



The Director  
Bureau of Energy Efficiency  
Ministry of Power, Government of India  
4<sup>th</sup> Floor, Sewa Bhawan, RK Puram, New Delhi- 110066  
Kind Attn: - Shree Milind Deore

PSD/JSR/686 /2022  
Date: 29<sup>th</sup> June 2022

**Sub:** Submission of annual energy accounting report for Tata Steel Limited (TSL) License area Jamshedpur, for FY2021-22 (i.e. from April-2021 to March-22).

**Ref:** Bureau of Energy Efficiency (Manner and Intervals for Conduct of Energy Audit in electricity distribution companies) Regulations, 2021.

Dear Sir,

In view of the above-mentioned regulation, we would like to submit the Annual Energy Audit report for Tata Steel Limited (TSL) License area Jamshedpur, for FY2021-22 (i.e. April-2021 to March-2022).

Please Note, there are some inadvertent errors in the pro-forma which we have received from your office. We are also not able to change the formula in the pro-forma as the cells are locked. Few corrections are suggested for consideration please.

Sheet Name	Cell No.	Performance indicator	Changes Suggested
Summary Sheet	D10	Collection Efficiency	Suggested to keep the post decimal value up to 2 digits
	D11	AT & C loss (%)	
Infrastructure Details	F3 to F8, and F62 to F86	Suggested to enable Wrap Text option in the menu ribbon	
	D73, D79	Input energy to 33kV also include the power transfer to 11kV & below system as well input energy to 11kV system also includes power transfer to DT for LT distribution but same is not considered in formula.	
	C106	T&D Loss (%)	UoM is given as % but value coming as real number. Suggested to multiply the same by 100 to get the percentage value.
	C107	Distribution Loss (%)	
Division Wise Losses	X12	AT & C loss (%)	Suggested for keep the post decimal value up to 2 digits.
General	Suggested to provide option to hide Row & Column which are not required		

Kindly acknowledge the compliance of the directive

For and on behalf of Tata Steel Limited  
Thanking You.

(Saroj Kumar)  
Head LDC, Tata Steel Limited

**TATA STEEL LIMITED**

Jamshedpur 831 001 India

Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001

Tel 91 22 6665 8282 Fax 91 22 66657724

Corporate Identity Number L27100MH 1907PLC000260 Website [www.tatasteel.com](http://www.tatasteel.com)

## General Information


1	Name of the DISCOM	Tata Steel Limited		
2	i) Year of Establishment	26-08-1907 (As per PAN Card)		
	ii) Government/Public/Private	Private		
3	DISCOM's Contact details & Address			
i	City/Town/Village	Northern Town, Bistupur Jamshedpur Jharkhand 831001		
ii	District	East Singhbhum		
iii	State	Jharkhand	Pin	831001
iv	Telephone	0657-6652118	Fax	
4	Registered Office			
i	Company's Chief Executive Name	Mr. T V Narendran		
ii	Designation	Managing Director		
iii	Address	Bombay House 24 Homi Mody Street Fort		
iv	City/Town/Village	Mumbai	P.O.	
v	District	Mumbai		
vi	State	Maharashtra	Pin	400001
vii	Telephone	91 22 66658282	Fax	91 22 66658282
5	Nodal Officer Details*			
i	Nodal Officer Name (Designated at DISCOM's)	Mr. Saroj Kumar		
ii	Designation	Head LDC & Power Management, Electrical T & D		
iii	Address	Tata Steel Limited, Bistupur Jamshedpur		
iv	City/Town/Village	Jamshedpur	P.O.	Bistupur
v	District	East Singhbhum		
vi	State	Jharkhand	Pin	831001
vii	Telephone	0657-6645530	Fax	
6	Energy Manager Details*			
i	Name	Mr. Chintan Shah		
ii	Designation	Certified Energy Auditor	Whether EA or EM	EA
iii	EA/EM Registration No.	29694		
iv	Telephone	0657-6652311	Fax	
v	Mobile	9978836764	E-mail ID	chintan.shah@mitconindia.com
7	Period of Information			
	Year of (FY) information including Date and Month (Start & End)	1st April 2021 to 31st March 2022		



Performance Summary of Electricity Distribution Companies		
1	Period of Information Year of (FY) information including Date and Month (Start & End)	1st April 2021 to 31st March 2022
2	<b>Technical Details</b>	
(a)	<b>Energy Input Details</b>	
(i)	Input Energy Purchase (From Generation Source)	Million kwh 2889.16
(ii)	Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh 2751.76
(iii)	Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh 2675.32
(b)	Transmission and Distribution (T&D) loss Details	Million kwh 76.44 %
(c)	Collection Efficiency	% 100% (99.83%)
	Aggregate Technical & Commercial Loss	% 3% (2.95%)

I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.

Authorised Signatory and Seal

  
 Name of Authorised Signatory :- Saroj Kumar  
 Name of the DISCOM: - Tata Steel Limited  
 Full Address:- Northern town Bistapur, Jamshedpur,  
 Jharkhand 831001



Signature:-

Name of Energy Manager\*:

Registration Number:

**Chinta**  
**Certified Energy Auditor**  
**Bureau of Energy Efficiency, India**  
 EA - 29694

**Chintan Shah**  
**Certified Energy Auditor, EA - 29694**  
**Bureau of Energy Efficiency, India**

Seal

**Form-Details of Input Infrastructure**

1	Parameters	Total	Covered during in audit	Verified by Auditor in Sample Check	Remarks (Source of data)
i	Number of circles	1	1	1	1
ii	Number of divisions	1	1	1	1
iii	Number of sub-divisions	NA	NA		
iv	Number of feeders	4024	4024		GIS
v	Number of DTs	344	344		GIS
vi	Number of consumers	48501	48501		Sample verified frm SAP
<b>2</b>	<b>Parameters</b>	<b>66kV and above</b>	<b>33kV</b>	<b>11/22kV / 6.6 kV</b>	<b>LT</b>
a. i.	Number of conventional metered consumers	2			38005
ii	Number of consumers with 'smart' meters				
iii	Number of consumers with 'smart prepaid' meters				
iv	Number of consumers with 'AMR' meters	0	15	279	10200
v	Number of consumers with 'non-smart prepaid' meters				
vi	Number of unmetered consumers				
vii	<b>Number of total consumers</b>	<b>2</b>	<b>15</b>	<b>279</b>	<b>48205</b>
b.i.	Number of conventionally metered Distribution Transformers				
ii	Number of DTs with communicable meters		2	342	
iii	Number of unmetered DTs				
iv	<b>Number of total Transformers</b>	<b>2</b>	<b>2</b>	<b>342</b>	<b>0</b>
c.i.	Number of metered feeders				
ii	Number of feeders with communicable meters	2	66	1155	2801
iii	Number of unmetered feeders				
iv	<b>Number of total feeders</b>	<b>2</b>	<b>66</b>	<b>1155</b>	<b>2801</b>
d.	Line length (ct km)		1708		
e.	Length of Aerial Bunched Cables		84		
f.	Length of Underground Cables		1624		

3	Voltage level	Particulars	MU	Reference	Remarks (Source of data)
i	66kV and above	Long-Term Conventional	2,431	Includes input energy for franchisees <b>DVC 132 KV</b>	
		Medium Conventional	252.93		
		Short Term Conventional	46,386,310.86		
		Banking			
		Long-Term Renewable energy			
		Medium and Short-Term RE	21.06		
		Captive, open access input			
		Sale of surplus power	137.40		
		Quantum of inter-state transmission loss			
		<b>Power procured from inter-state sources</b>	2,889		
ii	33kV	<b>Power at state transmission boundary</b>	2,889		
		Long-Term Conventional			
		Medium Conventional			
		Short Term Conventional			
		Banking			
		Long-Term Renewable energy			
		Medium and Short-Term RE			
		Captive, open access input			
		Sale of surplus power	0		
		Quantum of intra-state transmission loss	0		
iii	33 kV	<b>Power procured from intra-state sources</b>	2,889		
		<b>Input in DISCOM wires network</b>			
iv	11 kV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
v	LT	Captive, open access input			
		Renewable Energy Procurement			
vi		Small capacity conventional/ biomass/ hydro plants Procurement			
		Sales Migration Input			
vii		Renewable Energy Procurement			
		Sales Migration Input			
viii		<b>Energy Embedded within DISCOM wires network</b>	0		
		<b>Total Energy Available/ Input</b>	2,889		

4	Voltage level	Energy Sales Particulars	MU	Reference
i	LT Level	DISCOM' consumers	248	Include sales to consumers in franchisee areas, unmetered consumers
		Demand from open access, captive Embedded generation used at LT level		Non DISCOM's sales
		Sale at LT level	248	Demand from embedded generation at LT level
		Quantum of LT level losses	22	
ii	11 kV Level	Energy input at LT level	270.949	Balancing loss-~ 9.05%
		DISCOM' consumers	244	6.6 kv Sales (Asso Com+ unmetered consumers)
		Demand from open access, captive Embedded generation at 11 kv level used		Non DISCOM's sales
		Sales at 11 kv level	244	Demand from embedded generation at 11kv level
iii	33 kV Level	Quantum of Losses at 11 kv	7	
		Energy input at 11 kv level	250.274	Theoretical loss- ~2.7% (unmetered consumers)
		DISCOM' consumers	1,809	15 -in Assoc. Company
		Demand from open access, captive Embedded generation at 33 kv or below level		Non DISCOM's sales
iv	> 33 kV	Sales at 33 kv level	6	This is DISCOM and OA demand met via energy generated at same voltage level
		Quantum of Losses at 33 kv	1,809	
		Energy input at 33kv Level	43	
		DISCOM' consumers	1852.653	Theoretical loss- ~2.4% (unmetered consumers)
		Demand from open access, captive Cross border sale of energy	374	HT-IV+Tata Steel UJSI
		Sale to other DISCOMs		
		Banking		
		Energy input at > 33kv Level	374	
		<b>Total Energy Requirement</b>	<b>2,752</b>	
		<b>Total Energy Sales</b>	<b>2,675</b>	

**Energy Accounting Summary**

5	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
i	LT	270.949	248	22.486	9.05%
ii	11 kv	250.274	244	6.580	2.70%
iii	33 kv	1852.653	1,809	43.422	2.40%
iv	> 33 kv	377.667	374	3.739	1.00%
6	Open Access, Captive	Input (in MU)	Sale (in MU)	Loss (in MU)	
i	LT				
ii	11 kv				
iii	33 kv				
iv	> 33 kv				

Loss Estimation for DISCOM	
T&D loss	76
D loss	76
T&D loss (%)	0.027703182
D loss (%)	0.027703182

Details of Division Wise Losses (See note below)\*\*

Division Wise Losses

Period From 1st April 2021 to 31st March 2022

S.No	Name of circle	Circle code	Name of Division	Consumer profile				Energy parameters				Losses		Commercial Parameter			AT & C loss (%)				
				Consumer category	No of connection metered (Nos)	No of connection Un-metered (Nos)	Total Number of connections (Nos)	% of number of connections	Connected Load metered (MW)	Connected Load Un-metered (MW)	Total Connected Load (MW)	% of connected load	Input energy (MU)	Metered energy	Unmetered/a assessment energy	Total energy		% of energy consumption	T&D loss (MU)	T&D loss (%)	Billed Amount in Rs. Crore
1	Jamsheerput	NA	Residential	37459	0	0	37459	77%	248.30938	0	248.309375	34%	258.0759	0	258.0759111	10%	0	0	122.36673	122.373278	100.01%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	39.9042026	39.9648999	100.15%
			Commercial/Industrial-LT	10400	0	0	10400	21%	64.49445	0	64.49445	9%	63.68291	0	63.68290726	2%	0	0	1500.5778	1497.61932	99.80%
			Commercial/Industrial-HT	161	0	0	161	0%	416.7903955	0	416.7903955	57%	2345.664	0	2345.664	88%	0	0	4.741998	4.73708624	99.90%
Others	481	0	0	481	1%	1.668	0	1.668	0%	7.894212	0	7.894212313	0%	0	0	1667.59074	1664.69458	99.83%			
	Sub-total		48501	0	0	48501	100%	731.26222	0	731.262223	100%	2751.755	0	2675.317031	100%	0	0			3%	
2			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	
3			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	
4			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	
5			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	
6			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	
7			Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Agricultural	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-LT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
			Commercial/Industrial-HT	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0.00%
Others	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0	0	0	0.00%		
	Sub-total		0	0	0	0	0%	0	0	0	100%	0	0	0	0%	0	0	0	0	0.00%	

76	Total	37459	0	0	37459	77%	248.30938	0	248.3093775	34%	258.0759	0	258.0759111	10%	122.36673	122.373728	-0.01%
	Residential	0	0	0	0	0%	0	0	0	0%	0	0	0	0%	0	0	0.00%
	Agricultural	10400	0	10400	10400	21%	64.49445	0	64.49445	9%	63.68291	0	63.68290726	2%	39.9042026	39.9648999	100.15%
	Commercial/Industrial-LT	161	0	161	161	0%	416.7904	0	416.7903955	57%	2345.664	0	2345.664	88%	1500.5778	1497.61932	99.80%
	Commercial/Industrial-HT	481	0	481	481	1%	1.668	0	1.668	0%	7.894212	0	7.89421313	0%	4.741998	4.73708624	99.90%
	Others	48501	0	48501	48501	100%	731.26222	0	731.262223	100%	2751.755	0	2675.317031	100%	1667.59674	1664.69458	99.89%
77	At company level																3%

\*\* Note - It shall be mandatory to record the energy supplied separately for each category of consumers which is being provided a separate rate of subsidy in the tariff, by the state government, so that the subsidy due for the electricity distribution company is quarterly calculated by multiplying the energy supplied to each of such category of consumers by the applicable rate of subsidy notified by the state government.

Color code	Parameter
0	Please enter name of circle
0	Please enter circle code
0	Please enter numeric value or 0
0	Formula protected

I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.

Authorised Signatory and Seal

Name of Authorised Signatory: - *Sayoj Kumar*  
 Name of the DISCOM: *Tata Steel Limited*  
 Full Address: *Northern town Bistupur, Jamshedpur, Jharkhand - 831001*

Signature: *[Signature]*  
 Name of Energy Manager:  
 Registration Number:

**Chintan Shah**  
 Certified Energy Auditor, EA - 29094  
 Bureau of Energy Efficiency, India

2.78%



A. Summary of energy input & infrastructure

S.No	Parameters	Period from April-23 00:00:00 to	Period to April-24 00:00:00	Remarks (Source of data)
A.1	Input Energy Purchased (MU)	0	0	Internal MIS Data
A.2	Transmission Loss (MU)	0	0	Internal MIS Data
A.3	Energy sold outside the periphery (MU)	137.40	0.00	Internal MIS Data
A.4	Open access sale (MU)	0	0	Internal MIS Data
A.5	EHT sale	2751.76	0	Internal MIS Data
A.6	Net input energy (received at DISCOM periphery or at distribution point) (MU)	0	0	Internal MIS Data
A.7	Is 100% metering available at 66/33 kV (Select yes or no from list)	Yes	Yes	Internal MIS Data
A.8	Is 100% metering available at 11 kV (Select yes or no from list)	100%	100%	Internal MIS Data
A.9	% of metering available at DT	100%	100%	Internal MIS Data
A.10	% of metering available at consumer end	100%	100%	Internal MIS Data
A.11	No. of feeders at 66kV voltage level	66	66	Internal MIS Data
A.12	No. of feeders at 33kV voltage level	1155	1155	6.6 kv data is provided because 11kv line is not
A.13	No. of feeders at 11kV voltage level	2801	2801	Internal GIS Data
A.14	No. of T feeders level	0	0	Internal GIS Data
A.15	Line length (cat. km) at 66kV voltage level	127.9	127.9	Internal GIS Data
A.16	Line length (cat. km) at 33kV voltage level	793.43	793.43	6.6 kv data is provided because 11kv line is not
A.17	Line length (cat. km) at 11kV voltage level	764.852	764.852	Internal GIS Data
A.18	Line length (km) at LT level	84	84	Internal GIS Data
A.19	Length of Aerial Bunched Cables	3.84	3.84	Internal GIS Data
A.20	Length of Underground Cables	0.83	0.83	Internal GIS Data
A.21	HT/LT ratio			

B. Meter reading of input energy at injection points

Slno	Zone	Circle	Voltage Level (kVA)	Division (kVA)	Sub-Division (kVA)	Feeder ID	Feeder Name	Metering Status (Metered/Unmetered/AMI/AMR)	Status of Meter (Functional/Non-Functional)	Metering Date (Date of last actual meter reading/communication)	Koder Type (Agr/ Industrial/ Fixed)	Status of Communication			Total Number of items in the period	Meter S.No	Period from...		Remarks (Source of data)	
												% data received intelligibly at feeder (AMR/AMI)	Number of hours meter was available in communication in period	Number of hours communication in period			CT/PT ratio	Import (MU)		Export (MU)
B.1	Jamshedpur	Jamshedpur	400 kv	Jamshedpur			DVC 400 kv	Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data
B.2	Jamshedpur	Jamshedpur	33 kv	Jamshedpur			DVC 33 kv	Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data
B.3	Jamshedpur	Jamshedpur	33 kv	Jamshedpur			TPCL UP2	Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data
B.4	Jamshedpur	Jamshedpur	33 kv	Jamshedpur			Transfer from captive	Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data
B.5	Jamshedpur	Jamshedpur	33 kv	Jamshedpur			Open Access	Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data
B.6	Jamshedpur	Jamshedpur	400 kv	Jamshedpur				Metered	Functional	31st March 24:00 hrs	Industrial	% data received intelligibly at feeder (AMR/AMI)	0 Hrs	0 Hrs	0 Hrs	0	0	0	0	Internal MIS Data

B.1.001	Total (MU)	2689.16	337.40	2751.76
B.1.002	Net input energy at DISCOM periphery (MU)			

Color code	Parameter
	Please enter values based on meter type
	Please enter meter no or leave blank
	Enter meter no or leave blank
	Enter C/P/T ratio or leave blank
0	Please enter numeric value or 0
	Please select yes or no from list
	Formula protected

I/We undertake that the information supplied in this document and Pro-forma is accurate to the best of my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.

Authorized Signatory and Seal

Name of Authorized Signatory: **Sanoj Kumar**  
 Name of the DISCOM: **Tata Steel Limited**  
 Full Address: **Northrup town Bistapur**  
**Samskhalpur, Jharkhand, 831001**

Signature: 

Name of Energy Manager:  
 Registration Number:

**Chintan Shah**  
**Certified Energy Auditor, EA - 29694**  
**Bureau of Energy Efficiency, India**

Seal







