

STEEL AUTHORITY OF INDIA LIMITED



Performance Highlights

9M & Q3

FY 2018-19



PERFORMANCE HIGHLIGHTS : 9M FY2018-19



FINANCIAL PERFORMANCE

- ❖ Net Sales : Rs 47944 Crore
- ❖ EBITDA : Rs 7806 Crore
- ❖ PBT : Rs 2626 Crore
- ❖ PAT : Rs 1710 Crore

PRODUCTION & SALES PERFORMANCE

- ❖ Hot Metal Production : 12.842 MT
- ❖ Crude Steel Production : 11.928 MT
- ❖ Saleable Steel Production : 10.946 MT
- ❖ Semis component in production : 20.48 % of saleable steel
- ❖ Value Added Production : 4.775 MT
- ❖ Production through concast route : 10.059 MT
- ❖ Saleable Steel Sales : 9.983 MT

PERFORMANCE HIGHLIGHTS : Q3 FY2018-19



FINANCIAL PERFORMANCE

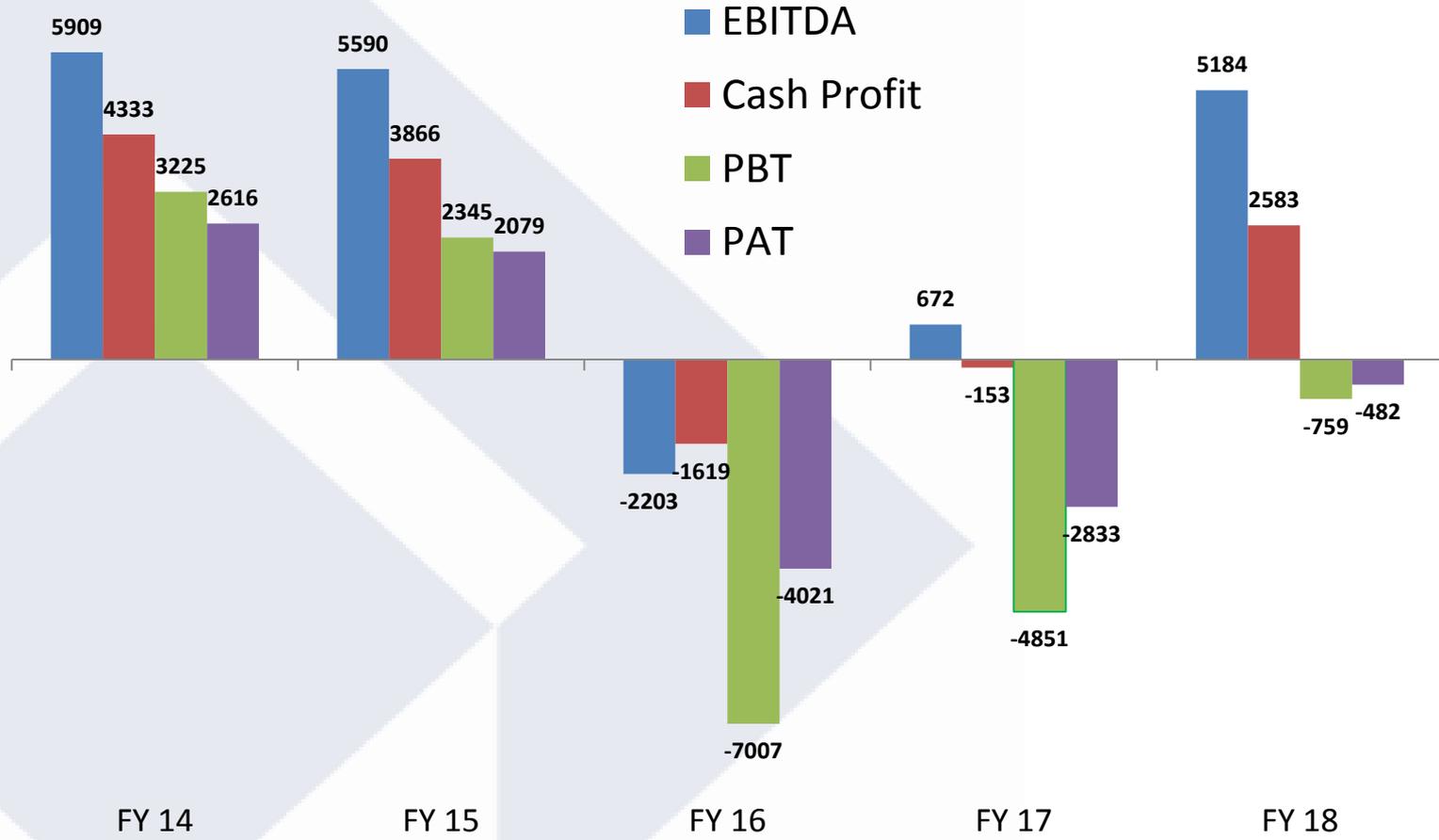
- ❖ Net Sales : Rs 15660 Crore
- ❖ EBITDA : Rs 2653 Crore
- ❖ PBT : Rs 950 Crore
- ❖ PAT : Rs 616 Crore

PRODUCTION & SALES PERFORMANCE

- ❖ Hot Metal Production : 4.601 MT
- ❖ Crude Steel Production : 4.281 MT
- ❖ Saleable Steel Production : 3.795 MT
- ❖ Semis component in production : 19.51% of saleable steel
- ❖ Value Added Production : 1.705 MT
- ❖ Production through concast route : 3.544 MT
- ❖ Saleable Steel Sales : 3.237 MT

FINANCIAL PERFORMANCE

Annual Profit Trend



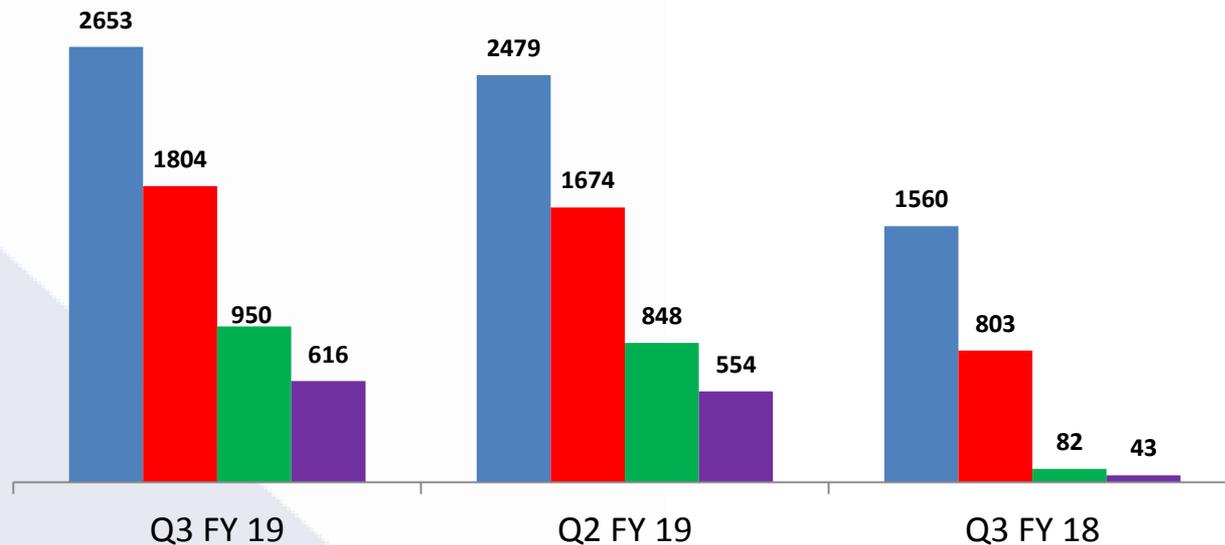
All figures in Rs crore

FINANCIAL PERFORMANCE

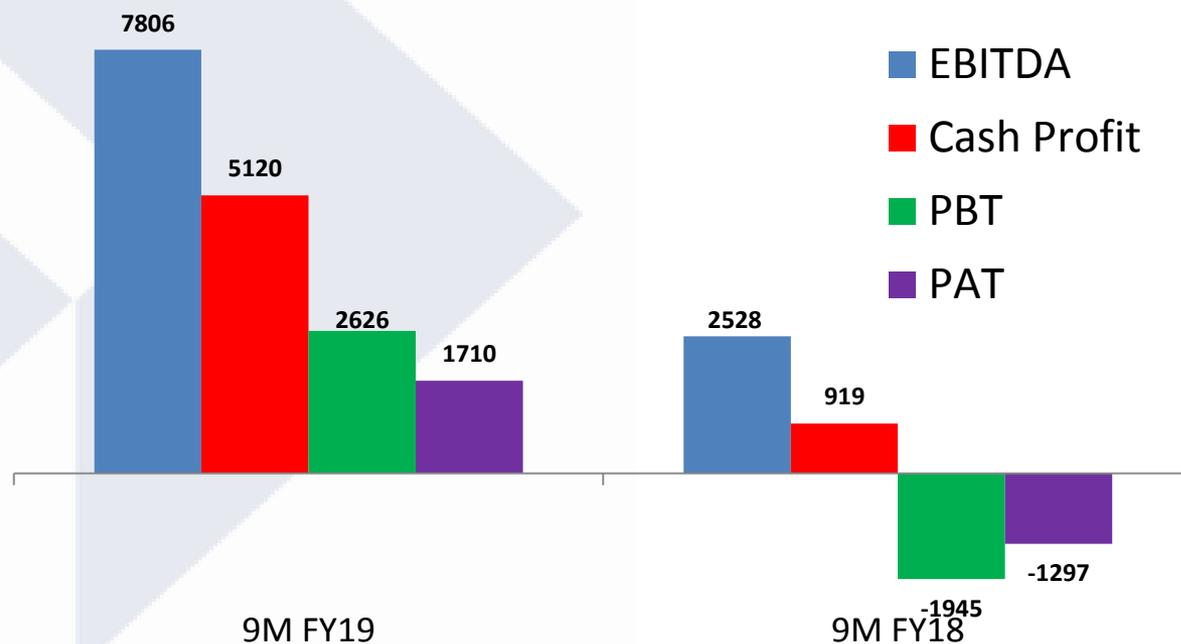


**Quarterly
Performance
Q3 FY 19 vs
Q2 FY 19 vs
Q3 FY 18**

All figures in Rs crore



**Nine
Monthly
Performance
9M FY 19 vs
9M FY 18**



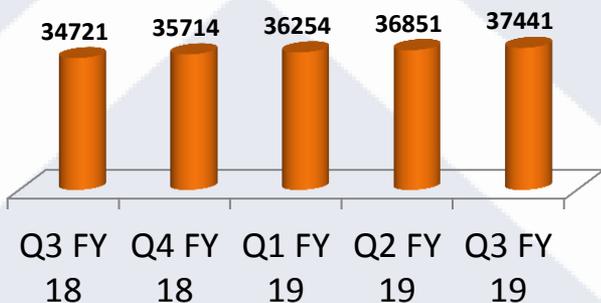
FINANCIAL PERFORMANCE



Annual Net Worth

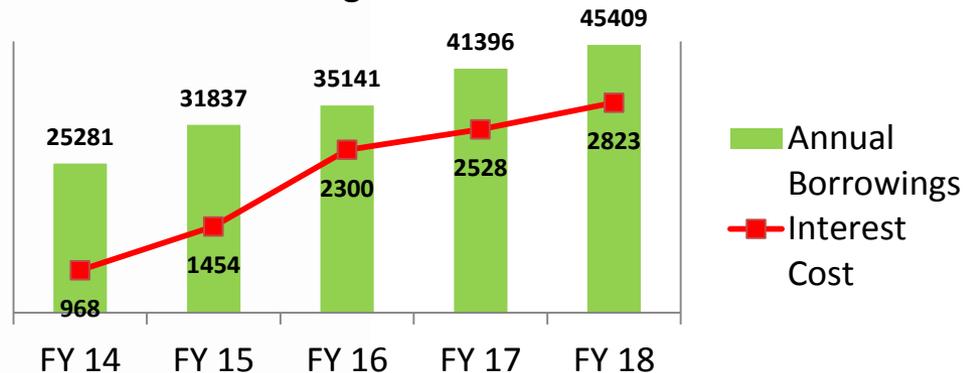


Quarterly Net Worth

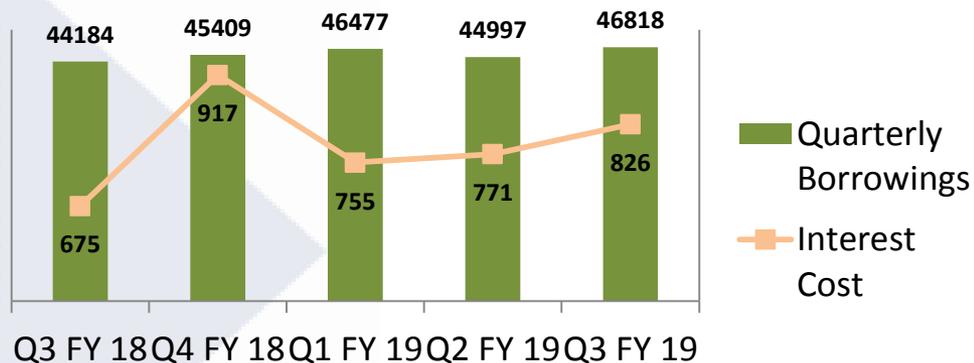


All figures in Rs. crore

Annual Borrowings & Interest cost



Quarterly Borrowings & Interest cost



Debt Equity Ratio

31/03/16	31/03/17	30/09/2017	31/03/18	30/09/2018	31/12/2018
0.90	1.15	1.28	1.27	1.22	1.25

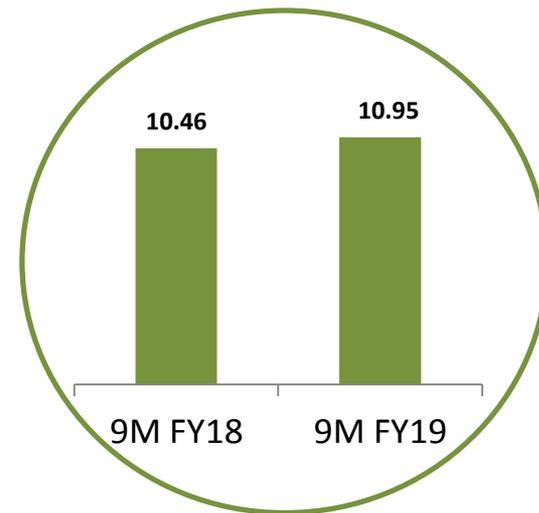
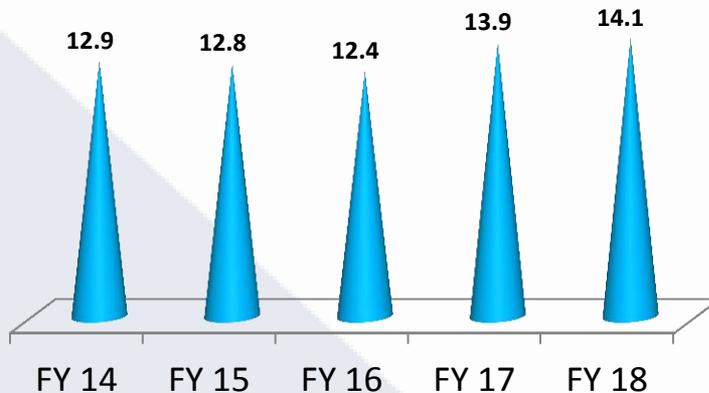
FINANCIAL PERFORMANCE

Rs. Crore (INDAS Compliant figures)	9MFY19	9MFY18	Q3 FY 19	Q2 FY 19	Q3 FY 18
Sales	47944	41486	15660	16541	15190
EBITDA	7806	2528	2653	2479	1560
Depreciation	2494	2216	855	826	760
Finance Cost	2352	1906	825	771	675
PBT Before Exceptional Items	2960	-1594	973	882	126
Exceptional/Abnormal Items (VRS/Suspended Operations)	335	351	23	34	43
PBT After Exceptional Items	2626	-1945	950	848	82
Tax	915	-648	333	294	39
Profit After Tax	1710	-1297	616	554	43

PRODUCTION PERFORMANCE

All figures In Million Tonne

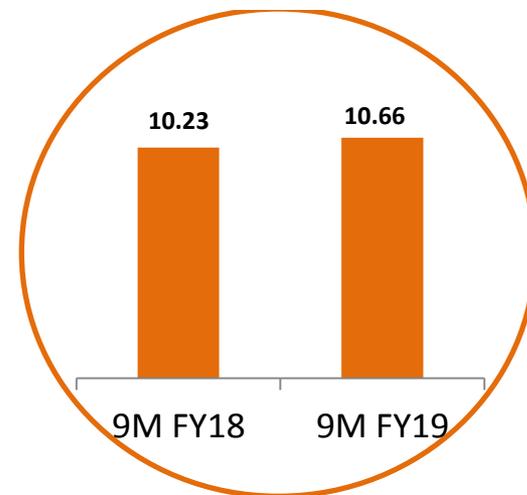
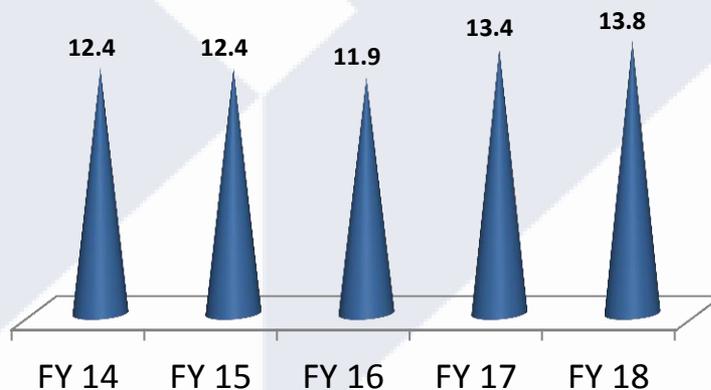
SALEABLE STEEL PRODUCTION (incl. SSPs)



Annual

9 Monthly

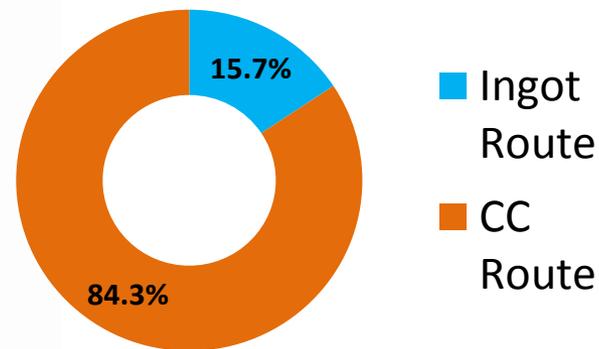
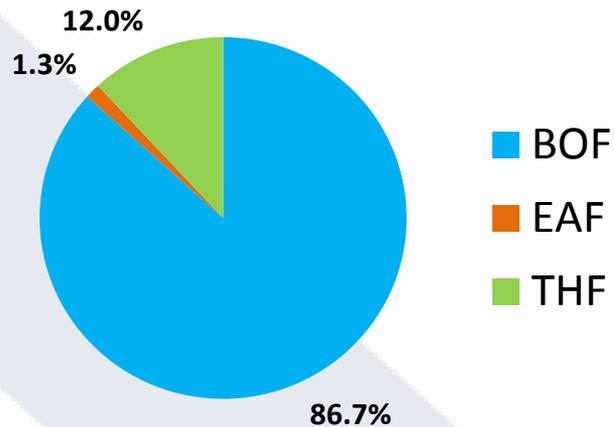
SALEABLE STEEL PRODUCTION (5 ISPs)



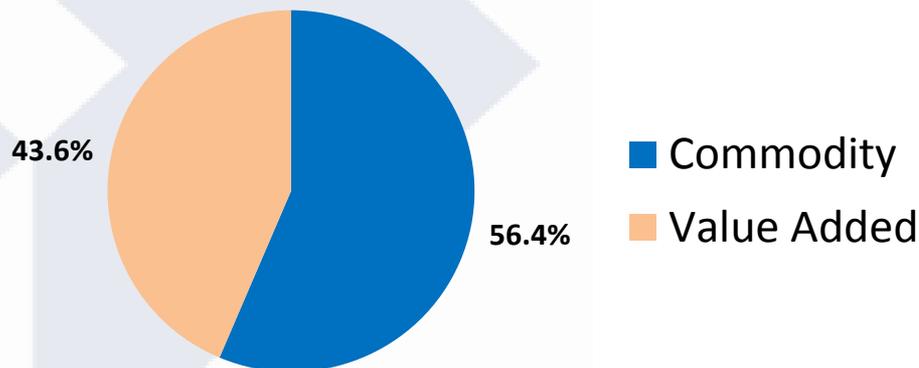
PRODUCTION PERFORMANCE : 9M FY19



CRUDE STEEL PRODUCTION BY PROCESS

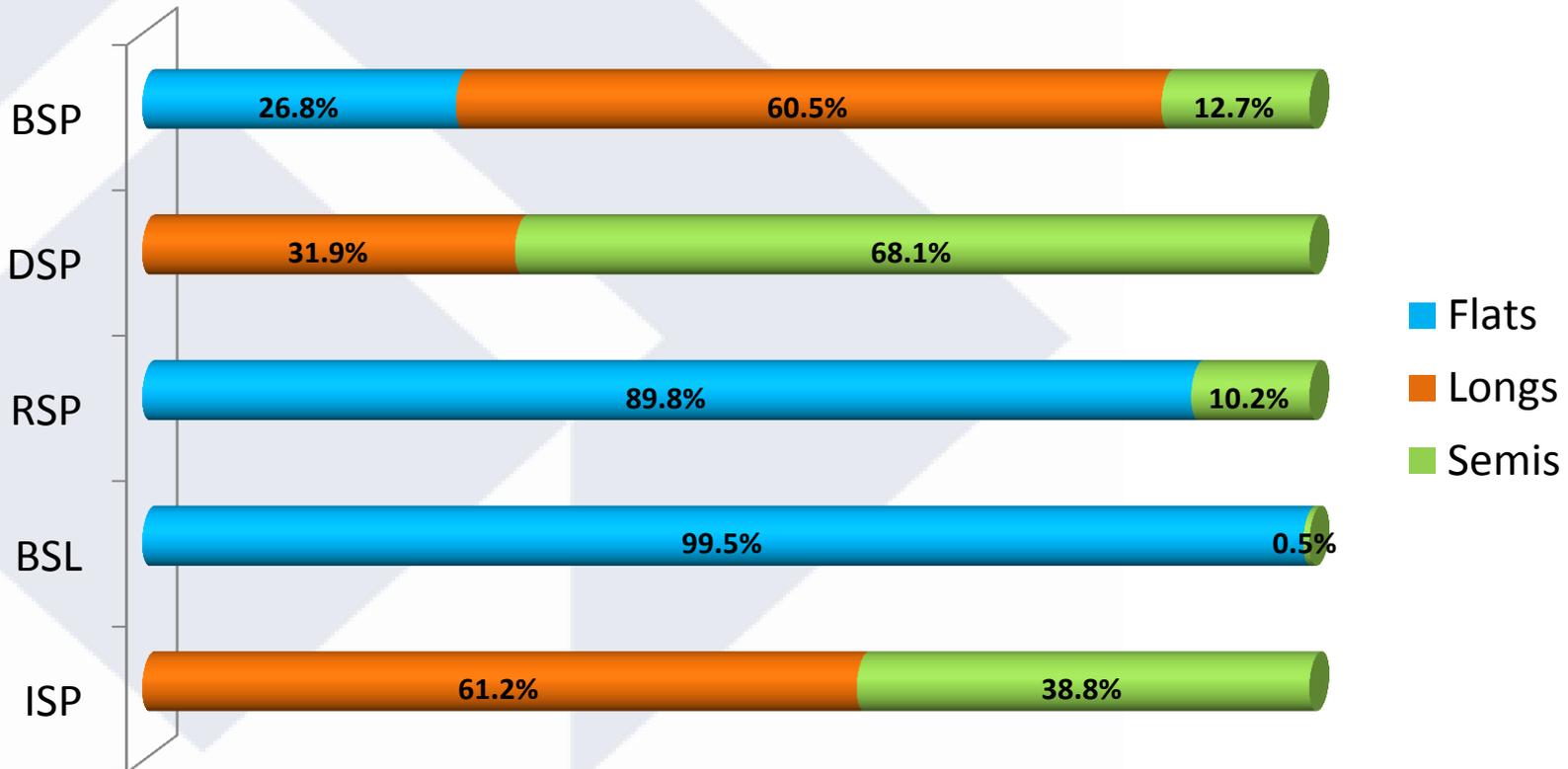
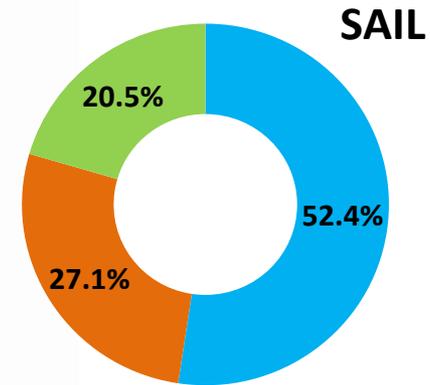


SALEABLE STEEL PRODUCTION BY PROCESS



PRODUCTION PERFORMANCE : 9M FY 19

PRODUCT MIX : 5 ISPs



PRODUCTION PERFORMANCE

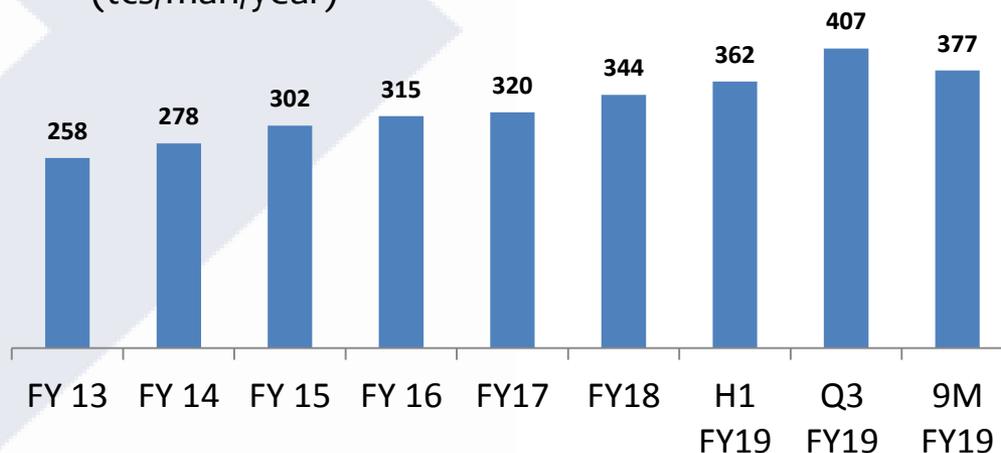
MAJOR TECHNO-ECONOMIC PARAMETERS

Parameter	9M FY 18-19	H1 FY 18-19
Coke Rate (kg/thm)	457	460
Fuel Rate (kg/thm)	562	564
Specific Energy Consumption (GCal/TCS)	6.55	6.58
BF Productivity (T/m ³ /day)	1.60	1.55

MANPOWER & LABOUR PRODUCTIVITY

Total manpower as on
01.01.2019: **73,384**

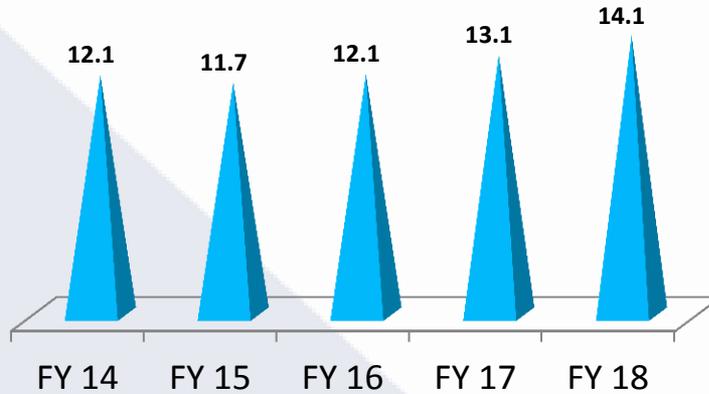
LABOUR PRODUCTIVITY (tcs/man/year)



SALES PERFORMANCE

All figures In Million Tonne

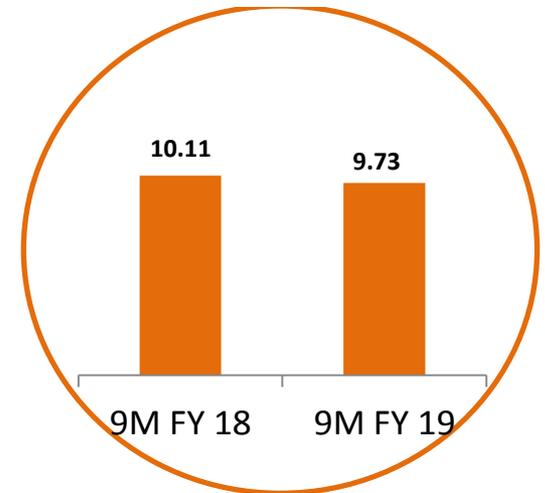
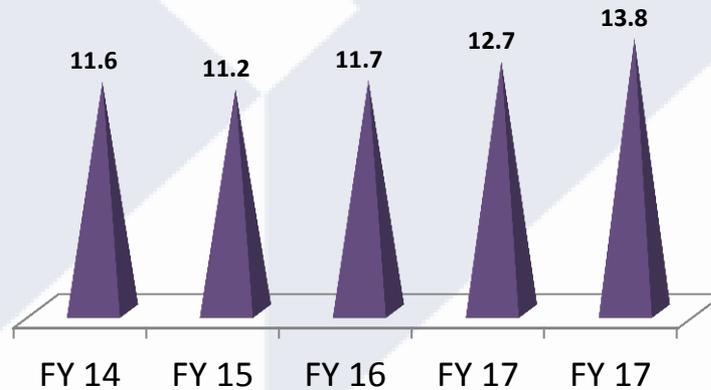
TOTAL SALES (incl. SSPs)



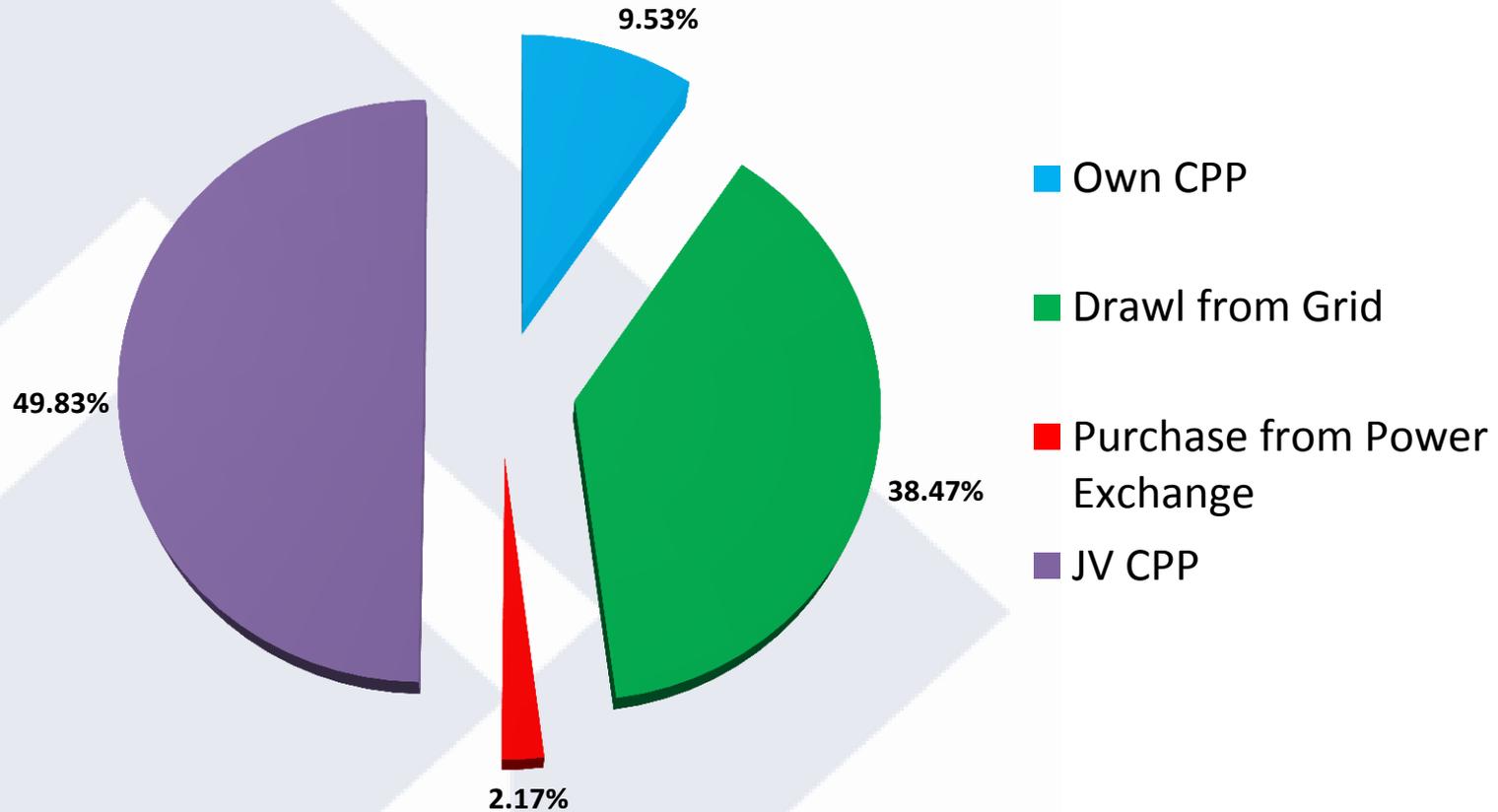
Annual

9 Monthly

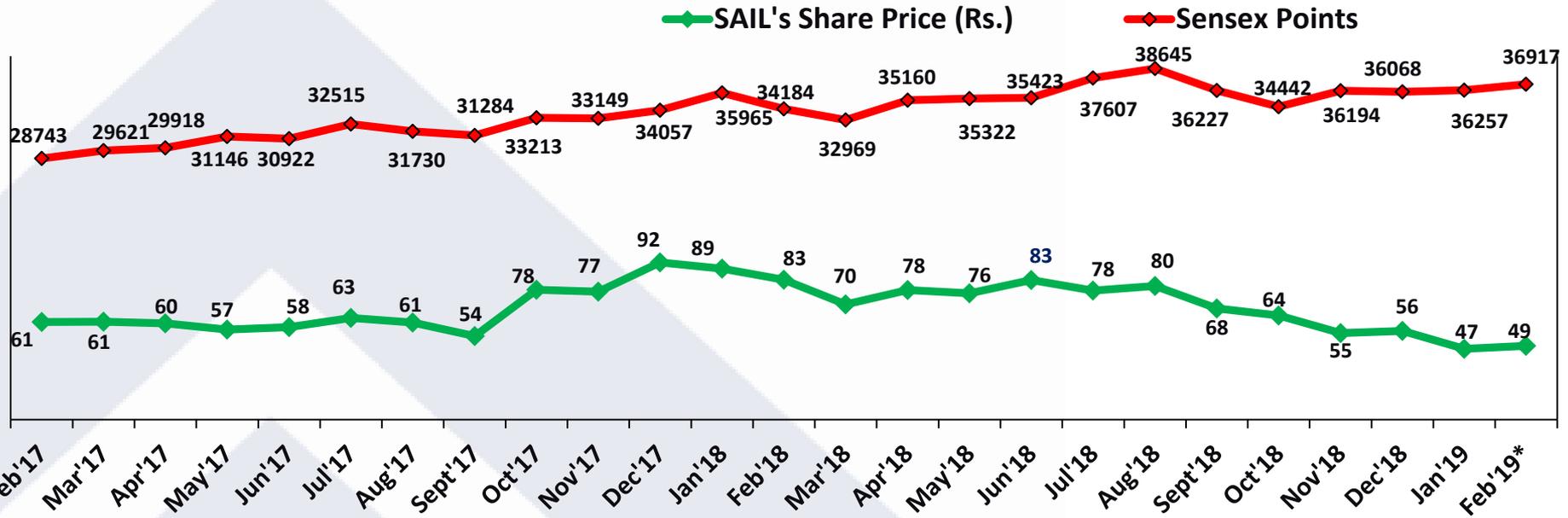
SALES OF 5 ISPs



POWER CONSUMPTION – 9M FY 19



SAIL STOCK PRICE MOVEMENT



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

* As on Feb 7, 2018

DIVIDEND PAYOUT

	Interim (%)	Final (%)	Total (%)	Dividend (Rs. crore)	Dividend Tax (Rs. crore)
FY 18	-	-	-	-	-
FY 17	-	-	-	-	-
FY16	-	-	-	-	-
FY15	17.5	2.5	20	826	165
FY14	20.2	-	20.2	834	142
FY13	16	4	20	826	134

SAIL's MODERNISATION & EXPANSION PLAN

Million Tonne	Actual Production 2017-18	Capacity After On-going Expansion
Crude Steel	15.021	21.4
Saleable Steel	14.071	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

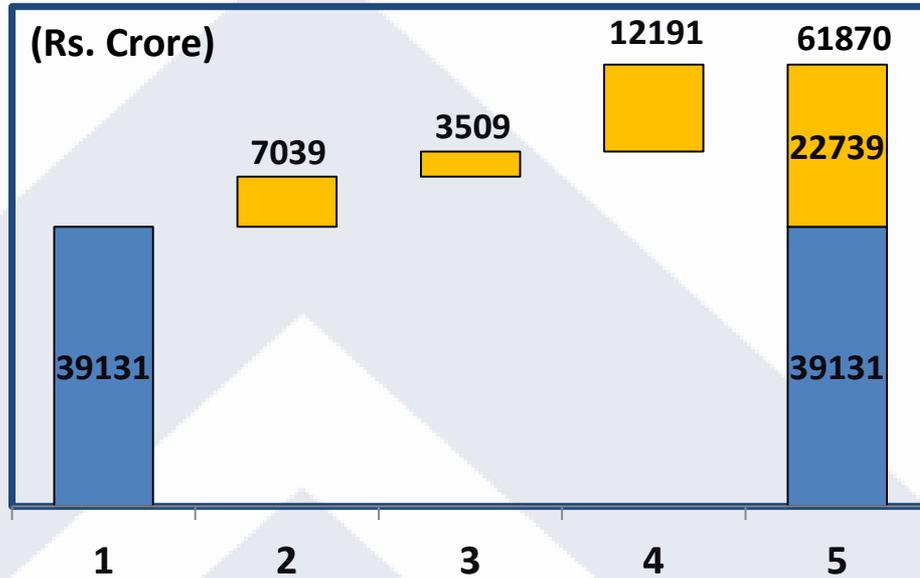
EXPECTED OUTCOME

- 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)

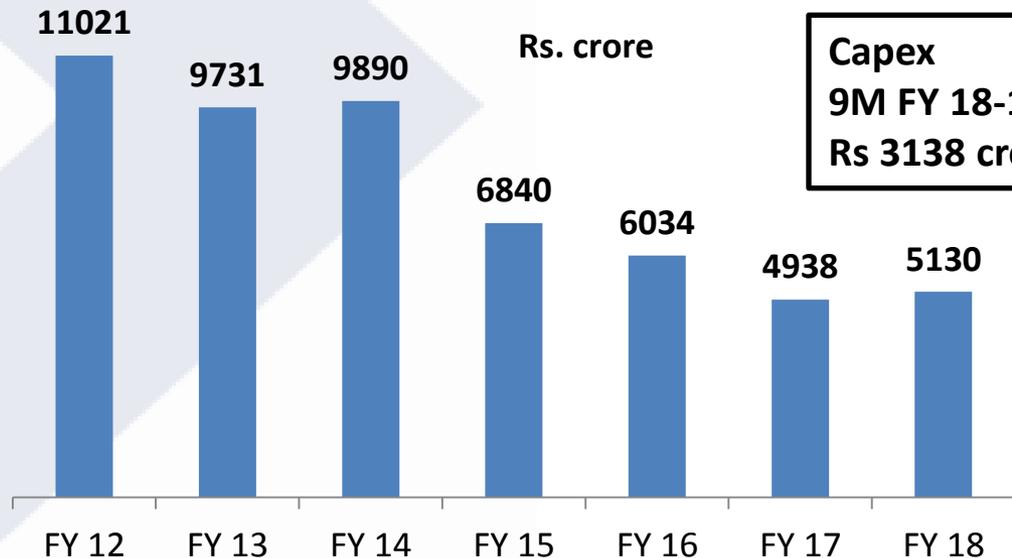


- 1 Expansion of existing capacity
- 2 Value-addition / Product-mix improvement
- 3 Technological up gradation / Modernization
- 4 Sustenance including de-bottlenecking, AMR & Environment
- 5 Total Estimated Cost

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

TOTAL CAPEX (INCL. ON MODERNISATION & EXPANSION)

Capex Plan for FY18 was Rs.4700 Crore (including expenditure towards Capital Repairs and Spares needed to be capitalised under Ind AS).
Capex Plan for FY19 is Rs.4000 Crore



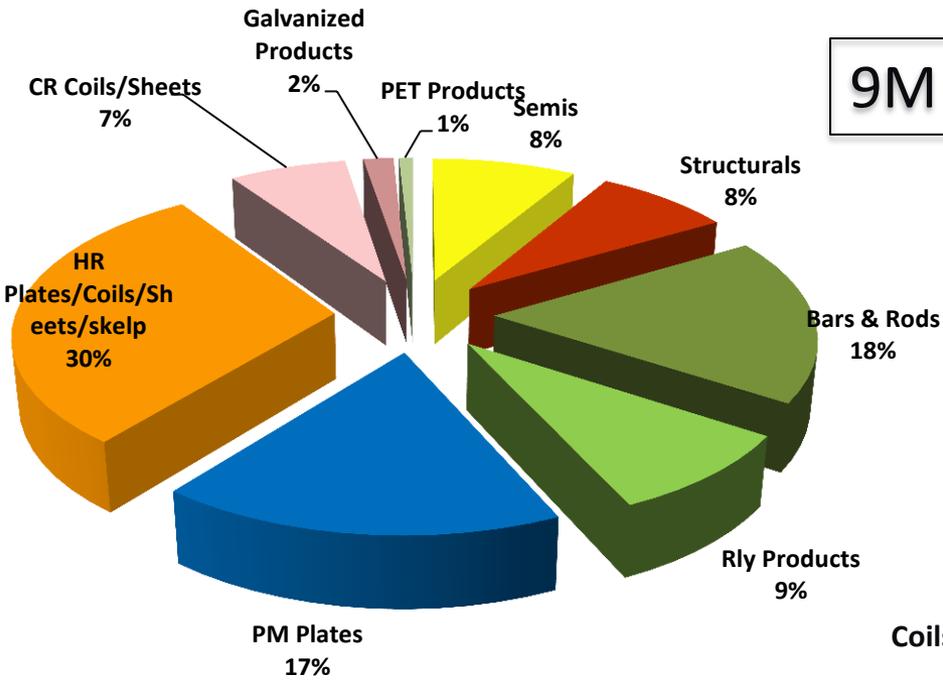
Capex during 9M FY 18-19 was Rs 3138 crore

CAPACITY AFTER EXPANSION

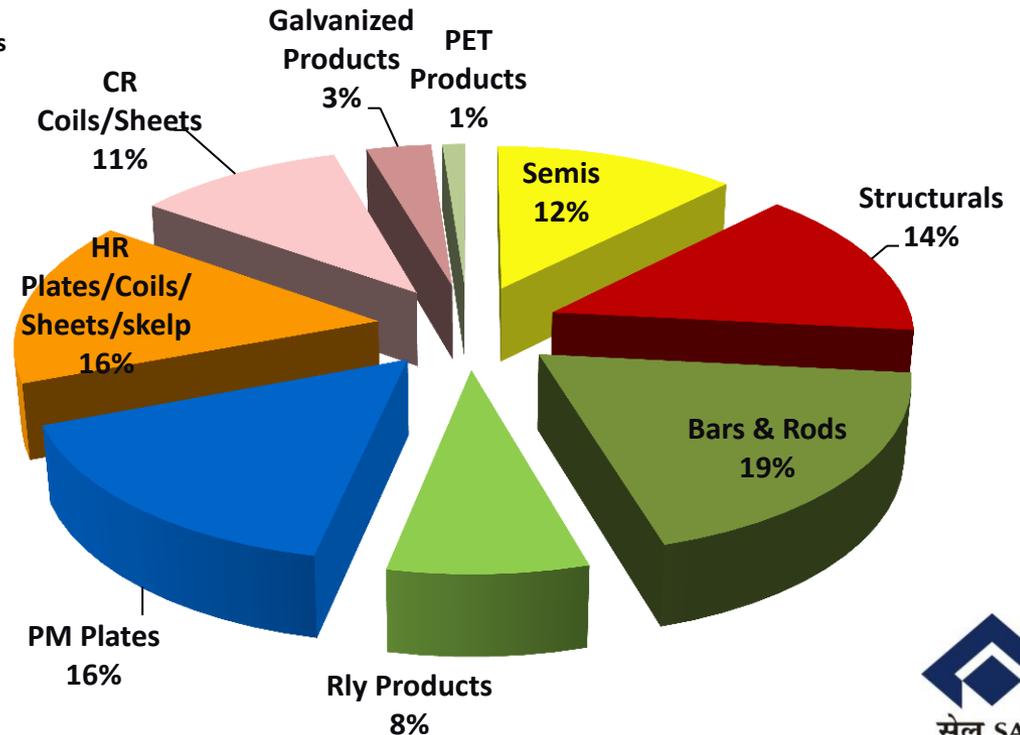
Plant	Hot Metal (MTPA)		Crude Steel (MTPA)		Saleable Steel (MTPA)	
	2017-18	After Expansion	2017-18	After Expansion	2017-18	After Expansion
BSP	4.28	7.5	4.07	7.0	3.69	6.6
DSP	2.28	2.5	2.04	2.2	1.95	2.1
RSP	3.32	4.5	3.22	4.2	2.94	4.0
BSL	4.05	5.8	3.69	4.6	3.50	4.2
ISP	2.06	2.9	1.80	2.5	1.69	2.4
VISL	0.00	0.3	0.00	0.2	0.01	0.2
ASP	-	-	0.10	0.5	0.09	0.4
SSP	-	-	0.10	0.2	0.20	0.3
TOTAL	15.98	23.5	15.02	21.4	14.07	20.2

PRODUCT MIX POST EXPANSION – SALEABLE STEEL

9M FY 19



Post Ongoing Expansion



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) :

Item	2017-18 (Actual)	After Expansion
Crude Steel	0.10	0.18
Saleable Steel	0.20	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)

MODERNISATION & EXPANSION PLAN - IISCO STEEL PLANT

- New stream to produce 2.7 Mtpa of Hot Metal & 2.5 Mtpa of Crude Steel

Production (MTPA) :

Item	2017 -18 (Actual)	After Expansion
Crude Steel	1.80	2.50
Saleable Steel	1.69	2.39

The expanded capacity of IISCO Steel Plant has been dedicated to the Nation by the Hon'ble Prime Minister on 10.05.2015.

Current Progress of Expansion at IISCO Steel Plant



Coke Oven Battery



Sinter Plant

Blast Furnace



BOF Converters



Billet Casters



Wire Rod Mill

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).

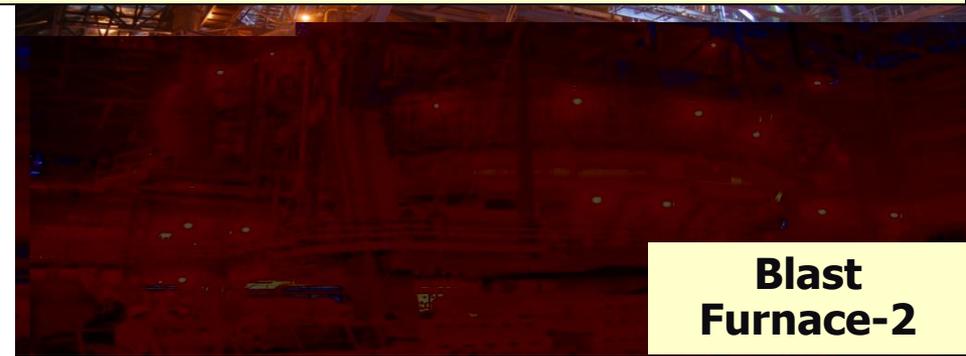
Production (MTPA) :

Item	2017-18 (Actual)	After Expansion
Crude Steel	3.69	4.61
Saleable Steel	3.50	4.18

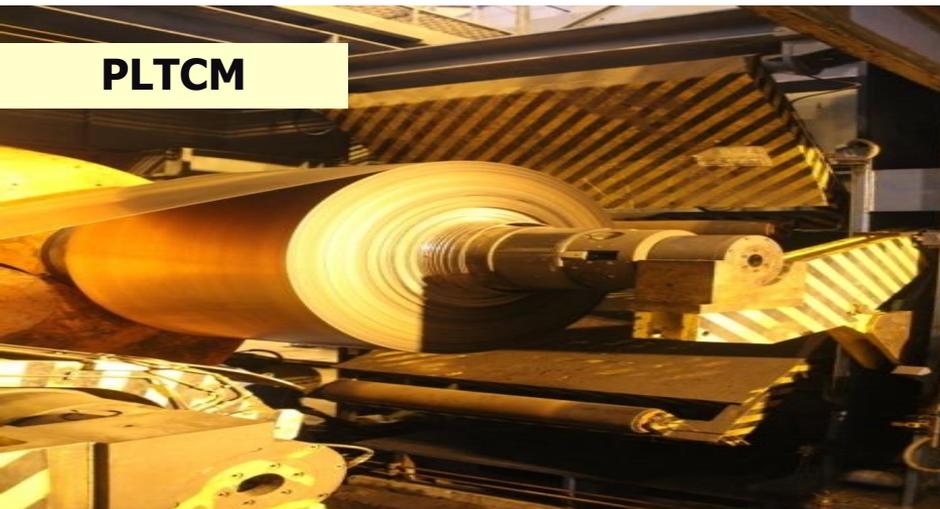
Current Progress of Expansion at Bokaro Steel Plant



**Coke Oven
battery-2**



**Blast
Furnace-2**



PLTCM



Coil Packaging Line



**Skin Pass
Mill**



Bell Annealing Furnace

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 Line of Bar and Rod Mill (0.9 MTPA)
- Blast Furnace 4060 m³ (2.8 Mtpa)
- New Steel Melting Shop (SMS-3) with Converter-1 and New Billet Casters (2x6).

Facilities Likely to be Completed During FY 18-19:

- Converter - 2, LF -2 and New Billet-cum-Bloom Caster (1X6) in SMS -3.
- Wire Rod Line (Lateral Line) of Bar and Rod Mill

Production (MTPA) :

Item	2017 -18 (Actual)	After Expansion
Crude Steel	4.07	7.0
Saleable Steel	3.69	6.56

Current Progress of Expansion at Bhilai Steel Plant



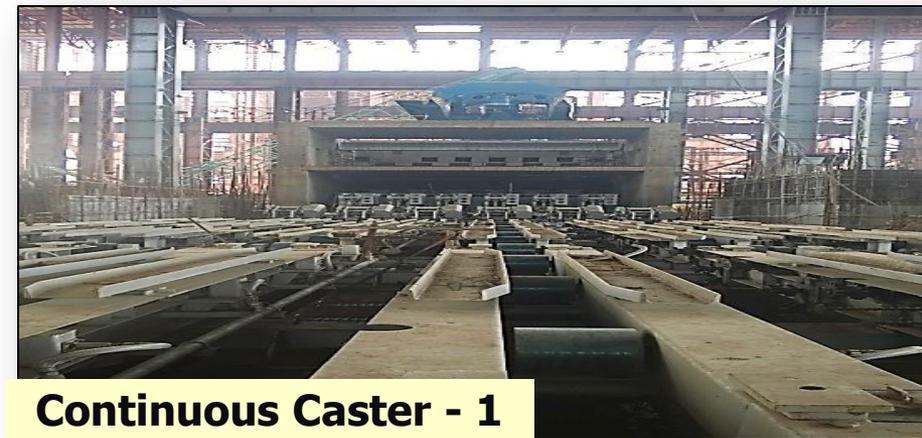
Sinter Machine



Coke Oven Battery - 11



Blast Furnace - 8



Continuous Caster - 1



Bar & Rod Mill



Universal Rail Mill

MODERNISATION & EXPANSION PLAN– ROURKELA STEEL PLANT

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

Production (MTPA) :

Item	2017-18 (Actual)	After Expansion
Crude Steel	3.22	4.20
Saleable Steel	2.94	3.99

The expanded capacity of Rourkela Steel Plant has been dedicated to the Nation by the Hon'ble Prime Minister on 01.04.2015.



Current Progress of Expansion at Rourkela Steel Plant



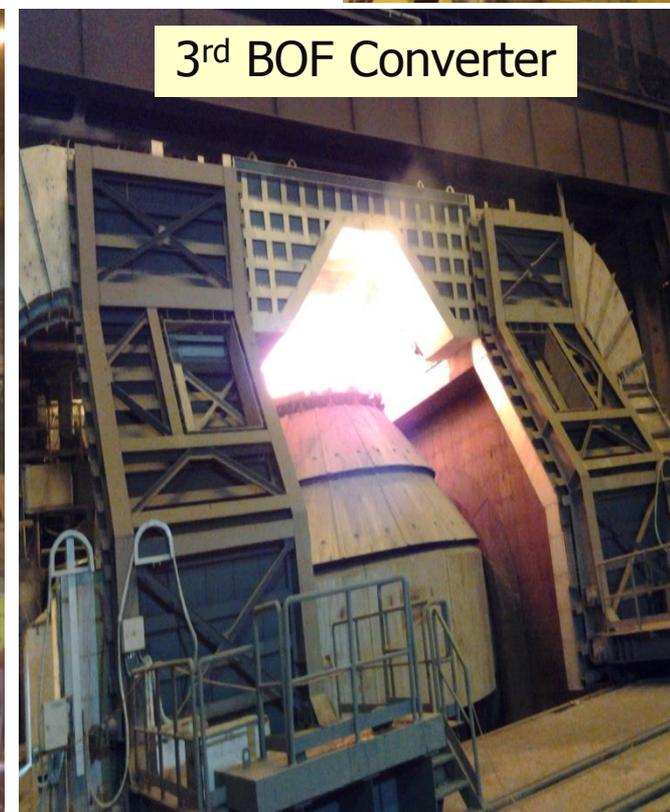
Coke Oven
Battery - 6



Sinter Plant - 3



Blast Furnace -
5 Tapping



3rd BOF Converter



3rd Slab Caster

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)

Production (MTPA) :

Item	2017-18 (Actual)	After Expansion
Crude Steel	2.04	2.20
Saleable Steel	1.95	2.12

Current Progress of Expansion at Durgapur Steel Plant



Coke Oven Battery-2



Ladle Furnace-3



Bloom cum Round Caster



Medium Structural Mill

RAW MATERIALS

Year	Hot Metal (mtpa)	Iron Ore Consumption (mtpa)	Linkages of Iron Ore
2017-18	15.983	25.87	Existing Mines
Post Expansion	23.46	39	<p>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</p> <p>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</p> <p>In addition to the above, new mechanised Iron Ore Mines are being developed at Rowghat, Chiria and Taldih</p>

RAW MATERIALS – Iron Ore

Mine	Existing Capacity* (mtpa)	Capacity* after ongoing expansion (mtpa)	Remarks
Kiriburu	5.50	5.50	<ul style="list-style-type: none"> Expansion at Kiriburu has already been completed whereas Meghathaburu is being ramped up to meet the requirement of the ongoing expansion plan. At Bolani, processing plant has been upgraded to 7.5 mtpa and is under stabilization. At Gua, Stage II FC is awaited from MoEF required for expansion. **Depleted resources and quality constraints New Pellet Plants shall use the existing reserve of fines incl. dumps & slimes at captive mines
Meghathaburu	5.00	6.50	
Bolani	7.50	10.00	
Gua	4.00	10.00	
Rajhara, Dalli	8.70	7.00**	
New Pellet Plants	New	7.00	
Barsua, Kalta, Taldih	6.00	6.50	<ul style="list-style-type: none"> Environment clearance obtained & FC obtained on 23rd Oct. 2017 for ML-162 lease. Consequent to the order by the Hon'ble Supreme Court dated 11.05.2018 and grant of subsequent clearances by the Government of Odisha, production at Barsua mine resumed on 20.05.2018.
Rowghat	New	12.00	All statutory clearances have been received. MDO has been engaged and LOA issued to MDO on 1 st August 2017. MSA signed on 25.09.2017 for a period of 30 years.
Chiria	0.75	5.80	Stage-II FC awaited from MoEF.

* Finished Product capacity

▪ The entire requirement of the increased capacity shall be met through captive mines

RAW MATERIALS – Coal

Year	Hot Metal (mtpa)	Coking Coal Requirement (mtpa)	Linkages of Coking Coal
2017-18	15.983	15.392	<ul style="list-style-type: none"> • Import Component – 86% • Over 70% of imported coal is sourced from Australia. • Indigenous: 13% • Domestic coal is largely sourced from Coal India Ltd. • SAIL has existing captive clean coking coal production of nearly 0.7 mtpa, During 2017-18, production was 0.66 mt.
Post Expansion	23.46	19.5	<ul style="list-style-type: none"> • 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.

MAJOR JOINT VENTURES

FOCUS AREA	ALLIANCE PARTNER	REMARKS
<p>STEEL</p>	  <p>एन एम डी सी N M D C</p>	<ul style="list-style-type: none"> ▪ 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.
<p>DOWNSTREAM STEEL PROCESSING UNITS</p>	  <p>BMWIL BMW Industries Ltd</p> <p>PRIME GOLD PURE STEEL (TMT)</p>	<ul style="list-style-type: none"> ▪ 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.
<p>ENERGY</p>	  <p>एन टी पी सी NTPC</p>	<ul style="list-style-type: none"> ▪ 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
<p>TECHNOLOGY</p>		<ul style="list-style-type: none"> 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.
<p>RAW MATERIALS</p>		<ul style="list-style-type: none"> 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.
<p>CEMENT</p>		<ul style="list-style-type: none"> Bhilai Jaypee Cement Ltd. -Slag 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	 <p>RITES THE INFRASTRUCTURE PEOPLE</p>	<ul style="list-style-type: none">▪ 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	 <p>TATA TATA STEEL</p>	<ul style="list-style-type: none">▪ 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 Hot Metal
• THF	Twin Hearth Furnace	• Tpd	Tonnes Per Day
• EAF	Electric Arc Furnace	• MT	Million Tonne
• BSP	Bhilai Steel Plant	• Mtpa	Million Tonne Per Annum
• DSP	Durgapur Steel Plant	• EBITDA	Earnings Before Interest, Taxes, Depreciation & Amortization.
• RSP	Rourkela Steel Plant	• PAT	Profit After Tax
• BSL	Bokaro Steel Limited	• PBT	Profit Before Tax
• SSP	Salem Steel Plant	• RINL	Rashtriya Ispat Nigam Limited
• VISL	Visvesvaraya Iron & Steel Plant	• CS	Crude Steel
• ASP	Alloy Steels Plant	• CDI	Coal Dust Injection
• CPLY	Corresponding Period Last Year	• CC	Continuous Casting
• G.Cal/tcs	Giga Calories per tonne of Crude Steel	• BOO	Build-Own-Operate
• ISP	Integrated Steel Plant	• GoI	Government of India
• HDGL	Hot Dip Galvanizing Line	• MOEF	Ministry of Environment & Forests
• CR	Cold Rolled		
• HR	Hot Rolled		

Disclaimer



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