



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

उत्तर क्षेत्रीय विद्युत समिति

Northern Regional Power Committee

सं.: उ.क्षे.वि.स./प्रचालन/106/01/2022/ 10180-10221

दिनांक: 27.10.2022

विषय: उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 200^{वीं} बैठक के खण्ड-अ में लिए गए निर्णयों का सार।

Subject: Gist of decisions taken in the Part-A of 200th OCC meeting of NRPC.

उत्तर क्षेत्रीय विद्युत समिति की प्रचालन समन्वय उप-समिति की 200^{वीं} बैठक दिनांक 18.10.2022 को आयोजित की गयी। उक्त बैठक की खण्ड-अ में लिए गए निर्णयों का सार **अनुलग्नक - अ** के रूप में संलग्न है।

200th meeting of the Operation Co-ordination Sub-Committee of NRPC was held on 18.10.2022. The Gist of the decisions taken in Part-A of this meeting is enclosed as **Annexure-A**.

(संतोष कुमार)

अधीक्षण अभियंता (प्रचालन)

सेवा में,

प्रचालन समन्वय उप-समिति के सभी सदस्य।

Gist of decisions taken in the Part-A of 200th OCC Meeting

Agenda No. 1: Confirmation of Minutes

Minutes of 199th OCC meeting was issued on 12.10.2022.OCC confirmed the minutes.

Agenda No. 2.1: Supply Position (Provisional) for September 2022

Reasons submitted by states for significant deviation of actual demand from anticipated figures during the month of September 2022 are as under:

• **Delhi**

The reason of lower peak demand and energy consumption is due to rain in Sept-2022 and consequently decreased in temperature, peak demand & consumption.

• **Himachal Pradesh**

The actual energy requirement in respect of Himachal Pradesh for the month of September 2022 came on the lower side than anticipated due to extended monsoon & heavy rains in the state.

• **Haryana**

Variation between actual and anticipated energy consumption for September-2022 is high due to steep fall in temperature and heavy rainfall which results in less agricultural load and less Rural Domestic demand.

• **Rajasthan**

The Energy consumption & Peak Demand increased by 13.5 % & 13.2 % respectively w.r.t. Anticipated Energy requirement & Anticipated Peak Demand for September '2022 due to unexpected load growth in the state due to less rains during the month, as 33.14 % growth in Energy requirement and 31.51 % growth in Peak demand w.r.t. same month of the previous year.

• **Uttar Pradesh**

Actual Energy Requirement was lower than anticipated:

1. Certainly drop in humidity.
2. High intensity rainfall after 13th September 2022 due to which energy consumption decreased.

• **Uttarakhand**

Due to less rain in plain areas of Uttarakhand (where more than 70% load is concentrated) during first week of September 2022 in comparison to the 2021, maximum demand observed was higher w.r.t anticipated demand of 2160 MW (4% higher than Peak demand of 2021).

Agenda No. 2.2: Power Supply Position of NCR

The Sub-Committee was informed that the NCR Planning Board (NCRPB) is closely monitoring the power supply position of National Capital Region. Monthly power supply position for NCR till the month of September 2022 was enclosed in the agenda and same was discussed in the meeting.

Agenda No. 3.1: Maintenance Programme of Generating units and Transmission Lines

- The maintenance programme of generating units and transmission lines for the month of November 2022 was deliberated in the meeting on 17.10.2022.
- Following shutdown request was also approved/denied in the OCC meeting:

Element Name	Owner	Reason	Requested From	Requested To	Daily/ Continuous	Decision of OCC
500 MW RIHAND-I STPS - UNIT 1	NTPC	Boiler + Gen + FGD Execution	10-Nov-22	14-Dec-22	Continuous	OCC approved the shutdown subject to the condition that it should be linked with outage of Rihand-Dadri HVDC Shutdown
220 KV DELHI RR(BB)-NARELA(DV) (BBMB) CKT-1 and CKT-2 (shutdown of both the circuits)	BBMB	Deposit work by DMRC for raising the height of the line, as the transmission line is infringing with DMRC viaduct near Prasant Vihar of Janakpuri - Majlis Park Corridor of Delhi MRTS Phase-IV.	02-Nov-22	17-Nov-22	Continuous	OCC approved the shutdown.
400 KV DC HAPUR - ATOR LINE	PGCIL	Construction of 400 KV D/C Muradnagar-Simbhavali	02-Nov-22	03-Nov-22	Daily	OCC approved the shutdown

Element Name	Owner	Reason	Requested From	Requested To	Daily/ Continuous	Decision of OCC
		Transmission Line Transmission Line(under PMSTL TBCB project)				subject to no other S/D should be availed in that pocket.

Agenda No. 4.: Anticipated Power Supply Position in Northern Region for October 2022

- The updated anticipated Power Supply Position for October 2022 is as below:

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
CHANDIGARH	Availability	110	270	No Revision submitted
	Requirement	100	210	
	Surplus / Shortfall	10	60	
	% Surplus / Shortfall	10.0%	28.6%	
DELHI	Availability	2694	4050	17-Oct-22
	Requirement	2000	3900	
	Surplus / Shortfall	694	150	
	% Surplus / Shortfall	34.7%	3.8%	
HARYANA	Availability	4230	10700	No Revision submitted
	Requirement	3610	6930	
	Surplus / Shortfall	620	3770	
	% Surplus / Shortfall	17.2%	54.4%	
HIMACHAL PRADESH	Availability	969	1841	07-Oct-22
	Requirement	966	1830	
	Surplus / Shortfall	3	11	
	% Surplus / Shortfall	0.3%	0.6%	
J&K and LADAKH	Availability	940	3340	No Revision submitted
	Requirement	1660	2560	
	Surplus / Shortfall	-720	780	
	% Surplus / Shortfall	-43.4%	30.5%	
PUNJAB	Availability	4970	10920	18-Oct-22
	Requirement	3340	6200	
	Surplus / Shortfall	1630	4720	
	% Surplus / Shortfall	48.8%	76.1%	
RAJASTHAN	Availability	7640	18430	18-Oct-22
	Requirement	8680	14500	

State / UT	Availability / Requirement	Revised Energy (MU)	Revised Peak (MW)	Date of revision
	Surplus / Shortfall	-1040	3930	
	% Surplus / Shortfall	-12.0%	27.1%	
UTTAR PRADESH	Availability	9000	17000	12-Oct-22
	Requirement	8700	17000	
	Surplus / Shortfall	300	0	
	% Surplus / Shortfall	3.4%	0.0%	
UTTARAKHAND	Availability	1024	2043	07-Oct-22
	Requirement	1050	2070	
	Surplus / Shortfall	-26	-27	
	% Surplus / Shortfall	-2.5%	-1.3%	
NORTHERN REGION	Availability	31577	63900	
	Requirement	30106	51400	
	Surplus / Shortfall	1471	12500	
	% Surplus / Shortfall	4.9%	24.3%	

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

- The updated status on the submission of energy consumption breakup is presented below:

State / UT	From	To
Delhi	Apr-2018	Jul-2022
Haryana	Apr-2018	Aug-2022
Himachal Pradesh	Apr-2018	Aug-2022
Punjab	Apr-2018	Aug-2022
Rajasthan	Apr-2018	Aug-2022
Uttar Pradesh	Apr-2018	Jul-2022
Uttarakhand	Apr-2018	Jul-2022

Agenda No. 6: Follow-up of issues from various OCC Meetings - Status update

- Updated status is enclosed as **Annexure-A.I**.
- In 195th OCC, SLDCs were requested to again to coordinate with respective Transmission utilities of states/UT's and submit details about the updated status of downstream network by State utilities from ISTS Station (**Annexure-A-I.I**) before every OCC meeting.

Agenda No. 7. NR Islanding scheme

- Based on the decisions taken in the meeting taken by Hon'ble Minister of State (IC) for Power and New & Renewable Energy on 28.12.2020, Islanding Schemes for NR have been continuously reviewed/discussed in various forums.
- In 187th OCC, it was decided that states shall submit MIS report before every OCC meeting so that same may be discussed. Format was circulated vide agenda of 187th OCC.

- It was also highlighted that MoP has agreed for PSDF funding for implementation of islanding schemes and states were requested to prepare and submit DPR for the same. Further, a sample DPR on implementation of Islanding scheme for PSDF funding has been already circulated vide email dated 07.10.2021 and requested to expedite the preparation of DPR.
- Utilities were requested to refer and submit SOP for every Islanding scheme in their control area.
- A meeting was also held by Honorable Cabinet Minister (Power, New & Renewable Energy) on 07.10.2021 wherein emphasis was given on PSDF funding for Islanding schemes and DPR submission for the same. MoM has been issued and copy of the same is enclosed as Annexure-A.II of 189th OCC agenda.
- In the 189th OCC, MS, NRPC expressed concern regarding apathy of states in implementation of Islanding Schemes. He stated that all SLDCs shall intimate the names of Islands for which system study from CPRI is required along with justification for the same by 30th Nov, 2021. He also set timeline of 30th Nov, 2021 for Delhi to submit SOP data. He stated that communication may be sent to RAPS for submission of SOP data at the earliest.
- In the 190th OCC, NRPC Sectt representative informed that SOP data in respect of Delhi and RAPS have been received.
- UPSLDC vide letter dated 01.12.2021 has submitted the names of islands for which system study from CPRI is required. UPSLDC has highlighted, inter-alia, that involvement of long length 765kV line and high number of buses necessitates them to go for system study by CPRI. It has mentioned that SLDC/STU has no expertise in such studies and before doing any investment on the project, proper study is must for successful implementation and operation of Islands.
- HPSLDC vide letter dtd. 18.12.2021 has intimated that a meeting was held on 26.11.2021 between HPSLDC and HPSEBL wherein a team of officers from HPSLDC and HPSEBL has been formed to carry out transient study of all islands within a month.
- UPSLDC representative informed that CPRI has asked for some additional details and technical commercial offer would be provided to them by CPRI by 15th Jan 22.
- NRLDC representative informed that report received from Rajasthan regarding the Jodhpur-Barmer-Rajwest islanding scheme is in order and Rajasthan SLDC can proceed ahead. Further, NRLDC submitted that they use PSSE software for system study but Rajasthan has submitted details of Islands in MI Power Software, therefore, they are not able to access the file.
- Rajasthan SLDC representative informed that they have given the details in the hard copy of the load and generation to be considered for islanding scheme, and based on that have requested NRLDC to simulate it in PSSE software for validation. NRLDC representative agreed to the request of the Rajasthan SLDC.
- Uttarakhand SLDC representative informed that hydro stations near Dehradun are peaking stations and the proposed Dehradun islanding scheme appears to be infeasible. NRPC representative informed that some schemes in NR have been proposed by considering Hydro stations and Dehradun islanding scheme was proposed by the state

SLDC itself in view of all factors. Thus, Uttarakhand SLDC shall immediately conduct study on the proposed Islanding Scheme having Khodri & Chibro units and provide status on the feasibility of scheme with supporting data so that same may be communicated to the Ministry.

- In 191st OCC, HPSLDC representative informed that they need further two weeks to submit the outcome of transient study of all islands.
- Uttarakhand representative informed that major hydro stations e.g. Chibro, Khodri etc at Dehradun Region in Yamuna valley are non-must run and peaking stations. Therefore, it is technically not feasible to implement Dehradun as an islanding scheme. However, nominations of nodal officers from various utilities (PTCUL, UJVN Ltd & UPCL) are being sought for the formation of internal committee for accessing the possibility of Dehradun as Islanding scheme and the report shall be submitted to NRPC Secretariat subsequently.
- NRPC Sectt representative asked Uttarakhand to expedite the submission regarding the status on feasibility of the proposed Islanding scheme.
- MS, NRPC stated that all constituents that have given their information about the planning of islanding scheme shall take up the work on top priority and submit the progress in time bound manner by submitting the updated MIS format every month.
- NRLDC representative informed that Rajasthan SLDC is modelling data on PSSE software and it is expected to be completed within one week. Thereafter, NRLDC will submit its comments on the same. Rajasthan representative consented for the same.
- UP and Punjab were asked to update the status of their study being done by CPRI. Both informed that there is no progress since last OCC and they are waiting for response from CPRI.
- In the 192nd OCC, UPSLDC informed that they have received techno-commercial offer from CPRI for both the islanding schemes of UP and accessing the inputs from CPRI they will be conveying a meeting in last week of February 2022.
- NRLDC representative informed modeling data on PSSE software received from Rajasthan has not been modeled for islanding scheme. Further, NRLDC representative asked Rajasthan SLDC to send their team next week for modeling the data on PSSE software.
- MS, NRPC asked Uttarakhand SLDC to expedite the study they are conducting to access the feasibility of Dehradun islanding scheme.
- NRPC Sectt representative informed that a meeting was convened by HPSLDC with officials of NRPC Sectt., NRLDC, HPSEBL, & HPPTCL on 11.02.2022. It was observed that system study work has been pending due to pre-occupation of the concerned resource. Therefore, it was decided that HPSLDC shall write letters to MDs of HPSEBL & HPPTCL. It was decided to review the status in another meeting in the first week of March 22. HPSLDC has written letter dt. 14.02.2022.
- Punjab SLDC also informed that they will be conveying a meeting with STU within a week to track the progress.
- In the 193rd OCC, NRPC representative informed forum that HPSLDC convened a meeting on 4th March 2022 wherein they presented the results of static and dynamic study

conducted by them. NRLDC suggested that dynamic data used by HPSLDC is common data and it was decided that they will use data of particular generators and then apprise about the same.

- UPSLDC also convened a meeting on 7th March 2022 wherein they informed that CPRI has submitted the offer with a completion target of 5 months. It was also discussed that as there are two islanding schemes in UP control area hence it was suggested that CPRI may be asked to do it in 2 parts preferably 2.5 months each for both the islanding scheme.
- UPSLDC representative informed that CPRI would not be able to bifurcate the time separately for both the islanding scheme and acceptance is under consideration by the management.
- HPSLDC representative informed that they have communicated to all generators for providing dynamic data, and only reply from Karcham Wangtoo has been received from till date.
- Rajasthan representative informed that next week they will send their team to NRLDC for modelling the data on PSSE software.
- J&K representative informed that load has been identified and no further update. MS, NRPC asked J&K representative expedite the study work.
- Further, MS NRPC suggested that states shall coordinate with NRPC and NRLDC officials for carrying out the study.
- In the 194th OCC, Punjab representative informed that CPRI has asked for PSSE file for dynamic study which is being coordinated with NRLDC. STU has given timeline of 6 months for implementation after CPRI study.
- MS, NRPC along with NRLDC have desired that all states of northern region where islanding scheme is to be implemented shall convene meeting with the officials of NRPC and NRLDC wherein the study requirements can be discussed.
- OCC forum was of opinion that all generating units (especially 660MW units) shall make an effort to ensure successful household operations. UP representative was requested to expedite the implementation work of Unchahar-Lucknow Islanding scheme after analyzing load-generation balance and conducting steady state study.
- Further, OCC forum was of view that states shall go for implementation of islanding scheme after steady state study along with load generation balancing and dynamic study, if desired, may be carried out in later stage.
- In the 195th OCC, NRLDC representative intimated that steady state study for Rajasthan islanding scheme has been completed. It was decided that Rajasthan may go ahead for implementing the scheme.
- NRPC Sectt representative informed that a sub-group will be formulated shortly that would review all proposed islanding schemes of NR and assess the reason for delay.
- In the 196th OCC, MS NRPC desired UP representative to take up the matter with CPRI for Agra islanding scheme and ask them to complete the work in one month time from the date of acceptance of offer by CPRI.

- UP representative informed that steady state study along with load generation balancing is complete for Unchahar-Lucknow Islanding scheme and the same would be submitted to NRLDC in one week time.
- Rajasthan representative informed that for Jodhpur-Barmer-Rajwest and Suratgarh islanding scheme work of DPR preparation is under progress and same would be submitted to NLDC to avail PSDF funding before next OCC meeting.
- MS, NRPC asked Uttarakhand representative to expedite the submission regarding the status on feasibility of the proposed Islanding scheme.
- MS, NRPC asked Himachal Pradesh representative to coordinate with NRLDC officials to converge the study carried out by them.
- Further, MS NRPC also asked Punjab representative to coordinate with NRLDC officials to converge the steady state study carried out by them.
- In 197th OCC, NRPC Sectt representative informed that UPSLDC has submitted the updated status of Unchahar Islanding scheme as per the deliberation held in the review meeting held on 07.07.2020. Moreover, order for system study of Agra-Lalitpur IS has been placed on CPRI.
- In regard to Delhi Islanding scheme, NRPC Sectt representative informed that as per the deliberation held in the review meeting held on 13.07.2020, response from Delhi Discoms is awaited regarding whether trippings through ADMS system can be facilitated for Delhi Islanding scheme.
- MS, NRPC expressed apathy over no significant progress in implementation of Delhi Islanding Scheme since last 18 months. He suggested that in view of allocation of Dadri-II to Haryana and non-scheduling of Jhajjar and Dadri-II due to high cost, the proposed islanding may not survive. Therefore, it would be better to have two small islands - one with GTs and the other with Bawana. Mostly, these plants operate and therefore survival chances for islands would be more. Moreover, these islands could be controlled through UFRs at 220kV level by STU and not at 33kV by Discoms as envisaged in proposed scheme. It was suggested that DTL may bring out proposal for further discussion at NRPC Sectt and NRLDC level.
- NRPC Sectt representative informed that HPSLDC has been requested to provide load wise details for the islanding scheme finalized by them.
- In the 198th OCC, NRPC Sectt representative informed forum that Delhi SLDC has been asked to submit generation data for last 2 years (96 blocks) of power stations in Delhi control area and they need to expedite the submission of requisite data. Further, forum was of view that after submission of data, a meeting may be conducted between NRPC Sectt., NRLDC and Delhi SLDC to review the same.
- In regard to Unchahar Islanding scheme, NRPC Sectt representative informed that complete proposal has been received. On analysis of same, it is felt that logic needs to be discussed and NTPC Unchahar needs to confirm whether machines can be operated in FGMO mode in islanding operation. Further, NRPC Sectt representative informed that they would be their sharing their observations with UPSLDC/NTPC and thereafter, comments/confirmation of NTPC on the same may kindly be communicated to NRPC Sectt.

- NRPC Sectt representative intimated that based on the discussion in the 56th NRPC meeting for Rajwest and Suratgarh islanding schemes, RVPN was asked to review the Load in Suratgarh and Rajwest islands and reduce it so that there may be some adequate gap between island load and generation.
- NRPC Sectt representative apprised that Punjab has submitted the details and same has been scrutinized. Observations of NRPC Sectt have been shared with Punjab and they may kindly submit their response on the same. Punjab representative mentioned that reply on the observations would be submitted within two-three days.
- As regards to Dehradun Islanding Scheme, NRPC Sectt representative reiterated that a report may kindly be submitted to OCC forum after analyzing the past generation and demand data pertaining to the proposed scheme. Based on the report, further decision would be taken.
- NRPC Sectt representative intimated that data from Himachal Pradesh has been received and same is under examination.
- In the 199th OCC, NRPC Sectt representative informed forum that a meeting was conducted with the officials of HP and NRLDC to review the implementation of HP islanding scheme. In the meeting, average generation and load pattern of last two years were observed for both the islanding schemes. MoM of the meeting is attached at Annexure-A.II of the MoM of 199th OCC.
- Further, NRPC representative informed forum that a review meeting was conducted with the officials of UP and NRLDC to discuss the implementation of Unchahar-Lucknow Islanding scheme. MoM of the meeting is attached at Annexure-A.III of the MoM of 199th OCC.
- Rajasthan representative intimated forum that they have conducted a mock trial in which it took 79 ms for UFR command to reach RTU from data centre which is quite high and same is being reassessed with STLMS. Further, NRPC representative mentioned that as discussed in 56th NRPC meeting, Load of Suratgarh & Rajwest island may also be reduced to have appropriate gap in load generation. In this regard, Rajasthan representative informed that revised load setting will be shortly submitted to NRPC Sectt.
- MS, NRPC expressed apathy over no significant progress in implementation of Islanding Scheme for NR states and was of view that nodal officer for each islanding scheme shall be nominated by each State/UT and concerned representative of NRPC and NRLDC shall visit respective NR State/UT where the islanding scheme is being proposed and discuss the issues being faced in the implementation of cited scheme with the concerned higher officials.
- In the meeting (200th OCC), NRPC representative intimated for Unchahar islanding scheme a meeting was convened by NRPC Sectt. with officials of NRLDC, UPSLDC & NTPC Unchahar on 07.10.2022 wherein based on the deliberation held in the meeting (copy of MoM is attached as Annexure-A.III of the agenda), revised scheme accordingly has been submitted by UP. Generation has been considered as 600 MW and load has been taken as 540 MW and this islanding scheme will be two tier scheme – one at frequency level 47.9 Hz and other at 47.7 Hz. UP representative informed that with respect to UFR's to be utilized for Islanding purposes: At all transmission and generating

stations UFRs shall be installed on both side of the elements. For 33kV feeders UFR shall be installed at transmission end only. OCC forum approved the Unchahar islanding scheme.

- NRPC representative intimated OCC forum that Uttarakhand SLDC has submitted a feasibility report (attached as **Annexure-A.II**) of Dehradun Islanding scheme wherein they have mentioned that generation of more than 40 MW round the clock is available for 7 months and generation is not available around the clock during the remaining 5 months. Therefore, islanding is not feasible.
- CGM, NRLDC stated that Uttarakhand may not consider only 1 unit of Chibro or Khodri, rather more than 1 units may be clubbed together for island generation. Vyasi generation may also be explored.
- XEN, Uttarakhand SLDC stated that they have no technical experience in islanding matters, therefore handholding is requested from NRLDC.
- On request of Uttarakhand, MS, NRPC opined that a small sub-group of officers of NRLDC and Uttarakhand SLDC may be formulated to assist Uttarakhand in carrying out the study for Dehradun islanding scheme. Further, sub-group may submit its report on the same to OCC forum.
- NRPC representative intimated that with regard to islanding scheme of Punjab region, they have submitted vide mail dtd. 17.10.2022, the details regarding average load and relief of UFR along with SLDs sought vide mail dtd. 08.08.2022.
- It was apprised that island generation has been taken as 75% of installed capacity, wherein in past OCC meetings constituents were suggested that load is to be taken as 90% of generation as decided in case of Unchahar islanding scheme.
- Punjab was requested to modify the scheme as above and submit for discussion in upcoming NRPC meeting.
- In respect of islanding scheme of Rajasthan, NRPC representative intimated that NRPC Sectt communicated to RVPN vide mail dtd. 20.09.2022 for modifying the Suratgarh scheme for making load as 90% of generation. Some minor mistakes were also communicated. However, revised scheme has not been submitted. Revised Rajwest scheme is also awaited from RVPN.
- RVPN assured to send the revised scheme for discussion in upcoming NRPC meeting.
- In respect of islanding scheme of Delhi, it is intimated that weekly load and generation data of state generators has been received from Delhi SLDC and same is being compiled for annual scenario.
- MS, NRPC suggested NRLDC to share with NRPC Sectt. generation pattern for Delhi generators for last 2 years.
- With regard to islanding scheme of HP region, NRPC representative intimated that the load-generation has been discussed and finalized in meeting dtd. 14.09.2022. HP SLDC was requested to submit updated scheme on basis of decisions taken therein. However, scheme has not been received from HP.

- It was discussed that PFR test suggested by NRLDC for Bhabha and Malana may be explored parallelly by HP.
- HP assured to submit the revised scheme for discussion in upcoming NRPC meeting.

Agenda No. 8. Coal Supply Position of Thermal Plants in Northern Region

- In the meeting, NRPC representative apprised the forum about the coal stock position of generating stations in northern region during current month (till 10th September 2022).
- Average coal stock position of generating stations in northern region, having critical stock, during first ten days of September 2022 is as follows:

Station	Capacity (MW)	PLF % (prev. months)	Normative Stock Req. (Days)	Actual Stock (Days)
ANPARA C TPS	1200	77.25	13	2.8
HARDUAGANJ TPS	1265	54.22	21	1.7
KOTA TPS	1240	70.14	21	3.9
OBRA TPS	1094	49.71	21	2.9
PARICHHA TPS	1140	58.74	21	0.6
PRAYAGRAJ TPP	1980	73.31	21	1.5
ROSA TPP Ph-I	1200	73.43	21	1.1
CHHABRA-I PH-1 TPP	500	67.37	21	3.8
KALISINDH TPS	1200	68.95	21	2.5
CHHABRA-I PH-2 TPP	500	40.91	21	1.1
CHHABRA-II TPP	1320	60.84	21	3.5

- In the meeting, above mentioned generating stations were requested to take adequate measures.

Agenda No. 9. Deemed Availability of relocation/height raising of 400kV Jharli-Mundka Transmission line at Silani Chowk in Jhajjar Distt. (Agenda by NHAI)

- In the meeting, NRPC representative presented the matter to the forum.
- Haryana representative informed forum that due to heavy waterlogging at most of the tower locations replacement of porcelain insulator work of both circuits of 400kV Jhajjar-Daulatabad transmission line could not be completed as the schedule decided in the 199th OCC meeting. Further, they have now planned the shutdown of 400 kV Jhajjar (APCL) - Daulatabad (HV) of both circuit one at a time for replacement of Porcelain insulator work in the month of November and in the outage meeting of 200th the same was approved from 1st Nov to 13th Nov for ckt-1 and 14th Nov to 26th Nov for ckt-2 respectively.
- NRLDC representative intimated forum that one unit of IGSTPP is under RSD since 11th Oct.
- MS, NRPC was of view that it may be confirmed from Delhi and Haryana SLDC whether they would be scheduling the third unit of IGSTPP during 28th Oct to 10th Nov. Further, he mentioned that if consent is given from Delhi and Haryana SLDC that they would not be

scheduling the third unit of IGSTPP during 28th Oct to 10th Nov, then NHA shutdown may be facilitated during this period. If NHA shutdown is facilitated during 28th Oct to 10th Nov, then the shutdown of Jhajjar-Daulatabad transmission line may be the deferred till the completion of NHA shutdown.

Agenda No. 10. Punching of Outages on OMS Portal of NRLDC (Agenda by NRPC Sectt.)

- OCC forum agreed to the revised proposed timelines for utilities to punch their respective outages in OMS portal as follows:

Type of Element	Dates b/w which outage to be punched in NRLDC OMS portal
For HVDC and inter-regional lines (under NLDC jurisdiction)	1 st to 5 th of every month
For Generating utilities and 440kV and below HVAC lines (under NRLDC jurisdiction)	1 st to 5 th of every month

- Further, OCC forum agreed to NRLDC request for providing 5 working days for analysis and study of the punched outages on OMS portal before conducting the OCC meeting.

Agenda No.11. Regarding NPCIL RAPS-B Unit-1 outage w.e.f 27/10/2022 to 28/05/2024 (around 577 days) for mandatory replacement of reactor components. (Agenda by RAPS)

- In the meeting, NRPC representative mentioned that NPCIL has intimated that RAPS-B unit-1 outage is being taken for mandatory replacement of Enmasse Reactor Coolant Channels & reactor feeders w.e.f 27/10/2022 to 28/05/2024 (around 577 days) as per LGBR subcommittee meeting dtd 27/10/2021 & 27/09/2022 and OCC-199 approval dtd 16/09/2022. .
- NR-1 Further, NPCIL has also mentioned that RAPS-B unit-2 will continue to operate & no planned outage is proposed (except emergency/ forced shutdown / trips if any) in this period (27/10/2022 to 28/05/2024).
- In this regard, NPCIL has stated that beneficiary DISCOMs (UPPCL, JKPCL, PSPCL, HPPC & Rajasthan) may kindly arrange respective 50% share from other resources, for meeting their requirements during the period (27/10/2022 to 28/05/2024).
- OCC forum noted the same.

Agenda No.12. Setting up of 3000TPD Municipal Solid Waste (MSW) based Waste to Energy (WtE) facility at Narela- Bawana by MCD. (Agenda by NR-1 Powergrid)

- In the meeting, NR-1 Powergrid representative presented the matter to the forum and intimated that MCD for Setting up of 3000TPD Municipal Solid Waste (MSW) based Waste to Energy (WtE) facility at Narela- Bawana has requested Powergrid for shifting of

following transmission lines on multi-circuit towers so that the required space for setting up of plant can be made available:

400 kV D/C Bawana-Bahadurgarh-Bhiwani transmission line of Powergrid

400kV D/C Bawana-Bamnauli transmission line of DTL

- Further, NR-1 Powergrid has intimated that in a meeting held at the office of Chief Secretary, Delhi with the concerned stakeholders it was decided to shift these lines of different utilities on multi-circuit towers in view of national importance of the project.
- OCC forum directed powergrid as the above matter involves shift of lines of different utilities on multi-circuit towers henceforth there may be various operational and commercial issues that powergrid may discuss with DTL and after working out the modalities with DTL may then approach OCC forum.

Agenda No.13. Upgradation of Equipment in 220KV Zainakot bays at Wagoora S/S (Agenda by NR-2 Powergrid)

- In the meeting, NRPC representative presented the matter to the forum. JKPTCL vide its letter dated 20.09.2022 has intimated that they are going to carryout re-conductoring of 220KV Wagoora Zainakot-1 with HTLS conductor including strengthening of bay at Zainakot end. As per JKPTCL, after reconductoring, thermal rating of 220KV Wagoora Zainakot Ckt-1 will be 1600 Amp. They had also intimated POWERGRID to upgrade Zainakot 1 bay at Wagoora to match line rating.
- J&K representative intimated that shutdown for the cited activity has been availed by them till 25.11.2022 and admitted that there was delay on JKPTCL part in intimating powergrid about the abovesaid work.
- NR-2 Powergrid mentioned that as they were informed about the work in such a short notice i.e. on 12.10.2022, currently they are only in position to upgrade the bay CT's and other equipments/hardware for said bays at Wagoora end would be upgraded in 04 to 05 months under ADDCAP.
- OCC forum asked JKPTCL to comply with the observations of Powergrid.

Additional Agenda No.1: Difference in drawl schedule finalized by NRLDC and drawl schedule used by NRPC for finalizing the DSM and Energy Account of Uttar Pradesh (Agenda by UPSLDC)

- UPSLDC vide its letter dated 29.09.2022 (copy enclosed as **Annexure A.III**) has mentioned about the consistent difference of approx. 70MW in each time block in the drawl schedule finalized by NRLDC and drawl schedule used by NRPC for finalizing the DSM and Energy Account of UP from 9th June 2022 onwards. (Data from April 2022 to august 2022 is attached.)
- Further, UPSLDC submitted that there appears some change in methodology for preparing accounts at NRPC end due to which drawl schedule of UP is not incorporated correctly in monthly DSM and Energy Account.

- NRLDC representative mentioned that schedule of states having entitlement in TALA HEP is replaced by actual injection from TALA HEP in proportion to the entitlement of the state in TALA HEP in order to nullify deviation caused by TALA HEP.
- NRPC representative intimated that somewhere b/w 01.01.2022 and 18.03.2022 sign of SEM data changed on part of ERLDC of TALA HEP.
- Sign Change for TALA HEP was not intimated to NRPC Sectt. at the time of furnishing of SEM data by NRLDC, henceforth the provision for sign change was not taken into account while preparing DSA and REA.
- The discrepancies have become significant after onset of high flow season for Hydro Electric Stations in the month of June when average schedule given to TALA HEP is 846 MW as compared to the pervious period where average schedule given was 127 MW.
- NRLDC intimated that after their deliberation with ERLDC, a meeting will be held in a week's time amongst the concerned officials of NRPC Sectt., NRLDC and ERLDC for the corrective course of action.
- OCC forum directed NRLDC that in future any such incidence of change in SEM configuration shall also be communicated to NRPC Sectt. so that same is taken into account while preparing the DSA and REA accounts.

Additional Agenda No.2: CERC (Connectivity and General Network Access to the inter-State Transmission System) Regulations,2022 (Agenda by NRPC)

- NRPC representative intimated OCC forum that CERC has notified Connectivity and General Network Access to the inter-State Transmission System) Regulations,2022.
- Salient points of the GNA Regulations, 2022 were presented to the forum by NRPC representative.
- OCC forum noted the information.

Additional Agenda No.3: Singrauli St-2 PG test of DDCMIS System (Unit# 6 & Unit#7, 500MW Units) (Agenda by NTPC)

- NTPC representative intimated OCC forum that Singrauli St-2 PG test of DDCMIS System (Unit# 6 & Unit#7, 500MW Units) is tentatively planned in the month of November. This test is necessary for providing Grid reliability & System Support as well as checking and ensuring ramping capability of station and healthiness of DDCMIS System.
- Further, he also stated that each Unit PG test will take around 2 days. During PG test of load will be reduced as per test procedure.
- NRLDC representative asked NTPC to share test procedure with the concerned beneficiaries for their consent.
- UPSLDC representative asked NTPC to share the complete details of the test procedure with power management cell of UP for their consent.
- OCC forum was of opinion that NTPC shall share the complete details of the test procedure with in the constituents and within three days constituents have to reply to NTPC and if no reply is received from constituents then NTPC may go ahead with the PG test.

- Further, NTPC was asked by forum to conduct the test on weekends.

Follow up issues from previous OCC meetings

Annexure-A. I

1	Down Stream network by State utilities from ISTS Station	Augmentation of transformation capacity in various existing substations, addition of new substations along with line bays as well as requirement of line bays by STUs for downstream network are under implementation at various locations in Northern Region. Further, 220kV bays have already been commissioned at various substations in NR. For its utilization, downstream 220kV system needs to be commissioned.	List of downstream networks is enclosed in Annexure-A. I. I.																														
2	Progress of installing new capacitors and repair of defective capacitors	Information regarding installation of new capacitors and repair of defective capacitors is to be submitted to NRPC Secretariat.	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="911 857 1544 1193"> <tr><td>⊙ CHANDIGARH</td><td>Sep-2019</td></tr> <tr><td>⊙ DELHI</td><td>Aug-2022</td></tr> <tr><td>⊙ HARYANA</td><td>May-2022</td></tr> <tr><td>⊙ HP</td><td>Jan-2022</td></tr> <tr><td>⊙ J&K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Jul-2022</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Aug-2022</td></tr> <tr><td>⊙ UP</td><td>Sep-2022</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Sep-2022</td></tr> </table> <p>All States/UTs are requested to update status on monthly basis.</p>	⊙ CHANDIGARH	Sep-2019	⊙ DELHI	Aug-2022	⊙ HARYANA	May-2022	⊙ HP	Jan-2022	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Jul-2022	⊙ RAJASTHAN	Aug-2022	⊙ UP	Sep-2022	⊙ UTTARAKHAND	Sep-2022												
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3	Healthiness of defence mechanism: Self-certification	<p>Report of mock exercise for healthiness of UFRs carried out by utilities themselves on quarterly basis is to be submitted to NRPC Secretariat and NRLDC. All utilities were advised to certify specifically, in the report that “All the UFRs are checked and found functional” .</p> <p>In compliance of NPC decision, NR states/constituents agreed to raise the AUFR settings by 0.2 Hz in 47th TCC/49th NRPC meetings.</p>	<p>Data upto following months, received from various states / UTs:</p> <table border="1" data-bbox="911 1417 1544 1798"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Sep-2022</td></tr> <tr><td>⊙ HARYANA</td><td>Sep-2022</td></tr> <tr><td>⊙ HP</td><td>Aug-2022</td></tr> <tr><td>⊙ J&K and LADAKH</td><td>Not Available</td></tr> <tr><td>⊙ PUNJAB</td><td>Jun-2022</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Jun-2022</td></tr> <tr><td>⊙ UP</td><td>Sep-2022</td></tr> <tr><td>⊙ UTTARAKHAND</td><td>Sep-2022</td></tr> <tr><td>⊙ BBMB</td><td>Sep-2022</td></tr> </table> <p>All States/UTs are requested to update status for healthiness of UFRs on monthly basis for islanding schemes and on quartely basis for the rest .</p> <p>Status:</p> <table border="1" data-bbox="911 2033 1544 2219"> <tr><td>⊙ CHANDIGARH</td><td>Not Available</td></tr> <tr><td>⊙ DELHI</td><td>Increased</td></tr> <tr><td>⊙ HARYANA</td><td>Increased</td></tr> <tr><td>⊙ HP</td><td>Increased</td></tr> <tr><td>⊙ J&K and LADAKH</td><td>Not increased</td></tr> </table>	⊙ CHANDIGARH	Not Available	⊙ DELHI	Sep-2022	⊙ HARYANA	Sep-2022	⊙ HP	Aug-2022	⊙ J&K and LADAKH	Not Available	⊙ PUNJAB	Jun-2022	⊙ RAJASTHAN	Jun-2022	⊙ UP	Sep-2022	⊙ UTTARAKHAND	Sep-2022	⊙ BBMB	Sep-2022	⊙ CHANDIGARH	Not Available	⊙ DELHI	Increased	⊙ HARYANA	Increased	⊙ HP	Increased	⊙ J&K and LADAKH	Not increased
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⊙ RAJASTHAN	Increased														
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⊙ UTTARAKHAND	Increased														
⊙ BBMB	Increased														
4	Status of FGD installation vis-à-vis installation plan at identified TPS	<p>List of FGDs to be installed in NR was finalized in the 36th TCC (special) meeting dt. 14.09.2017. All SLDCs were regularly requested since 144th OCC meeting to take up with the concerned generators where FGD was required to be installed.</p> <p>Further, progress of FGD installation work on monthly basis is monitored in OCC meetings.</p>	<p>Status of the information submission (month) from states / utilities is as under:</p> <table border="1"> <tr><td>⊙ HARYANA</td><td>Sep-2022</td></tr> <tr><td>⊙ PUNJAB</td><td>Sep-2022</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Sep-2022</td></tr> <tr><td>⊙ UP</td><td>Sep-2022</td></tr> <tr><td>⊙ NTPC</td><td>Feb-2022</td></tr> </table> <p>FGD status details are enclosed as Annexure-A. I. II.</p> <p>All States/utilities are requested to update status of FGD installation progress on monthly basis.</p>	⊙ HARYANA	Sep-2022	⊙ PUNJAB	Sep-2022	⊙ RAJASTHAN	Sep-2022	⊙ UP	Sep-2022	⊙ NTPC	Feb-2022		
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⊙ PUNJAB	Sep-2022														
⊙ RAJASTHAN	Sep-2022														
⊙ UP	Sep-2022														
⊙ NTPC	Feb-2022														
5	Information about variable charges of all generating units in the Region	The variable charges detail for different generating units are available on the MERIT Order Portal.	All states/UTs are requested to submit daily data on MERIT Order Portal timely.												
6	Status of Automatic Demand Management System in NR states/UT's	The status of ADMS implementation in NR, which is mandated in clause 5.4.2 (d) of IEGC by SLDC/SEB/DISCOMs is presented in the following table:	<p>Status:</p> <table border="1"> <tr><td>⊙ DELHI</td><td>Fully implemented</td></tr> <tr><td>⊙ HARYANA</td><td>Scheme not implemented</td></tr> <tr><td>⊙ HP</td><td>Scheme not implemented</td></tr> <tr><td>⊙ PUNJAB</td><td>Scheme not implemented</td></tr> <tr><td>⊙ RAJASTHAN</td><td>Under implementation. Likely completion schedule is 31.12.2022.</td></tr> <tr><td>⊙ UP</td><td>Scheme implemented by NPCIL only</td></tr> </table>	⊙ DELHI	Fully implemented	⊙ HARYANA	Scheme not implemented	⊙ HP	Scheme not implemented	⊙ PUNJAB	Scheme not implemented	⊙ RAJASTHAN	Under implementation. Likely completion schedule is 31.12.2022.	⊙ UP	Scheme implemented by NPCIL only
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⊙ UP	Scheme implemented by NPCIL only														

7	Reactive compensation at 220 kV/ 400 kV level at 15 substations			
	State / Utility	Substation	Reactor	Status
i	POWERGRID	Kurukshetra	500 MVar TCR	Anticipated commissioning: Nov' 22 2022
ii	DTL	Peeragarhi	1x50 MVar at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under final stage inspection. GIS Bay is already available.
iii	DTL	Harsh Vihar	2x50 MVar at 220 kV	PO awarded to M/s Kanohar Electricals Ltd. Drawings approved and under final stage inspection. GIS Bay is already available.
iv	DTL	Mundka	1x125 MVar at 400 kV & 1x25 MVar at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
v	DTL	Bamnauli	2x25 MVar at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
vi	DTL	Indraprastha	2x25 MVar at 220 kV	Bay work awarded to M/s. Ethos. Bay work is expected to be completed by Dec.21. Reactor part tender is dropped and at present same is under revision.
vii	DTL	Electric Lane	1x50 MVar at 220 kV	Under Re-tendering due to Single Bid
viii	PUNJAB	Dhuri	1x125 MVar at 400 kV & 1x25 MVar at 220 kV	400kV Reactors - LOA issued on dated. 17.08.2021 and date of completion of project is 18 months from the date of LOA. 220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
ix	PUNJAB	Nakodar	1x25 MVar at 220 kV	220kV Reactors - LOA issued on dated 19.07.2021 and date of completion of project is 18 months from the date of LOA.
x	PTCUL	Kashipur	1x125 MVAR at 400 kV	Price bid has been opened and is under evaluation

xi	RAJASTHAN	Akal	1x25 MVAR	1x25 MVAR Reactor at Akal has been commissioned on dated 25th July' 2022.
xii	RAJASTHAN	Bikaner	1x25 MVAR	Erection work of 1x25 MVAR Reactors at Bikaner and Suratgarh completed and testing work is pending. The same are likely to be commissioned in Aug / Sept 2022.
xiii	RAJASTHAN	Suratgarh	1x25 MVAR	Erection work of 1x25 MVAR Reactors at Bikaner and Suratgarh completed and testing work is pending. The same are likely to be commissioned in Aug / Sept 2022.
xiv	RAJASTHAN	Barmer & others	13x25 MVAR	Agreement signed on dt. 22.06.2020. Grant of Ist Instalment received on dt.19.02.21 &work order placed on dt. 7.04.2022 to M/s Kanohar Electricals Ltd.
xv	RAJASTHAN	Jodhpur	1x125 MVAR	Agreement signed on dt. 22.06.2020. Grant of Ist Instalment received on dt.19.02.21 &work order placed on dt. 7.04.2022 to M/s Kanohar Electricals Ltd.

1. Down Stream network by State utilities from ISTS Station:						
Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
1	400/220kV, 3x315 MVA Samba	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays.	-	PDD, J&K to update the status.
2	400/220kV, 2x315 MVA New Wanpoh	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• 220 kV New Wanpoh - Alusteng D/c Line	-	PDD, J&K to update the status.
				• 220 kV New Wanpoh - Mattan D/c Line	-	PDD, J&K to update the status.
3	400/220kV, 2x315 MVA Amargarh	Commissioned: 6 Total: 6	Utilized: 6 Unutilized: 2	• 220kV D/C line from 400/220kV Kunzar - 220/33kV Sheeri	-	PDD, J&K to update the status.
4	400/220kV, 2x500 MVA Kurukshetra (GIS)	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• 220kV Bhadson (Kurukshetra) – Ramana Ramani D/c line	-	HVPNL to update the status.
5	400/220 kV, 2x315 MVA Dehradun	Commissioned: 6 Total: 6	Utilized: 2 Unutilized: 4	• Network to be planned for 4 bays	-	PTCUL to update the status.
6	Shahjahanpur, 2x315 MVA 400/220 kV	Commissioned: 6 Approved/Under Implementation:1 Total: 7	Utilized: 5 Unutilized: 1 (1 bays to be utilized shortly) Approved/Under Implementation:1	• 220 kV D/C Shahajahanpur (PG) - Gola line	Dec'22	Updated in 200th OCC by UPPTCL
				• LILO of Sitapur – Shahjahanpur 220 kV SC line at Shahjahanpur (PG)	Commissioned	Energization date: 25.02.2022 updated by UPPTCL in 196th OCC
7	Hamirpur 400/220 kV Sub-station	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4 (2 bays to be utilized shortly)	• 220 kV Hamirpur-Dehan D/c line	Commissioned	Commisioned date: 09.06.2022. Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
8	Sikar 400/220kV, 1x 315 MVA S/s	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• LILO of 220 kV Sikar (220 kV GSS)-Dhod S/c line at Sikar (PG)	Commissioned	LILO of 220 kV S/C Sikar-Dhod line at 400 kV GSS PGCIL, Sikar has been charged on dt. 31.03.2022
				• Network to be planned for 2 bays.	-	Against the 3rd ICT at 400 kV GSS Sikar, only 2 bays were constructed and same has been utilized by RVPN by constructing LILO of 220 kV S/C Sikar – Dhod line as updated by RVPNL in 195th OCC
9	Bhiwani 400/220kV S/s	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	• 220 kV D/C line Bhiwani (PG) – Bhiwani (HVPNL) line	Dec'22	Updated in 197th OCC by HVPNL
				• 220 kV Bhiwani (PG) - Isherwal (HVPNL) D/c line.	Dec'22	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
				• 220 kV Bhiwani (PG) - Dadhibana (HVPNL) D/c line.	Apr'24	Issue related to ROW as intimated in 192nd OCC.HVPNL to update the status.
10	Jind 400/220kV S/s	Commissioned: 4 Approved:4 Total: 8	Utilized: 4 Unutilized: 0 Approved:4	• LILO of both circuits of 220 kV Jind HVPNL to PTPS D/C line at 400 kV substation PGCIL Khatkar (Jind) with 0.5 sq inch ACSR conductor	May'24	Updated in 197th OCC by HVPNL
11	400/220kV Tughlakabad GIS	Commissioned: 6 Under Implementation: 4 Total: 10	Utilized: 6 Unutilized: 0 Under Implementation:4	• RK Puram – Tughlakabad (UG Cable) 220kV D/c line – March 2023.	-	DTL to update the status.
				• Masjid Mor – Tughlakabad 220kV D/c line.	-	DTL to update the status.
12	400/220kV Kala Amb GIS (TBCB)	Commissioned: 6 Total: 6	Utilized: 0 Unutilized: 6	• HPPTCL has planned one no. of 220kV D/c line from Kala Amb 400/220kV S/s to 220/132kV Kala Amb S/s	Mar'23	Updated in 198th OCC by HPPTCL
				• Network to be planned for 4 bays	-	HPPTCL to update the status.
13	400/220kV Kadarpur	Commissioned: 8	Utilized: 0	• LILO of both circuits of 220 KV Pali - Sector 56 D/C line at Kadarpur along with augmentation of existing conductor from 220 KV Sector-56 to LILO point with 0.4 sq inch AL-59 conductor.	Mar'23	Updated in 197th OCC by HVPNL

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
13	Sub-station	Total: 8	Unutilized: 8	• LILO of both circuits of 220KV Sector 65 - Pali D/C line at Kadarpur along with augmentation of balance 0.4 sq. inch ACSR conductor of 220 kV Kadarpur - Sector 65 D/C line with 0.4sq inch AL-59 conductor	May'23	Updated in 197th OCC by HVPNL
14	400/220kV Sohna Road Sub-station	Commissioned: 8	Utilized: 2	• LILO of both circuits of 220kV D/c Sector-69 - Roj Ka Meo line at 400kV Sohna Road	Jun'23	Updated in 197th OCC by HVPNL
		Total: 8	Unutilized: 4	• LILO of both circuits of 220kV D/c Badshahpur-Sec77 line at 400kV Sohna Road	Jun'23	Updated in 197th OCC by HVPNL
15	400/220kV Prithla Sub-station	Commissioned: 8	Utilized: 2	• Prithla - Harfali 220kV D/c line with LILO of one ckt at Meerpur Kurali	Commissioned	Commissioned date: 31.12.2021. Updated in 198th OCC by HVPNL
		Total: 8	Unutilized: 4	• LILO of both ckt of 220kV D/c Ranga Rajpur – Palwal line	-	HVPNL to update the status
			Under Implementation:2	• 220kV D/C for Sector78, Faridabad	02.03.2023	Updated in 198th OCC by HVPNL
				• Prithla - Sector 89 Faridabad 220kV D/c line	31.03.2024	Under Implementation (Mar'24). Updated in 198th OCC by HVPNL
16	400/220kV Sonepat Sub-station	Commissioned: 6	Utilized: 2	• LILO of both circuits of 220kV Samalkha - Mohana line at Sonepat	-	HVPNL to update the status.
		Under Implementation:2	Unutilized: 2	• Sonepat - HSIISC Rai 220kV D/c line	Nov'22	Updated in 196th OCC by HVPNL
Total: 8	Under Implementation:2	Under Implementation:2				
17	400/220kV Neemrana Sub-station	Commissioned: 6	Utilized: 4	• LILO of Bhiwadi - Neemrana 220kV S/c line at Neemrana (PG)	Oct'22	In Tendering stage as updated in 192nd OCC by RVPNL.
Total: 6	Total: 6	Unutilized: 2				
18	400/220kV Kotputli Sub-station	Commissioned: 6	Utilized: 4	• Kotputli - Pathreda 220kV D/c line	-	Bid documents under approval as updated in 195th OCC by RVPNL.
Total: 6	Total: 6	Unutilized: 2				
19	400/220kV Jalandhar Sub-station	Commissioned: 10	Utilized: 8	• Network to be planned for 2 bays	May'24	LILO of 220 kV BBMB Jalandhar - Butari line at 400 kV PGCIL Jalandhar being planned. Work expected to be completed by May 2024. Updated in 198th OCC by PSTCL.
Total: 10	Total: 10	Unutilized: 2				
20	400/220kV Roorkee Sub-station	Commissioned: 6	Utilized: 4	• Roorkee (PG)-Pirankaliyar 220kV D/c line	Commissioned	Roorkee (PG)-Pirankaliyar 220kV D/c line commissioned in 2020 as intimated by PTCUL in 197th OCC
Total: 6	Total: 6	Unutilized: 2				
21	400/220kV Lucknow Sub-station	Commissioned: 8	Utilized: 4	• Network to be planned for 4 bays	Oct'22	• Lucknow -Kaurasa (Sitapur), 220 kV D/C line expected energization date Oct'22 updated by UPPTCL in 196th OCC
Total: 8	Total: 8	Unutilized: 4				• No planning for 2 no. of bays updated by UPPTCL in 196th OCC
22	400/220kV Gorakhpur Sub-station	Commissioned: 6	Utilized: 4	• Network to be planned for 2 bays	Dec'22	• Gorakhpur(PG)- Maharajanj, 220 kV D/C line expected energization date Dec'22 updated by UPPCL in 196th OCC
Total: 6	Total: 6	Unutilized: 2				
23	400/220kV Fatehpur Sub-station	Commissioned: 8	Utilized: 6	• Network to be planned for 4 bays	-	• UPPTCL intimated that 02 no. of bays under finalization stage
Under Implementation:2	Under Implementation:2	Total: 10	Unutilized: 2			• No planning for 2 no. of bays updated by UPPTCL in 196th OCC
Total: 10	Total: 10	Unutilized: 2				
24	400/220kV Abdullapur Sub-station	Commissioned: 10	Utilized: 10	• Abdullapur – Rajokheri 220kV D/c line	Oct'22	Updated in 198th OCC by HVPNL
Under Implementation:2	Under Implementation:2	Total: 12	Unutilized: 0			
Total: 12	Total: 12	Under Implementation:2	Under Implementation:2			
		Commissioned: 8	Utilized: 2	• Panchkula – Pinjore 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
				• Panchkula – Sector-32 220kV D/c line	31.12.2022	Updated in 194th OCC by HVPNL
				• Panchkula – Raiwali 220kV D/c line	Commissioned	Updated in 194th OCC by HVPNL
Under tender:2	Under tender:2	Under tender:2	Utilized: 2			

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
25	400/220kV Pachkula Sub-station	Total: 10 Out of these 10 nos. 220kV Line Bays, 2 bays would be used by the lines being constructed by POWERGRID (Chandigarh-2) and balance 8 nos. bays would be used by HVPNL	Commissioned: 2 Unutilized: 4 Under Implementation:2	• Panchkula – Sadhaura 220kV D/c line: Sep'23	Sept'23	Updated in 194th OCC by HVPNL
26	400/220kV Amritsar S/s	Commissioned:7 Approved in 50th NRPC- 1 no. Total: 8	Utilized: 6 Unutilized: 1 Approved in 50th NRPC- 1 no.	• Amritsar – Patti 220kV S/c line	May'23	Route survey/tender under process. Work expected to be completed by May 2023. Updated in 198th OCC by PSTCL.
				• Amritsar – Rashiana 220kV S/c line (2 bays shall be required for above lines. However, 1 unutilized bay shall be used for Patti and requirement of one additional bay approved for Rashiana by NRPC)	May'23	Route survey/tender under process. Work expected to be completed by May 2023. Updated in 198th OCC by PSTCL.
27	400/220kV Bagpat S/s	Commissioned: 8 Total: 8	Utilized:6 Unutilized: 2	• Bagpat - Modipuram 220kV D/c line	Aug'22	Updated in 196th OCC by UPPTCL, within 10 day tentative charging updated in 198th OCC by UPPTCL.
28	400/220kV Bahardurgarh S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• Network to be planned for 2 bays.	Mar'24 and July'24	Updated in 198th OCC by HVPNL
29	400/220kV Jaipur (South) S/s	Commissioned: 4 Total: 4	Utilized:2 Unutilized: 2	• Network to be planned for 2 bays.	-	LILO case of 220 kV Dausa – Sawai Madhopur line at 400 kV GSS Jaipur South (PG) is under WTD approval as updated by RVPNL in 195th OCC
30	400/220kV Sohawal S/s	Commissioned: 8 Total: 8	Utilized: 8	• Sohawal - Barabanki 220kV D/c line	Commissioned	Energization date: 14.04.2018 updated by UPPTCL in 196th OCC
				• Sohawal - New Tanda 220kV D/c line	Commissioned	Energization date: 28.05.2019 updated by UPPTCL in 196th OCC
				• Network to be planned for 2 bays	Commissioned	• Sohawal - Gonda 220kV S/c line (Energization date: 27.04.2020) updated by UPPTCL in 196th OCC • Sohawal - Bahaich 220kV S/c line (Energization date: 15.02.2021) updated by UPPTCL in 196th OCC
31	400/220kV, Kankroli	Commissioned: 6 Total: 6	Utilized: 4 Unutilized: 2	• Network to be planned for 2 bays	-	RVPNL to update the status
32	400/220kV, Manesar	Commissioned: 8 Total: 8	Utilized: 4 Unutilized: 4	• Network to be planned for 4 bays	-	One bay 220 kV Manesar (PG)-Panchgaon ckt commissioned on 05.09.2022
33	400/220kV, Saharanpur	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	Oct'22	Saharanpur(PG)-Devband D/c line expected energization date Oct'22 updated by UPPTCL in 199th OCC
34	400/220kV, Wagoora	Commissioned: 10 Total: 10	Utilized: 6 Unutilized: 4	• Network to be planned for 4 bays	-	PDD, J&K to update the status.
35	400/220kV, Ludhiana	Commissioned: 9 Total: 9	Utilized: 8 Unutilized: 1	• Network to be planned for 1 bay	Mar'23	Direct circuit from 220 kV Lalton Kalan to Dhandari Kalan to be diverted to 400 kV PGCIL Ludhiana. Work expected to be completed by March 2023. Updated in 198th OCC by PSTCL.

Sl. No.	Substation	Downstream network bays	Status of bays	Planned 220 kV system and Implementation status	Revised Target	Remarks
36	400/220kV, Chamba (Chamera Pool)	Commissioned: 3 Under tender:1 Total: 4	Utilized:3 Unutilized: 0 Under tender:1	• Stringing of 2nd ckt of Chamera Pool – Karian 220kV D/c line	-	Stringing of 2nd Circuit of Chamera Pool-Karian Tansmission line has been completed & terminal bay at 400/220 kV chamera pooling substation (PGCIL) is not ready.Updated in 198th OCC by HPPTCL
37	400/220kV, Mainpuri	Commissioned: 6 Under Implementation:2 Total: 8	Utilized: 6 Unutilized: 0 Under Implementation:2	• Network to be planned for 2 bays	-	• 02 no. of bays under finalization stage updated by UPPTCL in 196th OCC
38	400/220kV, Patiala	Commissioned: 8 Total: 8	Utilized: 6 Unutilized: 2	• Network to be planned for 2 bays	May'24	2 Nos. bays for 400 kV PGCIL Patiala - 220 kV Bhadson (D/C) line being planned. Work expected to be completed by May 2024. Updated in 198th OCC by PSTCL.

2. Establishment of new 400/220kV substations in Northern Region:

Sl. No.	Name of Substation	MVA Capacity	Expected Schedule	Downstream connectivity by States
1	400/220kV Dwarka-I GIS (8 nos. of 220kV bays)	4x 500	Mar'22	DTL to update the status
2	220/66kV Chandigarh GIS (8 nos. of 66kV bays)	2x 160	Apr'22	Chandigarh to update the status.
3	400/220kV Jauljivi GIS Out of these 8 nos. 220kV Line Bays, 4 nos. (Pithoragath-2, & Dhauliganga-2) would be used by the lines being constructed by POWERGRID and balance 4 nos. bays would be used by the lines being constructed by PTCUL.	2x315	Feb'22	<ul style="list-style-type: none"> • 220kV Almora-Jauljibi line • 220kV Brammah-Jauljibi line PTCUL to update the status of lines.

FGD Status

Updated status of FGD related data submission

NTPC (25.02.2022)

MEJA Stage-I (Updated by UP on 18.06.2022)

RIHAND STPS

SINGRAULI STPS

TANDA Stage-I

TANDA Stage-II

UNCHAHAR TPS

UPRVUNL (17.10.2022)

ANPARA TPS

HARDUAGANJ TPS

OBRA TPS

PARICHHA TPS

PSPCL (15.09.2022)

GGSSSTP, Ropar

GH TPS (LEH.MOH.)

RRVUNL (12.10.2022)

CHHABRA SCPP

CHHABRA TPP

KALISINDH TPS

KOTA TPS

SURATGARH SCTPS

SURATGARH TPS

Updated status of FGD related data submission

**Lalitpur Power Gen. Co. Ltd.
(17.10.2022)**

Lalitpur TPS

**Lanco Anpara Power Ltd.
(18.06.2022)**

ANPARA-C TPS

HGPCL (14.09.2022)

PANIPAT TPS

RAJIV GANDHI TPS

YAMUNA NAGAR TPS

Adani Power Ltd. (18.02.2022)

KAWAI TPS

**Rosa Power Supply Company
(18.06.2022)**

Rosa TPP Phase-I

**Prayagraj Power Generation
Company Ltd. (17.10.2022)**

Prayagraj TPP

APCPL (25.02.2022)

INDIRA GANDHI STPP

Pending submissions

GVK Power Ltd.

GOINDWAL SAHIB

NTPC

DADRI (NCTPP)

Talwandi Sabo Power Ltd.

TALWANDI SABO TPP

L&T Power Development Ltd.

Nabha TPP (Rajpura TPP)

Target Dates for FGD Commissioning (Utility-wise)

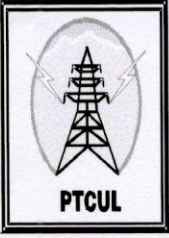
Adani Power Ltd.	KAWAI TPS U#1 (Target: 31-12-2024), KAWAI TPS U#2 (Target: 31-12-2024)
APCPL	INDIRA GANDHI STPP U#1 (Target: 30-09-2022), INDIRA GANDHI STPP U#2 (Target: 30-09-2022), INDIRA GANDHI STPP U#3 (Target: 30-09-2022)
GVK Power Ltd.	GOINDWAL SAHIB U#1 (Target: 30-04-2020), GOINDWAL SAHIB U#2 (Target: 29-02-2020)
HGPCL	PANIPAT TPS U#6 (Target: 30-04-2021), PANIPAT TPS U#7 (Target: 28-02-2021), PANIPAT TPS U#8 (Target: 31-12-2020), RAJIV GANDHI TPS U#1 (Target: 30-04-2022), RAJIV GANDHI TPS U#2 (Target: 28-02-2022), YAMUNA NAGAR TPS U#1 (Target: 31-12-2021), YAMUNA NAGAR TPS U#2 (Target: 31-10-2021)

NTPC

DADRI (NCTPP) U#1 (Target: 31-12-2020), DADRI (NCTPP) U#2 (Target: 31-10-2020), DADRI (NCTPP) U#3 (Target: 31-08-2020), DADRI (NCTPP) U#4 (Target: 30-06-2020), DADRI (NCTPP) U#5 (Target: 30-06-2022), DADRI (NCTPP) U#6 (Target: 30-06-2022), RIHAND STPS U#1 (Target: 30-06-2024), RIHAND STPS U#2 (Target: 30-06-2024), RIHAND STPS U#3 (Target: 31-12-2023), RIHAND STPS U#4 (Target: 31-12-2023), RIHAND STPS U#5 (Target: 30-06-2023), RIHAND STPS U#6 (Target: 30-06-2023), SINGRAULI STPS U#1 (Target: 30-06-2024), SINGRAULI STPS U#2 (Target: 30-06-2024), SINGRAULI STPS U#3 (Target: 30-06-2024), SINGRAULI STPS U#4 (Target: 30-06-2024), SINGRAULI STPS U#5 (Target: 30-06-2024), SINGRAULI STPS U#6 (Target: 31-03-2023), SINGRAULI STPS U#7 (Target: 31-03-2023), UNCHAHAR TPS U#1 (Target: 31-12-2023), UNCHAHAR TPS U#2 (Target: 31-12-2023), UNCHAHAR TPS U#3 (Target: 30-06-2024), UNCHAHAR TPS U#4 (Target: 30-06-2024), UNCHAHAR TPS U#5 (Target: 30-06-2024), UNCHAHAR TPS U#6 (Target: 30-06-2022), MEJA Stage-I U#1 (Target: 31-12-2022), MEJA Stage-I U#2 (Target: 31-03-2023), TANDA Stage-I U#3 (Target:), TANDA Stage-I U#4 (Target:), TANDA Stage-II U#3 (Target: 31-12-2022), TANDA Stage-II U#4 (Target: 31-12-2022)

L&T Power Development Ltd (Nabha)	Nabha TPP (Rajpura TPP) U#1 (Target: 30-04-2021), Nabha TPP (Rajpura TPP) U#2 (Target: 28-02-2021)
Lalitpur Power Gen. Company Ltd.	LALITPUR TPS U#1 (Target: 31-12-2026), LALITPUR TPS U#2 (Target: 30-09-2026), LALITPUR TPS U#3 (Target: 30-06-2026)
Lanco Anpara Power Ltd.	ANPARA C TPS U#1 (Target: 31-12-2023), ANPARA C TPS U#2 (Target: 31-12-2023)
Prayagraj Power Generation Company Ltd.	PRAYAGRAJ TPP U#1 (Target: 31-12-2024), PRAYAGRAJ TPP U#2 (Target: 31-12-2024), PRAYAGRAJ TPP U#3 (Target: 31-12-2024)
PSPCL	GH TPS (LEH.MOH.) U#1 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#2 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#3 (Target: 31-12-2024), GH TPS (LEH.MOH.) U#4 (Target: 31-12-2024), GGSSTP, Ropar U#3 (Target: 31-03-2022), GGSSTP, Ropar U#4 (Target: 31-05-2022), GGSSTP, Ropar U#5 (Target: 31-07-2022), GGSSTP, Ropar U#6 (Target: 30-09-2022)

Rosa Power Supply Company	ROSA TPP Ph-I U#1 (Target: 31-12-2026), ROSA TPP Ph-I U#2 (Target: 31-12-2026), ROSA TPP Ph-I U#3 (Target: 31-12-2026), ROSA TPP Ph-I U#4 (Target: 31-12-2026)
RRVUNL	KOTA TPS U#5 (Target: 31-08-2022), KOTA TPS U#6 (Target: 31-08-2022), KOTA TPS U#7 (Target: 31-08-2022), SURATGARH TPS U#1 (Target: 31-12-2026), SURATGARH TPS U#2 (Target: 31-12-2026), SURATGARH TPS U#3 (Target: 31-12-2026), SURATGARH TPS U#4 (Target: 31-12-2026), SURATGARH TPS U#5 (Target: 31-12-2026), SURATGARH TPS U#6 (Target: 31-12-2026), SURATGARH SCTPS U#7 (Target: 28-02-2025), SURATGARH SCTPS U#8 (Target: 28-02-2025), CHHABRA TPP U#1 (Target: 31-12-2026), CHHABRA TPP U#2 (Target: 31-12-2026), CHHABRA TPP U#3 (Target: 31-12-2026), CHHABRA TPP U#4 (Target: 31-12-2026), CHHABRA SCPP U#5 (Target: 28-02-2025), CHHABRA SCPP U#6 (Target: 28-02-2025), KALISINDH TPS U#1 (Target: 28-02-2025), KALISINDH TPS U#2 (Target: 28-02-2025)
Talwandi Sabo Power Ltd.	TALWANDI SABO TPP U#1 (Target: 28-02-2021), TALWANDI SABO TPP U#2 (Target: 31-12-2020), TALWANDI SABO TPP U#3 (Target: 31-10-2020)
UPRVUNL	ANPARA TPS U#1 (Target: 31-12-2023), ANPARA TPS U#2 (Target: 31-12-2023), ANPARA TPS U#3 (Target: 31-12-2023), ANPARA TPS U#4 (Target: 31-12-2023), ANPARA TPS U#5 (Target: 31-12-2023), ANPARA TPS U#6 (Target: 31-12-2023), ANPARA TPS U#7 (Target: 31-12-2023), HARDUAGANJ TPS U#8 (Target: 31-12-2024), HARDUAGANJ TPS U#9 (Target: 31-12-2024), OBRA TPS U#9 (Target: 31-12-2024), OBRA TPS U#10 (Target: 31-12-2024), OBRA TPS U#11 (Target: 31-12-2024), OBRA TPS U#12 (Target: 31-12-2024), OBRA TPS U#13 (Target: 31-12-2024), PARICHHA TPS U#3 (Target: 30-04-2022), PARICHHA TPS U#4 (Target: 31-12-2024), PARICHHA TPS U#5 (Target: 31-12-2024), PARICHHA TPS U#6 (Target: 31-12-2024)



पावर ट्रांसमिशन कारपोरेशन ऑफ उत्तराखण्ड लि०

(उत्तराखण्ड सरकार का उपक्रम)

मुख्य अभियन्ता, प्रान्तीय भारनिस्तारण केन्द्र कार्यालय

विद्युत भवन, नजदीक-आई०एस०बी०टी० क्रॉसिंग, सहारनपुर रोड, माजरा, देहरादून-248002

दूरभाष नं० 0135-2645768 फैक्स नं० 0135-2645758 email:- sldc1@rediffmail.com

Letter No. 913 /SLDC/CE L-1

Dated : 07/10/2022

Superintending Engineer (Operation)

Northern Regional Power Committee

18A, Saheed Jeet Singh Marg, Katwaria Sarai,

New Delhi-110016.

Sub: - Regarding status on feasibility of Dehradun as proposed Islanding Scheme.

In reference to above mentioned subject, kindly find enclosed herewith feasibility study report of Dehradun as proposed islanding scheme as desired in reference to 198th OCC meeting of NRPC for kind information and further necessary action.

Encls: As above.

(Rajiv Gupta)

Chief Engineer L-1 (SLDC)

Cc:-

1. Director (Projects), PTCUL, Dehradun.

2. Superintending Engineer, SLDC, PTCUL, Dehradun.

***Feasibility study Report for Dehradun as a
proposed Islanding scheme***

Executive Summary

1.0 Introduction

Islanding of system is defined as isolation of critical and super critical feeders and supply of energy only to these feeders in case of major disturbance in the grid or in case of any type of transmission constraints.

It was also reiterated during 47th NRPC 49th NRPC meeting dated 23.09.2022 that Hon'ble minister of State for Power and New & Renewable Energy chaired meeting on 28.12.2020 to review Islanding scheme in the country and following were the deliberation from the meeting:

- a) Islanding scheme shall be designed for all major cities of the country .The proposal of establishment of power plant in/around such city may also submitted for consideration to the ministry
- b) All the strategic and essential loads should be covered in the Islanding Scheme. For the finalization of strategic loads, the Ministry of Defence may also be consulted.
- c) Generating station which is near to essential loads shall be given priority in designing the islanding scheme.
- d) All concerned entities to ensure the functionality of AUFLS and df/DT relays at all points of time all concerned entities to ensure the functionality of AUFLS and df/DT relays at all points of time.

Thereafter, series of meetings were held amongst NR constituents during Apr-Aug'21 to review the existing Islanding Schemes and expedite the implementation of newly proposed Schemes. A special TCC meeting for NR was also convened on 15.06.2021, wherein Uttarakhand was asked to submit the timelines for implementing Dehradun islanding scheme.

Based on the decisions taken in the meeting taken by Hon'ble Minister of State (IC) for Power and New & Renewable Energy on 28.12.2020, Islanding Schemes for NR have been continuously reviewed/discussed in various forums including Operational Coordination Committee(OCC). It was highlighted in meetings that PSDF funding for implementation of Islanding scheme shall as per meeting chaired by Hon'ble Cabinet minister (Power,New & renewable Energy)on 07.10.2021 and states were requested to submit the DPR for the implementation of Islanding scheme.

Uttarakhand asserted in the 190th OCC meeting that major hydro stations e.g. Chibro, Khodri etc at Dehradun Region in Yamuna valley are non-must run and peaking stations and the proposed Dehradun Islanding scheme appears to be infeasible. Therefore, it is technically not feasible to implement Dehradun as an islanding scheme. However, nominations of nodal officers from various utilities (PTCUL, UJVN Ltd & UPCL) are being sought for the formation of internal committee for accessing the possibility of Dehradun as Islanding scheme and the report shall be submitted to NRPC Secretariat subsequently.

NRPC desired during meeting that Uttarakhand SLDC shall immediately conduct study on the proposed Islanding Scheme having Khodri & Chibro units and provide status on the feasibility of scheme with supporting data so that same may be communicated to the Ministry. Further during 198th OCC meeting, NRPC Sectt. representative reiterated that a report may kindly be submitted to OCC forum after analyzing the past generation and demand data pertaining to the proposed scheme. Based on the report, further decision would be taken. Based on that the preliminary feasibility report has been prepared.

2.0 GENERAL PHILOSOPHY ON FORMATION OF ISLANDS

As per clause 10 of the Central Electricity Authority (Grid standards), Regulations 2010, the regional power Committee shall prepare Islanding schemes for separation of system with a view to save healthy system from total collapse in case of grid disturbance.

Islanding Schemes may be designed:

- For survival of some predefined generations and loads at the time of grid disturbance to avoid total blackout and quicker restoration of failed grid.
- For major cities having loads of VIP areas, Defense, Space, Airport, Metro, ports and important industries etc.

Islanding scheme is to be formed with anticipated loads-generation balance and with tripping of predetermined feeders/ICTS/generators. Islanding can take place at any time, monitoring of the following vital parameters have a significant role in successful Island formation

1) Anticipated /Actual Generation within the electrical boundary of the island.

2) Anticipated /actual loads within the electrical boundary of the island.

3) Voltage, frequency & Power flows along the peripheral lines which are required to be tripped to form the island and these parameters are to be monitored in real time basis in Control room of SLDC (installation of PMU at suitable locations if required)

The Essential loads are classified into two categories

a) Critical loads: consist of loads of hospitals, airport, railway, important industries

b) Super critical loads: consist of loads of defense areas, Raj Bhawan, residence of VIPs, Parliament house

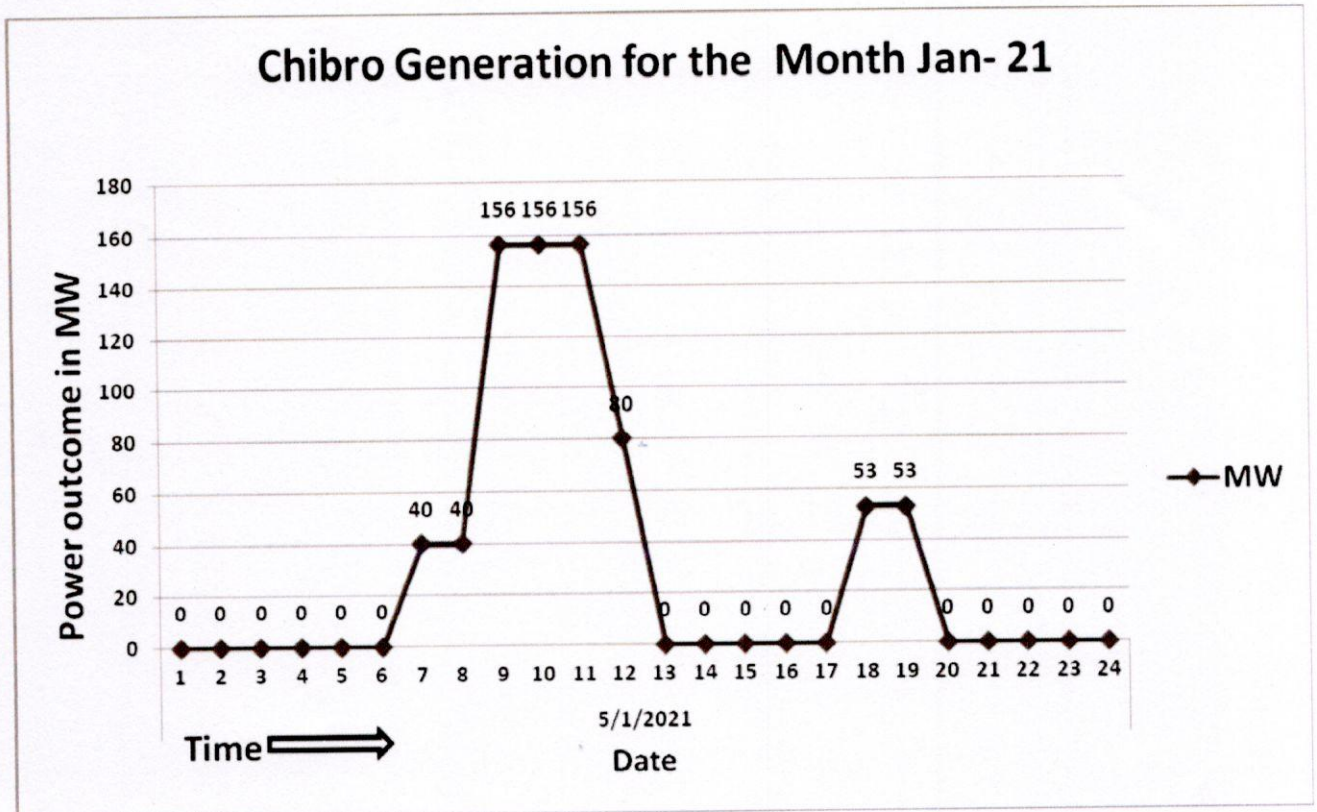
3.0 Preliminary Technical Feasibility

Proposed Islanding Scheme FOR Dehradun:

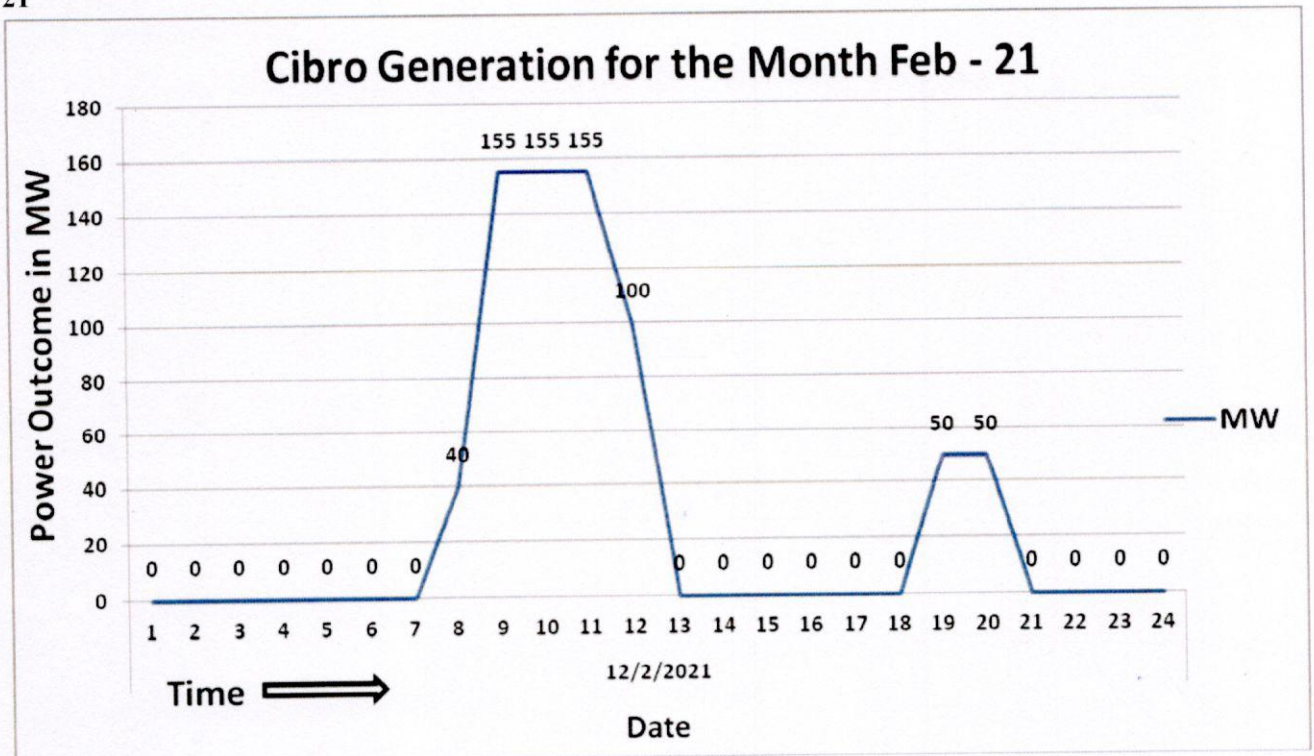
Based on the hourly reading register in SLDC, hydro generation of Chibro and Khodri power house (non- must run) of UJVN ltd is studied and is observed that generation is restricted with a minimum load of 40MW to 07-8 months.

The trend of hourly generation report of Chibro power house (monthwise) is illustrated below in the form of graph.

January- 21

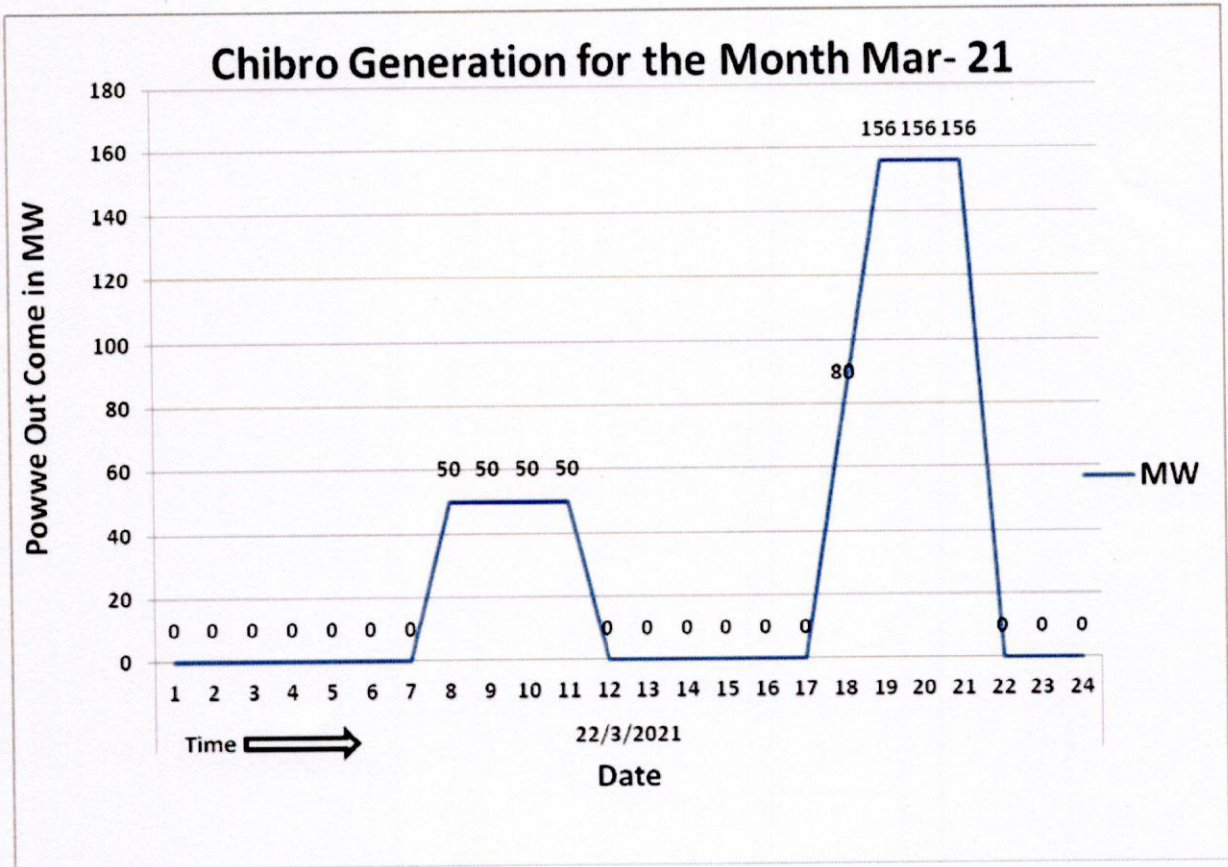


February- 21

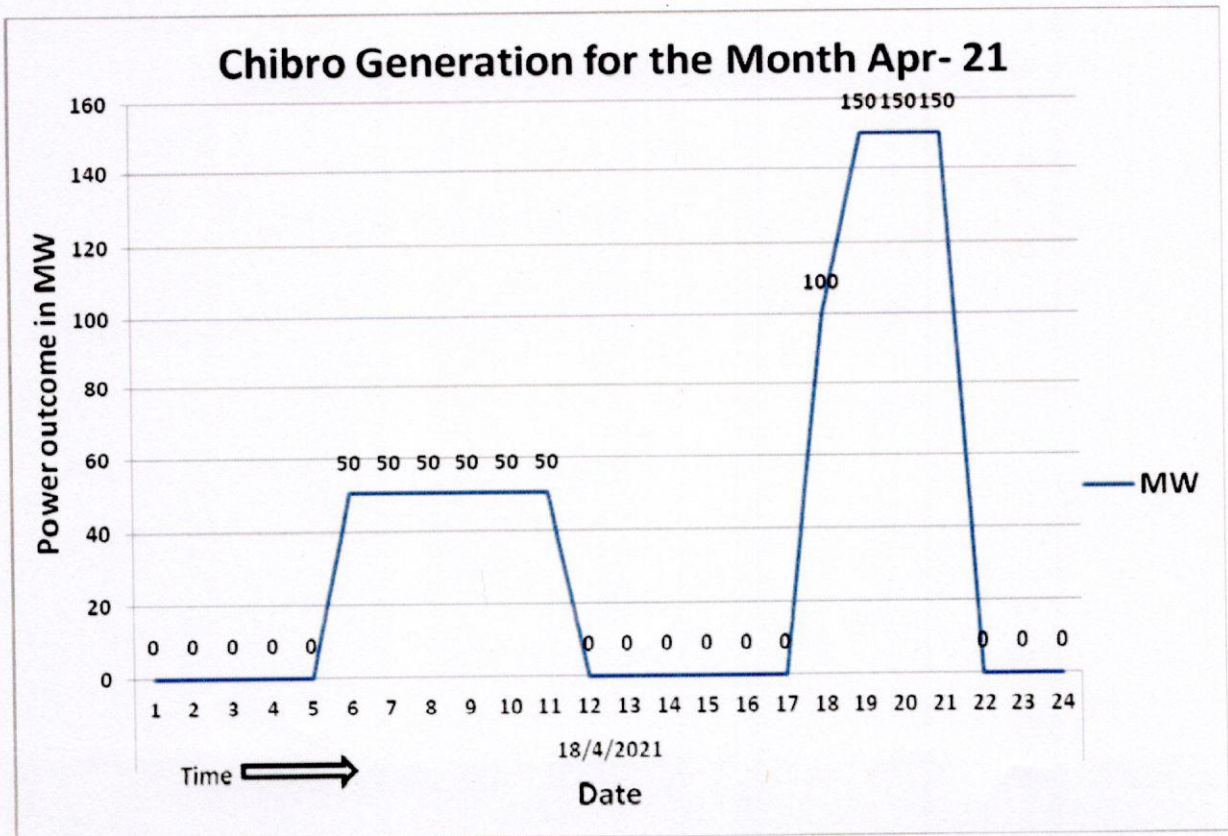


map *ant*

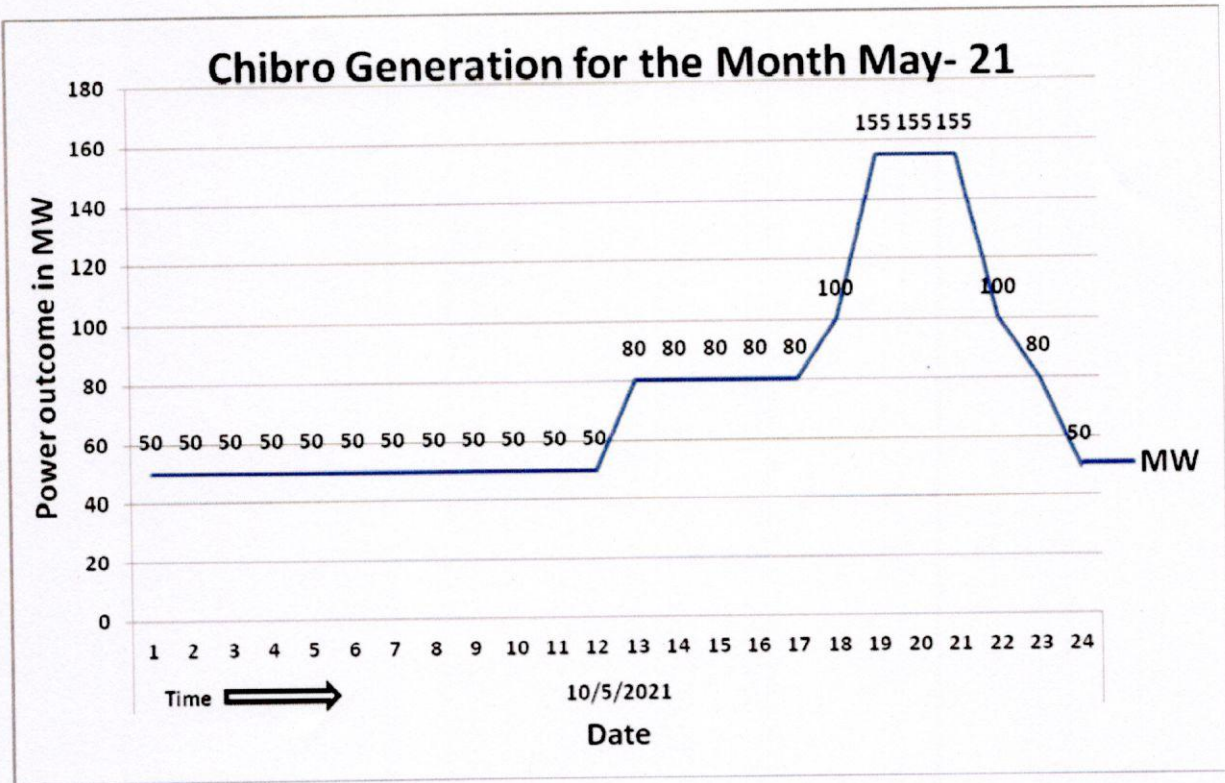
March-21



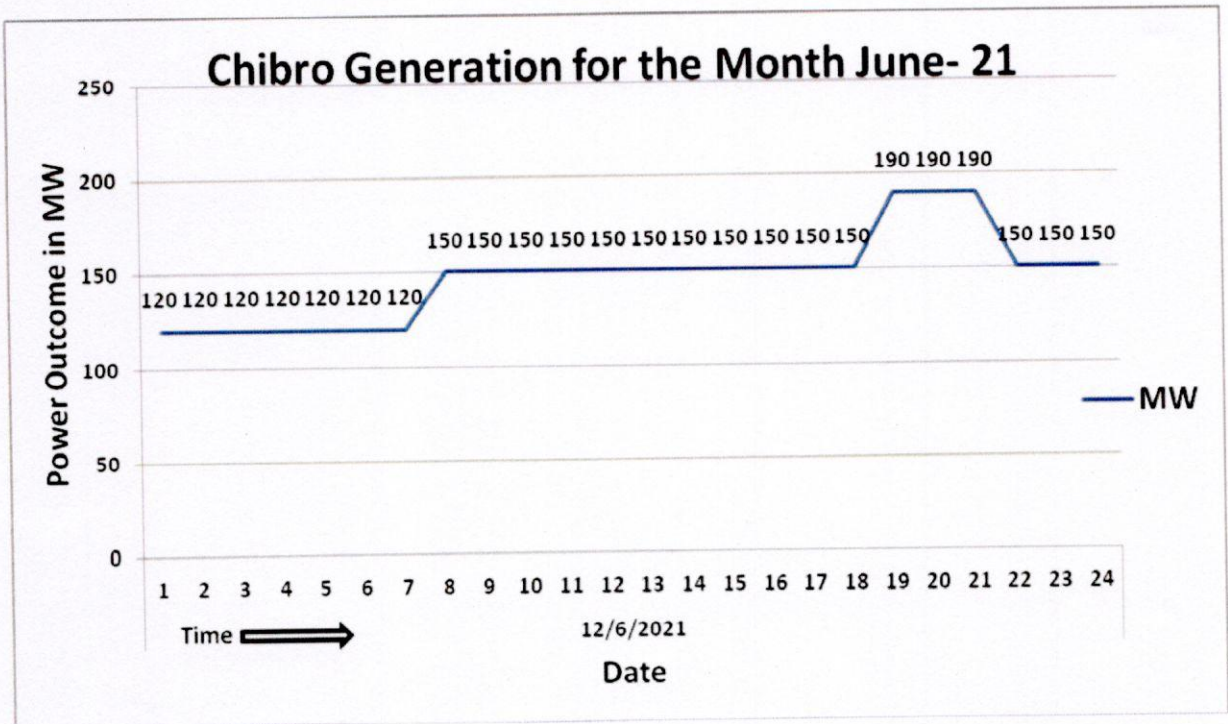
April- 21



May- 21

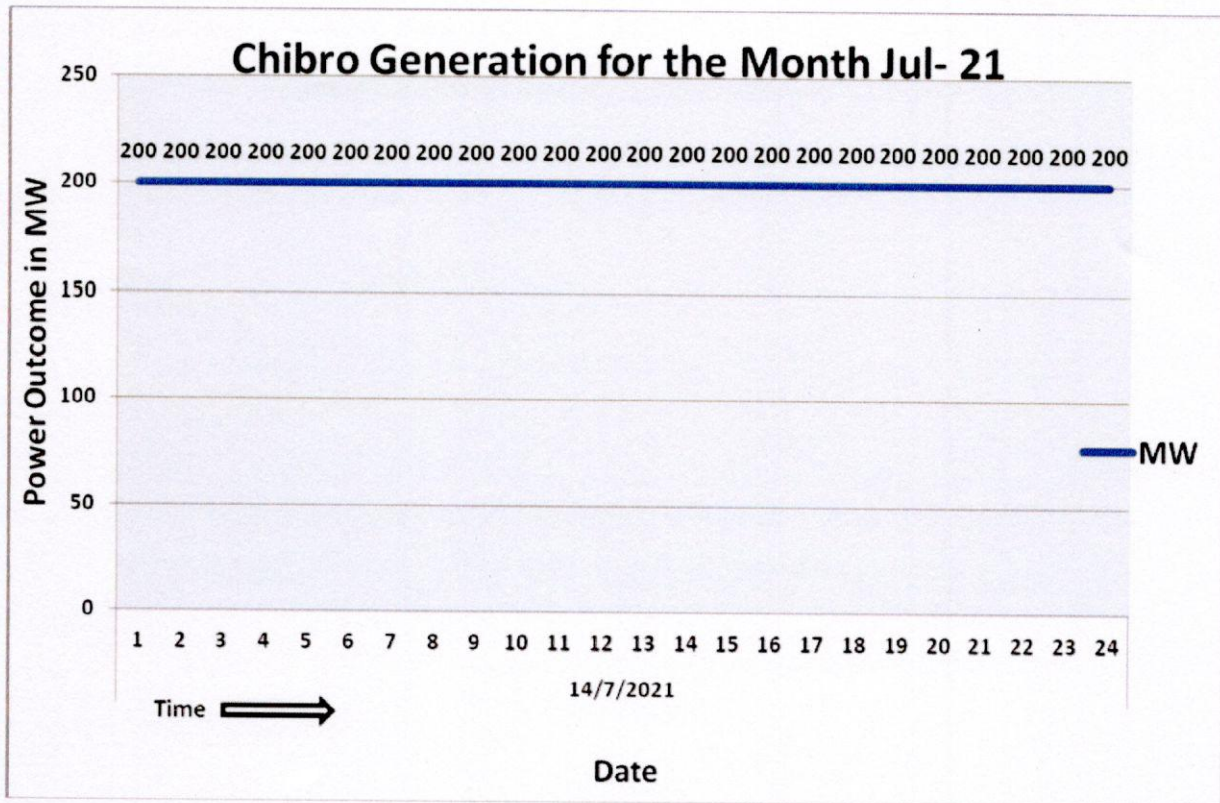


June- 21

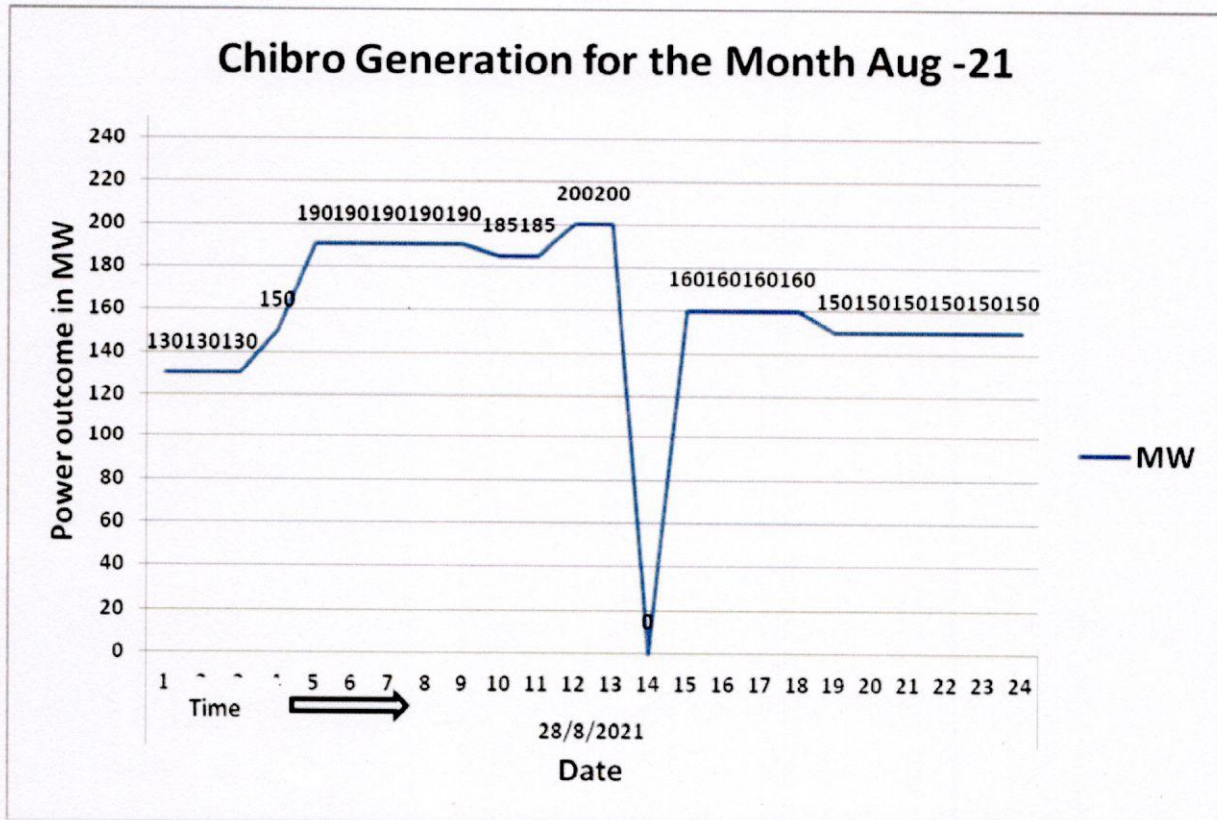


may *may*

July-21

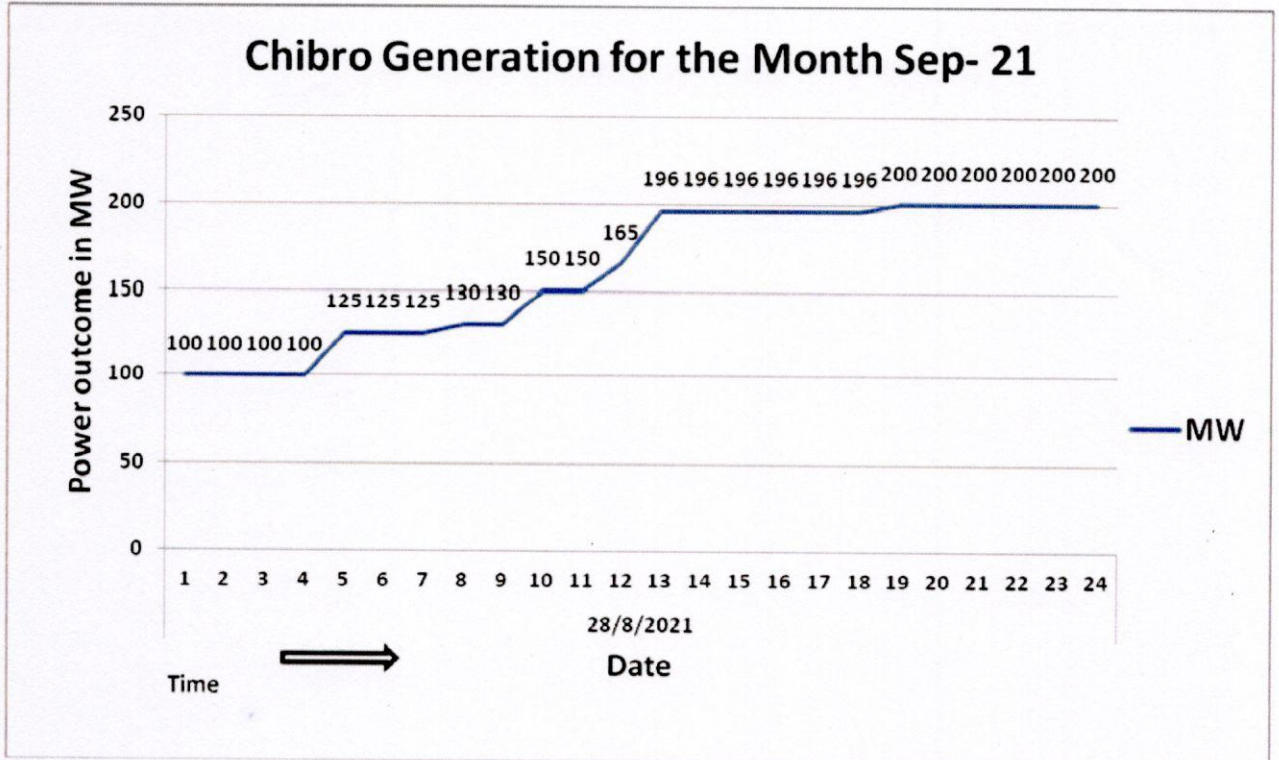


August-21

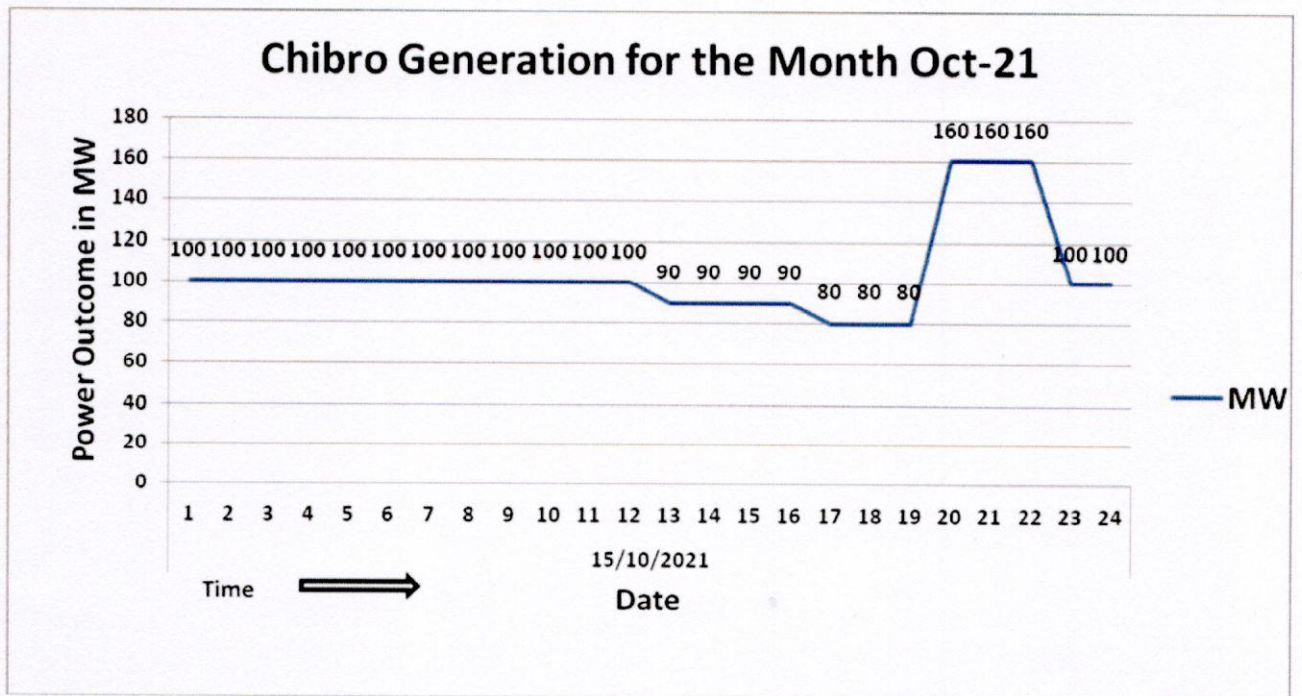


mark *Shafiq*

September-21



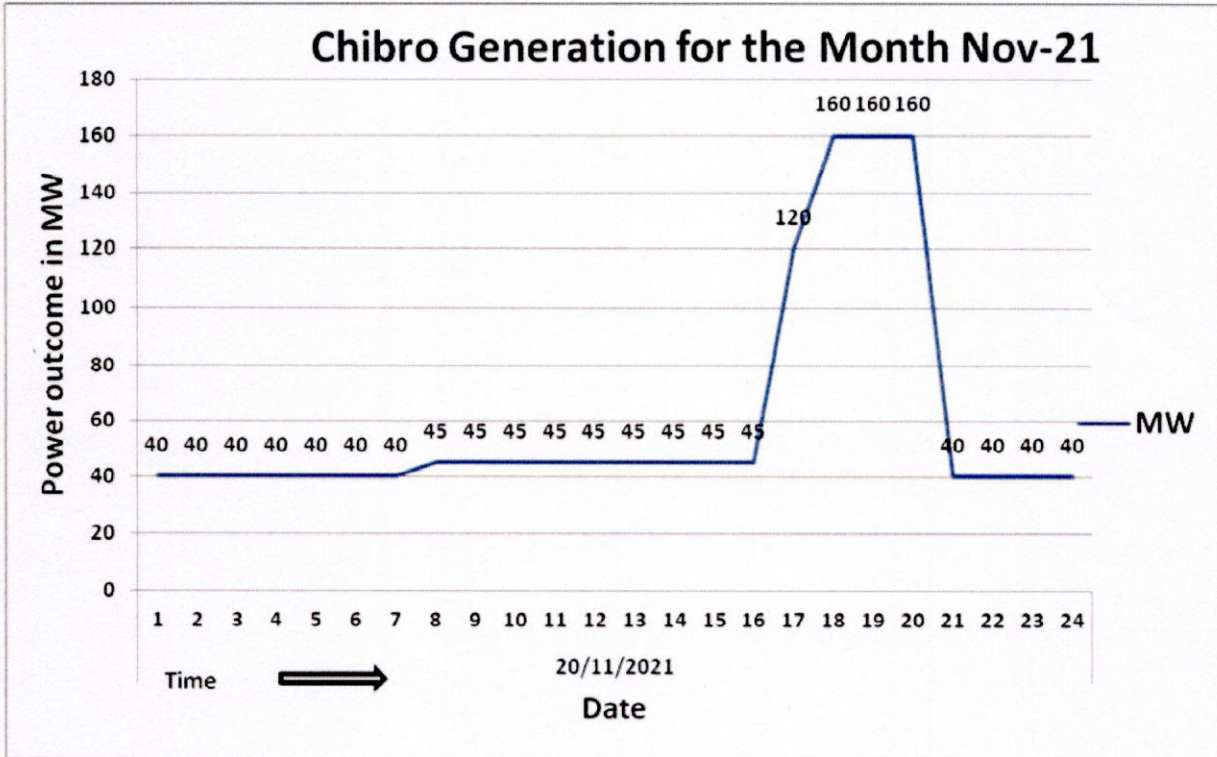
October-21



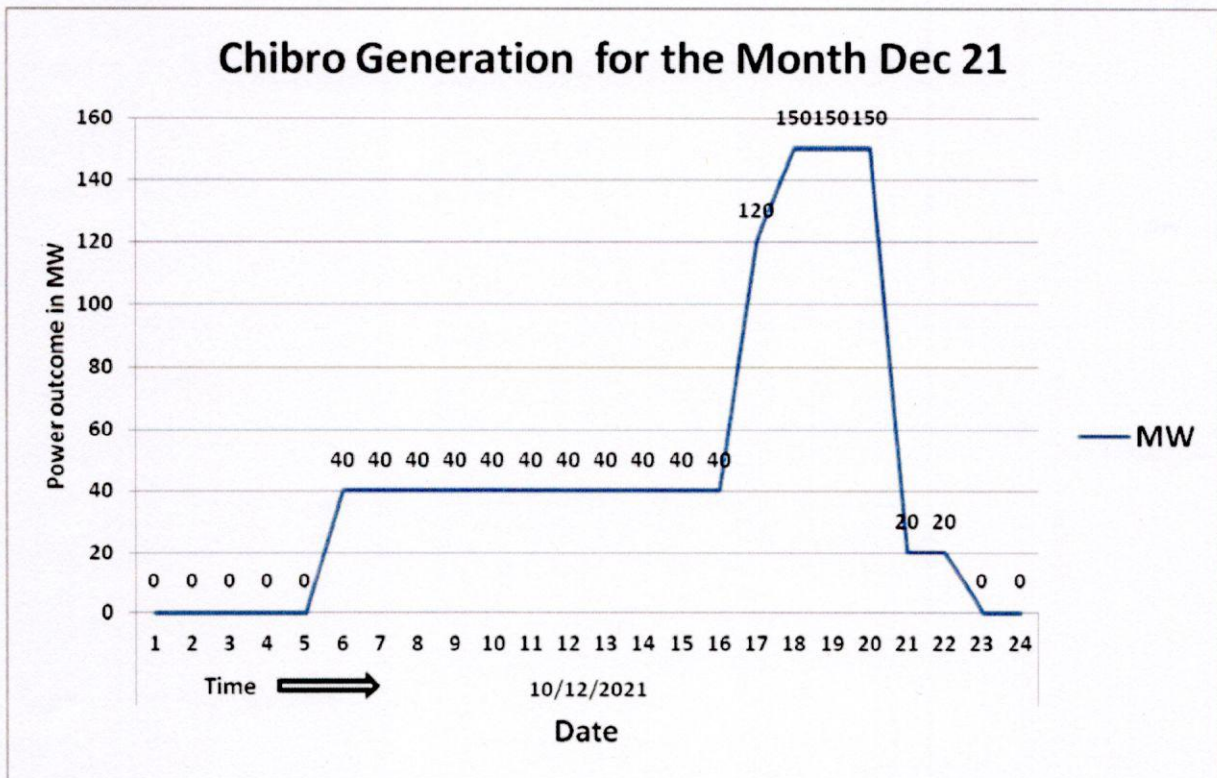
November-21

mad

WV



December-21



From the above graph, it is clear that generation is of more than 40 MW round the clock is available for 7 months and in rest of the months generation is not available for 24 hours, hence islanding scheme based on these power house is not feasible.

mayh *dw*

It has been informed by EE(generation) that Chibro Power House operate safely for load variation from 40 MW to 56 MW and accordingly Khodri Power House operate from 20MW to 56 MW as per design characteristics of Francis turbine runner. Below this range Machine units makes a noise and vibration increases which is not safe for operation.

Islanding load to be identified shall exclude the anticipated impact due to load shedding under defense mechanism prior to islanding through existing UFR & df/dt relays. Also the essential load of Dehradun during islanding condition is identified from various PTCUL substation and data were also provided by PTCUL substations in coordination with UPCL for Jan-Dec, 2021. Details of load to be fed to achieve Load-Generation balance is as under:

S.No	Name of the feeder	Max. Load (amp)	Average load (Amp)
Emanating from 132 kV S/s Bindal			
1.	33 kV MES	79	42
2.	11 kV Vishwakarma Bhawan	25	25
3.	11 kV Secretariat	40	10
4.	11 kV Yamuna Colony	19	10
5.	11kV Ganga Bhawan	33	30
6.	11 kV Bhandaribagh	159	120
7.	11 kV Lakhibagh	190	110
Total load fed through Bindal (MW)			7.1
Emanating from 132 kV S/s Purkul			
1	11kV CM house	23	15
2.	11kV Beezapur	64	30
3.	11kV Jakhan	184	120
4.	11kV Usha colony I &II and 11 kV Pacific	60	60
5.	11 kV Mall road	138	120
6.	11 kV waterworks	108	100
Total load fed through Purkul (MW)			7.4
Emanating from 132 kV S/s Majra			
1	33 kV IMA	50	30
2.	11 kV Vidhan Sabha	10	10
3.	11 kV Clement town	282	270
4.	33 kV Deal	38	30
Total load fed through Majra (MW)			7.6
Emanating from 220 kV S/s Jhajra			
1.	11kV Air force	26	20
2.	11 kV AWH	36	20
3.	11 kV Rampur	180	25
4.	33 kV Linde	138	120
5.	11 kV Blood bank and synergy hospital	210	114
Total load fed through Jhajra (MW)			9
Emanating from 132 kV S/s Laltappar			
1.	33 kV Himalayan hospital	46	52
2.	33 kV Airport	16	18
Total load fed through Lalthapar (MW)			3.5
Total Essential Load(MW)			35

From the above table, it is deduced that the maximum load contributes to approximately 48 MW and average load contributes to approximately 35 MW.

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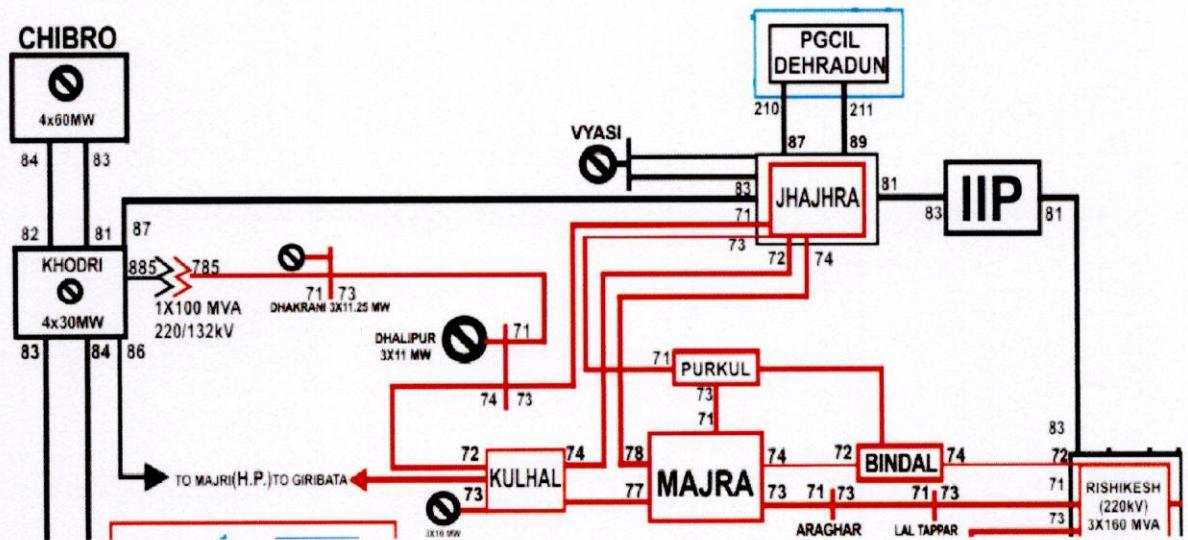
The transmission network diagram for dehradun is elaborated as below

The Dehradun is surrounded by following generators

- a) Chibro Power house (4*60 MW)
- b) Khodri power house (4*30MW)
- c) Dhakrani power house (3*11.25 MW)
- d) Dhalipur power house (3*11MW)
- e) Vyasi power house (2*60MW)
- f) Kulhal power house (3*10 MW)

Through these Power house the load is being fed to Dehradun area through following PTCUL substation from where 33 kV distribution feeders are emanating:-

- a) 220 kV Substation Jhajra (2X160MVA, 220/132kV and 2X80MVA, 132/33kV T/f)
- b) 220 kV Substation IIP (2X50MVA, 220/33kV T/f)
- c) 132 kV Substation Purkul (1X20 and 1X40MVA, 132/33kV T/f)
- d) 132 kV Substation Majra (3X40MVA, 132/33kV T/f)
- e) 132 kV Substation Laltappar (2X40MVA, 132kV/33)
- f) 132 kV Substation Bindal (3X40MVA, 132kV/33kV)

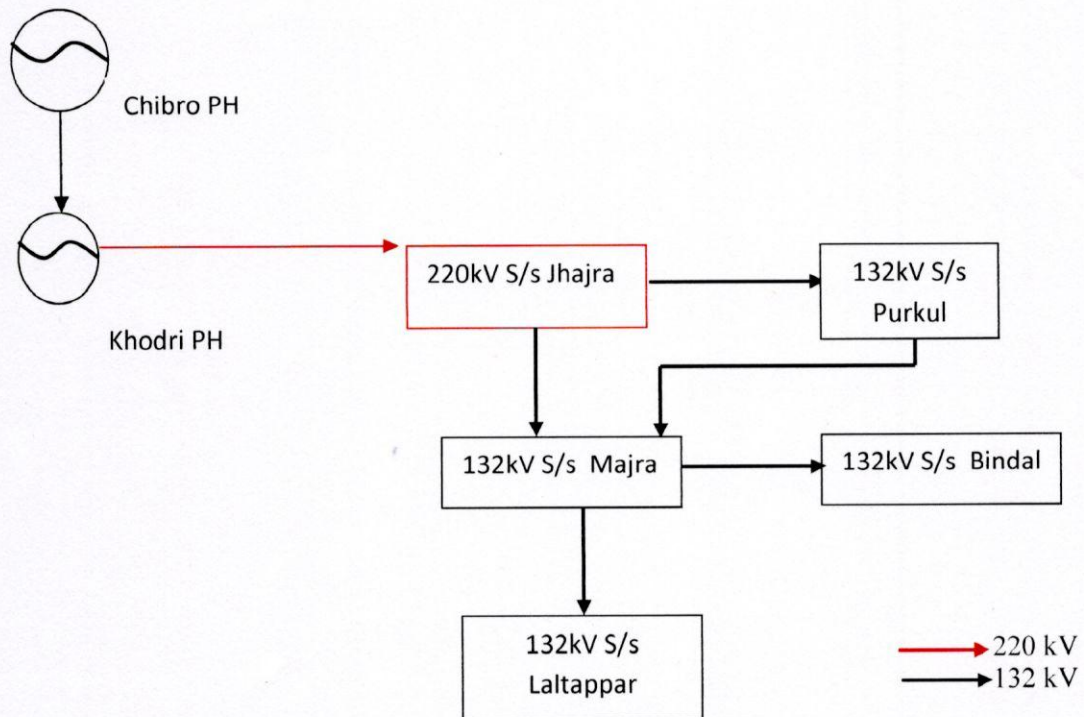


Details of Network identified to feed essential load through Chibro & Khodri Power House during Island formation:-

1. One unit of (60MW) Chibro Ph in tandem with one Unit of Khodri PH (30MW)
2. One Ckt of 220kV Chibro –Khodri line
3. 220kV Khodri-Jhajra line
4. One no. 160MVA, 220/132kV and 80MVA 132/33kV T/f at 220kV S/s Jhajra
5. 132kV Jhajra –Purkul line
6. 20MVA, 132/33kV T/f at Purkul S/s
7. 132kV Jhajra-Majra line
8. One no. 40MVA, 132/33kV T/f at Majra.
9. 132kV Majra- Bindal line
10. One no. 40MVA, 132/33kV T/f at Bindal.
11. 132kV Majra- lalthappar line
12. One no. 40MVA, 132/33kV T/f at Bindal.

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Network diagram connecting Chibro and Khodri connecting to load during islanding conditions

4.0 Conclusion

Based on the load –generation data, it is observed that generation of more than 40 MW round the clock is available for 07 months and generation is not available round the clock during remaining 05 Months. Hence, the supply to the essential loads will not be available throughout the year during proposed islanding scheme of Dehradun. Further, the single machine of Chibro Power House operates safely for load variation from 40 MW to 56 MW and accordingly the single machine of Khodri Power House operates from 20MW to 26 MW as per design characteristics of Francis turbine runner. Below this range Machine units makes a noise and vibration increases which is not safe for operation. The above facts thus make the islanding scheme technically not feasible and unviable.

map *fine*

Director (SLDC)



U.P. State Load Despatch Centre

U.P. Power Transmission Corporation Ltd.
VibhutiKhand – II, Gomti Nagar,
Lucknow - 226010
Phone: 0522-2722864
E-mail: directorsldc@upsldc.org

No: 2813 Dir(SLDC)/Scheduling/Diff. in Sch.

Dated: 29 Sep, 2022

Member Secretary, NRPC
18-A, SJSS Marg, Katwaria Sarai,
New Delhi, 110016.

Chief General Manager, NRLDC
18-A, SJSS Marg, Katwaria Sarai,
New Delhi, 110016.

Through e-mail

Sub: Difference in drawl schedule finalised by NRLDC and drawl schedule used by NRPC for finalising the DSM and Energy Account of Uttar Pradesh.

Dear Sir,

Kindly refer our earlier communication vide letter no. 1887/Dir(SLDC)/Scheduling/Implemented Schedule_DSM dated 07.07.2022 regarding above subject. In this regard it is to further intimate that there is a consistent difference of approximately 70 MW in each time block in the drawl schedule finalised by NRLDC and drawl schedule used by NRPC for finalising the DSM and Energy Account of Uttar Pradesh from 9th June 2022 onwards. Data from April 2022 to August 2022 is attached. It is apparent from the data that there is a difference of 1.5 to 2.0 MU on daily basis in NRPC & NRLDC data and drawl schedule shown by NRPC is always on lower side.

It appears that there is some change in methodology for preparing accounts at NRPC end due to which drawl schedule of Uttar Pradesh is not incorporated correctly in monthly Energy Account and DSM Account.

It is requested to kindly take up the above issue on urgent basis as it has commercial implications on Uttar Pradesh. If required a meeting of NRLDC, NRPC and UPSLDC may please be planned in first week of October 2022.

Regards.


(Amrendra Singh Kushwaha)
Director (SLDC)

No: Dir(SLDC)/Scheduling/Diff. in Sch.

Dated: Sep, 2022

Copy forwarded to the following for information and necessary action:

1. Chief Engineer (C & S), UPSLDC, Vibhuti Khand- II, Gomti Nagar, Lucknow.
2. SE (OA & Sch.), UPSLDC, Vibhuti Khand- II, Gomti Nagar, Lucknow.


(Amrendra Singh Kushwaha)
Director (SLDC)



No- 1887 /Dir(SLDC)/Scheduling/Implemented Schedule_DSM/

Dated: 07.07.2022

Member Secretary

Northern Regional Power Committee

18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi-110016

Also
through
email

Subject: Regarding difference between UP schedule at NRLDC portal and NRPC DSM account

Dear Sir,

Your kind attention is drawn to the DSM account of UP prepared by NRPC for the period 09.06.2022 to 19.06.2022. It seems there is an error in the DSM account released by NRPC as it is seen that there is a significant difference between the schedules of UP as per NRLDC final revision and as shown in NRPC DSM account (copy enclosed). As you would kindly appreciate that this difference would have impact on the DSM account of UP.

It is requested that the DSM account released by NRPC may be verified and if there is any error, same may be corrected. We shall be grateful if the corrections are done and DSM account is revised accordingly at the earliest.

Encl.: As above

(Amrendra Singh Kushwaha)
Director (UPSLDC)

No- /Dir(SLDC)/Scheduling/Implemented Schedule_DSM/

Dated: 07.07.2022

Copy forwarded to following for information and necessary action:

1. CGM(NRLDC), POSOCO, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110016
2. Chief Engineer (C&S), UPSLDC, Vibhuti Khand-II, Gomti Nagar, Lucknow.
3. Chief Engineer (PSO), UPSLDC, Vibhuti Khand-II, Gomti Nagar, Lucknow.
4. S E (System Control), UPSLDC Vibhuti Khand-II, Gomti Nagar, Lucknow.
5. S E (OA&Sch), UPSLDC Vibhuti Khand-II, Gomti Nagar, Lucknow.

(Amrendra Singh Kushwaha)
Director (UPSLDC)

Date	Schedule (MU)		Difference (MU)
	As per NRPC DSM Account	As per NRLDC Final Revision	
01-06-22	241.042	241.510	-0.468
02-06-22	247.027	247.423	-0.396
03-06-22	250.236	250.647	-0.411
04-06-22	247.278	247.690	-0.412
05-06-22	250.739	251.203	-0.464
06-06-22	253.455	254.213	-0.758
07-06-22	260.894	261.544	-0.650
08-06-22	266.601	267.297	-0.696
09-06-22	268.866	269.983	-1.117
10-06-22	264.222	265.462	-1.240
11-06-22	261.020	262.253	-1.233
12-06-22	267.251	268.298	-1.047
13-06-22	238.411	239.185	-0.774
14-06-22	242.528	243.405	-0.877
15-06-22	279.097	280.576	-1.479
16-06-22	258.072	259.412	-1.340
17-06-22	229.797	231.454	-1.657
18-06-22	206.356	208.057	-1.701
19-06-22	206.623	208.395	-1.772