



ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
GRID CONTROLLER OF INDIA LIMITED
(A Government of India Enterprise)



[formerly Power System Operation Corporation Limited (POSOCO)]
राष्ट्रीय भार प्रेषण केन्द्र / National Load Despatch Centre

कार्यालय : बी-9, प्रथम एवं द्वितीय तल, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016
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संदर्भ: NLDC/CERC/Aug-24/

दिनांक: 08th Aug 2024

सेवा में,

All the Stakeholders

विषय: Stakeholder Consultation on Procedure to facilitate scheduling and accounting of Free Power from bus bar of generating station– Regarding

संदर्भ: CERC Directions vide communication dated 03.08.2024

महोदय/महोदया,

Hon'ble commission vide its letter dated 03.08.2024 has communicated a "Procedure to facilitate scheduling and accounting of Free Power from bus bar of generating station" (Annexure-1). In line with the direction of the commission, the procedure has been published on website (<https://grid-india.in/notices/>) for wider public consultation.

Stakeholders are invited to submit their suggestions/feedback to marketopsnlcdc@grid-india.in at the earliest but not later than 9th September 2024.

सधन्यवाद,

भवदीय,

(S. Usha)

मुख्य महाप्रबंधक, (प्रभारी), रांभांप्रेकें

Copy for kind information:

1. Director – Market Operation/System Operation, GRID-INDIA
2. All RLDC Heads



केन्द्रीय विद्युत विनियामक आयोग

CENTRAL ELECTRICITY REGULATORY COMMISSION



Harpreet Singh Pruthi
Secretary

Dated: 03.08.2024

The Executive Director,
National Load Despatch Centre,
1st and 2nd Floor, B-9,
Qutab Institutional Area, Katwaria Sarai,
New Delhi -110016

Subject: Procedure to facilitate scheduling and accounting of Free Power from bus bar of generating station.

Sir,

This is in reference to your letter No. Grid-India/NLDC/2023 dated 13.02.2024, vide which a Procedure to facilitate scheduling and accounting of Free Power from bus bar of generating station by the State Government was submitted for approval of the Commission in line with Suo-moto Order dated 18.12.2023 in Petition No. 18/SM/2023. The Procedure as submitted by the NLDC has been examined. It is observed that the Procedure as submitted by the NLDC has been framed for scheduling and accounting of the sale of free power in respect of GoHP only. Further, NLDC has done consultation on the subject procedure with NRLDC, NRPC, GoHP, HPSEBL, NTPC, and NHPC.

2. The relevant extract of the order dated 18.12.2023 in Petition No. 18/SM/2023 is as under:

"26. Considering the suggestions and the peculiar circumstances of the Govt of HP, and the fact that Govt of HP cannot directly consume the power, we are of the considered view that Govt of HP or a similar such Govts. of hydro-rich states may sell their entitled share of free power directly from the bus bar of the generating station. We note that there may be some issues with respect to DSM accounting for such generating station and sale of power by the Govt of HP since DSM shall be calculated for the generating station but shall be required to be segregated between the DSM payable/receivable by the generating station and the Govt. selling free power. Accordingly, we direct NLDC to prepare a Procedure to facilitate such accounting in consultation with RLDC, RPC, generating station and the entity to whom such free power has been allocated within a month of the issue of this Order and submit it to the Commission for approval."

3. As per the above order, a generic Procedure was required to be made to facilitate the scheduling and accounting of free power for the Government of hydro-rich states which have free power share in Central Hydro Generating Stations. The same was required to be made with wider Public consultation. The procedure has been accordingly modified to make it a generic procedure and to incorporate changes as required in line with Order in 18/SM/2023 and the modified Procedure is enclosed as **Annexure-A**.

4. It is requested that a wider Public consultation on the attached Procedure be carried out by uploading it to NLDC website and thereafter the revised Procedure after incorporating the comments received from the stakeholders along with the comments received and their treatment thereof, be submitted to the Commission for approval within a period of sixty days from the issuance of this letter.

5. Keeping in view the difficulties expressed by HPSEB during high hydro season, the attached procedure shall be implemented for Himachal Pradesh at the earliest but not later than 09.08.2024, as an interim measure for the current high hydro season.

(Harpreet Singh Pruthi)

DA: as above.

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**Procedure for Scheduling and Accounting of Deviation
Settlement Mechanism Charges for Ex-bus sale of free
power from Central hydro generating station**

*As per
Central Electricity Regulatory Commission order in the petition
18/SM/2023*

August 2024

1.0 Preamble

- 1.1** Directorate of Energy (DoE), Govt of HP (GoHP) has submitted that GoHP has an entitled share of free power in various Central Generating Stations (CGS) (Hydro) situated in Himachal Pradesh, and this share of free power is managed by the DoE, GoHP through various avenues of sale such as Power Exchanges and Bilateral mode.
- 1.2** As per NRPC allocation orders, the share of free power available from these plants is scheduled to Himachal Pradesh and then sold by DoE, GoHP, through its trader at the platform of Power Exchanges/ Bilateral mode.
- 1.3** In accordance with the Grid Code 2023, Himachal State Discom, i.e., Himachal Pradesh State Electricity Board Limited (HPSEBL), is entitled to schedule power from ~~CGS~~ up to its General Network Access (GNA) quantum, i.e., 1130 MW. The allocated power to HPSEBL from ISGSs and other arrangements is around 1200 to 1400 MW, excluding GoHP free power.
- 1.4** As per Electricity (Removal of difficulty) Third order 2005 dated 08.06.2005-

"The State Government Receiving free electricity from hydro generating Stations shall have discretion to dispose of such electricity in the manner it deems fit according to the provisions of the Act."

GoHP, therefore, can sell its free power share in the hydro generating stations as per the Electricity (Removal of difficulty) Third order 2005 dated 08.06.2005

- 1.5** GoHP found it difficult to sell its share of free power in CGSs, which is approximately 557 MW, without it being scheduled for drawl by HPSEBL.
- 1.6** This procedure is issued under CERC Order dated 18th December 2023 in Petition number 18/SM/2023; relevant clauses are quoted as follows:

"Issue No. 4: Scheduling of free power share in the Central Generating Stations

....

24. We have considered the suggestions of Govt of HP. We observe that prior to the Grid Code coming into effect i.e. till 30.09.2023, the power from ISGS hydro generating stations was scheduled to HPSEB at HP State periphery and from HP State periphery, Govt of HP sold its share of free power. In case of revision of DC and schedule of such generating stations, the entitlement of free power at HPSEB periphery also changes for the Govt of HP.

25. We further observe that Govt of HP is not a drawee entity. It is entitled to the free power which it can sell as per the Electricity (Removal of difficulty) Third order 2005 dated 08.06.2005. We find that Govt of HP is a unique case of an entity which is neither a generator nor a trader buying electricity for sale. It would not draw power but would always have free power for sale.

26. Considering the suggestions and the peculiar circumstances of the Govt of HP, and the fact that Govt of HP cannot directly consume the power, we are of the considered view that Govt of HP or a similar such Govts. of hydro-rich states may sell their entitled share of free power directly from the bus bar of the generating station. We note that there may be some issues with respect to DSM accounting for such generating station and sale of power by the Govt of HP since DSM shall be

calculated for the generating station but shall be required to be segregated between the DSM payable/receivable by the generating station and the Govt. selling free power. Accordingly, we direct NLDC to prepare a Procedure to facilitate such accounting in consultation with RLDC, RPC, generating station and the entity to whom such free power has been allocated within a month of the issue of this Order and submit it to the Commission for approval.”

- 1.7** This procedure shall not be applicable for scheduling and deviation settlement of any other entity connected to the Grid.

2.0 Objective

- 2.1** The objective of this procedure is to lay down the roles and methodology to be followed for scheduling, accounting, and deviation settlement for the sale of free power share from a Central hydro generating station, from the bus of the generating station by the State Government (SG).

3.0 Roles

3.1 Central Hydro Generating Station (CHGS):

- 3.1.1. CHGS shall provide the Declared Capacity (DC) as per provisions of CERC (Indian Electricity Grid Code) Regulations, 2023 ('Grid Code 2023').
3.1.2. CGS can revise its DC as per provisions of Grid Code 2023.

3.2 The State Government (SG):

- 3.2.1. SG shall obtain a Standing Clearance (SC) from the Regional Load Despatch Center (RLDC) for transactions (both buy and sell) of power in the power market for free power share in each CHGS at the busbar of such CHGS.
3.2.2. In case DC has been reduced or increased by any CHGS(s), the entitlement of the SG shall also be reduced or increased proportionally, as per share allocation from the particular CHGS. In such a case, to balance the portfolio, the SG may purchase or sell power from the market, as per the Standing Clearance issued by RLDC.
3.2.3. The SG shall get registered with RLDC and shall pay the one-time registration fee as per the prevailing Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations as 'other user'. Monthly RLDC charges corresponding to the free share of power shall be payable by the SG to the concerned CHGS.

3.3 Regional Load Despatch Center (RLDC):

- 3.3.1. The suggested day ahead schedule of CHGS shall be prepared by RLDC depending upon the system requirement.
3.3.2. RLDC shall also prepare the schedule of the SG as per the provisions of Grid Code 2023.

3.4. Regional Power Committee (RPC):

- 3.4.1. RPC shall prepare the Regional Energy Accounts (REA) and DSM accounts for the CHGS.
3.4.2. RPC shall indicate a free share of firm power from CHGS separately in its

allocation orders.

- 3.4.3. RPC shall segregate the DSM attributable to the SG and CHGS separately on account of sale /purchase on account of free power share from CHGS.

4.0 Scheduling

- 4.1. CERC (Terms and Conditions of Tariff) Regulations, 2024 provides as follows:

"(6) The concerned Load Despatch Centre shall finalise the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station."

- 4.2. The Grid Code 2023 at Regulation 49(1)(f) provides as follows:

"(f) Requisition of schedule by the buyers which are GNA grantees:

- (i) Based on the entitlement declared in accordance with sub-clause (b) of clause (1) of this Regulation, SLDC on behalf of the intra-State entities which are drawee GNA grantees, shall furnish time block-wise requisition for drawal to the concerned RLDC in accordance with the contracts, by 8 AM of 'D-1' day.*
- (ii) Other drawee GNA grantees which are regional entities shall furnish time block-wise requisition for drawal to the concerned RLDC in accordance with contracts, by 8 AM of 'D-1' day.*
- (iii) The SLDC on behalf of the intra-State entities which are drawee GNA grantees, as well as other drawee GNA grantees while furnishing time block-wise requisition under this Regulation shall subject to technical constraints, duly factor in merit order of the generating stations with which it has entered into contract(s):*

Provided that the renewable energy generating stations shall not be subjected to merit order despatch, and subject to technical constraints shall be requisitioned first followed by requisition from other generating stations in merit order."

As per the above, buyers who are GNA grantees (through SLDC) are required to furnish time block-wise requisition for drawal to the concerned RLDC in accordance with the contracts by 8 AM on 'D-1' day.

- 4.3. The Grid Code 2023 at Regulation 49(1)(g) provides as follows:

"g) Allocation of corridors by RLDC for GNA grantees

(i) RLDC shall check if drawal schedules as requisitioned by drawee GNA grantees can be allowed based on available transmission capability:

Provided that in case of constraint in transmission system, the available transmission corridor shall be allocated to the drawee GNA grantees in proportion to their GNA within the region or from outside region, depending upon the transmission constraint, whether it is within the region or from outside the region, as the case may be. The same shall be intimated to drawee GNA grantees by 8.15 AM on 'D-1' day.

(ii) Drawee GNA grantees shall revise their requisition for drawal schedule based on

availability of transmission corridors for such grantee by 8.30 AM on 'D-1' day.

(iii) RLDC shall issue final drawl schedules and injection schedules for drawee and injecting GNA grantees by 9 AM on 'D-1' day."

As per above , RLDC issues final drawl schedules and injection schedules for drawee and injecting GNA grantees.

- 4.4. As per practice, RLDC, while issuing drawl schedules and injection schedules at 9 AM, also incorporates the schedule from CHGS, including the share of free power of the SG against the GNA quantum of drawee GNA grantees. Henceforth, the drawl schedule and injection schedule corresponding to the free power share of the SG shall not be incorporated by RLDC without specific request from the SG, and shall be governed in terms of the following paras.
- 4.5. Based on the DC declared by the CHGS, the entitlement of the SG will be prepared for each CHGS. RLDC, based on the present practice of finalizing schedules for CHGS, shall reflect the hours and quantum of power available for sale by the SG.
- 4.5. The entitlement is subject to change on the basis of DC or schedule revision by the CHGS or schedule revision by RLDC, respectively. After considering the revisions, the entitlement for a particular time block shall be published by RLDC before the 7th or 8th time blocks as per the provisions of the Grid Code 2023.
- 4.6. The SG shall be eligible to dispose of its share of free power share at the periphery of CHGS under the Web-Based Energy Scheduling (WBES) System.
- 4.7. The free power share from each CHGS shall be shown under the SG in WBES.
- 4.8. Once such free power share is sold by the SG at the CHGS busbar, the corresponding injection schedule will be reflected in the Scheduled Generation for the CHGS.
- 4.9. In case DC is revised by the CHGS subsequent to the sale of power by the SG, it shall be treated as follows:
 - In case of an upward revision of DC, the SG shall be eligible to sell its share of free power from the revised DC and schedule suggested by RLDC.
 - In case of a downward revision of DC, the SG shall be eligible to buy power at busbar of generating station under T-GNA as a trading licensee.
- 4.10. DSM accounts of CHGS shall be issued by RPC considering the sale purchase transactions of the SG.
- 4.11. In the case of States with free power share from CHGS, if the SG and distribution licensee of the State mutually agree to continue with current practice, the SG may intimate RLDC to schedule its share to the distribution licensee(s) of the State or the authorized representative of the distribution licensee as per current practice.
- 4.6. A typical example of the scheduling of the free power quantum and computation of the deviation for a particular time block is depicted in the Annexure:

5.0 Deviation Settlement Mechanism

- 5.1 The deviation of the SG shall be calculated at the CHGS busbar as the difference between schedule injection corresponding to the power sold and entitlement for sale of power with adjustment for power bought, if any.

- 5.2 The rate of deviation applicable for the SG shall be the rate for deviation applicable shall be Normal Rate as per DSM Regulations.
- 5.3 GoS and CHGS shall directly settle the DSM charges with the Regional Pool Account.
- 5.4. No Regional Transmission Deviation charges shall be applicable on the SG.

Annexure

Suppose a CHGS is having a capacity of 1000 MW having allocation of its shares to different states and also having obligation to supply free power at its bus to the State Govt. in which such CHGS is situated. A typical example for calculation of DSM in respect of the State Govt. as well as such CHGS in such a scenario for a particular time block in a day is as under:

Case 1: Calculation of DSM for the State Government and CHGS in case the State Government has purchased the power from the power market to balance their portfolio.

Declared capacity (DC) of CHGS (on D-1 day by 6 AM) A	% Share and quantum of allocation in CHGS to the State including Free power share of State Govt. B	Allocated share to the State (State Discom) C	Entitlement of State Government as free power for sale on CHGS Periphery on D day (say if the free power share is 12%) D	Power sold by the State Govt. in DAM on D-1 Day for D day E	Injection schedule of CHGS for D day F	Total Scheduled generation of CHGS at CHGS bus for sale on D day G=E+F	Revised DC/schedule by CHGS due to any reason/partial outage on D day H	Revised entitlement of State Government as free power for sale on CHGS Periphery on D day I	Power already sold by the State Govt. in DAM J	Revised CHGS scheduled generation for sale on D day K	Total scheduled generation for D day at CHGS bus (including power sold by the GoS) L=J+K	Actual generation by the CHGS on D day M	Purchase of power from the market by GoS N	Total injection at CHGS bus O=M+N	Total DSM at CHGS Bus P=L-O	Deviation of GoHP (Power sold in the DAM- Actual injection (i.e. revised entitlement of GoHP against free power in CHGS+ Purchase of power by the state govt. in RTM) O= J-(I+N)	Deviation of the CHGS P=L-(I+M)
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	500 MW	60 MW	560 MW	0	0	0
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	500 MW	40 MW	540 MW	20 MW (under-injection)	20 MW (under-injection)	0
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	450 MW	60 MW	510 MW	50 MW (under-injection)	0	50 MW (under-injection)
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	550 MW	60 MW	610 MW	50 MW (over-injection)	0	50 MW (over-injection)

Case 2: Calculation of DSM for the State Government and the CHGS in case the State Government doesn't procure the power from the power market to balance their portfolio.

Declared capacity (DC) of CHGS (on D-1 day by 6 AM) A	% Share and quantum of allocation in CHGS to the State including Free power share of State Govt. B	Allocated share to the State (State Discom) C	Entitlement of State Government as free power for sale on CHGS Periphery on D day (say if the free power share is 12%) D	Power sold by the State Govt. in DAM on D-1 Day for D day E	Injection schedule of CHGS for D day F	Total Scheduled generation of CHGS at CHGS bus for sale on D day G=E+F	Revised DC/schedule by CHGS due to any reason/partial outage on D day H	Revised entitlement of State Government as free power for sale on CHGS Periphery on D day I	Power already sold by the State Govt. in DAM J	Revised CHGS scheduled generation for sale on D day K	Total scheduled generation for D day at CHGS bus (including power sold by the SG) L=J+K	Actual generation by the CHGS on D day M	Purchase of power from the market by GoS N	Total injection at CHGS bus O=M+N	Total DSM at CHGS Bus P=L-O	Deviation of GoHP (Power sold in the DAM- Actual injection (i.e. revised entitlement of GoHP against free power in CHGS+ Purchase of power by the state govt. in RTM) Q=J-(I+N)	Deviation of the CHGS P=L-(I+M)
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	500 MW	0	500 MW	60 MW (under-injection)	60 MW (under-injection)	0
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	400 MW	0	400 MW	160 MW (under-injection)	60 MW (under-injection)	100 MW (under-injection)
1000 MW	22%/ 220 MW	100 MW	120 MW	120 MW	880 MW	1000 MW	500 MW	60 MW	120 MW	440 MW	560 MW	550 MW	0	550 MW	10 MW (under-injection)	60 MW (under-injection)	50 MW (over-injection)