

मारत सरकार / Government of India विद्युत मंत्रालय / Ministry of Power केंद्रीय विद्युत प्राधिकरण / Central Electricity Authority प्रणाली योजना एवं परियोजना मूल्यांकन विभाग System Planning & Project Appraisal Division सेवा मवन आर के पुरम / Sewa Bhawan, R.K. Puram नई दिल्ली / New Delhi – 110 066 वेबसाइट / Website : <u>www.cea.nic.in</u>



No. 100/1/EC (32) 2013-SP&PA/ 821 - 27

Dated : 31st March, 2015

- To
- Shri Major Singh, Member (Power System), Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- Ms Jyoti Arora, Joint Secretary (Transmission), Ministry of Power, Shram Shakti Bhawan, Ragi Marg, New Delhi-110001.
- Adviser (Energy), NITI Aayog, Yojana Bhawan, Parliament Street, New Delhi-110001.
- Shri Ravinder,
 Former Chairperson & Member(PS),
 CEA,
 147, Bhagirathi Apartment,
 Sector-9, Rohini, Delhi-110085.

- Member (Economic & Commercial), Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi-110066.
- Shri I.S. Jha, Director (Projects), POWERGRID, Saudamini, Plot No.2, Sector-29, Gurgaon-122001.
- Shri V.V.R.K. Rao, Former Chairperson, CEA, B-9/C, DDA Flats, Maya Puri, New Delhi-110064.

Subject : 34th meeting of the Empowered Committee on Transmission – meeting notice and agenda

Sir.

Carry 7 .

The 34th meeting of the Empowered Committee on Transmission is proposed to be 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, 2nd Floor, Sewa Bhawan, R.K. Puram, New Delhi.

The detailed agenda for the meeting is enclosed. The agenda has also been uploaded in the CEA website <u>www.cea.nic.in</u> (path to access – Home page – wing specific documents/Power System wing/Meeting of the Empowered Committee on Transmission/Meeting Notice and Agenda). Kindly make it convenient to attend the meeting.

Yours faithfully.

(K.K. Arva)

Member Secretary/Chief Engineer (SP&PA)

Agenda note for the 34th meeting of the Empowered Committee on Transmission

Date and Time: 13th April, 2015 (Monday) at 3:00 PM

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

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

Ministry of Power Vide letter no. 4/14/2014-PG dated 12th February, 2015 had issued revised procedure for allocation of Inter State Transmission Project(s) under Tariff Based Competitive Bidding (TBCB). As per the revised procedure, based on the recommendation of the Empowered Committee, Ministry of Power would finalize the Bid Process Coordinators (BPCs) for award of the transmission projects through TBCB route.

For information of the members please.

2.0 Re-constitution of the "Empowered Committee" in accordance with guidelines for encouraging competition in development of transmission projects.

Ministry of Power Vide letter no. 15/3/2010-Trans dated 4th March, 2015 have reconstituted 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 |

3.0 Implementing of the schemes after approval by 33rd Empowered Committee:

The following schemes were approved in the 33rd meeting of EC for implementation under TBCB as well as under regulated tariff mechanism:

| Sl. No. | Name of the schemes | Name of the BPCs/ Regulated tariff mechanism |
|------------|---|--|
| 1. | Inter State Transmission System for | Initially under TBCB but changed to |
| | 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 | Regulated tariff mechanism |

| | from Sector 47 to 400/220kV Panchkula substation of Powergrid as a inter State line | |
|-----|---|--|
| 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 | PFCCL |
| 7. | HVDC Bipole link between Western region (Raigarh, Chhattisgarh) and Southern region (Pugalur, Tamil Nadu and Madakkathara, in Kerala) | Initially under TBCB but changed to 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 | Initially under TBCB but changed to 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 | |
| | Phase-II Generation Projects in Odisha (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line | PFCCL |
| | (i) Jharsuguda (Sundargarh) – Raipur | PFCCL Regulated tariff mechanism |
| 13. | (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line (ii) LILO of both circuits of Rourkela - | |
| 13. | (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line (ii) LILO of both circuits of Rourkela - Raigarh 400 kV D/C line (2nd line) Immediate Evacuation System for OPGC (1320 MW) Project in Odisha | Regulated tariff mechanism PFCCL (Merged with scheme of |
| | (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line (ii) LILO of both circuits of Rourkela - Raigarh 400 kV D/C line (2nd line) Immediate Evacuation System for OPGC (1320 MW) Project in Odisha (clubbed with 12 (i) Transmission System Strengthening in Indian System for transfer of power | Regulated tariff mechanism PFCCL (Merged with scheme of |
| | (i) Jharsuguda (Sundargarh) – Raipur Pool 765 kV D/C line (ii) LILO of both circuits of Rourkela - Raigarh 400 kV D/C line (2nd line) Immediate Evacuation System for OPGC (1320 MW) Project in Odisha (clubbed with 12 (i) 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 | Regulated tariff mechanism PFCCL (Merged with scheme of 12(i)) |

4.0 Briefing by BPCs on the schemes under bidding process

RECTPCL and PFCCL may brief the Empowered Committee about progress of schemes that are under bidding process.

5.0 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)

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 | Koteshwar Pooling Station - Rishikesh 400kV D/C (Quad) line | 235 | 294 |
| 2 | 2 Nos. of bays at 400 kV Koteshwar Pooling Station | | 12.5 |
| 3 | 2 Nos. of bays at 400 kV Rishikesh S/S | | 12.5 |
| | Total | L | 319 |

Note:

- PTCUL to provide space for 2 Nos. of bays at their 400 kV Rishikesh S/S
- POWERGRID to provide space for 2 Nos. of bays at their 400 kV Koteshwar pooling station
- POWERGRID to provide one no. of 220 kV bay at their 400/220kV Roorkee Substation

Members may like to deliberate.

(2) LILO of 220kV Dhauliganga - Pithoragarh (PG) for construction of Proposed 220kV GIS S/s at Jauljibi, Pithoragarh & Proposed 2x100 MVA, 220/132kV GIS s/s at Almora in Kumaon region

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:

| SI. No. | Transmission Scheme | Capacity in MVA/ ckt. km. | Estimated Cost (Rs. Crore) |
|------------|---------------------------------------|---------------------------------|----------------------------------|
| | Phase II | | |
| | Creation of 400/220kV, 2X315MVA | | |
| 1 | GIS Substation in Jauljivi area under | | 94 |
| | ISTS by LILO of both ckt. of 400 kV | | |

| | Dhauliganga-Bareilly (PGCIL) line | | |
|---|---|----|-----|
| | (presently charged at 220 kV) at 400kV | | |
| | Jauljivi (ISTS). The 400 kV Jauljivi S/S | | |
| | to have the following provisions: | | |
| | 400 kV side (a) 2 nos. of 400 kV line bays for 400kV D/C to Bareilly (b) 2 nos. of 400 kV ICT bays (c) Space provision for 2 future bays 220 kV side (a) 8 nos. of 220 kV line bays (Pithorgarh-2, Almora-2, Baram (Jauljivi)-2, Dhauliganga-2) (b) 2 nos. of ICT bays (c) 1 No. of 220kV Bus reactor bay (25 MVAr Reactor already available at Dhauliganga shall be shifted to Baram(Jauljivi) S/s) | | |
| 2 | Charging of Baram(Jauljivi)–Bareilly D/C line at 400kV level | _ | - |
| 3 | 220 kV Jauljibi (PTCUL) under Phase I would be connected to Baram(Jauljivi) (ISTS)400/220kV substation through 220 kV D/C line (line and the S/S under PTCUL scope) | 10 | 3 |
| 4 | The existing LILO of Dhauliganga- Pithoragarh (PGCIL) line at 220KV Jauiljibi S/s would be disconnected and connected to Baram(Jauljivi)400/220kV ISTS substation under ISTS | 10 | 3 |
| 5 | Diversion of Dhauliganga-Bareilly 400kV D/c line(operated at 220kV) at Bareilly end from CB Ganj to Bareilly(PGCIL)-To be finalised" | - | - |
| | Total | | 100 |

Members may like to deliberate.

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

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:

| SI. No. | Transmission Scheme | Capacity in MVA/ ckt. km. | Estimated Cost (Rs. Crore) |
|------------|---|------------------------------|----------------------------------|
| 1 | Creation of 400 kV level at Aligarh substation by adding 2x1500 MVA 765/400 kV ICT | 3000 | 102 |
| 2 | Aligarh – Prithala, 400 kV D/C Quad line | 232 | 290 |
| 3 | Prithala – Kadarpur 400 kV D/C Quad line | 112 | 140 |
| 4 | Kadarpur – Sona Road 400 kV D/C Quad line | 17 | 21 |
| 5 | LILO of Gurgoan – Manesar D/C line at Sona Road S/S | 10 | 12.5 |
| 6 | Neemrana – Dhonanda(HVPNL) 400 kV D/C Quad line | 166 | 208 |
| 7 | Creation of 400/220kV, 2X500 MVA substations at Kadarpur in Gurgaon area | | 320 |
| 8 | Creation of 400/220kV, 2X500MVA substations at Sona Road in Gurgaon area | | 332 |
| 9 | Creation of 400/220kV, 2X500MVA substations 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. | - | _ |
| | Total | | 1746 |

Members may like to deliberate.

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

The transmission scheme has been approved in the 35^{th} Standing Committee on Power System Planning in Northern Region held on 3/11/2014. The scope of the transmission scheme is as under:

| SI. No. | Transmission Scheme | Capacity in MVA/ ckt. km. | Estimated Cost (Rs. Crore) |
|------------|--|---------------------------------|----------------------------------|
| 1 | LILO of one ckt. of Sikar- Neemrana line at Babai | 2 | 1.8 |
| 2 | Babai – Bhiwani D/C line | 252 | 227 |
| | Total | | 227 |

Members may like to deliberate.

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

The transmission scheme has been approved in the 1^{st} -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 - Deoghar D/C line | 120 | 27 |

Members may like to deliberate.

- 6.0 Constitution of the Bid Evaluation Committees (BEC's) for the new transmission schemes
- (1) Bid Evaluation Committee (BEC) for "Additional inter-Regional AC link for import into Southern Region" - PFCCL

| Sl. | Name | Designation |
|-----|--|-----------------|
| No. | | _ |
| 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 | Member (CEA) |

| | Phone No. 011-26711015, Mobile: 8376817933 | |
|----|--|------------|
| 6. | Chairman of SPV constituted by PFCCL & | Convener - |
| | RECPTCCL | Member |

(2) Bid Evaluation Committee (BEC) for "Strengthening of transmission system beyond Vemagiri" - RECTPCL

| Sl. | Name | Designation |
|-----|---|----------------------|
| No. | | |
| 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 PFCCL & RECPTCCL | Convener - Member |

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

(3) Bid Evaluation Committee (BEC) for "NER System Strengthening Scheme – II" - RECTPCL

(4) Bid Evaluation Committee (BEC) for "Common Transmission System for Phase-II Generation Projects in Odisha" - PFCCL

| SI. 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 | Member |

| | Phone No. 011-26732688, 26732668, Mobile: 9350981062 | |
|----|---|----------------------|
| 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 PFCCL & RECPTCCL | Convener - Member |

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

7.0 Any other item.

Any other item with the permission of Chair.
