National Institute of Secondary Steel Technology

(Estd. By Ministry of Steel, Govt. of India)

Guidelines for Green Steel Certification

1. Objective

The purpose of this Guideline is to provide a transparent and standardized framework for:

- **Classification and certification** of steel products according to their greenhouse gas (GHG) emission intensity.
- **Implementation** of the Green Steel Taxonomy as per the Ministry of Steel Notification No. F. No. 1(6)-2024-ID-2 dated 23rd December 2024.
- **Facilitation** of low-carbon steelmaking practices in India in line with India's net-zero commitments (by 2070).

2. Scope

This guideline applies to:

- All **routes of steel production** (Blast Furnace–Basic Oxygen Furnace, Electric Arc Furnace, Induction Furnace, DRI, composite routes and standalone rolling Mill).
- **Finished steel products** produced and sold in India, for which carbon intensity can be measured and verified up to the **"finished steel" boundary** (Scope 1 + Scope 2 + limited Scope 3).

3. Term & Definition

Term	Definition
Emission Intensity (Ep)	Total GHG emissions (in t-CO_2e) per tonne of finished steel (tfs) produced by the plant in a financial year.
Emission Threshold (Et)	**2.2 t-CO_2e/tfs** as notified.
Greenness Percentage (G%)	Percentage by which a plant's emission intensity is lower than Et, calculated as: **G% = [(Et – Ep) / Et] × 100**
Green Steel	Steel with emission intensity less than 2.2 t-CO_2e/tfs
Star Rating	Classification level assigned to steel plants based on Ep value.

4. Classification and Star Rating

Green Steel is categorized into three certified tiers:

Rating	Emission Intensity Range (t-CO_2e/tfs)	Description
⭐⭐⭐⭐⭐	**< 1.6**	5-Star Green Steel (Very Low Emission)
⭐⭐⭐⭐	**≥ 1.6 < 2.0**	4-Star Green Steel (Moderately Low Emission)
⭐⭐⭐	**≥2.0 < 2.2**	3-Star Green Steel (Transition Level)

Note: *Thresholds shall be* ***reviewed every 3 years*** *by the Ministry of Steel.*

5. Eligibility Criteria

To apply for certification, the steel plant must:

i. Maintain **operational and production data** for the entire financial year.
ii. Must have finished product making facilities.

6. Certification process

Steel plants seeking Green Steel Certification are required to register with NISST through the Green Steel Portal, accessible via the link https://greensteelcertification.in/ provided on the NISST website.

The certification process involves the following steps:

1. **Register with NISST**: The interested steel plant must register on the Green Steel Portal and create a login ID and password.
   ***Note**: Each entity or plant operating under the same name or the same GST number but located at different locations must register separately on the Green Steel Portal.*

2. **Registration Fee**: A one-time registration fee of Rs. 10,000 + 18% GST is applicable per steel plant. The unit has to fill a registration form which includes plant name, plant address, GST, PAN details, and contact details of nodal person from plant as per Annexure-1.

3. **Application for Audit:** After getting registered, the Steel Plant applies for conducting of green steel audit by fill in the required plant facilities details for the Financial Year (FY) as per Annexure-2. After filling details for the FY, the Steel Plant submit audit fees as detailed below:
   - Audit Agency Fee: Rs. 95000/- + GST
   - Advanced Certification Fee: Rs. 25000/- + GST

4. **Audit Agency- BEE Empanelled Audit Agency to undertake M&V/Accredited Carbon Verification Agency (ACVAs) under Iron & Steel Sector:** Once the above fee is submitted, the system automatically assigns an BEE Empanelled Audit Agency/ACVAs agency to the plant through the Green Steel Portal. A system-generated work order will be issued to the Audit Agency, with a copy shared with the Steel Plant/Unit. Also one nodal officer of the NISST will be assigned to the plant for coordinating. The list of BEE Empanelled Audit Agency/ACVAs agency is available on the NISST web portal for reference. The audit agency team shall consist of following members:

Role in Project	***Required Nos.***	***Minimum Qualification***	***Minimum Experience/Requirements***
Team Leader	*1*	*Accredited Energy Auditor*	*Minimum 5 Nos of detailed Energy Audit, Energy Mapping/ Potential Assessment Study or similar experience*
GHG Lead Verifier	*1*	*GHG Lead Verifier*	*Minimum 10 projects in GHG Inventory, Life Cycle Assessment, CBAM Assessment or similar (Excluding CDM, all kinds of Offset projects)*
Sector Expert (Process)	*1*	*Engineer/ Diploma Engineer*	*15 years of process experience*
Member	*1*	*Certified Energy Auditor*	*5 years industrial/ Auditing experience/ similar experience*

Note:
- ✓ *If the team leader possesses sector expertise, the team may comprise of three (03) members.*
- ✓ *Selection of verification agencies shall be made from the BEE's empanelled list of auditing firms, authorized to conduct M&V and check verification activities under PAT Cycle VII for the Iron & Steel sector, as available on 27.03.2025 or any subsequent updated list on the BEE website at the time of verification.*

5. **Monitoring, Reporting & Verification (MRV):** The assigned **BEE Empanelled Audit Agency/ACVAs agency** will visit the plant to carry out MRV audit and subsequently prepare a brief MRV report, including calculation sheets and supporting documents, as per the format provided by NISST. This report will be submitted through Green Steel Portal to NISST by the agency after obtaining concurrence from the concerned plant, for further scrutiny by NISST. The verifying agency shall submit report with all the supported documents duly signed by the team leader. If any discrepancies are found in report during scrutiny, it will be resolved with auditor/steel unit and an updated report along with excel sheet shall be submitted to NISST on Green Steel Portal.
   Note: *The methodology for emissions MRV, as published by Bureau of Energy Efficiency (BEE) in the document 'Detailed Procedure for Compliance Mechanism under CCTS' in July 2024 (as amended up to date of certification), under Carbon Credit Trading Scheme (CCTS), as notified on 28 June 2023, shall be applicable.*

6. **Certification Issuance:** After acceptance of report by NISST, an invoice shall be raised to plant for submitting of green steel certification fee. After submitting the fee by plant, the green steel certificates and star ratings will be awarded to the plant after successful validation/scrutiny of the MRV report by NISST based on recommended finished steel tonnage/product verified by BEE Empanelled Audit Agency/ACVAs agency. The certificate will be issued to the concerned entity/plant within one month of the completion of document verification.

7. **Renewal and Validity:** The certificate shall be issued on yearly basis (financial year). In case the steel plants opt for MRV more frequently, then the certificate may be issued more than once in a year as per the requirement.

7. Fee Structure:

The following fees are applicable for obtaining Green Steel certification through NISST:

- **Registration Fee (to NISST):**
  ₹10,000 + 18 % GST per steel plant (one-time).

- **Audit Fee (to NISST):**
  ₹95,000 + 18 % GST per steel plant
  ₹25,000 + 18 % GST per steel plant (Advanced Certification Fee)

  Note:
  The Transportation, Lodging and boarding of Audit Agency during conduction of audit will be borne by steel plant seeking certification.

- **Certification Fee (to NISST):**
  ₹1,000 per 500 tonnes of finished steel certified based on successful validation of the MRV report by NISST. This amount will be adjusted against the advanced certification fee.

8. Timeline for Completion of Audit and Penalty Provision to defaulting auditor:

The Standard operating procedure (SOP) shall be followed as detailed in Annexure-3.

9. Criteria for allocation of units amongst the selected auditor/audit agency:

The criteria for allocation of units amongst the selected auditor/agency shall be detailed in Annexure-4.

10. Registry and Transparency

NISST shall maintain an online Green Steel Registry listing all certified plants and their star ratings on Green Steel Portal

11. Support and Assistance

For any technical or procedural assistance, plants may contact the NISST Helpdesk/concerned official (details provided below) or refer to the detailed User Manual available on the Green Steel Portal.

For any queries related to Green Steel Certification, please contact us:
Rahul Sharma: +91-9784809932
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Annexure-1

General Details of Plant:

Green-rated Steel Registration Form			
A.	**General Details of Plant**		**Description**
1	Name of the Unit		
2	i) Year of Establishment		
	ii) PAN No		
	ii) GST No		
	Type of Organisation (Limited / Public Ltd / Pvt. / Partnership / Proprietorship etc.)		
3	(i)	Complete address of Unit location **(including Owner/Chief Executive's name & designation)** with mobile, telephone & e-mail.	
	(ii)	Registered Office address (Including Contact Person Name, Mobile Number, telephone, & e-mail)	
	(iii)	Name of Nodal Person Contact Number of Nodal Person Email Id of Nodal Person	

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Annexure-2

Plant Facilities Details:

B.	Plant Details		
4	Manufacturing Facilities		
4(a)	Iron Making	Units	Annual production Capacity
i	Blast Furnace	Tonnes	
ii	COREX	Tonnes	
iii	DRI (Gas Based)	Tonnes	
iv	DRI (Coal Based)	Tonnes	
v	Pellet making	Tonnes	
vi	Beneficiations	Tonnes	
4(b)	Steel Making		
i	BOF	Tonnes	
ii	Electric Arc Furnace	Tonnes	
iii	Induction Furnace	Tonnes	
iv	Any other e.g. EOF, NOF	Tonnes	
4(c)	Casting Facilities		
i	Slab Casting	Tonnes	
ii	Bloom Casting	Tonnes	
iii	Billet Casting	Tonnes	
iv	Ingot Casting	Tonnes	
v	Near net shape casting	Tonnes	
vi	Finished Good Casting	Tonnes	
vii	Any Other (Please Specify)		
4(d)	Rolling Mill		
i	Flat Product Rolling	Tonnes	
ii	Long Product Rolling	Tonnes	
4(e)	Other Facilities (Please Specify)	Tonnes	
i	Sinter Plant	Tonnes	
ii	Ferro Alloys	Tonnes	
iii	Calcining Palnt	Tonnes	
iv	Coke Oven Plant	Tonnes	
v	Producer Gas Plant	Tonnes	
vi	Oxygen Plant	Tonnes	
vii	Any Other (Please Specify)	Tonnes	

C.	Finish Product Details		Annual Production Capacity	Whether BIS Certified (Yes/No)
i	Plate/HRAP Plate	Tonnes		
ii	Hot Rolled Coils/Sheets/Strips	Tonnes		
iii	Cold rolled Coils/Sheets	Tonnes		
iv	Corrugated sheets	Tonnes		
v	Coated sheets/coils (CP/GC/Colour etc.)	Tonnes		
vi	Tin Plates	Tonnes		
vii	Rails	Tonnes		
viii	TMT	Tonnes		
ix	Bars (Round, Square, Hexagonal etc.)/Bright Bars	Tonnes		
x	Wire rod	Tonnes		
xi	Wire	Tonnes		
xii	Structural (Angles/Channels/Sections/Beams etc)	Tonnes		
xiii	Skelp (Patra)	Tonnes		
xiv	Pipe (ERW/SAW/Seamless)	Tonnes		
xv	Heat Treated	Tonnes		
xvi	Forging	Tonnes		
xvii	Wheel	Tonnes		
xviii	Axle	Tonnes		
xix	Any Special Product	Tonnes		
xx	Any Others (Please Specify)	Tonnes		

D.	Source of Energy (Used in Plant)		Specify Quantity
i	Electricity (Please Specify Share in %)	Grid	
		Own Generation	
		Renewable	
ii	Type of Solid Fuel	Coal (Thermal or Coking Coal /pet coke etc.)	
iii	Type of Liquid Fuel	FO / Diesel / LSHS/HSHS etc.	
iv	Type of Gaseous Fuel	LPG/PNG/Syn Gas/ CNG/Coke Oven Gas etc.	
v	Type of Biofuel	Bio-mass / Bio-Char etc.	
vi	Type of solid waste	Shredded Tyres/ Plastic Waste etc.	
vii	Any Others (Please Specify)		

I/we undertake that the information supplied in the Form is accurate to the best of my knowledge.

Place: **Authorised Signature and Seal**

Date : **Name of Authorised Signatory**

Annexure-3

Standard Operating Procedure (SOP) for Green Steel Certification

1. Purpose

To outline the standard process and timelines for receiving, auditing, evaluating, and issuing Green Steel Certification to applicant steel plants.

2. Scope

This SOP applies to all applications received by the National Institute for Secondary Steel Technology (NISST) for Green Steel Certification.

3. Responsibility

- NISST Certification Division: Coordination, evaluation, and communication.
- Approved Audit Agency: Conducting audits and submitting reports.
- Applicant Plant: Submission of application facilitating the audit by Empanelled firm, supporting documents, and certification fee.

4. Procedure and Timeline

Step No.	Activity	Responsibility	Timeline
1	**Registration (One-Time)** – Request for registration to be received and recorded in the Green Steel Certification Register/Portal. Portal issues an confirmation mail with unique registration ID to the plant along with provisional receipt. **Note:** The Original Tax Invoice and Money receipt will be provided by Finance NISST to Steel Producers through the post. (within 7 working days)	NISST/Green Steel Portal	Within 1 working day
2	**Application of Audit -** Steel Plant fills in the required details for the Financial Year. After filling in details, the steel plant applies for the following fees: (i) Audit Agency Fee: ₹95,000 + GST (ii) Advanced Certification Fee: ₹25,000 + GST Based on submission of above fees, the portal issues an confirmation mail to the plant along with provisional receipt. **Note:** The Original Tax Invoice and Money receipt will be provided by Finance NISST to Steel Producers through the	NISST/Green Steel Portal	Within 3 days of receipt of audit application

	post. (within 7 working days)		
3	**Allocation of Audit Agency, Communication to Audit Agency and Steel Plant** –Once the above fee is submitted, the portal proceeds to audit agency assignment based on predefined logic. A system generation work order will be placed with the Audit Agency with a copy to the Steel Plant/Unit.	NISST/Green Steel Portal	Within 3 working day
4	**Applicant Steel Plant-** After the audit agency has been allotted, the plant must have the audit conducted by the assigned agency.	Steel Plant	Within 25 days of allotting the audit agency
5	**Conduction of Audit by Agency** – The audit agency will carry out the Green Steel Certification audit.	Audit Agency	
6	**Submission of Audit Report by Agency** – Audit agency will submit draft detailed report with data in prescribed Excel proforma through Green Steel Portal as per Green Steel Taxonomy.	Audit Agency	Within 10 days of conducting the audit
7	**Evaluation of Report and Preparation of Observations** – NISST reviews the audit report and excel proforma submitted by the Audit Agency. Any observations are recorded in the green steel portal chat box.	NISST/Green Steel Portal	Within 3-7 days of report receipt
8	**Communication of Observations / Query Addressal** –The observations in the chat box shall be addressed (by responding to all points raised) by the Audit Agency and resolved in consultation with the Auditor/Steel Unit.	NISST/Green Steel Portal / Audit Agency	Within 5 days of responding to the auditor
9	**Re-evaluation of Report/Excel Proforma** – NISST re-examines the revised report and verifies compliance.	NISST/Green Steel Portal	Within 2 days
10	**Final Submission of Report and Excel Proforma** – The Auditor/Audit Agency shall submit the final vetted version of report and excel to NISST through Green Steel Portal.	Audit Agency	Within 2 days
11	**Informing Steel Plant/Unit and Audit Agency –** Based on the final submission of the report and Excel proforma by the Audit Agency, the portal will notify the concerned Steel Plant/Unit and the Audit Agency via a confirmation email for finalization of the validated details. Any queries raised will be reviewed and resolved by the admin through the portal's chat system.	NISST/Green Steel Portal/Steel Palnt/Audit Agency	Within 2 days
11	**Intimation for Certification Fee Submission** – After report finalization, a system generated mail sent to Steel Plant/Unit for submission of balance certification fee	NISST/Green Steel Portal	Within 1 days

	(adjusted against the advanced certification fee). **Note:** The Original Tax Invoice and Money receipt will be provided by NISST Finance Department to Steel Plant/Unit through the post. (within 1 working days)		
12	**Receipt of Fee** – Confirmation of payment from Steel Plant/NISST Finance Department.	Steel Plant / NISST Finance Department	Within 1 days
13	**Issuance of Certificate** –Once payment is received after confirmation from NISST Finance Department, the certificate will be accessible to plant for download.	NISST/Green Steel Portal	Within 1 days

5. Total Estimated Duration

Approximately 60–63 working days from receipt of application to certificate issuance, subject to timely response from all parties.

6. Penalty Provision to the defaulting Auditor/Audit Agency

(i) Delay in Submission of Audit Report

If the Audit Agency fails to submit the draft audit report within the prescribed timeline, a penalty of 1% of the audit fee per day of unexplained delay, subject to a maximum of 20% of the total audit fee, shall be imposed.

(ii) Delay in Conduct of Audit

In case of unjustified delay in scheduling or conducting the audit after issuance of the work order on part of Audit agency, a penalty of ₹1,000 per day of delay, subject to a maximum of 10% of the audit fee, shall be imposed.

(iii) Non-Responsiveness / Repeated Delays

If the Audit Agency fails to respond to portal communications or causes repeated or cumulative delays exceeding 30 days, NISST may withdraw or cancel the work order and/or blacklist / suspend the Audit Agency from future assignments for a defined period.

Maximum Penalty Cap
The total penalty imposed under all clauses shall not exceed 30% of the total audit fee.

Recovery of Penalty
The penalty amount shall be adjusted against the payable audit fee.

Annexure-4

Criteria for allocation of units amongst the selected auditor/audit agency

The portal shall provide an automated mechanism for allocation of Audit Agencies based on the geographical region of the registered unit, namely Northern Region, Eastern Region, Southern Zone, and Western Zone. Audit Agencies shall be empanelled and mapped region-wise in the system (presently: Northern region - 9, Western region - 6, Southern region - 5, Eastern region - 4), which may be updated from time to time by the system administrator **(Table-1).**

Each Audit Agency shall be assigned a maximum of three (03) units at any given time to ensure equitable distribution of workload. Upon completion of registration and payment of applicable fees, the system shall first allocate the audit to an Audit Agency within the same region of the unit on a rotational and equal-distribution basis.

In case the initially allocated Audit Agency declines the assignment, the system shall automatically attempt reassignment to another available Audit Agency within the same region following the same capacity and rotation logic. Only when all Audit Agencies in the region have either reached maximum capacity or declined the assignment, the system shall reassign the audit to an Audit Agency in the nearest preferred region, as per the predefined regional priority order specified below.

The regional preference order for cross-region allocation shall be as follows(Table-2):

Northern Region: West → East → South
Eastern Zone: South → North → West
Western Zone: North → South → East
Southern Zone: East → West → North

All allocations and reallocations shall be system-driven, with automated notifications issued to the concerned Audit Agency and the registered unit. The assigned Audit Agency shall be enabled to access unit details, accept or decline assignments, upload audit reports, and update audit status through the portal, ensuring a fully automated, transparent, and efficient workflow with minimal manual intervention.

Table 1: Region wise distribution of Audit Agency

Region wise	S. No.	Audit Agency	State
Western Zone: Maharashtra, Gujarat, Goa, Dadar Nagar and Daman & Diu	1	A.R.S. Energy Auditors (Inactive)	Maharashtra
	2	Active Energy OPC Private Limited	Maharashtra
	3	Encon Education & Research Foundation	Maharashtra
	4	MITCON Consultancy and Engineering Services Ltd.	Maharashtra
	5	PPS Energy Solutions Pvt. Ltd.	Maharashtra
	6	Encon Sustainability Private Limited	Maharashtra
Eastern Zone: Chhattisgarh, Madhya Pradesh, Jharkhand, Bihar, Odisha, West Bengal, Assam, Arunachal	1	Audittech Industrial Services Private Limited	Chhattisgarh
	2	MCJ Energy Engineers Pvt. Ltd. (Inactive)	Chhattisgarh

Pradesh, Tripura, Meghalaya	3	Power Tech Consultants	Odisha
	4	BICON Consultants Private Limited	West Bengal
Southern Zone: Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu, Puduchhery	1	East Coast Sustainable Private Limited	Andhra Pradesh
	2	Siri Exergy & Carbon Advisory Services (P) Ltd.	Telangana
	3	Ensave Consultancy and Training Pvt. Ltd.	Tamil Nadu
	4	EES Audit Managements	Tamil Nadu
	5	NIN Energy India Private Limited	Tamil Nadu
Northern Zone: Jammu & Kashmir, Himachal Pradesh, Chandigarh, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, Delhi, Haryana	1	NITCON Limited (Inactive)	Chandigarh
	2	PGS Energy Services Private Limited	Haryana
	3	Ganges Consultancy	Uttar Pradesh
	4	Namdhari Eco Energies Pvt. Ltd.	Uttar Pradesh
	5	Padmashtdal Energy Services Pvt. Ltd. (Inactive)	New Delhi
	6	Federation of Indian Chambers of Commerce and Industry (FICCI)	New Delhi
	7	Bhagwat Technologies & Energy Conservation Pvt. Ltd	New Delhi
	8	Grant Thornton Bharat LLP	New Delhi
	9	Operative Save Urja	New Delhi
	10	Bureau veritas (India) Pvt Ltd	New Delhi
	11	Operative Energy Solutions	New Delhi

Table 2: Preference of Region

Preference	1st Preference	2nd Preference	3rd Preference	4th Preference
Northern Region units	Northern Region Audit Agencies	Western region Audit Agencies	Eastern region Audit Agencies	Southern region Audit Agencies
Eastern Region units	Eastern region Audit Agencies	Southern region Audit Agencies	Northern Region Audit Agencies	Western region Audit Agencies
Western region units	Western region Audit Agencies	Northern Region Audit Agencies	Southern region Audit Agencies	Eastern region Audit Agencies
Southern region units	Southern region Audit Agencies	Eastern region Audit Agencies	Western region Audit Agencies	Northern Region Audit Agencies