STEEL AUTHORITY OF INDIA LIMITED



RESULTS

PRESENTATION

FOR

Q2 & H1 FY 2021-22



STEEL AUTHORITY OF INDIA LIMITED

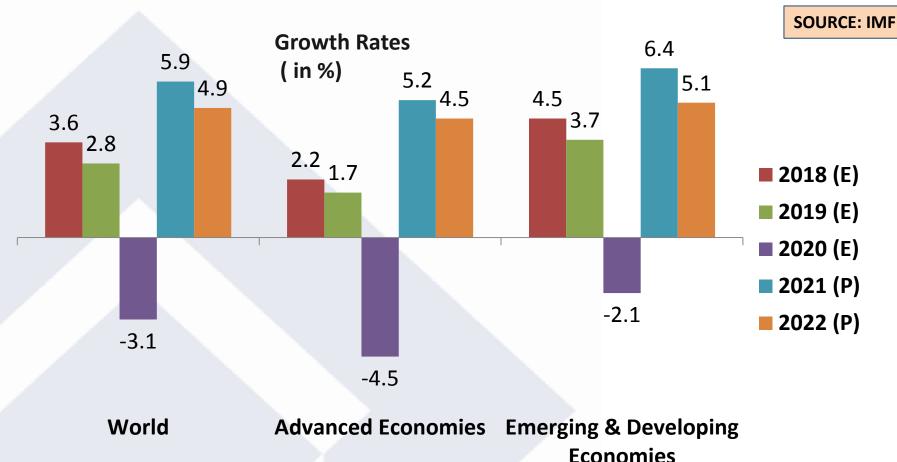


Economic & Steel Scenarios



WORLD ECONOMIC SCENARIO





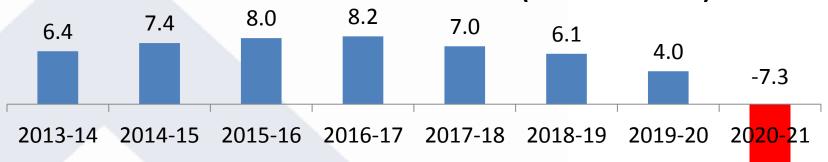
IMF projected the growth for 2020 at 2.9% in its Jan 20 World Economic Outlook (WEO). With the lockdown emanating from COVID19 Pandemic, the projections became negative to almost 4.9%. The figure has since been revised to -3.1% with growth projections for 2021 improving to 5.9% which is expected to moderate to 4.9% during 2022.

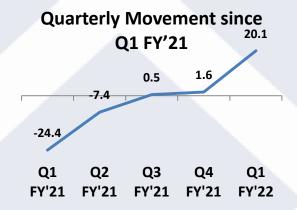
INDIAN ECONOMIC SCENARIO



SOURCE: CSO, Gol & Economic Survey







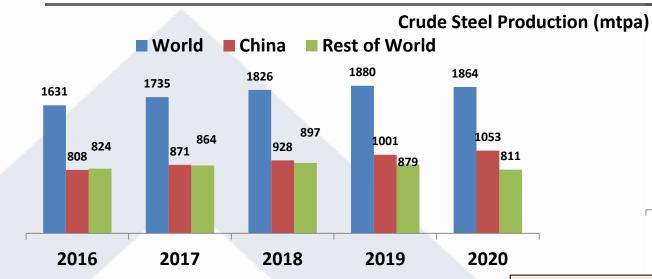
The onslaught of COVID19 Pandemic saw the GDP of Indian economy slide into negative during FY'21 at -7.3%. The economy has, however, been gaining ground consistently since Q1 FY'21, rising sharply from -24.4% to 20.1% during Q1 FY'22.

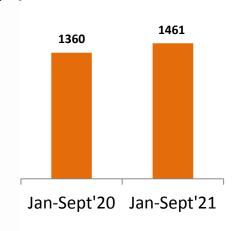
Last available projections from major financial agencies for further years are as follows:

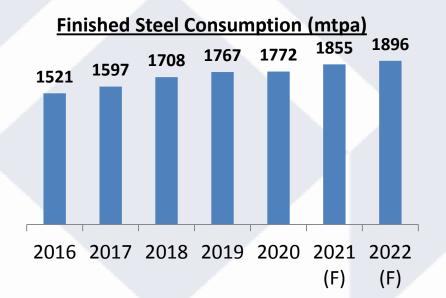
Source	Growth Projection		
WORLD BANK	8.3% (FY22)		
IMF	9.5% (CY21) & 8.5% (CY22)		
RBI	9.5% (FY22)		

WORLD STEEL SCENARIO









SOURCE: World Steel Association (WSA)

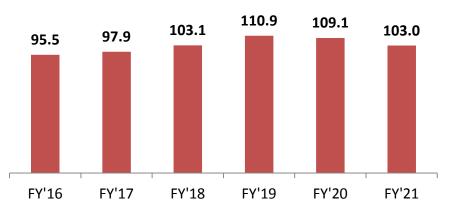
Short Range Outlook (SRO) October'21:

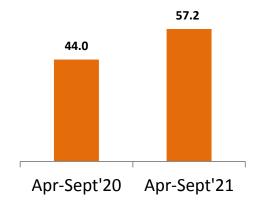
- Global steel demand is expected to increase by 4.5% in 2021 and 2.2% in 2022.
- China's is set to see a negative growth in 2021 at -1% and no growth/deceleration in 2022.
- The global growth rate excluding China is expected to be 11.5% in 2021 and 4.7% in 2022.
- In the Emerging and Developing Economies excluding China, steel demand is expected to grow by 11% in 2021 and 5% in 2022.
- The developed economies are expected to see growth in steel consumption at 12.2% in 2021 and 4.3% in 2022.

INDIAN STEEL SCENARIO

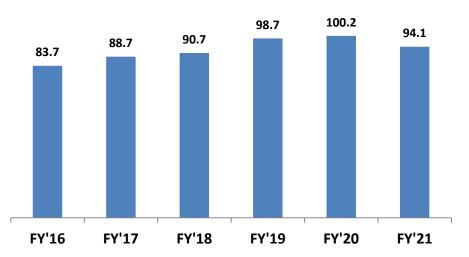


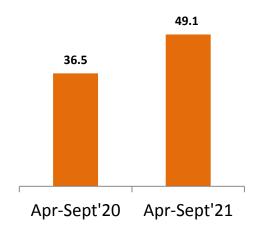






Finished Steel Consumption (mtpa)





As per the WSA Short Range Outlook of October'21, demand in India is projected to increase by 16.7% in 2021 and 6.8% in 2022.

Source: WSA

INDIAN STEEL PERFORMANCE



INDICATORS	UNIT	H1 21-22	H1 20-21	% +/- Over CPLY
Growth in Index of Industrial Production ^	%	28.6	-25	53.60
Production - Finished Steel *	MT	53.34	39.26	35.9
Imports - Finished Steel *	MT	2.37	1.99	19.5
Exports - Finished Steel *	MT	7.75	6.54	18.5
Consumption - Finished Steel *	MT	47.96	34.70	38.2
Less Variation in Stock *	MT	-1.15	-1.84	-37.2
Real Consumption of Finished Steel *	MT	49.11	36.54	34.4

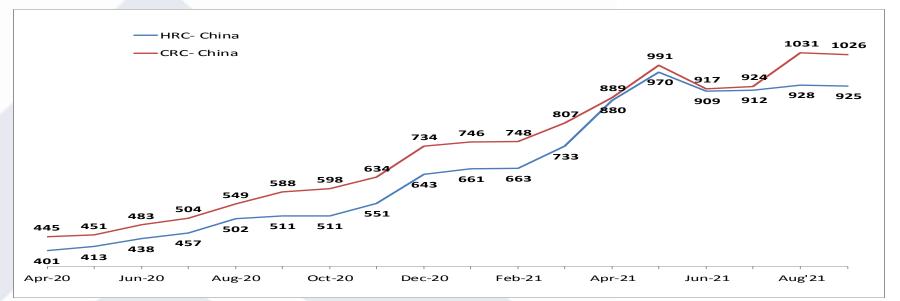
[^] As per CSO Data for April-August FY'22

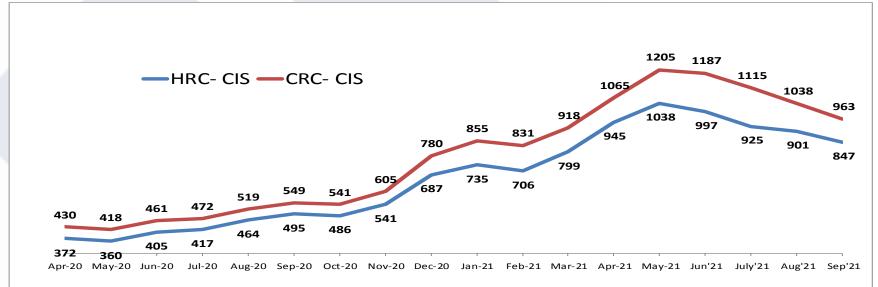
^{*}Source JPC Report

INTERNATIONAL PRICE (FOB) TREND



USD/Tonne





STEEL AUTHORITY OF INDIA LIMITED



Performance Highlights



PERFORMANCE HIGHLIGHTS: Q2 FY'22



FINANCIAL PERFORMANCE

❖ Net Sales : Rs. 26635 Crore

❖ EBITDA: Rs. 7248 Crore

❖ PBT : Rs. 5753 Crore

❖ PAT : Rs. 4304 Crore

PRODUCTION & SALES PERFORMANCE

- **❖** Hot Metal Production : 4.795 MT
- Crude Steel Production: 4.468 MT
- **❖** Saleable Steel Production : 4.320 MT
- **❖** Semis component in production : 20.25% of saleable steel
- **❖** Value Added Production : 2.203 MT
- **❖** Production through concast route : 4.437 MT
- ❖ Saleable Steel Sales: 4.280 MT

PERFORMANCE HIGHLIGHTS: H1 FY'22



FINANCIAL PERFORMANCE

❖ Net Sales : Rs. 47133 Crore

❖ EBITDA : Rs. 13921 Crore

❖ PBT : Rs. 10898 Crore

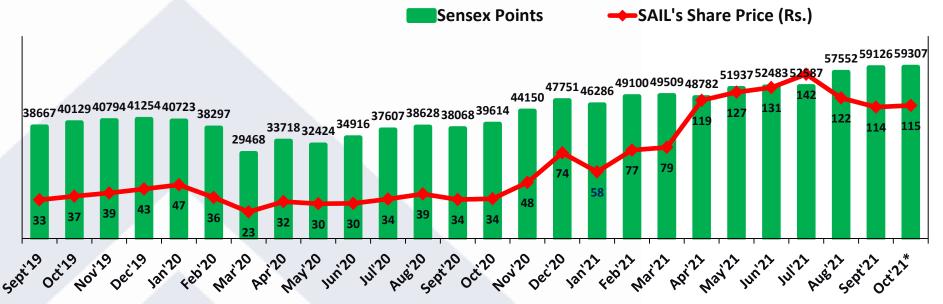
❖ PAT : Rs. 8154 Crore

PRODUCTION & SALES PERFORMANCE

- **❖** Hot Metal Production: 8.930 MT
- Crude Steel Production: 8.238 MT
- **❖** Saleable Steel Production: 8.090 MT
- **❖** Semis component in production : 20.58% of saleable steel
- **❖** Value Added Production : 3.905 MT
- **❖** Production through concast route: 8.118 MT
- **❖** Saleable Steel Sales: 7.607 MT

SAIL STOCK PRICE MOVEMENT





Closing Share Price and Sensex	as
on the last day of the month	

* As on Oct 29, 2021

DIVIDEND PAYOUT

SAIL Board of Directors has approved an interim Dividend of 40% for the FY'22.

	Interim (%)	Final (%)	Total (%)	Dividend (Rs. crore)	Dividend Tax (Rs. crore)
FY 21	10	18	28	1156	-
FY 20	-	-	-	-	-
FY 19	-	5	5	206	
FY 18	-	-	-	-	-
FY 17	-	-	-	-	-
FY16	-	-	-	-	-
FY15	17.5	2.5	20	826	165
FY14	20.2	-	20.2	834	142

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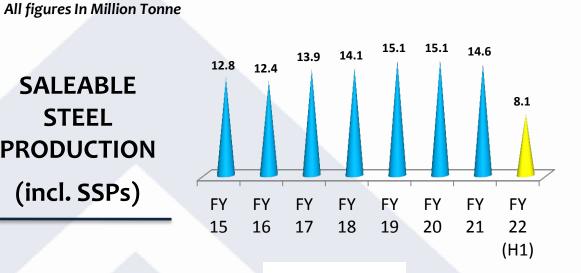
Operational Performance



PRODUCTION PERFORMANCE

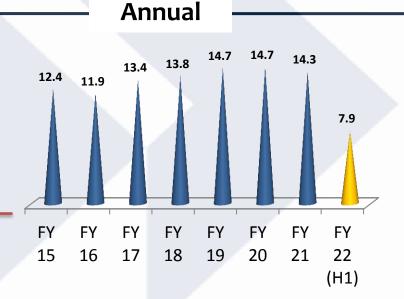


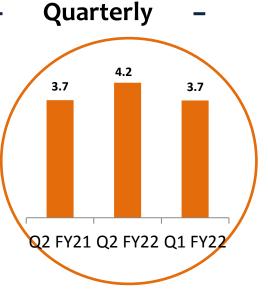






SALEABLE STEEL PRODUCION (5 ISPs)

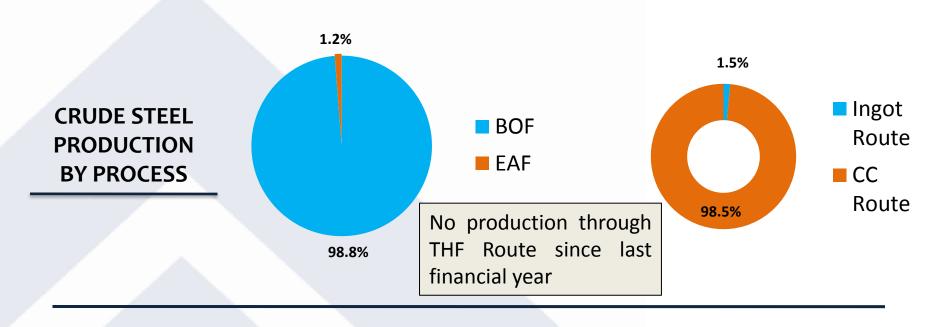




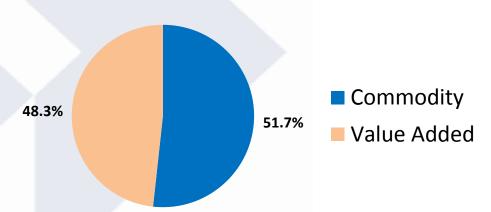
Production had been affected on account of COVID-19 impact during Q1 FY21 as well as Q1 FY22

PRODUCTION PERFORMANCE: FY'22



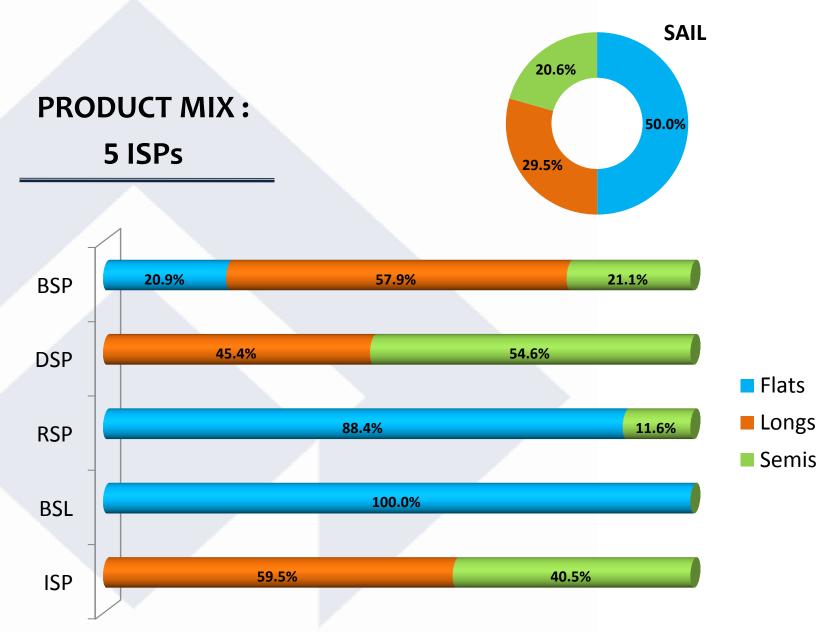






PRODUCTION PERFORMANCE: FY'22



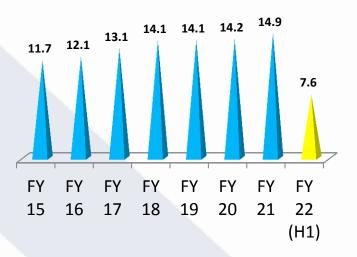


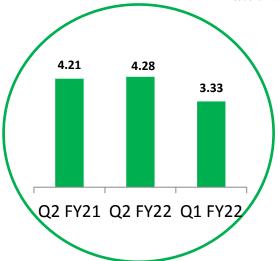
SALES PERFORMANCE



All figures In Million Tonne

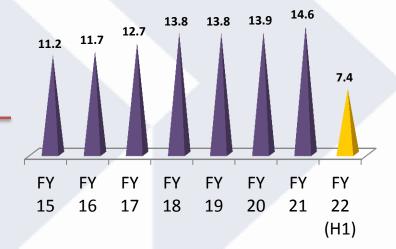
TOTAL SALES (incl. SSPs)



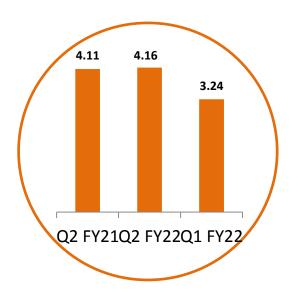


Annual

SALES
OF 5 ISPs



Quarterly



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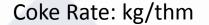


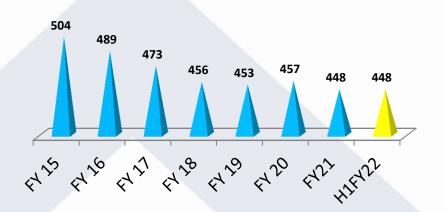
Efficiency & Sustainance Performance



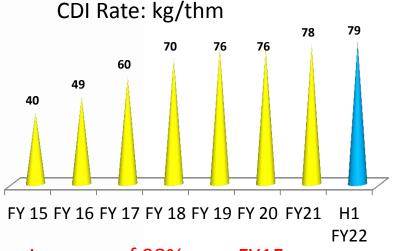
TECHNO-ECONOMIC PARAMETERS





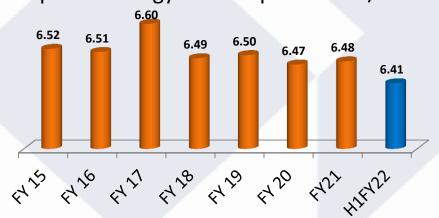


Reduction of 11% over FY15



Increase of 98% over FY15

Specific Energy Consumption: GCal/tcs



Reduction of 2% over FY15

BF Productivity: T/m3/Day

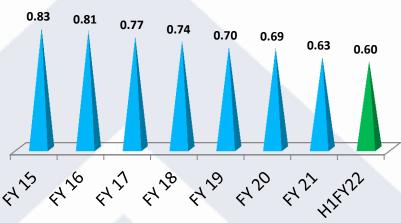


Improvement of 11% over FY15

SUSTAINANCE PARAMETERS

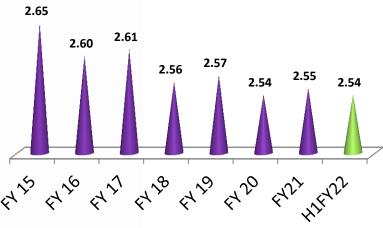






Reduction of 28% over FY15

Specific CO2 Emission: T/tcs



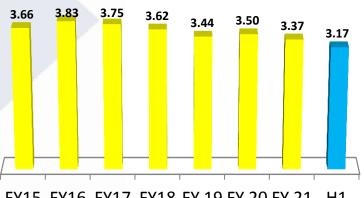
Reduction of 4% over FY15

Solid Waste Utilisation (%)



Increase of 8% over FY15

Specific Water Consumption: m3/tcs



FY15 FY16 FY17 FY18 FY 19 FY 20 FY 21 H

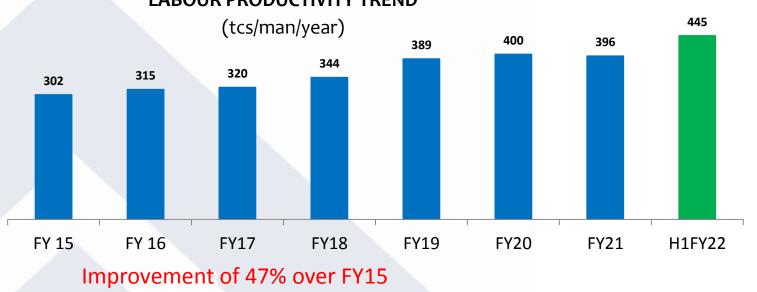
Reduction of 13% over FY15

FY22

MANPOWER PERFORMANCE





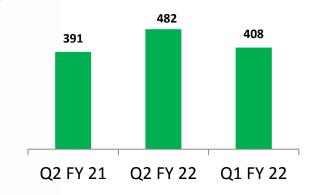


MANPOWER

Total manpower as on 01.10.2021: **63624**

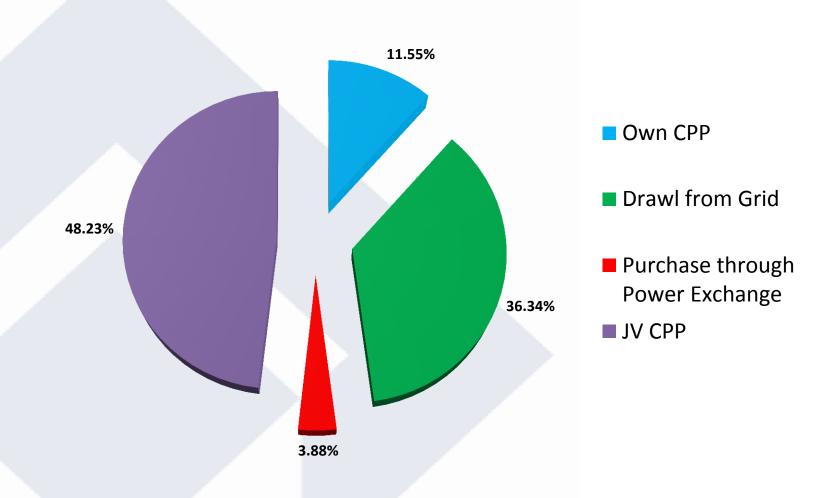
Reduction in H1 FY'22: 1940

À-VIS CPLY AND PREVIOUS QUARTER (tcs/man/year)



POWER CONSUMPTION – FY 22





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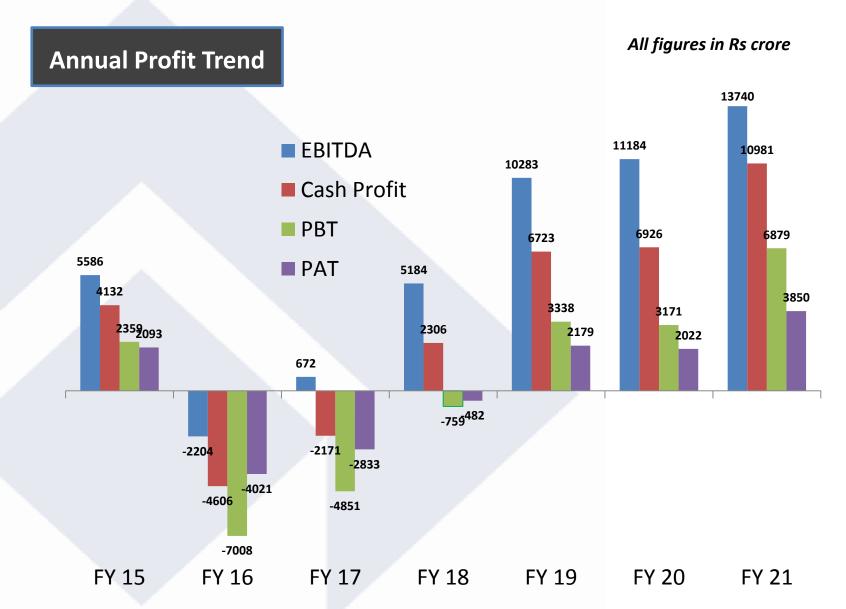


Financial Performance

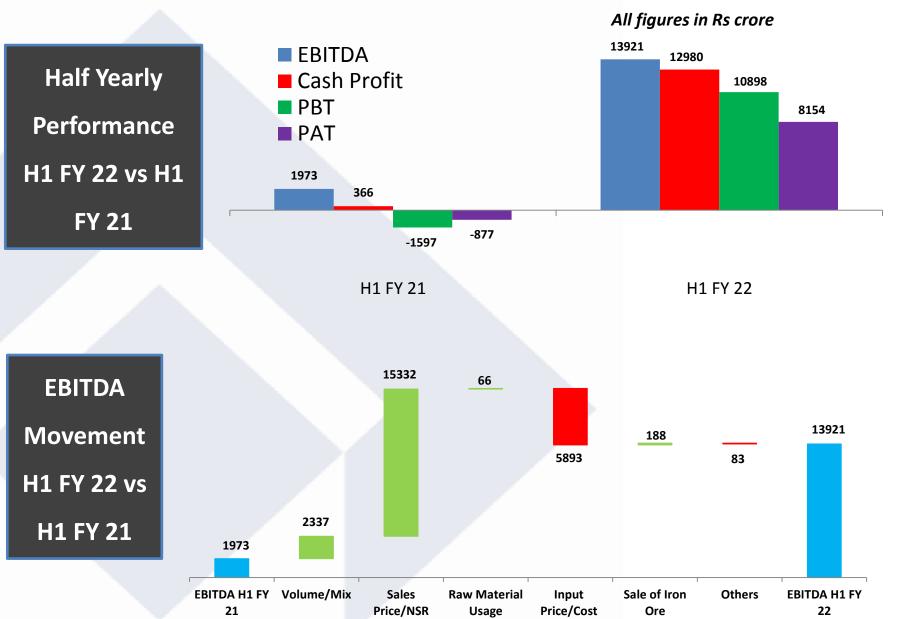


Rs. Crore (INDAS Compliant figures)	H1 FY 22	H1 FY 21	Q1 FY 22	Q2 FY 22	Q2 FY 21
Sales	47133	25672	20498	26635	16834
EBITDA	13921	1973	6674	7248	2098
Depreciation	2082	1963	1026	1056	990
Finance Cost	942	1607	503	439	720
PBT Before Exceptional Items	10988	-1597	5145	5753	388
Exceptional/Abnormal Items (VRS/Suspended Operations)	-	-222	-	-	-222
PBT After Exceptional Items	10988	-1374	5145	5753	610
Тах	2744	-497	1295	1449	217
Profit After Tax	8154	-877	3850	4304	393





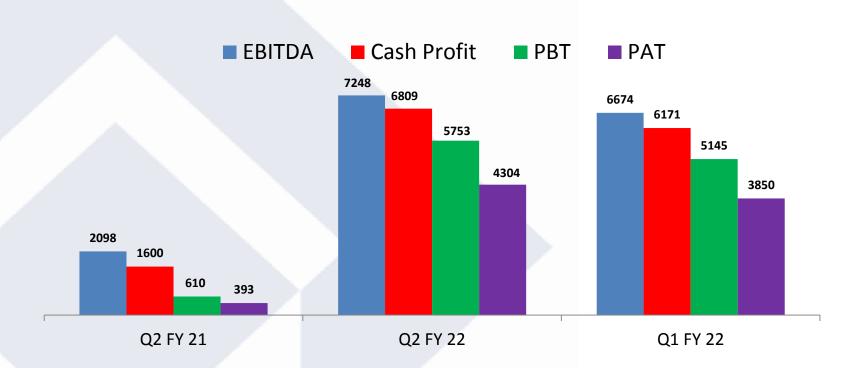






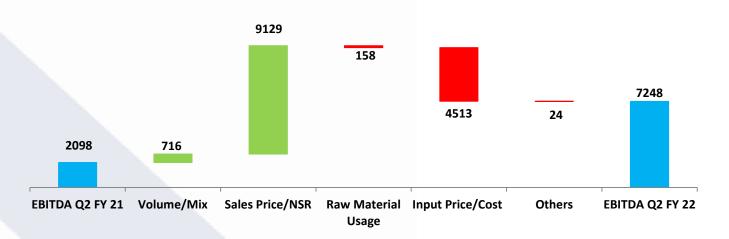
All figures in Rs crore

Quarterly Performance Q2 FY 22 vs Q2 FY 21 and Q1 FY 22







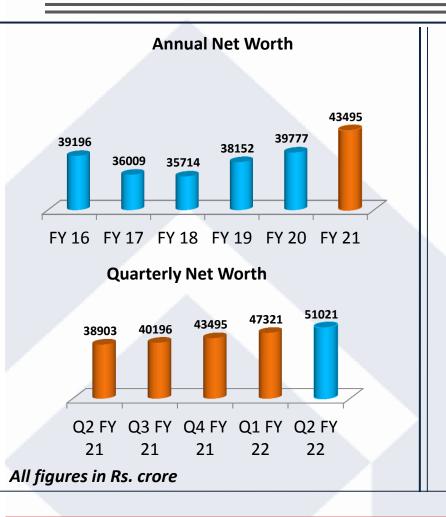


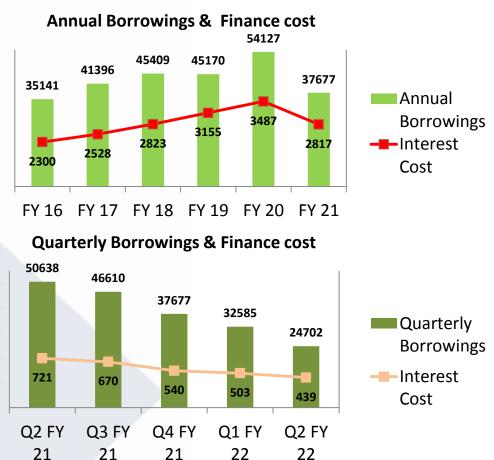
All figures in Rs crore











	31/3/19	31/3/20	31/3/21	30/06/21	30/09/21
Debt-equity	1.18	1.36	0.87	0.69	0.48
Net Debt-EBITDA	4.24	4.59	2.54	1.41*	0.85*

^{*} EBITDA based on trailing twelve months

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Capacity

Building

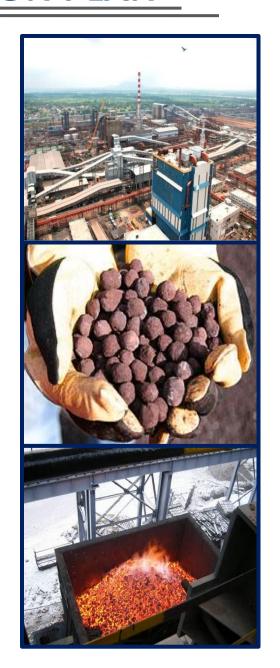


SAIL'S MODERNISATION & EXPANSION PLAN

Million Tonne	Actual Production 2020-21	Capacity After On-going Expansion
Crude Steel	15.215	21.4
Saleable Steel	14.602	20.2

Technological Shift

Technology	Before Expansion	After Expansion
BOF Steel Making	79%	100%
CC Route	71%	94%
Pelletisation Plant	No	Yes
Coke Dry Quenching	Partial	Yes
Top Pressure Recovery Turbine	No	Yes
Auxiliary Fuel Injection in BF	Partial Coverage	Full Coverage
Desulphurization of Hot Metal	Partly	100 %
Beam Blank Casting	No	Yes
Coupled Pickling & Tandem Mill	No	Yes
Beneficiation Plant	Partial	Full



MODERNISATION & EXPANSION PLAN

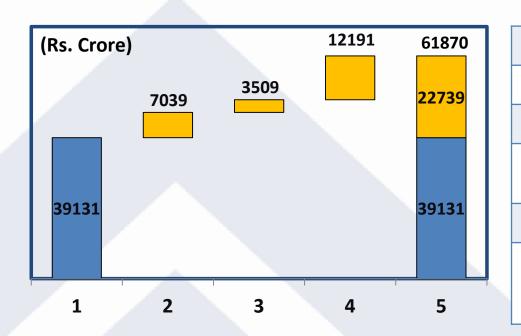
EXPECTED OUTCOME

- Production through twin-hearth furnace (THF) route to be replaced by BOF-LD converter route.
- Production through Ingot teeming route to be replaced with continuous cast production route.
- ➤ Enhancement of Production volume by addition of 2 new 4060 m³ Blast Furnaces and one Blast Furnace of 4160 m³.
- > Increased Market Share.
- World class technology and products.
- > Improved Product Mix / proportion of value added products to increase.
- > Enhanced Pollution Control measures, with Environmental Conservation.

PRODUCTS BEING ADDED:

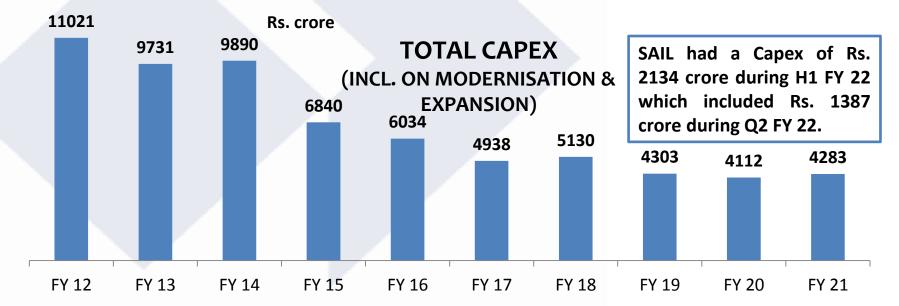
- ➤ Auto grade CR Products, Galvanized Coils /Sheets.
- > Plates / Pipes to meet up to API 100 Grade specification.
- ➤ Universal Beams/Heavy Beams to support increasing Infrastructural requirements.
- Rails for Metro Railways and Dedicated Freight Corridors.
- ➤ Increased production of Rails and Wheels to meet the increasing requirements of Indian Railways.
- Quantum jump in Rounds and Structural production.
- Wider Plates in the size of 4300 mm.

ONGOING PROJECTS (CAPEX)



- 1 Expansion of existing capacity
- **2** Value-addition / Product-mix improvement
- **3** Technological up gradation / Modernization
- Sustenance including de-bottlenecking, AMR & Environment
- 5 Total Estimated Cost

In addition, a Capex Plan of Rs. 10264 crore has been made for augmentation of Raw material facilities.



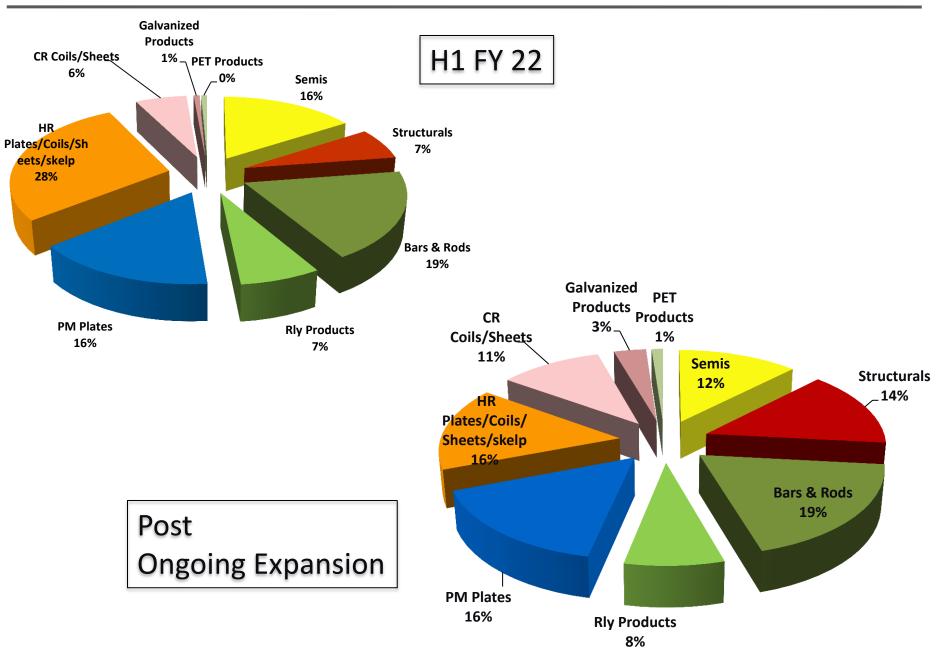
CAPACITY AFTER EXPANSION

Plant	Hot Met	: Metal (MTPA) Cru		rude Steel (MTPA)		Saleable Steel (MTPA)	
riant	2020-21	After Expansion	2020-21	After Expansion	2020-21	After Expansion	
BSP	4.60	7.5	4.24	7.0	3.96	6.6	
DSP	2.27	2.5	2.09	2.2	2.03	2.1	
RSP	3.83	4.5	3.50	4.2	3.21	4.0	
BSL	3.79	5.8	3.38	4.6	3.24	4.2	
ISP	2.09	2.9	1.85	2.5	1.82	2.4	
VISL	0.00	0.3	0.00	0.2	0.02	0.2	
ASP	-		0.06	0.5	0.07	0.4	
SSP	-	-	0.10	0.2	0.26	0.3	
TOTAL	16.58	23.5	15.22	21.4	14.60	20.2	



PRODUCT MIX POST EXPANSION – SALEABLE STEEL





MODERNISATION & EXPANSION PLAN - SALEM STEEL PLANT



Facilities added:

- •Steel melting Shop Electric Arc Furnace (55 T); AOD Converter (60 T); Ladle Furnace (60 T); Single Strand Slab Caster.
- Roll Grinder for Hot Rolling Mill
- Cold Rolling Mill Complex

Production (MTPA):

ltem	2020-21 (Actual)	After Expansion
Crude Steel	0.10	0.18
Saleable Steel	0.26	0.34

MODERNISATION & EXPANSION PLAN - IISCO STEEL PLANT



Facilities Completed:

- Raw Material Handling System
- New Coke Oven Battery (0.88 Mtpa, 7 m tall)
- Coke Dry Cooling Plant
- Sinter Machines (3.88 Mtpa gross sinter production, 2x204 m²)
- Blast Furnace 4160 m3 volume (2.7Mtpa)
- 3 nos. of 150 T BOF Converters
- 2x6 Strand Billet Casters (1.67 Mtpa)
- 1x4 Strand Bloom-cum-Beam Blank Caster (0.83 Mtpa)
- Wire Rod Mill (0.55 Mtpa)
- Bar Mill (0.90 Mtpa)
- Universal Section Mill (0.85 Mtpa)

Item	2020-21 (Actual)	After Expansion	
Crude Steel	1.85	2.50	
Saleable Steel	1.82	2.39	

Current Progress of Expansion at IISCO Steel Plant















MODERNISATION & EXPANSION PLAN- BOKARO STEEL PLANT



Facilities Completed:

- Re-building of Coke Oven Battery #1 & #2.
- Up-gradation of Blast Furnace #2 and Stoves Up-gradation of #5
- Auxiliary Fuel Injection (CDI) in Blast Furnaces #2 & #3.
- Turbo-Blower-8.
- New CRM Complex (1.2 Mtpa)
- Up-gradation of HSM with augmentation of Roughing Facility (4.5 MTPA).

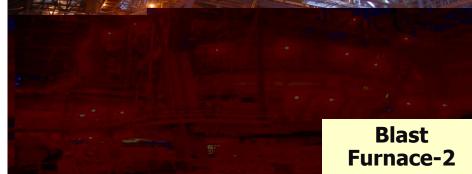
ltem	2020-21 (Actual)	After Expansion
Crude Steel	3.38	4.61
Saleable Steel	3.24	4.18

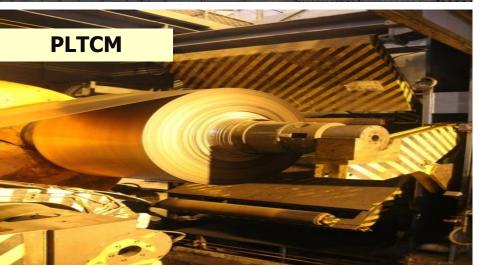


Current Progress of Expansion at Bokaro Steel Plant















MODERNISATION & EXPANSION PLAN-BHILAI STEEL PLANT



Facilities Already Completed:

- Ore Handling Plant part-A
- Second Sinter Machine in Sinter Plant-3 (3.7 MTPA)
- New Coke Oven Battery No. 11 (7 m tall, Capacity 0.881 mtpa)
- Oxygen Plant (BOO basis)
- Universal Rail Mill (1.2 MTPA) and Rail Welding Line
- Bar and Rod Mill (0.9 MTPA)
- Blast Furnace 4060 m3 (2.8 Mtpa)
- New Steel Melting Shop (SMS-3) with Converter-1 &2 and New Billet Casters (2x6) and New Billet-cum-Bloom Caster (1X6).
- Convertor 3, LF -3, Argon Rinsing Station-3 in SMS -3.

ltem	2020-21 (Actual)	After Expansion		
Crude Steel	4.24	7.0		
Saleable Steel	3.96	6.56		

Current Progress of Expansion at Bhilai Steel Plant















MODERNISATION & EXPANSION PLAN- ROURKELA STEEL PLA



Facilities Completed:

- New Coke Oven Battery -6 (7 m tall, 1 x 67 ovens)
- New Sinter Plant -3 (1 x 360m²)
- New Blast Furnace -5, useful volume 4060 m³
- New 3rd Single Strand Slab Caster (1.5 MTPA)
- New Oxygen Plant 2x700 tpd on BOO basis
- New 3rd BOF (150 T) Convertor
- New 4.3 meter Wide Plate Mill

ltem	2020-21 (Actual)	After Expansion		
Crude Steel	3.50	4.20		
Saleable Steel	3.21	3.99		

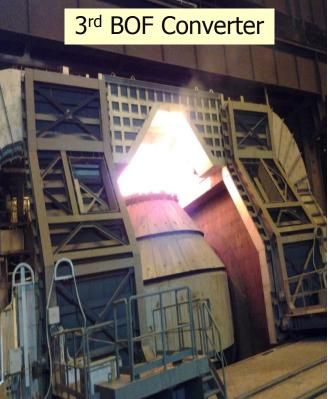
Current Progress of Expansion at Rourkela Steel Plant













MODERNISATION & EXPANSION PLAN-DURGAPUR STEEL PLANT



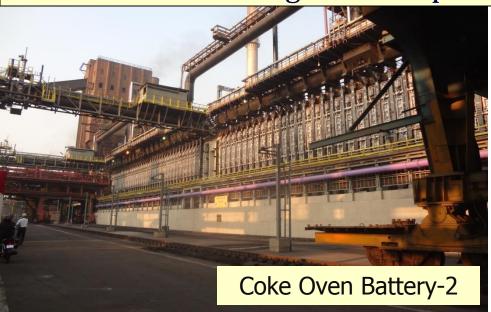
Facilities Completed:

- Rebuilding of Coke Oven Battery no-2
- New Ladle Furnace (125T)
- Coke Sorting & Coal Handling Plant
- New Dolomite Plant (300tpd)
- Bloom-cum-Round Caster 1X4 (0.75 Mtpa)
- New Medium Structural Mill (1.0 Mtpa)

ltem	2020-21 (Actual)	After Expansion		
Crude Steel	2.09	2.20		
Saleable Steel	2.03	2.12		

Current Progress of Expansion at Durgapur Steel Plant











RAW MATERIALS



Year	Hot Metal (mtpa)	Iron Ore Consumption (mtpa)	Linkages of Iron Ore
2020-21	16.582	27.355	Existing Mines
Post Expansion	23.46	39	The capacity of existing mines at Kiriburu, Meghahatuburu, Bolani & Gua are being ramped up to meet the requirement of Iron Ore for post ongoing phase of expansion New Pellet Plants - 4 MTPA capacity at Gua, 1 MTPA at Dalli and 2 MTPA at RSP has been planned for utilization of accumulated Iron Ore Fines & Generated Fines In addition to the above, new mechanised Iron Ore Mines are being developed at Rowghat and Taldih

RAW MATERIALS – Iron Ore



Mine	Existing Capacity* (mtpa)	Capacity* after ongoing expansion (mtpa)	Remarks
Kiriburu	5.50	5.50	Expansion at Kiriburu has already been completed
Meghathaburu	5.00	6.50	whereas Meghathaburu is being ramped up to meet the requirement of the ongoing expansion plan.
Bolani	7.00	10.00	• At Bolani, processing plant has been upgraded to 7.0
Gua	4.00	10.00	mtpa and is under stabilization.
Rajhara, Dalli	8.70	7.00**	 At Gua, FC/EC are now in place. Capacity augmentation may take about 40 months from award of contract. **Depleted resources and quality constraints
Barsua, Kalta, Taldih	7.00	ROM-16.00	Expansion through MDO route for Taldih mines for 7 MTPA under progress. Process for grant of EC for 16 MTPA RoM (Barsua-4 + Taldih-8- + Kalta-4) is under progress.
Rowghat	-	12.00	 MDO has been engaged w.e.f. 25.09.2017 for development of 14 MTPA mine. Interim mining to the tune of 3 lakh Tonne Per annum started on 05.02.2021
Chiria	0.75	ROM-7/15	Capacity to be expanded contractually to 1.5 MTPA after availability of FC for Sukri. Further expansion will be taken up after availability of lease extension/Forest Clearance

^{*} Finished Product capacity unless specified

[■] The entire requirement of the increased capacity is planned to be met through captive mines

RAW MATERIALS – Coal



Year	Hot Metal (mtpa)	Coking Coal Requirement (mtpa)	Linkages of Coking Coal		
2019-20	17.438	15.854	 Import Component – 90% Indigenous: 10% Domestic coal is largely sourced from Coal India Ltd. 		
Post Expansion	23.46	19.5	 Long term / Quarterly contracts cover 95% of Import requirements Tasra captive coal mine being developed to produce 4 mtpa of ROM (1.8 mtpa washed coal) New linkages / acquisitions are being explored. Request has been made to Ministry of Coal for allocation of new potential coking coal blocks in line with recommendations of NITI Aayog. 		

STEEL AUTHORITY OF INDIA LIMITED



Strategic

Partnerships



MAJOR JOINT VENTURES



FOCUS AREA

ALLIANCE PARTNER

REMARKS

STEEL





A Special Purpose Vehicle, namely, 'Chhattisgarh Mega Steel Limited' has been formed for setting-up an Ultra Mega Steel Plant (UMSP) in Bastar area of Chhattisgarh.

DOWNSTREAM
STEEL PROCESSING
UNITS





- SAIL Bansal Service Center Limited A JV with Bansal Metal Works Ltd. for a Flat Product service centre at Bokaro.
- SAIL SCL Kerala Limited A JV with Govt. of Kerala for producing TMT Bars at Kozhikode.
- Prime Gold SAIL JVC Limited A JV with M/s Prime Gold for producing TMT Bars at Gwalior.
- VSL SAIL JVC Limited A JV with M/s Velagapudi Steel
 Ltd. for producing TMT Bars at Ujjain.

FNFRGY





- JV with NTPC for operating and managing CPPs of Bhilai, Durgapur and Rourkela.
- JV with DVC for operating & managing CPP of Bokaro.

MAJOR JOINT VENTURES



FOCUS AREA	ALLIANCE PARTNER	REMARKS
TECHNOLOGY	KOBELCO KOBE STEEL GROUP	SAIL Kobe Iron India Pvt. Ltd. – A Joint Venture Company has been formulated for setting up a 0.5 mtpa capacity Plant for producing iron nuggets based on ITmk3 technology.
RAW MATERIALS	TATA STEEL	 International Coal Ventures Pvt. Ltd., a SPV of 5 leading PSUs incorporated (SAIL, RINL, CIL, NTPC & NMDC) for acquisition / operation of coal assets in overseas territories. M/s S&T Mining Company Pvt. Ltd. formed with Tata Steel for developing coking coal mines in India. M/s SAIL & MOIL Ferro Alloys (Pvt.) Ltd. formed with MOIL for production of Ferro-alloys at Bhilai.
CEMENT	JAYPEE	 Bhilai Jaypee Cement LtdSlag based cement plant of 2.2 million tonne per annum capacity with grinding unit at Bhilai & clinkering unit at Satna.

MAJOR JOINT VENTURES



	FOCUS AREA	ALLIANCE PARTNER	OBJECTIVE
	WAGON MANUFACTURE	THE INFRASTRUCTURE PEOPLE	 SAIL RITES Bengal Wagon Industry Pvt. Ltd. – A Joint Venture Company has been formed with M/s RITES for setting up Wagon Manufacturing Factory at Kulti, West Bengal.
	E-PORTAL	TATA STEEL	 JV with Tata Steel to promote e-commerce activities in steel and related areas

Abbreviations used



•	BF	Blast Furnace	•	FOB	Freight On Board
•	SMS	Steel Melting Shop	•	JPC	Joint Plant Committee
•	BOF	Basic Oxygen Furnace	•	Kg/thm	Kilo Gram Per Tonne of
•	THF	Twin Hearth Furnace			Hot Metal
•	EAF	Electric Arc Furnace	•	Tpd	Tonnes Per Day
•	BSP	Bhilai Steel Plant	•	MT	Million Tonne
•	DSP	Durgapur Steel Plant	•	Mtpa	Million Tonne Per Annum
•	RSP	Rourkela Steel Plant	•	EBITDA	Earnings Before Interest,
•	BSL	Bokaro Steel Limited			Taxes, Depreciation &
•	SSP	Salem Steel Plant			Amortization.
•	VISL	Visvesvaraya Iron & Steel		PAT	Profit After Tax
		Plant	•	PBT	Profit Before Tax
•	ASP	Alloy Steels Plant	•	RINL	Rashtriya Ispat Nigam
. /	CPLY	Corresponding Period			Limited
	C. L.	Last Year	•	CS	Crude Steel
•	G.Cal/tcs	Giga Calories per tonne of	•	CDI	Coal Dust Injection
		Crude Steel	•	CC	Continuous Casting
•	ISP	Integrated Steel Plant	•	ВОО	Build-Own-Operate
•	HDGL	Hot Dip Galvanizing Line	•	Gol	Government of India
•	CR	Cold Rolled	•	MOEF	Ministry of Environment
•	HR	Hot Rolled			& Forests

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