



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

उत्तर क्षेत्रीय विद्युत समिति

Northern Regional Power Committee

संख्या: NRPC/OPR/106/01/2020/784-825

दिनांक: 23.01.2020

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 167^{वीं} बैठक की खण्ड-अ में लिए गए निर्णयों का सार |

Subject: Gist of decisions taken in the Part-A of 167th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 167^{वीं} बैठक दिनांक 17.01.2020 को आयोजित की गयी। उक्त बैठक की खण्ड-अ में लिए गए निर्णयों का सार अनुलग्नक-1 में संलग्न है।

167th meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 17.01.2020. The Gist of the decisions taken in Part-A of this meeting are enclosed in Annexure-I.

संलग्नक: यथोपरि

(सौमित्र मजूमदार)

अधीक्षण अभियंता (प्रचालन)

सेवा में,

प्रचालन समन्वय उप-समिति के सभी सदस्य

Gist of decisions taken in the Part-A of 167th OCC Meeting dt. 17.01.2020

Agenda No. 1: Confirmation of minutes

OCC confirmed the minutes of 166th OCC meeting.

Agenda No. 2.1: Supply Position (Provisional) for December 2019

Delhi – Significant variation in Peak demand due to one of the coldest winter Delhi faced in recent years.

Chandigarh - Variation in peak demand is due to cold weather conditions.

Uttar Pradesh – Better metering system and demand side management resulted in lower energy consumption and significant jump in peak demand observed due to severely cold weather in the last week of Dec'2019.

Rajasthan – Significant reduction in energy demand due to unprecedented rain and hailstorms during the month which led to reduced agricultural load of Rabi season till mid Dec'19.

Agenda No. 3: Maintenance Programme of Generating Units and Transmission Lines

Members deliberated and approved the shutdown of following elements:

- (i). **400kV Bamnauli- Tuglakabad (D/C)** from 20.02.2020 to 19.03.2020 for shifting and raising of towers because of construction of clover leaf of Dwarka Expressway over Delhi-Jaipur National Highway by NHAI.
- (ii). **400kV Koteswar – Meerut (PG) Ckt-1** from 10.02.2020 to 01.03.2020 for Erection of 765 kV line terminal equipments and SF6 to Air Bushings. HV Test of GIS Equipments at Koteswar PG.

Members were presented with the tabulated details of outage availed vis-à-vis outage approved in previous OCC meetings for the period of 01.12.2019 to 13.01.2020 and the same is presented below:

SHUTDOWNS AVAILED DURING 01-DEC-2019 TO 13-JAN-2020

S NO	CONSTITUENTS	APPROVED IN OCC	REQUESTED IN D-3	PNOCC	EMERGENCY	TOTAL APPLIED	TOTAL AVAILED	TOTAL %
1	adhydro_sd	2	0	0	0	2	0	0%
2	apl_sd	8	8	0	0	8	8	100%
3	bbmb_sd	46	35	0	4	50	39	78%
4	chamera2_sd	13	0	0	6	19	6	32%
5	cpcc1_sd	317	128	0	67	384	195	51%
6	cpcc2_sd	109	66	0	20	129	86	67%
7	cpcc3_sd	227	48	0	29	256	77	30%
8	dadri_sd	3	1	0	2	5	3	60%
9	jhajjar_sd	1	0	0	0	1	0	0%
10	karcham_sd	26	21	0	0	26	21	81%
11	koteshwar_sd	2	2	2	7	11	11	100%
12	ntpcnr_sd	12	3	0	0	12	3	25%
13	ntpcos_sd	2	0	0	0	2	0	0%
14	rampur_sd	2	2	2	0	4	4	100%
15	renew_sd	2	2	0	1	3	3	100%
16	rihand_sd	2	0	0	0	2	0	0%
17	sewa2_sd	12	12	0	0	12	12	100%
18	singrauli_sd	42	1	0	0	42	1	2%
19	sldcdv_sd	63	55	0	4	67	59	88%
20	sldchp_sd	4	0	0	5	9	5	56%
21	sldchr_sd	14	6	0	3	17	9	53%
22	sldcjk_sd	6	6	0	12	18	18	100%
23	sldcps_sd	194	174	0	3	197	177	90%
24	sldcrs_sd	179	157	0	14	193	171	89%
25	sldcuk_sd	13	7	4	0	17	11	65%
26	sldcup_sd	251	151	0	61	312	212	68%
27	sterlite_sd	46	36	0	4	50	40	80%
TOTAL		1598	921	8	242		1171	

Considering the significant gap between the number of approved outages in OCC and actual number of requests made for availing in D-3 (as per the approved procedure), transmission utilities were advised to submit their request mandatorily as per the approved procedure as it hampers in planning and availing other critical shutdowns.

NRLDC was requested to observe strict compliance (taking into consideration practical issues) in order to increase discipline in availing shutdowns by the transmission utilities.

Agenda No. 4.1: Anticipated Power Supply Position in Northern Region for February 2020

Delhi SLDC informed that anticipated power availability would be 4811 MW in place of 5880 MW. Further, anticipated energy requirement would be 1890 MU in place of 1870 MU and anticipated energy availability would be 3303 MU in place of 2780 MU.

Punjab SLDC informed that anticipated peak demand would be 7000 MW in place of 7500 MW.

Uttarakhand SLDC informed that anticipated energy availability would be 1058.5 MU in place of 1040 MU and the anticipated energy requirement would be 1087.5

MU in place of 1060 MU. Further, anticipated power availability would be 2100 MW in place of 2150 MW and anticipated peak demand would be 2180 MW in place of 2210 MW.

UP SLDC has informed that anticipated energy requirement would be 7830 MU in place of 7750 MU and anticipated energy availability would be 7975 MU in place of 8700 MU. Further, anticipated peak demand would be 16000 MW in place of 16200 MW and anticipated power availability would be 16000 MW in place of 15950 MW.

Agenda No. 5: Submission of breakup of Energy Consumption by the states.

Rajasthan, Punjab, Himachal Pradesh and Haryana (only UHBVN) have submitted the breakup of Energy Consumption. On analyzing the submitted data, it was found that the data submitted by Himachal Pradesh and Haryana is not submitted under the prescribed category. It was decided that the issue may be discussed separately so as to categorize the data as per the prescribed format for uniformity across states.

Other SLDCs were advised to submit the data w.e.f. April 2018 as per the billed data information in the format given as under:

Category→	Consumption by Domestic Loads	Consumption by Commercial Loads	Consumption by Agricultural Loads	Consumption by Industrial Loads	Traction supply load	Miscellaneous / Others
<Month>						

Agenda No. 6: System Study for Capacitor Requirement in NR for the year 2019-20

Members were informed that even after regularly following up the issue of the clarification and missing data sought from Haryana by CPRI, the information could not be furnished to CPRI due to non-availability of information from Haryana.

Haryana representative stated that it is taking some time to get the information compiled as the information sought mainly involves DISCOMs. It was further assured by Haryana SLDC representative that the same would be submitted within a weeks' time as it is being monitored at the highest level.

Members were informed that Uttarakhand has neither submitted the data for the study nor the details of nodal officer.

Regarding the decision of 44th TCC and 47th NRPC meeting, members were informed that the study for other states is also pending due to the want of PSSE data file corresponding to the date and time as submitted by states. NRLDC was requested to submit the same at the earliest so as to avoid the delay in the study. NRLDC representative mentioned that data file for HP would be submitted within two working days, followed by data files of remaining states.

Agenda No. 7: Phase nomenclature mismatch issue with interconnected stations

Information duly signed has been obtained from **Rajasthan, BBMB, Punjab, Delhi and UP**. Other states were requested to submit the information within a week.

It was decided that further deliberations would be held in the next OCC meeting so as to formulate the action plan for rectifying the aforementioned issue based on information received from the states.

Agenda No. 8.4: Healthiness of Defence mechanism – Self certification

Based on the decision taken in the 166th OCC meeting, UFR testing of 220 kV Park Street substation of DTL was conducted on 03.01.2020 (Report enclosed as **Annexure-I**).

OCC further decided that UFR testing at Karnal substation of Haryana would be conducted on 07.02.2020. Haryana SLDC was requested to make the arrangement for the same.

Agenda No. 8.7: Reactive compensation at 220 kV/ 400 kV level

As per the deliberations held in the 166th OCC meeting, a meeting was called by NRLDC at NRPC Sectt. on 23.12.2019 to deliberate the issue of High voltage in Delhi system (Minutes attached at **Annexure-II**). In the meeting, it was decided that Delhi SLDC would intimate the flow of MVar in the Delhi grid.

Delhi SLDC representative presented the data (**Annexure-III**) before OCC forum, which showed the injection of reactive power from DISCOMs to transmission level. Further, it was intimated that DMRC is going to install fixed as well as STATCOM to take care the reactive power issues. TPDDL representative highlighted that reactive power injection on account of underground cable may further deteriorate after Phase-IV project of DMRC. It was decided that Delhi SLDC may discuss reactor plan for Phase-IV project with DMRC.

TPDDL representative stated that generation of reactive power is inherent feature of the underground cable network which is prevalent in Delhi network; however, voltage provided to them needs to be within the prescribed limit. Further, it was informed that most of the industrial areas of Delhi have got permanent capacitors installed at their premises due to previous policies of the government which incentivized them for improving power factor or supplying reactive power into the network. Now with the cable network of Delhi, the injection of reactive power by the industries is not required, but due to non-awareness and absence of any disincentive to the industrial loads, these capacitors continue to be in service and supply reactive power into the grid. TPDDL is considering legal route to counter such practice to provide consumers with quality power.

Taking into consideration the long term (legal) approach of the Delhi DISCOM to control the voltage, Delhi DISCOMs were requested to submit the action being taken by them so as to control the voltage at their level.

Agenda No. 9: SPS for ICTs at 765 kV Unnao sub-station

UP SLDC representative submitted the hard copy of the report in the meeting. UP SLDC was advised to conduct the mock testing of SPS in the last week of January 2020.

Agenda No. 10: Automatic Demand Management System

Punjab SLDC representative informed that M/s Siemens has given tentative cost for the implementation of ADMS and the same is under consideration.

Delhi SLDC representative informed that the execution of ADMS in the NDMC area is delayed and would be completed shortly.

UP SLDC representative informed that a meeting was held on 10.01.2020 with M/s Siemens in which they were informed by OEM that implementation of ADMS scheme is feasible and UP SLDC is taking positive steps on the proposal.

Agenda No. 11: Mapping of UFR, df/dt relays in SCADA

NRLDC representative submitted the status (**Annexure-IV**) of UFR, df/dt relays mapping in SCADA. The real time availability of main feeders of Punjab, Delhi and HP was found to be very poor. These states were advised to identify the issue and increase the real time availability. Further, it was decided to take up the communication related issues in the mapping of UFR & df/dt relays with SCADA in TeST meetings.

Agenda No. 12: Non-compliance of Central Electricity Authority (Measures relating to Safety and Electric Supply) Amendment Regulations, 2015 and New Element Charging Procedure

Forum was made aware of the reply received from Chief Engineer, CEI Division, CEA wherein it has been informed that according to Safety Regulations, replacement and upgradation work of substation equipment needs to be approved by Electrical Inspector.

POWERGRID representative raised concern on the grid security, reliability and possible generation loss on account of delay in inspections of large number of replaced elements (like CT, PT, CVT, CB, isolator and LA) by Electrical Inspector.

OCC forum was of the view that the clarification as received from CEI mandates that all utilities are required to ensure compliance of Regulations. In case of any grievance, the aggrieved party may approach the competent authority.

Agenda No. 13: Certification of Non-ISTS line for inclusion in PoC charges for FY 2019-20

OCC approved the following Non-ISTS transmission lines for inclusion in PoC charges for FY 2019-20:

Sl. No.	Name of Transmission Line	Owner STU
1.	220 kV Karian-Rajera	HP
2.	400kV S/C Merta - Heerapura Line	RVPN
3.	400 kV D/C Chhitorgarh-Bhilwara line	RVPN
4.	400 kV D/C Bhilwara-Ajmer line	RVPN
5.	132 kV Mahuakheraganj-Thakurdwara Line	PTCUL

It was mentioned that the natural ISTS lines and lines emanating from Generating stations do not require certification of NRPC and are automatically considered for inclusion in PoC charges. Thus, members were advised not to submit such lines for study. All states were requested to submit their request for ISTS certification for 2020-21, latest by 31st March 2020.

Agenda No. 14: Detailed guidelines for assessment of ramping capability of thermal Inter-state generating stations (ISGS) (Agenda by NLDC)

Detailed presentation on the provision of the aforementioned guidelines was given. Members of thermal ISGS were requested to examine the draft guidelines at https://posoco.in/wp-content/uploads/2020/01/Ramp_Assessment_detailed-guidelines_6Jan2020.pdf and submit their comments by 21.01.2020 on feedback-ramp@posoco.in.

Agenda No. 15: Regarding energizing of AMR Meters installed on State Boundary points falling in the jurisdiction of BBMB authorities — Obtaining permission for shutdown from POWERGRID Authorities (Agenda by UHBVN/DHBVN)

POWERGRID representative stated that POWERGRID has no role to play in providing either their consent or permission for energizing the meters already installed by Haryana DISCOMs in BBMB premises. Haryana DISCOMs were advised to install their meters without disturbing the inter-state metering.

BBMB representative stated that they have no issue and conveyed the consent of BBMB for energizing the meters.

Agenda No. 16: Persisting High voltage at Agra HVDC station (Table agenda by POWERGRID)

NRLDC and POWERGRID were advised to take up the issue bilaterally.

Agenda No. 17: 400 kV Barh-Motihari D/C and 400 kV Barh-Gorakhpur D/C lines (Table agenda by POWERGRID)

PGCIL representative stated that due to collapse of tower in both LILO portions, 400 kV Barh-Motihari D/C and 400 kV Motihari-Gorakhpur D/C (DMTCL) are currently out of service. Originally, this line was 400 KV D/C Gorakhpur (PGCIL)-Barh (NTPC) line which was LILOed at DMTCL Motihari.

Direct connectivity can be established (and arrangement has already been made) between ER-NR and both the tripped lines may be charged as D/C Gorakhpur-Barh line by-passing LILoed portion.

OCC approved the proposal.

Joint Inspection Report of UFR

1. Sub-station: 220 kV Park Street
2. Utility: Delhi Transco Limited
3. State : Delhi
4. Make & model of UFR: P143 Alstom make
5. Type of UFR: Static/Numerical - Numerical
Flat /RLSS

6. Frequency Setting (Hz): 49.2 Hz - Prasad Nagar
49.0 Hz - Ridge valley 1 & 2
Shastri Park 1 & 2

7. Name(s) of Feeder(s) connected to UFR:

33 KV Prasad Nagar
66 KV Ridge Valley-1
66KV Ridge Valley-2
66KV Shastri Park-1
66KV Shastri Park-2

8. Loading on above mentioned feeders:

Prasad Nagar - 0.0
Ridge Valley 1 - ON (No load)
Ridge Valley 2 - SID
Shastri Park 1 - ~~290A (33KV)~~ 60 A (66 KV)
Shastri Park 2 - 350 (66k)

9. Whether UFR operated ? : Yes/ No

Yes

10. Any other relevant observation:

NA

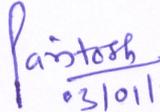
11. Whether separate register is maintained for recording UFRs/RLSS? If yes, mention date, name of the feeder and load relief of last operation.

Yes, 24/01/19

Ridge valley - I, Shastri Park I & II, Prasad Nagar
(ON) (110 Amp) (70 Amp)
& 310 Amp


03-01-2020
(AKSHAY DUBEY)
AEE(O), NRPC


03/01/2020
Manager, NRDC


03/01/2020
Mgr(1) prot-II

पावर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A Govt. of India Enterprise)



उत्तरी क्षेत्रीय भार प्रेशण केन्द्र / NORTHERN REGIONAL LOAD DESPATCH CENTRE
कार्यालय : 18-ए, शहीद जीत सिंह सनसनवाल मार्ग, कटवारिया सराय, नई दिल्ली- 110016
OFFICE : 18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi- 110016
CIN : U40105DL2009GOI188682, Website : www.nrlcdc.org, www.nrlcdc.in, Tel.: 011- 26519406, 26523869, Fax : 011- 26852747

Ref: NRLDC/SO2/TS-11/93

Date: 02.01.2020

Subject: Minutes of special meeting to discuss voltage regulation at 400 kV Mandola, Panipat and Bawana

Sir,

In the 166th OCC meeting, TPDDL highlighted the issue of high voltage from 220 kV Narela, 220 kV BBMB Rohtak road & 400 kV Bawana and requested for voltage regulation at 400 kV Mandola, 400 kV Panipat and 400 kV Bawana. In the meeting, it was decided to convene a separate meeting with the representatives of Delhi SLDC/DTL and Delhi DISCOMs at NRPC Sectt.

The meeting was held on 23.12.2019 at NRPC Sectt. Minutes of meeting and list of participants is enclosed in Annexure.

H. K. Chawla
(H.K. Chawla)

Chief General Manager

Copy to:

1. Executive Director, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016
2. Member Secretary, NRPC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016
3. DGM (SO), Delhi SLDC, 33kV Grid Sub-Station Building Minto Road, New Delhi-110002

Minutes of meeting held on 23.12.2019 at NRPC Secretariat for voltage regulation in Delhi control area

In the meeting, Delhi SLDC representative mentioned that high voltage problems are being faced in Delhi due to low demand/load and daily 32 Nos. of 220kV feeders are being opened during 20:00 hrs. to 08:00 hrs. Delhi SLDC representative intimated that in order to address the issue of high voltage, Rohini ckt, DSIDC ckt and Khanjawala ckt from Bawana S/s are kept open during night time.

Representative of TPDDL requested for optimizing tap position of 400/220kV ICT at Bawana as TPDDL is consistently facing high voltage at grids, fed by 220kV Narela. In this regard, NRLDC representative mentioned that tap position has already been optimized after requisite study and discussion in 165th OCC meeting.

On being asked to share the status of upcoming reactors, the representative of Delhi SLDC mentioned the following:

- a. Tender for reactors (125MVAR & 2x25MVAR at Maharaniabagh, 1x50MVAR at Peeragarhi, 1x125MVAR & 1x25MVAR at Mundka, 2x50MVAR at Harsh Vihar, 1x50MVAR at Electric Lane, 2x25MVAR at Bamnauli and 2x25MVAR at Indraprastha) is going to be floated and the tender is likely to be finalized in the next 3 months with delivery schedule of 6 months and commissioning time of 3 months. These reactors are likely to be in service by next winter. NRLDC and NRPC emphasised to commission the reactors before November 2020. DTL agreed to expedite the process of tendering and commissioning of reactors.
- b. Delhi SLDC informed that DMRC is also going to commission following reactors (combination of fixed reactor and STATCOM) by July 2020:
 - Jahangirpuri – 15.5 MVAR (Bawana may get relief)
 - Mukundpur – 7.5 MVAR
 - Chattarpur – 8.5 MVAR

Delhi SLDC representative informed that it is being actively instructed to Generators (Bawana & Pragati) to absorb Vars.

NRLDC representative said that reactive power support needs to be adequately planned based on the upcoming sub transmission and distribution network (including cable network) in Delhi control area.

In view of the above, following decisions were taken:

- a. Delhi will expedite the tendering process so that tender is floated before the issuance of Modal Code of Conduct for forthcoming state election. Further, all efforts will be made to commission the reactors prior to the onset of next winter.
- b. Information regarding MVAR absorption by Bawana and Pragati generators will be shared by Delhi in the 167th OCC meeting.
- c. Delhi SLDC and DISCOMs shall analyze the data to identify whether reactive power injection is primarily at DISCOM level or at 400kV level and share the information at OCC forum.
- d. NRLDC was requested to conduct study for exploring the possibility of reducing tap position at Tughlakabad and Panipat ICTs.

Meeting ended with vote of thanks to the members.

Annexure - 2

List of Participants for the meeting to discuss the high voltage issue in Delhi.

Date: 23.12.2019

Sl. No	Name	Designation	Organization	Tel. No. / Mobile No.	E-mail
1	Navem Gaj	Manager	Delhi SDC	9999533900	navemgaj06@snail.com
2	Guram Kh Singh	Manager	TPDDL	9810311460	Guram.kh.singh@H Delhi power -delhi.gov.in
3	Som Dutt Sharma	DEGM	933992	9968025754	som.dutt@delhi.nceada.com
4	N. ARAVINDA BABU	GM	BYPL	9350519272	aravindh.babu@relia.nceada.com
5	M. Kishore Babu	DGM	BRIL	8172347059	miriyala.babu@delhi nada.com
6	Ashray Dubey	AEE(0)	NRPC	959979744	dubey.ashray@nrc.gov.in
7	Saumika Mazumdar	SE(0)	NRPC Sectt.	9899819365	seo-nrpc@nic.in
8	H.K. Kamala.	DEGM	NRLD,	9812074803	hchamala@nrc.gov.in
9	M.M Hassan	GM	NRLD	9910553965	mmhassan@nrc.gov.in
10	Alok Kumar	Sr. DGM	NRLD	9999039321	alok.kumar@nrc.gov.in

Sl No	Name	Designation	Organization	Tel. No. / Mobile No.	E-mail
11	Shashank Tyagi	C.M	POSO CO	9599441243	shashanktyagi@gmail.com
12	Gaurav Malviya	Deputy Mgr.	NELDC POSO CO	9599441301	gauravmalviya@poso.co.in
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

Net Reactive Energy Summary of Discom

Period- 1 Nov-30 Nov

	MVARH for above 103%	MVAR		MVARH for below 97%	MVAR
NDPL	-65.4013367	-90.84		-0.122	-0.17
BRPL	-68.7737928	-95.52		0.079	0.11
BYPL	-35.0074883	-48.62		0.013	0.02
NDMC	-4.60855694	-6.40		-0.171	-0.24
MES	-0.25251847	-0.35		0.302	0.42
RAILWAY	-0.41327024	-0.57		0.000	0.00
NET	-174.456963	-242.30		0.100652098	0.14

Note:-

+ve sign indicates reactive energy draw from the grid/system

-ve sign indicates reactive energy injected to the grid/system

Net Reactive Energy Summary of DELHI

Period- 1 Nov-30 Nov

MVARH for above 103%	MVAR		MVARH for below 97%	MVAR
-229.99	-319.44		-2.5	-3.47

State Name	Defense Scheme	Planned Relief	Main feeders Mapped (%)	Main feeders real-time availability (%)	Altrnate feeders Mapped (%)	Alternate feeders real-time availability (%)
UP	UFR	2225	89%	80%	98%	89%
	df/dt	1060	95%	87%	98%	94%
Rajasthan	UFR	1574	92%	84%	99%	82%
	df/dt	1070	100%	64%	100%	100%
Punjab	UFR	1616	56%	40%	31%	30%
	df/dt	1410	62%	34%	26%	25%
Haryana	UFR	1243	89%	81%	85%	87%
	df/dt	1410	82%	69%	89%	77%
Delhi	UFR	1042	97%	33%	97%	91%
	df/dt	810	100%	2%	100%	98%
HP	UFR	310	85%	12%	88%	69%
	df/dt	190	100%	33%	188%	168%