up at site.

- **Court Case :** The Office of Tehsildar, Rajura, Distt. - Chandrapur directed us to stop the transmission tower execution work at tower loc. no. 89/8 of 765 kV D/C Warora (Pool) – Warangal (New) Transmission line immediately in terms of stay order, dated 17/10/2018 passed by the Hon'ble High Court Mumbai, Nagpur Bench in the Writ Petition no. 6980/2018 filed by land owner. WKTL have already filed our reply before the Court, however the court has scheduled the matter on 20.10.2020 for hearing.
- Farmers in the section AP 89-AP 98 of 765 kV D/C Warora-Warangal Line (Maharashtra Section) have filed a writ petition (Civil) No 2269/2019 in the Nagpur Bench of Bombay High court against the compensation amount finalized by the District Magistrate Chandrapur. The hearing of the case is scheduled on 31/12/2019. Though, the Court has not passed any order till date in this case, however farmers are reluctant to continue our execution work on those respective locations.

**Other issues:**

- **Stalemate in project construction work due to coal bearing areas associated with Western Coal Fields (WCL) and Singareni Coll. Co. Ltd. (SCCL) for traversing WKTL line through their expected and future OC mining area:**

Vide its letter dated 28.09.2018 WCL and letter dated 12.10.2018 Singareni Coll. Co. Ltd directed WKTL to stop ongoing tower construction work in *Penganga* OC mine area and in the area of *Prof. Jayashankar Open Cast Project* with diversion of all upcoming WKTL transmission towers beyond their projected OC mining area respectively.

These issues were also discussed during the review meeting called by the Hon'ble Joint Secretary (Transmission), Ministry of Power (GoI) in presence of the Representatives of WCL & SCCL. During the discussion, it was decided that WKTL shall proceed on its identified routes and the diversion of the line shall be taken up later when the mining activities would start. WKTL was unable to resume its work in that area till receipt the minutes of this meeting, which was issued on 11.02.2019.

Post receipt of minutes from Ministry of Power on 11.02.2019, WKTL started its construction activities as per its approved route alignment u/s 164 of EA-2003, considering any future line diversion at the cost of lateral entrant.

On 11.04.2019, the Joint Secretary (Ministry of Coal) called WKTL for a joint discussion at Shastri Bhavan, New Delhi, where representative of WCL and SCCL were also presented. After entire discussion, the Joint Secretary (Ministry of Coal) directed WCL & SCCL to come up with their issued notifications under section 4 of Coal Bearing Areas (Acquisition and Development) Act, 1957 prior to commencement of their mining operations latest by 16.04.2019. In case of non-availability of such notifications prior to WKTL transmission line route alignment approval u/s 164 of Electricity Act -2003, the original alignment prevails. However, WKTL was directed to stop the project execution in that area till issuance of further orders from Ministry of Coal. We also pursued with the Ministry of Coal sincerely to get the developments for the resolution of this matter, we are yet to receive any further communication from Ministry of Coal.

Thereafter, in the review meeting called by Chief Engineer (CEA) on 30.05.2019, WKTL informed that 765 kV D/C Warora-Warangal line is the pre-requisite transmission element for the commissioning of most of the elements of this project but is adversely affected under the objections raised by WCL and SCCL since November, 2018. In absence of clear direction from MoP & MoC for WKTL compensation of additional time and cost required for

transmission line diversion, the work progress of 765 kV D/C Warora-Warangal is completely held up. It was also informed that under current scenario, it will take minimum 13 working months after resolution of this issue which is still pending with MoC. The Lead LTTC (TANGEDCO) was also presented in this meeting and raised his concern over diversion of approved route of transmission line at this advanced stage, as this may have implication on transmission tariff of the project and completion timeline. However, Lead LTTC also assured to extend all support required for completion of this project in the scheduled timeline.

Further, WKTL also put its case in the meeting held in MoP on dated 03.06.2019 before the Chief Engineer (Trans.) and requested MoP to resolve the issue in discussion with MoC and accordingly direct WKTL on the further steps to be taken to complete the WKTL transmission project. The minutes of this meeting were issued on 18.06.2019 in which it was concluded through constitution of committee led by Chief Engineer (CEA) and having representatives from MoC, WCL, CMPDI, SCCL, CEA and WKTL to examine the issue along with relevant notifications/guidelines and submit its options for resolution of the matter within 15 days of its constitution. Thereafter, MoP constituted a Committee through its Order dated 26.06.2019 to examine the issue of WKTL 765 kV D/C Warora-Warangal transmission line, consisting representatives of MoC, WCL, SCCL, CPMDI and WKTL and under chairmanship of Chief Engineer (CEA). CEA also by letter dated 03.07.2019 asked nomination of Officers from MoC, WCL, SCCL, CPMDI and WKTL to be the designated members of this committee constituted as per MoP Order dated 26.06.2019. In response, WKTL confirmed the requisite details of its Officers to be designated as committee member.

Site visit is conducted with the representative of WCL, SCCL, CMPDI, CEA and WKTL. As decided in the 1<sup>st</sup> Committee meeting, WKTL had joint survey with WCL, CMPDI, and CEA On 26<sup>th</sup> July 2019 and the alternative routes were explored. During discussion of WKTL with SCCL on 29<sup>th</sup> July 2019, they have agreed that since they have 7-10 years of time lap between commencing the mining activity as such they will allow us to follow the same route. However, diversion when required shall be carried out by WKTL and who will bear the cost is required to be decided.

A meeting of LTTCs, Officials of CEA, WCL, SCCL, CMPDI and WCL happened under the chairmanship of CE, CEA on 19<sup>th</sup> Sept 2019 at the Office of CEA. A meeting was convened by MoP on 19<sup>th</sup> September 2019 and attended by officials of LTTCs, CEA, MoC, WCL, SCCL, CMPDI and the recommendation of committee were presented by CEA. MoP optioned that if WCL require shift of alignment where the most of the work has been completed, then they are required to bear the cost of shifting. WCL is asked to get the board approval and confirm within a specific otherwise the constructed route shall be followed.

Further, a meeting was convened by the additional Secretary (Trans.), MoP on 14<sup>th</sup> November 2019 which was attended by representative of MoC, LTTCs, CEA and WKTL. The matter was discussed and the chairperson has asked specific questionnaire to be replied by the CEA. It was decided that on receipt of the same, the decision on the issue shall be taken in the next meeting.

A joint survey among committee member (including Lead LTTC, representative from PFC, CEA, CTU, WCL, CMPDI and WKTL) was conducted on 16<sup>th</sup> January 2020. The recommendation of committee was sent on 04.02.2020 to the Ministry of Power.

## **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	:	Maha – 4th Aug 17, Telangana – 23 Aug 17	
Current status	:	<b>Maharashtra</b> – Stage I received on 05.02.2018 <b>Telangana</b> - Stage – I received on 13 <sup>th</sup> Dec 2018 and communicated by PCCF Office to respective DFO on 24.12.2018.	

#### 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> – 26th Feb 18	
Current status	:	Proposal forwarded by State Government to Member Secretary (NBWL) on 20.11.2018. Proposal forwarded to NTCA for their recommendation and MoEF&CC asked State Govt. to submit SBWL MoM. The SBWL committee meeting is scheduled for 01 <sup>st</sup> February 2020.	

#### Power line crossing

Total no. of crossings	:	27 nos.	
Proposal submitted	:	27 nos.	Date:
Approval obtained	:	20 nos.	Date:

#### Railway crossing

Total no. of crossings	:	5 nos.	
Proposal submitted	:	5 nos.	Date:
Approval obtained	:	4 nos.	Date:

#### National Highway Crossing

Total no. of crossings	:	04 nos.	
Proposal submitted	:	04 nos.	Date:
Approval obtained	:	04 nos.	Date:

#### State Highway Crossing

Total no. of crossings	:	05 nos.	
Proposal submitted	:	05 nos.	Date:
Approval obtained	:	00 nos.	Date:

#### River Crossings

Total no. of crossings	:	1 no.	(Major)
Proposal submitted	:	--nos.	Date:
Approval obtained	:	--nos.	Date:

#### 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 : Civil & Defence proposal submitted  
Current Status: Approval awaited

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

Length: 265.218 ckm  
Locations: 344 nos.  
Foundation completed: 312 nos.  
Tower erected: 247 nos.  
Stringing completed:  
Scheduled COD: Nov'19  
Anticipated COD: \_\_\_\_\_Waiting for resolution of coaliries issue \_\_\_\_\_

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

##### **• RoW issue:**

In the stretch of AP 10 - AP 11, AP 34 - AP 35, AP 37- AP 38, and AP 41- AP 42. Further at location nos. 47/2 & 47/3, locals have removed the stubs by using JCB. Though a FIR in this regard has been lodged with local Police Station, however, the same is yet to be resolved.

#### **Court Case:**

- Land Owner of location no. 2/6 of 765 kV D/C Warangal – Hyderabad Line, has approached Hon'ble High Court of Telangana. Hon'ble High Court has granted the stay on work. Further on hearing held on 03rd June 2019, the Hon'ble Court adjourned and next date of hearing is yet to be scheduled in this matter. As on date the matter is still pending for scrutiny. In the present situation, the work is at stand still at this location effectively from 16th Mar 2018.

- Land owner for the stretch between the location no. 30 to 31 of 765 kV D/C Warangal – Hyderabad has approached the District Court (Bhogir) to accord permanent injunction. On the hearing held on 30.12.2019, the Court scheduled next date of hearing on 17.06.2020 in this matter. In such situation, the work is at stand still at this location effectively from 20th Mar 2018.

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

##### **Forest : Nil**

Details of Tr. Line Falling under Forest:- Locations: nos. Length:  
Forest area(ha) : Nil  
Forest proposals submitted on .....  
Current status:

#### **Power line crossing**

Total no. of crossings	:	15 nos.	
Proposal submitted	:	15 nos.	Date:
Approval obtained	:	10nos.	Date:

**Railway crossing**

Total no. of crossings	:	01 nos.	
Proposal submitted	:	01 nos.	Date:
Approval obtained	:	0 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	:	02 nos.	
Proposal submitted	:	02 nos.	Date:
Approval obtained	:	00 nos.	Date:

**River Crossings**

Total no. of crossings	:	Nil
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**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: Defence & Civil aviation proposal submitted

Current Status: Civil Aviation approval obtained.

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

Length:	94.94 ckm
Locations:	130 nos.
Foundation completed:	09 nos
Tower erected:	
Stringing completed:	
Scheduled COD:	Nov'19
Anticipated COD:	Waiting for resolution of coaliries issue

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

**Status of statutory approvals:****Forest - Nil**

Details of Tr. Line Falling under Forest:- Locations: nos. Length:

Forest area affected (ha) : Nil

Forest proposals submitted on .....

Current status:

**Power line crossing**

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



**Railway crossing**

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

**National Highway Crossing**

Total no. of crossings	:	02 no.	
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

**River Crossings**

Total no. of crossings	:	Nil
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**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:

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

Length:	331.58 ckm
Locations:	422 nos.
Foundation completed:	339 nos.
Tower erected:	183 nos.
Stringing completed:	
Scheduled COD:	Nov'19
Anticipated COD:	Waiting for resolution of coaliries issue

**Constarints where Project Authority requires intervention:**

- Work hampered due to severe RoW issue in the stretch of AP 27 – AP 29, AP 60 A– AP 60 B and AP 66 – AP 67.
- **Work hampering in 765 kV D/C Hyderabad – Kurnool Transmission line due to Land Acquisition initiated by Telangana State Industrial Infrastructure Corporation Ltd. (TSIICL):**

Recently, Telangana State Industrial Infrastructure Corporation Ltd. (TSIICL) initiated the process of land acquisition around Hyderabad (Maheshwaram) PGCIL Sub-Station. They raised objection for our 765 kV Warangal-Hyderabad and 765 kV Hyderabad–Kurnool Line. After round of discussions, TSIIC agreed for the execution of 765 kV D/C Warangal-Hyderabad Line and the foundation work in the section has been completed. However, for 765 kV D/C Hyderabad–Kurnool line discussions are in progress & awaited to be resolved.

**Status of statutory approvals:****Forest - Nil**

Details of Tr. Line Falling under Forest:- Locations: nos. Length:

Forest area affected (ha) : Nil

Forest proposals submitted on .....

Current status:

**Power line crossing**

Total no. of crossings	:	21 nos.	
Proposal submitted	:	21 nos.	Date:
Approval obtained	:	18 nos.	Date:

**Railway crossing**

Total no. of crossings	:	Nil	
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

**National Highway Crossing**

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

**State Highway Crossing**

Total no. of crossings	:	03 nos.	
Proposal submitted	:	03 nos.	Date:
Approval obtained	:	00 nos.	Date:

**River Crossings**

Total no. of crossings	:	01 nos.	(Major)
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

**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.. Defence & civil aviation proposal submitted

Current Status: Civil aviation approval obtained

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

Length:	394.33 ckm
Locations:	565 nos.
Foundation completed:	446 nos.
Tower erected:	341 nos.
Stringing completed:	
Scheduled COD:	Nov'19
Anticipated COD:	Waiting for resolution of coaliries issue

**Constarints where Project Authority requires intervention:**

- **Severe RoW issue** existing in the stretch of AP 10–AP 11, AP 14–AP 15, AP 25–AP 28, AP 52–AP 53, AP 55–AP 56, AP 63–63/12, AP 76–AP 77, AP 84–AP 85 & AP 89–AP 90.

**Court Case:**

- 04 no. of tower locations of 765 kV D/C Warangal (New) – Chilakaluripeta Transmission line has been traversing through the proposed land area of M/s Emami Cement Ltd., out of which the 04 no. of foundations and 03 no's of erections are already completed. At this point of time, M/s Emami Cement Ltd. moved to High Court of Hyderabad for seeking Order to remove WKTL transmission towers along with direction to re-route the transmission line.

At present this matter is under consideration of Hon'ble High Court, Hyderabad. So, we are unable to continue the work at the above said locations including nearby locations till listing of this matter and further orders passed by the Hon'ble Court. The next date in the matter is awaited.

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

#### **Forest**

Details of Tr. Line Falling under Forest:-

Locations	:	07nos.	
Length:Forest area affected (ha)	:	18.442 ha (2.75 Kms) in Andhra pradesh	
Forest proposals submitted on	:	23.08.2017	
Current status	:	Stage –I forest approval granted on 28.11.18.	
		Stage I communicated by State Govt. to PCCF office on 24.12.2018.	

#### **Power line crossing**

Total no. of crossings	:	29 nos.	
Proposal submitted	:	29 nos.	Date:
Approval obtained	:	24 nos.	Date:

#### **Railway crossing**

Total no. of crossings	:	03 nos.	
Proposal submitted	:	03 nos.	Date:
Approval obtained	:	02 nos.	Date:

#### **National Highway Crossing**

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

#### **State Highway Crossing**

Total no. of crossings	:	03 no.	
Proposal submitted	:	03 nos.	Date:
Approval obtained	:	00 nos.	Date:

#### **River Crossings**

Total no. of crossings	:	01 no.	(Major)
Proposal submitted	:	-- nos.	Date:
Approval obtained	:	-- nos.	Date:

#### **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: Defence & civil aviation Proposal submitted

Current Status : Civil aviation approval obtained.

**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)**

Land Acquired: NA  
Civil work completed: 100%.  
Equipment supplied: 100%  
Equipment erection: 100%  
Scheduled COD: Nov'18  
Anticipated COD: Nov'18

**Constarints where Project Authority requires intervention:**nil.

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

### **35) Name of transmission project - 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 (ESSEL)
Bid Process Coordinator (BPC)	:	RECTPCL
Estimated Cost (Rs. Crs.)	:	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	:	_____

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

##### **1. Koteshwar 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:	Awaiting NOC issue on IDPL Land

Project stalled because of unexpected delay in obtaining NOC from IDPL

**Constarints where Project Authority requires intervention:**

- **Non-acceptance of Forest diversion proposal of 400 kV D/C Rishikesh- Koteshwar Transmission Line by Forest Deptt.:**

The forest diversion proposal for 400 kV D/C Rishikesh-Koteshwar Transmission Line was very first submitted on 24.10.2017, which was returned back due to indicative shortcomings including FRA Certificates to be issued by respective DC's of involved forest divisions. On 19.06.2018, the forest proposal was again submitted with the compliance of all shortcomings and with the submission of an undertaking for FRA Certificates as per MoEF&CC Guidelines (Forest Conservation Amendment (Rules), 2014), according to which User Agency first need to submit the forest diversion proposal and thereafter the Nodal Officer will forward forest proposal to DFO and Respective DC for the issuance of FRA Certificates.

We also requested DC (Dehradun, New Tehri, Tehri Garhwal) vide our letters dated 21<sup>st</sup> & 22<sup>nd</sup> June 2018 to grant FRA Certificates and pursued the same regularly. In order to expedite issuance of FRA Certificate, NRSS XXXVI Trans.Ltd also requested CEA for the support. In response, Chief Engineer (CEA- PSPM) also wrote letters to DC (Dehradun, New Tehri, Tehri Garhwal) on 12.10.2018 to issue FRA Certificates as earliest as possible for the timely completion of transmission line.

Further, on 13.11.2018, NRSS XXXVI Trans.Ltd again attempted to submit forest diversion proposal, which was again returned back indicating shortcomings of FRA Certificates, which is to be issued by respective DC's of involved forest divisions, Geologist report, Site inspection, Joint verification report, Tree enumeration etc. As per Format -Part I and Part II of Forest Conservation Amendment (Rules), 2014, all these activities are to be initiated only after acceptance of forest proposal by Nodal Officer.

Hence, in such case, only due to specific conditions imposed by Forest Deptt., also which are beyond the Forest Conservation Amendment (Rules), 2014, the Forest diversion proposal of 400 kV D/C Rishikesh – Koteshwar line could not be submitted. However, post receipt of communication from CEA in the matter of IDPL NoC, NRSS XXXVI Trans.Ltd have submitted the Forest proposal on 04<sup>th</sup> April 2019 for Tehri & Narendranagar Forest Division. We have also sought consent from DFO (Dehradun) for the submission of forest

proposal in light of available IDPL NoC with us. Any significant development in this regard is still awaited.

- **Pending Issue for NOC from Indian Drugs and Pharmaceuticals Limited (IDPL), Rishikesh/Department of Tourism, UK Govt. :**

As per the detailed survey, approx. 3.99 Km. of the Transmission Line having 16 Nos. of Towers is passing through the premises of Indian Drugs and Pharmaceuticals Limited (IDPL), Rishikesh.

A joint visit was conducted with the officials of IDPL on 24th Jan 2018 and based on the joint visit, the route alignment was submitted to the office of DGM (1/C) IDPL, Rishikesh on 31st Jan 2018.

Further, meetings were held in CEA on 9th Feb 2018 and 3rd Apr 2018 on above issue. CEA vide their letter dated 24th Apr 2018 has issued the minutes of meeting endorsing the route submitted by us and requested IDPL to issue the NOC for the route within IDPL premises. However, NOC is yet to be issued from IDPL, Rishikesh.

Vide letter dated 12th Oct 2018, CEA again requested to Chairman cum Managing Director of IDPL to issue final NOC for traversing 400 KV D/C Koteshwar – Rishikesh Transmission Line through the premises of Indian Drugs and Pharmaceuticals Limited (IDPL), Rishikesh. Through letter dated 10th Dec 2018, the DFO (Dehradun) also requested IDPL, Rishikesh to issue NOC in order to submit forest proposal by the NRSS XXXVI Transmisison Ltd.

After a continuous persuasion and many rounds of discussions with IDPL, on 18th January 2019, very first time IDPL informed to CEA that Government of India has taken a decision to close down Indian Drugs and Pharmaceuticals Limited (IDPL). Accordingly, the Deptt. of Pharmaceuticals has decided to transfer back the IDPL Rishikesh land to Govt. of Uttarakhand. In such a situation, it was advised us to obtain first NOC from Govt. of Uttarakhand, based on that IDPL may issue NOC to NRSS XXXVI Tr. Ltd.

Vide its letter dated 01.02.2019, referring IDPL letter dated 18.01.2019, CEA advised us to take up the matter directly with Govt. of Uttarakhand for seeking NOC.

After waiting a long, IDPL conveyed it's no objection on 03.04.2019 to Chief Engineer (CEA) for traversing Rishikesh line through IDPL lease area stating that IDPL is going to hand over the leased land back to Uttarakhand Government in near future and Uttarakhand Government is planning to construct Convention Centre along with Hill Culture, Yoga and Wellness Centre on the said land. Accordingly, IDPL requested to Chief Engineer (CEA) to take no objection certificate also from Uttarakhand Government.

Vide its letter dated 16.04.2019, Chief Engineer (CEA) communicated us to take up the matter with Uttarakhand Government in order to secure the said NoC for constructing 400 kV D/C Rishikesh – Koteshwar transmission line in IDPL lease area. Accordingly, NRSS

XXXVI Trans.Ltd approached on 18.04.2019 to Secretary (Energy), Uttarakhand for seeking unconditional concurrence traversing Rishikesh line through IDPL premises.

Recently on the basis of communication received from Tourism Deptt. (Uttarakhand), on 23.05.19 Chief Engineer (CEA) directed to forward proposal of NoC to Govt. of Uttarakhand through Tourism Deptt. of Uttarakhand. Accordingly, the detailed proposal of NoC was submitted to Tourism Deptt. of Uttarakhand on 27.05.2019. The same has been forwarded by GoU to the consultant M/s E & Y on 05th July 2019.

A meeting in this regard is convened by The Chief Secretary of the state along with other stake holders along with the consultant M/s E&Y On 10th December 2019. A new route has been proposed. NRSS XXXVI Trans.Ltd shall be remobilizing our team to check the feasibility of the route and will revert with the outcome. The revised route as suggested by M/s E&Y has been submitted to concern for processing the long pending NoC.

- **Route diversion of 400 kV D/C Rishikesh- Koteshwar Line at the instruction of DFO (Tehri) letter dated 21st Dec 2018:**

DFO Tehri through letter dated 21<sup>st</sup> Dec 2018 informed that Central Government plantation Project under “Namami Gangey Scheme” is coming under NRSS XXXVI line route and will be adversely affected from NRSS XXXVI transmission line construction. Accordingly, it was directed us to divert from existing route, which was earlier approved & confirmed by Forest Range officer through verification of land schedule and DGPS survey in Jan-2018.

It is submitted that the tree enumeration and Gram sabha, as per earlier approved route was completed and we had also applied for FRA Certificate and geologist survey report.

It is submitted that due to such change in transmission line route at later point of time adversely affected the progress of transmission line project because activities like selection and finalization of new alternative route, tree enumeration, completion of DGPS survey and land schedule will have to be initiated from zero level, which resulted in a significant time overrun for the construction of transmission project. It is also worth to mention here that any deviation in transmission line route will result in increase in forest area through which transmission line will have to traverse. The exact quantum of increased forest area will be communicated post receipt of forest approval of this line.

NRSS XXXVI submitted the revised route avoiding “Namami Gangey Scheme Plantation” to forest authorities on 13.03.19. Post verification and approval, we submitted the forest proposal of Tehri Garhwal forest division to DFO Tehri Garhwal on 4<sup>th</sup> April 2019 with a request for identification of double degraded forest land for preparation of compensatory afforestation scheme for said transmission line under reference to MoEF & CC letter F.N. 11-68/2014-FC (pt) dated 11th July 2014 for processing of forest diversion proposal from DFO, which is still under consideration of DFO (Tehri Garhwal).

It is pertinent to mention here that NRSS XXXVI have to divert transmission line route at a lateral stage as per directions of DFO (Tehri) dated 21.12.2018, though Digital forest map



was prepared and provided by ITGC Cell PCCF Office Uttarakhand on 21.6.2018 and later on DGPS survey was done on ground under the guidance of forest authorities itself.

### **Severe RoW issues:**

Severe RoW issues are existing at loc. No. 2/0, 3/0, 4/0, 5/0, 10/0, 13/0, 22/0, 23/0, 48/0, 48/1 and 49/0 .

### **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:** Only due to specific conditions imposed by Forest Deptt., also which are beyond the Forest Conservation Amendment (Rules), 2014, the Forest diversion proposal of 400 kV D/C Rishikesh – Koteshwar line was not accepted. However, Post receipt of IDPL communication dated 03.04.2019, as communicated through CEA letter 16.04.19, the forest proposal of Tehri & Narendranagar was submitted on 4th Apr 2019 & under processing. The consent of DFO (Dehradun) in this regard for forest proposal submission is also awaited.

#### **Power line crossing**

Total no. of crossings	:	09 nos.	
Proposal submitted	:	09 nos.	Date:
Approval obtained	:	09 nos.	Date:

#### **Railway crossing**

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

#### **National Highway Crossing**

Total no. of crossings	:	04 nos.	
Proposal submitted	:	04 nos.	Date:
Approval obtained	:	- nos.	Date:

#### **State Highway Crossing**

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

#### **River Crossings**

Total no. of crossings	:	Nil	
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

#### **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:	_____

**Constraints where Project Authority requires intervention:** nil.

### **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.
Foundation completed:	06 nos.
Tower erected:	06 nos.
Stringing completed:	2.922 CKm
Scheduled COD:	Dec'16
Deemed COD:	30 Oct '17

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

The route alignment & detailed survey is completed.

Tower Package is awarded.

Length:	221 CKm
Locations:	304 nos.
Foundation completed:	273 nos.
Tower erected:	248 nos
Stringing completed:	74 CKM
Scheduled COD:	Jun'19
Anticipated COD:	_____

**Constarints where Project Authority requires intervention:**

#### **Severe RoW issues:**

Severe RoW issues are existing at loc. No. 17/0, 18/0 of Tehsil Khetri and 52/3, 62/1, 75/0-89/0 of Tehsil Dadri & Bhiwani.

**Court Case:** Loc no. 9/1 (Case in Rajasthan high court, Jaipur since 1/12/1) & Loc 47/1-47/2 (Case in Civil Court, Mahendergarh since 25/4/19) . Next hearing is scheduled on 06th March 2020.

#### **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: Haryana Proposal- Stage I approval received on 27 Mar 2018.

Rajasthan Proposal – Partial Stage I approval received on 6th Jul 2018  
 excluding wildlife area. However, final Stage I approval including wild life  
 area was granted on 14.02.2019.

### **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 on .....

Proposal submitted to BSNL on .....

Proposal submitted to Railways on .....

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 (RRVPNL) substation for LILO Line**

Land Acquired: 100%  
Civil work completed: 100%  
Equipment supplied: 100%  
Equipment erection: 100%  
Scheduled COD Dec'16  
Deemed COD: 30 Oct'17

**Under commercial operation.**

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

Land Acquired: 100%  
Civil work completed: 100%  
Equipment supplied: 100%  
Equipment erection: 90%  
Scheduled COD Jun'19  
Anticipated COD:

### **36) Name of transmission project – Western Region System Strengthening – II under Project – B (Maharashtra)**

#### **Background**

Western Region is the most progressive region in the country with largest generation capacity and large future load growth. WR System Strengthening Scheme – II under Project – B and Project – C has been formulated looking into the long term transmission requirements of the region for the forthcoming 8 to 10 years. This would allow inter regional exchange of power without any constraint, permitting open access to all the constituents within the region. The execution of this scheme would facilitate import/export of bulk power from/to other regions and help in the formation of National Grid.

#### **Scope of transmission project (Project-B: For Regional Strengthening in Southern Maharashtra):**

1. Parli (New) – Pune 400 kV D/C line
2. Pune – Aurangabad 400 kV D/C line
3. Parli (New) – Solapur 400 kV D/C line
4. Solapur – Kolhapur 400 kV D/C line
5. LILO of Lonikhand – Kalwa 400 kV D/C line at Pune
6. LILO of Sholapur – Karad 400 kV S/C line at Solapur

#### **General Detail**

Special Purpose Vehicle (SPV) : Western Transco Power Ltd.  
(A subsidiary of Adani Transmission Limited)

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

##### **1. Parli (New) – Pune 400 kV D/C line**

Length : 311 KMs  
Locations : 833 nos

**Line is declared under Commercial Operation w.e.f. 01.12.2013.**

##### **2. Pune – Aurangabad 400 kV D/C line**

Length : 257 KMs  
Locations : 711 nos

**Line is declared under Commercial Operation w.e.f. 01.01.2014.**

##### **3. Parli (New) – Solapur 400 kV D/C line**

Length : 136 KMs  
Locations : 354 nos

**Line is declared under Commercial Operation w.e.f. 01.11.2011.**

**4. Solapur – Kolhapur 400 kV D/C line**

Length : 220 KMs  
Locations : 578 nos

**Line commissioned on 01.07.2012.**

**5. LILO of Lonikhand – Kalwa 400 kV D/C line at Pune**

Length : 0.5 KMs  
Locations : 5 nos

**Line commissioned on 15.04.2011.**

**6. LILO of Sholapur – Karad 400 kV S/C line at Solapur**

Length : 1.3 KMs  
Locations : 9 nos

**Line commissioned on 01.08.2013.**

## **37) Name of transmission project – Western Region System Strengthening – II under Project – C (Gujarat)**

### **Background**

Western Region is the most progressive region in the country with largest generation capacity and large future load growth. WR System Strengthening Scheme – II under Project – B and Project – C has been formulated looking into the long term transmission requirements of the region for the forthcoming 8 to 10 years. This would allow inter regional exchange of power without any constraint, permitting open access to all the constituents within the region. The execution of this scheme would facilitate import/export of bulk power from/to other regions and help in the formation of National Grid.

### **Scope of transmission project (Project-C: For Regional Strengthening in Gujarat):**

1. Rajgarh – Karamsad 400 kV D/C line
2. Limdi (Chorania) – Vadavi 400 kV D/C line
3. Vadavi – Zerda (Kansari) 400 kV D/C line

### **General Detail**

Special Purpose Vehicle (SPV) : Western Transmission (Gujarat) Ltd.  
(A subsidiary of Adani Transmission Limited)

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

#### **1. Rajgarh – Karamsad 400 kV D/C line**

Length : 243 KMs  
Locations : 654 nos

**Line under Commercial Operation w.e.f. 29.12.2015.**

#### **2. Limdi (Chorania) – Vadavi 400 kV D/C line**

Length : 103 KMs  
Locations : 270 nos

**Line under Commercial Operation w.e.f. 16.05.2011.**

#### **3. Vadavi – Zerda (Kansari) 400 kV D/C line**

Length : 141 KMs  
Locations : 375 nos

**Line is declared under Commercial Operation w.e.f. 16.11.2011.**

### **38) Name of Transmission Project - Additional system strengthening for Sipat STPS**

#### **Background**

To enhance redundancy in Sipat STPS power evacuation system, this transmission scheme has been evolved.

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

1. Sipat – Bilaspur Pooling Station 765 kV 3<sup>rd</sup> S/C line
2. Bilaspur Pooling Station - Rajanandgaon 765 kV D/C line

#### **General Detail**

Special Purpose Vehicle (SPV)	:	Sipat Transmission Ltd (A subsidiary of Adani transmission Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1097
Levelling Tariff (Rs. Crs)	:	79.21
Request for Qualification	:	01.01.2015
Request for Proposal	:	07.04.2015
Letter of Intent	:	28.07.2015
Transmission Service Agreement (TSA)	:	24.06.2015
SPV acquisition	:	23.11.2015
Transmission License by CERC	:	07.03.2016
Tariff adoption by CERC	:	28.01.2016
Contract Performance Guarantee	:	30.10.2015
Clearance u/s 164	:	03.08.2016
Execution plan submitted to CEA	:	21.03.2016
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	22.03.2019
Actual Date of Completion	:	May'18 (works completed), Mar'19 (Commissioned)

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

##### **1. Sipat STPS - Bilaspur 765 kV S/C (Q) line**

Length : 24.22 ckm  
Locations : 73 nos

**Transmission line commissioned in Aug'18.**

##### **2. Bilaspur - Rajnandgaon 765 kV D/C (hexa) line**

Length : 324.07 ckm  
Locations : 428 nos

**Transmission line commissioned in Mar'19.**

##### **3. 765 kV Bay at Sipat s/s**

**Commissioned Aug'18**

**Project commissioned.**



### 39) Name of transmission project - Additional system strengthening for Chhattisgarh (B)

#### Background

The transmission corridor covered under present project has been evolved to provide reliable evacuation of power from various IPPs coming up in Chhattisgarh.

#### Scope of transmission project

1. Raipur(pool) – Rajnandgaon 765 kV D/C line
2. Rajnandgaon – Pooling station near warora 765 kV D/C line
3. Establishment of pooling station near Rajnandgaon

##### 765 kV

- Line bays 6 nos
- Bus reactor 3x110 MVar
- Bus reactor bay 1 no.
- Line reactors 7x110 MVar(1 unit spare, switchable for warora line)
- Space for 765kV line bays 4 nos
- Space for 765 kV ICT bays 3 nos

##### 400 kV

- Space for 400 kV ICT bays 3 nos
- Space for 400 kV line bays 4 nos

#### General Details

Special Purpose Vehicle(SPV)	:	Raipur- Rajnandgaon Warora Trans. Ltd (A subsidiary of Adani transmission Limited)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	2260
Levellised Tariff (Rs. Crs)	:	177.928
Request for Qualification	:	01.01.2015
Request for Proposal	:	13.04.2015
Letter of Intent	:	28.07.2015
Transmission Service Agreement(TSA)	:	24.06.2015
SPV acquisition	:	23.11.2015
Transmission License by CERC	:	29.02.2016
Tariff adoption by CERC	:	29.01.2016
Contract Performance Guarantee	:	30.10.2015
Clearance u/s 164	:	15.06.2016
Execution plan submitted to CEA	:	21.03.2016
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	22.11.2018
Actual Date of Completion	:	Mar'19

#### Status of progress of transmission project

##### 1. Raipur - Rajnandgaon 765 kV D/C (hexa) line

- Length: 79.56 ckm
- Locations: 104 nos

**Transmission line commissioned in Mar'19.**

**2. Rajnandgaon - Warora 765 kV D/C (hexa) line**

- Length: 532 ckm
- Locations: 688 nos

**Transmission line commissioned in Mar'19.**

**3. 765 kV Rajnandgaon switching station**

**Commissioned in Mar'19.**

## **40) Name of transmission project - System strengthening for IPPs in Chhattisgarh and other generation projects in western region**

### **Background**

The immediate evacuation of Vindhyachal STPP- IV & V consists of Vindhyachal-IV - Vindhyachal Pool station 400 kV D/C (Quad) line. NTPC requested to provide additional outlet from Vindhyachal-IV generation project in order to increase the reliability of power evacuation system for Vindhyachal STPP-IV & V project. With 765 kV and 400 kV interconnection there would be more flexibility in operation as well as utilization of the 765/400 kV transformation capacity.

### **Scope of transmission project**

1. 400 kV interconnection at Gwalior 765/400 kV s/s
  - (i) Gwalior-Morena 400 kV D/C (Q) line
  - (ii) 2x315 MVA, 400/220 kV substation at Morena
2. Additional evacuation line from Vindhyachal-IV & V STPP (3x500 MW)
  - (i) Vindhyachal STPS - IV & V – Vindhyachal pool 400 kV D/C (Q) line
  - (ii) 400 kV bays (2 nos.) at Vindhyachal STPP switchyard
3. Additional system strengthening scheme for Chhattisgarh IPP's (Part-A)
  - (i) Sasan UMPP – Vindhyachal Pooling Station 765 kV S/C (Q) line
  - (ii) Raigarh (Kotra) – Champa (Pool) 765 kV S/C (Q) line
  - (iii) Champa (Pool) – Dharamjaygarh 765 kV S/C (Q) line
  - (iv) LILO of one ckt of Aurangabad – Padghe 765 kV D/C (hexa) line at Pune
  - (v) 765 kV bays at Sasan UMPP

### **General Detail**

Special Purpose Vehicle (SPV)	:	Chhattisgarh-WR Transmission Ltd (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1285
Levellised Tariff (Rs. Crs)	:	132.402
Request for Qualification	:	29.12.2014
Request for Proposal	:	13.04.2015
Letter of Intent	:	28.07.2015
Transmission Service Agreement(TSA)	:	24.06.2015
SPV acquisition	:	23.11.2015
Transmission License by CERC	:	29.02.2016
Tariff adoption by CERC	:	28.01.2016
Contract Performance Guarantee	:	30.10.2015
Clearance u/s 164	:	25.10.2016
Execution plan to CEA	:	21.03.2016
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	22.03.2019
<b>Actual Date of Completion</b>	:	<b>Aug'19 (commissioned)</b>

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

### **1. 400 kV interconnection at Gwalior 765/400 kV s/s**

#### **(i) Gwalior - Morena 400 kV D/C (Q) line**

Length: 95.6 ckm

Locations: 145 nos

Transmission line commissioned in **May'18**.

#### **(ii) 2x315 MVA, 400/220 kV Morena substation**

Substation commissioned in **May'18**.

### **2. Additional evacuation line from Vindhyachal-IV & V STPP (3x500 MW)**

#### **(i) Vindhyachal STPS - IV & V – Vindhyachal pool 400 kV D/C (Q) line**

Length: 54.62 ckm

Locations: 87 nos

Line commissioned in **Mar'18**.

#### **(ii) 400 kV bays (2 nos.) at Vindhyachal STPP switchyard**

Commissioned in **Mar'18**.

### **3. Additional system strengthening scheme for Chhattisgarh IPP's (Part-A)**

#### **(i) Sasan UMPP – Vindhyachal Pooling Station 765 kV S/C (Q) line**

Length: 5.892 ckm

Locations: 22 nos

Line commissioned in **Apr'18**.

#### **(ii) Raigarh (Kotra) – Champa (Pool) 765 kV S/C (Q) line**

Length: 97 ckm

Locations: 261 nos

**Line commissioned in Aug'18.**

#### **(iii) Champa (Pool) – Dharamjaygarh 765 kV S/C (Q) line**

- Length: 51.1 ckm

- Locations: 150 nos

**Commissioned Jul'18.**

#### **(iv) LILO of one ckt of Aurangabad – Padghe 765 kV D/C (hexa) line at Pune**

- Length: 129 ckm

- Locations: 180 nos

**Commissioned Aug'19.**

#### **(v) 765 kV bays at Sasan UMPP**

**Bays Commissioned in Apr'18.**

## **41) 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. crs)	: 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 days from submission.
Execution plan submitted to CEA	:	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
- Route alignment completed: 102 Ckm
- Detailed survey completed: 102 Ckm
- Foundation completed: 58 nos (revised route)
- Tower erected: 45 nos (revised route)
- Stringing completed: Nil
- Revised schedule completion date: 14 months from the date of NOC from CCL/MoC (considering receipt of forest approval within 200 days)

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

- a) CEA had decided that NK-C line shall be completed within 14 months from the date of NOC subject to grant of Forest Clearance (FC) within 200 Days from application. Currently FC is at DFO level due to want for NOC of Gair Majarua (GM) – Jungle Jhari (JJ) from Revenue Department, State of Jharkhand. Out of two DFO involved, looking into criticality of project and on request, DFO Latehar has completed Part II compliance pending receipt of NOC for GM-JJ land; however, DFO Chatra has hold Part II compliance till receipt of NOC for GM-JJ land. Due to adoption of new process

concerned DC offices are seeking clarity / directions from The Secretary, Revenue Dept., Jharkhand Govt. as to which category of slab related to GM-JJ land is to be charged for NOC.

- b) 132 kV Powerline Crossing approval from DVC: The approval from DVC for crossing their 132 kV line is yet awaited. DVC has informed that approval is on hold considering the expected diversion of their line to accomodate crossing of proposed conveyor belt to be constructed by NTPC for their North Karanpura STPP. DVC on 28.02.2020 has conducted survey of the section for submission to NTPC. Survey report is yet awaited.
- c) Curfew in Lohardaga district: Curfew has been imposed from 23.01.2020 in response to the protest of Citizen Amendment Act, this has impacted material and resource movement.
- d) Progress in “Non-Forest” locations is going as per schedule and following progress have been achieved till 29.02.2020: FDN: 58 / 74 locs, TE: 45 / 74 locs. NKTL is well within the target to complete all “Non Forest” locations within the timeline of 14 month.

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

#### **Forest (including multi-circuit portion)**

Details of Tr. Line Falling under Forest:- Locations: 41 nos and Length: 12 Kms

Forest area affected (ha) : 56.3254 Ha

Forest proposals submitted on: 17.06.2019

Current status: Proposal is at DFO level and NOC of GM – JJ land from Revenue Dept. is awaited for forward processing.

**Remarks:** Proposal on revised route has been submitted within the timeline committed to CEA.

#### **Power line crossing**

Total no. of crossings	:	3	nos.
Proposal submitted	:	3	nos.
Approval obtained	:	0	nos.

#### **Railway crossing**

Total no. of crossings	:	1	no.
Proposal submitted	:	1	no.
Approval obtained	:	0	no.

#### **National Highway Crossing**

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

#### **River Crossings**

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



**PTCC approval**

Submitted

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

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation  
Current Status: Submitted

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

- Length (as per revised route): 196 Ckm
- Locations (as per revised route): 285 nos
- Route alignment completed: 196 Ckm
- Detailed survey completed: 190 Ckm
- Foundation completed: 59 nos (on revised route)
- Tower erected: 31 nos (on revised route)
- Stringing completed: Nil
- Revised schedule completion date: 23 months from the date of NOC from CCL/MoC (considering receipt of forest approval within 300 days)

**Constraints where Project Authority requires intervention:**

- a) CEA had decided that NK-G line shall be completed within 23 months from the date of NOC subject to grant of Forest Clearance (FC) within 300 Days from application. Currently FC is at Nodal office. Nodal Officer had asked to explore various routes as it was envisaged that sizeable forest area can be reduced by slight modification in route. All options were worked out in consultation of Nodal officer and proposal has been submitted for acceptance of Nodal Officer. Proposal is yet to be accepted by Nodal Officer .
- b) Curfew in Lohardaga district: Curfew has been imposed from 23.01.2020 in response to the protest of Citizen Amendment Act, this has impacted material and resource movement.
- c) Progress in “Non-Forest” locations is going as per schedule and following progress have been achieved till 29.02.2020: FDN: 59 / 138 locs, TE: 31 / 138 locs. NKTL is well within the target to complete all “Non Forest” locations within the timeline of 23 months.

**Status of statutory approvals:****Forest (envisaged based on route alignment & excluding multi-circuit portion)**

Details of Tr. Line Falling under Forest:- Jharkhand(JH) - Locations: 150 nos. and Length: 42 kms and Bihar(BH) – Location: 1 no. and Length: 1.2 Kms  
Forest area affected (ha) : 193.5525 Ha. in JH portion & 5.437 Ha. in BH portion.  
Forest proposals submitted on: uploaded 20.07.2019 for JH portion & 01.08.2019 for BH portion

**Current status:** Proposal on revised route has been submitted within the timeline committed to CEA. Acceptance from Nodal Officer is awaited.

**Power line crossing**

Total no. of crossings	:	9	nos.
Proposal submitted	:	4	nos.
Approval obtained	:	0	nos.

**Railway crossing**

Total no. of crossings	:	1	no.
Proposal submitted	:	1	no.
Approval obtained	:	0	no.

**National Highway Crossing**

Total no. of crossings	:	3	nos.
Proposal submitted	:	0	nos.
Approval obtained	:	0	nos.

**PTCC approval**

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

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation  
Current Status:

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

- Land acquired: completed
- Civil works completed 0%
- Equipment supplied 0%
- Equipment erected 0%
- Scheduled completion date: 07.05.2019
- Revised schedule completion date: 18 months from date of NOC from CCL/MoC

**Constraints where Project Authority requires intervention:**

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

- Length: 2.4 Ckm
- Locations: 4 nos
- Revised schedule completion date: 18 months from date of NOC from CCL/MoC

## 42) Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan

### Background

Government of India has taken an initiative for development of Solar Power Parks in various parts of the country. As part of above initiative, Solar Power parks are being developed by various developers near Bhadla & Jaisalmer in Rajasthan.

MNRE has authorised M/s. Adani Renewable Energy Park Rajasthan Ltd. (AREPRL) (JVC of Govt. of Rajasthan and AREPL) as solar park developer for 1500 MW capacity at Fatehgarh, Distt. Jaisalmer, Rajasthan. Out of above generation capacity, M/s. AREPRL has applied for Connectivity & Long Term Access in ISTS for 1000 MW.

To evacuate power from the Fatehgarh UMSP (1000 MW), it was finalized to establish 400 KV Pooling Station at Fatehgarh along with 765 KV Fatehgarh Pool – Bhadla (PG) D/C line (to be operated at 400 KV). Also, in order to address reactive power management aspect including during low / no solar generation periods, 1x125 MVar bus reactor (at 400 KV bus) at Fatehgarh Pooling Station is finalized.

### Scope of transmission project:

1. Establishment of 400 KV pooling station at Fatehgarh
2. 765 kV Fatehgarh Pooling sub-station - Bhadla (PG) D/C line (to be operated at 400 kV).
3. 2 nos of 400 kV line bays at Fatehgarh Pooling substation
4. 1x125 MVAR Bus reactor at 400kV Fatehgarh Pooling sub-station along with associated bay
5. Space for future 220 kV ( 12 Nos. ) line bays.
6. Space for future 400 kV ( 8 Nos. ) line bays along with line reactors at Fatehgarh Pooling station.
7. Space for future 220/400 kV transformers ( 5 nos.) along with associated transformer bays at each level.
8. Space for future 400 KV bus reactors ( 2 nos.) along with associated bays.

### General Detail

Special Purpose Vehicle (SPV)	:	Fatehgarh-Bhadla Transmission Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	624
Request for Qualification	:	30.12.2016
Request for Proposal	:	30.04.2017
Letter of Intent	:	21.02.2018
Transmission Service Agreement(TSA)	:	10.01.2018
SPV acquisition	:	14.03.2018
Transmission License by CERC	:	27.08.2018 (Order date)
Tariff adoption by CERC	:	27.08.2018

Contract Performance Guarantee	:	12.03.2018
Clearance u/s 164	:	Authorization on revised route received on 14.11.2019 after 110 days.
Execution plan to CEA	:	09.07.2018
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	30.09.2019
Anticipated Date of Completion	:	Aug'20

**(i) 765 kV Fatehgarh Pooling sub-station - Bhadla (PG) D/C line (to be operated at 400 kV)**

- Length (as per revised route): 304 ckm
- Locations (as per revised route): 405 nos
- Foundation completed: 322 nos (on revised route)
  - Earlier casted 24 nos will be scrapped
  - due to re-routing on account of GIB arc and another 19 nos will be scrapped due to height restrictions laid in Defence Aviation NOC dated 16.12.2019.
- Tower erected: 290 nos (on revised route)
- Stringing completed: 153 ckm
- Schedule completion: 30.09.2019
- Anticipated completion: Aug'20

**Constraints where Project Authority requires intervention:**

- a) Defence NOC: Conditional NOC has been received from Defence authority on 16.12.2019. Severe height restrictions has been levied by authority and have asked to reduce the tower heights of 50 towers by 35 to 50 Mtrs near Phalodi Airport both within and outside the funnel area, This has impacted ~54 towers and new towers are required to be designed to comply the conditions stipulated in the NOC. Detailed designing of these new truncated towers is in progress and survey activities with revised tower spotting data has commenced. This line was targeted to be completed by Mar'20, however, due to this aforementioned conditional NOC, it required to develop new truncated towers which will be used first time in INDIA and number of towers required have increased as spans have to be reduced to meet required clearances and comply with conditions related to height restrictions laid in NOC. Furthermore, 19 foundations have to be scrapped. This developments will lead to revised estimated completion timeline of this line by Aug'20 . and FM notice as per TSA provision to this effect have been served to LTTCs on 15.01.2020. Compliance to NOC have been submitted to Defence Authority on 20.02.2020. Foundation activities at these truncated towers have commenced.
- b) Powerline crossing approval from Reliance Solar: Proposal was submitted on 14.06.2019 ,approval is awaited for the same. FBTL had also submitted undertaking to do Hot line crossing. Reliance Solar is yet to respond.
- c) Powerline crossing approval from Terraform Global: Proposal was submitted on 02.07.2019, approval is awaited. However, Terrafoam Global was insisting for legal agreement for power line crossing, which is not standard utility practice and the same was conveyd to Terffoam Global on 07.02.2020.

## **Status of statutory approvals:**

### **Forest**

Details of Tr. Line Falling under Forest:- Length:

Forest area affected (ha) : 1.33 Ha (on revised route)

Forest proposals submitted on 27.06.2019 (for revised route)

**Current status:** Line was not allowed to pass on original route factoring the habitant of GIB, even with provision of bird deflectors/diverters and hence had to be re-routed based on the letter received from DNP, Jaisalmer. Forest proposal for revised route have been uploaded. Proposal is at Regional Office

### **Power line crossing (on revised route)**

Total no. of crossings	:	10	nos.
Proposal submitted	:	10	nos.
Approval obtained	:	8	nos.

### **Railway crossing (on revised route)**

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

### **National Highway Crossing (on revised route)**

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

### **PTCC approval (on revised route)**

Proposal submitted to BSNL in	:	
Proposal submitted to Railways in	:	
Current status:	:	approval received

### **Defence/Civil Aviation (on revised route)**

Proposal submitted to Defence/Civil Aviation :	conditional NOC received
Current Status:	on 16.12.2019

## **(ii) Establishment of 400 KV Pooling Station At Fategarh**

- Land acquisition: Sub-lease agreement has been signed between FBTL & Beneficiary.
- Engineering: 100%
- Equipment supplied: 100%
- Civil Works: 92%
- Erection works: 92%
- Schedule completion: 30.09.2019
- Anticipated completion: Mar'20

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

### **(iii) 2 nos of 400 kV line bays at Fatehgarh Pooling substation**

- Schedule completion: 30.09.2019

- Anticipated completion: Mar'20

**(iv) 1x125 MVAR Bus reactor at 400kV Fatehgarh Pooling sub-station along with associated bay**

- Schedule completion: 30.09.2019
- Anticipated completion: Mar'20

## **43) Transmission System Associated with LTA applications from Rajasthan SEZ Part-D**

### **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. Towards this, solar generation potential of about 3.55 GW in Bhadla complex, 3.5 GW in Fatehgarh complex and 1.85 GW in Bikaner has been envisaged. For integration and evacuation of power from generation projects in the above areas, a high capacity 765 kV and 400 kV transmission system interconnecting Bhadla, Fatehgarh, Bikaner, Sikar & Khetri along with establishment of 765/400 kV new substation at Bhadla-II, Fatehgarh-II & Khetri have been planned.

The subject transmission scheme involves implementation of Bikaner – Khetri 765 kV D/C line which shall help in transfer of power from RE sources in above complexes for onward dispersal of power to various beneficiaries.

The proposal has been technically agreed in the 2<sup>nd</sup> meeting of Northern Region Standing committee on Transmission (NRSCT) held on 13.11.2018. The same was agreed in the 3<sup>rd</sup> ECT meeting held on 21.12.2018 for implementing through TBCB route with a commissioning schedule as December, 2020.

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

1. Bikaner (PG) – Khetri S/S 765 kV D/C line.
2. 765 kV Bays at Bikaner (PG) & Khetri for Bikaner (PG) – Khetri S/S 765 kV D/C line (765 kV line bays: 4 nos).
3. 1x240 MVar switchable line reactor for each circuit at each end of Bikaner – Khetri 765 kV D/C line along with reactor bays (1x240 MVar Line reactor – 4nos, 765 kV Reactor bay – 4 nos). 1x80 MVar, 765 kV, 1-ph Reactor (spare unit) (For 2x240 MVar line reactor on Bikaner – Khetri 765 kV D/C line at Bikaner end).

### **General Detail**

Special Purpose Vehicle (SPV)	:	Bikaner-Khetri Transmission Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	PFC Consulting Limited
Estimated Cost (Rs. crs)	:	INR 1630 Crs
Request for Qualification	:	17.01.2019
Request for Proposal	:	18.03.2019
Letter of Intent	:	31.07.2019
Transmission Service Agreement(TSA)	:	23.04.2019
SPV acquisition	:	19.09.2019
Transmission License by CERC	:	27.12.2019
Tariff adoption by CERC	:	27.12.2019

Contract Performance Guarantee	:	22.08.2019
Clearance u/s 164	:	application submitted to CEA on 29.01.2020 and is under review
Execution plan to CEA	:	submitted on 16.01.2020
NIT issued on	:	
EPC contract awarded on	:	16.11.2019
Scheduled Date of Completion	:	31.12.2020

- There has been delay of 59 days in SPV acquisition for reasons. Accordingly, a notice had been submitted to LTTC on 15.10.2019 to extend the SCOD for the delayed timeframe.

**(i) Bikaner (PG) – Khetri S/S 765 kV D/C line**

- Length: 472 ckm
- Locations: 607 nos
- Foundation completed: 304 nos
- Tower erected: 19 nos
- Stringing completed: 0 ckm
- Schedule completion: 31.12.2019

**Constraints where Project Authority requires intervention:**

- a) PGCIL is constructing Sub Station at Khetri under Khetri Transco Limited (KTL) and as per RFP scope, PGCIL has to provide space and allocate Bay No. to BKTL for construction of 2 Nos. 765kV Bays at Khetri SS for Bikaner (PG) – Khetri SS 765kV D/C Line. However, till date final Site location (GPS co-ordinate) and plan layout of Sub Station are awaited from PGCIL. This delay has adversely affected Engineering activities of Bay construction and will also have impact on subsequent construction activities. Furthermore, route finalization of transmission line along with submission of statutory proposals is also getting affected. Non-availability of details has impact on achieving SCoD and thus FM notice to this effect has been submitted on 18.12.2019.

**Status of statutory approvals:**

**Forest**

Details of Tr. Line Falling under Forest:- Length:  
Forest area affected (ha) :  
Forest proposals

**Current status:** finalization of Forest area is impacted as route is not getting finalized due to non-availability of location of Khetri S/S for termination from KTL/PGCIL.



**Power line crossing**

Total no. of crossings	:	25	nos.
Proposal submitted	:	16	nos.
Approval obtained	:	05	nos.

**Railway crossing**

Total no. of crossings	:	05	no.
Proposal submitted	:	04	no.
Approval obtained	:	0	no.

**National Highway Crossing**

Total no. of crossings	:	03	nos.
Proposal submitted	:	03	nos.
Approval obtained	:	0	no.

**PTCC**

Proposal submitted to BSNL in	:	
Proposal submitted to Railways in	:	
Current status:	:	Proposal preparation is impacted due to non-availability of termination details at Khetri S/S from KTL/PGCIL.

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation :	
Current Status:	Proposal preparation is impacted due to non-availability of termination details at Khetri S/S from KTL/PGCIL

#### **44) Transmission System for Western Region Strengthening Scheme – 21 (WRSS – 21) Part – A – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS**

##### **Background**

Government of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. This includes wind potential of about 6 GW in Bhuj complex, 2 GW in Lakadia and 1.5 GW in Dwarka. For integration and evacuation of power from generation projects in the above areas, a high 765 kV and 400 kV transmission system interconnecting Bhuj, Lakadia, Banaskantha, Vadodara & Dwarka along with establishment of 765/440/220 kV new substations at Bhuj-II & Lakadia and 400/220 kV new substation at Jam Khambhaliya (Dwarka) have been planned.

The subject transmission scheme involves establishment of 765/400 kV Lakadia Pooling station along with LILO of Bhachau – EPGL 400 kV D/C (triple) line at Lakadia PS and Bhuj PS – Lakadia PS 765 kV D/C line which helps in transfer of power from RE sources in the Kutch area of Gujarat (Bhuj complex) to Lakadia for onward dispersal of power to their respective beneficiaries.

The proposal has been agreed in the 1<sup>st</sup> meeting of Western Region Standing Committee on Transmission (WRSCT) held on 05.09.2018. The same was agreed in the 3<sup>rd</sup> ECT meeting on 21.12.2018 for implementing through TBCB route with a commissioning schedule as December, 2020.

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

1. Establishment of 2x1500 MVA, 765/400 kV Lakadia PS with 765 kV (1x330 MVAR) & 420 kV (1x125 MVAR) bus reactor
  - 2x1500 MVA, 765/400 kV
  - 400 kV ICT bay – 2
  - 765 kV ICT bay – 2
  - 400 kV line bay – 4
  - 765 kV line bay – 2
  - 1x330 MVAR, 765 kV,
  - 1x125 MVAR, 420 kV
  - 765 kV Reactor bay – 1
  - 420 kV Reactor bay – 1
  - Future provisions, Space for:
    - (i) 765/400 kV ICTs along with bays: 2 nos
    - (ii) 400/220 kV ICTs along with bays: 8 nos
    - (iii) 765 kV line bays: 4 nos
    - (iv) 400 kV line bays: 6 nos
    - (v) 220 kV line bays: 16 nos
    - (vi) 765 kV bus reactor along with bays: 1 no

- (vii) 400 kV bus reactor along with bays: 1 no
- 2. LILO of Bhachau – EPGL line 400 kV D/C (triple) line at Lakadia PS.
- 3. Bhuj PS – Lakadia PS 765 kV D/C line.
- 4. 2 nos of 765 kV bays at Bhuj PS for Bhuj PS – Lakadia PS 765 D/C line.

## General Detail

Special Purpose Vehicle (SPV)	:	WRSS XXI(A) Transco Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	REC Transmission Projects Co. Ltd.
Estimated Cost (Rs. crs)	:	INR 1090 Crs
Request for Qualification	:	12.01.2019
Request for Proposal	:	13.03.2019
Letter of Intent	:	31.07.2019
Transmission Service Agreement(TSA)	:	23.04.2019
SPV acquisition	:	14.10.2019
Transmission License by CERC	:	received on 24.01.2020
Tariff adoption by CERC	:	received on 27.01.2020
Contract Performance Guarantee	:	
Clearance u/s 164	:	submitted to CEA on 16.11.2020 and is under review
Execution plan to CEA	:	submitted on 10.02.2020
NIT issued on	:	
EPC contract awarded on	:	31.10.2019
Scheduled Date of Completion	:	31.12.2020

- There has been delay of 91 days in SPV acquisition for reasons. Accordingly, a notice had been submitted to LTTC on 15.10.2019 to extend the SCOD for the delayed timeframe.

### (i) Bhuj PS – Lakadia PS 765 kV D/C line

- Length: 214 ckm
- Locations: 271 nos
- Foundation completed: 20 nos
- Tower erected: 0 nos
- Stringing completed: 0 ckm
- Schedule completion: 31.12.2020

### Constraints where Project Authority requires intervention:

- a) Facing severe RoW. Support from local administration is being sought. Process is expected to be smoothen upon receipt of Authorization U/S 164.
- b) Finalization of Dead for 765kV D/C Bhuj- Lakadia Line at Bhuj PG station. Meeting held with PGCIL at their CC-Eng at Gurgaon 25.02.2020.

### Status of statutory approvals:

**Forest**

Details of Tr. Line Falling under Forest:- Length: 0.9 Km

Forest area affected (ha) : 3.5 Ha

Forest proposals

**Current status:** Proposal is at State Govt.

**Power line crossing**

Total no. of crossings	:	45	nos.
Proposal submitted	:	42	nos.
Approval obtained	:	0	nos.

**Railway crossing**

Total no. of crossings	:	04	no.
Proposal submitted	:	0	no.
Approval obtained	:	0	no.

**National Highway Crossing**

Total no. of crossings	:	05	nos.
Proposal submitted	:	05	nos.
Approval obtained	:	0	no.

**PTCC**

Proposal submitted to BSNL in	:	
Proposal submitted to Railways in	:	
Current status:	:	proposal submitted for 765 kV line is under processing at CEA – IV Calculation from Defence awaited

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation :

Current Status: proposal submitted on 06.02.2020

**(ii) LILO of Bhachau – EPGL line 400 kV D/C (triple) line at Lakadia PS**

- Length: 76 ckm
- Locations: 118 nos
- Foundation completed: 02 nos
- Tower erected: 0 nos
- Stringing completed: 0 ckm
- Schedule completion: 31.12.2020

**Constraints where Project Authority requires intervention:**

- a) Facing severe RoW. Support from local administration is being sought. Process is expected to be smoothen upon receipt of Authorization U/S 164.

**(iii) Establishment of 2x1500 MVA, 765/400 kV Lakadia PS with 765 kV (1x330 MVAR) & 420 kV (1x125 MVAR) bus reactor**

- Land acquisition: acquisition under process & at advance stage
- Engineering:
- Equipment supplied:
- Civil Works:
- Erection works:
- Schedule completion: 31.12.2020

**Constraints where Project Authority requires intervention:**

- a) FM notice on account of Corona Virus (nCOV-19) has been issued w.e.f. 31.12.2019.

## **45) Transmission System for Transmission System Associated with RE Generations at Bhuj-II, Dwarka & Lakadia**

### **Background**

Govt. of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. This includes wind potential of about 6GW in Bhuj complex, 2GW in Lakadia and 1.5GW in Dwarka. For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhuj, Lakadia, Banaskantha, Vadodara & Dwarka along with establishment of 765/400/220kV new substations at Bhuj-II & Lakadia and 400/220kV new substation at Jam Khambhaliya (Dwarka) have been planned.

The subject transmission scheme involves implementation of Lakadia – Banaskantha 765kV D/c line which is required for transfer of power from RE sources in the Bhuj, Lakadia & Dwarka complexes of Gujarat to Banaskantha for onward dispersal of power to their respective beneficiaries.

The proposal has been agreed in the 1st meeting of Western Region Standing Committee on Transmission (WRSCT) held on 5.9.2018. The same was agreed in the 3rd ECT meeting held on 21.12.2018 for implementation through TBCB route with a commissioning schedule of June 2021 or as per the progress of connectivity/LTA applications of RE projects from WEZ in Gujarat.

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

1. Lakadia PS – Banaskantha PS 765kV D/c line.
2. 765kV Bays at Lakadia and Banaskantha sub-stations for Lakadia PS – Banaskantha PS 765kV D/c line.
3. 2x240MVA switchable Line reactor along with bays at Banaskantha end of Lakadia PS – Banaskantha PS 765kV D/c line and 1x80 MVA, 765 kV, 1 ph switchable line reactor (Spare unit) at Banaskantha end.

### **General Detail**

Special Purpose Vehicle (SPV)	:	Lakadia Banaskantha Transco Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	REC Transmission Projects Co. Ltd.
Estimated Cost (Rs. crs)	:	INR 1052 Cr
Request for Qualification	:	12.01.2019
Request for Proposal	:	13.03.2019
Letter of Intent	:	28.10.2019
Transmission Service Agreement(TSA)	:	23.10.2019
SPV acquisition	:	13.11.2019

Transmission License by CERC	:	application filed on 18.11.2019
Tariff adoption by CERC	:	application filed on 18.11.2019
Contract Performance Guarantee	:	
Clearance u/s 164	:	submitted on 24.02.2020
Execution plan to CEA	:	
NIT issued on	:	
EPC contract awarded on	:	24.12.2019
Scheduled Date of Completion	:	30.06.2021

**(i) Lakadia PS – Banaskantha PS 765kV D/c line**

- Length: 352 ckm
- Locations: 444 nos
- Foundation completed: 13 nos
- Tower erected: 0 nos
- Stringing completed: 0 ckm
- Schedule completion: Jun'21

**Status of statutory approvals:**

**Forest**

Details of Tr. Line Falling under Forest:- Length: 3.1706 KMs  
Forest area affected (ha) : 25.245 Ha  
Forest proposal submitted on 31.12.2019

**Wild Life**

Details of Tr. Line Falling under Wild Life:- Length: 1.599 KMs  
Wild Life area affected (ha) : 9.749 Ha  
Wild Life proposal submitted – proposal submitted on 13.01.2020.

**Current status:** Forest proposal accepted by Nodal Officer and is under process at DFO.

**Power line crossing**

Total no. of crossings	:	34	nos.
Proposal submitted	:	22	nos.
Approval obtained	:	0	nos.

**Railway crossing**

Total no. of crossings	:	02	no.
Proposal submitted	:	0	no.
Approval obtained	:	0	no.

**National Highway Crossing**

Total no. of crossings	:	03	nos.
Proposal submitted	:	0	nos.
Approval obtained	:	0	no.

**PTCC**

Proposal submitted to BSNL in :

Proposal submitted to Railways in :

Current status: :

**Defence/Civil Aviation**

Proposal submitted to Defence/Civil Aviation :

Current Status: under preparation



#### **46) Transmission System for Jam Khambaliya Pooling Station and Interconnection of Jam Khambaliya Pooling Station for Providing Connectivity to RE Projects (1500 MW) in Dwarka (Gujarat) and Installation of 400/220 kV ICT along with Associated Bays at CGPL Switchyard**

### **Background**

#### **Connectivity System for RE projects (1500 MW) in Dwarka (Gujarat)**

Govt. of India has set a target for establishing 175 GW renewable capacity by 2022 which includes 100 GW Solar, 60 GW Wind generation capacity. This includes wind potential of about 6GW in Bhuj complex, 2GW in Lakadia and 1.5GW in Dwarka. For integration and evacuation of power from generation projects in the above areas, a high capacity 765kV and 400kV transmission system interconnecting Bhuj, Lakadia, Banaskantha, Vadodara & Dwarka along with establishment of 765/400/220kV new substations at Bhuj-II & Lakadia and 400/220kV new substation at Jam Khambhaliya (Dwarka) have been planned.

The subject transmission scheme involves establishment of 400/220kV Jam Khambhaliya Pooling station along with extension of Essar–Lakadia/ Bhachau 400kV D/c (triple snowbird) line upto Jam Khambhaliya PS for providing connectivity to RE projects in Dwarka (Gujarat). This could be utilized for injection of power (~1500 MW) from wind or solar projects in the area.

The proposal has been agreed in the 1st meeting of Western Region Standing Committee on Transmission (WRSCT) held on 5.9.2018. The same was agreed in the 3rd ECT meeting held on 21.12.2018 for implementation through TCB route with a commissioning schedule of June, 2020.

#### **Installation of 400/220 kV ICT along with associated bays at M/s CGPL Switchyard**

Over the years, the National Grid has become robust; however, the systems have also become more complex and the uncertainties have increased a lot, particularly in terms of weather and natural calamities. This leads to low probability high impact incidents impacting pockets of the grid often leading to prolonged power supply outages. Therefore, Resilience of the grid becomes important. A resilient system recognizes the fact that there can be failures in the system but has well proven systems for quick revival.

The same principle also applies to large power plants like the Ultra Mega Power Projects (UMPPs) and other large power stations. In view of the above, the 500 MVA, 400/220 kV ICT at CGPL Mundra was agreed by the members during the 1st WRSCT meeting held on 05.09.2018 from the viewpoint of having a resilient system in place. The scheme would provide the startup power to CGPL through Nanikhakhar-CGPL 220 kV S/C line (existing). The line would normally be kept open from CGPL end. The scheme was discussed in the

2nd NCT meeting held on 04.12.2018 & 3rd ECT meeting held on 21.12.2018 wherein it was agreed to implement the same through TBCB route.

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

#### **A) Jam Khambhaliya Pooling Station for providing connectivity to RE projects (1500 MW) in Dwarka (Gujarat)**

1. Establishment of 4x500 MVA, 400/220 kV Jam Khambhaliya PS (GIS).
2. 1x125 MVar, 420 kV Bus reactor at Jam Khambhaliya PS along with reactor bay.

#### **B) Interconnection of Jam Khambhaliya Pooling station for providing connectivity to RE projects (1500 MW) in Dwarka (Gujarat)**

1. Extension of Essar-Lakadia/Bhachau 400 kV D/C (triple snowbird) line upto Jam Khambhaliya PS.
2. 2 nos of 400 kV line Bays at Jam Khambhaliya PS for termination of Jam Khambhaliya PS – Lakadia 400 kV D/C (triple) line.
3. 63 MVar switchable line reactor at both ends of Lakadia – Jam Khambhaliya 400 kV D/C line along with 500 Ohms NGR on both circuits & at both ends of Lakadia – Jam Khambhaliya 400 kV D/C line.

#### **C) Installation of 400/220 kV ICT along with associated bays at M/s. CGPL Switchyard**

1. 1x500 MVA, 400/220 ICT at CGPL Mundra switchyard

### **General Detail**

Special Purpose Vehicle (SPV)	:	Jam Khambhaliya Transco Limited (A subsidiary of Adani Transmission Limited)
Bid Process Coordinator (BPC)	:	REC Transmission Projects Co. Ltd.
Estimated Cost (Rs. crs)	:	INR 394 Cr
Request for Qualification	:	12.01.2019
Request for Proposal	:	13.03.2019
Letter of Intent	:	28.10.2019
Transmission Service Agreement(TSA)	:	23.10.2019
SPV acquisition	:	13.11.2019
Transmission License by CERC	:	application filed on 18.11.2019
Tariff adoption by CERC	:	application filed on 18.11.2019
Contract Performance Guarantee	:	
Clearance u/s 164	:	submitted to CEA on 10.02.2020
Execution plan to CEA	:	
NIT issued on	:	
EPC contract awarded on	:	awarded on 31.01.2020
Scheduled Date of Completion	:	31.03.2021

- There has been delay of 23 days in SPV acquisition for reasons. Accordingly, a notice had been submitted to BPC on 12.11.2019 and to LTTC on 19.11.2019 to extend the SCOD for the delayed timeframe.

#### **(i) Establishment of 4x500 MVA, 400/220 kV Jam Khambhaliya PS (GIS)**

- Land acquisition: completed
- Engineering: commenced and under progress

- Equipment supplied:
- Civil Works:
- Erection works:
- Schedule completion: 31.03.2021

## **47) Name of transmission project - Transmission System required for evacuation of power from Kudgi TPS (3x800 MW) Phase-I of NTPC**

### **Background**

NTPC Limited is establishing coal based Kudgi STPP (3x800 MW) generation project at village Kudgi, Bijapur District in the State of Karnataka. NTPC Limited has been granted LTA for 2392.49 MW as per the LTA application and details of drawl of power is given as under:

Karnataka Discoms	1196.24 MW	KSEB	119.18 MW
TANGEDCO	300.10 MW	AP Discoms	418.10 MW

Transmission scheme is planned for the evacuation and supply of power from the Kudgi TPS to the beneficiaries of the generation project. This transmission scheme shall facilitate immediate evacuation as well as supply of power to its beneficiaries with reliability and security. Beyond Madhugiri & Bidadi dispersal of power to the beneficiaries of the generation project shall be through existing/planned transmission network under Inter-State Transmission System.

### **Scope of transmission project**

1. Kudgi TPS - Narendra (New) 400 kV 2 x D/C Quad lines
2. Narendra (New) - Madhugiri 765 kV D/C line (initially operated at 400 kV level)
3. Madhugiri - Bidadi 400 kV D/C (quad) line

### **General Details**

Special Purpose Vehicle (SPV)	:	Kudgi Transmission Ltd. (L&T Infra)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	1240
Levelised Tariff (Rs. Crs)	:	179.58652
Request for Qualification	:	
Request for Proposal	:	12.03.2013
Letter of Intent	:	31.07.2013
Transmission Service Agreement (TSA)	:	14.05.2013
SPV acquisition	:	30.08.2013
Transmission License by CERC	:	07.01.2014
Tariff adoption by CERC	:	08.01.2014
Contract Performance Guarantee	:	22.08.2013
Clearance u/s 164	:	24.04.2014
Execution plan submitted to CEA	:	Submitted
NIT issued on	:	
EPC contract awarded on	:	21.02.2014
Scheduled Date of Completion	:	28.2.2015/29.12.2015
Actual Date of completion	:	September, 2016

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

1. Kudgi TPS – Narendra 400 kV 2xD/C line (I&II) - Line 1&2 completed on 27.03.2015 and commissioned in Nov-15 & Jun-16 respectively
2. Narendra (New) – Madhugiri 765 kV D/C line (758 ckm) - Line Commissioned on 23.09.2016 at 400kV
3. Madhugiri (Tumkur) – Bidadi 400 kV D/C line (186 ckm) - Commissioned on 24.8.16

**Transmission Project Commissioned on Sep-16.**

## **48) Name of transmission project - Transmission System for Patran 400kV S/S**

### **Background**

Patiala and Sangrur district of Punjab has a lot of agriculture load. A partial Grid Disturbance had taken place on 20<sup>th</sup> July 2011 and analysis of Grid disturbance had also indicated the requirement of a 400/220 kV Substation in this area. In the vicinity there are 5 nos of 220 kV grid stations, namely Mansa, Rajla, Sangrur, Sunam & Patran, having total transformation capacity of about 1180 MVA. In addition, 3 nos of 220 kV new substations are also coming up in the area, at Pasiana, Bangan & Kakarla. Accordingly, to meet the growing load a 400/220 kV substation at Patran has been proposed. The 400/220 kV S/s at Patran would be connected to the grid by LILO of Patial-Kaithal 400 kV D/C. To avoid unbalanced loading, LILO of both circuits is proposed. From these substations, 220 kV lines can be drawn to new Patran, Mansa, Pasiana etc. S/s. Looking into load growth potential it is expected that 800-900 MW load would be there in the vicinity. In view of the above 2x500 MVA transformers have been proposed. Considering the fact that the location of the substation is in a very fertile area of the Punjab where the acquisition of land is going to be a challenging task. Accordingly, it is proposed to develop this substation as Gas Insulated substation.

### **Scope of transmission project**

1. LILO of both circuits of Patiala-Kaithal 400kV D/C line at Patran (Triple snow Bird)
2. 2x500 MVA, 400/220 kV substation at Patran

#### **400 kV**

- Line bays 4 nos
- Transformer bays 2 nos
- Space provision for 6 bays

#### **220 kV**

- Line bays 6 nos
- Transformer bays 2 nos
- Space provision for 6 bays

### **General Details**

Special Purpose Vehicle(SPV)	:	Patran Transmission Company Ltd. (A subsidiary of Techno Electric and Engineering Company Ltd)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	200
Levellised Tariff (Rs. Crs)	:	27.4
Request for Qualification	:	11.03.2013
Request for Proposal	:	10.09.2013
Letter of Intent	:	17.09.2013
Transmission Service Agreement(TSA)	:	12.05.2014
SPV acquisition	:	13.11.2013
Transmission License by CERC	:	14.07.2014
Tariff adoption by CERC	:	05.08.2014
Contract Performance Guarantee	:	04.09.2013
Clearance u/s 164	:	29.02.2016

Execution plan submitted to CEA	:	05.08.2014
NIT issued on	:	No NIT issued by PTCL
EPC contract awarded on	:	01.02.2014
Scheduled Date of Completion	:	11.11.2016
Actual Date of Commissioning	:	17.06.2016
Trial run completed (monitored by POSOCO)	:	18.06.2016
Actual COD	:	21.06.2016

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

#### **1. LILO of both circuits of Patiala-Kaithal 400kV D/C at Patran (Triple snow Bird Conductor)**

Length: 200 meter  
Locations: 2

**Line Completed on Jun-16**

#### **2. 2x500 MVA, 400/220 kV Patran substation**

Transmission project completed in June 2016 and commissioned in May 2017. 220 KV downstream transmission lines from Patran S/S completed and commissioned by PSTCL in May 2017.

**Transmission Project Commissioned on May 2017.**

#### **49) Name of transmission project - Transmission System Associated with Krishnapattnam UMPP- Synchronous interconnection between SR and WR (Part-B)**

##### **Background**

For evacuation of power from Krishnapattnam UMPP (4000 MW) and export of power from various IPPs coming up in SR to their target beneficiaries in WR and NR, synchronous integration of the Southern Region with the rest of Indian grid had been planned through two number of 765 KV S/C lines between Sholapur and Raichur. With this interconnection a synchronously connected all India Grid would come into existence. Out of the two 765 KV Raichur- Sholapur lines planned, the Raichur- Sholapur 765 KV line-1 is covered under the scheme "Synchronous interconnection between Southern Region and Western Region" which is to be implemented through tariff based competitive bidding route.

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

1. Raichur-Sholapur 765 KV Single Circuit Line-1

##### **General Details**

Special Purpose Vehicle (SPV)	:	Raichur Solapur Trans. Company Limited. (A Consortium of Patel, Simplex infra and BS Transcomm)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	440
Levelised Tariff(Rs. Crs)	:	29.39569
SPV acquisition	:	7.1.2011
Scheduled Date of Completion	:	7.1. 2014
Actual Date of Completion	:	30.6.2014

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

1. Raichur-Sholapur 765 kV S/C line-1 – 208 ckm

**Transmission Project commissioned on 30.06.2014 .**

## **50) Name of transmission project -Transmission system strengthening in Indian system for transfer of power from new HEP's in Bhutan**

### **Background**

Punatsangchhu-I (1200MW), Punatsangchhu-II (990MW), Mangdechhu(720MW) and Wangchhu (570MW) Hydro Generation Projects in Bhutan are at various stages of development. Power from these generation projects would be transferred to India after meeting small local demand in Bhutan. Power from these generation projects is proposed to be brought to Alipurduar sub-station in West Bengal (India). This transmission scheme has been planned for power transfer from Alipurduar onwards to ER and towards NR, it shall be done through + 800 kV, 6000MW Bishwanath Chariyal (Assam) – Alipurduar (West Bengal) – Agra (Uttar Pradesh) HVDC bipole link.

### **Scope of transmission project**

#### **Transmission Lines:**

1. Alipurduar - Siliguri 400 kV D/C line (2nd) with Quad moose conductor
2. Kishanganj - Darbhanga 400kV D/C line with Quad moose conductor

#### **400 kV Bay Requirements:**

1. 400 kV line bays at Darbhanga: 2 nos.
2. 80 MVAR switchable line reactors (400 Ohm NGR) in each circuit at Darbhanga end of Kishanganj - Darbhanga 400kV D/C (quad) line

### **General Details**

Special Purpose Vehicle (SPV)	: Alipurduar Transmission Ltd. (A subsidiary of Kalpataru Power Transmission Ltd.)
Bid Process Coordinator (BPC)	: Rural Electrification Corporation
Estimated Cost (Rs. crs)	:
Request for Qualification	: 16.04.2015
Request for Proposal	: 08.07.2015
Letter of Intent	: 29.10.2015
Transmission Service Agreement (TSA)	: 22.09.2015
SPV acquisition	: 06.01.2016
Transmission License by CERC	: 21.03.2016
Tariff adoption by CERC	: 22.03.2016
Contract Performance Guarantee	: 04.01.2016
Clearance u/s 164 in Gazette	: 20.10.2016
Execution plan submitted to CEA	: 05.05.2016
NIT issued on	: N.A.
EPC awarded on	: 19.01.2016
Scheduled Date of Completion	: 05.03.2019
Anticipated Date of Completion	: 05.03.2019

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

#### **1. Alipurduar (PG) – Siliguri (PG) 400 KV D/C line**

Length:	115.48 Km
Locations:	321 nos



**The Line Commissioned on 16<sup>th</sup> Jan'20 & the Commercial Operations Date declared on 17<sup>th</sup> Jan'20.**

**2. Kishanganj (PG) – Darbhanga (DMTCL) 400 KV D/C line**

Length:	209 ckm
Locations:	545 nos.

**The Line Commissioned & the Schedule Commercial Operations Date declared on 6<sup>th</sup> Mar'19.**

**3. 2 nos 400 kV line bays at Darbhanga and 80 MVAR switchable line reactors**

Land acquired	: 100% (Land provided by DMTCL)
Civil works completed	: 100%
Equipment supplied	: 100%
Equipment erected	: 100%
Schedule COD	: Mar '19

## **51) Name of transmission project - North Eastern Region Strengthening Scheme (NERSS-VI)**

### **Background**

The expansion of 400 kV network in NER is planned through new 400 kV line and up gradation of existing 400 kV lines presently charged at 132 kV to its rated voltage of 400 kV. A 400 kV ring is being established in Assam and Meghalaya connecting Silchar – Misa – Balipara – Bongaigaon – Azara/Byrnihat - Silchar substations. Another 400 kV ring is being established interconnecting Assam and Tripura through Silchar – Palatana – Surajmaninagar – P. K. Bari – Silchar corridor.

The extension of 400 kV system to the states of Manipur and Nagaland by interconnecting them with Assam has been planned through a 400 kV ring connecting Silchar- Imphal – New Kohima – New Mariani – Misa – Silchar along with new 400 kV substation at New Mariani and charging the New Mariani – Misa line at its rated voltage of 400 kV. Additionally, the Silchar- Imphal – New Kohima- New Mariani – Misa corridor would be an alternate for Silchar – Misa line.

The present scheme will form the Imphal – New Kohima – New Mariani section of Silchar- Imphal – New Kohima – New Mariani – Misa – Silchar 400 kV ring along with establishment of new 400/200 kV substation at New Kohima. This would require up gradation of the New Mariani S/s of POWERGRID to 400 KV and LILO of the Kathalguri – Misa D/C line at New Mariani S/s along with charging of Misa – New Mariani section at rated voltage of 400 KV (under the scope of POWERGRID). The New Mariani – Kathalguri section would be kept charged at 220 KV.

The subject scheme has been approved in the 5<sup>th</sup> Standing Committee Meeting on Power System Planning of North Eastern Region held on 08-08-2015 at Imphal, 15<sup>th</sup> NERPC/TCC meeting held on 21-08-2015 at Guwahati and 35<sup>th</sup> Empowered Committee meeting on Transmission held on 14-09-2015 at New Delhi.

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

#### **A. Establishment of 400/220 kV, 7x167 MVA s/s at new Kohima**

##### 400 kV

ICTs: 400/220 kV, 7x167 MVA  
ICTs bays: 2 nos.  
Line bays: 4 nos.  
Bus Reactor: 2x125 MVAR  
400 kV bus reactor bays: 2 nos.  
Space for future bays: 4 nos. (along with space for switchable line reactor)

##### 220 kV

ICTs bays: 2 nos.  
Line bays: 4 nos.  
Space for future bays: 4 nos.  
Space for 400/220 kV 500 MVA ICT along with associated bays

## **B. Imphal-New Kohima 400 kV D/C line (Twin Moose ACSR)**

### **General Details**

Special Purpose Vehicle	:	Kohima-Mariani Transmission. Ltd
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Request for Qualification	:	15.02.2016
Request for Proposal	:	25.11.2016
Letter of Intent	:	17.01.2017
Transmission Service Agreement (TSA)	:	02.09.2016
SPV acquisition	:	31.03.2017
Transmission License by CERC	:	10.07.2017
Tariff adoption by CERC	:	06.07.2017
Contract Performance Guarantee	:	07.03.2017
Clearance u/s 164	:	Obtained in Feb'18
Execution plan submitted to CEA	:	29.07.2017
NIT issued on	:	14.01.2016
EPC contract awarded on	:	28.06.2017
Scheduled Date of Completion	:	Jul'2020
Anticipated Date of Completion	:	Jul'2020

### **Status of progress (till Dec, 2019)**

#### **1. Establishment of 400/220 kV, 7x167 MVA s/s at new Kohima**

Schedule COD	Jul' 2020.
Anticipated COD	Jul' 2020.

### **I Engineering Status % of Completion Target:**

- a) Electrical Engineering 100%
- b) Civil Engineering 100%
- C) Mechanical Engineering (Fire Protection & Detection Ventilation, AC) 100%
- d) Vendor Engineering 98%

### **II Execution Summary % of Completion Target:**

- a) Land acquired 100%
- b) Civil works completed 90%
- C) Equipment supplied 100%
- d) PEB - Erection 100%
- e) Equipment erected 95% (400 KV Structural complete)
- f) 400 & 220 KV – GIS EREC & ICT & Reactor 80%

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

Details of Downstream Connectivity with State power, Govt. of Nagaland is required at top priority. Downstream system construction has not started yet and without power flow from transmission system, transmission charges will not paid to KMTL.

## 2. Imphal-New Kohima 400 kV D/C line

### Status of progress

Length:	135.77 Km approx.
Locations:	323 Nos approx.
Foundation completed:	295 nos (91.33%)
Tower erected:	280 nos (86.69%)
Stringing completed:	94.129 km (69.33%)
Schedule COD:	Jul'2020
Anticipated COD	Jul'2020

Line Name	Imphal – New Kohima		New Kohima – Mariani		Total
State→	Manipur	Nagaland	Nagaland	Assam	Scope
Scope (Loc)	238	85	91	191	605
Scope (KM)	97.80	37.97	42.96	75.24	253.97
<b>Foundation (Till Feb, 2020)</b>					
Completed	213	82	88	186	569
Balance	25	3	3	5	36
<b>Erection (Till Feb, 2020)</b>					
Completed	206	74	84	178	542
Balance	32	11	7	13	63
<b>Stringing (Till Feb, 2020)</b>					
Completed	71.01	23.12	19.79	56.62	170.53
Balance	26.79	14.85	23.17	18.62	83.44

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

#### **Hindering factors of project:**

- 1) Non seasonal rainfall & frequent bands / restrictions at local level resulting in non-continuity of work at site.
- 2) Blockage of national highway due to rainfall / landslides resulting in delay in delivery of material at site.
- 3) ROW Issues are as follows:

Sl No.	Activity	Portion/ State	Location No.	Issue
<b>Line 1:-Imphal – New Kohima (Manipur-Nagaland)</b>				
1	<b>Foundation</b>	<b>Kangpokpi, District, Manipur</b>	49/5	Location is under the Town Committee of Kangpokpi Town and asking to divert the line. Several rounds of meetings with stakeholders were held with Kangpokpi DC and us.)
2			58/0	<b>Tumyon Kullen (T-khullen) - Village.</b> Village chairman and respective landowners are agreed and even NOC notice where signed by them
3			58/1	
4			58/2	

5			58/3	well before. But Youth Club is objecting the line as it is passing through cultivation land and asking to divert the line. Kangpokpi DC has personally visited the site and try to convince them.	
6			58/4		
7			58/5		
8			59/0		
9			59/1		
10			61/0	It is impact of ROW issue of T-Khullen, but they are ready to provide NOC.	
11			61/1		
12			61/2		
13			<b>Erection</b>	50/0	It is impact of ROW issue of T-Khullen, but they are ready to provide NOC.
14	60/0				
15	61/3				
16	<b>Foundation</b>		<b>Senapati, District, Manipur</b>	77/0	The village chairman is asking to divert line and even he has submitted a letter to DC Senapati.
17				78/0	
18				131/0	Land belongs to ruling government's Phed Minister and one Stone crusher & Quarry is near the location. Asking for shift location.
19				134/0	<b>Songsong Block</b> Land owners and Village Authorities are asking shift the line around 900 mtr left side of the line, which land belongs to village authority
20		134A/0			
21		135/0			
22		136/0			
23		137/0			
24		138/0			
25		139/0			
26		140/0			
27		141/0			
28		142/0			

**Note:** To assess the physical progress of work and also to meet the concerned officers of Govt. of Assam and Manipur for early resolution of RoW issues/Forest Clearance, an officer from CEA was deputed to site during 19-23 Feb,2020. The site visit report has been forwarded to Joint Secretary (Trans.), MoP on 5<sup>th</sup> March,2020 to intervene to resolve the RoW issues/hindrances in Assam and Manipur in particular, for the construction of Imphal (Manipur)-New Kohima(Nagaland)-New Mariani(Assam) 400kV D/c(twin) Transmission Line, so that above line is commissioned at the earliest.

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

##### **Forest**

Details of Tr. Line Falling under Forest:-

Locations: 91 nos. Approx. ,

Length: 41.647 KM

Forest area affected (ha) : 191.62

Forest proposals submitted on 14.08.2017 (online) & 28.08.20017 (Hard copy).

**Status:** The Stage 1 approval was received on 24.01.2019. (payment is paid to forest department) .The working permission File has been approved by forest office.

**Current Status :** Working permission has been granted on 07.03.2019.

**Power line crossing**

Total no. of crossings	: 10	nos	
Proposal submitted	: 10	nos.	Date:15.11.19 (latest submission date)
Approval obtained	: 06	nos.	Date: 29.04.19,17.10.19,21.11.19 & 21.01.20
Status	: 04	case are under process at Concerned	
Authority(PGCIL).			

**Railway crossing**

Total no. of crossings	: 0	nos.	
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

**National Highway Crossing**

Total no. of crossings	: 8	nos	
Proposal submitted	: 8	nos.	Date:10.04.2019 (latest submission date)
Approval obtained	: 3	nos.	Date: 22.11.18 & 27.04.19
<b>Current Status</b>	: 5	cases are under process at Concerned	
Authority.			

**River Crossings**

Totalno. of crossings	: 0	nos.	
Proposal submitted	:	nos.	Date:
Approval obtained	:	nos.	Date:

**PTCC approval**

Proposal submitted to Defence on 10.06.2019

Proposal submitted to BSNL on 10.06.2019

Proposal submitted to Railways on 10.06.2019

**Current Status:** Under process at concerened Officies. (jointly site visit done for Assam State & Under process of balance portion of line)

**Defence/Civil Aviation Proposals**

**Defence Aviation:** Proposal submitted on 13.02.2019

Current Status: NOC granted vide letter dtd-31.07.2019.

**Civil Aviation:**

Manipur : Proposal submitted on 13.02.2019 ( same was re-submitted on 14.04.19, 12.06.19, 10.08.19, 03.10.19, 25.10.19 & 18.11.19)

Current Status :- NOC Granted

Nagaland : Proposal submitted on 24.12.2019 (Same was re-Sumitted on 04.01.20)

Current Status :- NOC Granted

### **3. New Kohima - Mariani 400 kV D/c line**

#### **Status of progress**

Length	118.20 Km Approx.
Locations:	282 Nos Approx.
Foundation completed:	274 nos. (97.16%)
Tower erected:	262 Nos. (92.91%)
Stringing completed:	76.404 km (64.64%)
Schedule COD:	Jul'2020.
Anticipated COD	Jul'2020.

Line Name	Imphal – New Kohima		New Kohima – Mariani		Total
State→	Manipur	Nagaland	Nagaland	Assam	Scope
Scope (Loc)	238	85	91	191	605
Scope (KM)	97.80	37.97	42.96	75.24	253.97
<b>Foundation (Till Feb, 2020)</b>					
Completed	213	82	88	186	569
Balance	25	3	3	5	36
<b>Erection (Till Feb, 2020)</b>					
Completed	206	74	84	178	542
Balance	32	11	7	13	63
<b>Stringing (Till Feb, 2020)</b>					
Completed	71.01	23.12	19.79	56.62	170.53
Balance	26.79	14.85	23.17	18.62	83.44

**Constarints where Project Authority requires intervention:**

#### **Hindering factors of project:**

- 1) Initial delay of 3 months in start of work due to delay in issuance of statutory clarence (164 approval)
- 2) Non seasonal rainfall & frequent bands / restrictions at local level resutling in non-continuity of work on site
- 3) ROW issues are as follows:

Sl No.	Activity (F/E/S)	Portion/ State	Location No.	Issue
1	Foundation	Assam Portion (BA)	86/0	All are forest location & Final Approval received only on 28-02-20.
2			87/1	
3			87/2	
4			87/3	
5	Erection		132/2	Land owner is demanding high compensation against falling of betel nut tree
6	Er ec tio		40/0	

7			41/0	District boundary dispute between Kohima & Wokha districts.
8		<b>Assam Portion (BA)</b>	42/0	
9			43/0	
10			43A/0	
11			44/0	

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

#### **Forest**

Details of Tr. Line Falling under Forest:-

Locations: 11 nos. Approx ,

Length: 4.3 Km

Forest area affected (ha) : 19.976

Forest proposals submitted on 09.08.2017

**Status:** The working permission/ Final Approval has been granted on 28.02.2020 by nodal office.

### **Current Status:-**

#### **Power line crossing**

Total no. of crossings	:	1	nos	
Proposal submitted	:	1	nos.	Date:03/12/2018
Approval obtained	:		nos.	Date:
Status	:			under process at concerened authority..

#### **Railway crossing**

Total no. of crossings	:	0	nos.	
Proposal submitted	:		nos.	Date:
Approval obtained	:		nos.	Date:

#### **State Highway Crossing**

Total no. of crossings	:	5	nos (Approval Not required)
Proposal submitted	:		nos. Date:
Approval obtained	:		nos. Date:

#### **River Crossings**

Totalno. of crossings	:	5	nos (Approval Not required)
Proposal submitted	:		nos. Date:
Approval obtained	:		nos. Date:

#### **PTCC approval**

Proposal submitted to Defence on 10.06.2019

Proposal submitted to BSNL on 10.06.2019

Proposal submitted to Railways on 10.06.2019

**Current Status:** Under process at concerened Offices. (jointly site visit done for Assam State & Under process of balance portion of line)



**Defence/Civil Aviation Proposals**

Defence Proposal submitted on 13.02.2019

**Current Status:** NOC granted vide letter dtd-31.07.2019..

**Civil Aviation:**

Nagaland Portion : Proposal submitted on 03.01.2019

Current Status :- NOC Granted

Assam Portion : Proposal submitted on 03.01.2019

Current Status :- NOC Granted

## **52) Name of transmission project - 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**

### **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. Crs)	: 2700
Levelised Tariff(Rs. Crs)	: 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 APTEL

### **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. The case is ongoing in CERC. Next Hearing date awaited..

### **53) Name of transmission project - Augmentation Talcher-II Transmission System**

#### **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. crs)	:	1400
Levelised Tariff(Rs. Crs)	:	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 APTEL

#### **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. The case is ongoing in CERC. Next Hearing date awaited.

## **54) Name of transmission project - Transmission system associated with DGEN TPS (1200 MW) of Torrent Power Ltd.**

### **Background**

This transmission scheme has been proposed for evacuation of power from DGEN TPS (1200MW) of Torrent Power Limited. DGEN Transmission Company Limited awarded through TBCB route shall implement the project.

### **Scope of transmission project**

1. DGEN TPS – Vadodara 400 kV D/C line
2. Navsari - Bhesatan 220 kV D/C line

### **General Detail**

Special Purpose Vehicle (SPV)	:	DGEN Transmission Company Ltd. (A subsidiary of M/s Instalaciones Inabensa, S.A. Spain)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	275
Levelling Tariff (Rs. Crs)	:	58.401
Request for Qualification	:	30.10.2012
Request for Proposal	:	25.03.2014
Letter of Intent	:	19.05.2014
Transmission Service Agreement(TSA)	:	30.04.2014
SPV acquisition	:	17.03.2015
Transmission License by CERC	:	24.06.2015
Tariff adoption by CERC	:	10.06.2015
Contract Performance Guarantee	:	13.03.2015
Clearance u/s 164	:	22.04.2016
Execution plan submitted to CEA	:	10.07.2015
NIT issued on	:	-
EPC contract awarded on	:	30.06.2015
Scheduled Date of Completion	:	16.05.2018
Anticipated Date of Completion	:	DTCL requested to scrap project

### **Status of Progress of transmission project**

- Project authority had not started construction activity as per execution plan. Matter was taken up with the project authority and notice served in August/Sept 2016 but project authority did not respond.
- Member(PS), CEA took a meeting on 26.04.2017 to review the progress of Tr. project wherein project authority informed to close the project due to financial constraints in parent company. CEA vide letter dated 14.06.2017 informed CERC to take appropriate action.