

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

No. 51/4/SP&PA-2010/ 341 - 350

Date: April 06, 2010

To

1.The Member Secretary, Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore 560 009. FAX : 080-22259343	2.The Director (Projects), Power Grid Corp. of India Ltd. “Saudamini”, Plot No.2, Sector-29, Gurgaon 122 001, Haryana. FAX : 95124-2571932
3.The Director (Transmission), Transmission Corp. of Andhra Pradesh Ltd., Vidyut Soudha, Hyderabad – 500 082. FAX : 040-66665137	4.The Director (Transmission), Karnataka State Power Transmission Corp.Ltd., Cauvery Bhawan, Bangalore 560 009. FAX : 080 -22228367
5.The Member (Transmission), Kerala State Electricity Board, Vidyuthi Bhawanam, Pattom, P.B. No. 1028, Thiruvananthapuram - 695 004. FAX : 0471-2444738	6. Member (Distribution), Tamil Nadu electricity Board (TNEB), 6 th Floor, Eastern Wing, 800 Anna Salai, Chennai - 600002. FAX : 044-28516362
7.The Director (Power), Corporate Office, Block – I, Neyveli Lignite Corp. Ltd., Neyveli , Tamil Nadu – 607 801. FAX : 04142-252650	8.The Superintending Engineer –I, First Floor, Electricity Department, Gingy Salai, Puducherry – 605 001. FAX : 0413-2334277/2331556
9. Director (Projects), National Thermal Power Corp. Ltd. (NTPC), NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003. FAX-011-24360912	10. Director (Operations), NPCIL, 12 th Floor, Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai – 400 094. FAX : 022- 25991258

Sub: 30th meeting of the Standing Committee on Power System Planning of Southern Region
- Agenda Note and notice for the meeting.

Sir,

The **30th meeting** of the Standing Committee on Power System Planning of Southern Region would be held on **13th April 2010 (Tuesday)** at 10:00 AM at PGCIL office, Plot No.-2/Sector-29, Gurgaon.

Agenda note for the meeting is also available at CEA’s website, **www.cea.nic.in**.

Please make it convenient to attend the meeting.

Yours faithfully,

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

Contact Person and Meeting Venue Details

**30th Meeting of
Standing Committee on Power System Planning in Southern Region (SCPSPSR)**

Meeting Time: 10:00 AM. Date: April 13, 2010 (Tuesday)

The meeting arrangements are being made by POWERGRID.

Venue:

**5th Floor Auditorium,
Power Grid Corporation of India Ltd.
“Saudamini”, Plot No. 2, Sector-29, Gurgaon-122001
Tel: 0124-2571700-719**

Contact Person:

**Sh. Dilip Rozekar,
DGM (Engg-SEF), POWERGRID
Tel: 0124-2571769
Mobile : 09910378106**

**Agenda Note for 30th Meeting of
Standing Committee on Power System Planning in Southern Region (SCPSPSR)**

Time: 10:00 AM. Date: April 13, 2010 (Tuesday)

Venue: 5th Floor Auditorium, PGCIL, “Saudamini”, Plot No. 2, Sector-29, Gurgaon

1.0 Confirmation of the minutes of 29th meeting of the Standing Committee

- 1.1 Minutes of 29th meeting of the Standing Committee on Power System Planning of Southern Region, held on 27th August 2010 at Hyderabad, were issued vide CEA’s letter number 51/4/SP&PA-2009/ 920-929 dated September 04, 2009.
- 1.2 PGCIL, vide their letter no. C/ENG/SEF/S/00/PLG dated 05-11-2009 gave their observation regarding establishment of 765/400/220kV Madhugiri S/S(to be initially charged at 400kV). It is observed that the establishment of a new 400/220 kV sub-station at Madhugiri with provision of establishing a 765/400 kV substation in the same switchyard alongwith Gooty – Madhugiri 400kV D/C line, to be implemented by PGCIL, was agreed in the 28th Meeting of Standing Committee (refer Para 4.6.2 of the Minutes of the 28th Meeting of the Standing Committee on Power System Planning of Southern Region held on 15-06-2009) and also in the 10th Meeting of SRPC (refer Para 30.2 of the 10th Meeting of SRPC held on 02-07-2009). Subsequently the same was also inadvertently covered under Para 12.3.2 of the 29th Standing Committee Meeting. Based on these observations, a corrigendum to the minutes of the 29th meeting was issued vide CEA letter no. 51/4/SP&PA-2009/171-180 dated 30-11-2009. (copy enclosed at **Annex-I**).
- 1.3 The Minutes of the 29th meeting alongwith corrigendum, as circulated, may be confirmed.

2.0 Status of Under Construction / Approved Schemes:

- 2.1 Latest status of the ISTS projects being implemented by POWERGRID in Southern Region are given at **Annex-II**. In particular, the Mysore-Kozhikode 400kV D/C line and the Kudankulam Transmission system are getting delayed. Members may discuss.
- 2.3 APTRANSCO may inform status of their preparedness for transmission requirements for Bhoopalapally and Vijayawada Stage-IV projects.
- 2.4 KPTCL may inform status the Nagarjuna TPS(UPCL)-Hassan 400kV D/C line and 220kV transmission system for Hassan 400kV S/S.
- 2.5 TNEB may inform about status of transmission system for NCTPS Stage-II, Mettur TPS Ext and Udangudi TPS projects, and Evacuation system wind projects in Tirunelveli and Sholinganallur-Kalivanthapattnam 400kV line.
- 2.2 KSEB may inform status of the transmission lines for Pallakad, Cochin and Kozhikode 400kV S/Ss.

3.0 Madhugiri 400kV S/S with provision of upgrading to 765/400kV in future:

- 3.1 A new 400/220kV 2x500 MVA sub-station at Madhugiri with provision of establishing a 765/400 kV sub-station in the same switchyard have been planned alongwith Gooty – Madhugiri 400kV D/C line and Madhugiri-Yelahanka 400kV Quad D/C line as regional strengthening system. During planning stage it was envisaged that a 765kV sub-station at Madhugiri would be needed at a later date for transmission of power from new IPPs and the proposed UMPP project in Tamil Nadu. For this purpose, a 765kV S/S (to be initially charged at 400kV) was planned at Salem in Tamil Nadu which would pool the power from the UMPP project and IPP projects in Tamil Nadu and the pooled power would be further transmitted over Salem-Madhugiri 765kV line (to be initially charged at 400kV). 765kV operation of this system alongwith establishment of 765/400kV Sub-stations at Salem and Madhugiri would depend upon the progress of UMPP/IPP generation projects in Tamil Nadu and it was envisaged that transmission charges for this upgrading would be shared respective beneficiaries of the UMPP and IPP projects.
- 3.2 Accordingly, initially, establishment of a 400/220 kV sub-station at Madhugiri alongwith Gooty – Madhugiri 400kV D/C line and Madhugiri-Yelahanka 400kV Quad D/C line as regional strengthening system was discussed and agreed in the 28th Meeting of Standing Committee (refer Para 4.6.2 of the Minutes of the 28th Meeting of the Standing Committee on Power System Planning of Southern Region held on 15-06-2009) and also in the 10th Meeting of SRPC (refer Para 30.2 of the 10th Meeting of SRPC held on 02-07-2009) and 11th Meeting of SRPC (refer Para 25.6 of the 11th Meeting of SRPC held on 17-09-2009). This system is to be implemented by PGCIL under the scheme “System Strengthening in Southern Region-XIII”.
- 3.3 Subsequently, it was observed that the establishment of 765kV pooling station in Madhugiri (to be initially charged at 400kV) inadvertently got included under the scheme – “Transmission System for Coastal Energen Pvt Ltd (2x660 MW) and IND Barath Power Madras Ltd (4x350 MW) projects in Tuticorin, Tamil Nadu” in the minutes of the 29th meeting of the Standing Committee on Power System Planning of Southern Region (refer Para 12.3.2 of the minutes of the 29th meeting) and later during the 11th meeting of the SRPC (refer para 25.3.1 B. of minutes of 11th SRPC meeting). CEA vide their letter no. 51/4/SP&PA/2009/171-180 dated 30-11-2009 have already issued corrigendum to the minutes of the 29th meeting of the Standing Committee on Power System Planning of Southern Region (SCPSPSR) retaining establishment of the Madhugiri 400/220kV S/S as regional project. During 12th meeting of the SRPC, while taking up the above corrigendum issued by CEA, KSEB stated that they need a little more time to consider the issue.
- 3.4 It is reiterated that establishment of a new 400/200kV S/S at Madhugiri is for strengthening of regional system in Southern Region and the 765/400kV portion would be associated with IPP/UMPP projects only. At present only two IPPs (Coastal Energen Pvt Ltd (2x660 MW) and IND Barath Power Madras Ltd (4x350 MW) projects are in progress, therefore, the Tuticorin-Salem-Madhugiri 765kV system, which is part of transmission system for these IPP projects in Tamil Nadu would be initially charged at 400kV and therefore would have to be terminated at the 400kV bus of the 400/220kV regional S/S at Madhugiri.
- 3.5 Members may discuss and agree for taking up the Madhugiri 400/220kV S/S with the Gooty-Madhugiri 400kV line as Southern Region System Strengthening Schemes. Upgradation of the Madhugiri S/S by establishing 765/400kV part would be associated with IPP/UMPP projects.

4.0 Transmission System Associated with the Coastal Energen Pvt Ltd(2x660 MW) and IND Barath Power Ltd (4x350 MW) projects in Tuticorin area of Tamil Nadu:

4.1 Tuticorin Pooling Station – Tuticorin JV 400kV D/C Quad Line:

The Tuticorin Pooling Station – Tuticorin JV Station (of NLC) 400kV D/C Quad line was inter-alia agreed as part of the transmission system associated with the Coastal Energen Pvt Ltd(2x660 MW) and IND Barath Power Ltd (4x350 MW) projects in Tuticorin area of Tamil Nadu. NLC have informed that they could spare only one bay at their Tuticorin JV station. As such, considering space constraint and better capacity utilization of the 400kV quad D/C line, it is proposed that instead of the Tuticorin Pooling Station – Tuticorin JV Station 400kV D/C line, both the circuits of Tuticorin JV – Madurai 400kV Quad D/C line may be LILoed at Tuticorin Pooling Station.

4.2 Connectivity for Salem Pooling Station:

A new 765/400kV Substation at Salem Pooling Station (to be initially operated at 400kV) was also inter-alia agreed as part of the above transmission system. Connectivity of this new Salem S/S with existing grid was yet to be firmed up. It is proposed that Salem Pooling Station be connected with existing Salem 400kV S/S with a 400kV Quad D/C line.

4.3 Members may discuss and agree the above proposed modifications in the transmission system for the Coastal Energen Pvt Ltd(2x660 MW) and IND Barath Power Ltd (4x350 MW) projects in Tuticorin area of Tamil Nadu.

5.0 System Strengthening Proposals in Southern Region:

5.1 PGCIL has proposed following transmission additions as regional system strengthening schemes in Southern Region:

- (i) Salem – Somanahalli 400kV Quad D/C line.
- (ii) 1x500 MVA 400/220kV Transformer Augmentation at Hosur 400/230 kV S/S
- (iii) Tiruvalam – Kolar 400kV D/C Quad D/C line.
- (iv) North Trissur – Kozhikode 400kV Quad D/C line

5.2 Proposal note on these strengthening schemes is given at **Annex-III**. Load flow studies and present flows on the Hosur transformer and on the Salem-Somanahalli line would be circulated by PGCIL during the meeting. Members may discuss.

6.0 LTOA Applications Made to CTU for Projects in Southern Region:

POWERGRID may take up the agenda points related to the transmission system requirements for evacuation of power from generation projects.

7.0 Any other issue with the permission of Chairman.

Corrigendum to the minutes of the 29th meeting was issued vide CEA letter no. 51/4/SP&PA-2009/171-180 dated 30-11-2009

Corrigendum to Minutes of the 29th Meeting of the Standing Committee on Power System Planning of Southern Region held on August 27, 2009 at Hyderabad

Minutes of 29th meeting of the Standing Committee on Power System Planning of Southern Region were issued vide our letter number 51/4/SP&PA-2009/920-929 dated 04-09-2009. PGCIL, vide their letter no. C/ENG/SEF/S/00/PLG dated 05-11-2009 have given their observation regarding establishment of 765kV Madhugiri S/S(to be initially charged at 400kV).

It is observed that the establishment of a new 400/220 kV sub-station at Madhugiri with provision of establishing a 765/400 kV substation in the same switchyard alongwith Gooty – Madhugiri 400kV D/C line, to be implemented by PGCIL, was agreed in the 28th Meeting of Standing Committee (refer Para 4.6.2 of the Minutes of the 28th Meeting of the Standing Committee on Power System Planning of Southern Region held on 15-06-2009) and also in the 10th Meeting of SRPC (refer Para 30.2 of the 10th Meeting of SRPC held on 02-07-2009). Subsequently the same was also inadvertently covered under Para 12.3.2 of the 29th Standing Committee Meeting.

Based on above observations, following changes are made in the Minutes of 29th meeting of the Standing Committee on Power System Planning of Southern Region:

(1) Para 12.3.2: Transmission System for Coastal Energen Pvt Ltd (2x660 MW) and IND Barath Power Madras Ltd (4x350 MW) projects in Tuticorin, Tamil Nadu:

The Para 12.3.2(i) may be modified as:

- 12.3.2(i) Establishment of 765kV pooling stations at Tuticorin and Salem to be initially charged at 400kV.

Status of Southern Region Transmission Schemes- POWERGRID

Sl. No.	Name of Scheme & Elements	Standing Committee Approval	FR Date	Investment approval by POWERGRID Board/ CCEA	Target as of now	Comments/Reasons of delay
1.	<p>Kaiga U-3&4 Tr. System</p> <p>a) Narendra – Davangere 400 kV D/c line</p> <p>b) LILO of existing Kolar – Sriperumbudur 400 kV S/c at new 400/220 kV substation at Melakottaiyur</p> <p>c) Provision of 2nd 315 MVA, 400/220 kV transformer at Hiriyyur 400/220 kV substations each.</p> <p>d) Establishment of new 400/220 kV substations at Melakottaiyur with 2x315 MVA, 400/220 kV transformers</p> <p>e) Mysore – Kozhikode 400 kV D/c line</p> <p>f) Establishment of new 400/220 kV substations at Kozhikode with 2x315 MVA, 400/220 kV transformers</p>	16 th Meeting on 20.01.03	Oct, 03	CCEA Approval – March, 2005	Commissioned Except Mysore-Kozhikode line and Kozhikode substation	Mysore – 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.	<p>Kudankulam Tr. System</p> <p>a) Kudankulam – Tirunelveli 2x400 kV D/c lines with Quad conductors</p> <p>b) Tirunelveli – Udumalpet 400 kV D/c lines with Twin conductors.</p> <p>c) LILO of both circuits of Madurai – Trivandrum 400 kV D/c line at Tirunelveli</p> <p>d) Tirunelveli – Edamon 400 kV Multi-ckt line (2 ckts of quad & 2 ckts of twin)</p> <p>e) Edamon – Muvattupuzha 400 kV Quad D/c line constructed in new ROW corridor</p> <p>f) Muvattupuzha - North Trichur 400 kV D/c line with quad conductor</p> <p>g) Establishment of new 400/220 kV transformers with 2x315 MVA transformers at Tirunelveli and Muvattupuzha.</p> <p>h) Transformation Aug.with</p>	18 th Meeting on 05.03.04	June, 04	CCEA – May, 2005	Jun' 10	<p>– Generation project is delayed to Jun'2010 / Dec'2010.</p> <p>– System to be commissioned Matching with generation project.</p> <p>– Tirunelveli 400/220 kV S/stsn and LILO of Madurai – Trivandrum commissioned</p> <p>– Severe ROW problems facing in Edamon – Muvattupuzha – North Trichur corridor</p>

Sl. No.	Name of Scheme & Elements	Standing Committee Approval	FR Date	Investment approval by POWERGRID Board/ CCEA	Target as of now	Comments/Reasons of delay
	1x315 MVA transformers at Udumalpet and Trivandrum 400/220 kV substations.					
3.	System Strengthening – VII a) Establishment of 400/220 kV new substation with 2x315 MVA transformers at Karaikudi. b) LILO of one circuit of Madurai-Trichy 400 kV D/c line at Karaikudi c) Establishment of 400/220 kV new substation with 2x315 MVA transformers at Hassan. d) LILO of one circuit of existing Talguppa-Neelmangla 400 kV D/c line at Hassan	18 th Meeting on 05.03.04	July, 04	April, 05	Apr' 10	– Karaikudi substation and associated LILO commissioned. – Hassan substation and associated LILO ready for commissioning, however getting delayed due to delay in 220kV evacuation lines
4.	Kalpakkam PFBR Tr. System a)KPFBR - Kancheepuram 230 kV D/c line b) KPFBR – Arni 230 kV D/c line c)KPFBR – 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	– Award placed in Mar' 2010
5.	Transmission System associated with TuticorinJV a) Tuticorin – Madurai 400kV D/c line (Quad conductor)	22 nd Meeting on 18.06.07	Jun, 07	Feb, 09	Feb' 12	Generation getting delayed revised schedule Jun'2012 as per 12 th SRPC minutes
6.	System Strengthening – VIII a) 11 nos. of 63 MVAR Reactors (7 bus reactors + 4 line reactors)	23 rd Meeting on 22.01.07	Mar, 07	Jan, 08	Nov' 10	– 4 Reactors already commissioned, 2 Reactors are close to commissioning – For balance implementation work are in progress

Sl. No.	Name of Scheme & Elements	Standing Committee Approval	FR Date	Investment approval by POWERGRID Board/CCEA	Target as of now	Comments/Reasons of delay
7.	Transmission system associated with Chennai NTPC-TNEB JV TPS a) LILO of Alamanthy – Sriperumbudur 400 kV D/c line at North Chennai TPS JV	24 th Meeting on 18.06.07	Nov, 07	May' 08	July'10	– Activities in progress, Gen. likely by Feb' 2011 as per 12 th SRPC minutes
8.	System Strengthening – IX a) Hassan - Mysore 400 kV D/c line	24 th Meeting on 18.06.07	Aug, 08	Feb, 09	Feb' 12	
9.	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 Nelamangla – Somanahalli 400 kV D/c line at Bidadi 400 kV substation	24 th Meeting on 18.06.07	Sept, 08	Dec, 09	May' 12	– Award placed in Dec' 2009
10.	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	Jul' 11	– Implementation works are in progress
11.	System Strengthening–XII a) Establishment of new 400/220 kV substation at Yelahanka with 2x500 MVA transformers and 1x63 MVAR bus reactor. b) LILO of Nelamangla-Hoody 400kV S/c line at Yelahanka 400kV S/S c) LILO of Somanahalli-Hoody 400kV S/c line at Yelahanka 400kV S/S	27 th Meeting on 03.03.09	July, 09	Feb, 10	Jul' 12	– Award to be placed shortly.
12.	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	– Award placed in Feb' 2010

Sl. No.	Name of Scheme & Elements	Standing Committee Approval	FR Date	Investment approval by POWERGRID Board/ CCEA	Target as of now	Comments/Reasons of delay
13.	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 – Sriperumbudur 400 kV shall be restored as direct lines. b) Establishment of Tiruvelam 765/400kV switching station initially charged at 400kV c) Tiruvalam (POWERGRID) - Chittoor 400kV D/C quad line	28 th Meeting on 15.06.09	Aug, 09	Feb, 10	Nov' 12	– Award to be placed shortly.
14.	Common Transmission System Associated with LTA Projects in Krishnapatnam Area a) Establishment of 765/400kV 2x1500MVA Pooling station at Nellore by LILO of Simhapuri – Nellore 400kV D/c line b) Nellore Pooling station – Kurnool 765 kV 2x S/c c) Kurnool – Raichur 2nd 765 kV S/c line	26 th Meeting on 13.06.08	Nov, 09			– FR prepared – Investment to be taken shortly
15.	Common Transmission System 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 – Tuticorin JV 400 kV D/c quad	29 th Meeting on 27.08.09	Nov, 09			– FR prepared – Investment to be taken shortly

PGCIL Proposals for System Strengthening

1.0 Grid Strengthening in Southern Region (Interconnection between Karnataka and Tamil Nadu)

- 1.1 In the recent past it has been observed that interconnection between Karnataka and Tamil Nadu viz. Somanahalli - Salem 400 kV S/c line & Kolar - Hosur – Salem 400 kV lines are critically loaded and posing congestion for smooth transfer of power. The normal power flow in the present conditions is from Karnataka to Tamil Nadu i.e. Bangalore to Salem. Loading pattern on Hosur – Salem is enclosed for ready reference (refer **Annexure-I**).

In the future condition also, when lot of generation additions are expected in the southern part of Tamil Nadu (both under State sector and IPPs/CS), it has been observed that the loading on existing Salem – Bangalore (Somanahalli) 400 kV S/c line & Hosur – Salem 400 kV S/c line are on higher side for flow of power from Salem towards Bangalore (Refer load flow study result at **Exhibit-I**).

Therefore interconnection between Karnataka and Tamil Nadu is required to be strengthened as it shall serve the grid not only in the present conditions but shall also be of use when generation additions take place in the Tamil Nadu.

- 1.2 Further it has been reported from site that transformer loading at Hosur are on higher side for substantial no. of hours on each day. Loading pattern on Hosur 400/220 kV ICT is enclosed for ready reference (refer **Annexure-II**). Therefore, augmentation of transformation capacity at Hosur (1x500 MVA) shall be required to meet n-1 criteria with reliability.
- 1.3.1 It has been observed from monthly Available Transfer Capability reports of SRLDC that the ATC gets severely reduced while deriving export capability of Southern Region. Further, the report identifies the overloading of 400 kV Kadapa-Kolar line during reversal of power flow on Talcher-Kolar HVDC bipole.

Considering the progress/likely additions of generation especially in Chennai area, Kudankulam, southern Tamil Nadu etc. it is likely that Southern Region may be surplus if all the generation materializes. Under that scenario the power flow on Talcher-Kolar HVDC bipole may need reversal. In such an event, it is essential to strengthen transmission system to feed power to Kolar. Under Vallur supplementary scheme, POWERGRID is implementing Chittoor - Tiruvalam 400 kV D/c (quad) line and TNEB is also implementing Alamathi – Tiruvalam 400 kV D/c line. Accordingly, it is proposed that to connect Kolar through a 400 kV D/c (quad) line from Tiruvalam (refer load flow result **Exhibit-II**).

In view of the above following is proposed to be taken up as regional system strengthening scheme:

- (i) Salem Pooling station – Somanahalli 400kV D/c (quad) line
- (ii) Thiruvalem – Kolar 400 kV D/c (quad) line
- (iii) Augmentation of 1x500 MVA transformer at Hosur 400/220 kV substation.

2.0 400 kV Interconnection to North Kerala

2.1 The loads of northern Kerala viz. Kozhikode is presently met through 3 nos. of 220 kV lines from Trissur, where a 400/220 kV substation with 2x315 MVA transformers exists. It has been reported from site that the loading on the 400/220 kV transformers at Trissur substation is critically loaded. Further, under the associated transmission system of Kaiga Stage-II, 400 kV D/c line between Mysore and Kozhikode and 400/220 kV substation at Kozhikode is under implementation. However, the implementation of this line is getting delayed due to serious ROW problems. To improve the reliability of power supply in Northern Kerala area, it is proposed to interconnect North Trissur with Kozhikode through a 400 kV D/c (quad) line. Further this line shall also help in power transfer when Kayamkulam-II & Kudankulam-II generation materializes.

2.2.1 It has been observed that there is severe ROW constraint in Kerala for construction of transmission line. In view of this, active support of KSEB shall be necessary for utilization of ROW of one number 220 kV line of KSEB for implementation of 400 kV line.

2.2.2 In view of above, the following is proposed for improving the reliability of power supply in northern Kerala :

- (i) North Trissur – Kozhikode 400 kV D/c (quad) line, if required, utilizing ROW of part of KSEB's 220 kV line for timely implementation.
