



Government of India
Ministry of Power
Central Electricity Authority
System Planning & Project Appraisal Division
Sewa Bhawan, R.K. Puram
New Delhi – 110 066
Website : www.cea.nic.in



[ISO : 9001 : 2008]

No. 100/1/EC (34) 2013-SP&PA/

Dated : 12th May, 2015

To

1. Shri Major Singh,
Member (Power System),
Central Electricity Authority,
Sewa Bhawan, R.K. Puram,
New Delhi-110066.
2. Member (Economic & Commercial),
Central Electricity Authority,
Sewa Bhawan, R.K. Puram,
New Delhi-110066.
3. Ms Jyoti Arora,
Joint Secretary (Transmission),
Ministry of Power,
Shram Shakti Bhawan, Ragi Marg,
New Delhi-110001.
4. Shri I.S. Jha,
Director (Projects), POWERGRID,
Saudamini, Plot No.2, Sector-29,
Gurgaon-122001.
5. Adviser (Energy),
NITI Aayog,
Yojana Bhawan, Parliament Street,
New Delhi-110001.
6. Shri V.V.R.K. Rao,
Former Chairperson, CEA,
B-9/C, DDA Flats, Maya Puri,
New Delhi-110064.
7. Shri Ravinder,
Former Chairperson & Member(PS),
CEA,
147, Bhagirathi Apartment,
Sector-9, Rohini, Delhi-110085.

Subject : Minutes of the 34th meeting of the Empowered Committee on Transmission held on 13th April 2015

Sir,

The 34th meeting of the Empowered Committee on Transmission was held on **13th April, 2015 (Monday) at 3.30 PM** under the Chairmanship of Shri Major Singh, Chairperson/Member (Power System), CEA in the Conference Room of CEA,. The Minutes of the meeting is enclosed.

Yours faithfully,

(K.K. Arya)

Member Secretary/Chief Engineer (SP&PA)

Copy to:

- i) Smt. Seema Gupta, COO(CTU), POWERGRID, 'Saudamini', Plot No.2, Sector-29, Gurgaon-122 001 (Haryana)
- ii) Shri S N Gaikwad, CEO, RECTPCL, Core-4 SCOPE Complex, 7 Lodhi Road, New Delhi-110 002 (Fax:P 011-24102576)
- iii) Shri C Gangopadhaya, CEO, PFC Consulting Ltd., First Floor, Urjanidhi, 1 Barakhamba Lane, New Delhi-110 001 (Fax: 011-23456170)

Minutes of the 34th meeting of the Empowered Committee on Transmission

Date and Time: 13th April, 2015 (Monday) at 3:30 PM

Venue: Conference Room of CEA, 2nd Floor, Sewa Bhawan, R.K. Puram, New Delhi

List of Participants is enclosed at **Annexure-I**.

2.0 Member (PS) & Chairperson, CEA as Chairperson of the Empowered Committee welcomed the members to the reconstituted 34th Empowered Committee on Transmission to the meeting. He requested Chief Engineer (SP&PA), CEA to take up the agenda.

3.0 Confirmation of the minutes of the 33rd EC meeting held on 30th September 2014 and issued on 12 November 2014

3.1 Member Secretary and Chief Engineer (SP&PA), CEA informed that the 33rd meeting of the Empowered Committee on Transmission was held on 30th September 2014 and the minutes of the meeting were circulated vide letter no. 100/(32)/2013-SP&PA/2074-2084 dated 12th November 2014. He stated that the 33rd meeting of EC, recommended the schemes of i) “HVDC Bi-pole link between Western Region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu)” ii) “Inter State Transmission System for Renewable in Northern Region” for implementation through TBCB route. Director (Projects), PGCIL vide letter dated 20/11/2014 communicated that the recording in the minutes of the meeting with regard to the implementation of “HVDC Bi-pole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu)” and “Inter State Transmission System for Renewable in Northern Region” are not proper. CEA vide their letter dated 26/12/2014 to Director (projects) POWERGRID clarified its position regarding the recordings of the MoM. Further, Director (MoP) vide letter dated 26/12/2014 requested for modification in the MoM. CEA again vide their letter dated 20/1/2015 to Director (MoP) clarified its stand regarding the recordings of the MoM. MoP vide letter dated 10/12/2014 and 3/3/2015 have conveyed that the transmission schemes including HVDC scheme and transmission System for Renewables to be taken up under compressed time schedule. Chief Engineer (SP&PA) further stated that there were some confusion regarding the cost of the HVDC system from Raigarh to Pugalur. The issue was examined and it was found that inadvertently the cost of the Converter and Inverter station (Rs.6958 Crs.) has been taken separately. As such the total cost of the scheme of Rs. 26820 Crs. should be reduced by Rs. 6958 Crs. As such, the cost of the HVDC Raigarh to Pugalur scheme now stand at Rs. 19861 Crs.

3.2 Expert member Shri Ravinder was of the view that the cost of the HVDC scheme is huge and as such the scheme could be broken into AC component and HVDC component. The

HVDC component as decided by MoP might be constructed by POWERGRID, whereas the HVAC system could be implemented through TBCB.

- 3.3 COO CTU was of the opinion that the HVDC was given to POWERGRID on cost plus basis with compressed time schedule mainly on the request of the Southern Regional constituents. Segregating the scheme and allotting the HVDC component to POWERGRID and implementing the HVAC component through TBCB might lead to mismatch of the time lines of various elements of the project. As such, the very purpose of constructing the scheme through cost plus basis with compressed time schedule would be defeated.
- 3.4 Joint Secretary (Transmission) MoP opined that considering the urgency of the scheme for the southern Regional constituents, the review on implementation of the Raigarh – Pugalur HVDC scheme may not be considered at this stage.
- 3.5 CE (SP&PA)/Member Secretary, requested the members for confirmation of the minutes of the 33rd EC meeting incorporating the modifications suggested as under:

Sl. No.	Name of the schemes	Name of the BPCs/ Regulated tariff mechanism
1.	Inter State Transmission System for Renewable in Northern Region	Regulated tariff mechanism vide MoP letter dated 03-03-2015.
2.	Creation of 400/220 kV substations in NCT of Delhi during 12 th plan period	Regulated tariff mechanism
3.	Establishment of 220/66kV, 2x160MVA GIS S/s at Sector 47, UT Chandigarh along with 220kV D/C line from Sector 47 to 400/220kV Panchkula substation of Powergrid as a inter State line	Regulated tariff mechanism
4.	Northern Region System Strengthening Scheme(NRSS)- Part of XXXIV	Regulated tariff mechanism
5.	Constraints in 400kV bays extensions at 400 kV Vemagiri S/S	Regulated tariff mechanism
6.	Additional inter-Regional AC link for import into Southern Region	PFCCCL
7.	HVDC Bipole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu and Madakkathara, in Kerala) (Cost of the scheme Rs. 19861 Crs.)	Regulated tariff mechanism vide MoP letter dated 03-03-2015.
8.	Strengthening of transmission system beyond Vemagiri	RECTPCL

9.	Connectivity for Kudankulam 3&4 (2x1000MW) with interstate transmission system	Regulated tariff mechanism
10.	Erection of 220 kV line to Karaikal NLC – Karaikal 220 kV D/C line	Regulated tariff mechanism vide MoP letter dated 03-03-2015.
11.	NER System Strengthening Scheme – II	RECTPCL
12.	Common Transmission System for Phase-II Generation Projects in Odisha (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line (ii) LILO of both circuits of Rourkela - Raigarh 400 kV D/C line (2 nd line)	PFCCCL Regulated tariff mechanism
13.	Immediate Evacuation System for OPGC (1320 MW) Project in Odisha (clubbed with 12 (i))	PFCCCL (Merged with scheme of 12(i))
14.	Transmission System Strengthening in Indian System for transfer of power from new HEPs in Bhutan (i) Jigmeling - Alipurduar 400kV D/C line with Quad moose conductor (Indian Portion) (ii) Alipurduar - Siliguri 400kV D/C line (2 nd) with Quad moose conductor (iii) Kishanganj - Darbhanga 400kV D/C line	Regulated tariff mechanism RECTPCL

The Empowered Committee confirmed the minutes of the meeting circulated vide letter no. 100/(32)/2013-SP&PA/2074-2084 dated 12th November 2014, incorporating the above changes .

4.0 Revised procedure for allocation of Inter State Transmission Project(s) under Tariff Based Competitive Bidding (TBCB)

The members of the committee were apprised of about the Ministry of Power order no. 4/14/2014-PG dated 12th February, 2015 vide which revised procedure was issued for allocation of Inter State Transmission Project(s) under Tariff Based Competitive Bidding (TBCB). As per the revised procedure, Ministry of Power based on the recommendation

of the Empowered Committee would henceforth finalize the Bid Process Coordinators (BPCs) for award of the transmission projects through TBCB route.

- 4.2 Expert Member Shri Ravinder raised a query regarding time period for implementation of schemes by PGCIL under compressed time schedule.
- 4.3 Joint Secretary (Transmission) MoP, informed that MoP in consultation with CEA has framed the timelines for the activities involved from Concept to Commissioning of transmission projects. She further stated that MoP has also roped in NIC for digitization of timelines of the activities. When completed, each element of the implementation of the transmission lines can be monitored agency wise with respect to its target. She requested CEA to circulate the timelines paper on Concept to Commissioning to all members and also cover it as a part of the minutes of the meeting (**Annexure II**).

Members took note of the above. Copy of the time lines under Concept to Commissioning of transmission projects is enclosed.

5.0 Re-constitution of the “Empowered Committee” in accordance with guidelines for encouraging competition in development of transmission projects.

The members of the committee was apprised of about the Ministry of Power letter no. 15/3/2010-Trans dated 4th March, 2015 regarding the reconstitution of the Empowered Committee on Transmission with the following composition:

1. Member (Power System), CEA	-	Chairperson
2. Member (E&C), CEA	-	Member
3. Joint Secretary (Trans.), Ministry of Power	-	Member
4. Director (Projects), POWERGRID	-	Member
5. Adviser (Energy), NITI Aayog	-	Member
6. Shri V.V. Ramakrishna Rao, Former Chairman, CEA (as an Expert from Power Sector)	-	Member
7. Shri Ravinder, Ex-Member (Power System), CEA (as an Expert from Power Sector)	-	Member
8. Chief Engineer (Trans. Planning/ SP&PA), CEA	-	Member Secretary

Members took note of the above.

6.0 Briefing by BPCs on the schemes under bidding process

RECTPCL and PFCCCL gave the brief to the Empowered Committee about progress of schemes that are under bidding process. The details are attached at **Annexure-III & IV**

7.0 New transmission schemes to be taken up through Tariff Based Competitive Bidding

(1) Name of the Scheme: System strengthening scheme in Northern Region (NRSS-XXXVI)

(1.1) Director (SP&PA), NR, CEA stated that the proposed transmission scheme was approved in the 35th Standing Committee on Power System Planning in Northern Region held on 3/11/2014. The scope of the transmission scheme is as under:

SL. No.	Transmission Scheme
1	Koteshwar Pooling Station - Rishikesh 400kV D/C (HTLS) line
2	2 Nos. of bays at 400 kV Rishikesh S/S

(1.2) He stated that the above scheme would provide the required reliability and stability to the Garhwal Region of Uttarakhand Grid. M/s PTCUL had earlier requested for LILO of the existing Tehri – Meerut 2x S/C 765 kV line (presently charged at 400 kV) at Rishikesh S/S . For which the existing 400 kV Rishikesh S/S have to be upgraded to 765 kV. The issue was discussed in details in the 34th and 35th SCM of NR and the members were of the view that LILO of one line of Tehri – Meerut 2x S/C 765 kV line would cause unbalanced loading on the other circuit. Further upgrading the 400 kV Rishikesh S/S of PTCUL to 765 kV would also incur higher cost. Accordingly, the 35th SCM of NR was of the view that Koteshwar Pooling Station - Rishikesh 400kV D/C (HTLS) line would provide the required reliability and stability to the Garhwal Region of Uttarakhand Grid and would also be cost effective.

(1.3) Members approved the scheme as under for implementation through TBCB route. The scheme may be notified by the Government accordingly.

SL. No.	Transmission Scheme	Capacity in MVA/ ckt. km	Estimated Cost (Rs. Crore)
1	Koteshwar Pooling Station - Rishikesh 400kV D/C (HTLS) line	About 100	290
2	2 Nos. of bays at 400 kV Rishikesh S/S		13
	Total		303

Note:

- PTCUL to provide space for 2 Nos. of bays at their 400 kV Rishikesh S/S
- POWERGRID to provide for 2 Nos. of bays at their 400 kV Koteshwar Pooling Station

(2) **Creation of 400/220kV, 2X315MVA GIS Substation in Baram(Jauljivi) area by LILO of both ckt. of 400 kV Dhauliganga-Bareilly (PGCIL) line (presently charged at 220 kV) at 400kV Baram(Jauljivi) (ISTS).**

(2.1) Director (SP&PA), NR, CEA stated that the transmission scheme has been approved in the 35th Standing Committee on Power System Planning in Northern Region held on 3/11/2014. The scope of the transmission scheme is as under:

Sl. No.	Transmission Scheme	Capacity in MVA/ ckt. km.	Estimated Cost (Rs. Crore)
	<u>ISTS</u>		
1	<p>Creation of 400/220kV, 2X315MVA GIS Substation in Baram(Jauljivi) area under ISTS by LILO of both ckt. of 400 kV Dhauliganga-Bareilly (PGCIL) line (presently charged at 220 kV) at 400kV Baram(Jauljivi) (ISTS).</p> <p>The 400 kV Baram(Jauljivi) S/S to have the following provisions:</p> <p><u>400 kV side</u></p> <p>a) 2 nos. of 400 kV line bays for 400kV D/c to Bareilly</p> <p>b) 2 nos. of 315MVA 400 kV ICTs</p> <p>c) 2 nos. of 400 kV ICT bays</p> <p>d) 1 nos of 125MVAr Bus reactor</p> <p>e) 1 nos of Bus reactor bay</p> <p>f) Space provision for future bays</p> <p><u>220 kV side</u></p> <p>a) 8 nos. of 220 kV line bays (Pithorgarh-2,Almora-2, Jauljivi(PTCUL)-2, Dhauliganga-2)</p> <p>b) 2 nos. of ICT bays</p> <p>c) 1 No. of 220kV Bus reactor bay (25 MVAr Reactor already available at Dhauliganga shall be shifted to Baram(Jauljivi) 400 kV S/s)</p>		
2	Disconnection of LILO of one circuit of 400 kV D/c Dhauliganga-Bareilly (PGCIL) line (presently charged at 220		

	kV) at 220 kV Jauljibi S/S of PTCUL		
3	LILO of both circuits of 400 kV D/c Dhauliganga-Bareilly (PGCIL) line (presently charged at 220 kV) at Baram(Jauljivi) 400 kV S/s		
4	Charging of Baram(Jauljivi)–Bareilly D/C line at 400kV level		
5	Shifting of 25 MVAR line reactor already available in Dhauliganga – Bareilly line at Dhauliganga end, to Baram(Jauljivi) 400 kV S/s as a bus reactor		
6	Diversion of Bareilly end of Dhauliganga-Bareilly 400kV D/c line(operated at 220kV) from CB Ganj to Bareilly(PGCIL) alongwith 2 nos. of 400 kV bays at Bareilly(PGCIL)		
	Total		350

(2.2) He stated that the above proposal would provide the required reliability to the Kumaon Region of Uttarakhand grid. PTCUL had proposed for 220 kV Jauljibi S/S to be fed by LILO of 220 kV Dhauri Ganga - Bareilly line. They also proposed for extension of 220kV bays at Pithoragarh S/S of POWERGRID for taking lines to the proposed 220 kV Almora and 220 kV Pithoragarh S/S of PTCUL. The proposal was discussed in the 34th and 35th SCM of NR. POWERGRID had indicated non availability of space for extension of their existing Pithoragarh S/S. Accordingly, the SCM was of the view that the above proposed system (as given in table) would be suitable to feed power to the Kumaon Region reliably. He stated that the above system would be implemented in two phase. Under Phase 1, PTCUL would construct a 220 kV S/S at Jauljibi by LILO of one circuit of the existing 220 kV Dhauri Ganga - Bareilly line. Subsequently, with the construction of the 400 kV S/S at Baram(Jauljivi) under ISTS, the circuit from Dhauliganga would be opened from 220 kV Jauljibi end and both the circuit from Dhauliganga would be connected to the 220 kV side of 400 kV Baram(Jauljivi) S/S. Beyond 400 kV Baram(Jauljivi), both the circuits from Baram(Jauljivi) to Bareilly line would be charged at 400 kV and to be connected to 400 kV side of Baram(Jauljivi) end to form:

- i) Dhauliganga – Baram(Jauljivi) 220 kV D/C
- ii) Baram(Jauljivi) – Bareilly 400 kV D/C

- (2.3) The PTCUL Jauljibi would be delinked completely from Dhauliganga and to be connected to 400 kV Baram (Jauljivi) through 220 kV D/C line.
- (2.4) COO (CTU) stated that the above scheme involves many works to be done on POWERGRID lines. She explained that the scheme involves charging of Baram (Jauljivi)–Bareilly section of Dhauliganga-Bareilly 400 kV line of POWERGRID which is presently operated at 220 kV. She further added that the scheme also involves disconnection of existing LILO of one circuit of Dhauliganga –Bareilly (PGCIL) line at 220 kV Jauljivi substation of PTCUL and connection of both circuits to the proposed Baram(Jauljivi) 400/220 kV ISTS substation. Beside this there will be issues regarding some stranded assets due to shortening of the 220 kv line length. She requested to EC for implementation of this scheme under regulated tariff mechanism by PGCIL.
- (2.5) Expert members Shri Ravinder & Shri V.V. Ramakrishna Rao were of the view that the Baram (Jauljivi) 400 kV S/S has been proposed to supply power exclusively to Uttarakhand so whether the proposal can be consider under ISTS.
- (2.6) The issue was discussed in details; Members, in general, were of the view that the proposal has already been approved by the Standing committee of NR. Revisiting the proposal from the above angle may not be justified and is also not in the scope of the present committee. Further, many ISTS systems so far cleared were planned to serve a particular state only. Uttarakhand , being a new and remote state , needs special dispensation for its development.

Members approved the scheme to be implemented under regulated tariff mechanism by PGCIL.

(3) Creation of new 400kV GIS Substations in Gurgaon area and Palwal area as a part of ISTS

- (3.1) Director(SP&PA),NR, CEA stated that the transmission scheme has been approved in the 35th Standing Committee on Power System Planning in Northern Region held on 3/11/2014. The scope of the transmission scheme is as under:

Sl. No.	Transmission Scheme	Capacity in MVA/ ckt. km.	Estimated Cost (Rs. Crore)

1	Creation of 400 kV level at Aligarh GIS substation by adding 2x1500 MVA 765/400 kV ICT	3000	102
2	Aligarh – Prithala, 400 kV D/C Quad line	232	290
3	Prithala – Kadarapur 400 kV D/C Quad line	112	140
4	Kadarapur – Sohna Road 400 kV D/C Quad line	17	21
5	LILO of Gurgoan – Manesar D/C line at Sohna Road S/S	10	12.5
6	Neemrana(PG) – Dhonanda(HVPNL) 400 kV D/C Quad line	166	208
7	Creation of 400/220kV, 2X500 MVA GIS substation at Kadarapur in Gurgaon area		320
8	Creation of 400/220kV, 2X500MVA GIS substation at Sohna Road in Gurgaon area		332
9	Creation of 400/220kV , 2X500MVA GIS substation at Prithala in Palwal area		320
10	To cater to the future load growth of the area, space provision for capacity augmentation by 2X500MVA transformation at all these substations may be kept.	-	-
11.	2 Nos. of bays at 400 kV Dhonanda(HVPNL) substation		13
	Total		1759

Note: HVPNL to provide space for 2 Nos. of 400 kV bays at their Dhonanda 400 kV substation.
POWERGRID to provide two nos. of bays at their Neemrana 400 kV substation.

He stated that HVPNL has indicated that they are proposing a SEZ in the Palwal area, where they have proposed 400 kV Prithala S/S. Further, HUDA has proposed for extension of the sectors in Gurgoan from sector 58 to 115. The proposed sectors would be near Sohna Road and Kadarapur, where they have estimated a load of around 3000 MVA by 13th plan end. Considering their proposal, the two proposed 400 kV substations at Sohna Road and Kadarapur have been approved by the 35th SCM of NR.

(3.2) COO(CTU) stated that since 765 kV Aligarh switching station is being constructed by PGCIL, it would be more feasible if the element (i) of the above scheme i.e. **“Creation of 400 kV level at Aligarh GIS substation by adding 2x1500 MVA 765/400 kV ICT”** is

implemented under regulated tariff mechanism with compressed time schedule by PGCIL.

- (3.3) The expert members Shri Ravinder & Shri V.V. Ramakrishna Rao informed that a 400 kV Substation near Gurgaon under North Karanpura transmission system was to be developed by North Karanpura Transmission Company Limited but the same is getting delayed as NKTCL has filed a petition seeking relief under force majeure and the matter is currently being heard in Supreme Court. They wanted to know whether the studies for the proposed substation have been carried out considering the ITP S/S at Gurgaon.
- (3.4) Director (SP&PA) stated that both the proposals are meant to serve separate loads. The present proposal for 400 kV Sohna Road and Kadarapur S/S are meant to serve the upcoming loads of the proposed new sectors of Gurgaon, where the ITP Gurgaon was planned to meet the load between Gurgaon (PG) and Daulatabad S/S.
- (3.5) Expert Member Shri Ravinder asked whether the construction of both the S/S proposed at Gurgaon could be staggered or not. Director (SP&PA) clarified that Sohna Road S/S would be created by LILO of the existing Gurgaon (PG) – Manesar 400 kV D/C line. However, the Kadarapur S/S could be created based on the requirement/load demand of that area.
- (3.6) Joint Secretary (Transmission) MoP stated that considering the demand and the development in the Sohna Road and Kadarapur areas, a staggered time frame could be considered for the substations proposed in Gurgaon area.
- (3.7) Sh. Ravinder stated that considering the serious RoW constraint in and near Gurgaon area, the transmission lines proposed under the scheme may be considered with HTLS conductor.
- (3.8) **After detailed discussion the Empowered Committee agreed for the implementation of above proposal as under:**
- (a). **Creation of 400 kV level at Aligarh GIS substation by adding 2x1500 MVA 765/400 kV ICT would be considered under regulated tariff mechanism with compressed time schedule by PGCIL.**

(b). **The works proposed under (2) to (11) above would be implemented under TBCB. The implementation of the 400 kV S/S at (7) above could be staggered depending upon the development of load in that area.**

(c). To cater to the future load growth of the area, space provision for capacity augmentation by 2X500MVA transformation at all these substations may be kept.

(4) LILO of Sikar-Neemrana 400kV D/C line at Babai (RRVPNL)

Director (SP&PA), CEA stated that the transmission scheme has been approved in the 35th Standing Committee on Power System Planning in Northern Region held on 3/11/2014. The scope of the transmission scheme is as under:

Sl. No.	Transmission Scheme	Capacity in MVA/ ckt. km.	Estimated Cost (Rs. Crore)
1	LILO of one ckt. of 400 kV D/c Sikar(PG)-Neemrana(PG) line at Babai	2	1.8
2	Babai(RRVPNL) – Bhiwani (PG) D/C line	252	227
3.	4 Nos. of bays at 400 kV Babai (RRVPNL) substation		26
	Total		254.8

Note:

- RRVPNL to provide space for 4 Nos. of bays at their 400 kV Babai S/S
- POWERGRID to provide 2 Nos. of bays at their 400 kV Bhiwani substation
-

The proposal would provide reliability in power supply to Babai area. Further connectivity with hydro source would provide operational stability to the grid in that area.

Members agreed for implementation of the above scheme under TBCB. It was desired that scheme could be merged with the scheme at 1 (NRSSS XXXVI) above to make the bidding for the composite scheme attractive. The scheme may be notified by the Government accordingly.

(5) 132kV Banka- Deoghar D/C lines (about 40 Kms)

Director (SP&PA), ER, CEA stated that the transmission scheme has been approved in the 1st -2014 meeting of the Standing Committee on Power System Planning of Eastern Region held on 2/5/2014. The scope of the transmission scheme is as under:

Sl. No.	Transmission Scheme	Capacity in MVA/ ckt. km.	Estimated Cost (Rs. Crore)
1.	132 kV Banka(PG) – Deoghar(JSEB) D/C line	120	27
2.	2 Nos. of bays at 132 kV Deoghar(JSEB) S/S	2.4	4.8
	Total cost		31.8

Note:

- Jharkhand State Electricity Board (JSEB) to provide space for 2 Nos. of bays at their 132 kV Deoghar S/S

Members approved the scheme to be implemented under regulated tariff mechanism.

9.0 De Notification of Transmission System for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu:

9.1 Director (SP&PA), CEA stated that the transmission system for evacuation of power from 2x500 MW Neyveli Lignite Corporation Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu, was agreed in 35th SCM of SR and was allocated to RECTPCL to be implemented through TBCB route. Some modification was envisaged in the scheme and the same was discussed in the 37th SCM of SR. The system as agreed almost remains same except for minor modification in terms of type of conductor of Neyveli TPS-II – Neyveli (TANTRANSCO 230kV S/S), 230kV D/C line (by TNEB) which shall also be with HTLS conductor. The scheme was discussed in the 32nd & 33rd meetings of the EC on transmission and the following scope of System Strengthening was agreed:

Sl. No.	Transmission Scheme	Est. Line Length (km)
1.	NNTPS switchyard – Ariyalur (Villupuram) 400kV D/c line	80

Note:

- The 400 kV Ariyalur (Villupuram) S/S with 2x500 MVA S/S would be implemented by TRANSCO, along with the bays for termination of line from NNTPS at Ariyalur

- Neyveli Lignite Corporation Ltd. to provide 2 Nos. of 400 kV line bays at their 2x500 MW TS-I (Replacement) (NNTPS) switchyard

9.2 In the 33rd EC on transmission, the proposal for Proposal of Electricity Department, Puducherry for erection of 230 kV line to Karaikal was agreed to be implemented through TBCB. It was decided that the above scheme was to be merged to the scheme for system for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu, allocated to RECTPCL for bidding. Subsequently, MoP vide letter dated 3/3/2015 indicated that the transmission Proposal of Electricity Department, Puducherry for erection of 230 kV line to Karaikal is to be taken up under compressed time schedule. RECTPCL vide their letter No. RECTPCL/P-17/Neyveli/2014-15/848 dated 28.01.2015 has indicated that as per their past experience they apprehend that bidders may not participate for such small scheme or may quote very high annual transmission tariff as compared to the prevailing price. As such they have requested to take up the above scheme to EC for a review on allocation and with the request for reallocating above scheme the scheme under compressed time schedule.

9.3 **The issue was deliberated and the members agreed with the request of RECTPCL for reallocating the scheme for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu to POWERGRID for implementation under compressed time schedule. Accordingly, MoP is requested to de-notify the above scheme and allocate the same to POWERGRID for implementation.**

10.0 Institution of the Bid Evaluation Committees (BEC's) for the new transmission schemes

10.1 Bid Evaluation Committee (BEC) for “Additional inter-Regional AC link for import into Southern Region” - PFCCL

Sl. No.	Name	Designation
1.	Head, SBI Capital Markets, 6th floor, World Trade Tower, Barakhamba Lane, Connaught Place, New Delhi- 110001 Phone No. 011-23418770 Fax: 011 -23418773	Chairman
2.	Mohd. Anwaruddin Director (Project, Grid & Finance), Telangana TRANSCO Hyderabad	Member

3.	Shri S Sumanth Director (Transmission), Karnataka Power Transmission Company Ltd., Bengaluru, Karnataka	Member
4.	Shri Pankaj Batra, Chief Engineer (F&CA) Central Electricity Authority Room No. 626, 6th floor, Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26732688, 26732668, Mobile: 9350981062	Member (CEA)
5.	Shri Goutam Roy Director (SP&PA) Central Electricity Authority Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26711015, Mobile: 8376817933	Member (CEA)
6.	Chairman of SPV constituted by PFCCL & RECPTCCL	Convener - Member

Members noted the same.

10.2 Bid Evaluation Committee (BEC) for “Strengthening of transmission system beyond Vemagiri” - RECTPCL

Sl. No.	Name	Designation
1.	Head, SBI Capital Markets, 6th floor, World Trade Tower, Barakhamba Lane, Connaught Place, New Delhi- 110001 Phone No. 011-23418770 Fax: 011 -23418773	Chairman
2.	Mohd. Anwaruddin Director (Project, Grid & Finance), Telangana TRANSCO Hyderabad	Member
3.	Shri S Sumanth Director (Transmission), Karnataka Power Transmission Company Ltd., Bengaluru, Karnataka	Member
4.	Shri Pankaj Batra, Chief Engineer (F&CA) Central Electricity Authority Room No. 626, 6th floor, Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26732688, 26732668, Mobile: 9350981062	Member

5.	Shri Goutam Roy Director (SP&PA) Central Electricity Authority Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26711015, Mobile: 8376817933	Member
6.	Chairman of SPV constituted by PFCL & RECPTCCL	Convener - Member

Members noted the same.

10.3 Bid Evaluation Committee (BEC) for “NER System Strengthening Scheme – II” - RECTPCL

Sl. No.	Name	Designation
1.	Head, SBI Capital Markets, 6th floor, World Trade Tower, Barakhamba Lane, Connaught Place, New Delhi- 110001 Phone No. 011-23418770 Fax: 011 -23418773	Chairman
2.	Name of the member sought from NERPC	Member
3.	Name of the member sought from NERPC	Member
4.	Shri Pankaj Batra, Chief Engineer (F&CA) Central Electricity Authority Room No. 626, 6th floor, Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26732688, 26732668, Mobile: 9350981062	Member
5.	Shri Goutam Roy Director (SP&PA) Central Electricity Authority Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26711015, Mobile: 8376817933	Member
6.	Chairman of SPV constituted by PFCL & RECPTCCL	Convener - Member

Members noted the same.

10.4 Bid Evaluation Committee (BEC) for “Common Transmission System for Phase-II Generation Projects in Odisha” - PFCL

Sl. No.	Name	Designation
1.	Head, SBI Capital Markets, 6th floor, World Trade Tower, Barakhamba Lane, Connaught Place, New Delhi- 110001	Chairman

	Phone No. 011-23418770 Fax: 011 -23418773	
2.	Name of the member sought from ERPC	Member
3.	Name of the member sought from ERPC	Member
4.	Shri Pankaj Batra, Chief Engineer (F&CA) Central Electricity Authority Room No. 626, 6th floor, Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26732688, 26732668, Mobile: 9350981062	Member
5.	Shri Goutam Roy Director (SP&PA) Central Electricity Authority Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26711015, Mobile: 8376817933	Member
6.	Chairman of SPV constituted by PFCCCL & RECPTCCL	Convener - Member

Members noted the same.

10.5 Bid Evaluation Committee (BEC) for “Transmission System Strengthening in Indian System for transfer of power from new HEPs in Bhutan” - RECTPCL

Sl. No.	Name	Designation
1.	Head, SBI Capital Markets, 6th floor, World Trade Tower, Barakhamba Lane, Connaught Place, New Delhi- 110001 Phone No. 011-23418770 Fax: 011 -23418773	Chairman
2.	Name of the member sought from ERPC	Member
3.	Name of the member sought from ERPC	Member
4.	Shri Pankaj Batra, Chief Engineer (F&CA) Central Electricity Authority Room No. 626, 6th floor, Sewa Bhawan, R.K.Puram, New Delhi-110066 Phone No. 011-26732688, 26732668, Mobile: 9350981062	Member
5.	Shri Goutam Roy Director (SP&PA) Central Electricity Authority Sewa Bhawan, R.K.Puram,	Member

	New Delhi-110066 Phone No. 011-26711015, Mobile: 8376817933	
6.	Chairman of SPV constituted by PFCL & RECPTCCL	Convener - Member

Members noted the same.

The meeting ended with thanks to the Chair.

Annexure – I

List of participants in the 34th meeting of the Empowered Committee on Transmission, held in CEA on 13th April, 2014

Sl. No.	Name Shri/Smt	Designation
<u>Empowered Committee Members</u>		
1.	Major Singh	- Chairperson & Member (PS), CEA
2.	K.N. Garg	- Member (E & C), CEA
3.	Joyti Arora	- Joint Secretary, MoP
4.	Seema Gupta,	- COO (CTU)
5.	Surender Singh	- SVR, Joint Adviser, NITI Ayog
6.	V.V. Ramakrishna Rao	- Expert Member/Former Chairman, CEA
7.	Ravinder	- Expert Member /Ex. Chairperson ,CEA
8.	K K Arya	- Member Secretary/Chief Engineer (SP & PA), CEA

CEA

1.	Pankaj Batra	- Chief Engineer (F & CA)
2.	Goutam Roy	- Director (SP & PA)
3.	B. K. Arya	-Chief Engineer (I/c) (PSPM)
4.	Ravinder Gupta	- Director (SP & PA)
5.	A. K. Saha	- Director (SP&PA)
6.	Chandra Prakash	- Director (SP&PA)
7.	Anita Gahlot	- Dy. Director (SP&PA)
8.	Vikas Kumar Sahu,	- Engineer
9.	Kulesh Kumar	- Assistant Director

CTU

1.	Mukesh Khanna,	- AGM (CTU)
----	----------------	-------------

PFCCCL

1.	Shri Rajesh Kumar Shahi,	- Vice President/Special Invitees
2.	Shri Sanjay Nayak,	- AVP

RECTPCL

1.	Shri Bhupender Gupta	- ACEO/Special Invitees
----	----------------------	-------------------------

No. 15/1/2013-Trans
Ministry of Power
Shram Shakti Bhawan, Rafi Marg, New Delhi

Dated, 10th March, 2015

OFFICE MEMORANDUM

Subject: - Timelines for the activities involved from Concept to commissioning of transmission projects.

The undersigned is directed to inform that the Competent Authority, Ministry of Power, has approved the Timelines for the Activities involved from Concept to Commissioning of Transmission Projects as detailed at Annexure-I.

2. All concerned are requested to adhere to the Timelines and necessary action may kindly be taken accordingly. This will be monitored at the level of Chairperson, CEA on a monthly basis and also in Ministry at the Joint Secretary level.

(S. Venkateshwarlu)
Under Secretary (Trans)
Tele.No.2332 5242
Email:transdesk-mop@nic.in

To

The Chairperson
Central Electricity Authority
SewaBhawan, R.K.Puram
New Delhi-110066

Copy forwarded to the following, for information and necessary action:

1. CMD, PGCIL, Gurgaon.
2. CEO, RECTPCL, New Delhi.
3. CEO, PFC Consulting Limited, New Delhi.

(S. Venkateshwarlu)
Under Secretary (Trans)

64210105115

Annexure-II

Timelines for the steps involved from Concept to commissioning of transmission project through Tariff Based Competitive Bidding (TBCB) route and through compressed time schedule route are as below:

Sl.No.	Activity/ Procedure	Timelines for completing each activity(in days)	Elapsed / cumulative Timelines (in days)	Agency Responsible for completing the activity
1	Receipt of inputs/proposal from the stake holders in CEA	Zero date	Zero date	CEA
2	Carrying out system studies, preparation of agenda and posting of agenda along with notice at CEA website	45	45	
3.1	Holding of Standing committee(SC) meeting on power system planning	30	75	
3.2	Issuance of minutes of the SC meeting			
3.3	Receipt of observations on Minutes of SC Meeting from constituents			
3.4	Confirmation of the minutes, after incorporating observations of constituents, if any.			
4	Concurrence from Regional Power Committee (RPCs) including, Holding of meeting, Receipt of observations on Minutes of SC Meeting from constituents, Confirmation of the minutes, after incorporating observations of constituents, if any@	30	105	CEA / RPC of respective region
5	Holding of Empowered Committee (EC) meeting		135	CEA
5.1	Issuance of Minutes of Meeting of Empowered Committee			

	Confirmation of the minutes of the Empowered Committee.	30		
5.3	Forwarding of recommendation of Empowered Committee by CEA to Ministry of Power (MoP).			
6	Approval by MOP	10	145	MOP
7	Gazette Notification by MOP of TBCB nominated Projects including allocation of projects to BPCs. Alternatively through PGCIL under Compressed time schedule	10	155	MOP
8	Formation of SPV by BPC and publication of RFQ after action at SI No. 7 above	40	195	BPCs
9	Selection of developer through TBCB by Bid Process Coordinator and Transfer of SPV to successful bidder	145	340	
10	Commissioning of Transmission Projects both under TBCB or through PGCIL	As per CERC regulations (24-44 Months)	~36-56 months ~30-50 months	Selected developer (Transmission Service Provider) / PGCIL as may be the case.

Note: (i) Pre-decided date would be fixed by CEA for holding each meeting and will be available on their website so that no separate notice needs to be sent. (Applicable for holding SC, RPC and EC meetings mentioned above).

(ii) **In case of Projects being executed by PGCIL (CTU), Steps 8 and 9 will not be required.**

@ (iii) *In case of consensus amongst constituents of Standing Committee, proposed scheme shall be put up to RPCs. In case consensus could not be achieved amongst constituents of Standing Committee, CTU applies for regulatory approval in CERC. After regulatory approval, Scheme could be put up to Empowered Committee. In that case, total time will get increased by 90 days i.e. time taken for regulatory approval.*

Annexure-III

**Status of Progress of Transmission Projects Awarded Through Tariff Based Competitive Bidding Route by
REC Transmission Projects Company Limited**

Projects for which bidding has been completed:

As on 15.04.2015

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 11/12/2006-PG, 26.06.2007							
1	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	RECTPCL	Reliance Power Transmission Limited	Sipat/Korba (Pooling) – Seoni, S/C Lucknow-Bareilly, S/C Bareilly-Meerut Agra-Gurgaon Gurgaon-Gurgaon (PG) Gurgaon S/S	765 kV S/C 765 kV S/C 765 kV S/C 400 kV D/C 400 kV D/C 400/220 kV	370 250 220 220 30 2x500 MVA GIS	(i) LOI placed on 18/12/2009 (ii) Special purpose vehicle acquired on 20/05/2010 (iii) Transmission License received on 22/12/2010 (iv) Proposal for clearance under section 164 received on 12.9.2011 (v) Tariff adoption approval on 13.09.2011. (vi) North Karanpura Transmission Company Limited has filed a petition seeking relief under force majeure and the matter is currently being heard in Supreme Court. (vii) Physical Progress: details available with CEA. (viii) Scheduled for commissioning in November, 2013.

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 11/12/2006-PG, 26.06.2007							
2	Augmentation of Talcher II Transmission System	RECTPCL	Reliance Power Transmission Limited	Talcher II-Rourkela	400 kV D/C (Quad)	170	(i) LOI placed on 18/12/09
				Talcher II- Behrampur	400 kV D/C	220	(ii) Special purpose vehicle acquired on 27/04/10
				Behrampur-Gazuwaka	400 kV D/C	220	(iii) Transmission License received on 08/11/10
				Behrampur sub-station	400/220 kV	2x315 MVA	(iv) Proposal for clearance under section 164 received on 12.9.2011
							(v) Tariff adoption approval on 4.11.2010
							(vi) Physical Progress : details available with CEA
							(vii) Scheduled for commissioning in October, 2012
Gazette Notification No. 11/12/2006-PG, 02.07.2009							
3	Transmission System Associated with Krishnapattnam UMPP - Synchronous interconnection between SR and WR (Part-B)	RECTPCL	Consortium of M/S Patel Engineering Ltd, M/S Simplex Infrastructure Ltd and M/s B S Transcom Ltd. Patel Estate Road Jogeswari (West), Mumbai-400102	Raichur - Solapur	765 kV S/C	250	(i) LOI placed on 16/12/2010
							(ii) Special purpose vehicle acquired on 07/01/2011
							(iii) Transmission license received on 24/08/2011
							(iv) Tariff adoption by CERC on 12.8.2011
							(v) Clearance under Section 164 : information available with CEA / MOP
							(vi) Physical Progress : details available with CEA
							(vii) Schedule date of

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
							Commissioning 06.01.2014.
Gazette Notification No. 15/1/2011-Trans, 6.05.2011							
4	Transmission System associated with IPPs of Vemagiri Area – Package – A	RECTPCL	M/s Power Grid Corporation of India Limited.	Vemagiri Pooling Station – Khammam (1 st ckt.)	765 kV D/C	250	(i) LOI placed on 20/03/2012 (ii) Special purpose vehicle acquired on 18/04/2012 (iii) Transmission license application filed in CERC but License not issued. Requirement of transmission project being discussed in CERC / CEA due to non-availability of gas for gas based generation projects. (iv) Tariff adoption petition filed in CERC, however, tariff adoption not done. (v) Clearance under Section 164: information available with CEA/MoP (vi) Physical progress: Details available with CEA (vii) Scheduled date of completion : April 2015
				Khammam – Hyderabad (1 st ckt.)	765 kV D/C	250	
Gazette Notification No. 15/1/2011-Trans, 8.10.2012							
5	System Strengthening in Southern Region for import of power from Eastern Region.	RECTPCL	M/s Power Grid Corporation of India Limited	Srikakulam PP – Vemagiri-II Pooling Station	765 kV	350	(i) LOI placed on 31/07/2013 (ii) Special purpose vehicle acquired on 30/08/2013 (iii) Transmission license received on 08.01.2014.
				Khammam (Existing) – NagarjunaSagar	400 kV	150	

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
							(iv) Tariff adoption by CERC on 23.01.2014. (v) Clearance under Section 164 : Details available with CEA / MoP (vi) Physical Progress : details available with CEA (vii) Scheduled completion : 30/08/2016
Gazette Notification No. 15/1/2011-Trans, 8.10.2012							
6	Transmission System required for evacuation of power from Kudgi TPS (3 x 800 MW in Phase-I) of NTPC Limited.	RECTPCL	M/s L&T Infrastructure Development Projects Limited	Kudgi TPS – Narendra (New)	400 kV 2x D/C quad lines	10	(i) LOI placed on 31/07/2013 (ii) Special purpose vehicle acquired on 30/08/2013
				Narendra (New) - Madhugiri	765 kV D/C Line	350	(iii) Transmission license received on 21.11.2013
				Madhugiri - Bidadi	400 kV D/C (quad) line	100	(iv) Tariff adoption by CERC on 08.01.2014. (v) Clearance under Section 164 : Details available with CEA / MoP (vi) Physical Progress : details available with CEA (vii) Scheduled completion : 29/12/2015
Gazette Notification No. 15/1/2011-Trans, 8.10.2012							
7	ATS of Unchahar TPS	RECTPCL	M/s Power Grid Corporation of India Limited	Unchahar - Fatehpur	400 kV (D/C)	60	<ul style="list-style-type: none"> • LOI placed on 14/02/14 • Special Purpose Vehicle acquired on 24/03/2014. Transmission license received on 21.07.2014 • Tariff adoption by CERC:

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
							03.07.2014 <ul style="list-style-type: none"> • Clearance under Section 164 : Details available with CEA / MoP • Physical Progress : details available with CEA • Scheduled completion : 23/09/2016
Gazette Notification No. 15/1/2013-Trans, 20th May, 2013							
8	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-A)	RECTPCL	M/s Power Grid Corporation of India Limited	GIS Sub-station at Kala Amb	400/220 kV	7x105 MVA (1-ph)	(i) LOI placed on 26/02/14.
				LILO of of both circuits of Karcham Wangtoo-Abdullapur Line	400 kV (D/C)	5	(ii) Special Purpose Vehicle acquired on 12/05/2014.
				40% series Compensation on Karcham Wangtoo-Kala Amb quad D/C line at Kala Amb ends	400 kV		(iii) Transmission license received on: 04.09.2014.
							(iv) Tariff adoption by CERC: 22.08.2014.
							(v) Clearance under Section 164 : Details available with CEA / MoP
							(vi) Physical Progress : details available with CEA
							(vii) Scheduled completion : 12/07/2017

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 15/1/2013-Trans, 20th May, 2013							
9	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-B)	RECTPCL	M/s Essel Infraprojects Ltd.	Kurukshetra-Malerkotla	400 kV (D/C)	125	<ul style="list-style-type: none"> (i) LOI placed on 26/02/14. (ii) Special Purpose Vehicle acquired on 12/05/2014. (iii) Transmission license received on 25.08.2014. (iv) Tariff adoption by CERC: 07.08.2014. (v) Clearance under Section 164 : Details available with CEA / MoP (vi) Physical Progress : details available with CEA (vii) Scheduled completion : 12/09/2016
				Malerkotla-Amritsar	400 kV (D/C)	180	
Gazette Notification No. 15/1/2013-Trans, 20th May, 2013							
10.	Northern Region System Strengthening Scheme, NRSS-XXIX	RECTPCL	M/s Sterlite Grid Limited	GIS Sub-station at Amargarh	400/220 kV	7x105 MVA (1-ph)	<ul style="list-style-type: none"> • LOI placed on 23.05.2014 • Special Purpose Vehicle acquired on 04.08.2014. • Transmission license received on 14.11.2014 • Tariff adoption by CERC: 10.12.2014 • Clearance under Section 164 : Details available with
				LILO of Uri – Wagora	400kV (D/C)	.5	

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
				Jullundhar – Sambha	400kV (D/C)	146	CEA / MoP <ul style="list-style-type: none"> Physical Progress : details available with CEA Scheduled completion : 04.10.2018
				Sambha- Amargarh	400kV (D/C)	311	
Gazette Notification No. 15/1/2013-Trans, 9th July, 2014							
11.	Transmission System Strengthening associated with Vindhyachal – V	RECTPCL	M/s Power Grid Corporation of India Limited	Vindhyachal Pooling Station-Jabalpur Pooling Station	765kV D/c Line	382	<ul style="list-style-type: none"> LOI placed on 10.02.2015. Special Purpose Vehicle acquired on 26.02.2015. Transmission license application filed in CERC on 27.02.2015. Tariff adoption by CERC: under process in CERC for adoption. Clearance under Section 164 : Details available with CEA / MoP Physical Progress : details available with CEA Scheduled completion : 26.06.2018

Projects for which bidding process is ongoing:

As on 15.04.2015

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 15/1/2013-Trans, 9th July, 2014							
1	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- A)	RECTPCL	M/s Power Grid Corporation of India Limited	AIS Sub-station at Warora	765/400	2X1500 MVA (1-ph)	<ul style="list-style-type: none"> • LOI placed on 11.03.2015. • Special Purpose Vehicle is expected to be acquired during April, 2015
				LILO of Wardha – Parli ckt	400 kV (D/C)	45	
				Gadarwara – Jabalpur	765 kV(D/c)	100	
				Gadarwara - Warora	765 kV(D/c)	348	
2	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- B)	RECTPCL	M/s Power Grid Corporation of India Limited	Warora – Parli (New)	765 kV(D/c)	314	<ul style="list-style-type: none"> • LOI placed on 11.03.2015. • Special Purpose Vehicle is expected to be acquired during April, 2015
				Parli (New) - Sholapur	765 kV(D/c)	154	
				Parli (New) – Parli (PG)	400 kV D/C	21	
				AIS Sub-station at Parli	765/400	2X1500 MVA (1-ph)	
3	Connectivity Lines for Maheshwaram (Hyderabad) 765/400 kV Pooling S/s	RECTPCL		Maheshwaram (PG) – Mehboob Nagar	400 kV D/c line	100	<ul style="list-style-type: none"> • 6 bidders participated in RFQ • Revised RFP issued on 10.04.2015
				Nizamabad – Yeddumailaram (Shankarpalli)	400 kV D/c line	158	

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 15/1/2013-Trans, 9th July, 2014							
				2 No. of 400 kV line bays at Mehboob Nagar S/S of TSTRANSCO 2 No. of 400 kV line bays at Yeddumailaram S/S of TSTRANSCO.			

Projects for which bidding process is yet to be initiated:

As on 15.04.2015

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 100/1/EC (33)/SP&PA/2014, dated 09.02.2015							
1	Strengthening of transmission system beyond Vemagiri	RECTPCL		Vemagiri-II – Chilakaluripeta line	765kV D/C	270	(i) SPV has been incorporated on 06.04.2015. (ii) RFQ has been issued on 12.04.2015.
				Chilakaluripeta – Cuddapah line	765kV D/C	270	
				Chilakaluripeta – Narsaraopeta	400kV (quad) D/C	21	
				Cuddapah – Madhugiri line	400kV (quad) D/C	240	
				Cuddapah – Hindupur line	400kV (quad) D/C	180	
				Srikaukulam Pooling Station – Garividi line	400 kV (Quad) D/C	130	
				Establishment of substation at Chilakaluripeta	765/400 kV	2x1500 MVA	
2	NER System Strengthening Scheme– II	RECTPCL		Biswanath Chariyalli (NER PP) – Itanagar (Zebra conductor)	132 kV D/C line	95	SPV incorporation is under process.
				Silchar– Misa	400kV D/C (Quad) line	200	
				Ranganadi - Nirjuli	132 kV D/C line	40	

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
Gazette Notification No. 100/1/EC (33)/SP&PA/2014, dated 09.02.2015							
				Imphal - New Kohima line	400 kV D/C	150	
				Surajmaninagar-P. K. Bari	400 kV D/C	65	
3	Transmission System Strengthening in Indian System for transfer of power from new HEPs in Bhutan	RECTPCL		Alipurduar - Siliguri	400 kV D/C	150	SPV incorporated on 13.04.2015
				Kishanganj - Darbhanga	400 kV D/C	300	
4	Transmission System for evacuation of power from 2X500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu	RECTPCL		NNTPS Swithchyard - Villupuram (Ginjee)	400 kV D/C	80	<ul style="list-style-type: none"> • RECTPCL has requested CEA to reconsider the decision for implementing. • This Scheme under TBCB considering small size of system

Projects for which bidding process is under abeyance:

As on 15.04.2015

S. No	Name of the Project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
1	Transmission System associated with IPPs of Vemagiri Area – Package – B	RECTPCL		Vemagiri Pooling Station – Khammam (2nd ckt.)	765 kV D/C	250	Due to non-availability of the gas in the region, the implementation of transmission projects (which were planned for evacuation of power from gas based power projects) is under hold as per direction of CEA / CTU
				Khammam – Hyderabad (2nd ckt.)	765 kV D/C	250	
2	Transmission System associated with IPPs of Vemagiri Area – Package - C	RECTPCL		Wardha – Jabalpur Pooling S/s	765 kV D/C	400	

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

As on 30.03.2015

Sl No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
BIDDING COMPLETED & UNDER CONSTRUCTION							
1	Scheme for enabling import of NER/ER surplus by NR Estimated Cost as provided by CEA: Rs. 1700 crore	PFC	Successful Bidder - Sterlite Technologies Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi-110065 Transmission Service Provider – East North Interconnection Company Ltd. Address- C/o BALCO, Core-6, 2nd Floor, Scope Office Complex 7, Lodhi Road, New Delhi - 110003	Bongaigaon – Siliguri	400 kV D/C (Quad)	218 km	(i) LOI placed on 07.01.2010 (ii) Special Purpose Vehicle acquired on 31.03.2010 (iii) Approval under section 68 on 25.03.2009 (iv) Scheduled Completion Date is 31.03.2013. (v) Transmission License granted on 28.10.2010. (vi) Tariff adoption approval on 28.10.2010
				Purnia – Biharsharif	400 kV D/C (Quad)	210 km	
2	System strengthening common for WR and NR	PFCL	Successful Bidder - Sterlite Transmission	Dhramjaygarh-Jabalpur	765 kV 1xD/C	384 km	(i) LOI placed on 31.01.2011 (ii) Special Purpose Vehicle acquired on 31.03.2011
				Jabalpur-Bina	765 kV	250 km	

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
	Estimated Cost as provided by CEA: Rs. 1720 crore		Projects Ltd. Transmission Service Provider – Jabalpur Transmission Company Ltd. Address - C/o BALCO, Core-6, 2nd Floor, Scope Office Complex 7, Lodhi Road, New Delhi - 110003		1xS/C		(iii) Approval under section 68 on 25.11.2010. (iv) Scheduled Completion Date is 31.03.2014. (v) Transmission License granted on 12.10.2011. (vi) Tariff adoption approval on 28.10.2011.
3	System strengthening for WR Estimated Cost as provided by CEA: Rs. 2900 crore	PFCCCL	Successful Bidder - Sterlite Transmission Projects Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi-110065 Transmission Service Provider – Bhopal Dhule Transmission	Jabalpur-Bhopal Bhopal-Indore 765/400 kV substation at Bhopal, with 2x1500 MVA 765/400 kV and interconnecting 400 kV lines/LILO Aurangabad-Dhule Dhule-Vadodara 765/400 kV substation at Dhule with 2x1500 MVA 765/400 kV and interconnecting 400 kV lines/LILO	765 kV S/C 765 kV S/C 765/400 kV substation 10ckm 765 kV S/C 765 kV S/C 765/400 kV substation 20ckm	286 181 2x1500 MVA 232 276 2x1500 MVA	(i) LOI placed on 19.01.2011 (ii) Special Purpose Vehicle acquired on 31.03.2011. (iii) Approval under section 68 on 25.11.2010. (iv) Scheduled Completion Date is 31.03.2014. (v) Transmission License granted on 12.10.2011. (vi) Tariff adoption approval on 28.10.2011.

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
			Company Ltd. Address - C/o BALCO, Core-6, 2nd Floor, Scope Office Complex 7, Lodhi Road, New Delhi - 110003				
4	Transmission System associated with IPPs of Nagapattinam/ Cuddalore Area – Package A Estimated Cost as provided by Empowered Committee: Rs. 1025 crore	PFCCL	Successful Bidder - Power Grid Corporation of India Ltd. Address – “Saudamini”, Plot No. 2, Sector-29 Gurgaon – 122001 Transmission Service Provider – Nagapattinam -Madhugiri Transmission Company Ltd. Address – B-9, Qutab	Nagapattinam Pooling Station-Salem Salem-Madhugiri	765 kV D/C 765 kV S/C	250 KM 250 KM	(i) LOI placed on 06.03.2012. (ii) Special Purpose Vehicle acquired on 29.03.2012. (iii) Approval under section 68 on 08.10.2011. (iv) Scheduled Completion Date is 29.03.2015. (v) Transmission License – Details not available. (vi) Tariff adoption approval on 09.05.2013.

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
			Institutional Area, Katwaria Sarai, New Delhi - 110016				
5.	Transmission System for Patran 400 kV S/S Estimated Cost as provided by Empowered Committee: Rs. 200 crore	PFCCL	Successful Bidder - Techno Electric and Engineering Company Ltd. Address – 3F, Park Plaza, 71, Park Street Kolkata– 700016 Transmission Service Provider – Patran Transmission Company Ltd. Address – 409, 4th Floor, Skipper Corner, 88, Nehru Place, New Delhi - 110019	LILO of both circuits of Patiala-Kaithal 400kV D/c at Patran (Triple snow Bird Conductor) Creation of 2x500 MVA, 400/220 kV Substation at Patran	400 kV D/C 400/220 kV Substation	30 KM 2x500 MVA.	(i) LOI placed on 17.09.2013 (ii) Special Purpose Vehicle acquired on 13.11.2013 (iii) Approval under section 68 on 16.05.2013. (iv) Scheduled Completion Date is 13.05.2016. (v) Tariff adoption approval on 05.08.2014. (vi) License granted on 14.07.2014
6	Eastern Region System	PFCCL	Successful	Purulia PSP(WB) – Ranchi (PG)	400kV D/c	140 KM	(i) LOI placed on 17.09.2013 (ii) Special Purpose Vehicle

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
	Strengthening Scheme – VII Estimated Cost as provided by Empowered Committee: Rs. 370 crore		Bidder - Sterlite Grid Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi-110065 Transmission Service Provider – Purulia & Kharagpur Transmission Company Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi-110065	Kharagpur (WBSTCL) – Chaibasa (PG)	400kV D/c	170 KM	acquired on 09.12.2013 (iii) Approval under section 68 on 29.05.2013. (iv) Scheduled Completion Date is 09.03.2016. (v) Tariff adoption approval on 20.08.2014 (vii) License granted on 30.05.2014.
7	Eastern Region System Strengthening Scheme – VI Estimated Cost as provided by Empowered Committee:	PFCCCL	Successful Bidder - Essel Infraprojects Ltd. Address – 513/A, 5th Floor, Kohinoor	Creation of 2x500 MVA, 400/220 kV GIS Substation at Darbhanga with space for future extension (1x500 MVA) Creation of 2x200 MVA,	400/220 kV GIS Substation	2x500 MVA 2x200	(i) LOI placed on 17.10.2013 (ii) Special Purpose Vehicle acquired on 10.12.2013 (iii) Approval under section 68 on 24.07.2013. (iv) Scheduled Completion Date is 01.07.2016. (v) Tariff adoption approval

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
	Rs. 540 crore		City, Kirol Road, LBS Marg, Off Bandra-Kurla Complex, Kurla (West), Mumbai - 400070 Transmission Service Provider – Darbhanga - Motihari Transmission Company Ltd. Address – Essel House, B-10, Lawrence Road, Industrial Area, New Delhi - 110035	400/132 kV GIS Substation at Motihari with space for future extension (1x200 MVA) Muzaffarpur(PG)-Darbhanga 400 kV D/c line with triple snowbird conductor LILO of Barh – Gorakhpur 400 kV D/c line at Motihari, 400kV 2xD/C quad	GIS Substation 400 kV D/C 400 kV D/c	MVA 70 KM 50 KM	on 20.05.2014. (vi) Transmission License granted on 30.05.2014.
8	Part ATS of RAPP U-7&8 in Rajasthan Estimated Cost as provided by Empowered Committee: Rs. 310 crore	PFCL	Successful Bidder - Sterlite Grid Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New	RAPP - Shujalpur 400kV D/C line	400 kV D/c	260 KM	(i) LOI placed on 17.09.2013 (ii) Special Purpose Vehicle acquired on 12.03.2014 (iii) Approval under section 68 on 16.05.2013. (iv) Scheduled Completion Date is 28.02.2016. (v) Tariff adoption approval on 05.08.2014.

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
			Delhi-110065 Transmission Service Provider – RAPP Transmission Company Ltd. Address – C-2 Mira Corporate Suite, Ishwar Nagar, Mathura Road, New Delhi-110065				(vi) Transmission License granted on 31.07.2014.
BIDDING UNDER PROGRESS							
9	Transmission System Associated with DGEN TPS (1200 MW) of Torrent Power Ltd. Estimated Cost as provided by CEA: Rs. 275 crore	PFCL	Successful Bidder: Instalaciones Inabensa S.A. Address: C/Energia Solar, 1 41014 – Sevilla Spain	DGEN TPS – Vadodara 400 kV D/C, Twin Moose line	400 kV D/c	114 KM	Levellized Tariff: Rs. 584.01 Million per Annum (i) Approval under section 68 on 30.01.2014. (ii) Lol issued on 19.05.2014 (iii) Approval of MoP for transfer of SPV obtained on 04.03.2015. (iv) SPV transferred to the successful bidder on 17.03.2015
				Navsari – Bhestan 220 kV D/C line	220 kV D/c	19 KM	
				Establishment of 2x500 MVA, 400/220 kV GIS Substation at Greater Noida (New)	400/220 kV	2x500 MVA	
10	ATS for Tanda Expansion TPS (2X660 MW)	PFCL	-	Tanda TPS –Sohawal 400 kV D/C Line	400 kV D/c	80 KM	(i) RfQ submitted on 31.10.2014 (ii) RfP Issued on 12.01.2015 with last date of
				Sohawal-Lucknow (New) (PG) 400 kV D/C	400 kV D/c	120 KM	

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
	Estimated Cost as provided by Empowered Committee: Rs. 245 crore			Line.			<p>submission on 13.03.2015.</p> <p>(iii) CEA vide letter dated 05.03.2015 intimated to extend the submission of RfP Bids by 4 months.</p> <p>(iv) RfP Bid submission date extended up to 13.07.2015.</p>
11.	Northern Region System Strengthening Scheme – XXXV Estimated Cost as provided by Empowered Committee: Rs. 88 crore	PFCCCL	-	Mohindergarh – Bhiwani 400 kV D/C line	400 kV D/C	55 KM	<p>(i) RfQ issued on 27.12.2014 with last date of submission on 27.01.2015</p> <p>(ii) RfQ stage completed.</p> <p>(iii) RfP details awaited from CTU (Powergrid) for finalization of RfP to be issued to the shortlisted bidders.</p>
12.	System strengthening for IPPs in Chhattisgarh and other generation projects in Western Region Estimated Cost as provided by Empowered Committee: Rs. 823 crore	PFCCCL	-	Gwalior 765/400 kV – Morena 400 kV D/C line	400 kV D/C	50 KM	<p>(i) RfQ issued on 27.12.2014 with last date of submission on 27.01.2015</p> <p>(ii) RfQ stage completed.</p> <p>(iii) Short listing of bidders was declared on 10.03.2015.</p> <p>(i) RfP Issued on 13.04.2015 with last date of submission on 15.06.2015</p>
				Establishment of substation at Morena	400/ 220 kV	2X315 MVA	
				Vindhyachal-IV & V STPP – Vindhyachal Pool 400 kV D/C (Quad) 2nd line	400 kV D/C	15 KM	
				Sasan UMPP – Vindhyachal Pooling station 765 kV S/C line	765 kV S/C	8 KM	
				LILO of one circuit of	765 kV D/C	50 KM	

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
				Aurangabad – Padghe 765 kV D/C line at Pune			
				Raigarh (Kotra) - Champa (Pool) 765 kV 2 nd S/C line	765 kV S/C	100 KM	
				Champa (pool) – Dharamjaigarh 765 kV 2 nd S/C line	765 kV S/C	50 KM	
13.	Additional System Strengthening for Sipat STPS Estimated Cost as provided by Empowered Committee: Rs. 867 crore	PFCCCL	-	Sipat – Bilaspur Pooling Station 765 kV S/C line	765 kV S/C	25 KM	(i) RfQ issued on 31.12.2014 with last date of submission on 30.01.2015 (ii) RfQ stage completed. (iv) Short listing of bidders was declared on 10.03.2015.
				Bilaspur Pooling Station - Rajnandgaon 765 kV D/C line	765 kV D/C	180 KM	(i) RfP details from CTU (Powergrid) was received on 23.03.2015. (ii) RfP documents issued on 06.04.2015 with last date of submission on 08.06.2015.
14	Additional System Strengthening Scheme for Chhattisgarh IPPs – Part B Estimated Cost as provided by Empowered Committee: Rs. 1930 crore	PFCCCL	-	Raipur (Pool) – Rajnandgaon 765 kV D/C line	765 kV D/C	60 KM	(i) RfQ issued on 31.12.2014 with last date of submission on 30.01.2015 (ii) RfQ stage completed.
				Rajnandgaon – New Pooling station near Warora 765 kV D/C line	765 kV D/C	270 KM	(v) Short listing of bidders was declared on 10.03.2015.
				Establishment of new	765/400 kV	2x1500	(i) RfP Issued on 13.04.2015 with last date of

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
				substation near Rajnandgaon		MVA	submission on 15.06.2015
BIDDING UNDER ABEYANCE							
15	Northern Region System Strengthening Scheme – XXXIII Estimated Cost as provided by Empowered Committee: Rs. 260 crore	PFCCL	-	Ballabgarh-Greater Noida (New) 400 kV D/C line 5 km on multi circuit towers from Ballabgarh S/s.	220 kV D/c	50+5 M/c	Under Abeyance CEA vide letter dated 19.11.2013 intimated to keep the bidding process in abeyance till, the dispute in PPA between Essar Power (Jharkhand) Ltd and Noida Power Company Ltd. is resolved
BIDDING YET TO COMMENCE							
16.	Additional inter-Regional AC link for import into Southern Region i.e. Warora – Warangal and Chilakaluripeta - Hyderabad - Kurnool 765kV link Estimated Cost as provided by Empowered Committee: Rs. 8570 crore	PFCCL	-	Establishment of 765/400kV substations at Warangal (New) with 2x1500 MVA transformers and 2x240 MVAR bus reactors Warora Pool – Warangal (New) 765kV D/c line with 240 MVAR switchable line reactor at both ends. Warangal (New) – Hyderabad 765 kV D/c	765/400kV 765kV 765 kV	 350 KM 160 KM	SPV incorporation under progress. RfQ input from CTU is awaited.

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
				line with 330 MVAR switchable line reactor at Warangal end.			
				Warangal (New) – Warangal (existing) 400 kV (quad) D/c line.	400 kV	10 KM	
				Hyderabad – Kurnool 765 kV D/c line with 240 MVAR switchable line reactor at Kurnool end.	765 kV	170 KM	
				Warangal (New) – Chilakaluripeta 765kV D/c line with 240 MVAR switchable line reactor at both ends.	765 kV	250 KM	
				Cuddapah – Hoodi 400kV (quad) D/c line with 63 MVAR switchable line reactor at both ends.	400 kV	200 KM	
17.	Common Transmission System for Phase-II Generation Projects in Odisha and Immediate Evacuation System for OPGC (1320 MW) Project in Odisha	PFCL	-	OPGC (IB TPS) – Jharsuguda (Sundargarh) 400kV D/C line with Triple Snowbird Conductor	400 kV	50 KM	SPV incorporation under progress RfQ input from CTU is awaited.
				Jharsuguda	765 kV	350 KM	

Details of Transmission Projects Through Tariff Based Competitive Bidding Route

BPC – PFC Consulting Ltd.

SI No	Name of the project	Nodal agency for the bidding process	Implementing Agency/ Transmission service provider	Scope of work	Nominal Voltage (kV) / type	Length (km) / MVA	Remarks
	Estimated Cost as provided by Empowered Committee: Rs. 2748 crore			(Sundargarh) – Raipur Pool 765 kV D/C line			

NOTE:

1. Details of the status of the Under-construction projects may please be obtained from CEA.