



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

Eastern Regional Power Committee

14, गोल्फ क्लब रोड, टॉलीगंज, कोलकाता-700033
14 Golf Club Road, Tollygunj, Kolkata-700033

Tel No.:033-24239657, 24239659 FAX No.:033-24239652, 24239653 Web: www.erpc.gov.in

NO. ERPC/SE/OPERATION/2021/ 110

DATE: 21/04/2021

To

As per list enclosed.

Sub: Minutes of the Special Meeting on Implementation of Islanding Schemes in Eastern Region held on 09.04.2021-reg.

Sir,

Please find enclosed minutes of the special meeting on “**Implementation of Islanding Schemes in Eastern Region**” held on 09.04.2021 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.

Regards,

Yours faithfully,

(D.K. Bauri)

Superintending Engineer(O & PS)

LIST OF ADDRESSES:

- 1) Chief Engineer (SLDC), Damodar Valley Corporation, GOMD-I Premises, P.O.- Danesh Seikh Lane, Howrah- 711109
- 2) Chief Engineer (CTC), Damodar Valley Corporation, P.O. Maithon Dam, Dist. Dhanbad, Jharkhand- 828207.
- 3) Chief Engineer (SPE), Damodar Valley Corporation, DVC Tower, Kolkata.
- 4) Executive Director, ERLDC, POSOCO, Tollygunge, Kolkata-700033.
- 5) Chief Engineer, (CRITL), Jharkhand Urja Sancharan Nigam Limited, Kusai Colony, Doranda, Ranchi- 834002.
- 6) Electrical Superintending Engineer (CLD), Jharkhand Urja Sancharan Nigam Limited, Kusai Colony, Doranda, Ranchi-834002.
- 7) General Manager(OS), ERHQ-I, NTPC Ltd., Loknayaak Jaiprakash Bhawan, (2nd Floor), Dak Bunglow Chawk, Patna-800001
- 8) General Manager(O&M), FSTPS, NTPC Ltd., P.O. Nabarun, Dist. Murshidabad, West Bengal-742236
- 9) Chief Engineer, Trans (O&M), Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021.
- 10) Chief Engineer(System Operation), Bihar State Power Transmission Company Limited, Patna.
- 11) Electrical Superintending Engineer (CRITL), Bihar State Power Transmission Limited, Vidyut Bhawan, Bailey Road, Patna-800021
- 12) Dy. General Manager (Electrical), IB Thermal Power Station, OPGCL, Banhapalli, Dist. Jharsuguda- 768234,.
- 13) Chief General Manager (O&M), OPTCL, Janpath, Bhubaneswar, Odisha – 751 022. FAX: 0674-2542932
- 14) Chief Load Dispatcher, SLDC, OPTCL, P.O. Mancheswar Rly. Colony, Bhubaneswar-751017
- 15) Electrical Superintending Engineer, TTPS, Tenughat Vidyut Nigam Ltd., Lalpania, Dist. Bokaro, Jharkhand-829149
- 16) Chief Engineer (Trans.), Power Deptt., Govt. of Sikkim, Gangtok-731010
- 17) Executive Director (O&M), NHPC Ltd., NHPC Office Complex, Sector-33, Faridabad, Haryana-121003 (Fax-01292272413)
- 18) General Manager, Teesta-V Power Station, East Sikkim-737134
- 19) AGM(O& M), Chuzachen HEP, Gati Infrastructure Ltd, East Sikkim-737106
- 20) Addl. Chief Engineer (ALDC), West Bengal State Electricity Distribution Company Ltd, Vidyut Bhavan, 7th Floor, Bidhannagar, Sector-I, Salt Lake City, Kolkata-700091(Fax-033-2334-5862)
- 21) Chief Engineer (CLD) WBSETCL, P.O. Danesh Sheikh Lane, Andul Road, Howrah-711109.
- 22) Chief General Manager (AM), ER-II, Power Grid Corporation of India Ltd., CF - 17, Action Area – I, New Town, Kolkata – 700156
- 23) Chief General Manager (AM), ER-I, Power Grid Corporation of India Ltd., Alankar Place, Boring Road, Patna-800001
- 24) GM(System Operation), CESC , Chowringhee Square, Kolkata

Annexure-A

Full Name	User Action	Timestamp
ERPC Kolkata	Joined	4/9/2021, 10:17:09 AM
NAND KISHOR CHAUDHARY (Guest)	Joined	4/9/2021, 10:23:23 AM
MANISH KUMAR KOL (BTECH10553.20@bitmesrlive:.cid.aff228f556e00d77)	Joined	4/9/2021, 10:30:26 AM
live:.cid.aff228f556e00d77	Joined	4/9/2021, 10:26:58 AM
Gopal Prasad Singh (Guest)	Joined	4/9/2021, 10:35:10 AM
pintu (Guest)	Joined	4/9/2021, 10:35:16 AM
Bauribandhu Behera	Joined	4/9/2021, 10:38:08 AM
Arunava Sen Gupta (Guest)	Joined	4/9/2021, 10:38:37 AM
Ganesh Korada	Joined	4/9/2021, 10:27:26 AM
Rahul Anand	Joined	4/9/2021, 10:27:56 AM
Deepak, EEE, BSPTCL (Guest)	Joined	4/9/2021, 10:44:47 AM
N. Hoda ESE TVNL (Guest)	Joined	4/9/2021, 10:28:34 AM
Saibal, ERLDC (Guest)	Joined	4/9/2021, 10:30:37 AM
MTPS Kanti (Guest)	Joined	4/9/2021, 10:30:43 AM
sritam (Guest)	Joined	4/9/2021, 10:32:01 AM
Saurav Sahay Ch. Mgr ERLDC (Guest)	Joined	4/9/2021, 10:29:19 AM
Ashish kr Sharma (Guest)	Joined	4/9/2021, 10:29:19 AM
Mohan Jagnani (Guest)	Joined	4/9/2021, 10:29:20 AM
rajendra prasad (Guest)	Joined	4/9/2021, 11:20:35 AM
preetjioy Chaudhuri (Guest)	Joined	4/9/2021, 11:23:49 AM
rajni kumar (Guest)	Joined	4/9/2021, 10:29:42 AM
pavan SLDC Bihar (Guest)	Joined	4/9/2021, 10:29:59 AM
DEEPAK THAKUR , AEE/BSPTCL (Guest)	Joined	4/9/2021, 10:30:10 AM
Rajesh Kumar (Guest)	Joined	4/9/2021, 10:37:19 AM
Sucharit Mondal (Guest)	Joined	4/9/2021, 10:30:29 AM
\\\\\\\\"D.K.JAIN ED ERLDC (Guest)\\\\\\\\"	Joined	4/9/2021, 10:30:35 AM
Rajiv Kumar Singh (Guest)	Joined	4/9/2021, 10:36:47 AM
Kumud Kumar Singh (Guest)	Joined	4/9/2021, 10:30:50 AM
rambaboos.ph21.ee	Joined	4/9/2021, 10:41:22 AM
RAMABOO SINGH	Joined	4/9/2021, 11:35:59 AM
Gopal Mitra (Guest)	Joined	4/9/2021, 10:31:23 AM
SLDC ODISHA (Guest)	Joined	4/9/2021, 10:31:24 AM
P.K.PATTANAIK (Guest)	Joined	4/9/2021, 10:31:59 AM
SONAM WONGCHUK (Guest)	Joined	4/9/2021, 10:32:19 AM
shyamal konar (Guest)	Joined	4/9/2021, 10:35:18 AM
GAGAN EEE SLDC (Guest)	Joined	4/9/2021, 10:32:35 AM
\\\\Saugato Mondal , ERLDC (Guest)	Joined	4/9/2021, 10:37:55 AM
Chandan Kumar	Joined	4/9/2021, 10:32:40 AM
SLDC DVC (Guest)	Joined	4/9/2021, 10:33:03 AM
Madhumita Soren	Joined	4/9/2021, 10:33:38 AM
Vashwar Banerjee (Guest)	Joined	4/9/2021, 10:33:53 AM
Raj Protim ERLDC (Guest)	Joined	4/9/2021, 10:35:41 AM
"Sandip Ghosh, SE(E), SPE, DVC (Guest)	Joined	4/9/2021, 10:33:58 AM
"Alok Pratap Singh ,ERLDC (Guest)"	Joined	4/9/2021, 11:09:42 AM
Partha Sarathi Hazra (Guest)	Joined	4/9/2021, 10:34:26 AM
Arun Kumar Chaudhary (Guest)	Joined	4/9/2021, 10:41:31 AM
Shadab Hasan (Guest)	Joined	4/9/2021, 10:41:34 AM
Nilesh Nimbhorkar (Guest)	Joined	4/9/2021, 10:35:15 AM
GAGAN KUMAR EEE SLDC (Guest)	Joined	4/9/2021, 10:35:47 AM
SLDC Odisha (Guest)	Joined	4/9/2021, 11:42:36 AM
Amaresh Mallick ERLDC (Guest)	Joined	4/9/2021, 10:35:55 AM
Shish Pal Singh	Joined	4/9/2021, 10:37:34 AM
Biru Paksha (Guest)	Joined	4/9/2021, 10:36:49 AM
Sweta (Guest)	Joined	4/9/2021, 10:40:24 AM
Ganesh Korada (Guest)	Joined	4/9/2021, 10:37:00 AM
teesta v ps (Guest)	Joined	4/9/2021, 10:40:00 AM
Sujoy Bhattacharjee (Guest)	Joined	4/9/2021, 10:37:33 AM
AYAN ALI	Joined	4/9/2021, 11:37:05 AM
Prince kumar (Guest)	Joined	4/9/2021, 11:41:30 AM
Jitesh Kumar (Guest)	Joined	4/9/2021, 10:37:38 AM
vivek rastogi (Guest)	Joined	4/9/2021, 10:38:11 AM
sweta (Guest)	Joined	4/9/2021, 10:38:41 AM
\\\\\\\\"SLDC RANCHI (Guest)\\\\\\\\"\\\\\\\\"	Joined	4/9/2021, 10:40:15 AM
ajit (Guest)	Joined	4/9/2021, 10:40:28 AM
shailesh prakash,DGM (Guest)	Joined	4/9/2021, 10:39:07 AM
TSV POWER STATION (Guest)	Joined	4/9/2021, 10:57:28 AM
Ashutosh Kumar (Guest)	Joined	4/9/2021, 10:39:57 AM
Kashyap (Guest)	Joined	4/9/2021, 10:40:00 AM
Dharmadas Tripathi (Guest)\\\\\\\\"	Joined	4/9/2021, 10:40:33 AM
Ram Prakash	Joined	4/9/2021, 10:40:47 AM
\\\\\\\\"p p chand ERLDC (Guest)\\\\\\\\"\\\\\\\\"	Joined	4/9/2021, 10:52:50 AM
Umesh Qurwani (Guest)	Joined	4/9/2021, 10:52:53 AM
sritam bisoyi	Joined	4/9/2021, 11:05:28 AM
gaurav (Guest)	Joined	4/9/2021, 10:40:59 AM
shailesh prakash, (Guest)	Joined	4/9/2021, 10:42:10 AM
sanjeev Kumar (Guest)	Joined	4/9/2021, 10:40:59 AM
S K Sharma (Guest)	Joined	4/9/2021, 10:41:04 AM
SLDC, RANCHI (Guest)	Joined	4/9/2021, 10:41:47 AM
ABHINAV PRATAP SINGH	Joined	4/9/2021, 10:43:54 AM
Amardeep Kumar (Guest)	Joined	4/9/2021, 10:41:51 AM
electrical orissa	Joined	4/9/2021, 10:42:09 AM
SHASHIKANT VERMA (Guest)	Joined	4/9/2021, 10:42:11 AM

ERPC: KOLKATA

Minutes of Special Meeting on “Implementation of Islanding Schemes in Eastern Region” held on 09.04.2021 through MS Teams Platform.

List of the participants is attached at **Annexure-A**.

At the outset, Member Secretary, ERPC welcomed all the participants. He informed that in the meeting held on 28th December 2020 and chaired by the Hon’ble Minister of State (IC) it was directed that islanding schemes should be implemented for all major cities of the country considering all the strategic and essential loads. Subsequently, in line with the direction given in the meeting, the subject matter was discussed in 99th and 100th PCC Meetings of ERPC. He further added that a meeting was convened on 31st March’2021, among CEA, NPC, RPCs, CTU and POSOCO, chaired by Secretary (Power), wherein it was directed that the existing Islanding Schemes are also needed to be reviewed besides planning the new Islanding Schemes for the major cities. Consequently, agenda points regarding inputs required from RPCs for islanding schemes were received from NPC division of CEA. The Agenda points were deliberated in the “Special Meeting to identify the major cities of Eastern Region for implementation of Islanding Schemes” held on 01.04.2021 through MS Teams online platform. He further informed that in 100th PCC Meeting it was decided that the islanding schemes of Chandrapura, Farakka, IB TPS and KBUNL shall be reviewed in a special meeting. In line with the above decision, this meeting has been convened wherein the following would be deliberated:

- a) Review of Chandrapura, Farakka, IB TPS and KBUNL islanding schemes
- b) Identification of strategic locations, essential/ critical loads for the newly proposed islanding schemes.

In the meeting the following deliberations took place:

A. Review of Chandrapura, Farakka, IB TPS and KBUNL islanding schemes.

I. Chandrapura Islanding Scheme:

SLDC, DVC presented the transient study report for CTPS-B islanding scheme. The study was carried out considering different cases of load and generation scenarios based on SCADA data. During the study it was found that for the case of off-peak load of 215 MW under the islanding scheme and the participating generator CTPS-B (2* 250 MW) was generating at maximum capacity, the islanding scheme becomes unstable due to large load-generation mismatch.

After detailed deliberation the following were decided:

- a) Chandrapura islanding scheme would be designed considering 1 no of unit of CTPS-B (2*250MW) as participating generator.
- b) ERLDC was advised to carry out revised study considering 1 no of unit of CTPS-B (2*250MW) as participating generator.
- c) CTPS-B was advised to submit the requisite details within a week to ERLDC for carrying out the study.

II. Farakka Islanding Scheme:

JUSNL Representative informed the following:

- a) The existing islanding scheme was designed considering Lalmatia and Dumka loads (total 85 MW) as the 220kV Farakka-Lalmatia line can be loaded maximum upto 85 MW.
- b) After commissioning of 220kV Godda-Lalmatia D/C line, the existing islanding scheme needs to be reviewed in view of the new network configuration.
- c) The load patterns of Lalmatia, Dumka and Godda are 42 MW (including ECL Load), 45 MW and 50 MW respectively.
- d) 1 no. of circuit of 132kV Lalmatia-Dumka was LILoed at Adani power plant for construction power.

Considering the above, it was opined that the islanding scheme would be redesigned taking Lalmatia (42 MW) and Godda (50 MW) loads. Further JUSNL was asked to confirm the PLCC status at their end.

NTPC Farakka representative informed the following:

- a) The in house load of Farakka Stage-I units considered in the existing scheme varies from 25MW to 75MW (when other two units are tripped).
- b) One circuit of 400kV Rajarhat-Purnea was LILoed at Farakka. Therefore necessary trip commands have to be extended to both the circuits for successful islanding formation.

In view of the above, NTPC Farakka was advised to configure the necessary trip commands of 400kV Farakka-Purnea and 400kV Farakka-Rajarhat lines. Further, NTPC Farakka was advised to review and confirm the impact of the in house load variation in the existing islanding scheme.

ERLDC suggested that the frequency setting of the islanding scheme may be reviewed in view of the present AUFLS setting.

After detailed deliberation the following was decided:

- a) Islanding scheme is to be designed considering any one of the three preselected units of Farakka Stage-I as participating generator and load of Lalmatia and Godda.
- b) The following lines to be tripped by JUSNL using Under Frequency Relay (UFR) based tripping signal:
 - a. At Lalmatia S/s
 - 132 kV Lalmatia-Dumka D/C
 - 132 kV Lalmatia-Kahalgaon S/C,
 - 132 kV Lalmatia-KhSTPP S/S
 - 132 kV Lalmatia-Sahebganj S/C
 - b. At Godda S/s
 - 220 kV Godda-Madanpur D/C lines

- c) Further, after confirmation of the healthiness of PLCC, the trip signal from FSTPS is to be extended to 220 kV Lalmatia S/s through PLCC and further the signal to be extended to Godda for tripping of 220 kV Godda-Madanpur lines. At Lalmatia end the trip signal to be wired for tripping of the following lines.
- 132 kV Lalmatia-Dumka D/C
 - 132 kV Lalmatia-Kahalgaon S/C,
 - 132 kV Lalmatia-KhSTPP S/S
 - 132 kV Lalmatia-Sahebganj S/C.

JUSNL confirmed that the UFR based tripping would be enabled in the back-up relay for all the above lines within a week.

III. IB TPS Islanding Scheme:

OPGC representative informed the followings:

- a) PLCC work has already been completed and the signal is available at their end.
- b) The annual overhauling of IBTPS is scheduled on 17th April 2021 for 25 days.
- c) OEM (BHEL) is developing a new scheme and the same would be implemented during the overhauling period after getting confirmation from OEM.

OPGC was advised to share the requisite details to ERPC secretariat at the earliest.

IV. KBUNL Islanding Scheme:

ERLDC informed the following:

- a) The peak and off-peak loads considered under the scheme is 200 MW and 140 MW respectively.
- b) During the study it was observed if two units of MTPS, Kanti Stage-II (2*195 MW) were participating then during the off-peak load condition, the islanding scheme becomes unstable due to large load-generation mismatch.

After discussion the following were decided:

- a) KBUNL islanding scheme would be designed considering 1 no of unit of MTPS, Kanti Stage-II (2*195 MW) as participating generator.
- b) KBUNL was advised to share the governor details and generator protection settings to ERLDC for study.
- c) A separate meeting would be convened to finalize the scheme after the completion of study by ERLDC.

B. Implementation of new Islanding Scheme for major cities & strategic towns/defense locations of Eastern Region.

I. Patna Islanding Scheme:

The following deliberations took place:

- a) Patna islanding scheme would be designed selecting any one unit of NTPC Barh Stage-II (2*660 MW) as participating generator and loads of in and around Patna city.
- b) Bihar representative was advised to share the load details of substations in and around Patna along with the status of availability of communication network.
- c) NTPC Barh was advised to share the governor details and generator protection settings to ERLDC for carrying out detailed study.

II. Ranchi Islanding Scheme:

The following deliberations took place:

- d) Ranchi islanding scheme would be designed taking any one unit of TVNL (2*210 MW) as participating generators and loads of in and around Ranchi city.
- e) Ranchi representative was advised to share the load details of substations in and around Ranchi along with the status of availability of communication network.
- f) TVNL was advised to share the governor details and generator protection settings to ERLDC for carrying out detailed study.

C. Implementation of new Islanding Scheme for major cities & strategic towns/defense locations of Eastern Region.

West Bengal representative was not present in the meeting. It was decided that ERPC secretariat would take up with West Bengal in the regard.

D. Contingency plan for other major cities of Eastern Region.

I. Bhubaneswar:

Odisha representative informed that there are no generating stations of state /central sector in and around the Bhubaneswar city. However, there are more than 25 nos. of EHV S/S & transmission lines in and around Bhubaneswar Command area having GIS & underground connectivity, thereby ensuring reliability of 100%. Further, in case of any blackout, power can be extended from Indravati HPS (4*150 MW) within short duration. This has been time tested during the super cyclone Fani.

Odisha representative briefly presented the contingency plan of Bhubaneswar wherein they mentioned that in case of any eventuality, the essential/critical loads of Bhubaneswar, which is around 50 MW, can be met from nearby BPPL (2*67.5 MW) thermal power plant, which is a private entity.

After detailed deliberation it was opined that alternate possibility for devising an islanding scheme with the strategic/essential loads of Bhubaneswar command area taking BPPL (2*67.5 MW) as the participating generator may also be explored.

Odisha representative was advised to share the load details of substations in and around Bhubaneswar to ERPC secretariat.

II. Gangtok:

In the meeting it was opined that in case of any eventuality, Chuzachen (2 X 55 MW) hydro generating station may be considered as participating generator for Gangtok contingency plan, since it has been tested during the black start procedure till Rangpo S/s and it can be extended up to Gangtok. Further another plan can be explored by taking Teesta-V HEP as participating generator for supplying of power to Gangtok (Teesta-V HEP to Rangpo and Rangpo to Gangtok) and Siliguri during contingency.

Sikkim representative was advised to share the load details of substations in and around Gangtok to ERPC secretariat.

NHPC was advised to provide the details of generation pattern of Teesta-V HPS.

All the concerned utilities are advised to furnish the requisite data to ERPC secretariat at the earliest for further onward submission to NPC Division of CEA.

Meeting ended with vote of thanks to chair.
