

I/31780/2023



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
उत्तर क्षेत्रीय विद्युत समिति  
Northern Regional Power Committee

सेवा में / To,

वाणिज्यिक उपसमिति के सभी सदस्य  
Members of Commercial Sub-Committee

**विषय:** वाणिज्यिक उप-समिति की 48 वीं बैठक संबंधी सूचना।  
**Subject:** 48<sup>th</sup> meeting of Commercial Sub-committee- meeting notice.

एनआरपीसी की वाणिज्यिक उप-समिति की 48 वीं बैठक 04 दिसंबर 2023 को सुबह 11:00 बजे कॉन्फ्रेंस हॉल, पहली मंजिल, एनआरपीसी, कटवारिया सराय, नई दिल्ली में आयोजित होने के लिए पुनर्निर्धारित की गई है। उपरोक्त बैठक से सम्बंधित कार्यसूची संगलन हैं।

उक्त बैठक में भाग लेने की कृपा करें।

The 48<sup>th</sup> meeting of Commercial Sub-Committee of NRPC is rescheduled to be held on **4<sup>th</sup> December 2023, at 11:00 AM at Conference Hall, 1<sup>st</sup> floor, NRPC, Katwaria Sarai, New Delhi.** The agenda for the meeting is enclosed herewith.

Kindly make it convenient to attend the meeting.

Enc.: As above.

भवदीय  
Signed by Anzum Parwej  
Date: 21-11-2023 18:36:30  
Reason: Approved

(अंजुम परवेज)  
अधीक्षण अभियंता (वाणिज्य)

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**AGENDA  
FOR  
48<sup>th</sup> MEETING OF COMMERCIAL SUB-COMMITTEE OF NRPC**

**1) Confirmation of Minutes of 47<sup>th</sup> Meeting of Commercial Sub Committee of NRPC**

- 1.1 The minutes of 47<sup>th</sup> meeting of Commercial Sub-committee held on 28.08.2023 were issued vide File No.CEA-GO-17-14(13)/4/2023-NRPC dated 04.10.2023. No comment has been received on the minutes.
- 1.2 Sub-committee may confirm the minutes of 47<sup>th</sup> CSC meeting of NRPC.

**2) Calculation of Transmission Deviation charges due to Primary Response (agenda by NRPC Sectt.)**

- 2.1 Regulation 12(2) of Amendment-I to CERC (Sharing of ISTS Charges and Losses) Regulations, 2023 provides that:
- 2.2 “Transmission deviation charges shall not be levied for the quantum of over-injection for providing primary response by a generating station, subject to verification of such over-injection by concerned RPC:
- 2.3 Provided also that each RPC shall issue necessary guidelines for furnishing the data by the generating stations regarding their primary response”.
- 2.4 The methodology was deliberated in 212<sup>th</sup> OCC meeting of NRPC held on 20.10.2023 where the OCC Forum was of view that ‘methodology for furnishing data by generators and calculation of Transmission Deviation, accordingly, for DICs of NR would be finalized in the upcoming commercial sub-committee meeting of NRPC. Meanwhile, present methodology shall be continued and RTDA accounts from October, 2023 onwards would be revised after finalization of the said methodology.’
- 2.5 Meanwhile, all regional entities whose RTDA account is issued by NRPC are requested to furnish SCADA data for unit load set point and set point taken due to PRAS, frequency change during PRAS action, and droop setting of generators to NRPC sectt. given prior to meeting CSC meeting. Further, suggestions on methodology for furnishing data by generators and consideration of Primary Response in calculation of Transmission deviation may be also be given prior to CSC meeting.

*Members may deliberate to prepare methodology for furnishing data by generators and calculation of Transmission deviation, accordingly, for DICs of NR.*

**3) Declaration of High Flow Season for FY 2023-24 (agenda by NRPC Sectt.)**

- 3.1 Regulation 45.8(a) of CERC (IEGC) Regulations, 2023 which came into effect on 01.10.2023 provides that

*‘Hydro generating stations may declare ex-bus Declared Capacity more than 100% MCR less auxiliary power consumption limited to overload capability during high inflow periods.*

*Further that a high inflow period for this purpose shall be notified by the respective RPC.’*

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- 3.2 Further, Regulation 12.1(a) of CERC (Sharing of ISTS charges and losses) Regulations provides that

*'For the purpose of calculation of Transmission Deviation for a hydro-generating station by RPC, overload capacity of 10% during peak season shall be taken into account.'*

- 3.3 The agenda was taken up in 212th OCC meeting of NRPC held on 20.10.2023 where following High flow season for Regional Hydro generators of NR were finalized by the forum:

Hydro Generating Station	FY 2023-24
Bairasiul	May to August
Chamera	May to August
Chamera-II	May to August
Chamera-III	May to August
Dhauliganga	June to September
Dulhasti	15 <sup>th</sup> May to 15 <sup>th</sup> September
KWHEP	June to September
Kishanganga	15 <sup>th</sup> April to 15 <sup>th</sup> August
Koldam	June to September
Koteshwar	15 <sup>th</sup> June to 15 <sup>th</sup> October
Nathpa Jhakri	June to September
Parbati-III	June to September
Greenko-Budhil	June to September
Rampur	June to September
Salal	15 <sup>th</sup> May to 15 <sup>th</sup> September
Sewa-II	April to July
Tanakpur	15 <sup>th</sup> June to 15 <sup>th</sup> October
Tehri	15 <sup>th</sup> June to 15 <sup>th</sup> October
Uri	15 <sup>th</sup> Mar to 15 <sup>th</sup> July
Uri-II	15 <sup>th</sup> Mar to 15 <sup>th</sup> July

- 3.4 The same was communicated to these regional entities vide NRPC letter dated 25.10.2023 (enclosed at **Annexure-A**).

*For Information of members.*

#### 4) Declaration of High Flow Season for FY 2024-25 (agenda by NRPC Sectt.)

- 4.1 Declaration of High Flow Season for FY 2024-25 as per Regulation 45.8(a) of CERC (IEGC) Regulations, 2023, and Regulation 12.1(a) of CERC (Sharing of ISTS charges and losses) Regulations, 2020 would be taken up in 49<sup>th</sup> CSC meeting of NRPC.

- 4.2 Regional Hydro generators of NR are requested to furnish 10-daily water inflow series for last 5 years (since January 2019) to NRPC sectt. by 31.12.2023.

*For Information of members.*

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5) **Methodology for Reactive Charge Calculation for Regional Entities in accordance with the CERC (IEGC) Regulations, 2023 (agenda by NRPC Sectt.)**

Provisions regarding Reactive charge calculation in accordance with CERC (IEGC) Regulations, 2023 vis-s-vis CERC (IEGC) Regulations, 2010 are given below:

S.No.	Provisions in IEGC, 2010 in context of Reactive Charge compensation	Provisions in IEGC, 2023 in context of Reactive Charge compensation
1	Applicable to All Regional Entities except Generating Stations	All Regional Entities including Generating Stations
2	Base Rate: 10 Paise/ kVArh from effective date Escalation Rate: 0.5 Paise/ kVArh/ per Year [Ref: Regulation-6.6 (2)]	Base Rate: 5 Paise/ kVArh from effective date Escalation Rate: 0.5 Paise/ kVArh/ per Year [Ref: Clause 1 (b) of Annexure-4]
3	Provision of Bilateral Settlement for state-owned lines (Natural ISTS Lines) [Mechanism as per Annexure-2]	No such Provision
4	Provision of Pro-rata Settlement (in case of 'Receivables to Pool' is less than 'Payments from Pool').	No such Provision

5.1 Unlike IEGC, 2010, there is no provision for pro-rata settlement in case of "Receivables to Pool" is less than "Payments from Pool" in IEGC 2023. Thus, said practice of pro-rata settlement would dis-continue.

5.2 The methodology for Reactive charge calculation in accordance with CERC (IEGC) Regulations, 2023 **provisionally** finalised in 212th OCC of NRPC held on 20.10.2023 is given below:

a) **For drawee entities (States, Railways, NFL, Nepal):** In case of drawee entity, all the interface points used for calculation of active drawal will also be used for reactive power interchange calculation. It is based on existing practice except as per IEGC 2023, it now includes Natural ISTS lines (between two states). States own line emanating directly from an ISGS shall also be considered for REA.

b) **For all the regional entity generating stations including Nuclear stations:** VAr drawal/return shall be accounted considering all the outgoing feeders with that generating station.

- De-pooling for Stages within Generating Station (if applicable) shall be carried out on the basis of Installed Capacity of various Stages.
- RE/ Floating Solar located in the premises of a Generating Station, and feeding through the Common ICT in the Generation Switchyard, VAr drawal/return of the same shall not be accounted separately as the same will be considered in the VAr interchange of the principal generating station.

c) **For RE Generating Station:** RE Generating Station (s) directly connected to ISTS Pooling Station(PS) - VAr drawal/return at ISTS Metering Point end of line connecting REGS and ISTS PS shall be accounted. Detailed methodology for segregation of reactive charges for Multiple RE Generating Station (of Installed Capacity > 50 MW) connected to

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ISTS Pooling Station through Intermediate Pooling Station (PS) is provided in Annexure-1.

- d) **For HVDC drawal points:** HVDC drawal points will not be considered for RE-Accounting, as their drawl is as per MoP allocation, and they are part of ISTS system.
- e) Reactive Energy Accounting (REX) would be done irrespective of Generating Unit's Operating Status.
- f) Active energy accounting of Nuclear stations/other generating stations where GT and ST were considered, the same shall be shifted from GT and STs combination to outgoing feeder in line with CEA Metering regulation 2006 and amendments thereof.
- g) Reactive accounting for the period before COD (i.e. during infirm injection) shall also be considered for REA.
- h) Treatment of Active Power Consumption for providing Reactive Power Support (Night mode operation/Condenser mode):

### 5.3 As per Annexure -4(1(c)) of IEGC 2023

- a) "All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar. The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS."
- b) In line with IEGC, 2023, NRLDC presented a preliminary process for treatment of active power consumption during night mode of operation by a generator. Same is provided in Annexure-2. NRLDC stated that further deliberation and a robust approach is needed for the accurate treatment of active power consumption of generators during reactive support in night mode operation/ synchronous condenser mode and the same may be discussed in further meetings.

### 5.4 Procedure for Reactive energy charge calculation:

- a) NRLDC will furnish the verified processed SEM data and the calculation formula of each Regional Entity as per mutually agreed format to NRPC.
- b) NRPC Secretariat would issue the weekly Reactive Energy Account based on the data furnished by NRLDC.

### 5.5 These finalized Methodologies & Procedures will be followed for the account preparation of the week starting from 02.10.2023 (Monday) [i.e., from the Week: 02.10.2023 – 08.10.2023].

*Member may deliberate to finalise the methodology for Reactive charge calculation in accordance with CERC (IEGC) Regulations, 2023*

### 6) Technical constraints in context to transmission deviation charge on Koteshwar HEP (agenda by THDCIL)

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- 6.1 The CTU's bus reactor (125 MVAR) is installed at Koteshwar HEP switchyard and energy consumed/drawn by bus Reactor is being calculated in account of Koteshwar HEP as per the RTDA issued by NRPC.
- 6.2 As bus reactor is CTU's assets hence the deviation caused by this shouldn't be accounted to generating plant.
- 6.3 In view of above, THDCIL has requested that suitable metering mechanism may be explore/devised to exclude such drawl/ consumption from Koteshwar HEP and the charges previously remitted for transmission deviation may be revoked and refunded to the generator.
- 6.4 The agenda was taken up in 48<sup>th</sup> TCC/70<sup>th</sup> NRPC meeting by THDCIL held on 17.11.2023 where the forum agreed to refer this to CSC meeting, first.

*Forum may discuss the issue and may facilitate suitable metering mechanism to have proper calculation of transmission deviation charges.*

- 7) **Delay in payment of Arrear Bills by PSPCL and interest on refund of arrear bills (Agenda by SJVNL)**
  - 7.1 Being CPSU, SJVN is governed by the CERC regulations for Tariff Determination of their Projects. SJVN had to file petitions before CERC for recovery of the Expenditures incurred by SJVN over the years. If the information furnished in the petition is in accordance with the regulations and is adequate for carrying out prudence check of the claims made, the Commission shall consider the suggestions and objections, if any, received from the respondents within one month from the date of filing of the petition and any other person including the consumers or consumer associations. The Commission shall issue the tariff order after hearing the petitioner, the respondents and any other person specifically permitted by the Commission.
  - 7.2 We are Considering the Tariff regulation issued by CERC for the period 2014-19. Point 11 to 13 of Clause 8 Chapter 3 of Tariff Regulation 2014-19 is reiterated below:
    - (11) Where after the truing up, the tariff recovered exceeds the tariff approved by the Commission under these regulations, the generating company or the transmission licensee, shall refund to the beneficiaries or the long term transmission customers /DICs, as the case may be, the excess amount so recovered as specified in the Clause 13 of this regulation.*
    - (12) Where after the truing up, the tariff recovered is less than the tariff approved by the Commission under these regulations, the generating company or the transmission licensee shall recover from the beneficiaries or the long term transmission customers /DICs, as the case may be, the under-recovered amount as specified in the Clause 13 of this regulation.*
    - (13) The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by the generating company or the transmission licensee, as the case may be, in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission.*
  - 7.3 As per Clause 8(13) of CERC regulation, Generators have to raise Arrear Bills within three months from the receipt of Tariff Order from CERC.

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- 7.4 Based on above clauses, SJVN is raising arrear bills to its beneficiaries of NJHPS and RHPS after receipt of CERC orders from time to time. The Arrear bills are to be recovered or refunded as per CERC order in single instalments or multiple instalments.
- 7.5 PSPCL had unilaterally taken the repayment date on 90th day from the date of issue of Tariff order instead of SJVN bill issue date. The Clause 8(13) of CERC regulation is very clear arrear bills can be issued within three months from the date of tariff order rather than payment of Energy Bills from the date of Tariff order.
- 7.6 Further, PSPCL had deducted interest on negative arrear bills. This had resulted into accumulation of Late Payment Surcharge (LPS).
- 7.7 SJVN requested that PSPCL may be directed to treat the bill date when the bills had been issued and not to charge any interest negative bills which is contrary to any CERC regulation. Further, PSPCL may be directed to pay the LPS on delayed payments to avoid any penal action provided in CERC regulation.

*Members may deliberate.*

**8) Rebate availed by Rajasthan DISCOMs (Agenda by NPCIL)**

- a) Letter of Credit of Rajasthan Discoms (JVNL, JVVNL & AVVNL) was expired on 31/03/2017. Letter of credit was not available during the period from Apr-17 to Nov-17 as per the requirement of PPA. However, these Discoms has released the payments after availing rebate for the period from Apr-17 to Nov-17.
- b) As per Clause No 8.3 of PPA, rebate is admissible only when bills are negotiated through LC and bill amount is realized in the same month in which date of issue of bill is recorded.
- c) Since, LC is not available with NPCIL RR Site for above mentioned period, Rebate is not allowed by NPCIL RR Site being not admissible as per PPA Provisions and the same has been shown in books as outstanding amounting to Rs. 13,79,88,709.
- d) Various follow-ups/emails/letters sent by NPCIL RR Site to Rajasthan Discoms regarding release of outstanding amount but the same is not paid by Rajasthan Discoms till date.
- e) A meeting was held on 13.10.2023 with Rajasthan Discoms and RR site, NPCIL In the said meeting matter was discussed and Member Secretary, NRPC stated that RUVNL may bring this issue to the attention of their board and mutually resolve this issue with NPCIL. But no further information is received by NPCIL on this matter.

**9) PPA expired with Delhi DISCOMs- Tata Power and BSES Rajdhani (Agenda by NPCIL)**

- a) The PPA with Delhi Transco Ltd (DTL) for all its DISCOMs was expired in April 2020. Since then, the renewal of PPA with the DISCOMs is pending. Presently Delhi DISCOMs (Tata Power and BSES Rajdhani) are allocated 47 MWe power from NAPS.
- b) A petition has been filed in September 2020 by them in DERC for approval on renewal of PPA with NAPS for the next 15 years. There was one date of hearing on 31/8/2021. In which, DERC directed the DISCOMs to review on certain points and subsequently, a revised petition is filed by DISCOM in September 2022. Since then, no date is fixed by DERC for hearing on the revised petition.



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- c) A draft PPA has been submitted to BSES Rajdhani Power Ltd. (BRPL) in 2 Feb 2022 for review and comment. Till date no response is received from BRPL.

#### 10) Revision/ rationalization on allocation order (Agenda by NPCIL)

- a) NAPS is having MoP Order dated 21/9/2004 for power allocation from NAPS (440 MW). Since it is 19 years old Order on allocation of power from NAPS, this may need revision / rationalization based on present demand from different States / DISCOMs.
- b) Madhya Pradesh (MPPMCL) has signed its PPA for 15 years. MPPMCL has been drawing power from UNALLOCATED quota since June 2018 as per MoP Order dated 28/5/2018 and regular in the payment of monthly bills. While signing the PPA, MPPMCL had conveyed a request to increase its quota from Nuclear Power Stations.

*Members may deliberate.*

#### 11) Non-Opening of Letter of Credit

(SJVN)

- 11.1 As per mutually signed Power Purchase Agreement and MOP, GOI various order/ gazette Notifications (e.g. 28.06.2019, 21.02.2021 and 03.06.2022), Beneficiary has to establish Letter of Credit in line with payment security Mechanism. The established LC should be confirmed, revolving, irrevocable and in favour of SJVN for an amount equivalent to 105% of average monthly billing of preceding 12 months with appropriate bank as mutually acceptable to both the parties. The LC shall be kept valid at all the time during the validity of the Power Purchase Agreement.
- 11.2 In spite of repeated reminders, JKPCPL had not opened Letter of Credit after 13.11.2019 for power supplied from NJHPS and RHPS. As such JKPCPL may be advised to submit Letter of Credit in favour of SJVN at the earliest.

(NPCIL)

- 11.3 Maintenance of Letter of Credit (LC) as Payment Security Mechanism is compulsorily required to be submitted by M/s JKPCPL (J&K Power Corporation Ltd) as per Power Purchase Agreement (PPA) conditions with RR site of NPCIL. However, LC of M/s JKPCPL has been expired on 13/11/2019 and the same has not yet been renewed by them. F&A Section are being regularly following-up with M/s JKPCPL regarding opening of LC. Various letters/reminders have been sent to M/s JKPCPL by F&A Section, but they have not yet submitted Letter of Credit in favour of NPCIL as per PPA conditions for Supply of Power to them.
- 11.4 J&KPCPL (J&K DISCOM) has signed / renewed the PPA with Narora Atomic Power Station (NAPS) for 15 years on 22/11/2022. However, in spite of several request and reminders by NPCIL, J&KPCPL is not opening an LC as required as per MoP guidelines and the T&C of PPA. During visit to Jammu by NAPS officials for signing of PPA in November 2022, J&KPCPL officials intimated that the DISCOM is taking up the approval from GOI for requirement of LC of INR 1500 crore together for all GENCOs. But since then, no response has been received from the DISCOM. However, J&KPCPL has been making payment of current monthly energy bills as well as the monthly installments under liquidation of outstanding dues as per the Electricity (LPS) Rules 2022.

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**(PGCIL)**

**11.5** Payment of following parties is outstanding beyond 45 days.

JDVVN 131.16 Cr.

JVVNL 58.26 Cr.

GMR 2.39 Cr.

DTL 20 Lakh

*Members may discuss.*

**12) Timeline and procedure and payment related issues for Meter replacement by CTU/Powergrid (Agenda by NRLDC)**

**12.1** In line with clause 49(12(a)) of IEGC 2023 “The CTU shall be responsible for procurement and installation of Interface Energy Meters (IEMs), at the cost of respective entity. CTU shall be responsible for replacement of faulty meters.”

**12.2** There has been considerable delay in replacement of faulty meters by CTU/PGCIL in some cases which creates multiple issues in data validation, substitution etc.

**12.3** To streamline the replacements process of faulty meter there should be some timeline or Standard operating procedure.

**12.4** Further, observed by NRLDC that there is some confusion related to payment of replacement of fault meter by constituents. As pointed out by constituents in 67th NRPC meeting, CTU is billing the constituent directly.

**12.5** As discussed in 67th NRPC meeting dated 30.06.2023, a special meeting held on 04.07.2023 between NRLDC, CTU and Powergrid, in which it was discussed that the standard price of IEM meters shall be finalized on any common forum or CTU/PGCIL may share the related document if the price is already finalized since as per the new grid code IEGC 2023, entities have to pay meters cost directly to CTU/PGCIL.

**12.6** NRLDC has been requesting CTU to share the SoP in which details regarding timeline/ responsibility, however they have not received any information till date. Due to delay in SoP, replacement of faulty meter is also being delayed which is affecting the data validation and other related issues.

**12.7** NRLDC flagged this issue in 211st OCC dated 19.09.2023 and in latest 212th OCC dated 18.10.2023. However, no representative from CTU/IL were present in the meeting.

**12.8** In 212<sup>th</sup> OCC meeting, MS NRPC expressed concerned that there should be SoP/Procedure for meter replacement and CTU should submit it and it was decided to flag this issues in upcoming CCM.

*Members may deliberate.*

**13) Status update on installation of standby meter and replacement of Vincom/Elster meters (Agenda by NRLDC)**

**13.1** As per clause 7 (Location of meters) of CEA metering regulation 2006,

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*"IEM meters shall be installed on HV and LV side for an ICT, and IEM meters shall be installed on both end for a transmission line."*

- 13.2** There are multiple elements in Northern region where meters were installed only on one side of the element and standby meters are not available which poses a problem in validation of data.
- 13.3** As per the discussion in 67th NRPC meeting and as finalized in the special meeting held on 04.07.2023 between CTU, NRLDC and PGCIL at NRLDC, it was concluded that CTU/Power grid shall install 38 nos. standby meters and provide replacement of 118 nos. ELSTER meters and 31 nos. VINCOM meters.
- 13.4** NRLDC flagged the issue in latest 212th OCC meeting, however no representative from CTUIL were present in the meeting.
- 13.5** Powergrid informed the forum that order has been placed and 38 standby meter will be installed by next month i.e., by end of Nov 2023. For replacement of 118 nos. ELSTER meters and 31 nos. VINCOM meters PO has been placed on 16th October 2023. Meter supply and installation of meters will take 3 months i.e., by end of December 2023.

*Member may discuss.*

#### **14) Implementation of 5 min metering based on Technical specifications finalized by Joint Committee (Agenda by NRLDC)**

- 14.1** Following are the list of forums where Five minute metering system has been discussed earlier:
- I. **SAMAST report by technical committee of Forum of regulator in Jul 2016**
    - The suggestion by FOR was to adopt five-minute scheduling and dispatch as it would enhance load curve precision and resource utilization for demand fulfilment, particularly with renewable energy.
  - II. **CERC recommendation on 5 min Pilot Project dated 16.07.2018** ( <https://cercind.gov.in/2018/orders/08.pdf> )
    - CERC was also of the same view regarding implementation of 5 min scheduling & despatch.
    - CERC endorsed the recommendations made by the FOR and accords approve to the request made by Grid-India for pilot studies on implementation of 5-minute metering to gain experience.
    - CERC recommended that Interface Energy Meters should ideally have recording at 5-min interval and frequency resolution of 0.01 Hz. They should be capable of recording Voltage and Reactive Energy at every 5-min and should have feature of auto-time synchronization through GPS.
    - In the report CERC requested CEA to expedite the notification of amended Metering Standards for interface metering with 05-minute capability
  - III. **Grid-India report on Pilot project- 5 min Metering and Accounting dated 29.01.2021** (<https://posoco.in/wp-content/uploads/2021/02/Report-on-Pilot-project-%E2%80%93-Five-Minute-Metering-and-Accounting-in-India.pdf> )

- Grid-India also carried out the 5 min Pilot project and recommended that the 05-minute scheduling and despatch may be implemented at inter-state level, to begin with and thereafter, after gaining experience, at intra-state level.
- IV. **Joint committee (JC) (NPC) Technical Specifications (TS) dated 06.07.2022** ([https://cea.nic.in/wp-content/uploads/npc\\_division\\_rep/2023/01/Final\\_TS.pdf](https://cea.nic.in/wp-content/uploads/npc_division_rep/2023/01/Final_TS.pdf))
- All the procured IEMs shall be configured as 5 min time block. These meters shall record and send 5 min block data to regional AMR system. AMR system shall share [.npc] file of 5 min Time Block data to Grid-India through reliable communication.
  - MDP at its end shall do the necessary computation to convert 5 min Time Block data to 15 min Time block data until complete replacement of 15 min existing IEMs with new 5 min IEMs.

#### 14.2 Ongoing Challenges:

- A large number of meters in the Northern region have reached the end of their operational lifespan and require replacement. Additionally, there are many meters from companies such as ELSTER and Vincom for which software support is no longer available to NRLDC. These meters also need to be completely replaced.
- The AMR (Automatic Meter Reading) infrastructure currently in use is quite old, having been installed around 2009-10. As a result, numerous issues arise in retrieving data via the existing AMR system due to lack of software updates, SIM card problems, and so forth. Also not all the existing meters in NR region are AMR integrable ( ex. SECURE, ELSTER make) .Given the anticipated increase in the number of meters in the Northern Region, along with the significant penetration of Renewable Energy (RE), it is imperative to address these issues.
- As recommended in the aforementioned reports and considering the anticipated high penetration of Renewable Energy (RE) in the near future, 5 min meters and related infra shall be readily available for implementation of 5-minute scheduling and accounting.
- Existing meters record Reactive power exchange on cumulative basis (one value for HV and one value for LV for whole day ) and not on block-wise level. Since all regional entities (including Generators) are part of Reactive Power compensation mechanism as per IEGC 2023, hence recording of Reactive power is required at a more granular level. Meters as per finalized technical specifications will have capability of recording VAR at 5 min block wise level.
- Night mode operation/Synchronous condenser operation: As per Annexure-4 clause 1(c) of IEGC 2023,

*All the Inverter Based Resources (IBRs) covering wind, solar and energy storage shall ensure that they have the necessary capability, as per CEA Connectivity Standards, all the time including non-operating hours and night hours for solar. The active power consumed by these devices for purpose of providing reactive power support, when operating under synchronous condenser/night-mode, shall not be charged under deviations and shall be treated as transmission losses in the ISTS.*

To capture the actual VAR support and provide exemption of active power consumption it is necessary to have more granular recording i.e. on block wise level.

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- Adapting newly TS meters which can be calibrated both for 5 min and 15 min recording will ensure for a seamless transition from 15 min to 5 min scheduling and settlement process.

**14.3** Recently CTU had also raised this issue via its letter dtd 24.07.2023 to NPC regarding confusion between CEA Metering Regulation and Technical specification for ISTS meters prepared by JC. ( TS – 5 mins, CEA reg 2019- 15 mins).

**14.4** Therefore, considering all the challenges and the recommendation of various reports mentioned above, metering based on the Technical Specification outlined in the JC report may be implemented.

*Members may deliberate.*

### **15) Nomination of Nodal officer by UP SLDC for meter data collection (Agenda by NRLDC)**

**15.1** In Northern region around 2700 meters are installed at 380 locations. Every week these SEM data should come through various state utilities/AMR(Kalkitech) by Tuesday as per clause 49(12(e)(ii)) of IEGC 2023. In case of non-availability of any meter data it becomes very difficult for NRLDC to co-ordinate with persons at individual stations, as the number locations are more than 300.

**15.2** As per Grid code clause 49(12(e)(ii)) of IEGC 2023,

*“Entities in whose premises the IEMs are installed shall be responsible for taking weekly meter readings for the seven day period ending on the preceding Sunday 2400 hrs and transmitting them to the RLDC by Tuesday noon, in case such readings have not been transmitted through automatic remote meter reading (AMR) facility.”*

**15.3** This agenda was discussed in 44th Commercial sub-committee dated 14.02.2022 wherein it was deliberated to designate one/two nodal officer from each state for overall meter data co-ordination. However, till date, nomination of nodal officers has been received from all the states except SLDC, UP.

**15.4** This issue regarding Nomination of Nodal officer by UP SLDC for meter data collection has been flagged in 46th NRPC sub commercial meeting dated 28.11.2022, 47th NRPC sub commercial meeting dated 28.08.2023 and 211th OCC meeting dated 19.09.2023 and 212th OCC meeting.

**15.5** In latest 212th OCC, NRLDC raises this issue that from 14th Feb 2022 till Oct'23, SLDC,UP has not nominated nodal officers as per the decision in 44th CCM. SLDC, UP expressed concern that there is some co-ordination issues with STU, UP and therefore nomination shall also be asked from STU. NRLDC informed that coordinating agency for RLDC is respective SLDC and therefore SLDC, UP must nominate at least two officers from SLDC as agreed in the 44th CCM meeting.

**15.6** MS, NRPC also expressed concerned that, some co-ordination issues has been observed within state. It was requested that SLDC, UP should give nomination as agreed. As no representative from STU/UPPTCL during this discussion in 212th OCC, it was decided to flag this issues in upcoming CCM.

**15.7** At present, nomination from SLDC, UP is still awaited.

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Members may please deliberate.

## 16) RLDC Fees & Charges Agenda Points (Agenda by NRLDC)

### 16.1 Change in RLDC Fees & Charges monthly billing philosophy on account of implementation GNA Regulations

Earlier total quantum of share allocation and LTA/MTOA was being considered for monthly bill of RLDC Fees & Charges. Now from 01.10.2023, GNA regulations have been notified and accordingly scheduling of states/DISCOMS is being carried out on the basis of total GNA quantum allocated to them. Therefore, the monthly NRLDC Fees & Charges billing from the Nov-2023 (i.e. based on the data of Oct-2023) onwards shall be done on the basis of the basis of GNA quantum indicated in below table.

Entity Name	Entity Type	Oct-23		Nov-23		Difference		Remark
		SA+LTA+MTOA Quantum in MW	Monthly Bill Amount (₹)	GNA Quantum in MW	Monthly Bill Amount (₹)	Quantum in MW	Monthly Bill Amount (₹)	
Delhi	DL	6521.8	3328421	4678	2945396	-1844	-3,83,025	
Delhi Buyer(DMRC Ltd)	Buyer	99.0	50525	99	62333	0	11,808	
Delhi International Airport Limited	Buyer	33.0	16842	33	20778	0	3,936	
Haryana	DL	8923.0	4553853	6913	4352613	-2010	-2,01,240	6913 MW includes 1495 MW GNA for APL and 75 MW for North Railway
Himachal Pradesh	DL	1897.4	968322	1130	711479	-767	-2,56,843	
HVDC Agra (PG)	Buyer	2.5	1276		0			Single GNA
HVDC BALIA (PG)	Buyer	1.0	515		0			
HVDC BHIWADI(PG)	Buyer	1.0	515		0			
HVDC Dadri (PG)	Buyer	0.8	408		0			
HVDC Kurukshetra (PG)	Buyer	3.5	1786		0			
HVDC Rihand (PG)	Buyer	0.8	408		0			
<b>PG-HVDC NR TOTAL</b>		<b>9.6</b>	<b>4908</b>	<b>8</b>	<b>5037</b>	<b>-2</b>	<b>129</b>	
National Fertilizers Limited, Nangal Punjab	Buyer	5.0	2552	5	3148	0	596	No GNA
Northern Central Railway	Buyer	141.5	72230	130	81852	-12	9,622	
NVVNL (SNA Nepal)	Buyer	16.0	8166	16	10074	0	1,908	No GNA
Punjab	DL	6880.0	3511198	5497	3461060	-1383	-50,138	
Rajasthan	DL	4911.7	2506677	5755	3623504	843	11,16,827	
UT Chandigarh	DL	483.7	246842	342	215332	-142	-31,510	
UT J&K	DL	1934.3	987154	1977	1244773	43	2,57,619	
Uttar Pradesh	DL	13875.2	7081240	10165	6400160	-3710	-6,81,080	
Uttarakhand	DL	1335.1	681346	1402	882737	67	2,01,391	
		<b>47066</b>	<b>24020276</b>	<b>38150</b>	<b>24020276</b>	<b>-8916</b>	<b>0</b>	

Following related points are further mentioned for deliberation and record in the meeting by NRLDC:

- Concerning SLDC shall intimate the NRLDC about the additional GNA quantum obtained by any intra-state entity for previous month by the 10<sup>th</sup> of billing month.
- The GNA quantum granted to STU/State for previous month shall be segregated for each intra-State entity, including distribution licensee, and shall be reported by the respective SLDC to the NRLDC by 10th day of billing month.
- The GNA quantum allocated to Delhi is **4810 MW**. However, DMRC and DIAL are registered as a separate User under the category of “Buyer” with NRLDC. Hence, Delhi’s GNA quantum is considered **4678 MW** (i.e. after deduction of DMRC & DIAL quantum).
- Haryana’s GNA quantum is considered **6913 MW** (i.e. including 1495 MW from APL and 75 MW of Northern Railways).
- Earlier all the HVDC stations of NR were being billed on the basis of separate share allocation quantum. Now a single GNA quantum of 8 MW has been allocated in the name of PG-HVDC-NR.

Hence, from Nov-2023, a single bill in the name of **PG-HVDC-NR** will be raised. To facilitate the same, one of the existing user say “HVDC Agra (PG)” will be renamed as “PG-HVDC-NR” and all other HVDC substation will be considered as de-registered.

PGCIL (NR-1) is requested to provide the billing communication details for “**PG-HVDC-NR**” in Appendix-IV format of Fees & Charges regulation.

- f) NFL and NVVN (SNA for Nepal) have not been allocated any GNA quantum. However, both will be billed for their scheduling quantum of 5 MW (share from BBMB) and 16 MW (as per Indo-Nepal treaty) respectively as per earlier practice.

## 16.2 Entry of payment information in respect of RLDC Fees & Charge Bill Payments (Agenda by NRLDC)

- a) After the Go-Live (i.e. September-2021) of New Fees & Charges portal of Grid-India (POSOCO), it has been regularly requested by NRLDC to all the NRLDC Users through emails, verbal communications, mentioned in bill pdf and through this forum i.e. Commercial Sub-Committee Meetings, that : **Details of the offline mode payment such as date of payment, amount paid, UTR No., Rebate and TDS, may please be entered in the Payments section of the Online Fees and Charges portal (<https://fc.posoco.in/FnCWeb/#/landing>).**
- b) However, despite of our repeated requests the majority of the Users are not entering the details in the payment section of portal. It needs to be appreciated that both SBI & ICICI Bank Accounts (mentioned in bill pdf) are common/centralised for all RLDCs and the payments made by the Users of all RLDCs are being credited in these accounts. It is really a cumbersome task for RLDC coordinator to identify and map the amount against the bill of concerning User, if User has not entered the payment details from their end.
- c) It has been experienced recently in some of the cases, that the payment information was not entered by the User. Even when RLDC asked about the non payment from concerning official, it was confirmed by the official that payment is yet to be done. Then, NRLDC also issued the letter for clearing the out-standing but the concerning User not responded even to that letter. The concerning User responded only when NRLDC issued the late payment surcharge bills against the due amount that the payment was done on such and such date by third party and kindly withdraw the said late payment surcharge bill.

Therefore, NRLDC requests all the Users to make the payment through Online mode. In case of offline mode, the Users are requested to enter the payment details in portal itself immediately after making the payment for smooth reconciliation of payments.

*Members may discuss.*

## 17) Issuance of NOC to Regional Generating Stations up to Deemed/Provisional GNA (Agenda by NRLDC)

- 17.1 In accordance with Clause 37.2 of Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022:

Quote:

*“37.2. If Connectivity has been granted but Long Term Access has not been granted in accordance with the Connectivity Regulations, 2009 and Connectivity is yet to become*

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*effective as on the date of coming into effect of these regulations, the same shall be treated as under:*

*(a) The entity shall have the option of, either (i) to convert the Connectivity granted under the Connectivity Regulations, 2009 as Connectivity made under these Regulations complying with the requirements under these regulations, or (ii) to surrender such Connectivity."*

Unquote:

If the generating station has exercised the option to convert the Connectivity granted under the Connectivity Regulations, 2009 as Connectivity under the GNA Regulations, 2022 in terms of option (i) of clause (a) Regulation 37.2 of the GNA Regulation, need to furnish Deemed/Provisional GNA issued by CTU before applying for NOC to RLDC.

- 17.2** NOC shall only be issued to Regional entity generating stations which have been granted Deemed/Provisional GNA by CTU.

*Members may discuss.*

#### **18) Uploading of GNA schedule by SLDCs in NOAR by 14:00hrs of D+1 on daily basis (Agenda by NRLDC)**

- 18.1** In accordance with Clause 34.2 of Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 and amendments there of:

Quote:

*"34.2. Transmission charges for T-GNA, in case of bilateral and collective transactions, shall be payable only at point of drawal, as per the last published Transmission charge rate for T-GNA for the State where such point of drawal is located:*

*Provided that under collective transactions, transmission charges for T- GNA shall be payable for drawal schedules more than GNA quantum or T-GNA quantum or both, as applicable.*

*Explanation: In order to determine whether drawal schedule was more than GNA quantum or T-GNA quantum or both in case of collective transaction, SLDC shall furnish to NLDC, each intra-state entity-wise detail of schedule under GNA or T-GNA, as the case may be. NLDC shall issue power exchange wise and entity-wise segregation of payable T-GNA charges."*

Unquote:

- 18.2** SLDC to upload in NOAR each intra-state entity-wise detail of schedule under GNA or T-GNA, as the case may be by 1400 hours of next day of delivery (D+1, where D is the day of delivery).

*Members may discuss.*

#### **19) Requisition of Advanced T-GNA Transactions on D-1 Day (Agenda by NRLDC)**

- 19.1** Unlike Advance and FCFS applications approved under previous STOA regime, wherein schedule was combined with Access, Advance T-GNA granted under Central Electricity



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Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 needs to be scheduled on daily basis as the applicant has the provision to schedule multiple sellers under a single T-GNA application.

- 19.2** In accordance with Clause 33.1 of Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022:

Quote:

*“Scheduling request by T-GNA grantees under Advance application category shall be made on day ahead basis before the opening of bidding window for collective transactions under day ahead market, as per provisions of the Grid Code.”*

Unquote:

Applicant needs to furnish time block wise requisition of approved Advance T-GNA application for D day on D-1 day. The same needs to be furnished by 09:00hrs on D-1 day as per clause (1)(i) Regulation 49 of CERC (IEGC) Regulations, 2023.

- 19.3** The requisition of UPPCL and ITC Mughal Sheraton(applicant) were furnished after the intervention from NRLDC end as applicants were under the impression that the approval of Advance T-GNA was deemed scheduled.

*Members may discuss.*

## **20) Status of Reconciliation of STOA charges as on 07.11.2023 (Agenda by NRLDC)**

- 20.1** NRLDC has sent the reconciliation statement of STU/SLDC disbursement vide letter reference no. NRLDC/STOA/2023-24/2A dated 25.10.23 & refund reconciliation statement to applicants vide letter reference no. NRLDC/STOA/2023-24/2B dated 25.07.23 for the Quarter-2 (01-05-23 to 30-09-23). The applicants/STU/SLDCs were requested to verify /check the reconciliation statement & comment if any on the same by 15.11.23.

- 20.2** List of applicants/STU/SLDC from whom signed reconciliation statements regarding refund/disbursement of Open access charges is received:

S. No.	Entity Name	Date of receiving the signed reconciliation statement
1	SLDC- Himachal Pradesh	26.10.2023
2	PTC India Ltd.	31.10.2023
3	Yogindera Power Ltd.	26.10.2023

## **21) Pool Account (Agenda by NRLDC)**

- 21.1** As per IEGC 2023 “Pool Account” means Deviation and Ancillary Services Pool Account as defined in the DSM Regulations, where the following transactions shall be accounted:

- Deviations and Ancillary Services
- Reactive Energy Exchanges
- Congestion Charge

- 21.2** All the transactions for Deviation Charges, Congestion Charge, Reactive Energy Exchanges and Ancillary Services (SRAS & TRAS) shall be made from the Regional Deviation and

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Ancillary Service Pool Account (A/c No. 33706352298, IFSC code: SBIN0013913, Bank: SBI, SOUTH EXTN, PART1, NEW DELHI).

- 21.3** All regulatory pool members of Northern Region are hereby advised to make payment of Reactive Charges and Congestion Charges as per account issued by NRPC into Deviation and Ancillary Services Pool Account maintained by NRLDC at State Bank of India as per following details:

Account Name	Corresponding CERC Regulation	Bank Account No	Branch Name	Used for Payment towards
NR Deviation and Ancillary Services Pool Account	IEGC 2023	33706352298 IFSC Code- SBIN0013913	SME South Extension Part 1 New Delhi -110049 Branch Code- 13913	Deviation Charges Congestion Charges Reactive Energy Charges Ancillary Services Charges

- 21.4** The regional entity receivable from the Pool shall be paid by NRLDC from the above mentioned Bank Account to the Bank Account submitted by the regional entity. It is strictly advised to all the regional entities to use same bank account for payment as well as receipt related to a particular head of charges.
- 21.5** Regional Entity shall make weekly payment strictly as per account issued by NRPC without any adjustment of the payables and receivables.
- 21.6** The regional entity shall not club payment of statements related to different charges issued by NRPC while making payment to the DAS Pool Account.
- 21.7** In case of revision in Statements by NRPC secretariat, payments by the regional entities are to be made as per the “**Differential Amount taking into account the Revision of the Previous weeks**” which is strictly in accordance with the 1st table in the statement.
- 21.8** Entity shall pay the both Principal and Interest amount without deducting the TDS to the Deviation and Ancillary Service Pool Account.

**All the regional entity who were not member of reactive pool account earlier is requested to submit bank details (i.e. Cancel cheque/Bank statement/Bank Mandate, Copy of PAN & GSTIN) to NRLDC for receipt of payment from regional pool account.**

**21.9 Status of Northern Region Deviation charges**

- Deviation charges receivable from pool is settled up to Week No. 29<sup>th</sup> (09.10.2023 to 15.10.2023) of FY 2023-24.

**Deviation Outstanding Status:**

S. No.	Utility	Outstanding Balance (in Rs.)	Week Wise ( in Rs.)
1	Jammu & Kashmir	80,19,98,672	Week -26: 2,144; Week-27: 26,91,20,857 Week -28: 24,95,81,745; Week-29: 28,32,93,926
	Total	80,19,98,672	

**21.10 Status of Reactive Energy Charges**

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- Reactive Energy Charges have been fully settled up to week No. 27 (25.09.23 to 01.10.23) of FY 2023-24.
- Reactive Energy Charges for week 28 & 29 (02/10/2023 to 15/10/2023) as per IEGC 2023 is pending for settlement.

#### 21.11 Status of Ancillary Services Charges

- SRAS charges (Receivable from Pool) are fully settled up to week 28 (02.10.23 to 08.10.23) of FY 2023-24.
- TRAS charges (Receivable from Pool) are fully settled up to week 27 (25.09.23 to 01.10.23) of FY 2023-24.

#### SRAS/TRAS Outstanding Status:

Sr. No.	Week	Period	Deficit Amount (in Rs.)		Total Deficit Amount (in Rs.)
			TRAS	SRAS	
1	28	02-10-2023 to 08-10-2023	53,07,40,787	-	53,07,40,787
2	29	09-10-2023 to 15-10-2023	1,10,85,95,415	20,59,119	1,11,06,54,534
<b>Total Amount</b>			<b>163,93,36,202</b>	<b>20,59,119</b>	<b>164,13,95321</b>

#### 21.12 Interest Charges Account

Periodic (say Quarterly) issuance of account of interest charges for Deviation, Reactive, SRAS and TRAS to facilitate utilization of surplus amount to pay interest charges of Ancillary service (TRAS/SRAS) providers instead of transfer to PSDF.

#### 21.13 LC Status against Default in Deviation charges liability

49 Entity default in payment during FY 2022-23. Out of 49 entities following 21 entities yet to open LC.

Sl. No.	Name of NR Pool members	No of defaults in Deviation Payment during FY 2022-23	LC Amount in Rs.
1	ABC RENEWABLE ENERGY	14	24,07,163
2	ACME CSEPL	34	17,67,990
3	AVAADA RJHN	3	19,18,674
4	AVAADA SUNCE	3	33,61,064
5	AVADA SUNRAYS	4	29,93,599
6	AVADA SUSTAINABLE	5	25,31,962
7	AYANA RENEWABLE ONE	37	19,32,362
8	AZURE FORTY ONE	16	14,33,786
9	AZURE FORTY THREE	14	30,57,158
10	AZURE POWER	12	6,81,808
11	AZURE POWER MAPLE	21	10,08,676
12	AZURE THIRTY FOUR	13	5,01,784
13	CLEAN SOLAR POWER	1	14,52,258
14	HPPCL	2	18,27,108
15	JAMMU AND KASHMIR	29	6,29,14,674
16	NFL	1	7,84,634

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17	NHPC	2	83,15,354
18	NPC	1	10,84,697
19	NEPAL (NVTNL)	1	1,75,82,701
20	PUNJAB	4	1,31,61,168
21	UTTAR PRADESH	3	11,87,73,903

#### 21.14 Submission of Bank Account Details

- Payments pertaining to Pool Account are disbursed to Chandigarh & Railways through cheque by NRLDC.
- Chandigarh & Railways are requested to submit the bank account details at the earliest for enabling electronic mode of payments from the pool accounts.



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

उत्तर क्षेत्रीय विद्युत समिति

Northern Regional Power Committee

To,

1. General Manager (O&M), NHPC Limited, Faridabad
2. General Manager (CSO), SJVN, Shimla
3. General Manager, (O&M), THDC
4. General Manager, (O&M), NTPC Koldam
5. Chief Engineer, (O&M KWHEP), JSW Hydro Energy Ltd.
6. CEO, Greenko Budhil Hydro Power (seshagirirao.n@greenkogroup.com)

**विषय: Declaration of High inflow period as per IEGC, 2023 - reg.**

महोदय,

Regulation 45.8(a) of IEGC, 2023 provides that 'Hydro generating stations may declare ex-bus Declared Capacity more than 100% MCR less auxiliary power consumption limited to overload capability during high inflow periods. Further that a high inflow period for this purpose shall be notified by the respective RPC.

In this regard, High inflow period for Hydro generating stations of Northern Region for FY 2023-24 was deliberated in 212<sup>th</sup> OCC of NRPC held on 20.10.2023 considering 10-daily water inflow series for last 5 years. High Flow season is declared for NR in compliance of Regulation 45.8(a) of IEGC, 2023 and the same is attached as **Annexure**.

Encl.: As above.

Signed by Anzum Parwej  
Date: 25-10-2023 17:52:02  
Reason: Approved

(अंजुम परवेज)  
अधीक्षण अभियंता (वाणिज्य)

Copy for information to: ED, NRLDC

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## Annexure

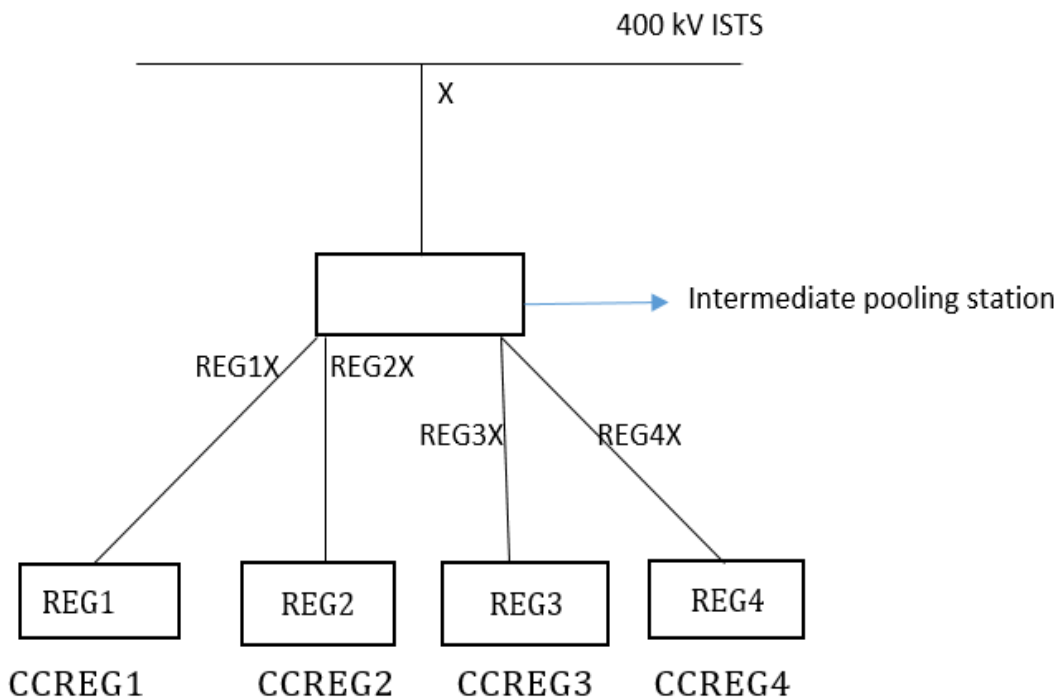
**Declaration of High Flow season for Northern Region in compliance of  
Regulation 45.8(a) of IEGC, 2023**

<b>Hydro Generating Station</b>	<b>FY 2023-24</b>
Bairasiul	May to August
Chamera	May to August
Chamera-II	May to August
Chamera-III	May to August
Dhauliganga	June to September
Dulhasti	15 <sup>th</sup> May to 15 <sup>th</sup> September
KWHEP	June to September
Kishanganga	15 <sup>th</sup> April to 15 <sup>th</sup> August
Koldam	June to September
Koteshwar	15 <sup>th</sup> June to 15 <sup>th</sup> October
Nathpa Jhakri	June to September
Parbati-III	June to September
PTC (Budhil)	June to September
Rampur	June to September
Salal	15 <sup>th</sup> May to 15 <sup>th</sup> September
Sewa-II	April to July
Tanakpur	15 <sup>th</sup> June to 15 <sup>th</sup> October
Tehri	15 <sup>th</sup> June to 15 <sup>th</sup> October
Uri	15 <sup>th</sup> Mar to 15 <sup>th</sup> July
Uri-II	15 <sup>th</sup> Mar to 15 <sup>th</sup> July

**Annexure-1**

**Multiple RE Generating Station (of Installed Capacity > 50 MW) connected to ISTS Pooling Station through Intermediate Pooling Station (PS) – Reactive Accounting shall be done at ISTS Metering Point end of the line connecting.**

Intermediate PS to ISTS PS. De-pooling of Reactive Charges shall be done as given below:



<b>Incomer-X</b>			
<b>Name of Generator</b>	<b>Commissioned Capacity limited to Connectivity quantum</b>	<b>MVAR_H</b>	<b>MVAR_L</b>
Reactive Energy measured at ISTS Metering Point end of the connecting line between Intermediate PS and ISTS PS		X	Y
Reactive Energy measured at Incomers of RPPD			
REG-1	CCREG1	REG1X	REG1Y
REG-2	CCREG2	REG2X	REG2Y
REG-3	CCREG3	REG3X	REG3Y
REG-4	CCREG4	REG4X	REG4Y
SUM	CCTotal	REGX	REGY

<b>Name of the Generator</b>	<b>Connected Capacity</b>	<b>MVAR_H</b>	<b>MVAR_L</b>
REG-1	CC-REG1	REG1X+ (X-REGX)*CCREG1/CCTotal	REG1Y+ (Y-REGY)*CCREG1/CCTotal
REG-2	CC-REG2	REG2X+ (X-REGX)*CCREG2/CCTotal	REG2Y+ (Y-REGY)*CCREG2/CCTotal
REG-3	CC-REG3	REG3X+ (X-REGX)*CCREG3/CCTotal	REG3Y+ (Y-REGY)*CCREG3/CCTotal
REG-4	CC-REG4	REG4X+ (X-REGX)*CCREG4/CCTotal	REG4Y+ (Y-REGY)*CCREG4/CCTotal

Here REG1, REG2, REG3 and REG 4 are 4 RE generators connected at an intermediate pooling station.

X= Net reactive interchange at ISTS point (in case of High Voltage)

Y= Net reactive interchange at ISTS point (in case of Low Voltage)

REG1X = Net reactive interchange of generator 1 at intermediate pooling station

CCREG1 = Commissioned Capacity limited to Connectivity quantum of generator 1



**Treatment of Active Power Consumption for providing Reactive Power Support (Night mode operation/Condenser mode)**

**Methodology Proposed**

- A suitable methodology for determining Active Power Consumption for providing Reactive Power Support during synchronous condenser/ night mode taking into account the following shall be formulated:
  - During the Time-blocks corresponding to *synchronous condenser/night-mode of operation, the concerned machine/ unit will be drawing active power to support (i) own auxiliary consumption, and (ii) providing reactive power support*
  - *Active status (in-service) of the machine (s)/ unit(s)*
  - *Learnings from the Pilot project or otherwise of the relation between reactive power support vs active power consumption*
- Once determined, the active power consumption by an SPD/ QCA for providing reactive power support in a time-block shall be deducted from the Actuals recorded by corresponding SEMs. This determined active power consumption may be reviewed annually.
- NRLDC will provide the block-wise data of standard active power consumption by an SPD/QCA and the time duration of reactive power support/night mode operation to NRPC on weekly basis.
- NRPC Secretariat would issue the Weekly DSM Account based on data furnished and reactive power support duration details provided by NRLDC.