



भारत सरकार / **Government of India**
विद्युत मंत्रालय / **Ministry of Power**
केन्द्रीय विद्युत प्राधिकरण / **Central Electricity Authority**
सदस्य (विद्युत प्रणाली) का कार्यालय
Office of Member (Power Systems)
सेवा भवन, आर. के. पुरम, नई दिल्ली-110066
Sewa Bhawan, R. K. Puram, New Delhi-110066



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No. 100/1/EC/2012-SP&PA/612-624

Dated: June 06, 2012

To

1. Shri S. Jayaraman
Member, CERC
Chanderlok Building,
36 Janpath,
New Delhi - 110001
2. Dr. Jaipal Singh
Member (E&C),
Central Electricity Authority
Sewa Bhawan, R.K. Puram,
New Delhi - 110066
3. Joint Secretary (Trans.),
Ministry of Power,
Shram Shakti Bhawan, Rafi Marg,
New Delhi - 110001
4. Shri I.A. Khan
Adviser, Planning Commission,
Yojana Bhawan, Parliament Street,
New Delhi - 110001
5. Director (Transmission)
Ministry of Power,
Shram Shakti Bhawan, Rafi Marg,
New Delhi - 110001
6. Shri I. S. Jha
Director (Projects), POWERGRID
Saudamini, Plot No. 2, Sector-29,
Gurgaon - 122001
7. Secretary, CERC
Chanderlok Building,
36, Janpath,
New Delhi-110001
8. Shri V. V. R. K. Rao
Former Chairman, CEA
B-9/C, DDA Flats, Maya Puri,
New Delhi -110064
9. Shri A. K. Mago
Former Chief Secretary(Govt. of
Maha.),
E-7, Nizamuddin West, New Delhi
(Tel. 9811088098/24354747).

Subject: **Meeting Notice** - 29th Meeting of the "Empowered Committee"

Sir,

The 29th Meeting of the "Empowered Committee" constituted in accordance with guidelines for encouraging competition in development of transmission projects, would be held on **June 15, 2012(Friday) at 3.00 PM** under the Chairmanship of Shri S. Jayaraman, Member, CERC.

The meeting would be held in the Conference Room of CERC, Chanderlok Building, 36 Janpath, New Delhi.

The following would be discussed in the meeting:

- (1) Review of progress of transmission projects under bidding process
- (2) Review of transmission projects, which have been notified, for start of bidding process.
- (3) Issues related to revision of Standard Bid Documents(SBD) for aligning with the POC(Point of Connection) mechanism of sharing of transmission charges.
- (4) New transmission schemes to be taken up through tariff based competitive bidding.
- (5) Constitution of the Bid Evaluation Committees
- (6) Any other item.

Detailed Agenda note is given at **Annex - Agenda**.

Kindly make it convenient to attend the meeting.



(Ravinder)
Member (Power System)

Copy to:

- i) CMD, REC, Core-4 Scope Complex, 7 Lodhi Road, New Delhi-110003
- ii) CMD, PFC, Urjanidhi, 1 Barakhmba Lane, New Delhi -110001
- iii) Shri S. K. Gupta, CEO, RECTPCL, Core-4 SCOPE Complex, 7 Lodhi Road, New Delhi – 110 003. (Fax-011-24102576)
- iv) Shri N. D Tyagi, CEO, PFC Consulting Ltd, First Floor, Urjanidhi, 1 Barakhmba Lane, New Delhi -110001 (Fax- 011-23456170)

Agenda note for the 29th meeting of the “Empowered Committee”

Date and Time: June 15, 2012 (Friday) at 15:30 Hr.

Venue: CERC, Chanderlok Building, 36 Janpath, New Delhi, New Delhi

1.0 Review of progress of transmission projects under bidding process

1.1 Transmission system associated with DGEN TPS (1200 MW) of Torrent Power Ltd. AND Inter-connection between Srinagar (Uttrakhand) and Tehri

Scope:

Transmission System	Estimated Line length	Estimated cost (Rs crores)
i) DGEN TPS-Vadodara 400 kV D/C (twin Moose)	100 km	120
ii) Two no. 400 kV line bays (GIS) at Vododara (PG) S/S		20
iii) Navsari-Bheestan 220 kV D/C line	15 km	11
iv) Two no. 220 kV line bays at Navsari (PG) S/S		4
v) Two no. 220 kV line bays at Bheestan (GETCO) S/S (new S/S at Popda(Bheestan))		4
vi) Srinagar-Tehri Pooling station 400 kV D/C (Quad)	25 km	61
vii) * Two no. 400 kV line bays at Srinagar (PTCUL) S/S		*
viii) * Two no. 400 kV (GIS) line bays at Tehri Pooling Station (PG)		*
Estimated cost (Rs crores)		Rs. 220 Cr.

Status:

1. This scheme is under bidding by PFC Consulting Ltd.
2. RfQ stage of bid process for selection of TSP for the transmission project has been completed.
3. CTU to confirm availability of space for line bays as per above scope, and give technical specifications to PFC Consulting Ltd as a pre-requirement for starting the RfP stage. A letter from PFCCL dated 31-05-2012 is attached.
4. Estimated cost of this scheme has reduced to Rs. 220 Crore from earlier Rs. 453 Cr. This is due to – (i) due to change in location of Bheestan and Tehri P.S., lengths of the corresponding lines have reduced, and (ii) the 400kV bays at Srinagar and Tehri PS are now proposed to be built under regulated tariff (RT) mechanism instead of TBCB earlier.

Points for Discussion/consideration of the Empowered Committee:

(i) Latest status of:

- the generation projects,
- signing of BPTA/LTTA, submission of BG
- signing of TSA by all the beneficiaries of Northern and Western regions

(ii) Proposal to implement the 400kV bays at Srinagar and Tehri PS under regulated tariff mechanism:

- The 400 kV line bays Srinagar and Tehri PS were to be implemented through Tariff based Competitive Bidding (TBCB) mechanism along with the 400 kV Srinagar-Tehri Pooling Station D/c line. POWERGRID has informed that due to space constraints at Srinagar S/s the proposed 400kV line bays at Srinagar would be required to be constructed as GIS type alongwith extension of 400 kV AIS buses through GIS bus duct at Srinagar S/s. Thus Srinagar S/s would become a hybrid substation and implementation of such station will be for the first time in India requiring detailed engineering to be carried out and as such cost estimation of this would be difficult at the bidding stage.
- Regarding provision of 400 kV GIS line bays at Tehri Pooling Station, POWERGRID has stated that the 400 kV 'double bus' scheme has been adopted at Tehri Pooling Station, whereas, at Srinagar S/s 'double main and transfer bus' scheme is implemented. This would necessitate separate engineering for integrating the protection & control facilities at both substations. Further at Tehri Pooling Station substation automation system with OPGW terminal equipments is being implemented which would require its integration with terminating line bays.
- Considering the above difficulties, the decision for implementation of 400 kV line bays for Srinagar-Tehri Pooling Station D/c line through Tariff Based Competitive Bidding is reviewed and it is proposed that these line bays may be implemented by Powergrid as extension of existing substations. Accordingly, the above work may be excluded from the scope of Tariff Based Competitive Bidding. The same will be intimated to the NR constituents in the next Standing Committee Meeting on Power System Planning.

(iii) Issues raised by PFC

- (i) Whether RFP is to be issued based on existing standard RFP & TSA ?
- (ii) Technical Specification, if any
- (iii) Elements of transmission scheme which are pre-required for declaring COD and percentage of quoted transmission charges recoverable on scheduled COD of an element.
- (iv) List of long term transmission customers along with Allocated Project Capacity in (MW).
- (v) Write up & specifications for OPGW.
- (vi) SLD & layout of existing substation where bays are to be built by the TSP.

1.2 Evacuation System for Vizag-Vemagiri Projects- Hinduja (1040 MW)

Scope:

Transmission Scheme	Estimated Line length	Estimated cost (Rs crores)
i) Generation switchyard - Vemagiri-II Pooling Station 400 kV D/c (Quad) line	175	315
ii) Khammam (new)-Nagarjun Sagar 400 kV D/C line	150	165
Estimated cost (Rs crores)		480

Status:

1. This scheme is under bidding by REC Transmission Projects Limited.
2. RfQ for the scheme has been issued.
3. CTU had informed that the Hinduja generation developer is not coming forward to sign BPTA/LTAA and submission of the requisite Bank Guarantee.
4. The bidding process has been deferred as per the decision taken in 28th Empowered Committee Meeting.

Points for Discussion/consideration of the Empowered Committee:

1. CTU to give latest status of the generation projects, signing of BPTA/LTAA, submission of BG etc.
2. REC Transmission Projects Limited to give the latest status during the meeting.
3. To drop the item no. (i) i.e. Hinduja Generation switchyard - Vemagiri-II Pooling Station 400kV Quad D/C line from the scope of this scheme and replace it with Srikakulam PP – Vemagiri-II 765kV D/C line.
4. To change name of the scheme to 'System Strengthening for Vizag – Vemagiri Projects'.
5. Accordingly, the Gazette notification would need to be modified for change in name and scope of the scheme.

6. Revised name, scope and justification are given below:

Name of scheme: 'System Strengthening for Vizag – Vemagiri Projects'

Scope:

Transmission Scheme	Estimated Line length	Estimated cost (Rs crores)
(i) Srikakulam PP - Vemagiri-II Pooling Station 765kV D/C line	350	1000
(ii) Khammam (new)-Nagarjun Sagar 400 kV D/C line	150	180

Transmission Scheme	Estimated Line length	Estimated cost (Rs crores)
Estimated cost (Rs crores)		1180

Justification/Explanation:

A large number of generation projects based on imported coal based, envisaged under private sector for capacity addition during 12th Plan in Southern Region. However it is experienced that the progress of implementation of IPP generation projects in SR has slowed down due to coal availability and its prices. As a consequence of this and uncertainty of Krishnapatnam UMPP, Southern Region may need import of huge quantum of power which needs augmentation of existing/under implementation/planned inter-regional links. In view of this, the above transmission line was agreed in the 33rd meeting of the Standing Committee on Power System Planning of Southern Region held on 20th October, 2011 at NRPC, New Delhi.

7. CTU to provide 2 Nos of 765 kV bays at Vemagiri Pooling Station and 2 Nos of 765 kV bays at Srikakulam Pooling Station as augmentation work for their S/Ss.

2.0 Review of transmission projects, which have been notified, for start of bidding process.

2.1 The scheme – “Transmission System associated with IPPs of Vemagiri Area- Package-B”:

With the implementation of Srikakulam Pooling Station – Vemagiri Pooling Station 765 kV D/c line, Southern Region would normally be importing power from Eastern Region and therefore strengthening beyond Vemagiri is required. Towards this the following schemes that were initially planned as evacuation arrangement for Gas based projects in Vemagiri and are already notified by GOI may be taken up for TBCB even though there is still an uncertainty of availability of gas for these project:

- i) Vemagiri Pooling Station – Khammam – Hyderabad 2nd 765 kV D/c line *(covered under “Transmission System associated with IPPs of Vemagiri Area – Package B” in the 25th Empowered Committee meeting).*

Accordingly, it is proposed that this TBCB process for implementation of this scheme may be initiated.

Name of Scheme: Transmission System associated with IPPs of Vemagiri Area- Package-B

Scope:

Transmission Scheme	Estimated Line length	Estimated cost (Rs crores)
i) Vemagiri Pooling Station – Khammam 765kV 1xD/c (2 nd ckt.) line.	250 km	700
ii) Khammam – Hyderabad 765 kV 1xD/c (2 nd ckt.) line.	250 km	700
Estimated Cost Rs. Crore		1400

Status:

- This scheme is with REC Transmission Projects Limited.
- Bidding process may be started.

Note:

- CTU to give status of substations at Vemagiri PP Khammam & Hyderabad.
- CTU to provide 2 Nos of 765 kV bays at Vemagiri Pooling Station, 4 Nos of 765kV bays at Khammam and 2 Nos of 765kV bays at Hyderabad.

2.2 The scheme – **“Transmission System associated with IPPs of Nagapattinam/Cuddalore area - Package-C”**:

This scheme has been notified and its BPC is PFCCL. This scheme was planned for evacuation of power from generation projects coming in Nagapattinam/Cuddalore area. Now only one project i.e. ILFS is coming in this area, and as such there is a need to review this scheme. This scheme has following transmission elements:

- (i) Madhugiri – Narendra 765kV D/C line
- (ii) Kolhapur –Padghe 765kV D/C line (one ckt via Pune)

These lines were planned considering a number of new generation projects in SR and consequential requirement of export from SR. With delay / dropping of generation projects and changed scenario, the Kolhapur – Padghe line may not be needed as of now and may be deleted from this package. The Madhugiri-Narendra line has been included in the ATS for Kudgi generation in Agenda no. 4, below.

2.3 The scheme – **“Transmission System associated with IPPs of Vemagiri Area - Package-C”**:

This scheme has been notified and its BPC is RECTPCL. This scheme was planned for exporting power from SR in considering a number of gas based generation projects coming in Vemagiri area. This scheme has following transmission elements:

Wardha – Jabalpur Pooling Station 765kv 1x D/c line

With delay / dropping of generation projects in SR this line would now be useful for importing power in SR. Accordingly, it is proposed that this TBCB process for implementation of this scheme may be initiated.

Name of Scheme: “Transmission System associated with IPPs of Vemagiri Area - Package-C”

Scope:

Transmission Scheme	Estimated Line length	Estimated cost (Rs crores)
(i) Wardha – Jabalpur Pooling Station 765kv 1x D/c line	350 km	1000
Estimated Cost Rs. Crore		1000

Status:

- This scheme is with REC Transmission Projects Co. Limited.
- Bidding process may be started.

Note:

- CTU to give status of 765kV substations at Jabalpur and Wardha
- CTU to provide 2 Nos of 765 kV bays each at Wardha S/S and Jabalpur Pooling Station.

3.0 Issues related to revision of Standard Bid Documents(SBD) for aligning with the POC(Point of Connection) mechanism of sharing of transmission charges.

- 3.1 The existing RfQ, RfP and TSA documents for Tariff Based Competitive Bidding are based on the regional postage stamp method of sharing of transmission charges. The sharing of transmission charges of the ISTS is now based on the methodology of Point of Connection(PoC) after the implementation of the new mechanism from 1-07-2011. Using existing SBD under the present PoC based mechanism is causing considerable difficulties in the carrying out the bidding process. Now the charges are not to be recovered individually by each TSP, the “long term customers“ now are all the utilities, drawing entities and generators using the ISTS (now known as DIC), “lead long term customer “ cannot be identified and existing SBD does not have provisions to accommodate these new concepts. In view of the above and other changes the existing RfQ/RfP and TSA forming part of SBD need to be revised urgently so that the bidding of the schemes already in process or pipeline is not delayed.
- 3.2 A draft amendment in the SBD has been submitted to MoP. This matter was taken up in previous meetings of the EC also, wherein, Chairperson, EC stated that MoP should expedite the modifications to the SBD (RfP and TSA) aligning with the PoC mechanism. The same is to be reiterated.

3.3 In the absence of the revision, following para was added in the TSA of “Transmission System associated with the IPPs of Nagapattinam/Cuddalore Area- Package A” :

“H) CERC in its order for petition No. 154/MP/2011 dated December 13, 2011 has observed the following:

“Regarding the prayer of petitioner (i.e. PFCIL) for granting approval for inclusion of transmission system under the TSA to be notified by the Commission, it is clarified that since these schemes are part of coordinated planning of transmission system by CTU & CEA, these transmission systems shall be part of TSA approved by this Commission under PoC Charges Regulation.”

This observation of CERC is applicable to this transmission scheme i.e. “Transmission System associated with the IPPs of Nagapattinam/Cuddalore Area- Package A” also. Accordingly as and when this scheme becomes implementable, the transmission charges will be pooled and allocated to all system users as per CERC (Sharing of Transmission Charges and Losses) Regulation 2010, as applicable from time to time (PoC methodology). Further, CERC orders in petition No. 154/MP/2011 dated December 13, 2011 which covers “Transmission System associated with the IPPs of Nagapattinam/Cuddalore Area- Package A” will prevail over this Agreement.”

3.4 Issues:

(i) How to proceed with new projects in the absence of revised SBDs?

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

4.1 Name of the Scheme: ‘Northern Region Package-“A”’(of 2012):

This package was discussed in the 28th Empowered Committee meeting held on 17-02-2012. It was decided that the package would again be poised in the 29th meeting of Empowered Committee to confirm commissioning schedule for confirming schedule of RAPP U7 & 8 generation.

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Cr.)	Explanation
A. Bairasuil HEP – Sarna 220kV line			
(i) Bairasuil HEP – Sarna 220kV D/c	80	70	See 4.1.1 below
B. Transmission System for Patran 400kV S/S			
(i) Creation of 2x500 MVA, 400/220		100	See 4.1.2 below

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Cr.)	Explanation
kV Substation at Patran (ii) LILO of both circuits of Patiala-Kaithal 400kV D/c at Patran (Triple snow Bird Conductor) (iii) 400kV Bays (iv) 220kV Bays (v) Space for spare Bays	30 6 8 400kV: 6 no. 220kV: 6 no.	100	
C. ATS of Unchahar TPS i) Unchahar – Fatehpur 400kV D/C line	60	70	See 4.1.3 below
D. Part ATS of RAPP U-7&8 in Rajasthan (i) RAPP - Shujalpur 400kV D/C line (ii) Bays at Shujalpur	260	310	See 4.1.4 below
Estimated cost (Rs crores)		650	

Explanation 4.1.1: Bairasuil HEP – Sarna 220kV D/c

The system planned for improving reliability of evacuation of power from Bairasuil HEP as the existing evacuation lines are very old and facing number of outages. The system has been approved in the Standing Committee as regional strengthening scheme.

- Bairasuil – Sarna 220 kV D/c line bunched at both ends.
- Provision of 1 no. of 220 kV bay at Bairasuil by NHPC
- Provision of 1 no. of 220 kV bay at Sarna (PSTCL) by POWERGRID or PSTCL – CTU to coordinate

Note:

- CTU to coordinate bays at Bairasuil HEP by NHPC and Sarna S/S by PSTCL/POWERGRID

Explanation 4.1.2: Transmission System for Patran 400/220kV S/S

The above system has been planned as regional strengthening for improving power supply arrangement in Patiala /Sangrur district of Punjab.

- Establishment of new 400/220 kV S/s with 2x500 MVA ICTs at Patran
- LILO of both circuits of Patiala-Kaithal 400kV D/c line- (Triple snow Bird Conductor)

Note:

- CTU to confirm the requirement for 6 no. of 400kV bays and 8 no. of 220kV bays at Patran
- CTU to confirm requirement of space for 220kV and 400kV spare bays at Patran 400/220kV S/S
- CTU to provide tower locations in and around Patran for deciding location of the new S/S.

Explanation 4.1.3: ATS of Unchahar TPS of NTPC

NTPC has proposed to expand the existing generation of 5x210 MW by 1x500 MW. NTPC has indicated that expansion project is likely to be commissioned by March, 2015.

NTPC have indicated that they have applied for LTA on behalf of their beneficiaries i.e constituents of Northern region which has been agreed by the beneficiaries of NR in the Standing Committee meeting.

- Unchahar-Fatehpur 400kV D/c

Note:

- CTU to confirm availability of 2 no. 400kV bays at Unchahar switchyard of NTPC
- CTU to provide bays at POWERGRID's Fatehpur S/S

Explanation 4.1.4: Part ATS of RAPP U-7&8 in Rajasthan

RAPP – Shujalpur 400kV D/C line is part of transmission system for RAPP U7&8 of NPCIL. The other line i.e. RAPP – Jaipur(South) with one circuit LILO at Kota is being implemented by POWERGRID. The RAPP – Shujalpur 400kV D/C line was earlier identified to be implemented through TBCB route (as RAPP-Nagda line).

Note:

- CTU to confirm availability of 2 no. 400kV bays at RAPP 7&8 switchyard
- CTU to confirm bays at POWERGRID's Shujalpur S/S
- CTU to confirm requirement of line reactors for the above line (50 MVAR on each circuit at each end)
- CTU to confirm estimated length and cost of the scheme
- CTU to confirm schedule of RAPP U7&8 generation

4.2 Name of Scheme : HVDC Bipole Strengthening in Southern Region

4.2.1 Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. In Crores)
i) Establishment of a New Pugalur HVDC terminal (2500 MW) with 400kV Switchyard. ii) Establishment of a New Hyderabad HVDC terminal (2500 MW) with 400kV Switchyard * - New Hyderabad HVDC station to be located near Hyderabad * - New Pugalur HVDC station to be located near Pugalur	2500 MW	2000
iii) Space for six no. of future line bays at each of New Hyderabad and New Pugalur HVDC stations	--	--
iv) New Pugalur HVDC – New Hyderabad HVDC bipole of \pm 500kV, 2500 MW	900	1350
v) New Pugalur HVDC – Udumalpet 400kV quad D/C line	100	200
vi) New Pugalur HVDC – Pugalur 400kV quad D/C line	100	200
vii) New Pugalur HVDC – Tuticorin Pooling Station 400kV quad D/C line	150	300
viii) New Hyderabad HVDC – Hyderabad(765/400kV PG S/S) 400kV quad 2xD/C line	50	200
ix) New Hyderabad HVDC – Kurnool (765/400kV PG S/S) 400kV quad D/C line	200	400
Estimated Cost Rs. Crore		4650

Explanation:

A total of about 33500 MW of generation capacity from conventional resources and about 10000 MW of non-conventional (mainly wind) capacity (Tamil Nadu - 6000, Karnataka - 500 & Andhra Pradesh - 3500) is in the horizon to be added in

Southern Region during 12th Plan period. Presently SR is having a peak deficit of more than 5000 MW. Load in SR is expected to increase atleast by another 20000 MW in 12th Plan. Considering the uncertainties of generation addition, fuel availability and dispatchable power from wind projects, a need is felt to plan a system that would enable – (i) import of power into SR under deficit scenario, (ii) export in case of surplus, (iii) operate the grid under intermittency of wind generation to meet power requirements of SR constituents and also to decongest the grid.

In view of the above, provision of an HVDC bipole line within SR grid was therefore agreed as system strengthening scheme which would cater to above needs during the 34th meeting of the Standing Committee on Power System Planning of Southern Region held on 16th April, 2012 at Hyderabad. This system is planned to be linked with already planned Wardha – Hyderabad 765kV D/C line & Srikakulam Pooling Station – Vemagiri-II 765kV D/C line that was earlier agreed and is also very helpful in case of import of power by SR.

Note:

- CTU to provide 2 Nos of 400 kV bays at each of their Tuticorin Pooling Station, Udumalpet, Pugalur, Hyderabad(765kV) and Kurnool(765kV) S/s.
- CTU to give technical specifications of the total system

4.2.2 Further the following system is also required to be implemented

- i) Hyderabad - Wardha 765 kV D/c line (*covered under “Transmission System associated with IPPs of Vemagiri Area – Package D” to be implemented by POWERGRID as decided in the 25th Empowered Committee meeting*).

The above Package – D also includes upgradation of 400 kV substations at Vemagiri, Khammam & Hyderabad to its rated voltage. However it is proposed upgrade the 400 kV substations at Hyderabad & Vemagiri with 2x1500 MVA, 765/400 kV. The Vemagiri – Khammam – Hyderabad corridor shall be operated at 400 kV only whereas Srikakulam Pooling Station – Vemagiri Pooling Station & Hyderabad – Wardha lines shall be operated at 765 kV level.

4.3 Name of Scheme : Transmission System for Connectivity for NCC Power Projects Ltd. (1320 MW)

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. In Crores)
i) NCC Generation switchyard – Nellore Pooling Station 400 kV D/c (Quad) line.	50	100
Estimated Cost Rs. Crore		100

Explanation:

Following Connectivity Transmission System were agreed in the 34th Standing Committee Meeting of Southern Region held on 16th April, 2012 for NCC Power

- i) Generation switchyard – Nellore Pooling Station 400 kV D/c (Quad) line

Note:

- CTU to provide 2 Nos of 400 kV bays at Nellore Pooling Station

4.4 Name of Scheme : Transmission System required for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Limited

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. In Crores)
i) Kudgi TPS – Narendra (New) 400 kV 2xD/C quad lines	10	40
ii) Narendra (New) – Madhugiri 765 kV D/c line	350	1000
iii) Madhugiri – Bidadi 400 kV D/c (quad) line.	100	200
Estimated Cost (Rs. Crore)		1240

Explanation:

The following Transmission System strengthening were agreed for Long Term Access in the 34th Standing Committee Meeting of Southern Region held on 16th April, 2012 for Kudgi TPS:

- i) Kudgi TPS – Narendra (New) 400 kV 2xD/C quad lines
- ii) Narendra (New) – Madhugiri 765 kV D/c line (initially charged at 400 kV)
- iii) Madhugiri – Bidadi 400 kV D/c (quad) line.

Here it may be mentioned that the transmission strengthening agreed for providing long term access to Kudgi TPS includes Madhugiri – Narendra 765kV D/c line, which has already been approved as “Transmission System associated with IPPs of Nagapattinam / Cuddalore area – Package C” during the 25th meeting of Empowered Committee on Transmission for implementing under Tariff based Competitive Bidding. Accordingly the gazette notification needs to be modified.

NTPC during the above meeting informed that their board had accorded Investment Approval for Kudgi Power Plant and also awarded BTG package.

Note:

- CTU to provide 6 Nos of 400 kV bays at Narendra (New), 4 Nos of 400 kV bays at Madhugiri.
- CTU to confirm 2 Nos of 400 kV bays at Bidadi Substation of KTCL.
- CTU to confirm 4 Nos of 400 kV bays at Kudgi generation switchyard of NTPC

4.5 Name of Scheme : Eastern Region System Strengthening Scheme-VII

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crores)
(i) Purulia PSP (WB) – Ranchi (PG) 400 KV D/c line.	140	170
(ii) Kharagpur (WBSTCL) - Chaibasa(PG) 400 kV D/c line	170	200
Estimated Cost (Rs. Crore)		370

Note:

- CTU to provide the bays with reactor at Purulia, Ranchi, Kharagpur and Chaibasa to be implemented under regulated tariff mechanism

4.6 Name of Scheme : Eastern Region System Strengthening Scheme-VI

Scope:

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crores)
(i) Creation of 2x500 MVA , 400/220 kV Substation at Darbhanga with space for future extension (1x500 MVA) <ul style="list-style-type: none">➤ 400 kV Line bays➤ 400 kV ICT bays➤ 220 kV Line bays➤ 220 kV ICT bays➤ Space for Future bays➤ 125 MVAR bus reactor➤ Bus reactor bays.	2 2 6 2 400 kV -6 220 kV- 4 2 2	120
(ii) Creation of 2x500 MVA , 400/220 kV Substation at Mothihari with space for future		120

Transmission Scheme	Estimated Line Length (km)	Estimated Cost (Rs. Crores)
extension (1x500 MVA) <ul style="list-style-type: none"> ➤ 400 kV Line bays ➤ 400 kV ICT bays ➤ 220 kV Line bays ➤ 220 kV ICT bays ➤ Space for Future bays ➤ 125 MVAR bus reactor ➤ Bus reactor bays. 	4 2 6 2 400 kV-4 220 kV -4 2 2	
(iii) Muzaffarpur(PG)- Darbhanga 400 kV D/c line with triple snowbird conductor	70	100
(iv) LILO of Barh –Gorakhpur 400 kV D/c line at Mothihari, 400kV 2xD/C quad	50	200
(v) 2x80 MVAR Line reactors (Switchable) at Mothihari end (with 600 ohm NGR) for Barh-Mothihari section		8
(vi) 2x50 MVAR Line reactors (fixed) at Mothihari end (with 400 NGR) for Mothihari-Gorakhpur section		7
Estimated Cost (Rs. Crore)		555

Note:

- The Darbhanga S/S to be located near Darbhanga town
- The Mothihari S/S to be located near Mothihari town

5.0 Constitution of the Bid Evaluation Committees(BEC)

BECs for new transmission schemes would be constituted after approval of Empowered Committee in its next meeting. Proposal for BEC to be prepared by CEA in consultation with respective BPC and CTU.

6.0 Any other item.

Any other item with the permission of Chair.
