



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
पूर्वी क्षेत्रीय विद्युत समिति

Eastern Regional Power Committee

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NO. ERPC/SE/PROTECTION/2021/ 461

DATE: 08.07.2021

To

As per List enclosed,

**Sub: Minutes of the Special Meeting on "Implementation of Islanding Schemes at Patna & Ranchi"
-Reg**

Sir,

Please find enclosed herewith the minutes of the Special Meeting on "**Implementation of Islanding Schemes at Patna & Ranchi**" held on **29.06.2021** through online MS Teams platform for your kind information and necessary action.

Observations, if any, may please be forwarded to this office at the earliest.

Yours faithfully,

(D.K. Bauri)
Superintending Engineer(O & PS)

LIST OF ADDRESSES:

- 1) Chief Engineer, Trans (O&M), Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021.
- 2) Chief Engineer(System Operation), BSPTCL, Patna-800021
- 3) Electrical Superintending Engineer (CRITL), Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021
- 4) General Manager(OS), ERHQ-I, NTPC Ltd., Loknayak Jaiprakash Bhawan, (2nd Floor), Dak Bunglow Chawk, Patna-800001
- 5) General Manager (O & M), Barh STPS, Barh, Patna
- 6) General Manager, SLDC Jharkhand, JUSNL, Doranda, Ranchi-834002.
- 7) General Manager, CRITL, JUSNL, Doranda, Ranchi-834002
- 8) Chief Engineer, TVNL, Doranda, Ranchi-834002
- 9) Executive Director, ERLDC, POSOCO, Tollygunge, Kolkata-700033.

ERPC:: KOLKATA

Minutes of the special meeting on “Implementation of Islanding Scheme at Patna & Ranchi” held on 29.06.2021 through MS Teams platform

List of participants is enclosed at **Annexure-A**.

Member Secretary, ERPC chaired the meeting. He welcomed all the participants to the meeting and informed that in the special meeting held on 09.04.2021 on “Implementation of Islanding Schemes in ER” it was decided to design Islanding schemes for Patna & Ranchi city with participating generating units of Barh STPS & Tenughat TPS respectively. In the meeting concerned utilities were advised to submit necessary load details, generator protection setting & governor details etc. to carry out islanding simulation study. He added that the present meeting has been convened to discuss the progress on the above islanding schemes and to decide further course of action.

The followings were deliberated in the meeting:

Patna Islanding Scheme:

ERLDC updated that category-wise load details for substations in & around Patna city had been received from Bihar. As per the details received, the total peak & off-peak load is in the range of 650-350 MW.

During discussion it came to notice that the load details submitted by Bihar includes Railway/traction load as well as loads covered under AUFLS schemes also. As one unit of Barh STPS would be the participating generator for the island, it was advised not to consider railway/TSS loads under the islanding scheme due to its unbalanced nature. Also, the loads which are covered under AUFLS shall be excluded from the islanding scheme.

Bihar representative informed that 400 kV Naubatpur & Jakkanpur and 220 kV Digha(New)Substations along with associated 400 kV and below voltage level lines are scheduled to be commissioned in 2021. However, the load of Patna city would be only re-distributed among the 220 kV& 132 kV substations.

ERLDC apprehended that with multiple numbers of 400 kV and 220 kV lines in the islanding scheme with one unit of Barh STPS as participating generator may create unbalance in reactive power in the island and ultimately affect the success of island formation. So, Bihar was advised to consider the minimum numbers of 400 kV and 200 kV lines to form an island for successful operation of islanding scheme.

Bihar was advised to prepare a rough map/SLD of Patna Islanding Scheme with the all the substations and lines intended to form a successful island. The new substations which are coming within the near future in and around Patna islanding scheme may also be considered while planning the island. The same may be shared with ERPC and ERLDC for further analysis and discussion.

From the preliminary discussion, it was assumed that in-house load of Barh STPS would be around 80-100 MW. Accordingly, the maximum load of Patna city that can be considered under islanding scheme would be around 520-550 MW.

After detailed deliberation the followings were decided:

1. Bihar has to submit the following details:
 - Revised load details of Patna city (excluding the traction load & loads covered under AUFLS) considering maximum load that can be accommodated under islanding scheme as 550 MW. Also, the above load figures may be calculated based on the actual load pattern for last 1-2 years period.
 - Network map indicating all 220 kV & 132 kV substation details which are to be included in the islanding scheme along with the disconnection points. The network map has to be prepared taking into consideration the substations/lines to be commissioned in near future. The timeline of the upcoming substation/lines has also to be submitted.
 - To submit availability as well as type of communication systems present in lines/substations inside the island network.
 - Further the proposed load & network connections for Islanding scheme need to be modelled and submitted as PSSE base case.
 - Any other details as required by ERLDC to carry out the islanding simulation study.

2. NTPC Barh has to submit the following details:
 - In-house load quantum in case of islanding operation with one unit of Stage-II, Barh STPP
 - Overfrequency/Underfrequency setting of generators
 - Governor details
 - Any other details as required by ERLDC to carry out the islanding simulation study.

Bihar & NTPC were advised to submit the above details to ERPC and ERLDC within a week.

Ranchi Islanding Scheme:

ERLDC informed that load details had been received from SLDC, Ranchi. As per the information submitted by them, the loads at Hatia, Kanke, Namkum, Kamdara, Khunti & Tamar Substations had been considered under the islanding scheme and the maximum & minimum load would be 150 MW and 320 MW respectively excluding the loads covered under AUFLS scheme.

SLDC, Ranchi submitted that the Sikidiri HEP (2x65 MW) along with Inland Power IPP (70 MW) generation may also be considered under the Ranchi Islanding Scheme to meet the complete demand of Island.

After detailed discussion, it was decided that the Sikidiri HEP shall not be considered under the islanding scheme due to its high variation of generation however, the Inland Power may be considered into the Ranchi Island.

On a query, TVNL informed that the average ex-bus generation of one unit of TTPS is in the range of 125-130 MW. It was opined that the load quantum have to be reviewed considering the generation available in the islanding scheme. Also, for the case of outage of one unit of Tenughat TPS, it was advised to keep a provision of tier-II island with one unit of Tenughat TPS.

After detailed deliberation, the followings were decided:

1. JUSNL was advised to submit the followings:

- Category wise bifurcation of the load (essential, critical etc.)
- Details of new substation/lines to be commissioned in near future with timeline and their connectivity and load details.
- Network map indicating all 220 kV & 132 kV substation details which are to be included in the islanding scheme along with the disconnection points. The network map has to be prepared taking into consideration the substations/lines to be commissioned in near future. The timeline of the upcoming substation/lines has also to be submitted.
- The proposed load & network connections for Islanding scheme need to be modelled and submitted as PSSE base case.
- Availability as well as type of communication systems present in lines/substations inside the island network.

Jharkhand was advised to submit the details within a week.

SE(O), ERPC pointed out that implementation of the Islanding Schemes is being regularly monitored at higher level of Govt of India and being given high priority for early implementation of the same. Therefore, he requested all the stakeholders to expedite all the works related to implementation of Islanding Scheme so that the same can be made operational at the earliest.

Meeting ended with vote of thanks to the chair.

Annexure-A

Full Name	User Action	Timestamp
ERPC Kolkata	Joined	6/29/2021, 10:48:28 AM
Kumar Satyam , ERPC (Guest)	Joined	6/29/2021, 10:49:42 AM
Chandan Kumar	Joined	6/29/2021, 10:52:48 AM
SLDC BIHAR (Guest)	Joined	6/29/2021, 10:53:17 AM
D K Bauri, ERPC (Guest)	Joined	6/29/2021, 10:54:03 AM
RAHUL BANSAL	Joined	6/29/2021, 10:54:33 AM
Kumar Satyam , ERPC (Guest)	Joined	6/29/2021, 10:56:30 AM
P P Jena, EE (Guest)	Joined	6/29/2021, 10:59:31 AM
Amaresh Mallick ERLDC (Guest)	Joined	6/29/2021, 11:00:02 AM
Deepak, EEE, BSPTCL (Guest)	Joined	6/29/2021, 11:00:11 AM
DEEPAK THAKUR , AEE/BSPTCL (Guest)	Joined	6/29/2021, 11:00:11 AM
Arindam BSPTCL (Guest)	Joined	6/29/2021, 11:00:40 AM
Rahul Anand	Joined	6/29/2021, 11:01:39 AM
pritam mukherjee (Guest)	Joined	6/29/2021, 11:02:30 AM
Amaresh Mallick, CGM, ERLDC (Guest)	Joined	6/29/2021, 11:03:03 AM
Saugato Mondal ERLDC (Guest)	Joined	6/29/2021, 11:03:14 AM
shyamal konar (Guest)	Joined	6/29/2021, 11:03:31 AM
Saurav Sahay Ch. Mgr ERLDC (Guest)	Joined	6/29/2021, 11:04:00 AM
Saibal Ghosh,ERLDC (Guest)	Joined	6/29/2021, 11:04:29 AM
Debajyoti ERLDC (Guest)	Joined	6/29/2021, 11:06:40 AM
MS ERPC (Guest)	Joined	6/29/2021, 11:07:02 AM
Dilip kant Jha Eee Bsptcl (Guest)	Joined	6/29/2021, 11:08:05 AM
abhinaba basu (Guest)	Joined	6/29/2021, 11:08:39 AM
Raj Protim ERLDC (Guest)	Joined	6/29/2021, 11:09:48 AM
ESE CRITL (Guest)	Joined	6/29/2021, 11:10:09 AM
Saibal Ghosh,ERLDC (Guest)	Joined	6/29/2021, 11:10:56 AM
Rambaboo Singh (Guest)	Joined	6/29/2021, 11:11:04 AM
pp chand ERLDC (Guest)	Joined	6/29/2021, 11:11:07 AM
DEEPAK KUMAR, EEE, CRITL, BSPTCL (Guest)	Joined	6/29/2021, 11:12:58 AM
SLDC,Ranchi (Guest)	Joined	6/29/2021, 11:13:38 AM
swarnima (Guest)	Joined	6/29/2021, 11:14:47 AM
D.K.JAIN ED ERLDC (Guest)	Joined	6/29/2021, 11:15:31 AM
Deepak Kumar Singh (Guest)	Joined	6/29/2021, 11:16:15 AM
Alka Rani (Guest)	Joined	6/29/2021, 11:22:34 AM
SLDC BIHAR (Guest)	Joined	6/29/2021, 11:23:09 AM
pavan sldc (Guest)	Joined	6/29/2021, 11:24:01 AM
sonam/bsptcl (Guest)	Joined	6/29/2021, 11:26:11 AM
critl (Guest)	Joined	6/29/2021, 11:35:38 AM
Ashish kr Sharma (Guest)	Joined	6/29/2021, 11:38:58 AM
Alka Rani (Guest)	Joined	6/29/2021, 11:41:55 AM
P MUKHERJEE (Guest)	Joined	6/29/2021, 11:42:55 AM
rambaboos.ph21.ee	Joined	6/29/2021, 11:43:45 AM
SANJEEV KUMAR (Guest)	Joined	6/29/2021, 11:44:15 AM
eee critl (Guest)	Joined	6/29/2021, 11:50:55 AM
Ashish kr Sharma (Guest)	Joined	6/29/2021, 12:09:55 PM
Alok ERLDC (Guest)	Joined	6/29/2021, 12:12:08 PM
Arun Kumar Chaudhary (Guest)	Joined	6/29/2021, 12:12:09 PM
Raju Kachhap.SLDC Ranchi (Guest)	Joined	6/29/2021, 12:19:58 PM