

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

No. L-1/18/2010-CERC

Coram:

Shri P.K. Pujari, Chairperson

Dr. M.K. Iyer, Member

Shri I.S. Jha, Member

Date of Order: 9th October, 2019

In the matter of

Approval of the "Methodology of settlement of accounts for bilateral short term and collective transactions, for the period of Grid Disturbance" under Regulation 6.5.17 of Central Electricity Regulatory Commission (Indian Electricity Grid Code), Regulation 2010

ORDER

The Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 was notified by the Commission on 28.4.2010 (hereinafter referred to as the "Grid Code"). The Grid Code was amended vide notifications dated 5.3.2012, 6.1.2014, 7.8.2015, 6.4.2016 and 12.4.2017. The Commission vide second amendment to the Grid Code dated 6th January 2014 amended Regulation 6.5.17 as under:

"17. In case of any grid disturbance, scheduled generation of all the ISGSs supplying power under long term / medium term/ shall be deemed to have been revised to be equal to their actual generation and the scheduled draws of the beneficiaries/ buyers shall be deemed to have been revised accordingly for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the RLDC.

The declaration of disturbance shall be done by the concerned RLDC at the earliest. A notice to this effect shall be posted at its website by the RLDC of the region in which the disturbance occurred. Issue of the notice at RLDC web site shall be considered as declaration of the disturbance by RLDC. All regional entities shall take note of the disturbance and take appropriate action at their end.

For Bilateral short term and collective transactions, the methodology of settlement of accounts for the period of Grid Disturbance shall be formulated by National Power Committee (NPC) and same shall be put up to the Commission for approval. The methodology shall cover all possible scenarios with illustrative examples to cover the instances where the Grid disturbance is either partial or it effects only one region.”

2. As per above, Commission directed National Power Committee (NPC) to formulate the methodology of settlement of accounts for the period of grid disturbance in case of transactions related to bilateral short term and collective transaction.

3. NPC has submitted the draft for “Methodology of settlement of accounts for bilateral short term and collective transactions, for the period of Grid Disturbance” vide its letter dated 27th January 2017 for the approval of the Commission. NPC has finalized this draft methodology by constituting a Working Group comprising representatives from CEA, Secretariat of RPCs/NPC and NLDC.

4. The draft methodology submitted by the NPC has been examined by the Commission. The methodology approved by the Commission in terms of Regulation 6.5.17 of Grid Code is annexed at Appendix-I to this order.

5. The “Methodology of settlement of accounts for bilateral short term and collective transactions, for the period of Grid Disturbance” specified in this order shall come into force from the date of coming into effect of IEGC Second amendment i.e. 17.02.2014.

Sd/-
(I. S. Jha)
Member

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(P. K. Pujari)
Chairperson

Methodology of settlement of accounts for bilateral short term and collective transactions, for the period of Grid Disturbance

1. Objective

The objective of this methodology is to lay down norms for settlement of accounts for the period of Grid Disturbance for Bilateral Short Term and Collective Transactions in terms of Regulation 6.5.17 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

2. Scope

The Methodology shall be applicable to an Inter-State Generating Station (ISGS) which is a regional entity and affected by any category of Grid Disturbance as specified in the Central Electricity Authority (Grid Standard) Regulations 2010. RLDC shall certify the duration (indicating start date/ time block and end date/ time block) of grid disturbance and provide list of ISGS(s) affected by grid disturbance to RPC. Revision of schedule will be done only for ISGS affected by grid disturbance.

In case of ISGS, embedded in STU system, under the control area of SLDC, supplying power to inter-State / inter-regional buyers under Bilateral short term or Collective Transactions and affected by grid disturbance, the concerned SLDC shall settle the account(s).

3. Definition

Definitions and abbreviations used in this methodology shall have the same meaning assigned in the Electricity Act, 2003, Central Electricity Authority (Grid Standard) Regulation 2010, Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 and Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time.

4. Methodology

4.1 Schedule for period of grid disturbance

- (a) In case of under injection by the affected ISGS due to Grid Disturbance (GD), a separate schedule called as “Schedule for period of GD” shall be made for such ISGS which shall be only for purpose of settlement of accounts during period of GD.
- (b) “Schedule for period of GD” shall be arrived at by modifying original schedule of ISGS according to the priority given below till the revised scheduled becomes equal to the actual injection:
 - (i) Bilateral short term;(ii) Collective transactions;(iii) MTOA;(iv) LTA
- (c) Schedules among more than one transaction under Bilateral short term injections shall be revised on pro rata basis. Similarly schedule on more than one Exchange shall be revised on pro rata basis.
- (d) Such separate schedule of ISGS shall be carried out only for the purpose of settlement of accounts in case of Grid Disturbance and no revision of schedule of corresponding buyer shall be carried out in such cases.
- (e) The Schedule for purpose of GD shall be used for settlement of Deviation accounts.

4.2 Settlement of revised Schedule for Bilateral short term

- (i) The DSM account for the ISGS shall be issued for “Schedule for period of GD”. DSM accounts for the entities other than ISGS shall be issued based on the original schedule.
- (ii) The ISGS whose “Schedule for period of GD” has been revised from original schedule, shall reimburse the amount received from the corresponding buyer for the original schedule in excess of “Schedule for period of GD” to the DSM pool

account at the rate of contract with the corresponding buyer. Such ISGS shall provide a copy of contract with buyer(s) to concerned RLDC and RPC.

- (iii) RPC in consultation with RLDC shall issue the account for the ISGS based on “Schedule for period of GD” and intimate the ISGS as the amount payable /receivable by ISGS to/from DSM pool account which shall be settled by RLDC / ISGS within 15 days of such intimation.

4.3 Settlement of revised Schedule for Collective transactions

- (i) The DSM account for the ISGS shall be issued for “Schedule for period of GD”. DSM accounts for the entities other than ISGS shall be issued based on the original schedule.
- (ii) The ISGS shall reimburse the amount received for the corresponding transaction through Power Exchange for the original schedule in excess of “Schedule for period of GD” to DSM Pool account. The concerned Power Exchange(s) shall provide the Area Clearing Price (ACP) for the time blocks affected by grid disturbance.
- (iii) RPC in consultation with RLDC shall issue the account and intimate the ISGS as to the amount payable / receivable by ISGS to DSM pool account which shall be settled by RLDC / ISGS within 15 days of such intimation.

5. Illustrative examples

5.1 Case-I : An ISGS (1500 MW) selling power under Bilateral short term only:

A. ISGS Full Outage / Actual Injection = 0 MW

| ISGS Full Outage / Actual Injection = 0 MW | Bilateral STOA I (MW) | Bilateral STOA II (MW) | Bilateral STOA III (MW) | Bilateral STOA IV (MW) | Total (MW) |
|--|------------------------------|-------------------------------|--------------------------------|-------------------------------|------------|
| Schedule (MW) | 700 | 400 | 250 | 150 | 1500 |
| “Schedule for period of GD” (MW) | 0 | 0 | 0 | 0 | 0 |
| ISGS to pay to DSM pool for (MW) | 700 MW @STOA I Contract Rate | 400 MW @STOA II Contract Rate | 250 MW @STOA III Contract Rate | 150 MW @STOA IV Contract Rate | |

B. ISGS Partial Outage / Actual Injection = 750 MW

| ISGS Partial Outage / Actual Injection = 750 MW | Bilateral STOA I (MW) | Bilateral STOA II (MW) | Bilateral STOA III (MW) | Bilateral STOA IV (MW) | Total (MW) |
|---|------------------------------|-------------------------------|--------------------------------|------------------------------|------------|
| Schedule (MW) | 700 | 400 | 250 | 150 | 1500 |
| “Schedule for period of GD” (MW) | 350 | 200 | 125 | 75 | 750 |
| ISGS to pay to DSM pool for (MW) | 350 MW @STOA I Contract Rate | 200 MW @STOA II Contract Rate | 125 MW @STOA III Contract Rate | 75 MW @STOA IV Contract Rate | |

5.2 Case-II: An ISGS (1500 MW) selling power under Collective Transactions only in Power Exchange:

A. ISGS Full Outage / Actual Injection = 0 MW

| ISGS Full Outage / Actual Injection = 0 MW | Collective Transaction on PX-1 (MW) | Collective Transaction on PX-2 (MW) | Total (MW) |
|--|-------------------------------------|-------------------------------------|------------|
| Schedule (MW) | 700 | 800 | 1500 |
| “Schedule for period of GD” (MW) | 0 | 0 | 0 |
| ISGS to pay to DSM pool for (MW) | 700 MW @ ACP certified by PX-1 | 800 MW @ ACP certified by PX-2 | |

B. ISGS Partial Outage / Actual Injection = 750 MW

| ISGS Partial Outage / Actual Injection = 750 MW | Collective Transaction on PX-1 (MW) | Collective Transaction on PX-2 (MW) | Total (MW) |
|---|-------------------------------------|-------------------------------------|------------|
| Schedule (MW) | 700 | 800 | 1500 |
| “Schedule for period of GD” (MW) | 350 | 400 | 750 |
| ISGS to pay to DSM pool for (MW) | 350 MW @ ACP certified by PX-1 | 400 MW @ ACP certified by PX-2 | |

5.3 Case-III : An ISGS (1500 MW) selling power under both Bilateral Short term and Collective transactions:

A. ISGS Full Outage / Actual Injection = 0 MW

| ISGS Full Outage / Actual Injection = 0 MW | Bilateral STOA I (MW) | Bilateral STOA II (MW) | Collective Transaction on PX-1 (MW) | Collective Transaction on PX-2 (MW) | Total (MW) |
|--|------------------------------|-------------------------------|-------------------------------------|-------------------------------------|------------|
| Schedule (MW) | 700 | 400 | 250 | 150 | 1500 |
| "Schedule for period of GD" (MW) | 0 | 0 | 0 | 0 | 0 |
| ISGS to pay to DSM pool for (MW) | 700 MW @STOA I Contract Rate | 400 MW @STOA II Contract Rate | 250 MW @ ACP certified by PX-1 | 150 MW @ ACP certified by PX-2 | |

B. ISGS Partial Outage / Actual Injection = 750 MW

| ISGS Partial Outage / Actual Injection = 750 MW | Bilateral STOA I (MW) | Bilateral STOA II (MW) | Collective Transaction on PX-1 (MW) | Collective Transaction on PX-2 (MW) | Total (MW) |
|---|------------------------------|-------------------------------|-------------------------------------|-------------------------------------|------------|
| Schedule (MW) | 700 | 400 | 250 | 150 | 1500 |
| "Schedule for period of GD" (MW) | 223 | 127 | 250 | 150 | 750 |
| ISGS to pay to DSM pool for (MW) | 477 MW @STOA I Contract Rate | 273 MW @STOA II Contract Rate | - | - | |

C. ISGS Partial Outage / Actual Injection = 300 MW

| ISGS Partial Outage / Actual Injection = 300 MW | Bilateral STOA I (MW) | Bilateral STOA II (MW) | Collective Transaction on PX-1 (MW) | Collective Transaction on PX-2 (MW) | Total (MW) |
|---|------------------------------|-------------------------------|-------------------------------------|-------------------------------------|------------|
| Schedule (MW) | 700 | 400 | 250 | 150 | 1500 |
| "Schedule for period of GD" (MW) | 0 | 0 | 188 | 113 | 300 |
| ISGS to pay to DSM pool for (MW) | 700 MW @STOA I Contract Rate | 400 MW @STOA II Contract Rate | 62 MW @ ACP certified by PX-1 | 37 MW @ ACP certified by PX-2 | |

5.4 Case-III : An ISGS (1500 MW) selling power under Bilateral Short term, Collective transactions, MTOA and LTA:

A. ISGS Full Outage / Actual Injection = 0 MW

| ISGS Full Outage/Actual Injection = 0 MW | Bilateral STOA (MW) | Collective (MW) | MTOA (MW) | LTA (MW) | Total (MW) |
|--|----------------------------|------------------------------|--------------------------------------|--------------------------------------|------------|
| Schedule (MW) | 300 | 200 | 500 | 500 | 1500 |
| “Schedule for period of GD” (MW) | 0 | 0 | 0 | 0 | 0 |
| ISGS to pay to DSM pool for (MW) | 300 MW @STOA Contract Rate | 200 MW @ ACP certified by PX | Shall be governed as per IEGC 6.5.17 | Shall be governed as per IEGC 6.5.17 | |

B. ISGS Partial Outage / Actual Injection = 750 MW

| ISGS Partial Outage/Actual Injection = 750 MW | Bilateral STOA (MW) | Collective (MW) | MTOA (MW) | LTA (MW) | Total (MW) |
|---|----------------------------|------------------------------|--------------------------------------|--------------------------------------|------------|
| Schedule (MW) | 300 | 200 | 500 | 500 | 1500 |
| “Schedule for period of GD” (MW) | 0 | 0 | 250 | 500 | 750 |
| ISGS to pay to DSM pool for (MW) | 300 MW @STOA Contract Rate | 200 MW @ ACP certified by PX | Shall be governed as per IEGC 6.5.17 | Shall be governed as per IEGC 6.5.17 | |
