Procedure for

Collection of data and information for Determination of Inter-State Transmission Charges and Losses

In compliance of

Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 and First Amendment thereof

September, 2023



The Implementing Agency (National Load Despatch Centre)

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1.0 Outline

- 1.1. This Procedure is made in compliance of Regulation 3(4), 9(2), 23(4) of the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 and amendments thereof, herein after referred to as "Sharing Regulations 2020 and amendments thereof".
- 1.2. This procedure provides modalities for the collection of data and information by the Implementing Agency (IA) for sharing of inter-State transmission charges and losses as specified in the Sharing Regulations 2020 and amendments thereof.

2.0 The Implementing Agency

2.1 As per definition of Implementing Agency provided in Regulation 2 (1) (m) of Sharing Regulations 2020 and amendments thereof, National Load Despatch Centre (NLDC) is designated as the Implementing Agency till the time such other agency designated by the Commission to undertake various functions under these Regulations.

3.0 Procedure for collecting data and information by Implementing Agency

3.1 As per Regulation 23(4) of the Sharing Regulations 2020 and amendments thereof, the Implementing Agency (IA) shall publish detailed procedures along with data formats for collection of data and information from Designated ISTS Customers (DICs), ISTS Licensees, Regional Load Despatch Centres (RLDCs), State Load Despatch Centres (SLDCs), Central Transmission Utility (CTU) and State Transmission Utility (STUs) / non-ISTS licensees whose assets have been approved by CERC as being used for inter-State transmission, for Implementation of the provisions of Sharing Regulations 2020 and amendments thereof after stakeholder consultation.

4.0 Relevant definitions from the Regulations

- 4.1 'Basic Network' means the power system at voltage levels of 110 kV and above containing all the power system elements including generating station and transmission systems;
- 4.2 'Billing month' means the month in which bills for transmission charges are raised by the Central Transmission Utility in accordance with these regulations;
- 4.3 'Billing period' means the month for which bills are raised in a billing month by the Central Transmission Utility;
- 4.4 'Designated ISTS Customer' or 'DIC' means the user of any transmission element(s) of the Inter-State Transmission System (ISTS) and shall include generating station, State Transmission Utility (STU), distribution licensee including State Electricity Board or its successor company, Electricity Department of State and any other entity directly connected to the ISTS and shall include an intra-State entity or a trading licensee that has obtained; GNA or GNARE or T-GNA or T-GNARE to ISTS, as may be applicable.

- 4.5 'Drawee DIC' shall mean the DICs which draw power through ISTS but shall not include the ESS for the purpose of sharing of transmission charges under Regulations 5 to 8 of Sharing Regulations 2020 and amendments thereof.
- 4.6 'GNA Regulations' means Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 and any subsequent amendments or re-enactments thereof;"
- 4.7 'node' means a sub-station of a transmission system or a switchyard of a generating station and shall include injection node, drawal node and regional node;
- 4.8 'Peak block' means the block in which sum of net ISTS drawals by all States is maximum during the month;
- 4.9 'regional node' means an injection node or a drawal node which is under the control area jurisdiction of a Regional Load Despatch Centre;
- 4.10 'Yearly Transmission Charges' or 'YTC' means the annual transmission charges as determined or adopted by the Commission for the transmission elements of ISTS which have achieved COD upto the last day of a billing period, and for intra-State transmission lines used for Inter-State transmission of electricity as approved by the Commission;

5.0 Notification of Peak Block by IA

5.1 As per Regulation 24(2), Peak block for the billing period shall be published by IA, on its website on the first day of the month following the billing period.

6.0 Guidelines and modalities for submission of data to the IA

- 6.1 As per Regulation 3(4) of the Sharing Regulations 2020, Sharing of transmission charges for the DICs shall be based on the technical and commercial information provided by the DICs, Inter-State Transmission licensees, RLDCs, SLDCs and CTU to the Implementing Agency.
- 6.2 The guidelines and modalities for submission of data by all DICs, ISTS licensees, Deemed ISTS Licensees and owners of CERC approved non-ISTS lines, RLDCs, STU/SLDCs and CTU to the IA are detailed in para 6.4.

6.3 Data and information to be submitted by all DICs

- 6.3.1 All DICs shall submit the following data to the Implementing Agency as well as to the respective RLDCs by 7th day of each month following billing period in the prescribed formats enclosed with this procedure:
- Basic Network data along with the network connectivity diagram corresponding to peak block (an updated geographical power map/ single line diagram, indicating the lines which are kept open from end and bus split arrangement (if any).
- (ii) Total actual injection and withdrawal (MW and MVAr) data at various nodes or group of nodes for the notified peak block of the billing period.
- (iii) Details of GNA and GNA-RE for the billing period.

- 6.3.2 The Basic Network shall comprise of the entire electricity system, electrical plants and/ or transmission lines at voltage levels of 110 kV and above and all the generators connected upto 110 kV level corresponding to Peak Block identified and published by IA. In the States where voltage level next to 220 kV/ 230 kV system is 132 kV, data of entire network upto 132 kV level is to be furnished. Power flow into a lower voltage system from the voltage levels indicated in the definition of the Basic Network shall be considered as load at that sub-station. Power flow from a lower voltage system into the electricity systems at the voltage levels indicated in the definition of the Basic Network shall be considered as generation at that sub-station. However, there are certain DICs, like Chandigarh, which is connected only at 66 kV level. In order to represent these States/ Union Territories (UTs) in the basic network, network data upto such level shall be furnished by those DICs.
- 6.3.3 If any DIC fails to submit the data as required within the stipulated time frame, IA shall compute transmission charges based on the data available from other alternate sources as per Regulation 24(5) of Sharing Regulations 2020 and amendments thereof.

In case of drawee DICs, total drawal of a DIC shall be computed based on SEM data for the peak block. Where SEM data is not available, SCADA data shall be used. DIC should provide nodewise data as per the Regulations. Where DIC shall not provide nodewise data within stipulated time period, apportionment of loads in different nodes of DIC shall be considered in proportion to the node wise data submitted by DIC for the most recent TTC/ATC computation PSSE base case/ recently submitted updated base case data by the states for peak scenario.

- a. For a few cases, DICs are distribution licensees. For preparation of base case, nodewise data for all nodes in a State is required. There may be nodes which are not under control jurisdiction of a distribution licensee within the State such as injection data for generation within the State or drawal data at nodes not covered by any distribution licensee or such distribution licensee which has no Access with under ISTS. For such nodes, respective SLDC shall provide the actual injection and drawal data for the peak block within stipulated time period.
- In case of generation nodes, total generation of DIC shall be based on SEM data for peak block.
 Where nodewise data is provided by DIC, apportionment of generation in different generation nodes shall be in proportion to the node wise data submitted by DIC for the most recent TTC/ATC computation PSSE base case for peak scenario.
- c. In case non-availability of SEM data, SCADA data at the time of peak block shall be used. In case SCADA data is not available, TTC/ATC computation PSSE base case for peak scenario alone shall be the basis for considering node wise demand/generation.

6.4 Data and information to be submitted by all ISTS Licensees, owners of CERC approved non-ISTS lines being used as ISTS

- 6.4.1 The list of lines and system which forms a part of the ISTS Network for the billing period shall be furnished on or before the end of billing period by the owners of the following lines and system in the prescribed formats enclosed with this procedure:
 - (i) ISTS Lines and system
 - (ii) Non-ISTS Lines and system, whose tariff has been approved by CERC as they are being used as ISTS

- 6.4.2 The respective owners of lines and system shall provide the list of such lines and system to be considered for the sharing mechanism by the end of the billing period. In case of non-ISTS lines and system whose tariff has been approved by CERC as being used as ISTS, the owners shall also submit a copy of CERC approval (tariff order).
- 6.4.3 The YTC of the entire ISTS network along with the available YTC breakup of network elements shall be provided by the Inter-State Transmission Licensees, intra-state licensees, tariff for whose assets have been approved by CERC as being used for inter-State transmission.
- 6.4.4 In addition, all ISTS licensees or the generating company as the case may be, shall also provide the details of assets to be considered for bilateral billing under Clause (2) of Regulation 20 along with all relevant details to IA.
- 6.4.5 IA shall consider Monthly Transmission Charges (MTC) by multiplying number of days in a billing period with YTC per day of the corresponding year for all the licensees in the sharing methodology.
- 6.4.6 In case new transmission elements have declared COD during the billing period, the entities shall submit to the IA, network data, date(s) of commercial operation of the new transmission element and Yearly Transmission Charge of such transmission element in the format stipulated by the Implementing Agency, Trial Run operation certificate issued by RLDC, Copy of TSA (if any) by the end of the billing period.
- 6.4.7 In case any new transmission element has declared COD on last day of the billing period, the entity shall submit to the IA, network data, date(s) of commercial operation of the new transmission element and Yearly Transmission Charge of such transmission element in the format stipulated by the Implementing Agency by the first day of the month following billing period.
- 6.4.8 In case of a new transmission element that has declared COD during the billing period, while considering the YTC of the element in the computations for that billing period, Monthly transmission charges on pro-rata basis for the total number of days that element has existed in the network shall be considered under the sharing methodology for the billing period.
- 6.4.9 The Yearly Transmission Charges (YTC) of the new transmission elements, whose charges are to be recovered for which petitions for approval of Transmission Tariff have been filed in the Commission and for which provisional tariff have been approved by the Commission and COD of respective elements have already been achieved, shall also be submitted by the respective inter-State/ intra-state transmission Licensees whose tariff have been approved by CERC.
- 6.4.10 In case some of the transmission elements of the Associated Transmission System have achieved COD before the COD of Associated Transmission System, the YTC for such transmission elements of the Associated Transmission System shall be included, if such transmission elements are certified by the respective RPCs as required for improving the performance, safety and security of the grid. YTC of such transmission elements shall only be considered for a billing period on furnishing the details of RPC certification of the transmission elements to IA as per the stipulated time lines for furnishing data by the ISTS licensees as per this procedure.

6.5 Data and information to be provided by CTU

- 6.5.1 CTU shall provide the details of GNA and GNA-RE for the billing period, including the effective date of GNA and GNA-RE and the relevant sub-clause of Sharing Regulations,2020 and amendment thereof; referred for categorization of GNA as GNA-RE.
- 6.5.2 Details of GNA and GNA-RE:
 - i. As per Regulation 13(2) of Sharing Regulations 2020 and amendments thereof, Waiver of transmission charges for the use of ISTS shall be applicable for transactions under GNA and GNA-RE on fulfilling certain conditions.
- ii. Details of such GNA and GNA-RE shall be furnished by CTU to IA along-with supporting documents.
- iii. CTU shall provide the breakup of regional level GNA of HVDCs as given in the Annexure-I of GNA Regulations,2022 and amendments thereof.
- iv. CTU shall provide the details of regional entity generating stations which are connected to STU and ISTS or only STU system for computation of "Direct Drawal" as per Annexure-II of GNA Regulations and amendment thereof.
- 6.5.3 As per Regulation (5) (2), CTU shall identify and furnish the details of transmission systems to be considered under NC-RE component to IA.
- 6.5.4 CTU shall provide indicative cost for transmission lines for each conductor configuration at each voltage level to the Implementing Agency.
- 6.5.5 Data to be furnished for Regional Component of Transmission charges:
 - (i) As per Regulation 6(b) to Sharing Regulations 2020 and amendments thereof, CTU shall provide separate region wise YTC for static compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare reactors and any other transmission element(s) located in the concerned region and identified by the CTU as being critical for providing stability, reliability and resilience in the grid.
 - (ii) In case, separate YTC is not available for such transmission elements, worked out YTC for such elements apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost.
- 6.5.6 Data to be furnished for Transformers component:
 - (i) As per Regulation 7(1) to Sharing Regulations 2020 and amendments thereof, CTU shall provide a list of Inter- Connecting Transformers (ICTs) planned for the drawal of power by the concerned state along with the YTC of the transformers.
 - (ii) In case, YTC of ICTs for a state are not available, worked out YTC for such elements apportioning Yearly Transmission Charges approved by the Commission for the integrated project, based on indicative capital cost shall be furnished.
- 6.5.7 Additional Data to be furnished by CTU for implementing Regulation (13) of Sharing Regulations 2020 and amendments thereof.
 - (i) As per Regulation 13(3) of Sharing Regulations 2020 and amendments thereof, where COD of a Connectivity grantee other than Renewable Power Park Developer is delayed on or before start

date of Connectivity in terms of GNA Regulations, and the Associated Transmission System has achieved COD, which is not earlier than start date of Connectivity, the Connectivity grantee shall pay Yearly Transmission Charges for the Associated Transmission System corresponding to Connectivity capacity which has not achieved COD:

Provided that where a Connectivity grantee is Renewable Power Park Developer and the generation capacity within the Renewable Power Park has not declared COD on or before start date of Connectivity in terms of GNA Regulations, and the Associated Transmission System has achieved COD, which is not earlier than start date of Connectivity, the Renewable Power Park Developer shall pay Yearly Transmission Charges for the Associated Transmission System corresponding to generation capacity which has not achieved COD:

Provided that Yearly Transmission Charges in respect of Associated Transmission System corresponding to the Connectivity capacity which have achieved COD shall be included for determination of transmission charges of DICs in accordance with Regulations 5 to 8 of Sharing Regulations 2020 and amendments thereof.

For each billing period, CTU shall furnish Connectivity details (date and quantum) along with other details of number of generation capacity/unit(s) declared COD, if any. In case of partly commissioned generation capacity, YTC details of ATS, YTC billed to generator (in case generation not commissioned/ partly commissioned), YTC to be considered in computation (in case generation commissioned/ partly commissioned) etc. to the IA as per the stipulated formats in this procedure.

(ii) As per Regulation 13(4) of Sharing Regulations 2020 and amendments thereof, where one or more of the transmission elements of the Associated Transmission System have achieved COD before the COD of the Associated Transmission System and the Connectivity grantee seeks part effectiveness of its Connectivity as per Clause (a) of Regulation 22.4 of GNA Regulations, Yearly Transmission Charges in respect of such transmission elements of the Associated Transmission System shall be included for determination of transmission charges of DICs in accordance with Regulations 5 to 8 of these regulations."

For each billing period, CTU shall furnish details of part effectiveness of Connectivity, details of ATS and associated elements of ATS to be included for determination of transmission charges of DICs etc. to the IA as per the stipulated formats in this procedure.

- (iii) As per Regulation 13(7) of Sharing Regulations 2020 and amendments thereof, for each billing period, in case CTU granted Connectivity to a Connectivity grantee on existing margins and COD of the generation capacity/ unit(s) is delayed, CTU shall furnish the details of Connectivity granted on existing margins, details of delayed generation capacity/unit(s) to the IA as per the stipulated formats in this procedure.
- (iv) As per Regulation 13(9) of Sharing Regulations 2020 and amendments thereof, for each billing period, for all applicable cases of dedicated transmission system, CTU shall furnish the YTC details of dedicated transmission line, quantum of Connectivity for the dedicated transmission line etc. to the IA as per the stipulated formats in this procedure.
- (v) CTU shall provide the data and information under clause 6.5.1, 6.5.2, 6.5.4 & 6.5.7 (iii) to IA within
 7 days of the end of the billing period & the balance data and information under clause 6.5 within
 10 days of the end of the billing period.

7.0 Timeline for submission of data for each billing period:

- a) Basic Network Data by DICs: with in first 7 days of each month following billing period YTC to be submitted by licensees: by the end of the billing period. (by first day of the month following billing period, in case, if any new asset is commissioned on the last day of the billing period).
- b) Nodal injection and Demand Data by DICs: with in first 7 days of each month following billing period.
- c) Data as detailed in Para 6.5 by CTU: with in first 10 days of each month following billing period.

8.0 Formats for Data submission to the Implementing Agency

- 8.1 Formats for data submission: The formats for data submission are described below:
- 8.1.1 Format I: Commercial data containing YTC of network elements: This format is to be filled by
 - (a) ISTS licensees
 - (b) Owners of deemed ISTS
 - (c) Non-ISTS licensees whose assets have been approved by CERC for being used as inter-State transmission system

Format - I consists of the following three parts:

Format I-A: Summary of Line wise YTC

Format I-B: Commercial data containing YTC of ISTS network elements Format I-C: Commercial data containing bilateral billing details of ISTS assets

8.1.2 Format – II: Commercial data to be furnished by CTU

Format II-A: Commercial data containing YTC of FACTS devices, Bus Reactors, Spare Transformers, Spare Reactors as identified by CTU

- Format II-B: Commercial data of Inter-Connecting Transformers (ICTs) planned for drawal of power by the concerned state
- Format II-C: Commercial data related to GNA and GNA-RE
- Format II-D: Commercial data related to GNA-RE details of exempted generation
- Format II-E: Commercial data of RE transmission network to be considered for NC-RE component
- Format II-F: Details of Indicative cost of transmission lines for available conductor configuration

Format II-G: This format has 4 nos. of sub-formats related to the additional details to be furnished

by CTU in order to implement Regulation (13) of Sharing Regulations 2020 and amendments thereof

Format II-H: details of regional entity generating stations which are connected to STU and ISTS or only

STU system for computation of "Direct Drawal" as per Annexure-II of GNA Regulations and amendment thereof

- 8.1.3 Format III: Existing Network data for load flow: This format is to be filled by
 - (a) ISTS licensees
 - (b) Owners of deemed ISTS
 - (c) Non-ISTS licensees with assets approved by CERC as being used for inter-State transmission of electricity
 - (d) State transmission utilities, SEBs or load serving entities
 - (e) Generators which are Regional entities
 - (f) Format III consists of the following six parts: Format III-A: Bus data
 - Format III-B: Generator data Format III-C: AC line data

Format III-D: Transformer/ ICT data Format III-E: HVDC line data Format III-F: Switched shunt data

Format III-G: FACTS devices data

All the columns in the formats are to be filled in 'per unit' values at the 100 MVA base and concerned base voltage without leaving any blanks.

Entities may also avail an option of sending updated PSSE base case with all the data filled as mentioned in Format-III indicating all the technical parameters instead of sending filled in formats of Format-III.

8.1.4 Format - IV: Actual injection/ demand data:

This format is to be filled by all the DICs.

Format IV-: Actual Nodal generation and Nodal demand data for peak block for the purpose of preparation of representative base case.

8.2 Mode of data submission

The data shall be submitted through a web based application interface ('BRIQ') in which the formats are standardized. Each user shall be issued a login to the interface for the purpose of submitting the data as well as viewing the results.

Instructions for filling Format – I

- 1. Format-I is for commercial data containing line wise Yearly Transmission Charge (YTC). This is to be filled up by ISTS licensee, owners of deemed ISTS and owners of Non-ISTS licensees whose assets have been approved by CERC for being used as inter-State transmission system.
- 2. Only sky coloured cells are to be filled-up.
- 3. In YTC Details sheet, while filling up status of YTC; either FA (Finally Approved) or PA (Provisionally approved) or C (competitive bidding based) should be written depending on the position.
- 4. Section 6.4 of the procedure should be followed while filling-up the two sheets YTC Details and YTC Summary.
- 5. Date of Commercial Operation for only those lines which are commissioned by the end of the billing period.

FORMAT – I (A)

Commercial data containing summary of line-wise YTC

Name of the Transmission Licensee:	
Address:	
Contact Person	
Contact Number	

Voltage Level (KV)	Conductor Type	Ckt Kms	Total YTC (Rs Lakhs)
765			
400			
220			
132			
66*			

 * 66 kV if it is part of the ISTS, like Chandigarh, etc.

FORMAT – I (B)

Commercial data containing YTC of ISTS Network elements

Name of the Transmission Licensee:	
Address:	
Contact Person	
ContactNumber	

				In case	e of transmission li	ine				
SI. No.	Voltage Level (kV)	Name of ISTS Network element	Type of Network element	Type of Conductor	No. of sub- Conductors	Longth	YTC (`Lakhs per annum)	Status of YTC	r cution 1(0)	Date of Commercial Operation*

* Only for those lines which are commissioned by the end of the billing period

FORMAT – I (C)

Commercial data containing bilateral billing details of ISTS assets

Name of the Transmission Licensee/ Owners of Deemed ISTS Licensees	
Address:	
Contact Person	
Contact Number	

Sl.No.	Region	Voltage level (kV)	Name of transmission element	YTC (Rs. Lakhs/ annum)	Status of YTC	Reference (Approval Order/ Petition No)	Date of Commercial Operation	Name of the entity for Bilateral billing

Instructions for filling up the Format – II

Format II-A

- Format-II A is for commercial data containing region-wise YTC of static compensators (STATCOMs), static VAR compensators (SVCs), bus reactors, spare transformers, spare reactors and any other transmission element(s) located in the concerned region and identified by the CTU as per Para 6.5 of this procedure.
- 2. Only sky coloured cells are to be filled-up.
- While filling formats, sub-devices name and number of sub-devices columns shall be filled in case of STATCOMs and SVCs. For a device type, STATCOM, sub devices are STATCOM, MSR, MSC, Coupling Transformer and for a device type, SVC, sub devices are TCR, TSC, MSC, MSR, Coupling Transformer.
- 4. No sub-device wise YTC is required. YTC of complete device shall be filled.
- 5. Date of Commercial Operation for only those lines which are commissioned during the billing period.

Format II-B

- 1. Format II-B is for commercial data containing state-wise YTC of Inter-Connecting Transformers (ICTs) planned for the drawal of power by the concerned state.
- 2. Only sky coloured cells are to be filled-up.
- 3. Date of Commercial Operation for only those lines which are commissioned during the billing period.

FORMAT II-A

Commercial data containing YTC of FACTS devices, Bus Reactors, Spare Transformers, Spare Reactors as identified by CTU

S.No.	Name of ISTS Licensee	Voltage Level (kV)	Substation Name	Region	Name/ Type of the Equipment	Date of Commercial Operation	Total MVAR Capacity	YTC to be considered in computation (Rs. Lakh per annum)	YTC to be billed under bilateral charges (If any) (Rs. Lakh per annum)	Remarks

FORMAT II-B

Commercial data of Inter-Connecting Transformers (ICTs) planned for drawal of power by the concerned state

S.N o.	Name of ISTS Licensee	Voltage Rating	Transformation Capacity (MVA)	Name/ type of the element	Name of Sub-Station	Name of serving State-1	No. of Feeders serving State- 1	Name of serving State-2 (if applicable)	No. of Feeders serving State- 2 (if applicable)	Date of Commercial Operation	YTC (in Lakhs)	YTC to be billed under bilateral charges (If any)	Remarks

FORMAT II-C

Commercial data related to GNA and GNA-RE

	Details of General Network Access granted by CTU													
Sr. no.	Name of DIC	Region	GNA quantum (MW)	Effective date of GNA	Remarks									

FORMAT II-D

Commercial data related to GNA-RE details of exempted generation

S.No	Name of the Connectivity grantee	Region	Quantum of Connectivity Granted by CTU	Commissioned Connectivity Capacity	Date of Commercial Operation	Quantum of GNA	Effective date of GNA	Exempted quantum (in MW)	Sub-clause of Regulation 13(2) referred for exemption	Remarks	Pooling Station
1	CG	R	0	Х	D1	q(x)	d1	eq(x)			
T	CG	R.	Q	Y	D2	q(y)	d2	eq(y)			

FORMAT II-E

Commercial data of RE transmission network to be considered for NC-RE component

S.No.	Name of the ISTS Licensee	Voltage level	Project Name	Asset name	Equipment type	Line name	In case	In case of Transmission line			YTC to be considered for NC-RE	YTC to be billed under bilateral charges(if any)	Reference (Approval Order/ Petition No)	Date of Commercial Operation	Remarks
							Type of Conductor	No. of sub- Conductors	Line Length (ckt km)						

FORMAT II-F

Details of Indicative cost of transmission lines for available conductor configuration

SI. No.	Voltage level (kV)	Type of conductor configuration	Indicative cost (Rs.Lakh/km)

FORMAT II-G(1)

In compliance of Regulation 13(3)

S.No.	Name of the Transmission		Details of Con	nectivity grantee			Details of Ass	ociated	transmissi	on system (A	TS)	YTC to be billed to Connectivity	YTC to be considered under computations	Remarks
3.110.	Licensee	Name of Connectivity grantee	Connectivity granted by CTU (MW)	Commissioned Connectivity Capacity	Date of Commercial Operation	Voltage level (kV)	Name of Transmission element	Ckt (Km)	YTC (Rs. Lakhs/ annum)	Reference (Approval Order/ Petition No)	Date of Commercial Operation	grantee (Rs.Lakhs/ Annum)	(Rs. Lakhs/ Annum)	

FORMAT II-G(2)

In compliance of Regulation 13(4)

		Deta	ails of Connec	tivity grantee				Details of Associate	ed transm	iission syste	m (ATS)	
SI.No.	Name of Connectivity grantee	Installed Capacity (MW)	Date of Commercial Operation	Connectivity granted (MW)	Part Operationalization of Connectivity capacity (MW)	Voltage level (kV)	Name of transmission element	Status of COD (Commissioned(C)/ Not Commissioned(NC)) (As on date of Part Operationalisation of Connectivity capacity)	YTC (Rs. Lakhs/ annum)	Reference (Approval Order/ Petition No)	Date of Commercial Operation	Asset considered in part operationalization of Connectivity capacity (Y/N)

FORMAT II-G(3)

In compliance of Regulation 13(7)

S	SI.No.	Name of Connectivity grantee	Connectivity granted by CTU (MW)	Date of Connectivity granted	Commissioned Connectivity Capacity(MW)	Date of Commercial Operation	Delayed Connectivity capacity(MW)	Remarks
		CG	0	D	q1	d1		
	1		~	-	q2	d2		

FORMAT II-G(4)

In compliance of Regulation 13(9)

		Detail	s of Connectivit	y grantee				Details o	f dedicat	ted transmi	ssion system			
SI. No	Name of Connectivity grantee	Quantum of Connectivity granted (MW)	Date of Connectivity granted	Commissioned capacity(MW)	Date of Commercial Operation	Name of Dedicated transmission line	Owned by ISTS licensee	Voltage level (kV)	Ckt (Km)	YTC (Rs. Lakhs/ annum)	YTC to be billed to concerned Generator (Rs. Lacs/ Annum)	YTC to be considered in computation (Rs.Lacs/ annum)	Reference (Approval Order/ Petition No)	Remarks

Details of Regional Entity generating stations connected to STU and ISTS or only STU network as per GNA (First Amendment) Regulations,2023 for computation of "Direct Drawal"

Sr. no.	Generating Station	Region	Installed Capacity (MW)	Nature of Connection (ISTS and STU or only STU)	Date of Commercial Operation	Name of STU transmission line	Remarks

Instructions for filling-up the Format – III

- 1. Format-III is for network data. ISTS Licensees, owners of deemed ISTS as being used for inter State transmission and DICs whose assets are being considered in the Basic Network shall supply the network data.
- 2. There are seven data sheets, Format-II(A) to Format-II(G) to be filled-up containing Bus Data, Generator Data, AC Line Data, Transformer Data, DC Line Data, Switch Shunt Data, FACTS devices data and one sheet with Agency details who submits data.
- 3. Only sky coloured cells are to be filled-up.
- 4. Section 6.3 of the procedures may also be referred for filling up the formats.
- 5. While filling Format-IIIG, sub-devices name and number of sub-devices columns shall be filled in case of STATCOMs and SVCs. For a device type, STATCOM, sub devices are STATCOM, MSR, MSC, Coupling Transformer and For a device type, SVC, sub devices are TCR, TSC, MSC, MSR, Coupling Transformer.
- 6. Date of Commercial Operation for only those lines which are commissioned during the billing period.

FORMAT III-A

Submission of network data for Load Flow Study

Details of ISTS licensee/ owner of deemed ISTS/ DIC whose assets are included in

basic network

Name of the data submitting Agency	
Whether ISTS licensee/deemed ISTS owner/DIC	
Address	
Contact Person	
Contact Number	

Network data for Load Flow Studies

Information to be submitted by ISTS licensee/deemed ISTS owner/ DIC

Date of		Base		Shunt Ad	mittance	In service/ Out of
Commercial Operation	Bus Name		Bus Type *	Conductance (MW)	Susceptance (MVAR)	service during Peak Block

Note: Bus Type

1 - Load Bus

2 - Generator Bus

3 - Swing Bus

Network data for Load Flow Studies

Information to be submitted by ISTS licensee/deemed ISTS owner/ DIC

Co	te of mmercial	Bus	Machine Identifier	MW Output	Max	Min	MVAR Output	Max MVAR	Min MVA	Voltage	Remote Controlled Bus Index	MVA		Machine Impeda on MB	ance (pu	Step up T Impe (pu on)	ransformer dance MBASE)		
Ор	eration	Name	(ID)	(PG)	MW (PT)	MW (PB)	(QG)	(QT)	R (QB)	Set point (VS)	(IREG)	(MBAS E)	In service/ Out of service during peak block	Resistan ce (ZR)	Reactan ce (ZX)	Resistance (RT)	Reactance (XT)	Off Nominal Tap Ratio	RMPC T

Network data for Load Flow Studies Information to be submitted by ISTS licensee/ deemed ISTS owner/ DIC

Date of Commercial Operation	From Bus Name	To Bus Name	Ckt ID	Length	Owner	Type of Line (NISTS/ AISTS/	Line configuration	Shu	Shunt Admittance		(Operational	Limits	Par	ectric amet Per U	ters	In service/ Out of service during peak block	
						STS)			From BusTo BusGBG		SIL	Thermal loading	Emergency loading	R	x	В		
								G			В	Limit	Limit	limit				
													•					

Network data for Load Flow Studies Information to be submitted by ISTS licensees/deemed ISTS owners/ DICs

Date of Commercial Operation	From Bus Name	To Bus Name	Ckt ID	In Service/ Out of service during Peak Block	Rate A	Rate B	Rate C	Nominal Tap Ratio	Transformer Phase shift angle	Resistance (R)	Reactance (X)	Controlled Bus	Max. Turns Ratio	Min Turns Ratio	Max Controlled Volts	Min Controlled Volts	Turns Ration Step Increment	Table

FORMAT – III (E)

Network data for Load Flow Studies Information to be submitted by ISTS licensee/ deemed ISTS owner/ DIC

Date of Comme rcial Operati on	DC Line Num ber	Cont rol Mod e	Resista nce	Curr ent or Powe r Dem and	Schedul ed Compou nded DC Voltage	Mod e Swit ch DC Volt age	Compou nding Resistanc e	Curr ent Mar gi n	Mete red end Code	Rectifier converter Bus number	Num ber of Brid ges	Max Recti fier firing angle	Mini m um Rectifi er firing angle	Rectifier Commut ating Transfor mer resistanc e, per bridge	Rectifier Commut ating Transfor mer reactanc e per bridge	Recti fier Prim ary Base AC Volta ge	Rectifie r Transfo rmer ratio	Rectifier Tap setting	Maxim um Rectifier Tap Setting	Minimum Rectifier Tap Setting	Rectifier Tap step	In Service/ Out of Service during Peak Block

FORMAT – III (F)

Date of Commercial Operation	Bus Name	Mode	In Service/ Out of service during Peak Block	Voltage Upper Limit	Voltage Lower Limit	Voltage Set point	N1	B1	N2	B2

Network data for Load Flow Studies Information to be submitted by ISTS licensee/deemed ISTS owner/ DIC

N: Steps for Block N

B: Admittance Increment of Block 1 in MVAR at 1.0 pu

FORMAT – III (G)

Technical data pertaining to FACTS devices

Name of the Transmission Licensee/ Owners of Deemed ISTS Licensees	
Address:	
Contact Person	
Contact Number	

Voltage Level (kV)	Substation Name	FACT Device Type	Sub Device Name	Voltage level of Sub Device	Total Number of Sub Devices	MVAR/ MVA Rating	In Voltage	Out Voltage	Slope (%)	Impedance (%)	Connection Type (Star, Delta), Vector Group

Instructions for filling-up Format-IV

FORMAT-IV

- 1. Format-IV is to be filled up by DICs with withdrawal / injection data.
- 2. Only green coloured cells are to be filled-up.
- 3. Withdrawal & injection figure of each node upto 110 KV level are to be entered.
- 4. In case of injection / withdrawal in a particular node, both data are to be entered against the said node.

Actual Injection / Withdrawal data corresponds to peak block at all nodes upto 110 kV Information to be submitted by DICs

Name of the DIC:				
Address				
Contact Person:				
Contact Number:				
E-Mail ID:				
	Block			

FINANCIAL YEAR							
Billing Period:							
		Date :					
SI. No.	Name of Node	Voltage level	Actual Withdrawal		Actual Injection		
			MW	MVAr	MW	MVAr	

FORMAT-IV