Central Electricity Authority System Planning & Project Appraisal Division Sewa Bhawan, R.K. Puram, New Delhi – 110066

No. 51/4/SP&PA-2011/991-1001

06th July 2011

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Sub: 32nd meeting of the Standing Committee on Power System Planning of Southern Region Minutes of Meeting.

Sir,

The 32nd meeting of the Standing Committee on Power System Planning of Southern Region was held on 08th June 2011 (Wednesday) at 10:30 AM at Conference Hall of Northern Region Power Committee, Katwaria Sarai, New Delhi.

Minutes of the meeting are enclosed. It is also available at CEAøs website (www.cea.nic.in) .

Yours faithfully,

(Pardeep Jindal) Director (SP&PA) (Telephone: 011 26198092, Fax No. 011 26102045)

Copy to:Sh. SK Soonee, CEO, POSOCO, B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016 Minutes of 32nd Meeting of the Standing Committee on Power System Planning in Southern Region (SCPSPSR) Held on 08th June 2011 at NRPC Katwaria Sarai, New Delhi.

1.0 List of participants is given at Annex-I.

- 2.0 Member (Planning and Power Systems), CEA welcomed the participants and observed that the agenda for todayøs meeting included number of critical issues such as system strengthening for addressing congestion in S1-S2 bid areas, state sector generation projects in Karnataka and Andhra Pradesh requiring integration with ISTS and transmission system for more that 4000 MW wind based generation projects in Tamil Nadu.
- 2.1 Chief Engineer(SP&PA), CEA while welcoming the participants stated that a large number of wind based generation projects are being developed in India especially in coastal states of the country. Therefore, it is important that decisions should be taken at the earliest to accommodate the wind based generation projects in the comprehensive planning of inter- state transmission system (ISTS). He suggested that the States having wind potential should provide the details of the capacity that they can absorb in their grid and the surplus capacity that needs to be exported/transmitted out side the State. Chief Engineer (CEA) asked Director (SP & PA), CEA to proceed with the Agenda for the meeting.

3.0 **Confirmation of minutes of 31st Standing Committee:**

- 3.1 Director(SP&PA), CEA stated that the Minutes of 31st meeting of the Standing Committee on Power System Planning of Southern Region, held on 16th November 2010 at New Delhi, were issued vide CEAøs letter number 51/4/SP&PA-2010/12956 1305 dated 10 December, 2010. In this regard, one observation has been received, in which, KPTCL has suggested that the Madhugiri ó Narendra ó Kolhapur 765kV D/C line may be rerouted as Madhugiri ó BB Wadi ó Kolhapur. He further said that KPTCLøs suggestion has been considered while planning the transmission system for Kudgi project of NTPC.
- 3.2 Minutes of 31st meeting of the Standing Committee as circulated were confirmed by the Standing Committee.

- 4.0 System studies for strengthening of Southern Region grid, transmission System for evacuation of power from Rayalseema St-IV (Andhra Pradesh), connectivity for Nirmal 400kV S/S of APTRANSCO, power evacuation from Yermarus TPS/Edlapur TPS (Karnataka) and new wind projects in Tamilnadu.
- 4.1 Director, CEA stated that joint system studies were carried out by CEA, POWERGRID, APTRANSCO, KPTCL, KSEB, TNEB and POSOCO/SRLDC for following transmission system requirements as per the decision taken in 31st meeting of the Standing Committee on Power System Planning of Southern Region held on 16th November 2010 at New Delhi:
 - i) Strengthening of Southern Region grid to address issue of congestion in the S1-S2 bid areas
 - ii) Transmission System for evacuation of power from Rayalseema St-IV (1x600 MW) of APGENCO in Andhra Pradesh
 - iii) Connectivity for Nirmal 400kV S/S of APTRANSCO
 - Transmission System for evacuation of power from Yermarus TPS(2x800 MW)/Edlapur TPS(1x800 MW) of KPCL in Karnataka

Discussions held on each of these systems is given below:

- 4.2 Strengthening of Southern Region grid to address issue of congestion in the S1-S2 bid areas as a regional strengthening scheme
- 4.2.1 Director, CEA stated that based on the study results the following system strengthening scheme was proposed for strengthening of transmission connection between S1 and S2 bid areas of Southern Region:
 - (i) Vijayawada ó Nellore (AP) 400 kV D/C line
 - (ii) Nellore (AP) Tiruvalem 400 kV D/C Quad
 - (iii) Tiruvalam ó Sholinganallur 400 kV D/C line
 - (iv) LILO of existing Bangalore ó Salem 400 kV S/C line at Hosur
- 4.2.2 ED (PGCIL) asked TNEB to expedite the implementation of Sholinganallur 400kV substation and TNEB to ensure the provision of bays at Sholinganallur substation for terminating the Tiruvalam Sholinganallur 400kV D/c line. SE, TNEB confirmed that they are taking up implementation of Sholinganallur substation for which land has already been identified and the line survey is under progress.
- 4.2.3 Director, APTRANSCO stated that there was a need to augment transformation capacity at Gazuwaka to take meet the growing load demand. ED, POWERGRID mentioned that as such there is no space available in the existing Gazuwaka substation. However, instead of augmenting the transformation capacity at Gazuwaka the feasibility of establishing new substation in the Vizag area is being explored.

- 4.2.4 GM, SRLDC made observation that there was a need to augment transformation capacity at different 400 kV substations in Hyderabad area like Malkaram, Gajwel etc. It was decided that the issue of transformation augmentation on comprehensive basis for the entire Southern region would be taken up in the next meeting for which constituents may indicate their inputs with in three weeks.
- 4.2.5 After deliberations following transmission system was agreed to be implemented as regional system strengthening scheme:
 - (i) Vijayawada ó Nellore (AP) 400 kV D/C line
 - (ii) Nellore (AP) Tiruvalem 400 kV D/C Quad
 - (iii) Tiruvalam ó Sholinganallur 400 kV D/C line
 - (iv) LILO of existing Bangalore ó Salem 400 kV S/C line at Hosur
 - (v) Adequate reactive compensation

4.3 Transmission System for evacuation of power from Rayalseema St-IV (1x600 MW) of APGENCO in Andhra Pradesh

4.3.1 Director, CEA stated that based on the study results joint study group recommended the following transmission system for Rayalseema St-IV (1x600 MW):

<u>Option-I:</u> Rayalseema(Muddanur) - Hindupur 400kV D/C line and a 400/220 kV S/S at Hindupur Option-II: Rayalseema(Muddanur) - Chitoor 400kV D/C line

- 4.3.2 Director, APTRANSCO stated that considering the load growth in Chitoor area, the Option-II seems to be the better system for evacuating the power from Rayalseema St-IV TPS (1x600 MW).
- 4.3.3 Accordingly, the Committee agreed for Rayalseema St-IV Chitoor 400kV D/C line as evacuation system for the Rayalseema St-IV(1x600 MW) generation project of APGENCO. The transmission system is to be implemented by APTRANSCO.

4.4 Connectivity for Nirmal 400kV S/S of APTRANSCO

- 4.4.1 Director, CEA stated that the connectivity for Nirmal 400kV substation was discussed in the Joint study group meeting and following alternatives were suggested:
 - <u>Alt-I:</u> One of the circuitøs of Ramagundam ó Hyderabad 400kVlines may be LILOed at Nirmal. This LILO may be drawn from towers just outside the Ramagundam STPS switchyard to minimize the length of lines.
 - <u>Alt-II:</u> Possibility of a spare bay/ space at NTPCøs Ramagundam STPS switchyard may be re-explored to connect Nirmal with Ramagundam.

- 4.4.2 AGM NTPC, confirmed that no spare bay/space is available at Ramagundam STPS switchyard for connecting Nirmal with Ramagundam. Therefore, Alt-I may be explored.
- 4.4.3 Director, APTRANSCO, stated that considering the space constraint at Ramagundam STPS switchyard, Alt-I seems to be the feasible option for connectivity of Nirmal. He further stated that they were planning a new 400/220kV S/S with 2x315 MVA transformer capacity and that depending upon location of new substation, it could be either Nirmal or Adilabad.
- 4.4.4 CE, CEA said that with LILO of Ramagundam-Hyderabad line at Nirmal, length of the Nirmal-Hyderabad line section would increase and may require adequate reactive compensation. There are four circuit between Ramagundam-Hyderabad out of which, two are going to Ghanapur(Hyderabad-PGCIL) and the other two have been LILOed at Gajwel and Malkaram each. In this regard, it would be important to select a suitable circuit for LILO at Nirmal, so that power supply to Hyderabad area is not affected adversely. APTRANSCO would coordinate with CEA and POWERGRID in selection of circuit to be LILOed and also for providing suitable reactive compensation at Nirmal.
- 4.4.5 ED, POWERGRID observed that the LILO arrangement planned for drawl of power should be used for the same purpose only. In this regard, he stated that at a later date if this LILO connection is used for the any injection of power then connectivity and LTA shall have to be obtained in line with the CERC regulations.
- 4.4.6 The Committee agreed for LILO one of the circuits of Ramagundam ó Hyderabad 400kV lines at Nirmal by APTRANSCO for 2x315 MVA 400/220kV new Substation at Nirmal/Adilabad by APTRANSCO. APTRANSCO would coordinate with CEA and POWERGRID in selection of circuit to be LILOed and reactive compensation, if required, to be provided at the new substation. The final configuration and the reactive compensation result would be communicated in the next meeting of this committee.
- 4.5 Transmission System for evacuation of power from Yermarus TPS(2x800 MW)/Edlapur TPS(1x800 MW) of KPCL in Karnataka
- 4.5.1 Director, CEA stated that out of the various alternatives analyzed and reported in the joint studies given in the Agenda, KPTCL has accepted following transmission system for evacuation of power from Yermarus TPS (2x800 MW)/Edlapur TPS (1x800 MW):
 - (i) Edlapur TPS Yermarus TPS S/S 400 kV D/C line
 - (ii) The existing Raichur TPS ó Davangere 400kV S/C line to be replaced with a new 400kV D/C line with QUAD conductors alongwith shifting of Raichur termination point to Yeramaras TPS switchyard.

- (iii) Bellary TPS(BTPS) switchyard ó Hiriyur (under construction) 400 kV D/c twin line
- (iv) Yermarus TPS ó Raichur(New) 400kV Quad D/C line
- (v) Bellary TPS ó Madhugiri ó 400 kV Quad D/c line
- (vi) Yeramaras ó Basavanabagewadi (BB Wadi) 400 kV D/c Twin line
- (vii) Establishment of BB Wadi 400/220 kV substation.
- 4.5.2 GM, SRLDC opined that connecting the BTPS switchyard to Hiriyur substation may lead to congestion in Hiriyur óBangalore section. So, BTPS switchyard ó Hiriyur 400 kV D/c line needed to be constructed upto Madhugiri substation. Director, CEA said that as per the present approved system, KPTCL is to build BTPS ó Madhugiri 400kV D/C line. This line is under construction and the line section up to Hiriyur point has nearing completion, whereas, the Madhugiri S/S of POWERGRID is getting delayed, therefore, KPTCL has made arrangement with POWERGRID to terminate the BTPS ó Madhugiri line at Hiriyur. However, as per the original plan and agreed system, KPTCL is to make line up to Madhugiri to avoid overloading on the Hiriyur ó Bangalore line.
- 4.5.3 CEO, POSOCO stated that for replacement of existing Raichur TPS-Davangere 400kV S/c line with new 400kV D/c line (Quad), some important line sections would have to be taken out for some period of time and this may effect reliable evacuation of power from Raichur TPS. It was, therefore, decided that KPTCL would explore possibility of replacement by chalking out outage programme of existing line sections matching with construction schedule of new Quad line sections, in coordination with SRLDC, and report the possibility in next meeting. In case replacement is not possible, KPTCL agreed for constructing an additional Yeramaras-Bellary-Madhugiri 400kV D/c line with quad conductor.
- 4.5.4 The Committee agreed for the following transmission scheme for evacuation of power from Yeramaras(2x800 MW)/ Edlapur(1x 800 MW) :
 - (i) Edlapur TPS Yermarus TPS S/S 400 kV D/C line
 - (ii) The existing Raichur TPS ó Davangere 400kV S/C line to be replaced with a new 400kV D/C line with QUAD conductors alongwith shifting of Raichur termination point to Yeramaras TPS switchyard.(In case replacement is not possible, Yeramaras ó Bellary- Madhugiri 400kV D/c line with Quad conductor)
 - (iii) BTPS switchyard ó Hiriryur (under construction) óMadhugiri 400 kV D/c twin line
 - (iv) Yermarus TPS ó Raichur(New) 400kV Quad D/C line
 - (v) BTPS ó Madhugiri ó 400 kV Quad D/c line
 - (vi) Yeramaras ó Basavanabagewadi (BB Wadi) 400 kV D/c Twin line
 - (vii) Establishment of BB Wadi 400/220 kV substation.

5.0 Strengthening of SR Grid to facilitate Import of Power

5.1 Director, CEA stated that the transmission system of SR for past years has been planned basically considering SR as surplus in power due to overwhelming response from IPP projects for establishment of large sized coastal based generation projects. Further, this premise has been supported due to proposal for establishment of UMPPs in AP and Tamil Nadu.

Now looking into the progress of the generation projects vis-à-vis the likely load growth projections in Southern Region, Southern Region may have to import power. Under this scenario, the inter-Regional links planned for export can be used for importing power as well. However, it was seen that there were constraints in transmitting power beyond Kurnool and further into SR grid. Based on the studies carried out with POWERGRID, results of which were enclosed with Agenda, following transmission system is proposed as system strengthening for SR to facilitate import of power:

- (i) Kurnool ó Tiruvalam 765 kV D/c line.
- (ii) Provision of 2x1500 MVA, 765/400kV transformers at Tiruvalam.
- (iii) LILO of Kolar ó Sriperumbudur 400 kV S/c line at Tiruvalam.
- 5.2 ED (PGCIL) requested TNEB to expedite the implementation of Tiruvalam 400/220kV substation, which is also needed to be expedited for strengthening of S1-S2 system.
- 5.3 GM, SRLDC noted that implementation of Kurnool-Tiruvalam 765kV D/c line would also relieve the congestion in Vijayawada ó Nellore section therefore the implementation of this scheme may be taken up on urgent basis.
- 5.4 The proposal was agreed by the Members to be implemented following system as regional System Strengthening Scheme:
 - (i) Kurnool ó Tiruvalam 765 kV D/C line.
 - (ii) Provision of 2x1500 MVA, 765/400kV transformers at Tiruvalam.
 - (iii) LILO of Kolar ó Sriperumbudur 400 kV S/C line at Tiruvalam.
 - (iv) Adequate reactive compensation

6.0 Transmission System for Evacuation of Wind Power from Tamil Nadu

6.1 Director, CEA stated that the transmission system for wind generation projects in Tamil Nadu was evolved in the 23rd Meeting of Standing Committee held on Jan 22, 2007 .This system involves establishment of 400kV substation in the Tirunelveli area and a 400 kV corridor up to Chennai. These transmission systems were to be built by TNEB. Detailed transmission system to be built by TNEB is given below:

- i) Tirunelveli (TNEB) (TN wind/Kanarapatty) 400/230 kV S/S, 3x315 MVA
- ii) Tirunelveli (TNEB) Tirunelveli (PG), 400 kV Quad D/C line.
- iii) Five numbers of 230/33 kV wind energy substations at Marandai, Sayamalai, Vagaikulam, Kumarapuram, Sankaralingapuram and one 230/110 kV Samugarangapuram substation with associated 230 kV lines connecting with the Kanarapatty 400 kV S/S.
- iv) Kanaraptty (TN Wind) Kayathar 400 KV, 400 kV D/C line.
- v) Kayathar Karaikudi , 400 kV D/C Quad line
- vi) Karaikudi Pugalur 400 kV D/C Quad line
- vii) Establishment of 400/230-110 kV S/S with 2x315 MVA 400/230 kV ICT, and 2x200 MVA 400/110 kV ICT at Kayathar.
- viii) Pugalur ó Sholinganallur (Ottiampakkam), 400 kV D/C Quad line.

At the time of planning of above transmission system, wind generation in Tamil Nadu was about 2900 MW. At present, wind power in Tamil Nadu has enhanced to about 6000 MW. It was noted that TNEB have not completed the above transmission system even after 4 years it was planned. This would not only block transmission of existing wind electricity but would also hamper the connectivity of additional wind capacity (proposed about 4000MW addition up to 2016-17).

- 6.3 ED(PGCIL) asked TNEB to expedite the implementation of their transmission system planned for wind projects to make sure that wind power does not get bottled and does not overload ISTS.
- 6.4 CEO, POSOCO stated that TNEB is utilizing the transmission system planned for Kudankulam project of NPCIL for wheeling of power from Wind generation projects in southern part of Tamilnadu. He said that after the commissioning of Kudankulam project if TNEBøs transmission system is not implemented and there is constraint in system, wind projects might have to back down their generation. In the absence of any long term access for transmission of wind generation, injection of wind power into ISTS would be treated in accordance with the Grid Code and relevant regulations. And, as such, wind projects may have to look for short term open access to transfer the power if sufficient margin is available in network.
- 6.5 CE, CEA said that it is necessary that the STUs should carry out exercise for their Load-Generation balance considering available generation mixes at the disposal of respective STUs. In this regard it is more important especially for wind generation that have large variations. Such exercise should be analyzed with the planners & the grid operators.
- 6.6 CEO, POSOCO said that all STUs which have wind based projects should carry out studies to assess that how much wind they can absorb in their grid looking into

uncertainties of variations in wind generation and stability of the grid. He also said that angular stability studies modeling typical wind farms might also be carried out for studying their impact on ISTS.

- 6.7 SE, TNEB stated that a number of new wind generation projects of about 4000 MW capacity are coming up in the southern part of Tamilnadu. To cater these generations, TNEB has proposed three new substations for evacuation of power from additional 3400 MW Wind Generation projects in Tamilnadu and interlinking of Proposed substations with Salem 765/400kV substation of PGCIL.
- 6.8 CE, CEA asked TNEB to provide the details of wind capacity which is selling energy to Tamil Nadu under preferential tariff and details of capacity which is existing/going to come (out of existing 6000 MW and new 4000 MW) at market determined tariff/price. This is required to assess possible quantum of export/import under both with and without wind generation scenarios for carrying out comprehensive transmission planning for ISTS and State grid system for wind projects. He also asked TNEB to inform quantum of MVAR requirement at their 110kV or 230kV pooling substations.
- 6.9 It was decided that CEA would take up the issue with CTU, POSOCO, State Utilities and wind power producers. To start with, all the constituent States of Southern Region would provide data regarding -
 - (i) Installed capacity of existing wind farms, their location, seasonal/ daily variation in generation, types of turbines and their interconnection with the State grid,
 - (ii) whether these generations are selling at preferential tariff or at market determined tariff/price,
 - (iii) Present RPO requirement
 - (iv) Above details for new wind projects that are planned to be installed by 2013.
 - (v) Details of wind generation projects being planned by end of 12th Plan period i.e. 2017.

7.0 Transmission System for evacuation of power from Simhadri-II TPS (2x500MW) of NTPC.

- 7.1 Director, CEA stated that SRPC has raised issues related to the constraints in evacuation of power from Simhadri-II TPS as a number of projects are coming in Vemagiri area.
- 7.2 Director, APTRANSCO observed that Simhadri-II power was being evacuated through CTU and APTRANSCO system. APTRANSCO had already agreed for the

open access for evacuation of Simhadri-II power. As such, no evacuation issues of Simhadri-II power were foreseen.

- 7.3 ED, POWERGRID observed that few evacuation elements such as 400 kV Narasaraopeta S/S & associated transmission system and 400 kV Vijayawada-Hyderabad line to be implemented by APTRANSCO had not come up as per the matching time schedule which was leading to constraints for evacuation of power from State level generation projects of Vemagiri/Vijayawada area.
- 7.4 Director, APTRANSCO informed that the 400 kV Narasaraopeta S/S was expected to be commissioned in December 2012, and the 400 kV Vijayawada-Malkaram D/C line was scheduled to be commissioned by February 2012.
- 7.5 CE, CEA said that the planning of a new 400kV S/S in Gazuwaka area is being studied with possibility of integrating transmission system for Simhadri-II, Vizag(Hinduja) and Srikakulam generation projects and providing a direct synchronous link between SR and ER.

8.0 Status of Under Construction / Approved Schemes:

8.1 Status of transmission schemes of POWERGRID:

POWERGRID informed that the Mysore ó Kozhikode line is getting delayed due to ROW (50 km) of coffee planters in Karnataka portion and forest clearance problem for 5 km stretch in Kerala and Karnataka portions. The matter is taken with highest level with State Governments and further being followed up through intervention of Ministry of Power. Regarding Hosur óElectronic City 400kV D/C line, it was informed that inspection has been carried out on the stretch having RoW problem and to they were planning to erect 25 nos. of narrow base towers for this stretch of the line. Details of status of POWERGRID schemes are given at <u>Annex-II.</u>

8.2 Status of transmission schemes of APTRANSCO:

Director, APTRANSCO informed that the work is in process for the 400kV D/C line from Bhoopalapally ó Gajwel 400kV D/C line to GAJWEL and is scheduled to be completed by March 2012. The proposed date of commissioning of Bhoopalapally TPS St-II is December 2012. It was also informed that the Vijayawada-Malkaram 400kV D/C line is likely to be completed by February 2012 and the Narasaraopeta 400kV S/S and its associated transmission system would be completed by Dec 2012.

8.3 Status of transmission schemes of KPTCL:

Director, KPTCL informed that the Nagarjuna TPS(UPCL) ó Hassan 400kV D/C line is having forest clearance problem in about 35 km. The case is with MoEF and they expect that the line can be commissioned by Dec 2011.

8.4 Status of transmission schemes of TNEB/ TANTRANSCO:

TNEB informed that the North Chennai to Alamathi line would be completed by December 2011. Regarding the Tiruvalam S/S, it was informed that, land for the substation has been identified for the Tiruvalam S/s and is in process of acquiring. The committee observed that as completion of Alamathi óTiruvalam line would take more than 3 years, this could cause transmission constraints for evacuation of power from North Chennai TPS-II generation project of TANGEDCO.

9.0. Discussions on the Connectivity and LTA applications for Projects in Southern Region:

Minutes of discussions on the Connectivity and Long Term Access applications for projects in Southern Region are issued by POWERGRID vide their letter no. C/ENG/SEFIS/00/LTA dated 28-06-2011 are given at <u>Annex-III.</u>

List of participants for the 32nd meeting of SCPSPSR, held on 8th June, 2011 <u>at Northern Region Power Committee, at Katwaria Sarai, New Delhi</u>

Designation

Sl. No. <u>Name and Organization</u>

Central Electricity Authority (CEA)

- 1. A S Bakshi
- 2. Ravinder
- 3. Pardeep Jindal
- 4. Manjari Chaturvedi
- 5. Nageswara Rao Maragani

Southern Region Power Committee (SRPC)

- 6. S D Taksande
- 7. S. R. Bhatt

Power Grid Corporation of India Ltd (PGCIL)

- 8. Y. K. Sehgal
- 9. L R Bansal
- 10. Minoo Verghese
- 11. R V Madan Mohan Rao
- 12. Jane Jose
- 13. Anil Kumar Meena
- 14. Prashant Pandey

Power System Operation Corp. Ltd (POSOCO)

- 15. S K Soonee
- 16. P R Raghuram
- 17. S P Barnwal

National Thermal Power Corp. (NTPC)

- 18. Abhijit Sen
- 19. S S Misra
- 20. Sandeep Naik

Addl. GM(Project Engg.-Elect.) DGM DGM(Comml.)

Nevveli Lignite Corp. (NLC)

21. R. Suresh

GM(Comml.)

CEO

GM (SRLDC)

Manager, SRLDC

ED(SEF, CE & IT) AGM(SR-I) DGM (SR-II) CDE(SEF) Chief Manager(Commercial) Dy. Manager(SEF) Engineer(SEF)

Member Secretary I/c

Superintending Engineer

Member (Planning and Power System) Chief Engineer (SP&PA) Director (SP&PA) Deputy Director (SP&PA) Engineer (SP&PA)

<u>Annex-I</u>

<u>Sl. No.</u> <u>Name and Organization</u>

Designation

CE(S.O.)

AEE(SSG)

Resident Engineer

EΕ

Nuclear Power Corporation of India Ltd. (NPCIL)

22. Sandeep Sarwate ACE(Tr.)

Transmission Corp. of Andhra Pradesh Ltd. (APTRANSCO)

23. P Srirama Rao Director(Grid Operation)
24. M Jayachandra CE(PS)
25. M Balasubramanyam DE/System Studies

Karnataka Power Transmission Corp. Ltd. (KPTCL)

26. Pratap Kumar Director(Transmission)

Kerala State Electricity Board (KSEB)

- 27. C V Nandan
- 28. S R Anand
- 29. G Sreenivasan
- 30. S S Biju

Tamil Nadu Electricity Board (TNEB)/Tamil Nadu Transco

- 31. V G Manoharan
- 32. C Kaliaporumal
- 27. K Thangachamy
- 28. Arun Kumar Samuel

CE/P&RC(TANGEDCO) SE/LD&GO(TANTRANSCO) SE/System Studies(TANGEDCO) AEE/LD(TANTRANSCO)

Annex-II

Status of Southern Region New Schemes of POWERGRID

SI.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
No.	Elements	Committe	Date	approval	of now	delay
		e Approval				
1.	 Kaiga U-3&4 Tr. System a) Narendra ó Davangere 400 kV D/c line b) LILO of existing Kolar ó Sriperumbudur 400 kV S/c at new 400/220 kV substation at Melakottaiyur c) Provision of 2nd 315 MVA, 400/220 kV transformer at Hiriyur 400/220 kV substations each. d) Establishment of new 400/220 kV transformers e) Mysore ó Kozhikode 400 kV D/c line f) Establishment of new 400/220 kV substations at Kozhikode with 2x315 MVA, 400/220 kV transformers 	16 th Meeting on 20.01.03	Oct, 03	CCEA Approval ó March, 2005	Commissi oned Except Mysore- Kozhikod e line and Kozhikod e substation	 Mysore ó Kozhikode is getting delayed due to ROW (50 Kms) of coffee planters in Karnataka portion, forest clearance problem in Kerala & Karnataka portion. The matter is taken with highest level with State Governments and further being followed up through intervention of Ministry of Power.
2.	 Kudankulam Tr. System a) Kudankulam ó Tirunelveli 2x400 kV D/c lines with Quad conductors b) Tirunelveli ó Udumalpet 400 kV D/c lines with Twin conductors. c) LILO of both circuits of Madurai ó Trivandrum 400 kV D/c line at Tirunelveli d) Establishment of new 400/220 kV transformers with 2x315 MVA transformers at Tirunelveli and Muvattupuzha. e) Transformation augmentations witn 1x315 MVA transformers at Udumalpet and Trivandrum 400/220 kV substations. f) Tirunelveli ó Edamon 400 kV Multi-ckt line (2 ckts of quad & 2 ckts of twin) g) Edamon ó Muvattupuzha 400 kV D/c line (with Quad conductors) constructed in new ROW corridor h) Muvattupuzha - North Trichur 400 kV D/c line with quad 	18 th Meeting on 05.03.04	June, 04	CCEA ó May, 2005	Commissi oned Except Edamon ó Muvattup uzha ó North Trichur corridor	 Generation getting delayed revised schedule Dec' 2011 / Aug' 2012 as informed by NPCIL representative. Severe ROW problems facing in Edamon ó Muvattupuzha ó North Trichur corridor

SI.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
INO.	Elements	e	Date	approvai	of now	delay
		Approval				
	conductor					
3.	Transmission System associated with Tuticorin JV a) Tuticorin ó Madurai 400kV D/c line (Quad conductor)	22 nd Meeting on 17.08.06	Jun, 07	Feb, 09	Feb' 12	 Generation getting delayed revised schedule Aug' 2012 / Oct' 2012 as per 16th SRPC minutes
4.	 Kalpakkam PFBR Tr. System a) KPFBR - Kanchepuram 230 kV D/c line b) KPFBR ó Arni 230 kV D/c line c) KPFBR ó Sirucheri 230 kV D/c line d) 2 nos of 230 kV bays each at Kancheepuram, Arni and Sirucheri 230 kV substations of TNEB 	20 th Meeting on 07.10.04	Mar, 08	Mar, 10	Dec'11 / Mar'12	 Implementation works are in progress, facing severe ROW problems
5.	 Transmission system associated with Chennai NTPC-TNEB JV TPS a) LILO of Alamanthy ó Sriperumbudur 400 kV D/c line at North Chennai TPS JV 	24 th Meeting on 18.06.07	Nov, 07	Mayø08	July' 11	 Activities in progress, Gen. likely by Oct' 2011 / Jan' 2012 as per 16th SRPC minutes Sever ROW problems, line route realigned
6.	System Strengthening – IX a) Hassan - Mysore 400 kV D/c line	24 th Meeting on 18.06.07	Aug, 08	Feb, 09	Feb' 12	 Implementation works are in progress
7.	 System Strengthening – X a) Establishment of new 400/220 kV substation at Bidadi with 7x167 MVA 400/220 kV transformers and 1x63 MVAR bus reactor b) LILO of one circuit of Neelamangla ó Somnahalli 400 kV D/c line at Bidadi 400 kV substation 	24 th Meeting on 18.06.07	Sept, 08	Dec, 09	Apr' 12	 Implementation works are in progress
8.	Simhadri-II Tr. System a) LILO of both circuits Gazuwaka-Vemagiri 400 kV D/c line at Simhadri-II.	28 th Meeting on 15.06.09	Nov, 09	Jan, 10	Jul' 11	 Completed, ready for commissioning Works of 400kV Bays at NTPC Simhadri-II not completed
9.	 System Strengthening – XI a) Establishment of new 400/220 kV substation at Chulliar (Palakkad) with 2x315 MVA transformers and 1x63 MVAR bus reactor. b) LILO of both circuits of Udumalpet - Madakathara (North Trichur) 400kV D/C line at Chulliar 400 kV substation 	25 th Meeting on 28.03.08	Oct, 08	Feb, 09	Mar' 12	 Implementation works are in progress Substation land acquisition delayed
10.	system strengtnening – XII	27	July,	reb, 10	Jun' 12	– Implementation works

SI. No.	Name of Scheme & Elements	Standing Committe	FR Date	Investment approval	Target as of now	Comments / Reasons of delay
		e Annroval				
	 a) Establishment of new 400/220 kV substation at Yelahanka with 2x500 MVA transformers and 1x63 MVAR bus reactor. b) LILO of Neelamangla-Hoody 400kV S/c line at Yelahanka 400kV substation c) LILO of Somanhally-Hoody 400kV S/c line at Yelahanka 400kV substation 	Meeting on 03.03.09	09			are in progress
11.	 Supplementary Transmission System associated with Vallur TPS a) Extending 400 kV D/c of original Vallur TPS transmission system from LILO point to Malekottaiyur by suitably utilizing part of the LILO of Kolar-Sriperumbudur line at Melakottaiyur. Kolar ó Sriperumbudur 400 kV shall be restored as direct lines. b) Establishment of Tiruvelam 765/400kV switching station initially charged at 400kV c) Tiruvalam (POWERGRID) - Chitoor 400kV D/C quad line 	28 th Meeting on 15.06.09	Aug, 09	Aug, 10	Apr' 13	 Implementation works are in progress
12.	 System Strengthening – XIII a) Establishment of new 400/220 kV substation at Madhugiri with 2x500 MVA transformers with provision of establishing a 765/400kV substation in future. b) Gooty ó Madhugiri 400kV D/c line c) Madhugiri ó Yelahanka 400kV D/c Quad line ó 1x63 MVAR bus reactor at Madhugiri 	28 th Meeting on 15.06.09	Dec, 09		32 Months from Investme nt Approval	 FR prepared Investment to be taken shortly
13.	 System Strengthening – XIV a) Salem New ó Somanahalli 400kV Quad D/c line b) Augmentation of 1x315 MVA 400/220kV Transformer at Hosur 	30 th Meeting on 13.04.10	Mar, 11		32 Months from Investme nt Approval	 FR prepared Investment to be taken shortly
14.	System Strengthening – XV a) North Trissur ó Kozhikode 400kV Quad D/C line	30 th Meeting on 13.04.10				 FR under approval
15.	Transmission System associated with Krishnapatnam UMPP – Part-A a) Krishnapatnam UMPP- Nellore 400 kV D/c Quad	24 th Meeting on 18.06.07	July, 10	Dec, 2010	Aug, 2013 matching with generatio n	 Revised FR prepared after splitting the scheme UMPP developer indicated Unit #1

SI. No	Name of Scheme &	Standing Committe	FR Data	Investment	Target as	Comments / Reasons of
110.	Liements	e	Date	approvar	01 HOW	uciay
	b) Krishnapatnam UMPP-Gooty 400kV D/c Quad	Approval				commissioning by Sept, 2013 – Award placed.
16.	 Transmission System associated with Krishnapatnam UMPP – Part-B a) Establishment of new 765/400 kV substations at Raichur, Sholapur & Pune with 2x1500 MVA ICTs and 1x240 MVAR bus reactor each b) LILO of existing Raichur ó Gooty 400 kV Quad D/c line at Raichur (New) substation c) Raichur ó Sholapur 765 kV S/c line d) Sholapur ó Pune 765 kV S/c line e) Pune (New) ó Pune 400 kV Quad D/c line 	24 th Meeting on 18.06.07				– FR under approval
17.	 Transmission System associated with Krishnapatnam UMPP – Part-C a) Establishment of new 765/400 kV substations at Kurnool with 2x1500 MVA ICTs and 1x240 MVAR bus reactor b) Krishnapatnam UMPP ó Kurnool (New) 400 kV D/c Quad line with 63 MVAR line reactors at each end on both circuits c) Kurnool (New) ó Raichur 765 kV S/c line d) LILO of NøSagar ó Gooty 400 kV S/c line at Kurnool (New) substation e) Kurnool (New) ó Kurnool (APTRANSCO) 400 kV D/c quad line 	24 th Meeting on 18.06.07				– FR under approval
18.	 Common Transmission System Associated with LTA Projects in Krishnapatnam Area a) Establishment of 765/400kV 2x1500MVA Pooling station at Nellore by LILO of Simhapuri ó Nellore 400kV D/c line b) Nellore Pooling station ó Kurnool 765 kV D/c c) Kurnool ó Raichur 2nd 765 kV S/c line 	26 th Meeting on 13.06.08	Feb, 11		36 Months from Investme nt Approval	 FR prepared Investment to be taken shortly
19.	Common Transmission System	29 th	Nov,		30	– FR prepared

SI.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
No.	Elements	Committe	Date	approval	of now	delay
		e Approval				
	Associated with LTA Projects in Tuticorin Area-Part-A a) Establishment of 765 kV pooling station in Tuticorin (initially charged at 400 kV) b) Tuticorin pooling station ó Tuticorin JV 400 kV D/c quad	Meeting on 27.08.09	09		Months from Investme nt Approval	 Investment to be taken shortly
20.	 Common Transmission System Associated with LTA Projects in Tuticorin Area-Part-B a) Salem pooling station ó Madhugiri pooling station 765 kV S/c initially charged at 400 kV - 80 MVAR line reactors at each end on both circuits. b) Establishment of 765 kV pooling station in Salem (initially charged at 400kV) c) Interconnection of Salem pooling station with existing Salem 400/230kV substation through 400 kV D/c (quad) line. d) Tuticorin Pooling station 765 kV D/c line initially charged at 400 kV ó 63 MVAR line reactor at Salem. 	29 th Meeting on 27.08.09	Jun, 10		36 Months from Investme nt Approval	 FR prepared Investment to be taken shortly
21.	 Common Transmission System Associated with LTA Projects in Srikakulam Area-Part-A a) Establishment of 765 kV pooling station in Srikakulam (initially charged at 400 kV) b) Srikakulam Pooling Station ó Angul 765 kV D/c (initially charged at 400 kV) ó 400 km. c) Provision of 1x1500 MVA, 765/400 kV transformer at Angul. 	30th Meeting on 13.04.10	Oct, 10		36 Months from Investme nt Approval	 FR prepared Investment to be taken shortly
22.	 Common Transmission System Associated with LTA Projects in Srikakulam Area-Part-B a) Angul ó Jharsuguda 765 kV 2nd D/c line (1st D/c line covered under Orissa IPPs) b) Jharsuguda ó Dharamjaigarh 765 kV 2nd D/c line (1st D/c line covered under Orissa IPPs) Common Transmission System 	30th Meeting on 13.04.10				 FR under preparation ER under preparation
25.	Associated with LTA Projects in	Meeting				

Sl.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
No.	Elements	Committe	Date	approval	of now	delay
		e				
		Approval				
	Srikakulam Area-Part-C	on				
		13.04.10				
	a) Provision of 2x1500 MVA,					
	765/400 kV transformers at					
	Srikakulam Pooling Station					
	b) Charging of Srikakulam					
	Pooling station ó Angul 765					
	kV D/c at its rated voltage.	a i st				
24.	Common Transmission System	31**				 FR under preparation
	Associated with ISGS Projects in	Meeting				
	Vemagiri Area of Andhra	on				
	Pradesh - Part-A	16.11.10				
	a) Establishment of /65/400kV					
	GIS Pooling station at Vemagiri					
	with sectionalisation					
	arrangement (initially charged					
	(1400 KV)					
	Vijavawada 400kV S/c line at					
	Vamagiri Pooling Station for					
	Initial arrangement which later					
	shall be bypassed					
	c) Establishment of 765/400kV					
	GIS Pooling station at					
	Khammam & Hyderabad					
	(initially charged at 400 kV)					
	d) Hyderabad 765/400 kV S/s ó					
	Hyderabad (existing) 400 kV					
	D/c (quad) line					
	e) Khammam 765/400 kV S/s ó					
	Khammam (existing) 400 kV					
	D/c (quad) line					
	f) 4 nos 80 MVAR switchable					
	line reactors at Khammam end					
	for each circuit of Vemagiri					
	Pooling Station ó Khammam					
	765 kV 2xD/c line (initially					
	charged at 400 kV).					
	g) 4 nos 80 MVAR switchable					
	line reactors at Hyderabad end					
	tor each circuit of Khammam -					
	Hyderabad 765 kV 2xD/c line					
	(initially charged at 400 kV).					
	n) 4 nos. 400 kV bays each at					
	Vemagiri Pooling Station and					
	Vamagiri Dooling Station á					
	Khammam 765 kW 2xD/a lina					
	(initially charged at 400 kV)					
	being implemented under Tariff					
	hased hidding					
	i) 4 nos, 400 kV bays each at					
	Khammam & Hyderabad for					
	terminating Khammam -					
	Hyderabad 765 kV 2xD/c					
	(initially charged at 400 kV)					
	line being implemented under					
	Tariff based bidding					

SI.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
No.	Elements	Committe	Date	approval	of now	delay
		e Annuaval				
		Approvai				
25.	Common Transmission System	31 st				– FR under preparation
	Associated with ISGS Projects in	Meeting				i it under propulation
	Vemagiri Area of Andhra	on				
	Pradesh - Part-B	16.11.10				
	a) Hyderabad ó Wardha 765 kV					
	D/c line b) Provision of 765/400 kV					
	4x1500 MVA transformers at					
	Vemagiri alongwith associated					
	765 kV equipments for					
	charging at rated 765 kV					
	voltage level					
	c) Provision of $765/400 \text{ kV}$,					
	2X1500 MVA transformers at Khammam and Hyderahad GIS					
	substations alongwith					
	associated 765 kV equipments					
	for charging at rated 765 kV					
	voltage level					
	d) 2 nos. 765 kV bays each at					
	Wardha & Jabalpur Pooling					
	- Jabalpur Pooling Station 765					
	kV D/c line being implemented					
	under Tariff based bidding					
26		21 st				
26.	Common Transmission System	31 st				– FR under preparation
	Associated with ISGS Frojects in Naganattinam/Cuddalore Area	on				
	of Tamil Nadu - Part-A	16.11.10				
	a) New 765/400kV Pooling					
	station at Nagapattinam (GIS)					
	with sectionalisation					
	arrangement to control short					
	at 400 kV)					
	b) LILO of Nevveli ó Trichy					
	400kV S/c line at Nagapattinam					
	Pooling Station for initial					
	arrangement which later shall					
	be by passed $2 \text{ mag} = 400 \text{ kV}$ have each at					
	Nagapattinam Pooling Station					
	and Salem for terminating					
	Nagapattinam Pooling Station ó					
	Salem 765 kV D/c line (initially					
	charged at 400 kV) being					
	implemented under Tariff based					
	d) 1 no 400 kV hav each at					
	Salem and Madhugiri for					
	terminating Salem - Madhugiri					
	765 kV S/c line ó 2 (initially					
	charged at 400 kV) being					
	implemented under Tariff based					
	e) 2 nos. 400 kV bays each at					

SI.	Name of Scheme &	Standing	FR	Investment	Target as	Comments / Reasons of
No.	Elements	Committe	Date	approval	of now	delay
		e				
		Approval				
	Madhugiri & Narendra for					
	terminating Madhugiri -					
	Narendra 765 kV D/c line					
	(initially charged at 400 kV)					
	being implemented under Tariff					
	based bidding					
	f) 2 nos. 400 kV bays each at					
	Kolhapur, Padghe & Pune for					
	terminating Kolhapur ó Padghe					
	765 kV D/c line (one circuit via					
	Pune) (initially charged at 400					
	kV) being implemented under					
	Tariff based bidding					

Minutes of 12th Meeting of Southern Region constituents Regarding Long Term Access and Connectivity Applications in Southern Region held on 8 June, 2011 at NRPC, Katwaria Sarai, New Delhi.

1.0 List of Participants is enclosed at Annexure-I.

- 2.0 ED, POWERGRID welcomed the participants for the 12th Meeting of Southern Region constituents regarding Long Term Access and Connectivity applications. In his opening remarks, he informed that as per the earlier circulated agenda 8 nos. of Connectivity and LTA, 11 nos. of only Connectivity and 1 nos. bulk consumer Connectivity applications are proposed to be discussed along with other related issues. He further indicated that the transmission systems planned after January 5, 2011 is to be implemented through Tariff Based Bidding route. As such transmission systems are to be developed through private developer, a cautious approach shall have to be adopted to avoid transmission asset getting stranded on account of mismatch, delay/deferment of generation projects. He also mentioned that for small transmission line associated with connectivity it may be difficult to find bidders and there may be subsequent delay in implementation of connectivity line. ED, POWERGRID requested CDE (SEF), POWERGRID to proceed with the agenda for the meeting.
- **3.0** Confirmation of the minutes of 11th Meeting of Southern Region constituents regarding Long Term Access and Connectivity applications
- 3.1 As there, no comments has been received on the minutes of the 11th Meeting of Southern Region constituents regarding Long Term Access and Connectivity applications issued vide letter dated 01/12/2010, the minutes were confirmed.

4.0 Connectivity/LTA Applications in Nagapattinam / Cuddalore area, Tamil Nadu -

4.1 CDE, POWERGRID stated that earlier two nos. IPPs viz. IL&FS Tamil Nadu and PEL Power were granted LTOA in the area under CERC regulations, 2004. In addition to these 2 nos. IPP projects, 5 nos. of IPP projects have applied for Connectivity & LTA. Developers were requested to update the status of their generation projects. The updated status is as given below:

Applicant	IC (MW)	Land	Fuel	MoE	Forest	EPC
Chettinad Power Corporation Pvt. Ltd.	1200	/51\$(68)				
NSL Nagapatnam Power and Infratech Pvt. Ltd.	1320	[PPK/PPK]	[[[[[[[[]		
Sindya Power Generation Co. Pvt. Ltd.	1320	I KAKA				
Empee Power & Infrastructure Pvt. Ltd.	1320	I KARA				
PPN Power Generating Company	1080	I KKAKI				

Progress status of IPP generation projects \rightarrow

4.2 It was observed that out of the above 5 nos. of IPP projects only NSL Nagapatnam Power and Infratech Pvt. Ltd. has fuel availability, however they are yet to place orders for the main plant

packages. The PPN Power Generating company has already placed orders for main plant packages but the project being Gas based, does not have fuel linkage as of now. Other than these, both the projects have achieved other milestone as indicated above.

- 4.3 It is observed that Chettinad Power Corporation Pvt. Ltd. project also have covered other milestone except fuel linkage and order for main plant package. In this regard representative of Chettinad informed that for fuel supply they have entered into MoU with Indonesian companies. Towards this CE, CEA stated that MoU can not be treated as a fuel supply agreement.
- 4.4 Accordingly it was proposed to grant Connectivity & LTA only to NSL Nagapatnam Power & Infratech Pvt. Ltd. and PPN Power Generating Company as per the details given below.

SI. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Targe F	Target Beneficia Regions	
					SR	WR	NR
1.	NSL Nagapatnam Power and Infratech Pvt. Ltd.	1320	1240	Oct, 2014	940	300	0
2.	PPN Power Generating Company	1080	360	Sept, 2013	360	0	0
	Total	2400	1600		1300	300	0

- 4.5 With respect to the transmission system it was informed that Nagapattinam/Cuddalore is a potential area for large scale generation projects based on imported coal. Looking into the future perspective transmission system comprising of 765kV D/c corridor from Nagapattinam ó Salem ó Madhugiri ó Narendra ó Kolhapur ó Pune / Mumbai was agreed in the 31st Meeting of Standing Committee of SR / 11th Meeting of SR constituents regarding LTA and Connectivity Applications. Further based on the progress of generation project with capacity of 2250 MW (IL&FS ó 1200 MW & PEL ó 1050 MW) following transmission system is being taken up initially
 - (i) New 765/400kV Pooling station at Nagapattinam (GIS) (*initially charged at 400 kV and to be upgraded at 765 kV later on*)
 - (ii) Nagapattinam Pooling Station ó Salem (new) 765kV D/c line (*initially charged at 400kV*)
 - (iii) Salem ó Madhugiri 765 kV S/c line ó 2 (initially charged at 400kV)
 - (iv) Narendra (new) ó Kolhapur (new) 765kV D/c line (*initially charged at 400kV*)
 - (v) Kolhapur (new) ó Padghe 765 kV D/c one circuit via Pune (*initially charged at 400kV*)
 - (vi) New 765/400kV Pooling station each at Narendra (new) (GIS) and Kolhapur (new) (*initially charged at 400 kV and to be upgraded to 765 kV later on*)
 - (vii)LILO of both circuits of Kolhapur ó Mapusa 400 kV D/c line at Kolhapur (new) 765/400 kV Ss
 - (viii)LILO of Neyveli ó Trichy 400kV S/c line at Nagapattinam Pooling Station for interim arrangement which later shall be bypassed
 - (ix) Narendra (GIS) Narendra (existing) 400 kV D/c Quad line
- 4.6 Considering grant of LTA to NSL & PPN the total LTOA/LTA capacity available in the Nagapattinam / Cuddalore area shall be of the order 3800 MW. Based on the load flow studies as covered in the agenda circulated earlier following additional strengthening shall be required for connectivity & LTA

<u>Transmission System for Connectivity</u> →

1) NSL Nagapatnam Power and Infratech Pvt. Ltd. (1320 MW)

- (i)Generation switchyard Nagapattinam Pooling Station 400 kV D/c (Quad or Twin HTLS) line
- (ii) 1x125 MVAR Bus Reactor at generation switchyard

2) PPN Power Generating Company (1080 MW)

- (i)Generation switchyard Nagapattinam Pooling Station 400 kV D/c line
- (ii) 1x80 MVAR Bus Reactor at generation switchyard

Additional Transmission System required for ISGS projects pooled at Nagapattinam Pooling Station \rightarrow

- (i)Nagapattinam Pooling Station ó Tiruvalam 765kV D/c line (*initially charged at 400kV*)
- (ii) Madhugiri ó Bangalore 400kV (quad) D/c line
- 4.7 It was explained that the transmission charges on account of above õCommon Tr. System associated with ISGS projects in Nagapattinam/Cuddalore areaö agreed earlier and above mentioned õAdditional Tr. systemö shall be shared by all the IPPs being connected to Nagapattinam pooling station in the ratio of LTA capacity granted to each applicant.
- 4.8 SE (System Planning), TANTRANSCO raised apprehension that LILO of Neyveli ó Trichy 400kV S/c line at Nagapattinam Pooling Station may hamper evacuation of the existing Neyveli generation. Towards this ED, POWERGRID explained that the LILO shall be an interim arrangement to provide start-up power and shall be bypassed later on.
- 4.9 Representatives of PEL Power requested that as there is more nos. of generation projects in Nagapattinam area therefore the pooling station may be established closer to Nagapattinam. ED, POWERGRID stated that looking into the status of the projects as given above there is a lot of uncertainty in materialisation of the generation projects. He however mentioned that pooling station shall be located in such a way that it is convenient to draw trunk transmission lines as well as the connectivity lines.

After deliberations, the members agreed for the above proposal to grant Connectivity and LTA to NSL Nagapatnam Power & PPN Power Generating Company.

- 5.0 Connectivity/LTA Application of Hinduja National Power Corpn. Ltd. (1040MW) in Vishakhapatnam, Andhra Pradesh –
- 5.1 CDE, POWERGRID stated that Hinduja has applied for Connectivity & LTA under CERC regulations, 2009 and the Connectivity has been discussed in the 11th LTA and Connectivity meeting. He asked the representatives of Hinduja National Power to update the status of their generation projects and following was emerged:

Sl. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Targe I	Target Benefic Regions	
					SR	WR	NR
1.	Hinduja National Power Corporation Ltd.	1040	725	Jan, 2013	362.5	362.5	0

Connectivity & LTA Application \rightarrow

<u>Progress status of IPP generation projects</u> \rightarrow

Applicant	IC (MW)	Land	Fuel	MoE	Forest	EPC
Hinduja National Power Corporation Ltd.	1040					



It was informed by the representative of Hinduja that their generation project is under implementation for which EPC has been awarded to BHEL and advance payment has also been released.

- 5.2 With respect to the transmission system it was informed that Vemagiri area of Andhra Pradesh is a potential area for large scale gas based generation projects. Looking into the future perspective transmission system comprising of 765kV D/c corridor from Vemagiri ó Kahammam ó Hyderabad ó Wardha was agreed in the 31st Meeting of Standing Committee of SR / 11th Meeting of SR constituents regarding LTA and Connectivity Applications. Further based on the progress of generation projects in the Vemagiri area following transmission system is being taken up initially
 - (i) Establishment of 765/400kV GIS Pooling station at Vemagiri with sectionalisation arrangement to control short circuit MVA (*initially charged at 400 kV and to be upgraded at 765 kV later on*)
 - (ii) LILO of Gazuwaka ó Vijayawada 400kV S/c line at Vemagiri Pooling Station for initial integration with SR grid and which later shall be bypassed
 - (iii) Establishment of 765/400kV GIS Pooling station at Khammam (new) & Hyderabad (new) (*initially charged at 400 kV and to be upgraded at 765 kV later on*)
 - (iv) Hyderabad (new) ó Hyderabad (existing) 400 kV D/c (quad) line
 - (v) Khammam (new) ó Khammam (existing) 400 kV D/c (quad) line
 - (vi) Vemagiri Pooling Station ó Khammam (new) 765kV D/c line (initially charged at 400kV)
 - (vii)Khammam ó Hyderabad 765 kV D/c line (initially charged at 400kV)
- 5.3 CDE, POWERGRID stated that based on the load flow studies covered in the agenda circulated earlier following transmission system was proposed for Connectivity & grid strengthening for LTA

<u>Transmission System for Connectivity</u> →

- 1) Hinduja National Power Corporation Ltd. (1040 MW)
 - (i)Generation switchyard Vemagiri-II Pooling Station 400 kV D/c (Quad) line
 - (ii) 1x80 MVAR Bus Reactor at generation switchyard

<u>Additional Transmission System required for ISGS projects pooled at Vemagiri-II</u> <u>Pooling Station</u> \rightarrow

(i)Khammam (new) ó NøSagar 400kV D/c line

- 5.4 It was explained that the transmission charges on account of above mentioned õAdditional Tr. systemö and earlier agreed õCommon Tr. System associated with ISGS projects in Vemagiri area of Andhra Pradeshö shall be shared by all the IPPs being connected to Vemagiri-II pooling station in the ratio of LTA capacity granted to each applicant.
- 5.5 ED, POWERGRID explained that since Hinduja National Power has applied for LTA recently and the required transmission system may not be implemented by January, 2013 as there is not much time left for implementation. He also informed that as explained earlier the above õCommon Tr. System associated with ISGS projects in Vemagiri areaö for evacuation of power beyond Vemagiri shall be implemented through Tariff based bidding process and likely to be available by April, 2015. Therefore, Hinduja National Power shall have to take a call for

such situation. On this, representative of Hinduja National Power stated that they are aware of the facts and shall take necessary action in this regard.

The members agreed to grant of Connectivity & LTA alongwith the additional strengthening as indicated above.

- 6.0 Connectivity/LTA Application of Neyveli Lignite Corporation Ltd. TS-I (Replacement) (1000MW) in Neyveli, Tamil Nadu –
- 6.1 CDE, POWERGRID stated that the connectivity application of Neyveli was discussed in the 11th LTA and Connectivity meeting.

The representative of Neyveli was requested to update the status of their generation project and following was emerged:

SI. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	LTA granted for (MW)
1.	Neyveli Lignite Corporation Ltd. TS-I (Replacement)	1000	400	Apr, 2015	281

<u>Connectivity & LTA Application</u> →

<u>Progress status of IPP generation projects</u> \rightarrow



- 6.2 On a specific query, NLC representative informed that NLC shall be entering into fresh Bulk Purchase Agreement with the beneficiaries of the generation project.
- 6.3 CDE, POWERGRID informed that presently Neyveli TPS-I generation is stepped at 220kV level and power from this plant is evacuated through 220 kV lines. As indicated by NLC, the new plant is being stepped up at 400 kV level. Looking into all these it is proposed to have 2x315 MVA, 400/220 kV transformer alongwith associated 400 kV and 220 kV bays as part of Connectivity transmission system for utilization of existing 220kV transmission network for transfer of 600MW to TNEB. Based on the load flow studies covered in the agenda circulated earlier following transmission system was proposed for Connectivity & grid strengthening for LTA

<u>Transmission System for Connectivity</u> →

1) NLC Ltd. (1000 MW)

- (i) LILO of existing Neyveli TS-II ó Neyveli TS-I expansion 400 kV S/c at generation switchyard
- (ii) Provision of 2x315 MVA, 400/220 kV transformer at generation switchyard
- (iii)1x80 MVAR Bus Reactor at generation switchyard

<u>Transmission System strengthening</u> →

(i) Neyveli (replacement) ó Sholinganallur 400kV D/c line

6.4 As regards beneficiary from the project, the representative of NLC informed that as the present NNTPS project is replacement of the existing 600 MW NLC-TPS-I whose sole beneficiary was TNEB, accordingly MoP has allocated 600 MW from the proposed NNTPS entirely for Tamil Nadu and has allocated the balance 400 MW only amongst the Southern Region beneficiaries (including Tamil Nadu) as given below

Sl. No.	Name of States / UT	Allocation of Power
1.	Andhra Pradesh	113.77 MW
2.	Karnataka	70.54 MW
3.	Kerala	32.38 MW
4.	Tamil Nadu	119.07 MW
5.	Puducherry	4.24 MW
6.	Unallocated Power	60.00 MW
	Total	400 MW

Accordingly the transmission charges towards ATS of the project shall be borne by the constituents in proportion to the power allocated to them, as is done in other ISGS generation projects as per the prevailing practice.

6.5 Director (SP&PA), CEA stated that the 110 kV and 230kV evacuation transmission system of Neyveli existing generation which is being replaced is about 30 years old and may not be reliable enough to evacuate the TNEB share from the replacement project, therefore, TNEB shall have to upgrade their 230kV network to improve the reliability.

The members agreed for the above proposal to grant Connectivity and LTA for 400MW to Neyveli Lignite Corporation Ltd. TS-I (Replacement) along with the system strengthening as mentioned above.

7.0 Connectivity/LTA Application of NTPC Limited (Kudgi) (2400MW), Karnataka -

7.1 CDE, POWERGRID stated that NTPC Limited has applied Connectivity and LTA for Kudgi (2400MW) in Karnataka with the details as below. He asked the representatives of NTPC to update the status of their generation project and following was emerged:

SI. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Target R	Target Beneficia Regions	
					SR	WR	NR
1.	NTPC Limited - Kudgi	2400	2392.49	May, 2015	2392.49	0	0

Connectivity & LTA Application →

<u>Progress status of IPP generation projects</u> →

Applicant	IC (MW)	Land	Fuel	MoE	Forest	EPC
NTPC Limited - Kudgi	2400	300/3100				
A	vailable			Not Ava	ailable	

7.2 The representative of NTPC informed that land acquisition is under progress, water has been tied-up, public hearing has been held on 25.03.2011 for Environment Clearance, the fuel linkage is inter linked with environment clearance, however MoP has recommended to MoC for coal allocation for the project, for EPC - NIT & OBD held etc.

- 7.3 ED, POWERGRID enquired about the signing of the BPTA with the POWERGRID to take up the implementation of the associated transmission system. Representative of NTPC replied that the beneficiary states shall be asked to sign BPTA with POWERGRID for the same.
- 7.4 Director, APTRANSCO sought to know difference in Connectivity transmission system and Transmission system strengthening. ED, POWERGRID explained that as per CERC regulations the Connectivity transmission system is for connectivity of the generation project with the grid and grant of such Connectivity does not entitle to exchange any power unless STOA / MTOA / LTA is obtained. The transmission system strengthening identified associated with the LTA is to ensure realible evacuation of power & LTA is effective only when the identified system is in place.
- 7.5 CE, CEA stated that the Unit size of the Kudgi generation of 800MW each, therefore generation should be stepped-up at 765kV level.
- 7.6 After deliberations following transmission system were identified for NTPC Limited Kudgi (2400MW) and looking into the status of progress of generation project the grant of Connectivity & LTA shall be issued at a later date after fulfilling milestones by generation project.

<u>Transmission System identified for Connectivity</u> →

- 1) NTPC Limited Kudgi (2400 MW)
 - (i)Generation switchyard ó Narendra (New) 765kV D/c line
 - (ii) Provision of Bus reactor of 2x240 MVAR at generation switchyard.
 - (iii) Provision of 2x1000 MVA, 765/400kV transformers at generation switchyard & Generation switchyard ó Basawana Bagewadi 400 kV D/c (Quad) line in the event of KPTCL commission Basawana Bagewadi substation under the associated transmission system of Yeramarus & Edlapur generation.

<u>Transmission System identified for strengthening</u> →

- (i) Narendra (New) ó Madhugiri 765 kV D/c line (earlier proposed under Common Transmission System for ISGS projects of Cuddalore/Nagapattinam area)
- (ii) Provision of 765/400 kV, 2x1500 MVA transformers at Narendra (new), Kolhapur (new) and Madhugiri alongwith associated 765kV equipments for charging at rated 765kV voltage level
- (iii)Madhugiri ó Bangalore 400 kV D/c (quad) line **.
- ** The transmission element shall be under taken with the generation projects of Nagapattinam/Cuddalore area of Tamil Nadu as mentioned above at **para-4.6**, however if the projects does not materialise then it shall be taken up with Kudgi (2400MW) generation of NTPC Limited.

8.0 Revision of LTA application of GMR Rajahmundry Energy Ltd. (2x400 MW) -

8.1 CDE, POWERGRID stated that POWERGRID had granted LTA vide letter ref. no. C/ENG/SEF/TA/L/S/10/06 dated 06.05.2010 to GMR Rajahmundry Energy Limited for 775MW for 25 years. The applicant was to ensure implementation of the identified dedicated transmission line viz. GREL switchyard ó Khammam 400kV D/c (quad) line & provision of 1x80 MVAR Bus Reactor at generation switchyard. Further as an interim arrangement only with the understanding that this line shall be extended to Khammam, the 400 kV line from

generation switchyard to Khammam has been permitted LILO of Vijayawada ó Gazuwaka 400kV S/c line.

- 8.2 He also informed that the applicant vide its letter ref. no. ó GREL:LTOA:10-11/1 dated 14.01.2011 has requested for review of transmission system earlier finalized for grant of connectivity & LTA looking into the transmission development in the Vemagiri area. CDE, POWERGRID stated that in the meeting held 10.05.2011 in the office of CE, CEA, GMR Energy had indicated that the construction of dedicated line 400 kV D/c quad line from their power plant to LILO point of Vijayawada ó Gazuwaka 400 kV S/c line is in full swing (as an interim arrangement). The line was required to be further extended to Khammam however now GMR has made request to POWERGRID to consider their dedicated line for termination at Vemagiri Pooling Station instead of taking it to Khammam. Accordingly, it was indicated by GMR representative that presently they are not taking up the construction of transmission line from the LILO point to Khammam.
- 8.3 In the same meeting, representative of GMR Energy had proposed that by construction of about 5-6 km on multi-circuit tower from their LILO line to proposed pooling station at Vemagiri (being developed by POWERGRID as part of the associated transmission system of



Vemagiri IPPs) shall be techno-economical. With this arrangement the power plant shall be connected to the Vemagiri Pooling station by 400 kV quad D/c line and LILO of Vijayawada ó Gazuwaka 400 kV S/c line at Vemagiri Pooling station is achieved which otherwise POWERGRID need to construct as part of Common Transmission system for ISGS projects in Vemagiri area. However, the line between Vemagiri Pooling station and LILO point on Vijayawada ó Gazuwaka line shall also be quad as GMR has indicated that they have already started stringing from LILO point towards their power plant.

8.4 Further, representative of GMR had indicated that they are ready to take up the multi circuit line from LILO line to Vemagiri Pooling Station if agreed. The complete section of line between GMR Power Plant to Vemagiri Pooling station and Vemagiri Pooling Station to LILO point of Vijayawada ó Gazuwaka 400 kV S/c line shall be owned & maintained by GMR Energy. Accordingly following was proposed

<u>Transmission System for Connectivity</u> →

1) GMR Rajahmundry Energy Limited (2x384 MW)

- (i)GREL switchyard ó Vemagiri-II Pooling station 400kV (quad) D/c line (LILO of Vijayawada-Gazuwaka 400 kV S/c at GREL switchyard as an interim arrangement. Further LILO of both circuits of GREL ó LILO point of Vijayawada-Gazuwaka (400 kV S/c Line) 400kV Quad line at Vemagiri-II pooling station (shall be under the scope of GREL)
- (ii) 1x80 MVAR Bus Reactor at generation switchyard
- 8.5 ED, POWERGRID explained that the transmission charges on account of õCommon Tr. System associated with ISGS projects in Vemagiri areaö and õAdditional Tr. systemö as mentioned above at **para-5.0** shall be shared by all the IPPs being connected to Vemagiri-II

pooling station in the ratio of LTA capacity sought by each applicant. He also informed that this transmission system may not be available by the time frame of GMR generation and they shall have to back down their generation on account of transmission congestion in evacuation of power during interim arrangement on instruction of SRLDC as per STOA regulations

The members agreed for the revision of the earlier granted Connectivity & LTOA.

9.0 Revision of LTA application of Meenakshi Energy Private Ltd. -

9.1 CDE, POWERGRID informed that POWERGRID had granted connectivity vide letter ref. no. C/SEF/TA/C/S/10/03 dated 06.05.2010 & LTA vide letter ref. no. C/ENG/SEF/TA/L/S/10/008 dated 10.12.2010 to Meenakshi Energy Private Limited as details given below

	LTA /	Appl	licatio	n	\rightarrow
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Sl. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Targe I	t Benefi Regions	ciary
					SR	WR	NR
1.	Meenakshi Energy Private Ltd.	300	273	Jun, 2012	273	0	0

9.2 Subsequently to the above grant the applicant has signed BPTA with POWERGRID. However the applicant has now submitted that they are revising the unit size from 300MW to 350MW and therefore sought Connectivity and LTA for the enhanced capacity. The revised details of the generation project are as below:

SI. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Targe I	t Benefi Regions	ciary
					SR	WR	NR
1.	Meenakshi Energy Private Ltd.	350	364	Jun, 2012	364	0	0

<u>LTA Application</u> \rightarrow

- 9.3 It was informed that Meenakshi Energy Private Limited (MEPL) (600) and Simhapuri Energy Private Limited (SEPL) (600MW) are developing generation projects in Krishnapatnam area which were earlier granted LTOA. MEPL & SEPL are developing the dedicated transmission line 400 kV D/c (quad) from their generation switchyards to the Nellore substation. This dedicated transmission line is to be LILOed at the Nellore Pooling station being developed for pooling of power from generation projects in Krishnapatnam area.
- 9.4 For the enhanced capacity of MEPL, SEPL has raise apprehension about the adequacy of the dedicated transmission line. Further they have also raised apprehension that due to the enhancement in the generation project of MEPL they may be adversely affected due to congestion in the grid beyond Nellore. Towards this it was informed that the dedicated transmission line has adequate capacity to accommodate the enhanced capacity of MEPL. Further the common transmission system for IPP projects comprising of 765kV system shall also be adequate to accommodate the enhanced capacity. In the interim period between commissioning of generation project of SEPL/MEPL and common transmission system associated with ISGS project in Krishnapatnam, the LTA shall not be effective and both SEPL & MEPL shall have to resort to STOA route for exchange of power with the grid.
- 9.5 CEO, POSOCO, informed during the 32nd Meeting of Standing Committee earlier that as such there is no congestion in the Southern region grid in the Long Term Access, however, the congestion in the network is due to STOA transactions, therefore, if there are any congestion

the generation projects shall have to back down on SRLDC instruction as per STOA regulations.

9.6 CDE, POWERGRID insisted that Mutual agreement between SEPL & MEPL shall have to be arrived at and submitted to CTU for sharing of transmission charges & losses for the dedicated transmission line jointly developed by MEPL & SEPL. Also SEPL & MEPL are to sort out issues pertaining to scheduling, metering, UI, etc.

The members agreed for grant of Connectivity and LTA for the enhanced capacity as mention above to the MEPL.

10.0 Connectivity application of Dandelion Properties Pvt. Ltd. (250MW) -

- 10.1 CDE, POWERGRID stated that the bulk consumer has sought connectivity for 250 MW load from October, 2011 at the existing Soolagiri (Hosur) 400/220 kV substation of POWERGRID.
- 10.2 POWERGRID had sought TNEBøs observation on the application and following was submitted
 - Bangalore ó Hosur Salem 400 KV corridor is already congested. To overcome above congestion, LILO of 400 KV Salem ó Bangalore line at Hosur and additional 400 KV Salem ó Bangalore D/c line is proposed.
 - The central connectivity units, viz., Koodankulam, Neyveli TS-II expansion and Kalpakkam fast breeder reactor are also yet to be commissioned.
 - Therefore, the grant of connectivity may be deferred till above strengthening is put in place
 - Further additional 315 MVA transformer add up to more than 1000 MVA (4x315MVA) at Hosur, however CEA/CERC guidelines specify to limit it to 1000 MVA
- 10.3 CE, CEA asked the representative of bulk consumer to submit information about the Section-42 clearances or relevant approval regarding SEZ and the projection of load growth as the 250 MW load shall not come at one instance. The bulk consumer representative agreed to submit the desired information in 2-3 weeks time.

The application shall be reviewed after submission of desired information and taken up in next meeting.

11.0 Connectivity Applications in Southern Region -

11.1 CDE, POWERGRID informed that POWERGRID have received 11 nos. of application from IPP developers seeking only Connectivity to ISTS the details of which are as below:

SI. No	Applicant	Time frame	Location	IC (MW)	Connectivity Sought for (MW)
1.	RVK Energy (Rajahmundry) Private Limited	December, 2011	East Godavari Dist., Andhra Pradesh	360	360
2.	NTPC Limited - Kayamkulam-II	2013-14	Alapuzha Dist., Kerala	1050	1050
3.	North Chennai Power Company Limited	February, 2015	Tiruvallur Dist., Tamil Nadu	1200	1105
4.	VSF Projects Limited	December, 2013	Nellore Dist., Andhra Pradesh	350	350

Connectivity Applications \rightarrow

SI. No	Applicant	Time frame	Location	IC (MW)	Connectivity Sought for (MW)
5.	Rajanagarm Gas Power Private Limited	December, 2012	East Godavari Dist., Andhra Pradesh	1100	1100
6.	Shree Renuka Energy Limited	March, 2014	Vantamuri, Belgaum Dist, Karnataka	1050	956
7.	Vainateya Power Private Limited	December, 2013	Tuticorin Dist., Tamil Nadu	1320	1320
8.	Nuclear Power Corporation of India Ltd Kudankulam-II	2016	Nagarcoil Dist., Tamil Nadu	2000	2000
9.	Pragdisa Power Private Limited	December, 2013	Nellore Dist., Tamil Nadu	1320	1320
10.	Simhapuri Energy Private Limited	4th Qtr, 2014	Nellore Dist., Andhra Pradesh	1320	1235
11.	Sheshadri Power & Infrastructure (P) Ltd.	September, 2013	Mahabubnagar Dist., Andhra Pradesh	1320	1320
	Total			12390	12116

11.2 The project developers were requested the update status of the progress made so far with respect to each project which is as given below:

Applicant	IC (MW)	Land	Fuel	MoE	Forest	EPC
RVK Energy (Rajahmundry) Private Limited	360					
NTPC Limited - Kayamkulam-II	1050			Kok Konojeji		
North Chennai Power Company Limited	1200					
VSF Projects Limited	350		KYONGENES KYONGENES KYNKYYC			
Rajanagaram Gas Power Private Limited	1100			AND SAL		
Shree Renuka Energy Limited	1050			/ Y08/ / /		
Vainateya Power Private Limited	1320			KAZA JEG		[[]]]
Nuclear Power Corporation of India Ltd Kudankulam- II	2000					
Pragdisa Power Private Limited	1320			Approfed		
Simhapuri Energy Private Limited	1320	[\$][]				
Sheshadri Power & Infrastructure (P) Ltd.	1320					

<u>Progress status of IPP generation projects</u> \rightarrow

Available

Not Available

- 11.3 It was noted that no representative came for attending the meeting from M/s North Chennai Power Company Limited, Shree Renuka Energy Limited and Sheshadri Power & Infrastructure (P) Ltd, therefore their project was not discussed.
- 11.4 Looking into the progress made by the IPP generation developers, the members decided that the connectivity may be granted to following applicants :

<u>Transmission System for Connectivity</u> →

1) RVK Energy (Rajahmundry) Private Limited (360 MW) (dedicated line under the scope of applicant as per CERC regulations, 2009)

- (i)Generation switchyard Vemagiri-II pooling station 400 kV D/c line
- (ii) 1x80 MVAR Bus Reactor at generation switchyard
- 2) NTPC Limited Kayamkulam-II (1050 MW)
 - (i)LILO of existing one circuit of Thiruvelneli ó Muvattupuzha 400 kV D/c (Quad) line at generation switchyard.
 - (ii) Provision of 2x315 MVA, 400/220 kV transformer
 - (iii) 1x80 MVAR Bus Reactor at generation switchyard
- 3) VSF Projects Limited (350 MW) (*dedicated line under the scope of applicant as per CERC regulations, 2009*)
 - (i) Generation switchyard Nellore pooling station 400 kV D/c line
 - (ii) 1x80 MVAR Bus Reactor at generation switchyard
- 4) Vainateya Power Private Limited (1320 MW)
 - (i) Generation switchyard Tuticorin pooling station 400 kV D/c (Quad or Twin HTLS) line
 - (ii) 1x125 MVAR Bus Reactor at generation switchyard

12.0 Closing of old pending Connectivity & LTOA/LTA Applications in SR -

12.1 CDE, POWERGRID stated that following 9 nos. of Connectivity / LTOA / LTA applicants were granted Connectivity / LTOA / LTA, however even after repeated reminders either they have not signed BPTA & did not submitted requisite Bank Guarantee (BG). Therefore it was proposed to withdraw the granted Connectivity / LTOA / LTA to the applicants.

SI. No	Applicant	Location	IC (MW)	LTOA/LTA Sought for (MW)	Time Frame	Granted On
Conn	ectivity Applications					
1.	Alfa Infraprop Private Limited	Srikakulam Dist., Andhra Pradesh	2640	2640	Jan, 2014	06.05.2010
LTOA/LTA Applications						
2.	JSW Power Trading Company Limited	Torangallu, Karnataka	600	600	Apr, 2012	26.10.2009
3.	NCC Power Project Limited	Srikakulam Dist., Andhra Pradesh	1320	1320	Jan, 2014	06.05.2010
4.	Krishnapatnam Power Corporation Limited	Nellore Dist., Andhra Pradesh	1320	925	Sept, 2013	06.05.2010
5.	Kenita Power Private	Nellore Dist.,	1320	925	Sept, 2013	06.05.2010

<u>Connectivity / LTOA / LTA Applications</u> →

SI.	Applicant	Location	IC	LTOA/LTA	Time	Granted
No			(MW)	Sought for	Frame	On
				(MW)		
	Limited	Andhra Pradesh				
6.	Andhra Pradesh Power	Nellore Dist.,	1600	175	Jun, 2012	Earlier
	Development Company	Andhra Pradesh				06.07.2009
						and
						Re-issued
						10.12.2010
7.	Nelcast Energy	Nellore Dist.,	1320	1240	Mar, 2015	10.12.2010
	Corporation Ltd.	Andhra Pradesh				
8.	Spectrum Power	East Godavari Dist.,	1400	1350	Mar, 2013	10.12.2010
	Generation	Andhra Pradesh				
9.	GVK Gautami Power	East Godavari Dist.,	800	800	Sept, 2012	10.12.2010
	Limited	Andhra Pradesh			_	
10.	GVK Industries Private	East Godavari Dist.,	800	800	Sept, 2012	10.12.2010
	Limited	Andhra Pradesh			_	
	Total		10480	8135		

- 12.2 Members discussed the issues and decided that the grant of Connectivity / LTOA / LTA of non-serious applicants from Sl. No. 1 to 7 may be withdrawn immediately and accordingly POWERGRID may send the withdrawal & cancellation letter to the applicants.
- 12.3 Regarding LTA applicants of Vemagiri Area from Sl. No. 8 to 10 who have signed BPTA with POWERGRID, however repeatedly seeking extension for submission of requisite BG. These applicants were required to submit BG by 23.03.2011 as per the BPTA signed, on their request during 3rd meeting of Joint Co-ordination Committee the deadline was extended to 31st May, 2011. Members discussed & decided that these applicants may be granted extension upto July 15, 2011 and even after this extension, if they do not submit requisite BG then the Connectivity / LTA may be withdrawn.
- 13.0 MS, SRPC extended thanks to the Southern Region constituents members for participation in fruitful discussion for transmission development in Southern Region and facilitating grid development
- 14.0 Meeting ended with vote of thanks.

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List of participants of the 12th Meeting of Southern Region regarding Connectivity and LTA applications of SR held on 08.06.2010 at New Delhi

Sl. No. Name and Organization Designation

Central Electricity Authority (CEA)

- 1. A S Bakshi Member (Planning & Power Systems)
- 2. Ravinder Chief Engineer (SP&PA)
- 3. Pardeep Jindal Director (SP&PA)
- 4. Manjari Chaturvedi Deputy Director (SP&PA)
- 5. Nageswara Rao Maragani Engineer (SP&PA)

Southern Region Power Committee (SRPC)

0. 5 D Taksande Member Secretary 1/	6.	S D Taksande	Member Secretary I/
0. D Taksande Mender Sceletary 1/	6.	S D Taksande	Member Secretary I/

7. S R Bhatt SE

Power Grid Corporation of India Limited (POWERGRID)

8. Y K Sehgal ED (SEF, CE & IT) 9. L R Bansal AGM(SR-I) 10. M. Varghese DGM(SR-II) R V Madan Mohan Rao CDE (SEF) 11. Jane Jose Chief Manager (Comml.) 12. Anil Kumar Meena Dy. Manager (SEF) 13. Prashant Pandey Engineer (SEF) 14.

Power System Operation Corporation Limited (POSOCO)

15.	S K Soonee	CEO
16.	P R Raghuram	GM, SRLDC
17.	S P Barnwal	Manager, SRLDC

NTPC Limited (NTPC)

18.	Abhijit Sen	AGM (PE)
19.	S S Mishra	DGM
20.	Sandeep Naik	DGM (Comml.)

Neyveli Lignite Corporation Limited (NLC)

21. R Suresh GM (Comml.)

Nuclear Power Corporation of India Limited (NPC)

22. Sandeep Sarwate ACE (Tr.)

Transmission Corp. of Andhra Pradesh Ltd. (APTRANSCO)

- 23. P Srirama Rao Director (Grid Operation)
- 24. M Jayachandra CE (PS)

25. M Balasubramanyam DE/System Studies

Karnataka Power Transmission Corporation Limited (KPTCL)

26. Pratap Kumar Director (Transmission)

Kerala State Electricity Board (KSEB)

27.	C V Nandan	Member (Transmission)
28.	S S Biju	AEE (SSG)
29.	G Sreenivasan	Resident Engineer
30.	S R Anand	EE

Tamil Nadu Electricity Board (TNEB)

- 31. C Kaliaporumal SE/LD&GO (TANTRANSCO)
- 32. V G Manoharan CE/P&RC (TNEB)
- 33. K Thangachamy SE (System Studies)
- 34. Arun Kumar Samuel AEE (TANTRANSCO)

Connectivity/LTA Applicants

1.	V Chandramoleeswaran	Director Chettinad Power Corporation Pvt. Ltd.
2.	Abhay Kumar Sinha	GM-Power Dandelion Properties Pvt. Ltd.
3.	S Arounassalame	COO Empee Power & Infrastructure Pvt. Ltd.
4.	Ajaya Kumar Nathani	VP (Tr.) GMR Energy Limited
5.	S N Sunkari	GM (Tr.) GMR Energy Limited
6.	A L Nageswara Rao	Advisor GMR Energy Limited
7.	Padma C Rao	VP (Comml.) Hinduja National Power Corpn. Ltd.
8.	H L Tayal	Head(BD) IL&FS Tamil Nadu Power Co. Ltd.
9.	Akhil Agarwal	Sr. Manager IL&FS Tamil Nadu Power Co. Ltd.
10.	N P Hanagodu	CEO Meenakshi Energy Private Limited
11.	S Sen C	GM (E) Meenakshi Energy Private Limited
12.	B S Rao (GM NSL Nagapattinam Power & Infra P Ltd.
13.	R Radha Krishna Murthy	CEO PEL Power Ltd.
14.	G Vijaya Kumar 🛛 🤇	COO PEL Power Ltd.
15.	S Narayanan M	MD PPN Power Generating Co. Pvt. Ltd.
16.	Harshad Reddy H	ED (Opns) PPN Power Generating Co. Pvt. Ltd.
17.	B Sundaramurthy S	Sr. VP PPN Power Generating Co. Pvt. Ltd.
18.	K C Middha C	GM (Proj.) Rajanagarm Gas Power Private Ltd.
19.	N K Bakshi H	RVK Energy (Rajahmundry) Pvt. Ltd.
20.	N Laxmi Narayan I	RVK Energy (Rajahmundry) Pvt. Ltd.
21.	K C Middha	GM (Proj.) Simhapuri Energy Pvt. Ltd.
22.	R Suresh Kumar	Sr. GM Sindya Power Generating Co. Pvt. Ltd.
23.	S Majumdar	Advisor Vainateya/Pragdisa Power Pvt. Ltd.
24.	P S Chakravarthy (GM Vainate ya/Pragdisa Power Pvt. Ltd.
25.	M V Sreedhar	AGM Vainate ya/Pragdisa Power Pvt. Ltd.
26.	L Raja Rao I	Dir VSF Projects Limited
27.	Prabakar Tirouvingadam	e KAquatherm VSF Projects Limited