TATA STEEL
WeAlsoMakeTomorrow

TATA

CII National Award

Excellence in Energy Management 2022

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Tata Steel, Jamshedpur

Abstract from CEO & MD's

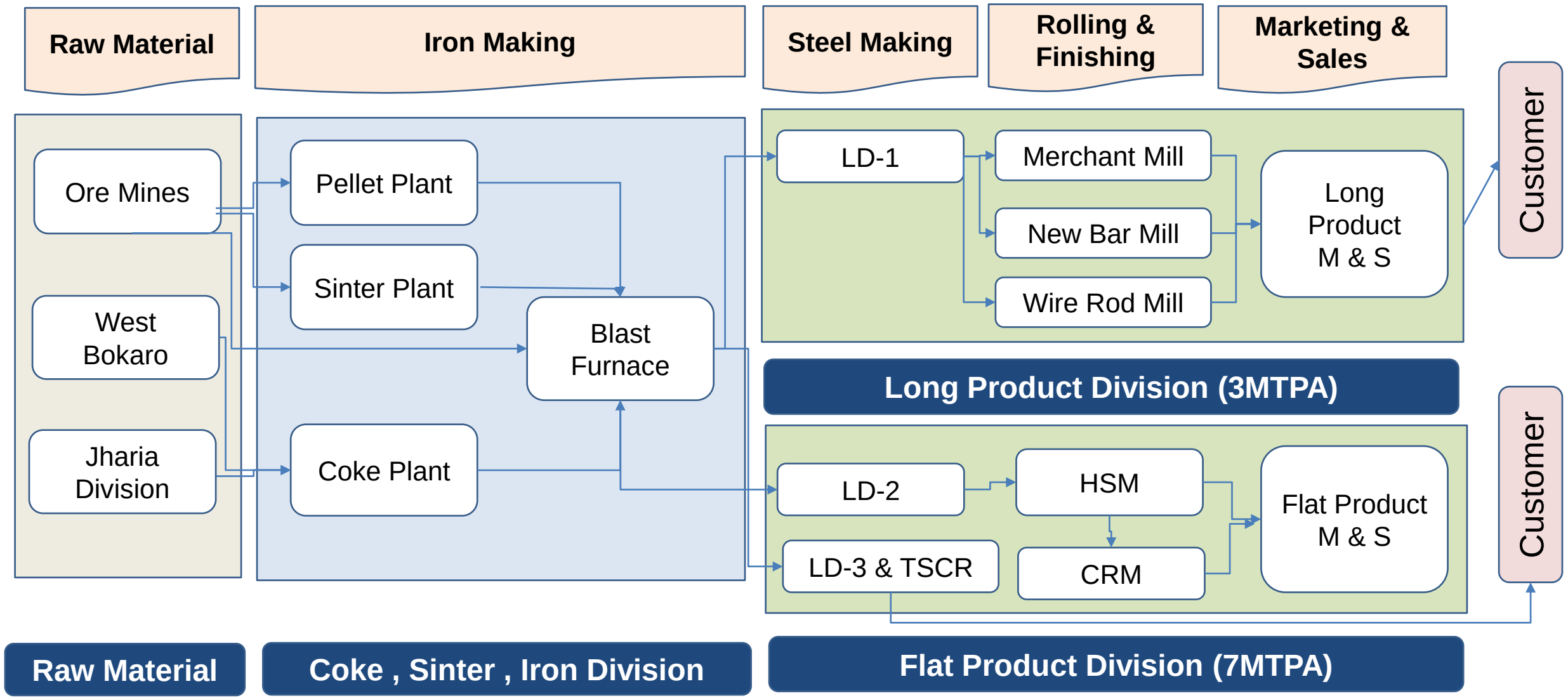
"Most Respected and Valuable Steel Company Globally" : Strategy 2030

Future ready Tata Steel - Structurally, Culturally and Financially Scale, Synergy and Simplification:

- 35-40 MTPA Capacity
- 4 Clusters (Mining, Downstream, Utilities & Infrastructure and Long Products)
- Simplification of processes (One IT, One Procurement, One Supply Chain etc.)

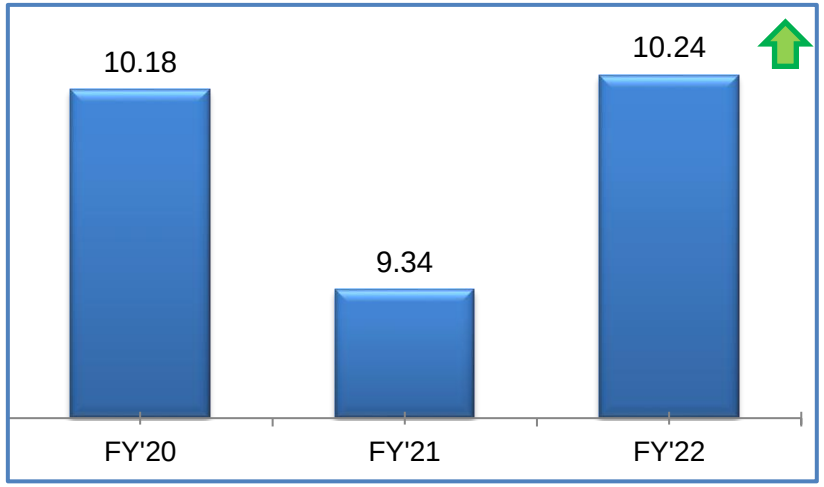
Mr. T V Narendran
CEO & Managing Director

Process Flow Diagram of Tata Steel Jamshedpur

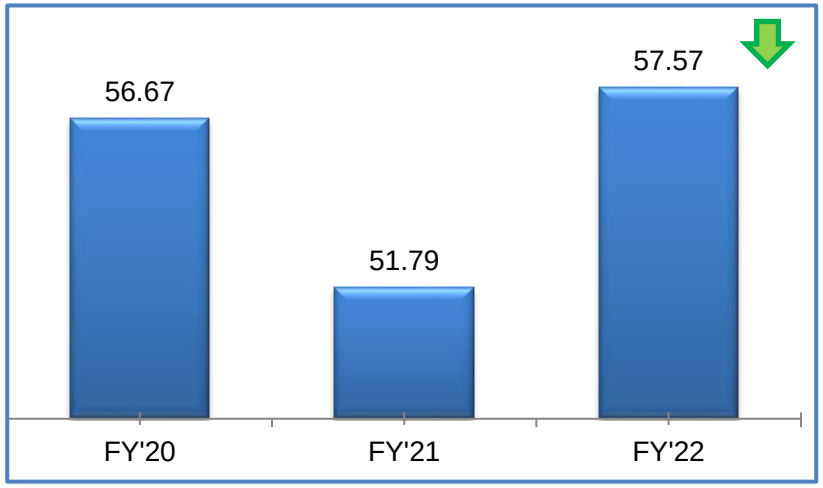


Production & Energy Scenario in Tata Steel

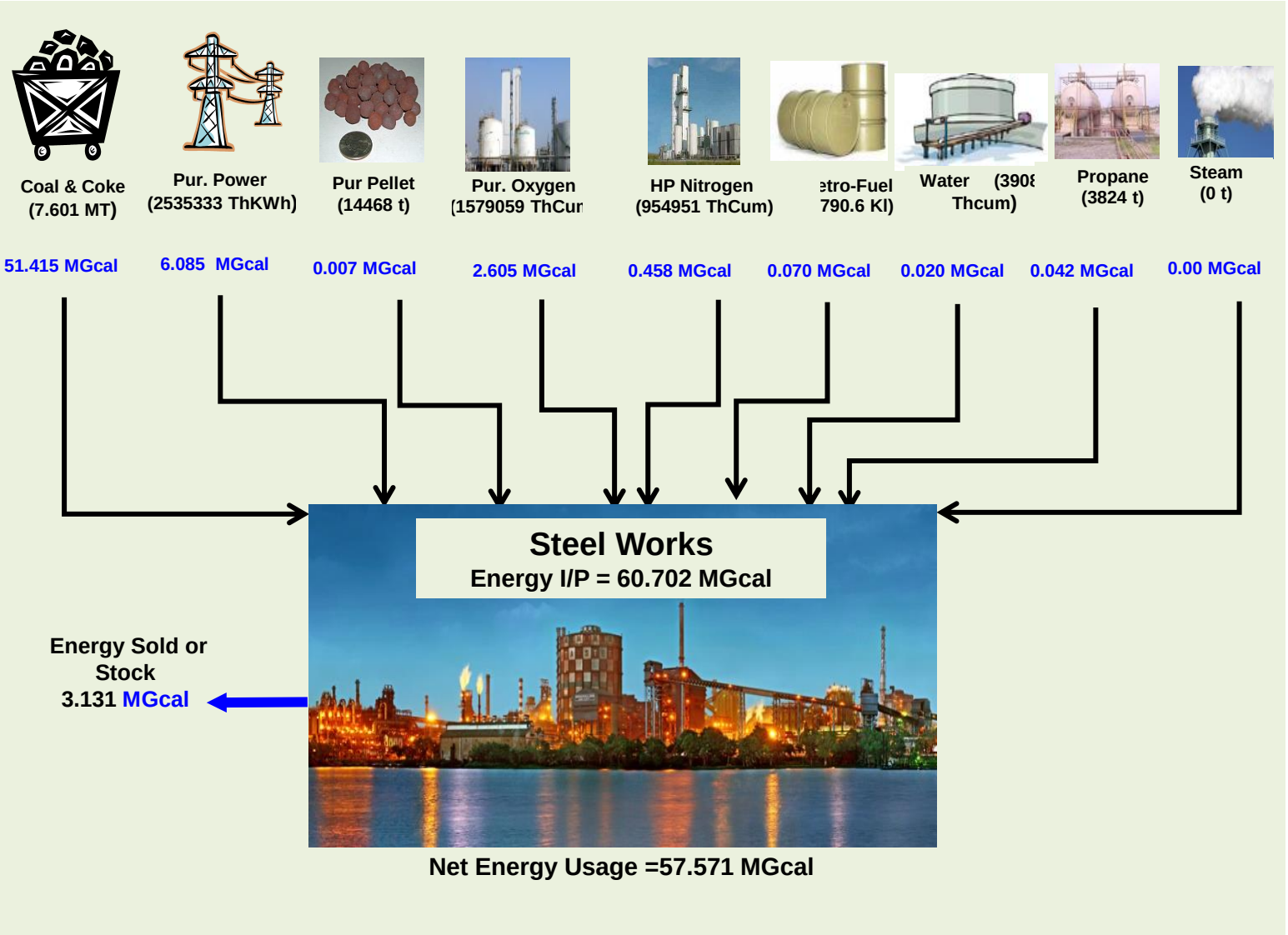
• Production Data (Crude Steel Production MT)



• Over All Energy Consumption (MGcal)

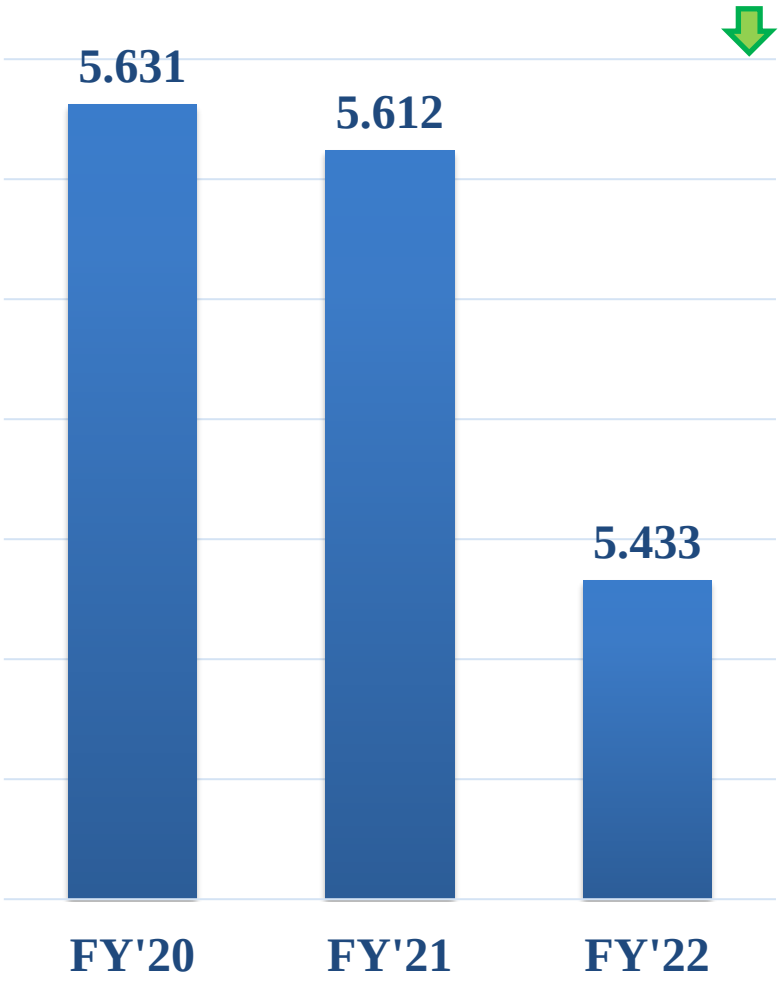


• Over All Energy Consumption



MT: Million Ton
M Gcal: Million Gigacalorie

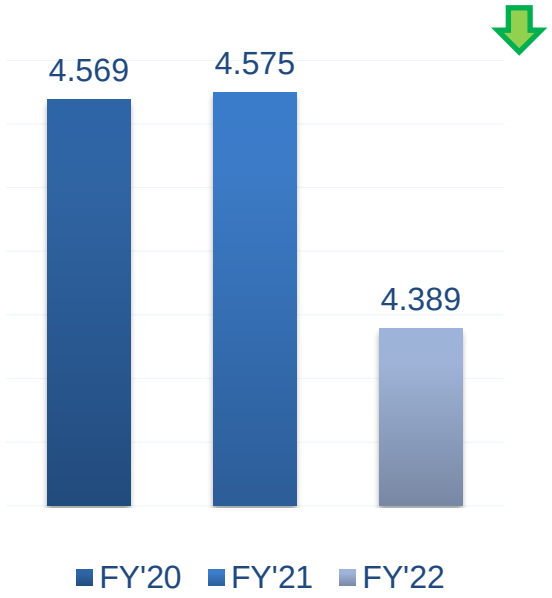
Specific Energy Consumption (SEC)



Items	Unit	FY'22	Previous Best	Year
Specific Energy consumption	Gcal/tcs	5.433	5.612	FY-21
Highest LD Gas Recovery	Nm3/hr	90422	75554	FY-21
Highest Power Generation	MW	274.72	248.68	FY-21
Higher Pooled Iron sale	KT	388.27	28.80	FY-21
Lowest fuel rate at HSM	Gcal/t	0.280	0.284	FY-20
Lowest fuel rate at TSCR	Gcal/t	0.157	0.160	FY-20
Lowest fuel rate at Lime Plant	Gcal/t	0.761	0.767	FY-21

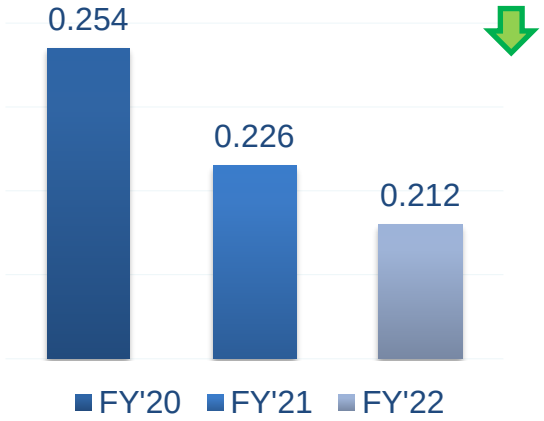
Reasons for variations

Iron Making



Coke Plant	Increase Total Coal carbonized	9.91%	↑
	Decrease CO Gas Yield	0.52%	↓
Blast Furnaces	Increase Hot Metal Production	8.8%	↑
	Decrease Fuel Rate	-0.71%	↓
Pellet Plant	Increase In house Pellet Production	13.31%	↑
	Decrease Fuel rate (Solid + Liquid +Gas)	-11.76%	↓
Sinter Plant	Increase in Sinter Production	8.89%	↑
	Increase Fuel rate (Solid + Gas)	9.12%	↑

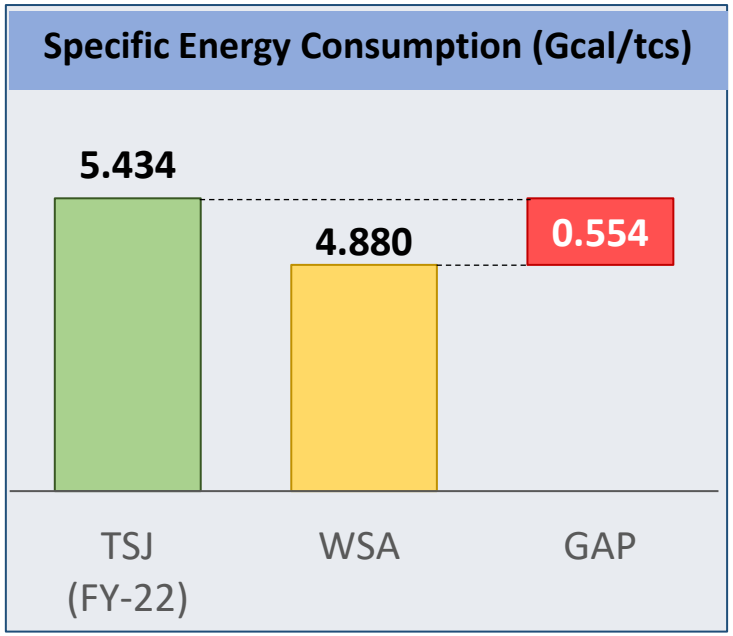
Steel Making



LD Shops	Increase Crude Steel Production	8.82%	↑
	Increase LD Gas Recovery	28.38%	↑
	Increase LD Gas Yield	28.43%	↑

Specific Energy Consumption of a WSA Reference Plant

WSA's Reference Plant : Values for the Reference Plant are developed on basis of energy use data collected from 60 sites around the world over a period of 5 years. Reference values of processes are determined as the top 20% of the analyzed plants.



Area	Ref. Plant	TSJ-FY'22	GAP
Coke Making	0.260	0.537	-0.277
Sinter Making	0.394	0.536	-0.142
Pellet Making	0.189	0.224	-0.035
Blast Furnaces	2.894	3.092	-0.198
Steel Making	0.176	0.212	-0.036
Rolling & Finishing	0.646	0.480	0.166
Boiler & Power Houses	0.151	0.159	-0.008
Auxiliaries & Losses	0.170	0.194	-0.024
Total	**4.880**	**5.433**	**-0.553**

Comparison of stage-wise energy consumption (unit in Gcal/tcs)

Information source: Energy Use in the Steel Industry – published by WSA

Reasons for difference between WSA Reference Plant & TSJ Energy Intensity

Reason for Performance Difference

Raw Material Selection

	WSA		TSJ
HM to CS Ratio(%)	0.915	vs	1.015
Coal Ash (%)	8.00	vs	7.20
Coke Ash (%)	10.4	vs	10.8
HM Silicon (%)	0.30	vs	0.47
Coal Cv (Gcal/t)	7.68	vs	6.80
Scrap Rate (kg/tcs)	113	vs	76

Structural Gap

- No TSCR at WSA Ref. Plant.
- No Benzole recovery at TSJ.
- No Section Mill at TSJ.
- No Plate Mill at TSJ.
- No captive O_2 Plant at TSJ.
- No Auxiliaries units such as Lime Plant, Shops at WSA Ref. Plant.
- Lower purchased power heat rate at WSA Ref. Plant.

Energy Eff. Technology Gap

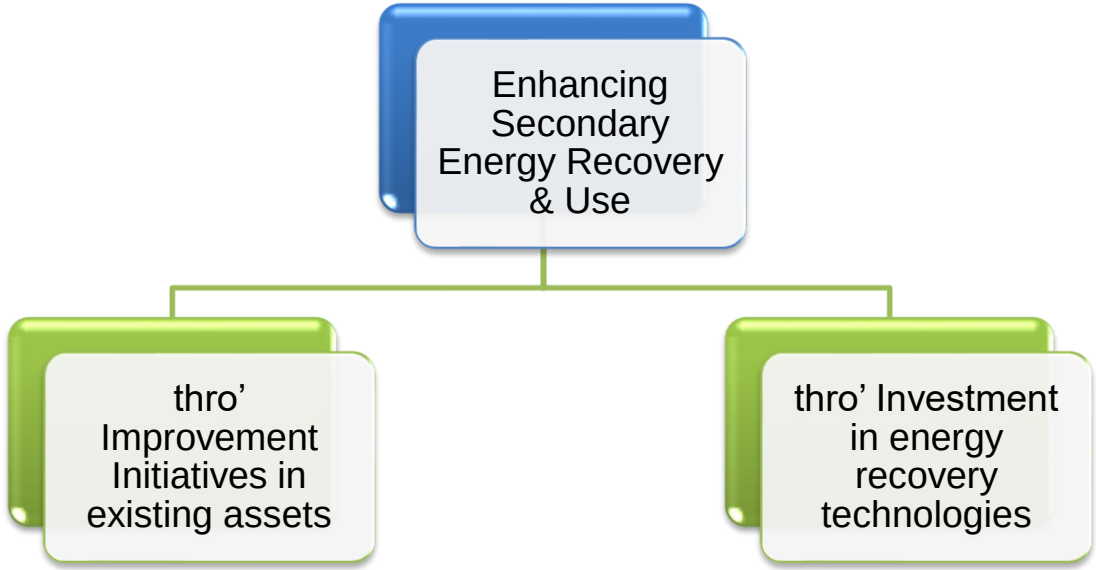
- NH_3 cracking plant heat recovery.
- COG sensible heat recovery.
- Coal Moisture Control.
- Fuel pre-heating at Coke Plant.
- Heat Recovery at NH_3 Incinerator.
- Heat Recovery from Sinter cooler.
- Heat recovery from BF/LD Slag.
- LD Gas sensible heat recovery.

Operating Efficiency Gap

- Gross Coke yield.
- Coal Tar yield.
- Yield of CO Gas.
- Yield of LD Gas.
- Fuel Rate at BF, SP & PP.
- Power Rate at CP & PP.
- TRT & CDQ Power Recovery.
- Process Steam Consumption.

Secondary Energy Recovery

Improving the conversion efficiency of secondary energy and enhancing its use will lead to increased recycling of secondary energy. This will have direct impact on Plant's Energy Intensity.



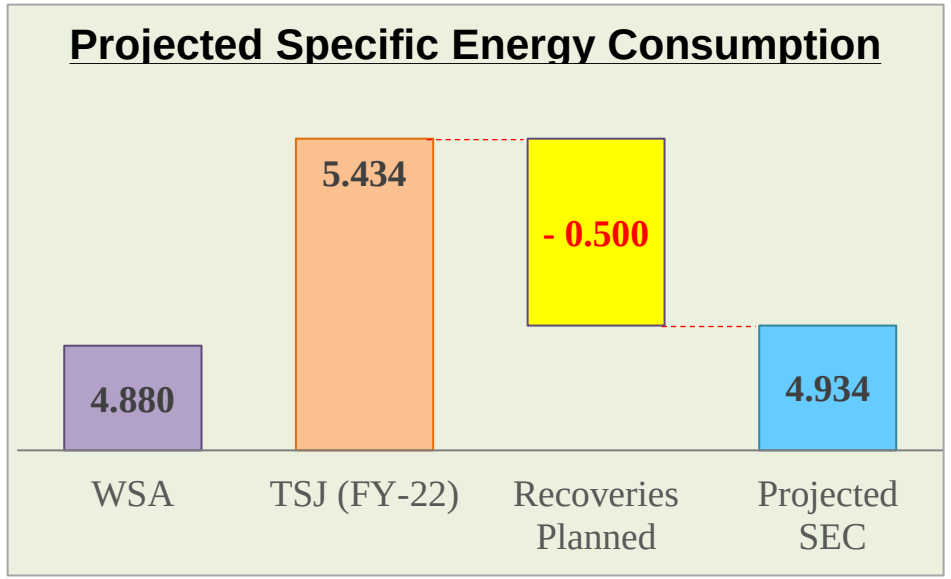
Recoverable	:	2.463	Gcal/tcs
Current Recovery	:	2.236	Gcal/tcs
GAP	:	0.227	Gcal/tcs

Recoverable	:	0.412	Gcal/tcs
Current Recovery	:	Nil	Gcal/tcs
GAP	:	0.412	Gcal/tcs

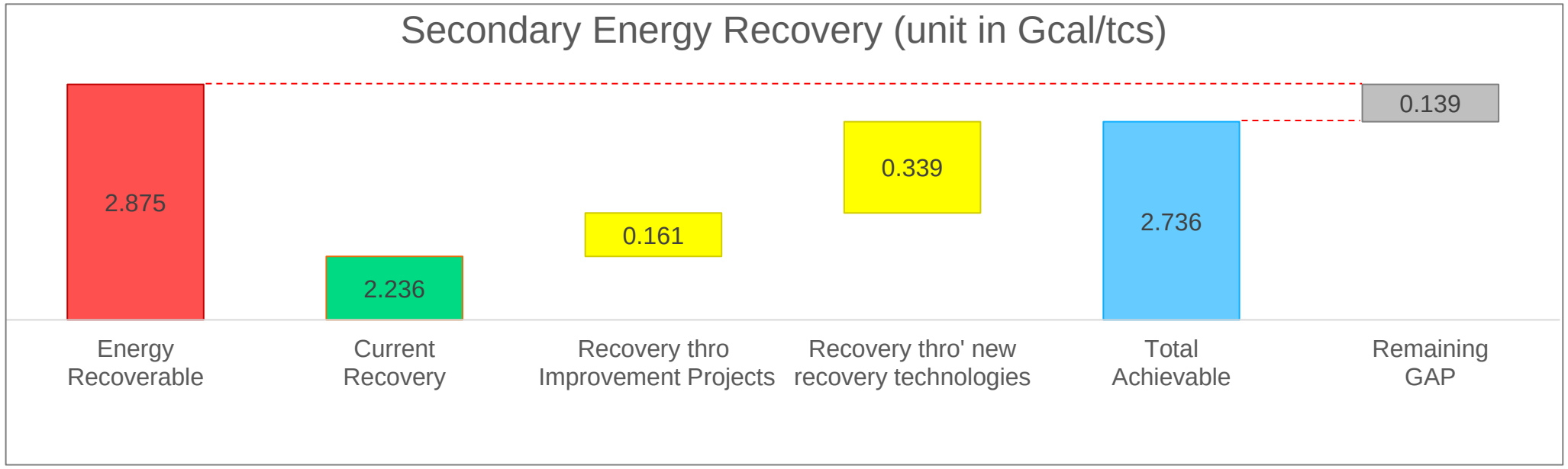
Secondary Energy Generation

- By-Products **(2.61 Gcal/tcs)**
- Electricity **(0.13 Gcal/tcs)**
- Waste Heat **(2.02 Gcal/tcs)**

Secondary Energy Recovery thro' Investment in recovery technologies



Projected Plant Specific Energy Consumption post implementation of Secondary Energy Recovery Projects



Secondary Energy Recovery

Through Investment in recovery technologies

	Initiatives	Recovery (Gcal/tcs)
a	TRT for F BF	0.011
b	Benzole Recovery at Coke Plant	0.028
c	Sensible heat recovery from waste gas at Coke Plant	0.007
d	Coal Moisture control from 8-12% to 4-6%	0.004
e	Energy Recovered from Ammonia cracking plant	0.009
f	LP Steam Recovery from Sinter Plant	0.035
g	Waste heat recovery from molten BF slag	0.076
h	Waste heat recovery from stove waste gas	0.025
i	LP Steam Recovery from LD Shop	0.044
j	Waste heat recovery from BOF Slag	0.005
k	Waste Heat Recovery from HSM Furnace	0.094
	Total	**0.339**

Reason for Remaining GAP

- Proven energy saving technologies having technical challenges and not having financial viability. Few examples:
  a. exhaust gas waste heat recovery to pre-heat combustion air & fuel
  b. Regenerative burners to pre-heat ladles
  c. Combined cycle power plant
  d. Hot charging of slags in HSM

Through Improvement Initiatives

	Initiatives	Current Level	Benchmark Level	Recovery (Gcal/tcs)
a	Reduce flaring of BF/CO Gas to BM Level	2% of gen	< 1% of gen	0.019
b	Increase LD Gas recovery to BM Level	77 Nm^3/t	113 Nm^3/t	0.062
c	Improve yield of CO Gas to BM Level	434 Nm^3/t	456 Nm^3/t	0.015
d	Improve yield of Coal Tar to BM Level	34.5 Kg/t	40.0 Kg/t	0.021
e	Achieve BM level of CDQ steam recovery	337 kg/t	390 kg/t	0.016
f	Achieve BM level of TRT power gen	19 kWh/t	35 kWh/t	0.027
	Total			**0.161**

Reason for Remaining GAP

- 1% of gas flared due of dynamic imbalance between generation & consumption.
- 8 to 10% of LDG cannot be recovered at beginning & end of blow.
- By-Products lost as effluents.
- No TRT installed at C, E & F BF.
- No CDQ installed for Batt # 8 & 9.

List of Major Encon project planned in FY 2022-23

Sl. No.	Unit	Energy Saving Measures	Annual Energy Savings			
			Coal in Ton	Electricity (kWh)	Thermal (GCal)	Equivalent Energy in TOE
1	Coke Oven	Installation of Coke Dry Quenching in battery 8 and 9		137843640		41711
2	Sinter & Pellet	Reduction of solid fuel rate in sinter making , Use of real-time process control at SP# 2	2246			1513
3		Heat Recovery from Sinter Cooling at Sinter Plant 3			1,32,302	13230
4		Heat Recovery from Sinter Cooling at Sinter Plant 4			1,56,674	15667
5	Blast Furnace	Saving of coated nut coke in G Blast Furnace	4200			2665
6		Lime coating of -38 mm coke to increase coke reactivity & reduce carbon rate at I BF	13753			8843
7		Hot Stove Waste Heat Recovery in Blast Furnace H			60,078	6008
8		Hot Stove Waste Heat Recovery in Blast Furnace I			66,123	6612
9	SMS	Sensible Heat Recovery from LD Gas of Converter-1,2 in LD # 2			2,34,693	15626
10	Rolling Mill	Installation of Micro Steam Turbo-Generator in Cold Rolling Mill		5876623		1763
11	Power Plant	Installation of Micro-turbine - PH3		3524400		303
12		Installation of Micro-turbine - PH4		3069792		264
13		Installation of Micro-turbine - PH5		4925280		424
Total			**20199**	**155239735**	**649870**	**114631**

Energy Saving projects implemented in last three years

Year	No of Energy saving projects	Investments (INR Million)	Electrical savings (Million kWh)	Thermal savings (Million Kcal)	Savings (INR Million)
FY-22	4	30	54.3	-	487
FY-21	1	0	-	3,61,127	1182
FY-20	5	2054	79.5	3,83,223	166

*Tata Steel commissions **India's first plant for CO_2 capture** from Blast Furnace Gas at Jamshedpur*

The 5 tonnes per day (TPD) carbon capture plant along with its semi commercial use within the steel value chain, makes the Tata Steel Jamshedpur plant unique and **first-of-its-kind in the world within the steel industry**.

Making it the country's first steel company to adopt such a carbon capture technology that extracts CO_2 directly from the Blast Furnace gas. Tata Steel will reuse the captured CO_2 on site to promote the circular carbon economy.

This Carbon Capture and Utilization (CCU) facility uses amine-based technology and makes the captured carbon available for onsite reuse. The depleted B.F.Gas is sent back to the gas network with increased calorific value. This project has been executed with the technological support from Carbon Clean (https://www.carbonclean.com/).

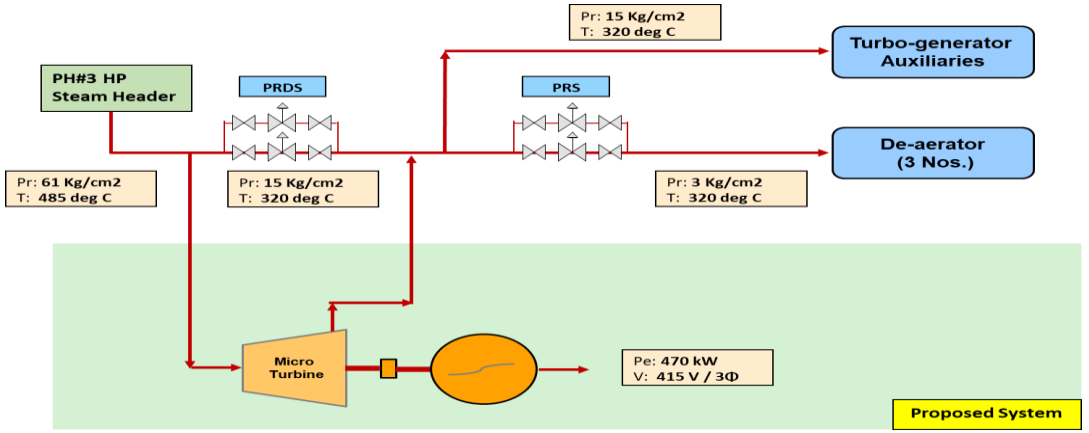
Innovative Projects : India’s first plant for CO2 capture

Micro Turbine – Successfully running at PH4, TSJ and CDQ, TSK.

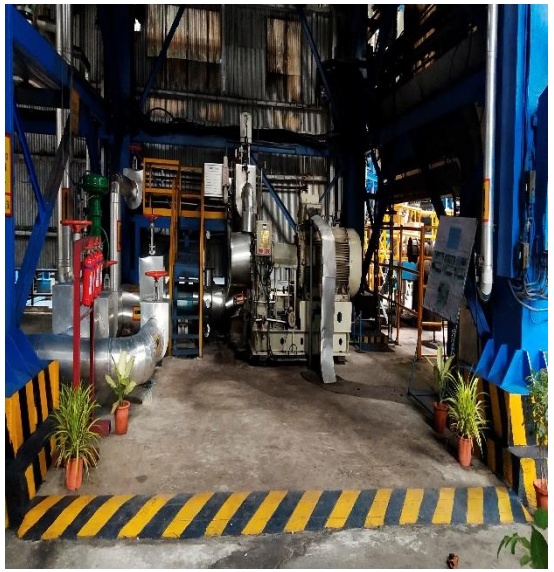
Benefit - INR > 10 Cr. (Combined for all installations)

Description	PRDS and PRS transformer HP steam to steam at required pressure and provide for de-aeration (via control valves). This process does not utilize the energy (required to generate HP Steam) during pressure transformation and this energy is wasted into atmosphere.
Current Concern	Opportunity loss at PRS / PRDS due to unavailability of energy recovery mechanisms.
Proposed Solution	A Microturbine can recover the electrical energy from the pressure transformation and feed it back into the TSL Power System. Micro-Turbine provides a cheaper alternative to recover energy from Steam in distributable electrical form. Also, a Micro-Turbine helps in regulating pressure at the exhaust – thus the process requirement stands fulfilled. Micro-Turbines would help reduce CO2 emission.
Key Challenges	Steam line laying through congested route and other critical running equipment at site. Regulatory Clearances: Installation of steam lines for Micro Turbine at TSJ requires approval from IBR (Indian Boiler Regulation). Charging Clearance for Electrical Installation from CEI , Ranchi.
Horizontal deployment	Similar process and applications have been identified across different locations (TSJ, TSK, TSM) and procedures have been initiated for deployment. (21 nos. of scope for installations identified.)

Block diagram



Site Pic of Micro Turbine, PH#4, TSJ



Site Pic of Micro Turbine, CDQ, TSK

Boilers have Deaerators for de-aeration of the feed water. For de-aeration process, steam is required at ~3 kg/cm2 pressure. PRDSs/PRSs are installed in all thermal power plants to meet aux. steam demand (CDQ & PHs)

Replacement of Conventional Surface Aerators at BOT Plant

Savings Potential ~ ₹ 1 Cr , TSJ Works

Description

Revamping of existing Aeration Tanks with advanced FUCHS Aspirators in place of existing old surface Aerators. To increase the efficiency of existing BOTP / Aeration Tanks & to reduce the energy being consumed for aeration.

Current Concern

Conventional Surface Aerator –

- Consume more energy.
- Limited mixing performance
- Does not provide uniform mixing through out the aeration tank
- Low oxygen transfer efficiencies.
- Less effective in deep water.

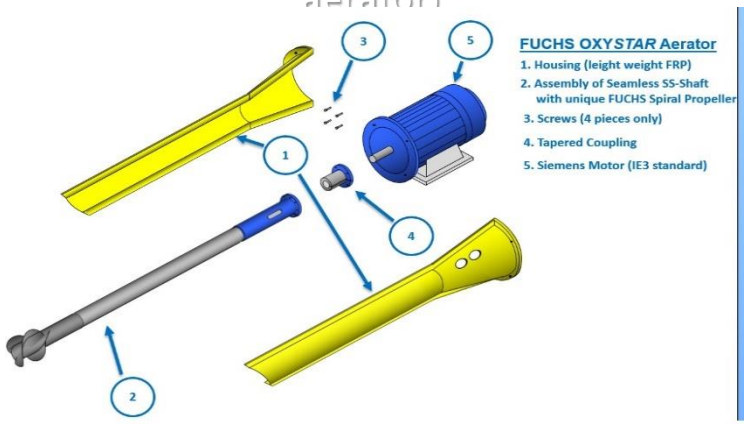
Solution Proposed

FUCHS Aspirator –

- Comparatively 40% lesser motor rating of aspirator
- Superior design
- More oxygen transfer efficiencies.
- Low maintenance time.
- Very effective in deep water up to 5m SWD also because of its superior shaft & propeller design.

Current Installation

Cross sectional view (FUCHS Oxystar aerator)

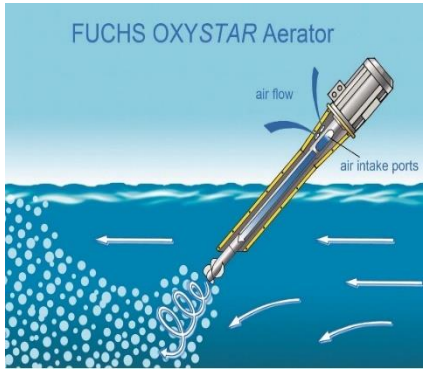


Key Challenges

Conventional Surface Aerator -

- Outlet results sometimes vary & exceeds the desired limits during maintenance.
- Dissolved Oxygen levels fluctuation with load variation.
- Unable to provide uniform mixing patterns due to dead pockets creation.
- Sludge Floating in clarifiers
- Repeated maintenance of surface aerator/gearbox.

Proposed Installation



Capex Required	= ~ 4.0 Cr
Energy saving (approx.)	= ~ 35-40 %

Benefits

- Oxygen transfer efficiency will improve from 1.0 – 1.2 kg O2 / kwh to 1.5 - 2.1 Kg O2 / kWh.
- It can also help increase life and reliability of TTP – RO as the quality to input to RO will be enhanced.

Retrofitting Existing Cooling Tower with a Smart System developed by TSL, R&D

Description

The work aims in reducing the power consumption of cooling towers by designing a robust predictive control strategy for cooling tower operation

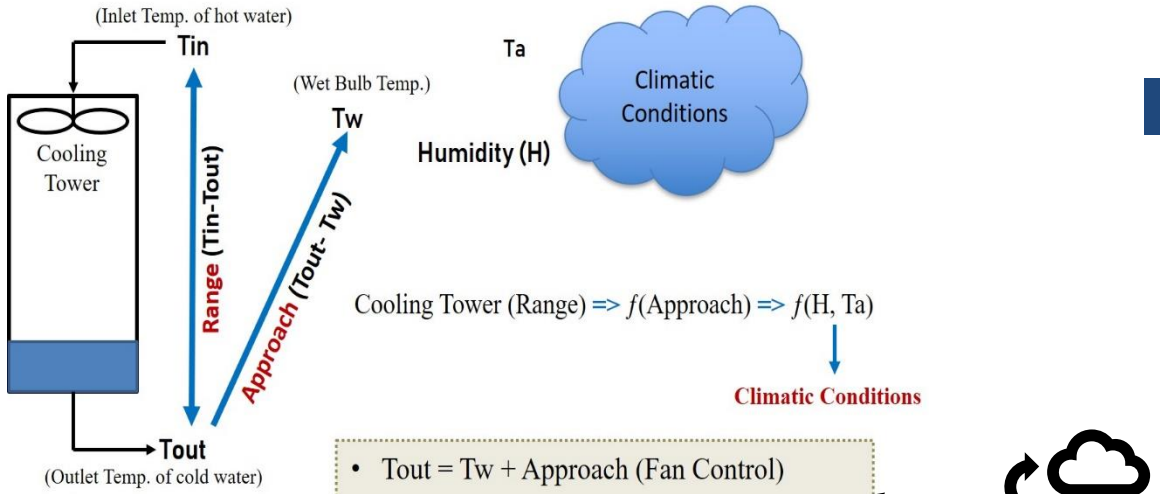
Current Concern

Cooling towers run at full power loads throughout the year , ignoring the opportunities for energy savings as the efficiency of cooling tower is a function of climatic conditions.

Solution

Designing intelligent self adaptive control strategy to control Cooling tower performance based on climatic conditions

Scheme Drawing (Scheme / block diagram)

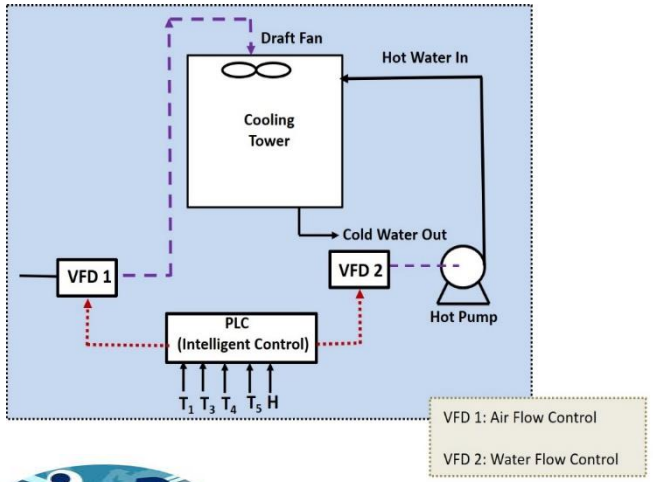


Key Challenges

- Realistic mathematical model development and validation of model through running plant data

Actions to Overcome challenges

Model was developed and was tested and trained with real plant operating data and was within +/- 5% deviation range.



Current Status / Next Steps

1. Pilot trial taken in WRM cooling towers at TSJ.
2. Cooling towers data collected from TSJ, TSM and TSK.
3. Work started for implementation in CRM and New BPP at TSJ.

Benefits

Utilisation of Renewable Energy sources

Tata Steel is committed and continuously putting efforts in leveraging energy efficiency and adopting renewable energy in its drive towards decarbonization.

We continue to explore and adopt the best available technologies at all possible fronts to maximize our energy efficiency, optimal utilization of resources and reduce our carbon footprint.

Replacement of Thermal Energy with Renewable Energy	Installed Capacity (Kcal)	Equivalent Annual Energy Savings in 2019-20 (Million kcal)	Equivalent Annual Energy Savings in 2020-21 (Million kcal)	Equivalent Annual Energy Savings in 2021-22 (Million kcal)
Solar Thermal Energy	2668698	3915.8	4042.4	4169.15

Utilisation of Renewable Energy sources

- Tata Steel collaborates with Tata Power to set up 41MW grid connected solar projects in Jharkhand and Odisha.
- In March 2021, the two companies had announced to develop a 15MW solar project at Jamshedpur.
- This project would generate an average of 32 MUs of energy per year.
- Tata Steel and Tata Power sign a Power Purchase Agreement (PPA) for 25 years.
- The projects will be a mix of rooftops, floating, and ground mounted solar panels.
- Tata Power will develop Photo Voltaic (PV) capacities for Tata Steel at Jamshedpur (21.97MWp) and Kalinganagar (19.22MWp).

- **RPO obligation for TSL**
  - **Solar - 1%**
  - **Non Solar – 3%**

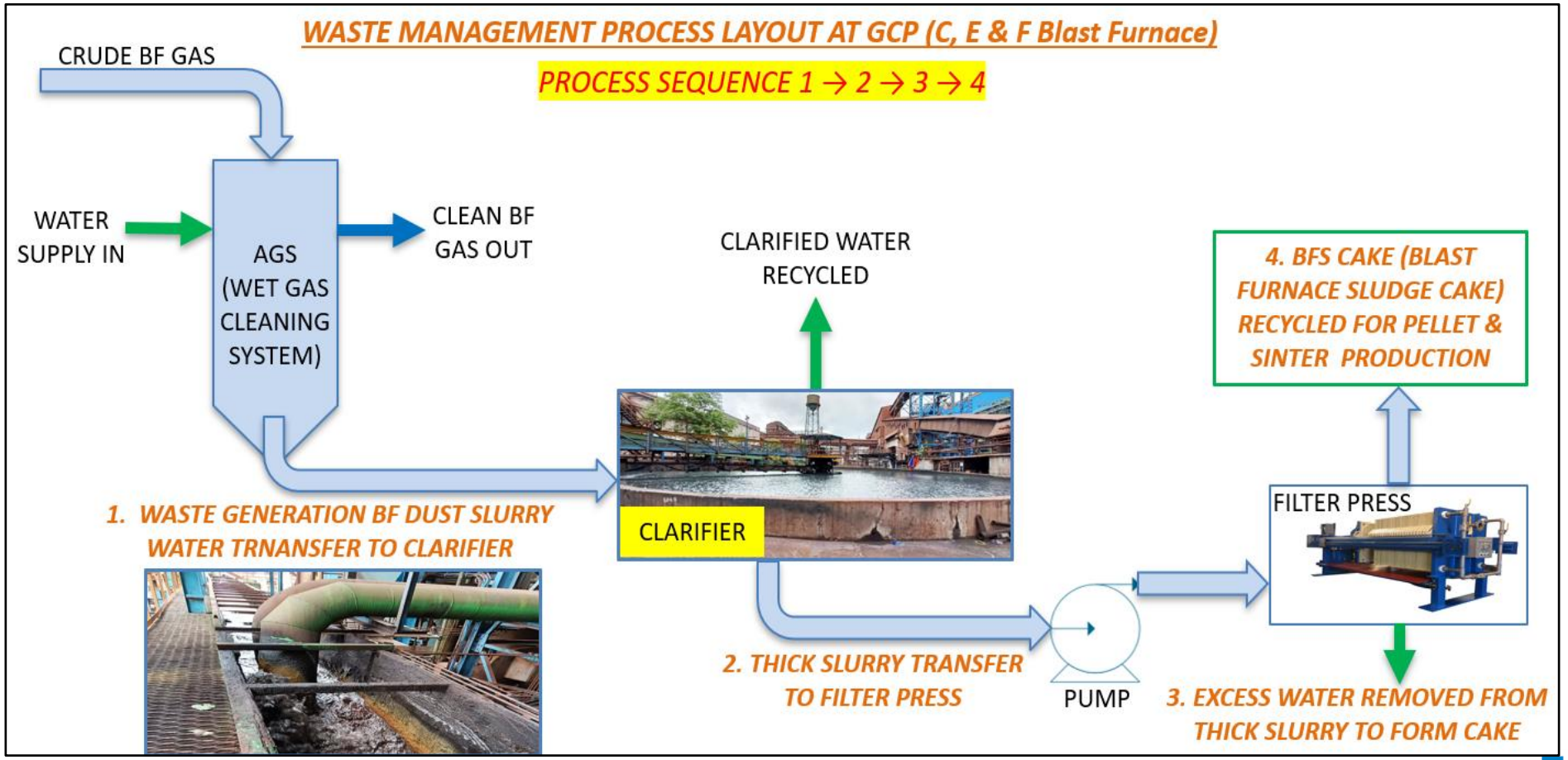
3 MW, Solar Power Plant, Tata Steel, Noamundi

The project came to light as a result of the synergy between three Tata group companies - Tata Steel, Tata Power Solar and Tata Power Trading Company.

Read more at:
https://economictimes.indiatimes.com/industry/indl-goods/svs/steel/tata-steel-commissions-solar-power-plant-at-noamundi-iron-ore-mines/articleshow/59528509.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Waste management & utilization : Sludge Management

SL NO	YEAR	TYPE OF WASTE GENERATED	QUANTITY	DISPOSAL METHOD
1	2019- 2020	BFS CAKE (Blast furnace sludge cake)	0.18 MT/YR	Recycle in pellet & sinter production
2	2020- 2021	BFS CAKE (Blast furnace sludge cake)	0.18 MT/YR	Recycle in pellet & sinter production
3	2021- 2022	BFS CAKE (Blast furnace sludge cake)	0.18 MT/YR	Recycle in pellet & sinter production



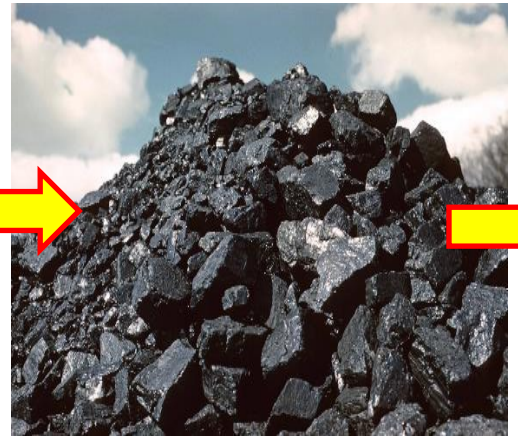
Waste management & utilization : COG Muck

Sl.No.	Year	Type of Waste generated	Quantity of waste generated (MT/year)	Disposal Method
1.	FY-20	Solid Muck	142.4 MT	Filled in gunny bag and re mixed with coal
2.	FY-21	Solid Muck	230.7 MT	Filled in gunny bag and re mixed with coal
3.	FY-22	Solid Muck	218.6 MT	Filled in gunny bag and re mixed with coal

CO Gas Network

COG Pipe chocked with Solid Muck

Muck filled in gunny bag

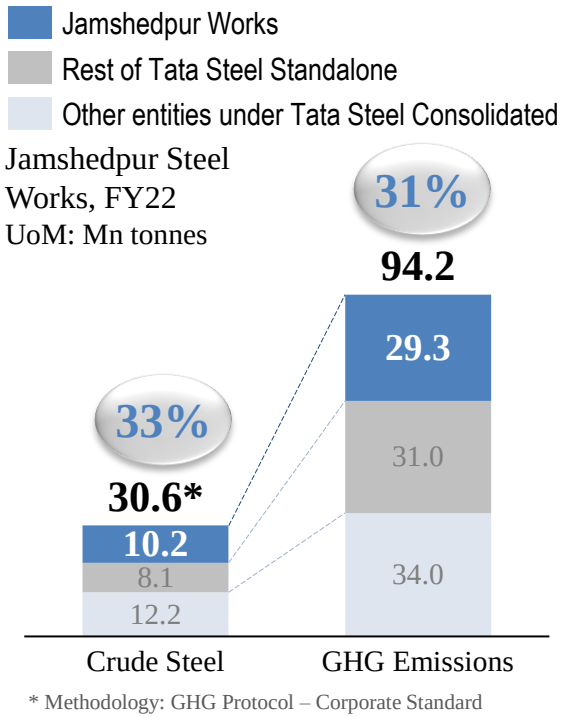


Mixed with coal

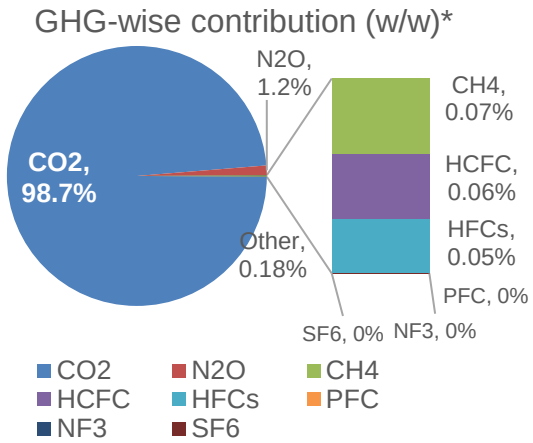
Charged into Coke Oven Battery

GHG Inventorisation

GHG Profile



* Methodology: GHG Protocol – Corporate Standard



Parameter	Units	FY20	FY21	FY22	Remarks
Scope 1	Mn tCO_2	23.2	21.5	24.0	Methodology: worldsteel guidance for CO_2 Data Collection (V9.5). Direct emissions includes emissions from combustion of B.F.Gas, C.O.Gas and LD Gas (Scope 1.1, worldsteel) by downstream consumers. The methodology allows credits of co-products incl. slag used in Cement-making and hence Scope 3 has become –ve. Publicly disclosure: CDP disclosures, Integrated Report, Internet Home Page (under sustainability tab) and with Government of India for various matters.
Scope 2	Mn tCO_2	0.9	0.7	0.8	
Scope 3	Mn tCO_2	-1.0	-0.8	-1.6	
Total	Mn tCO_2	23.1	21.5	23.3	
Intensity	tCO_2/tcs	**2.27**	**2.29**	**2.26**	

Target: CO_2 intensity < 2 tCO_2/tcs by FY25 & < 1.8 tCO_2/tcs by FY30.

Short-term (by 2025) - carbon pricing embedded in governance

- Enhance scrap in steel making; Steel Recycling Business
- Maximize waste heat recovery and use of by-product gases
- Improve quality of Raw Material (Iron ore & Coking coal) and
- Increase share of renewable energy

Medium-term (till 2030)

- Capacity addition using Scrap-Electric Arc Furnace route
- Fuel switch to cleaner fuel like Natural Gas
- Upscaling pilots of Carbon Capture & Utilization and H_2 based steelmaking

Long-term (2030-2050)

- Deployment of decarbonization technologies
  - HIsarna
  - CCU
  - H_2 use across value chain
- R&D on advanced materials

Net Zero by 2045 (Tata Group)

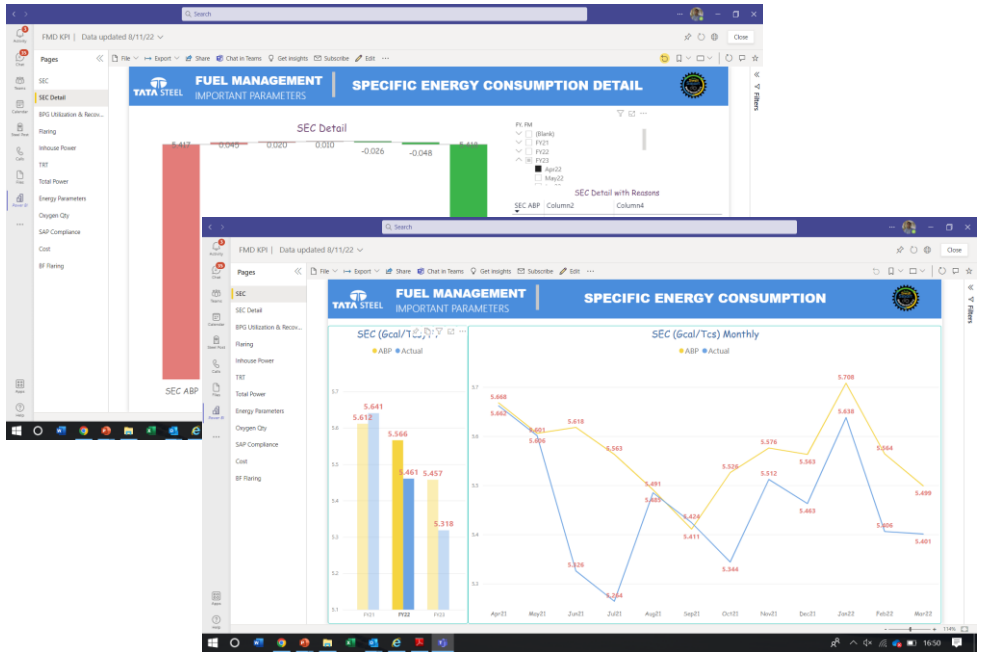
Initiative on Carbon capture, other reduction measures

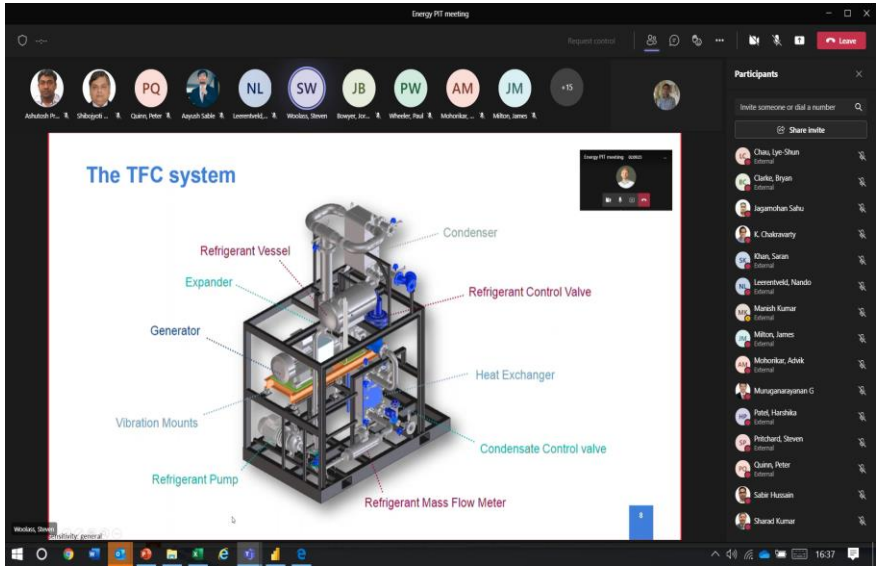
- 5 TPD CCU Pilot Plant was commissioned in FY22 at LD1, Jamshedpur Works to capture CO_2 from B.F.Gas
- Trial continuous injection of Coal Bed Methane of Coal Bed Methane in Blast Furnace, Jamshedpur Works

Teamwork, Employee Involvement & Monitoring

Specific Energy Consumption (Gcal/tcs) May-22

Sl.	ABP			ACT			ABP	ACT	
Dept	Fy'23	May'22	APR-MAY'22	May'22	APR-MAY'22		May'22	May'22	
Blast Fce.	3.138	3.150	3.147	3.091	3.091	Production-t	9,64,155	9,22,119	
						Fuel Rate-kg/thm	534.0	528.6	
						TRT power Generation-MW	28.69	17.31	
						Sp. Oxygen Consn. - Nm3/t	99.12	92.62	
Coke Making	0.474	0.496	0.462	0.559	0.589	Production(BF+ Nut) - t	2,24,143	2,24,295	
						Gross Coke Yield-%	74.40	74.51	
						Coal Tar Yield - kg/tdc	25.50	24.78	
						CDQ (5-11) Steam Gen. - tph	113	88.30	
							HSM	WRM	MM	NBM	CRM	TSCR
Rolling & Finishing	0.478	0.469	0.462	0.462	0.454	Production (ABP)- t	3,55,000	38,000	42,500	92,300	1,50,860	2,46,566
						Production (ACT)- t	3,28,964	37,682	43,439	95,518	1,41,909	2,59,047
						Fuel Rate(ABP)- Gcal/t	0.283	0.180	0.305	0.205	0.190	0.161
						Fuel Rate(ACT) - Gcal/t	0.282	0.180	0.304	0.204	0.135	0.156
						Sp. Power Cons.(ABP)- kwh/t	87.6	121.0	59.0	86.0	118.0	103.0
						Sp. Power Cons.(ACT)- kwh/t	93.7	114.9	57.61	80.4	126.5	101.2
Sinter Making	0.462	0.45	0.464	0.491	0.494	Production - t	7,84,681	7,19,377				
						Gaseous Fuel Rate - Gcal/t	0.021	0.020				
						Sp. Power Consn. - kwh/t	37.4	38.7				
						Solid Fuel Rate - kg/tp	68.50	73.48				
Pellet Making	0.239	0.204	0.232	0.212	0.207	Production - t	6,45,000	4,89,966				
						Sp. Power Consn.- kwh/t	44.7	47.1				
						Solid Fuel Rate- kg/tp	8.52	9.72				
						Gaseous fuel rate - Gcal/tp	0.139	0.150				
Steel Making	0.214	0.211	0.214	0.201	0.193	Production - t	9,18,227	9,00,231				
						LD Gas Yield - Nm3/tcs	83.70	85.93				
						Sp. Oxygen Consn. - Nm3/t	55	55				
Auxiliaries	0.245	0.243	0.235	0.145	0.145	Sp. Power Rate(W)- kwh/tss (Excluding Oxygen plant)	386.24	382.36				
						BF Gas supply to PH6- Nm3/hr	2,69,300	2,42,419				
						Sp.energy cons-LCP-Gcal/tcs	0.080	0.078				
Boiler and Power Houses	0.167	0.164	0.166	0.171	0.170	Boiler efficiency - %	84.66	85.27				
						Power Gen(PH-3,4,5 ,DG & CDQ 40MW set) - MW	140.4	139.41				
						Power Gen. Thro' BPT- MW	13.20	11.64				
Losses	0.040	0.030	0.030	0.064	0.068	BF Gas Flaring – Nm3/hr	56,452	73,522				
						CO Gas Flaring – Nm3/hr	466	457				
						Steam Loss-%	3.37	3.06				
Total	5.457	5.417	5.412	5.397	5.411	Overall Variance in SEC		-0.37%				





Monthly Monitoring

a. Vice President

b. Chief Fuel Management

Monthly Review Meeting

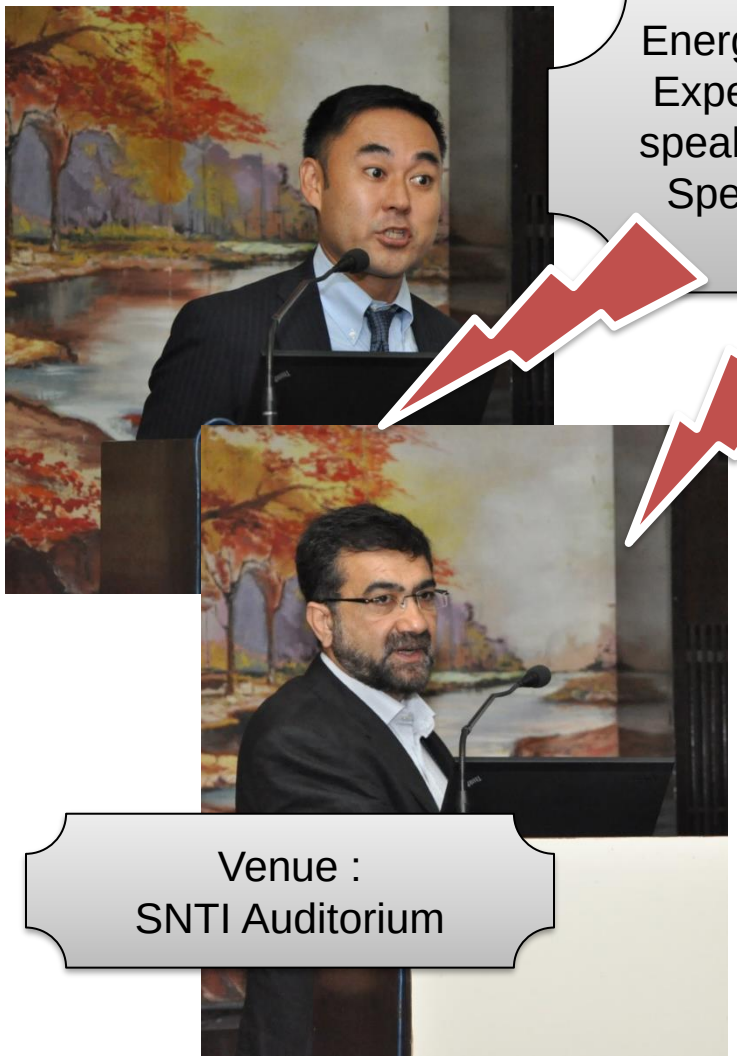
- *Cost Meeting, FMD Review Meeting*

Review @ Online Portal system

- *Power BI Tool*

Performance Improvement Team (PIT) : Discussion on Energy Performance & New technologies Across All Tata Group Companies in Every Quarter

Awareness training program



Energy related session by Experts across the world speakers for reduction the Specific energy in steel sector

Venue :
SNTI Auditorium

Shared Knowledge Among contractor employees

Ideation for Reduce Specific energy consumption
cross functional teams
Brainstorming

Fuel Management officers knowledge session for generation of Idea related to SEC

Shared Knowledge Among TSL employees

AWARDS


TATA STEEL
WeAlsoMakeTomorrow
TATA
Sustainability
CHAMPION
worldsteel
Tata Steel Limited and Tata Steel Europe have been recognised as 2018 Steel Sustainability Champions by World Steel Association (worldsteel)


TATA STEEL
WeAlsoMakeTomorrow
TATA
Tata Steel has been awarded for the Most Innovative Project in 6th CII Greenco Summit and Environmental Awards in association with United Nations Industrial Development Organization (UNIDO) for the project on Development of Multrinutrient Sulphate Fertiliser from Steel Slag.


WeAlsoMakeTomorrow
Hall of Fame!
July 2019
We are proud to share with you the key awards received in July.
Tata Tiscon bagged the award for "Best Use of Social Media Marketing" under Construction category at the National Awards for Marketing Excellence organised by Business Television of India.
Best Use of Social Media Marketing
Tata Steel was recognised with the "TOC Company of the Year" award for maintaining exceptional and demonstrated results utilising TOC at the TOCICO International Conference 2019.
TOC Company of the Year
Tata Steel Jamshedpur received the "Greenco Star Performer Award" given by CII at the Annual Greenco Summit 2019 for sustained excellence in environmental performance.
Read More
Greenco Star Performer Award


CII
19th National Award for Excellence in Energy Management 2018
Energy Efficiency SUMMIT 2018
Hyderabad

Thank You..

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