



ISO: 9001-2008

**Monthly progress Report of
Transmission Projects awarded
through
Tariff Based Competitive Bidding
(TBCB) Route
(As on 31.03.2017)**

**Govt. of India
Ministry of Power
Central Electricity Authority
New Delhi
March 2017**

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 / Partly Commissioned (1/2)	4
2.	Transmission System associated with IPPs of Vemagiri Area-Package A	Powergrid Vemagiri Transmission Ltd / REC	PGCIL / Scrapped	6
3.	Transmission system for Strengthening in SR for Import of Power from ER.	Powergrid Vizag Transmission Ltd / REC	PGCIL / Commissioned	8
4.	ATS of Unchahar TPS	Powergrid Unchhahar Transmission Ltd / REC	PGCIL / Commissioned	10
5.	NR System strengthening Scheme- NRSS-XXXI(Part-A)	Powergrid Kala Amb Transmission Ltd / REC	PGCIL / Under Const.	11
6.	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-A)	Powergrid Warora Transmission Ltd / REC	PGCIL / Partly Commissioned (0.5/4).	13
7.	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-B)	Powergrid Parli Transmission Ltd / REC	PGCIL / Under Const	16
8.	Transmission System Strengthening associated with Vindhyachal- V	Powergrid Jabalpur Transmission Ltd / REC	PGCIL / Under Const.	18
9.	Strengthening of Transmission system beyond Vemagiri	Powergrid Southern Interconnector Transmission System Ltd. / REC	PGCIL / Under Const.	19
10.	System strengthening for WR	Bhopal Dhule Transmission Co. Ltd. / PFC	Sterilite Grid / Commissioned	22
11.	System strengthening common for WR and NR	Jabalpur Transmission Company Ltd. / PFC	Sterilite Grid / Commissioned	24
12.	Scheme for enabling import of NER/ER surplus by NR	East-North Interconnection Ltd / PFC	Sterilite Technology / Commissioned	25
13.	Part ATS for RAPP U-7&8 in Rajasthan	RAPP Transmission Company Ltd. / PFC	Sterilite Grid / Commissioned	26
14.	Eastern Region System Strengthening Scheme-VII	Purulia Kharagpur Transmission Co. Ltd. / PFC	Sterilite Grid / Commissioned	27
15.	Northern Regional System Strengthening Scheme, NRSS-XXIX	NRSS XXIX Transmission Ltd. / REC	Sterilite Grid / Partly Commissioned (1/4)	28
16.	Connectivity lines for Maheshwaram 765/400 kV S/S	Maheshwaram Transmission Ltd. / REC	Sterilite Grid / Under Const.	30
17.	Common Transmission system for phase-II generation projects in Orissa	Orissa Generation Phase-II Transmission	Sterilite Grid / Under Const.	32

S.No	Transmission project	Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)	Parent Company/ Progress Status	Page No.
	and immediate evacuation system for OPGC project (Orissa)	ltd. / PFC		
18.	Creation of new 400 kV GIS substations in Gurgaon area and Palwal as a part of ISTS	Gurgaon Palwal Transmission Ltd. / PFC	Sterilite Grid / Under Const.	34
19.	Connectivity system for Khargone TPP (2x660MW)	Khargone Transmission Limited / REC	Sterilite Grid / Under Const.	36
20.	NER System Strengthening Scheme II	NER II Transmission Limited / REC	Sterilite Grid / Yet to Start	38
21.	Eastern Region System Strengthening Scheme-VI	Darbhanga Motihari Transmission Co. Ltd. / PFC	Essel Infra / Under Const.	40
22.	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-B)	NRSS XXXI(B) Transmission Ltd. / REC	Essel infra / Commissioned	42
23.	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 / Yet to Start	44
24.	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 / Yet to Start	46
25.	ATS for Tanda expansion TPS	Tanda Transmission Co. Ltd. / PFC	Essel Infra / Yet to Aquired	48
26.	Additional system strengthening for Sipat STPS	Sipat Transmission Ltd. / PFC	Adani Power Ltd / Under Const.	49
27.	Additional system strengthening for Chhattisgarh (B)	Raipur Rajnandgaon Warora Transmission Ltd. / PFC	Adani Power Ltd / Under Const.	51
28.	System strengthening for IPPs in Chhattisgarh and other generation projects in western region	Chhattisgarh WR Transmission Ltd. / PFC	Adani Power Ltd / Under Const.	53
29.	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC(ERSS XIX)	North Karanpura Transco Ltd / REC	Adani Power Ltd / Under Const.	56
30.	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 / Commissioned	59
31.	Transmission System for Patran 400kV S/S	Patran Transmission Ltd. / PFC	Techno Electric / Commissioned	61
32.	Transmission System Associated with Krishnapattnam UMPP- Synchronous interconnection between SR and WR (Part-B)	Raichur Sholapur Transmission Company Ltd. / REC	RSTCL / Commissioned	63
33.	Transmission system strengthening in Indian system for transfer of power frem new HEP's in Butan	Alipurduar Transmission Ltd. / REC	Kalpataru / Under Const.	64
34.	Transmission System associated with DGEN TPS (1200 MW) of Torrent Power Ltd.	DGEN Transmission Company Ltd. / PFC	Instalaciones Inabensa S A Spain / Yet to Start	66

S.No	Transmission project	Special Purpose Vehicle (SPV)/ Bid Process Coordinator (BPC)	Parent Company/ Progress Status	Page No.
35.	System Strengthening in NR for import of power from North Karanpura and other projects outside NR and System Strengthening in WR for import of power from North Karanpura and other projects outside Western Region and also for projects within Western Region.	North Karanpura Transmission Co. Ltd. / REC	Reliance Power Transmission Co. Ltd / Yet to Start	67
36.	Augmentation of Talcher-II transmission System	Talcher Transmission Co. Ltd. / REC	Reliance Power Transmission Co. Ltd / Yet to Start	69
37.	Arunachal Pradesh	Dinching Transmission Limited / REC	Yet to award / Bidding Under Process	71
38.	765 kV System Strengthening Scheme in Eastern Region. ERSS-XVIII	Medinipur-Jeerat Transmission Limited / PFC	Yet to award / Bidding Under Process	73
39.	North Eastern Region Strengthening Scheme (NERSS-VI)	Kohima-Mairani Transmission Limited / PFC	Yet to award / Bidding Under Process	74
40.	Eastern Region Strengthening Scheme XXI (ERSS-XXI)	ERSS XXI Transmission Limited / REC	Yet to award / Bidding Under Process	75
41.	New WR-NR 765 kV Inter-Regional Corridor	WR-NR Power Transmission Limited / REC	Yet to award / Bidding Under Process	76
42.	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	Yet to award / Bidding Under Process	77
43.	Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan	Fatehgarh-Bhadla Transmission Limited / PFC	Yet to award / Bidding Under Process	78

Total Transmission Projects : 43

Transmission Projects Commissioned : 11

Transmission Projects Cancelled : 01

Transmission Projects Under Construction : 14

Transmission Projects Under Construction (Partly Commissioned) : 03

Transmission Projects whose Construction is Yet to Start : 06

Transmission Projects whose SPV is Yet to be Acquired : 01

Transmission Projects Yet to be awarded (Bidding Under Process) : 07

1. 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
Levellised Tariff (Rs. Crs)	:	98.702
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
Anticipated Date of Completion	:	Mar' 18

- Applications filed on 04.04.12 before and Tr. License granted in 20.06.13.
- On 16.04.14, CERC in their Order stated that project is to be executed within a period of maximum 30 months with effect from 20.6.2013 which works out to **Dec.'15** and for Cost overrun part commission may be approached subsequently by PNMTL, with other details.

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 Line commissioned on 23.10.16

2. Salem - Madhugiri 765 kV S/C line

- Length 219 ckm
- Locations 575 No
- Foundation completed 540 No,
- Towers erected 497 No,

- Stringing completed 79 cKm
- Schedule date Dec-15
- Anticipated date Mar' 2018

Constraints if any:

- a) Forest/Wildlife clearance issue:** Wild Life proposal with State WLB, matter being pursued at higher level for approving & forwarding to National WLB Delhi & consequently to Supreme Court.
- b) RoW issue:** Severe ROW being faced in Karnataka portion (130 kms) of the line and work progressing very slowly.

2. 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 :	Not Applicable as project scrapped
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 same is yet to be heard. Regulatory approval for the Project has been withdrawn by CERC. CERC may provide appropriate direction

3. Transmission system for Strengthening in Southern Region for import of Power from Eastern Region

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
Levelling 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

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

Status: Line commissioned on 31.12.15

Project Commissioned on Sep-16

4. 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
Levelling 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

Status of progress of transmission project

1. Unchahar – Fatehpur 400 kV D/C line

- Length: 106 ckm, Locations: 145 nos.
- Line completed on **24th Sept.'16**, however Power flow could not take place due to non-readiness of bays at NTPC Unchahar. NTPC Unchahar bays completed in Dec.'16, power flow started.

Project Commissioned on Dec-16

5. 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)	:	Powergrid Kala Amb Transmission Limited (A subsidiary of Power Grid Corporation of India Ltd.)
Bid Process Coordinator(BPC)	:	Rural Electrification Corporation
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

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

- Land acquired: 100%
- Civil Work completed 95%
- Equipment supplied 95%
- Equipment erected 80%
- Schedule completion Jul-17
- Anticipated completion Jul-17

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

LOA placed on M/s KEC in Feb' 2016

- Length: 1.8 km,
- Locations: 4 No
- Foundation completed 04
- Towers erected 4
- Stringing completed Nil
- Schedule date: Jul -17
- Anticipated Date: Jul -17

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	793.25MW
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 no.

400 kV

ICT bays: 2 no.

Line bays: 4 no.

Space for future 400 kV bays : 4 no.

General Details

Special Purpose Vehicle (SPV) : Powergrid Warora Transmission Ltd

Bid Process Coordinator(BPC)	:	Rural Electrification Corporation
Levellised Tariff (Rs. Crs)	:	290.147
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	:	Newspaper publication completed,
Gazette notification done, application submitted to CEA. Section 164 under approval at CEA		
Execution plan submitted to CEA	:	July'15
NIT issued on	:	08.06.2015
EPC contract awarded on	:	Sept.'15 onwards
Scheduled Date of Completion	:	November.2017
Anticipated date of completion	:	Progressively by March 2018

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 No
- Completion Target: Nov'2016

Progress: 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 km
- Locations: 227
- Foundation completed 221
- Towers erected 205
- Stringing completed 36km
- Completion target: May 2017

2. Gadarwara STPS- Warora P.S. (New) 765kV D/C line

Awarded to M/s Simplex on Dec'15

- Length: 314km
- Locations: 826No.
- Foundation : 523 Nos,
- Erection: 414 Nos.
- Stringing: 30 km
- Completion Target: Nov'2017

Constraints if any:

- a) Forest/Wildlife clearance issue: MP portion: Proposal submitted online as well as in hardcopy, Proposal under processing. Maharashtra Portion: Online proposal submitted on 09.09.16.

- b) There is a change in route alignment to avoid Mining area at Savner of Western Coalfields Ltd. which hampered the progress and also delayed submission of forest proposal
- c) Line is passing through SEZ area (MP) where RoW is being faced (19 locations held up, next court hearing on till 20.04.17)

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

Stage 1 awarded to M/s Gammon in Jan'16

- Length: 93 km
- Locations: 246 No
- Foundation: 178 No.
- Erection 144 No.
- Stringing 23 km
- Scheduled Date Nov'2017

4. 2x1500 MVA, 765/400 kV Warora (New) pooling station

- Land acquired: 100%
- Civil Work completed 15%
- Equipment supplied 0%
- Equipment erected 0%
- Schedule completion Nov-17
- Anticipated date: Nov-17

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	793.25MW
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. 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)	:	Power grid Parli Transmission Ltd
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levellised Tariff (Rs. Crs)	:	256.727
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	:	Newspaper republication done on 03/06/16. Gazette notification done in August'16. Application submitted to CEA. Meeting held. Compliance submitted, Further observation raised on 31.01.2017, Compliance under submission
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
Anticipated Date of Completion	:	January 2018

Status of progress of transmission project

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

Awarded on M/s L& T & M/s. Bajaj on Feb'16.

- Length: 346km
- Locations: 916No
- Foundation completed 593
- Towers erected 423
- Stringing completed 29 km

a) Forest/Wildlife clearance issue: Forest Proposal submitted.

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

Awarded on M/s L& T on Dec'15

- Length: 118 km
- Locations: 309 No
- Foundation completed 189
- Towers erected 110
- Stringing completed 6

a) Forest/Wildlife clearance issue: Not applicable

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

Awarded on M/s L& T & M/s. Bajaj on Feb'16.

- Length: 18.2km
- Locations: 54 No
- Foundation completed 22
- Towers erected 16
- Stringing completed 0

a) Forest/Wildlife clearance issue: Not applicable

4. 2x1500 MVA, 765/400 kV Parli (New) sub station

- Land acquired: 100%
- Civil Work completed 15%
- Equipment supplied 10%
- Equipment erected 0%
- Schedule completion Jan-18
- Anticipated completion Jan-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

1. 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 (Rs. Crs)	:	210.998
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	:	Received in 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
Anticipated Date of Completion	:	26.06.2018

Status of progress of transmission project

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

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

- Length: 380 km
- Locations: 1036 nos
- Foundation completed 499 nos.
- Towers erected 147
- Stringing completed 1

Constraints if any:

- a) Forest/Wildlife clearance issue: Proposal submitted and under processing.

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 3270MW) 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 reactor at both ends.
2. Chilakaluripeta – Cuddapah 765kV D/c line with 240 MVAR switchable line reactor at both ends.
3. Chilakaluripeta – Narsaraopeta 400kV (quad) D/c line.
4. Cuddapah – Madhugiri 400kV (quad) D/c line with 80 MVAR switchable line reactor at both ends.
5. Srikaukulam Pooling Station – Garividi 400 kV (Quad) D/c line with 80 MVAR switchable line reactor 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 Detail

Special Purpose Vehicle(SPV)	:	Powergrid Southern Interconnector Transmission Limited (A subsidiary of PGCIL)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Levelling Tariff (Rs. Crs)	:	359.255
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 Initial Gazette notification done on 27th May 2016. Application submitted to CEA for grant of section 164 on 28 July 2016. After finalization of C'peta S/S location some more villages has been published newspaper 24.02.2017. Gazette publication of additional villages done.		
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
Anticipated Date of Completion	:	03.04.2019

Status of progress of transmission project

1. Vemagiri - Chilakaluripeta 765kV D/C Line

Procurement activities initiated. Award placed in Mar'16 to M/s. KPTL, Tower packages awarded

- Length: 250 Kms. Approx.
- Locations: 660
- Foundation completed 310
- Towers erected 113
- Completion Target: Apr'19

2. Chilakaluripeta - Cudappah 765kV D/C Line

Award placed in Mar'16 to M/s. KEC, Tower packages awarded

- Length: 303 Kms. Approx.
- Locations: 760
- Foundation completed 403
- Towers erected 310
- Stringing 19
- Completion Target: Apr'19

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

Award placed in Mar'16 to M/s. L&T, Tower packages awarded

- Length: 238 Kms. Approx.
- Locations: 616
- Foundation completed 175
- Towers erected 81
- Completion Target: Apr'19

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

Award placed in Mar'16 to M/s. Tata, Tower packages awarded.

- Length: 143 Kms. Approx.
- Locations: 391
- Foundation completed 137
- Towers erected 59
- Completion Target: Feb'19

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

Award placed in Mar'16, Tower packages awarded.

- Length: 42 Kms. Approx.
- Locations: 119 nos
- Foundation completed Nil
- Towers erected Nil
- Completion Target: Apr'19

6. 765/400kV Chilakularipeta Substation

Awarded to M/s GE T&D INDIA LTD

- Land acquired: 100%
- Civil Work completed 08%
- Equipment supplied 0%
- Equipment erected 0%
- Schedule completion Apr-19

7. Satenapalli (Narasaraopeta) 400 kV Substation extension

Awarded to M/s GE T&D INDIA LTD

- Land acquired: 0%
- Civil Work completed 0%
- Equipment supplied 0%
- Equipment erected 0%
- Schedule completion Apr-19

8. Garividi 400 kV Substation extension

Awarded to M/s GE T&D INDIA LTD

- Land acquired: 0%
- Civil Work completed 0%
- Equipment supplied 0%
- Equipment erected 0%
- Schedule completion Apr-19

Constraints if any:

- a) **RoW issue:** Being resolved on case to case basis
- b) **Forest/Wildlife clearance issue:** Proposal submitted and under processing.

10. 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 be commissioned by 12th 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 Transmission Company Ltd. (A subsidiary of Sterlite Grid Limited)
Bid Process Coordinator (BPC) :	Power Finance Corporation
Estimated Cost (Rs. crs) :	2900
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
Contract Performance Guarantee :	
Clearance u/s 164 :	29.01.2013
NIT issued on :	
EPC contract awarded on :	
Execution plan submitted to CEA :	
Scheduled Date of Completion :	30.03.2014
Actual Date of Completion :	Jun'2015

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 |

- | | | |
|---|---|------------------------------|
| 5. Dhule-Vadodara 765 kV S/C line | : | Line commissioned on 02/2015 |
| 6. Dhule - Dhule(Mah) 400 kV D/C Line | : | Line commissioned on 11/2014 |
| 7. 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

11. 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 be commissioned by 12th 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 (A subsidiary of Sterlite Grid Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1720
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 Sept 2015

12. 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 Grid Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1700
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	:	Nov' 2014

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 Nov, 2014

13.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 Grid Limited)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	310
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

Status of progress of transmission project

1. RAPP - Shujalpur 400kV D/C line

- Length: 402 cKm
- Locations: 521

Line Charged on 15th November 2016

Project Commissioned on Nov-16

14. 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 Grid Limited)
Bid Process Coordinator (BPC):	Power Finance Corporation
Estimated Cost (Rs. Crs)	: 370
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
Anticipated Date of Completion	: Dec' 2016

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

15. Northern Region System Strengthening Scheme- NRSS-XXIX

Background

Presently the power supply to the valley is through Kishanpur – 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 (A subsidiary of Sterlite Grid Limited)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	2621
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) & 21.12.2015 (for Amargarh S/S)
Scheduled Date of Completion	:	04.10.2018

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: 562 Ckm .
- Locations: 781 nos
- Foundation completed 691 nos
- Towers erected 521 nos
- Stringing Completed 305 ckm
- Scheduled Date Oct-18
- Anticipated COD: July'17

Constraints/Approval if any:

- a) RoW issue: Yes, at AP 34/0 in Village Gazipur Kullian, Tehsil R.S. Pura, District Jammu.
- b) PTCC Clearance pending.
- c) Force Forest Clearance proposal (58.43 Ha) for diverted route is pending for Cabinet approval.

3. GIS at Amargarh 400/220 kV S/s

- Land acquired 100% .
- Civil wrk completed: 80%
- Equipment supplied 55%
- Equipment erection 0%
- Scheduled Date Oct-18
- Anticipated COD: July'17

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

- Length: 6 Ckm
- Locations: 22
- Foundation completed 0
- Towers erected 0
- Stringing Completed 0
- Scheduled Date Oct-18
- Anticipated COD: July'17

Constraints/Approval if any:

- a) PTCC Clearance pending

16. 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. (A subsidiary of Sterlite Grid Limited)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	400
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

Status of progress of transmission project

1. Maheshwaram – Mahboobnagar 400 kV D/C line

- Length: 196.4 ckm
- Locations: 255 nos
- Foundation completed: 234 nos
- Tower erected: 223 nos
- Stringing completed: 102 cKm
- Scheduled Date Jun-18

- Anticipated Completion: May'2017

Constraints/Approval if any:

- a) RoW issue: Yes (Facing Severe RoW Issue at Location no. 5/3, 6/0, 7/0, 8/0, 9/0, 20/12, 40/0, 41/0, 42/0 and 43/0 in Tehsil Kandkoor, Midjil, Pedamandadi and District Rangareddy, Wanaparthy, Mehboob Nagar)
- b) PTCC Clearance pending.

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

- Length: 277.38 ckm
- Locations: 364 nos
- Foundation completed: 357 nos
- Tower erected: 327 nos
- Stringing completed: 162 cKm
- Scheduled Date Jun-18
- Anticipated Completion: May'2017

Constraints/Approval if any:

- a) RoW issue: Yes (Facing Severe RoW Issue at Location no. 29/0, 29/1, 29/4 – 29/9, 35A/0, 40/0, 41/0, 48/0, 48B/0, 51/0 in Tehsil Kulcharam, Kandi, Sangareddy, Shankarpalli and District Medak, Sangareddy, Rangareddy.)
- b) PTCC Clearance pending

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

- Land Acquired: 100%
- Civil work completed: 100%
- Equipment supplied: 80%
- Equipment erection: 20%
- Scheduled Date Jun-18
- Anticipated COD: May-17

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

- Land Acquired: 100%
- Civil work completed: 100%
- Equipment supplied: 100%
- Equipment erection: 100%
- Scheduled Date Jun-18
- Anticipated COD: 15-04-2017

17. 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;

(i) 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

(ii) Common transmission system associated with Ph-II generation projects in Odisha

- Angul – Jharsuguda – Dharamjaygarh 765 kV D/C line(2nd)
- Jharsuguda – Raipur pool 765 kV D/C line
- LILO of Rourkela – Raigarh 400 kV D/C line(2nd) 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 Grid Limited)
Bid Process Coordinator (BPC) :	Power Finance Corporation
Estimated Cost (Rs. crs) :	1587
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 : **July'17**

Status of progress of transmission project

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

- Length: 608 ckm
- Locations: 778 nos
- Foundation completed: 445 nos
- Tower erected: 329 nos
- Stringing completed: 58 ckm
- Scheduled COD: Aug-19
- Anticipated date: Nov'17

Constraints/Approval if any:

- a)** RoW issue: Yes (Facing Severe RoW Issue in various Locations in District Durg, Baloda Bazar, Bhatapara, Janjgir, Champa Raigarh and Sundargarh)
- b)** Forest/Wildlife clearance issue: Yes (Forest Clearance proposal (94.656 Ha) pending with Nodal Officer, Govt. of Odisha, Bhubaneswar for non-availability of CA Land)
- c)** PTCC Clearance pending.

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

- Length: 102.5 ckm
- Locations: 152 nos
- Foundation completed: 108 nos
- Tower erected: 82 nos
- Stringing completed: 14 ckm
- Scheduled completion: Jul-17
- Anticipated date: Jul-17

Constraints/Approval if any:

- a)** RoW issue: Yes (Facing Severe RoW Issue in Location No. 11/2, 22/2, 24/0, 29/0, 40/1, 41/0, 49/5, 52/0 and 58/3 in Tehsil Tangarpalli, Jharsuguda and Lakhanpur in District Sundargarh and Jharsuguda)
- b)** Forest/Wildlife clearance issue: Yes (Forest Clearance proposal (30.134 Ha) pending with Secretary Forest, Bhubaneswar Odisha)
- c)** PTCC Clearance pending

18. 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 Kadarpur, other at Sohna Road in Gurgaon area and 1 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-Kadarpur 400 kV D/C HTLS line
3. Kadarpur-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 Kadarpur (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. (A subsidiary of Sterlite Grid Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	1251
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 Substation- Pre-Bid tie up)
EPC contract awarded on	:	25.11.2016 (For Transmission Line) 28.10.2016 (For Substation)
Scheduled Date of Completion	:	Sept'19 (38 months)
Anticipated Date of Completion	:	Nov'17

Status of progress of transmission project

- Detailed Survey Completed
- Land Acquired for one Substation (Prithala) and acquisition of other two lands are under Process.
- Received Sec-164 Approval u/EA-2003 from CEA on 31st March 2017.
- Online Proposal for Forest Clearance has been submitted on MoEF & CC Web portal for U.P., Haryana (For Neemarana- Dhanonda T/L) and Rajasthan State.
- 2x500 MVA, 400/220 kV GIS at Sohna Road (Gurgaon)
 - Land is identified in village of Gairatpur Bas, Tehsil & Distt-Gurgaon
- 2x500 MVA, 400/220 kV GIS at Prithala(Palwal)
 - Land is identified in village of Baghola, Tehsil & Distt- Palwal
- Construction of 400kV D/C Neemarana – Dhanonda Transmission line has been started.

19. Connectivity system for Khargone TPP (2x660 MW)

Background

NTPC Ltd. has planned to establish a 1320MW (2x660MW) thermal power project at Khandwa 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 in time frame of Khargone TPP
 - 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 Ω 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.
- 2 nos. of 765 kV line bays and 7 X 80 MVAR Switchable line reactors (1 unit as spare) along with 800 Ω 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 (SGL)
Bid Process Coordinator (BPC)	: RECTPCL
Estimated Cost (Rs. crs)	: 2136.59 Crs
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	:	Applied in process
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
Anticipated Date of Completion	:	Feb 2018

Status of progress of transmission project

- Detailed Survey Completed.
- EPC Contract awarded for Transmission line and Substation.
- Land Acquisition is under process.
- Online Proposal for Forest Clearance has been submitted on MoEF & CC Web portal

20. Transmission system form 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. 400/132 kV, 2x315 MVA Surajmaninagar s/s
2. 400/132 kV, 2x315 MVA S/s at P.K. Bari
3. Surajmaninagar - P. K. Bari 400 kV D/c line
4. AGTPP (NEEPCO) – P.K. Bari (TSECL) 132 kV D/c line
5. Biswanath Chariyalli (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line

Line Bays:

- Itanagar S/s (Arunachal Pradesh):** 2 nos. 132kV line bays for termination of Biswanath Chariyalli (POWERGRID) – Itanagar 132kV D/c (Zebra conductor) line
6. Silchar (POWERGRID) – Misa (POWERGRID) 400kV D/c (Quad) line.
 7. Establishment of 400/132 kV, 2x315 MVA S/s at Surajmaninagar

400 kV

- ICTs: 400/132 kV, 2x315 MVA
- ICTs bays: 2 no.
- Line bays: 4 no.
- 400 kV bus reactor bays: 2 no.
- Bus reactor: 2x125 MVAR
- Bus reactor bays: 2 no.
- Space for future bays: 6 no.
- Space for 400/132 kV, 315 MVA ICT along with associated bay

132 kV

- ICTs bays: 2 no.
 - Line bays: 4 no.
 - Space for future bays: 4 no
 - Land for the Surajmaninagar 400/132kV S/s is identified and available with Tripura and the same would be provided to the TSP at cost.
8. Establishment of 400/132 kV, 2x315 MVA S/s at P.K. Bari

400 kV

- ICTs: 400/132 kV, 2x315 MVA
- ICTs bays: 2 no.
- Line bays: 4 no.
- Bus reactor: 2x125 MVAR
- Bus reactor bays: 2 no.
- Space for future bays: 6 no.
- Space for 400/132 kV, 315 MVA ICT along with associated bay

132 kV

- ICTs bays: 2 no.
 - Line bays: 4 no.
 - Space for future bays: 4 no.
9. Surajmaninagar - P. K. Bari 400 kV D/c line.

10. 2 no. 400 kV line bays at Palatana GBPP switchyard for termination of Palatana - Surajmaninagar 400kV D/c line.
11. AGTPP (NEEPCO) – P.K. Bari (TSECL) 132 kV D/c line with high capacity HTLS conductor (equivalent to single moose ampacity at 85°C)
Line Bays:
 - AGTPP (NEEPCO) Switchyard: 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line
 - P.K. Bari (TSECL) S/s: 2 no. 132 kV line bays for termination of AGTPP (NEEPCO) – P.K. Bari (TSECL) 132kV D/c line

General Details

Special Purpose Vehicle	:	NER II Transmission Limited (A subsidiary of M/s Sterlite Grid 4 Limited)
Bid Process Coordinator	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	1260
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	:	
Tariff adoption by CERC	:	
Contract Performance Guarantee	:	
Clearance u/s 164	:	
Execution plan submitted to CEA	:	
Scheduled Date of Completion	:	Dec-2020

Status of progress of transmission project

Name of the successful Bidder: M/s Sterlite Grid 4 Limited

21. Eastern Region System Strengthening Scheme-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
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)
Anticipated Date of Completion	:	Mar-17/Apr-17

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
- Foundation completed: 178
- Tower erected: 178
- Stringing completed: 125.6 Ckm

Transmission Line work completed and Transmission Line ready for charging.

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

- Length: 152 ckm
- Locations: 210
- Foundation completed: 208
- Tower erected: 203
- Stringing completed: 118.2 Ckm

Approvals:

- **Railway Line Crossings:** 01 No. of Railway Proposals is pending.

Constraints if any:

- a) RoW at following locations/stretches is severely affecting the construction work:

Sr.	Location No.	Block	District	RoW Nature
Motihari CKT- I				
1	8/1	Barhariya	Siwan	Erection
Motihari CKT- II				
1	10/1	Barhariya	Siwan	Erection
2	10/2	Barhariya	Siwan	Erection
3	11/0	Majhagarh	Gopalganj	Erection
4	11/1	Majhagarh	Gopalganj	Erection
5	16/0	Majhagarh	Gopalganj	Foundation
6	17/0	Majhagarh	Gopalganj	Foundation

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

Sub-station work completed and ready for charging.

4. 2x500 MVA, 400/132 kV Motihari GIS with space for future extension

- Land acquired 100%
- Civil work completed 80%
- Equipment supplied 90%
- Equipment erected 70%
- Schedule Target date: Jun-16

Constraints if any: Nil

22. 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)	:	550
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

Kurukshetra - Malerkotla 400 kV D/C line charged in Jan 2017.
Malerkotla-Amritsar 400 kV D/C line charged in Mar 2017.

Status of progress of transmission project

1. Kurukshetra - Malerkotla 400 kV D/C line - Length: 278.4 ckm

Charged in Jan 2017 and is in commercial operation.

2. Malerkotla-Amritsar 400 kV D/C line- Length: 299 ckm

Charged in Mar 2017 and is in commercial operation.

Project Commissioned on Mar-17

23. 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 Infra proj. 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	:	29.09.16
Tariff adoption by CERC	:	30.08.16
Contract Performance Guarantee	:	01.07.2016
Clearance u/s 164 CEA	:	Proposal for approval submitted to on 27.02.2017
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	:	

Status of progress of transmission project

Transmission Line route alignment is completed and presently detailed survey work is in progress.

24. 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 Transmission Limited
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	:	Public Notice published in Newspapers
Execution plan submitted to CEA	:	20.12.2016
NIT issued on	:	
EPC awarded on	:	
Scheduled Date of Completion	:	Dec 2019
Anticipated Date of Completion	:	

Status of progress of transmission project

- Transmission Line Route survey work is completed.
- Detail survey of 400 kV D/C Babai-Bhiwani and Koteshwar-Rishikesh Transmission Line is under progress.

- Civil work at Babai Sub-station is in progress.

Constraints if any:

a) LILO arrangement of one Ckt. Of 400 kV D/C Sikar-Neemrana Transmission Line at Babai:

LILO arrangement of above mentioned transmission line is to be confirmed by the PGCIL.

25. ATS for Tanda expansion TPS

Background

This transmission scheme has been proposed for evacuation of power from Tanda TPS (2x660 MW) of NTPC Limited. The project shall be implemented by Tanda Transmission Company Limited.

Scope of transmission project

1. Tanda - Sohwal 400 kV D/C Line – 172.946 ckm
2. Sohwal - Lucknow 400 kV D/C Line – 176.212 ckm

General Detail

Special Purpose Vehicle (SPV)	:	Tanda Transmission Company Limited.
Bid Process Coordinator (BPC)	:	PFCCL
Estimated Cost (Rs. crs)	:	245
Request for Qualification	:	01.10.2014
Request for Proposal	:	12.01.2015
Letter of Intent	:	09.10.2015
Transmission Service Agreement (TSA)	:	Yet to be signed
SPV acquisition	:	Yet to be acquired
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	:	
Anticipated Date of Completion	:	

Status of progress of transmission project

SPV is yet to be acquired.

26. 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 3rd 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)	:	867
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
Anticipated Date of Completion	:	Jul'18

Status of progress of transmission project

1. Sipat STPS - Bilaspur 765 kV S/C (Q) line

- Length: 23 ckm
- Locations: 73 nos
- Foundation completed: 52 nos
- Tower erected: 39 nos
- Stringing completed: 2.44 ckm
- Schedule completion: 22.11.2018
- Anticipated completion: 30.11.2017

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis.

2. Bilaspur - Rajnandgaon 765 kV D/C (hexa) line

- Length: 322 ckm
- Locations: 423 nos
- Foundation completed: 362 nos
- Tower erected: 274 nos

- Stringing completed: 110 cKm
- Schedule completion: 22.03.2019
- Anticipated completion 31.07.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis
- b) Powerline Crossings: Approval for crossing 2 nos of PGCIL lines in single span is awaited

3. 765 kV Bay at Sipat s/s

- Schedule completion: 22.11.2018
- Anticipated completion 30.05.2017

27. 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 Transmission Ltd
		(A subsidiary of Adani transmission Limited)
Bid Process Coordinator(BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	823 Crs
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
Anticipated Date of Completion	:	Jul'18

Status of progress of transmission project

1. Raipur - Rajnandgaon 765 kV D/C (hexa) line

- Length: 80 ckm
- Locations: 104 nos
- Foundation completed: 104 nos
- Tower erected: 103 nos
- Stringing completed: 74 cKm
- Schedule completion: 22.11.2018

- Anticipated completion 31.07.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis.

2. Rajnandgaon - Warora 765 kV D/C (hexa) line

- Length: 532 ckm
- Locations: 689 nos
- Foundation completed: 462 nos
- Tower erected: 366 nos
- Stringing completed: 126 cKm
- Schedule completion: 22.11.2018
- Anticipated completion 31.07.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis

3. 765 kV Rajnandgaon switching station

- Land acquired: 100%
- Equipment supplied 82%
- Construction 83%
- Schedule completion 22.11.2018
- Anticipated completion 31.11.2017

28. 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 Power Limited)
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. crs)	:	823
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
Anticipated Date of Completion	:	May'18

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: 98 ckm
- Locations: 145 nos
- Foundation completed: 123 nos
- Tower erected: 107 nos
- Stringing completed: 30 cKm
- Schedule completion 22.05.2018
- Anticipated completion 31.01.2018

Constraints if any:

a) RoW issue: Severe ROW being faced and taken up on case-to-case basis

b) NGT in the month of Oct'16 had directed that all the stone crushers and quarries be closed in Bilowa (District Gwalior), which in turn is affecting foundation works due to non-availability of coarse and fines aggregate.

(ii) 2x315 MVA, 400/220 kV Morena substation

- Land acquired: 100%
- Equipment supplied 9%
- Construction 5%
- Schedule completion 22.05.2018
- Anticipated completion 30.11.2017

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 ckm
- Locations: 87 nos
- Foundation completed: 65 nos
- Tower erected: 48 nos
- Stringing completed: 3.4 cKm
- Schedule completion 22.01.2019
- Anticipated completion: 31.01.2018

Constraints if any:

a) RoW issue: Severe ROW being faced and taken up on case-to-case basis

b) Forest/Wildlife clearance issue: nil

(ii) 400 kV bays (2 nos.) at Vindhyachal STPP switchyard

- Schedule completion 22.01.2019
- Anticipated completion 30.05.2017

3. Additional system strengthening scheme for Chhattisgarh IPP's (Part-A)

(i) Sasan UMPP – Vindhyachal Pooling Station 765 kV S/C (Q) line

- Length: 06 ckm
- Locations: 22 nos
- Foundation completed: 12 nos
- Tower erected: 03 nos
- Stringing completed: 0 cKm
- Schedule completion 22.11.2018
- Anticipated completion 31.01.2018

Constraints if any:

a) RoW issue: Severe ROW being faced and taken up on case-to-case basis

(ii) Raigarh (Kotra) – Champa (Pool) 765 kV S/C (Q) line

- Length: 94 ckm
- Locations: 246 nos
- Foundation completed: 191 nos
- Tower erected: 169 nos
- Stringing completed: 14.5 cKm
- Schedule completion 22.11.2018
- Anticipated completion 31.01.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis

(iii) Champa (Pool) – Dharamjaygarh 765 kV S/C (Q) line

- Length: 49 ckm
- Locations: 141 nos
- Foundation completed: 109 nos
- Tower erected: 99 nos
- Stringing completed: 5.3 cKm
- Schedule completion 22.11.2018
- Anticipated completion 31.01.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis.

(iv) LILO of one ckt of Aurangabad – Padghe 765 kV D/C (hexa) line at Pune

- Length: 128 ckm
- Locations: 175 nos
- Foundation completed: 44 nos
- Tower erected: 25 nos
- Stringing completed: 0 cKm
- Schedule completion 22.03.2019
- Anticipated completion 31.05.2018

Constraints if any:

- a) RoW issue: Severe ROW being faced and taken up on case-to-case basis.

(v) 765 kV bays at Sasan UMPP

- Schedule completion 22.11.2018
- Anticipated completion 30.05.2017

29. 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
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	: Submission delayed since NOC is awaited from Central Coalfield Ltd.

		(CCL) / Ministry of Coal (MoC) on the routes from North Karanpura – Chandwa and North Karanpura-Gaya. Newspaper publication completed on 28.10.2016.
Execution plan submitted to CEA	:	03.11.2016
NIT issued on	:	
EPC contract awarded on	:	
Scheduled Date of Completion	:	30.09.2019
Anticipated Date of Completion	:	

- NOC from Central Coalfield Ltd. / Ministry of Coal awaited which in turn is affecting survey and finalization of line route, Financial Closure and enabling works at site.
- SPV transfer by BPC was delayed by 35 days due to delay in execution of TSA by LTTCs.
- The Gazette of India Publication (No. 2022, Part-II-Section 3 – Sub section (ii) Dated 12th August) by Ministry of Coal regarding land acquisition of Magadh Expansion-II affecting finalization of route. Now it has become more critical for TSP to finalize the Route for both lines as the entire zone is declared Coal Bearing Area (CBA).
- Bay co-ordinates at Chandwa received from PGCIL on 10.10.2016. It is found out that the gantry for North Karanpura – Chandwa line (NK-C) and the gantry for Chandwa – Latehar line (C-L) being implemented by PGCIL are staggered horizontally with different elevations. As suggested by PGCIL, the feasible solution for termination of NK-C line is by sharing multi-circuit tower(s) with PGCIL's C-L line. PGCILs confirmation for sharing 1 no. of Multi-circuit tower received on 30.03.2017.
- Approval of project cost and time overrun.

Status of progress of transmission project:

1. North Karanpura – Chandwa (Jharkhand) Pooling Station 400kV D/c line

- **Length:** 63 Ckm
- **Locations:** 112 nos
- **Foundation completed:** 04 nos
- **Tower erected:** 00 nos
- **Stringing completed:** 0 Ckm
- **Schedule completion date:** Sep 2017

Constraints if any:

- a) NOC from Central Coalfield / Ministry of Coal awaited which in turn is affecting survey and line route, Financial Closure and other enabling works, submission of Section 164 proposal also got delayed.
- b) The Gazette of India Publication (No: 2022, Part-II-Section 3 – Sub section (ii) Dated 12th August) by Ministry of Coal regarding land acquisition of Magadh Expansion-II affecting finalization of route. Now it becomes more critical for TSP to finalize the Route alignment

- c) Bay co-ordinates at Chandwa received from PGCIL on 10.10.2016. PGCILs confirmation for sharing 1 no. of multi-circuit tower at Chandwa end received on 30.03.2017.

2. North Karanpura – Gaya 400kV D/c line

- **Length:** 185 Ckm
- **Locations:**
- **Foundation completed:** 27 nos
- **Tower erected:**
- **Stringing completed:**
- **Schedule completion date:** Sep 2019

Constraints if any:

- a) NOC from Central Coalfield / Ministry of Coal awaited which in turn is affecting survey and line route, Financial Closure and other enabling works, submission of Section 164 proposal got delayed.
- b) The Gazette of India Publication (No. 2022, Part-II-Section 3 – Sub section (ii) Dated 12th August) by Ministry of Coal regarding land acquisition of Magadh Expansion-II affecting finalization of route. Now it has become more critical for TSP to finalize the Route alignment.

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

- Land acquired: 0%
- Civil works completed 0%
- Equipment supplied 0%
- Equipment erected 0%
- Schedule completion 07.05.2019

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

- **Length:** 2.4 Ckm
- **Locations:**
- **Foundation completed:**
- **Tower erected:**
- **Stringing completed:**
- **Schedule completion date:** 07.05.2019

30. Transmission System required for vacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Ltd.

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. (A subsidiary of L&T Infrastructure Development Projects Limited)
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. crs)	:	1240
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

Status of progress of transmission project

1. Kudgi TPS – Narendra 400 kV 2xD/C line (I&II)

Ready for Commissioning on 27.03.2015 & Line 1 & 2 commissioned in Nov-15 & Jun-16 resp.

2. Narendra (New) – Madhugiri 765 kV D/C line

- Length: 758 cKm
- Locations: 867

Line Commissioned on 23.09.2016 at 400kV

3. Madhugiri (Tumkur) – Bidadi 400 kV D/C line

- Length: 186 ckm
- Locations: 256

Commissioned on 24th August 2016

Project Commissioned on Sep-16

31. 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 20th 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 Conductor)
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)	:	540
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

Land acquired:	100%
Civil works completed	100%
Equipment supplied	100%
Equipment erected	100%

Transmission project commissioned in June 2016

Downstream System lines are yet to be completed by TLSC.

32. 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
Request for Qualification	:	
Request for Proposal	:	
Letter of Intent	:	
Transmission Service Agreement	:	
SPV acquisition	:	7.1.2011
Transmission License	:	
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	:	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

Status: Project commissioned on 30.06.2014

33. 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: 232 ckm
- Locations: 326
- Foundation completed: 57

- Tower erected:
- Stringing completed: cKm
- Schedule Target date: Mar-19
- Anticipated Target date:

Constraints if any:

- ROW from Landowners under location 131/1 since 15-Dec-16 – Clearance still awaited. (Loc 117/4 ROW resolved on 18-Dec-16)

2. Kishanganj (PG) – Darbhanga (DMTCL) 400 KV D/C line

- Length: 418 ckm
- Locations: 542
- Foundation completed: 199
- Tower erected: 48
- Stringing completed: cKm
- Schedule Target date: Mar-19
- Anticipated Target date:

Constraints if any:

34. 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 TCB 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
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	:	16.05.2018

Status of Progress of transmission project

- EPC contract signed, detailed survey completed
- Received Sanction Letter for the senior debt from the lender (IDBI Bank).
- Engineering design completed
- Tower manufacturing started
- Proposal preparation ongoing for crossings (rail, road, power lines etc) in order to get its approval from applicable authority.
- Cadastral survey as required for starting the RoW activity is completed.
- Reviewing the execution plan to proceed as per the updated situation, as required before initiating any construction work at site
- 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.

35. System strengthening in NR for import of power from North Karanpura and other projects outside NR and system strengthening in WR for import of power from North Karanpura and other projects outside Western Region and also for projects within Western Region

Background

Transmission system for power evacuation from North Karanpura has been evolved in a comprehensive manner along-with evacuation system for Maithon RB and other generation projects of DVC viz. Koderma, Bokaro Extn, 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
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. Next hearing is due on 16th Jan 2017.

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.

As the approval by Ministry of Power (MoP) u/s 68 of Electricity Act 2003 to the project have already expired, the Company has filed a letter on January 14, 2014 requesting extension of the same.

36. 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-Behrapur- Gazuwaka 400 kV D/C line with series compensation and switching station at Behrapur 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 – Behrapur 400 kV D/C line
3. Behrapur- Gazuwaka 400 kV D/C line
4. 2x315 MVA, 400/220 kV Behrapur 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
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 – Behrapur 400 kV D/C line
3. Behrapur – 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. Next hearing is due on 16th Jan 2017.

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.

As the approval by Ministry of Power (MoP) u/s 68 of Electricity Act 2003 to the project have already expired, the Company has filed a letter on January 14, 2014 requesting extension of the same.

37. Arunachal Pradesh

Background

Arunachal Pradesh is endowed with large hydro potential of more than 50,328MW. Out of this, generation projects of about 49,206 MW are proposed to be developed in the state of Arunachal Pradesh in different river basins like Tawang, Kameng, Subansiri, Siang, Lohit and Dibang. For the same, CEA has already developed a master plan for power evacuation from the upcoming generation projects. Till date about 22 no. connectivity and LT(O)A application for about 12051MW and 4705.5MW respectively from various generation projects in Lohit, Siang, Tawang, Kameng and Dibang basins of Arunachal Pradesh have been received. However, only 4 generation projects in Kameng basin showed some significant progress. Accordingly, a transmission system for power evacuation for the same was approved in the 3rd Standing Committee Meeting on Power System Planning of North-Eastern Region held on 21st Dec 2011. Subsequently, Connectivity and LTA was granted to two generation projects developers in Kameng Basin viz. Dirang Energy Pvt. Ltd. and SEW Nafra Power Corporation Ltd.

Scope of transmission project

1. Dinchang - Rangia / Rowta Pooling Point 400 kV D/c (Quad) / HTLS.
2. LILO of both ckts of Balipara-Bongaigaon 400kV D/C (Twin Moose) line at Rangia / Rowta .
3. Establishment of 7x166 MVA 400/220 kV Pooling station (GIS) at Dinchang

400 kV

- ICT single phase 7x166 MVA 400/220 kV (1spare)
- ICT bays – 2 no.
- Line bays – 2 no.
- Bus Reactor 80 MVAR – 2 no.
- Bus reactor bays – 2 no.
- Space for line bays – 4 no.
- Space for ICT bay – 2 no.

220 kV

- ICT bays – 2 no.
- Space for line bays – 18 no.
- Space for ICT bay – 2 no.
- Space for single phase 6x166 MVA 400/220 kV ICT

4. Establishment of 2x500 MVA 400/220 kV Pooling station at Rangia/Rowta in Upper Assam

400 kV

- ICT 2x500MVA 400/220 kV
- ICT bays – 2 no.
- Line bays – 6 no.
- Bus Reactor 125 MVAR – 2 no.
- Bus Reactor bays – 2 no.
- Switchable Line Reactor of 63 MVAR at Rangia /Rowta end for Dinchang-Rangia/Rowta Pooling Point 400 kV D/c (Quad) line- 2 no.
- Space for line bays – 12 no.
- Space for ICT bays – 2 no.

220 kV

- ICT bays – 2 no.

- Line bays – 4 no.
- Space for line bays – 4 no.
- Space for ICT bays – 2 no
- Space for 2x500MVA 400/220kV ICT
- Space for take-off of 6000/7000MW HVDC Bi-pole line.

General Details

Special Purpose Vehicle	:	Dinchang Transmission Limited
Bid Process Coordinator	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	1124
Request for Qualification	:	04.01.2016
Request for Proposal	:	02.05.2017
Letter of Intent	:	
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	:	
Scheduled Date of Completion	:	

Status of progress of transmission project

Bidding process under progress

38. 765kV System Strengthening Scheme in Eastern Region. ERSS-XVIII

Scope of transmission project

1. Medinipur - Jeerat (New) 765kV D/c line with Hexa ACSR Zebra conductor along with 240 MVAR (765 kV, 3x80 MVAR single phase units) switchable line reactor with 600 Ω NGR in each circuit at Jeerat (New) end
2. LILO of Jeerat (WB) – Subhasgram (PG) 400 kV S/c section at Rajarhat (PG)
3. 2 no. 400 kV line bays at Haldia New (NIZ) (WBSETCL)
4. Establishment of 765/400kV, 2x1500MVA substation at Medinipur
5. Establishment of 765/400kV, 2x1500MVA substations at Jeerat (New)
6. Ranchi (New) – Medinipur 765kV D/c line with Hexa ACSR Zebra conductor along with 240 MVAR 765 kV (765 kV, 3x80 MVAR single phase units) switchable line reactor with 750 Ω NGR in each circuit at either ends
7. 2 no. 400 kV line bays at Jeerat (WBSETCL)
8. Medinipur – Haldia New (NIZ) (WBSETCL) 400kV D/c line [ACSR Quad Moose/ HTLS (equivalent to ACSR Quad Moose current rating at 85° C)]
9. LILO of both circuits of Chandithala – Kharagpur 400 kV D/c line at Medinipur
10. Jeerat (New) – Jeerat (WB) 400 kV D/c line [ACSR Quad Moose/ HTLS (equivalent to ACSR Quad Moose current rating at 85° C)]
11. Jeerat (New) – Subhasgram 400 kV D/c line (ACSR Quad Moose current rating at 85°C)

General Details

Special Purpose Vehicle	:	Medinipur-Jeerat Transmission Limited
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	4407
Request for Qualification	:	25.07.2016
Request for Proposal	:	03.01.2017
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	

Status of progress of transmission project

Bidding process under progress

39. North Eastern Region Strengthening Scheme (NERSS-VI)

Scope of transmission project

1. Establishment of 400/220 kV, 2x500 MVA s/s at new Kohima
2. Imphal-New Kohima 400 kV D/C line
3. New Kohima -New Mariani 400 kV D/c line

General Details

Special Purpose Vehicle	:	Kohima-Mairani Transmission Limited
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	653
Request for Qualification	:	15.02.2016
Request for Proposal	:	25.11.2016
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	

Status of progress of transmission project

Bidding process under progress

40. Eastern Region Strengthening Scheme XXI

At the end of 13th plan period i.e. 2021-22 considering load demand of Bihar as 11000MW. The studies recommended establishment of two 400/220/132kV sub-stations in North Bihar at Sitamarhi and Saharsa and one 400/220/132kV sub-station in South Bihar at Chandauti (Gaya) along with augmentation of 400/132kV Motihari S/s of Essel Infra by 315MVA in the ISTS network.

Scope of transmission project

1. Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Sitamarhi (New)
2. Establishment of 400/220/132 kV, 3x500 MVA + 3x200 MVA S/s at Chandauti (New)
3. Establishment of 400/220/132 kV, 2x500 MVA + 2x200 MVA S/s at Saharsa (New)
4. Substation extension at Darbhanga S/s
5. Substation extension at Motihari S/s
6. Darbhanga - Sitamarhi (New) 400kV D/c line with Triple Snowbird conductor
7. Sitamarhi (New) - Motihari 400kV D/c line with Triple Snowbird conductor
8. LILO of both circuits of Nabinagar-II - Gaya 400kV D/c (Quad Moose) line of POWERGRID at Chandauti (New)
9. LILO of Kishanganj - Patna 400kV D/c (Quad Moose) line of POWERGRID at Saharsa (New)

General Details

Special Purpose Vehicle	:	ERSS XXI Transmission Limited
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	1321
Request for Qualification	:	28.12.2016
Request for Proposal	:	28.03.2017
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	

41. New WR-NR 765 kV Inter-Regional Corridor

Background

To enhance the power transfer capability between Western and Northern Regions, the following WR - NR Inter-regional corridor has been approved.

The corridor shall provide strong connectivity between NR and WR grids and facilitate reliable flow of power from various generation projects in WR to load centers in NR.

Scope of transmission project

1. 765 kV Vindhyanchal Pooling Station- Varanasi D/C line

General Details

Special Purpose Vehicle	:	WR-NR Power Transmission Limited
Bid Process Coordinator (BPC)	:	Rural Electrification Corporation
Estimated Cost (Rs. Crs)	:	916
Request for Qualification	:	28.12.2016
Request for Proposal	:	28.03.2017
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	

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

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
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	863
Request for Qualification	:	01.02.2017
Request for Proposal	:	01.05.2017
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	

43. Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan

Scope of transmission project

1. Establishment of 400kV Pooling Station at Fatehgarh (with a provision to upgrade at 765 kV level)
2. 765 kV Fatehgarh Pooling sub-station - Bhadla (PG) D/C line (initially 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
5. Space for future 220 kV (6 Nos), 400 kV (6 Nos) and 765 kV (4 nos.) line bays along with line reactors at Fatehgarh Pooling station
6. Space for future 220/400 kV transformers (2 nos.), 400/765 kV transformers (2 nos) along with associated transformer bays at each level
7. Space for future 765 kV bus reactor along with associated bays

General Details

Special Purpose Vehicle	:	Fatehgarh-Bhadla Transmission Limited
Bid Process Coordinator (BPC)	:	Power Finance Corporation
Estimated Cost (Rs. Crs)	:	536
Request for Qualification	:	30.12.2016
Request for Proposal	:	30.04.2017
Letter of Intent	:	
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	:	
Anticipated Date of Completion	:	