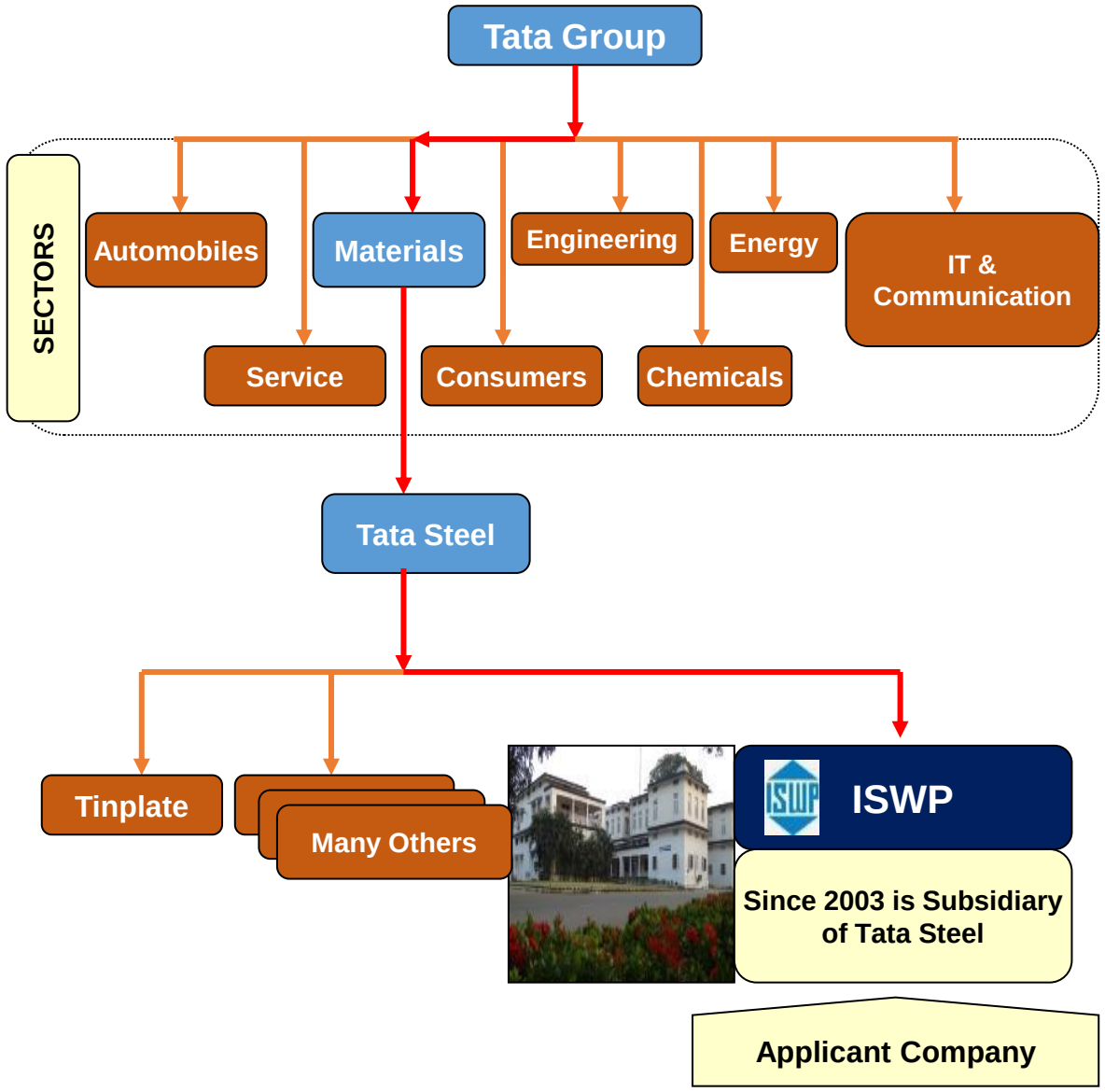
A TATA Enterprise

CII National Awards
For
Excellence In Energy Management 2021

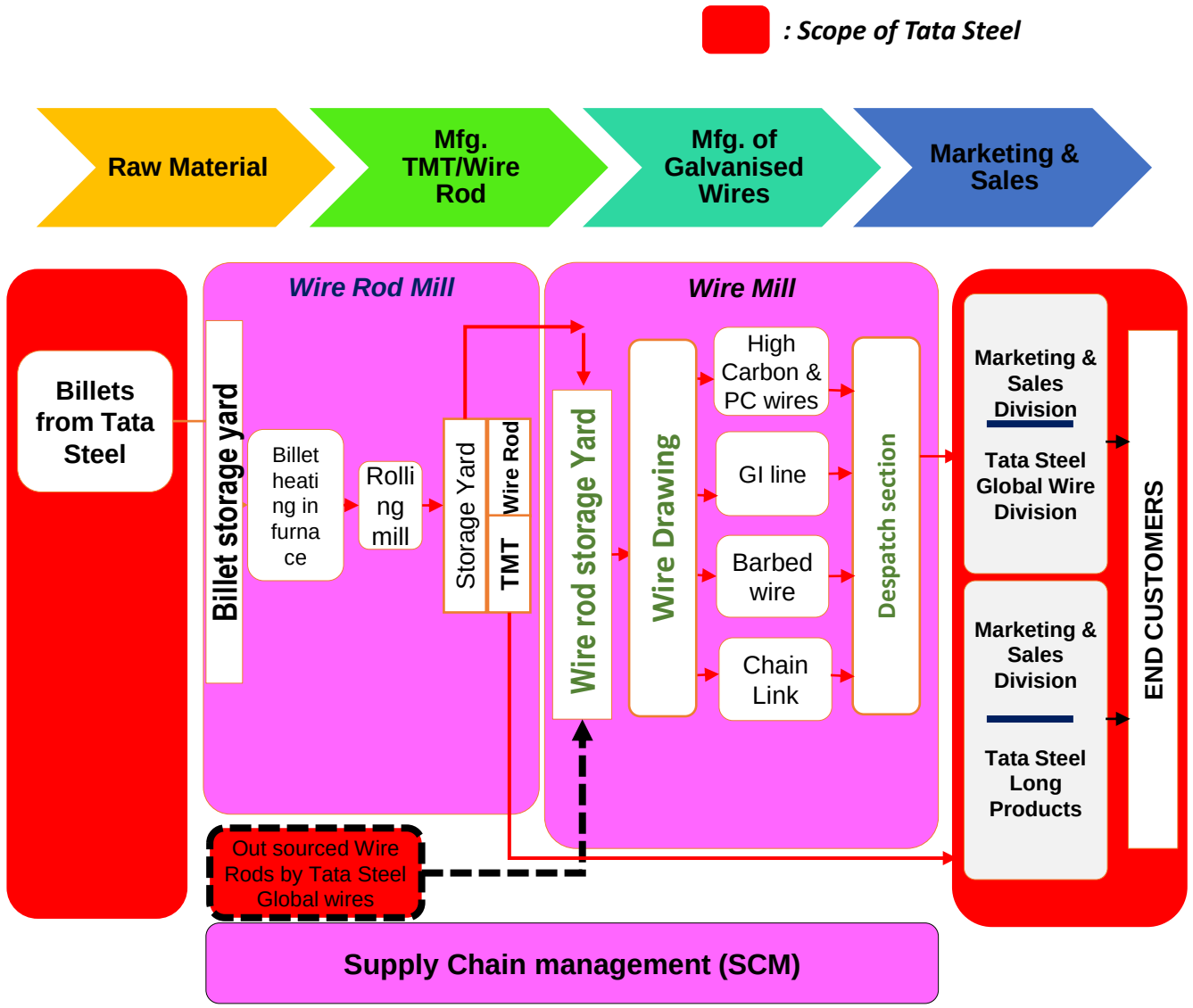
PRESENTED BY:

Mr. Soumendu Ray (AGM)
Mr. Chandan Kumar (Sr. Mgr)
Mr. Amit Kumar (Energy Manager)
Mr. SK Abrar Ali (Environment Officer)

Company Profile & Process Flow



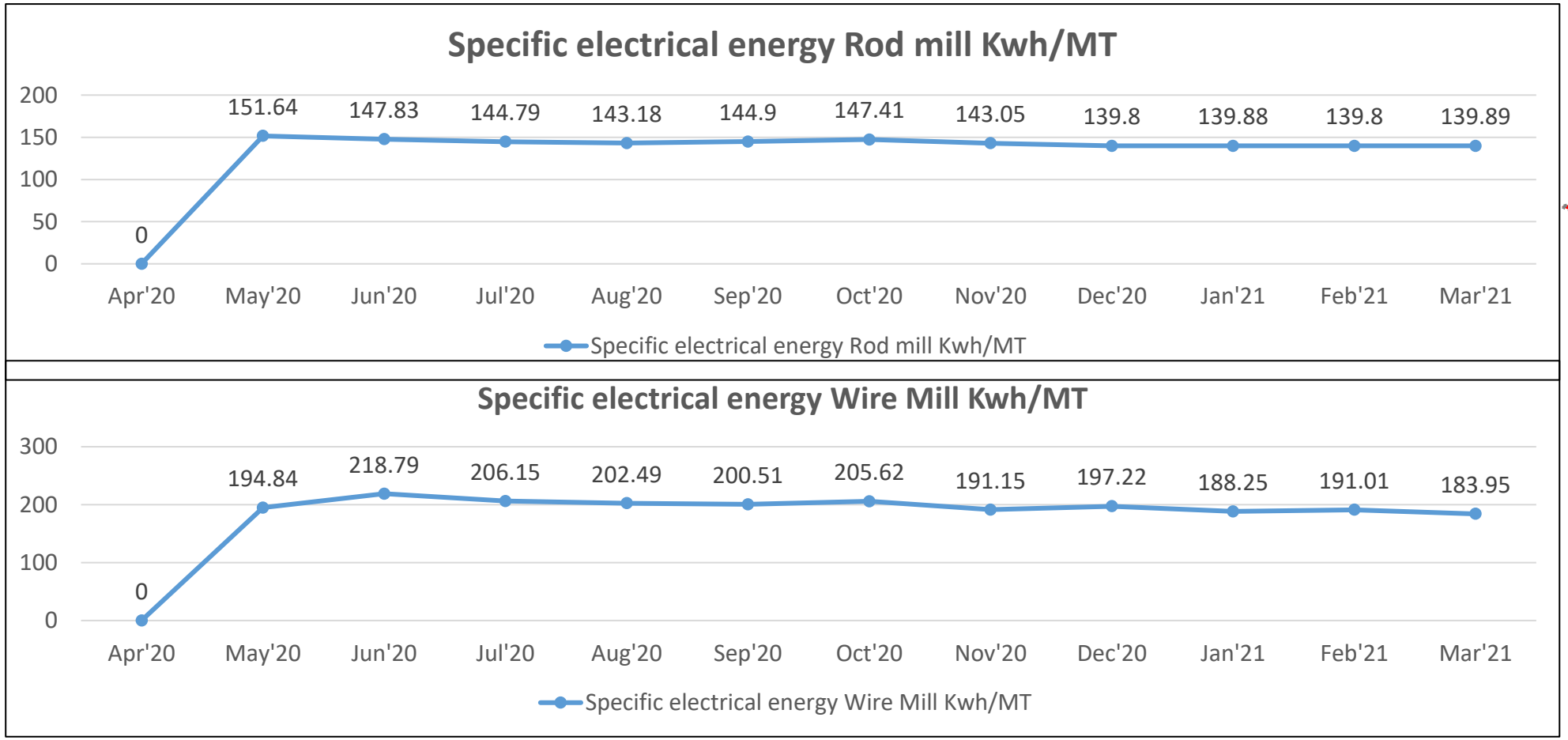
Company Profile



Process Flow

Impact of COVID 19

Due to COVID 19 situation plant was closed from 21st March to 30th April, due to that SEC spikes a little bit in the month of April, but we manage to bring it down to within the limit in average calculation of FY'21.



Plant was closed from 24th March'20 to 30th Apr'20, so there is a slight fluctuation In SEC

Energy Consumption of ISWP FY'21

Purchased Power
41935 MWh
(3606 TOE)

Furnace Oil
7682 KL
(7208 TOE)

LPG
1433 Ton
(1791 TOE)

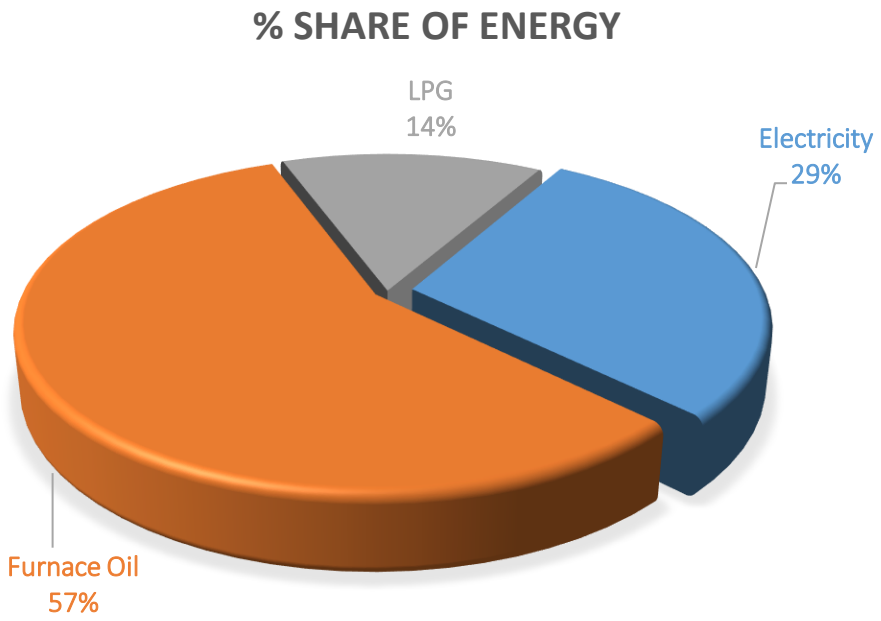
Overall Energy Consumption = 12605 TOE

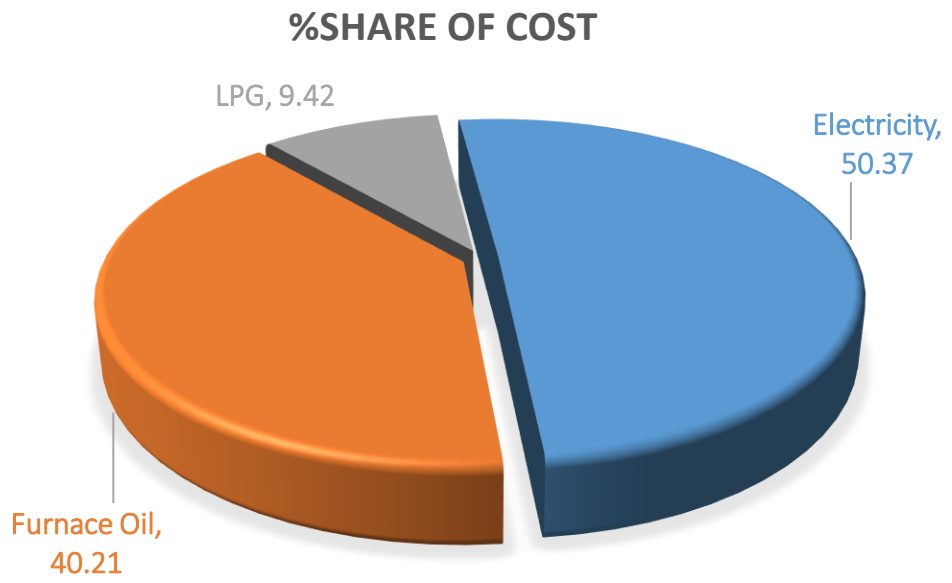
Energy Bill Accounts to 33 % of total Operating Cost In FY 21 compared to 42 % in FY 20

Energy Bill for FY'21
Rs. 57.52 Crores

Energy Consumption of ISWP FY'21

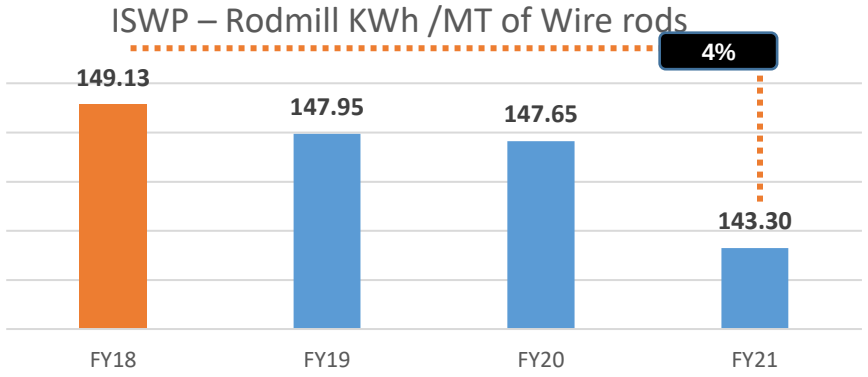
Energy Type		Purchased Units FY 20	Purchased Units FY 21	Consumption		Cost	
				TOE	%	Rs. In crores	%
Electrical	Electricity	47112 MWh	41945 MWh	3606	29%	29	50.37%
Thermal	Furnace Oil	8438 KL	7682 KL	7208	57%	23.15	40.21%
	LPG	1713 Ton	1433 Ton	1791	14%	5.42	9.42%

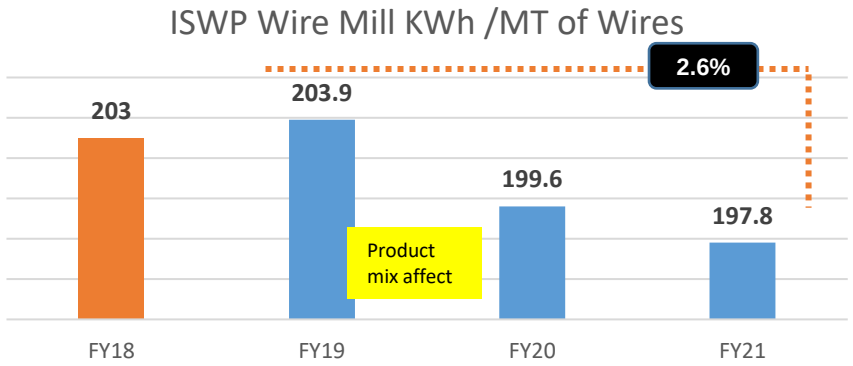




Specific Energy Consumption of ISWP FY'21

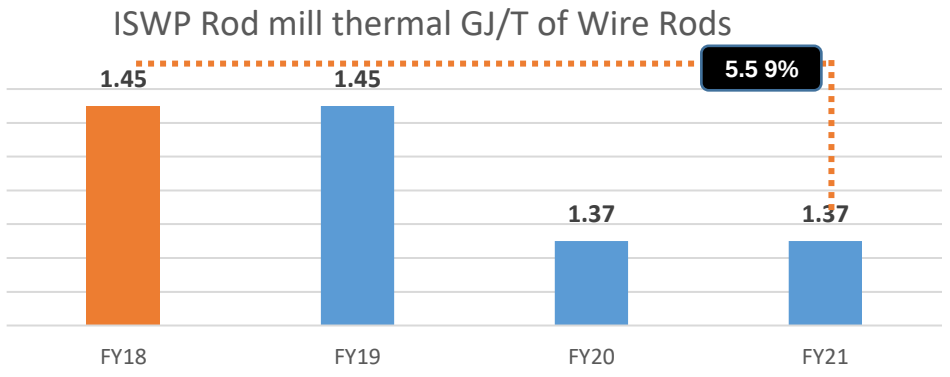
Specific Electrical Energy Consumption

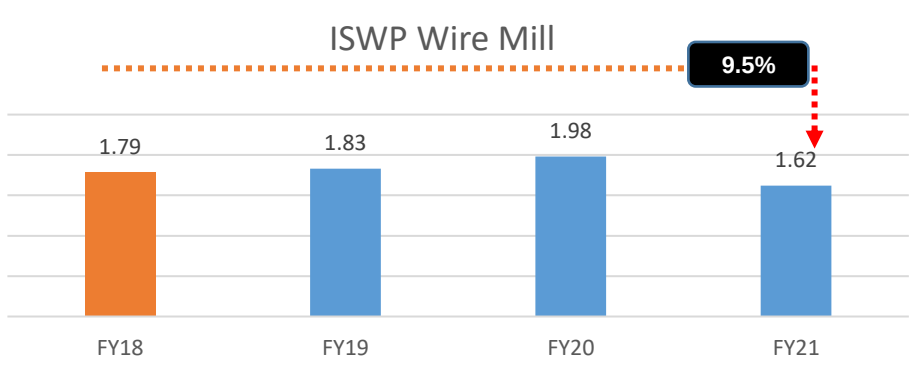




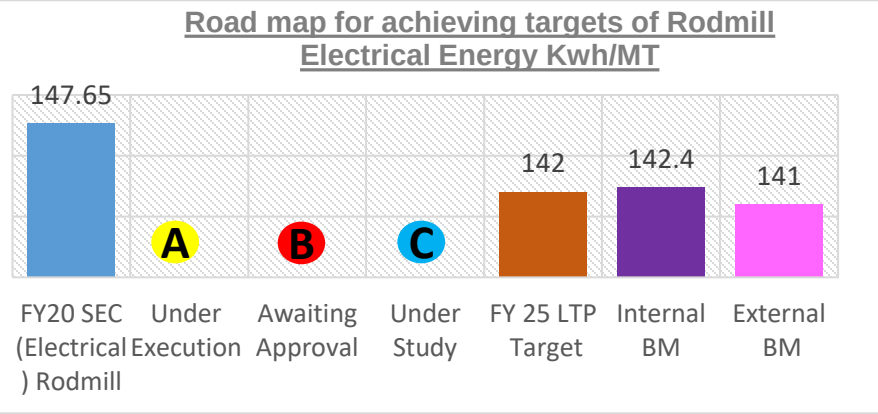
Operating the mill with 60% less speed due to thinner size, resulting in no substantial change in production volume.

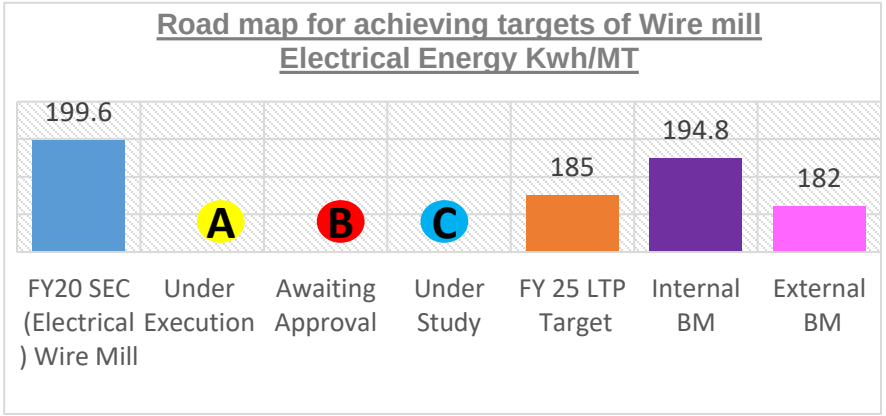
Specific Thermal Energy Consumption





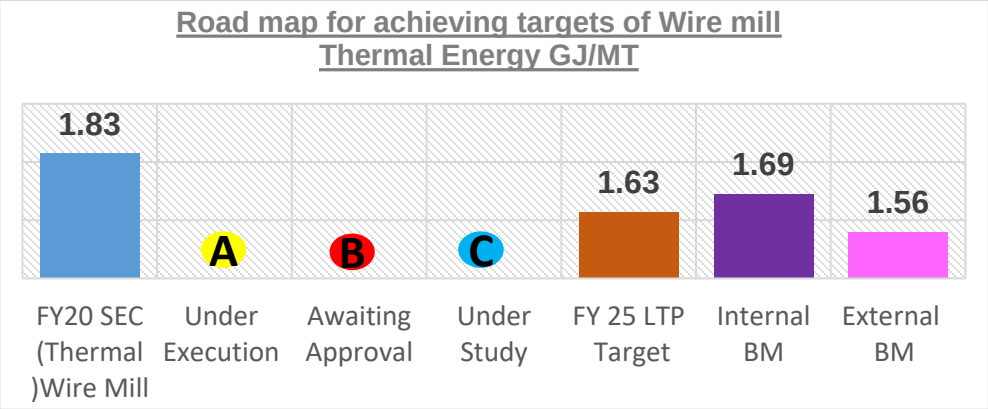
Road Map to Achieve The Target FY'21

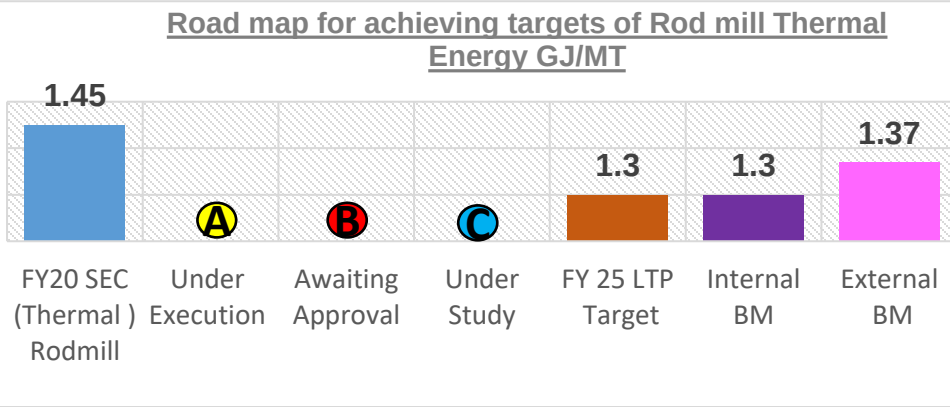




Status	Energy Improvement measures	Completion Date	Kwh/MT	Section
A	Heater less Vaporiser	FY 21	3.78	Wire Mill
A	Installation of 20 Kw Solar Roof top grid tied	FY 21	0.08	Entire Plant
A	Replacement of DC motors with AC motors for wire drawing machines(119)	FY 21	1	Wire mill
A	Installation of LED Lights	FY 21	1.0	Entire plant
B	Furnace Modification with better throughput (0.25M Ton to 0.35M Ton/Annum)	FY 22-23	3-4	Rodmill
B	Installation of 2.5 MW Solar Plant-onsite	FY 22	1.2	Entire Plant
B	4 Nos of DC motors replaced with efficient AC motors.	FY 22	Under study	Rodmill
C	Phase wise replacement of old inefficient transformer.	FY 23-24	Under study	Rodmill
C	Energy Efficient Cooling Towers	FY 23	1.2	Entire plant

Road Map to Achieve The Target FY'21





Status	Energy Improvement measures	Completion Date	GJ/MT	Section
A	Breaking of Complex hydrocarbon by Magnetic resonance	FY 21	0.049	Wire Mill
A	Fuel Change from FO, LPG to NG	FY 21-22 for LPG FY 22-23 for FO	0.0231	Entire Plant
A	Vapor decanting compressor to be install to avoid LPG loss at decanting.	FY 21	0.0099	Wire Mill
B	Lead bath heating system replacement(Thermal to Induction)	FY 24	Under study	Wire Mill
B	Waste Heat Recovery preheating.	FY 22	0.099	Wire Mill
C	Replacement of MS Zinc Tank to Ceramic Zinc Tank	FY 24-25	Under study	Wire Mill
C	Plasma Gasification(Waste To energy)	FY 23	Under study	Entire Plant
C	Heat losses from furnace to be minimise by new refractory.	FY 22	Under study	Rod mill

Energy Saving Project Implemented (FY'19)

Project Description	Electricity Kwh/Year	Furnace oil KL/year	LPG KG/year	Savings (Rs. L/Yr)	Investment (Rs. Lakhs)
Installation of VFD based Screw compressor	281499	-	-	18	16
Installation of Air saver Unit in Compressed open air points	30220	-	-	2	0.5
Installation of Air amplifier nozzle in blow off application	32030	-	-	2	0.25
Installation of 10 KWp Solar roof top system	10831	-	-	0.77	7
Compressed air Pressure standardisation reduce to 5.5 from 6.5 kg/cm2	96000	-	-	6.5	2
Furnace heat resistant energy painting	-	49	-	11	3
Heat raising unit installation in all piping	-	49	-	11	2
Replacement of Conventional lights with LED light fitting	17978	-	-	1.27	3.5
Installation & commissioning of energy efficient(IE3 motor 160 KW) compressor unit	6074	-	-	0.4	12.5
TOTAL	474632	98	-	52.9	46.8

Energy Saving Project Implemented (FY'20)

Project Description	Electricity Kwh/Year	Furnace oil KL/year	LPG KG/year	Savings (Rs. L/Yr)	Investment (Rs. Lakhs)
Energy efficient Drying oven (Indirect heating to direct heating)	-		20270	8.1	25
Improve the efficiency of the Zinc and Lead bath burner- indigenous burner replaced by imported burner			18428	7.4	19
Fumeless Pickling system, leading to reduction of consumption of Acid also generation of WPL. ★	27800			2.3	80
Scale pit energy efficient motor installation	41501			2.9	8
VVFD in Combustion air fan, atomizing air fan, ID fan for re-heating furnace	288095			20	19
Replacement of conventional lights with LED	24200			2	4.5
Total	381596	0	38698	45.6	155.5

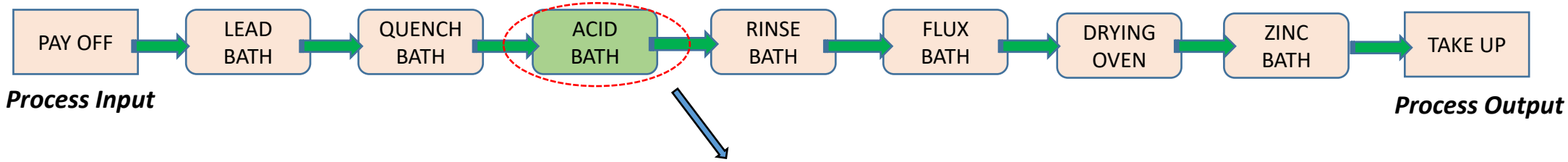
★ Note: Towards creating safe and healthy work environment. This project was done for saving Acid consumption and reducing the waste acid generation. In the process, due to efficient pumps we achieved some redn. of Electrical energy.

Energy Saving Project Implemented FY'21

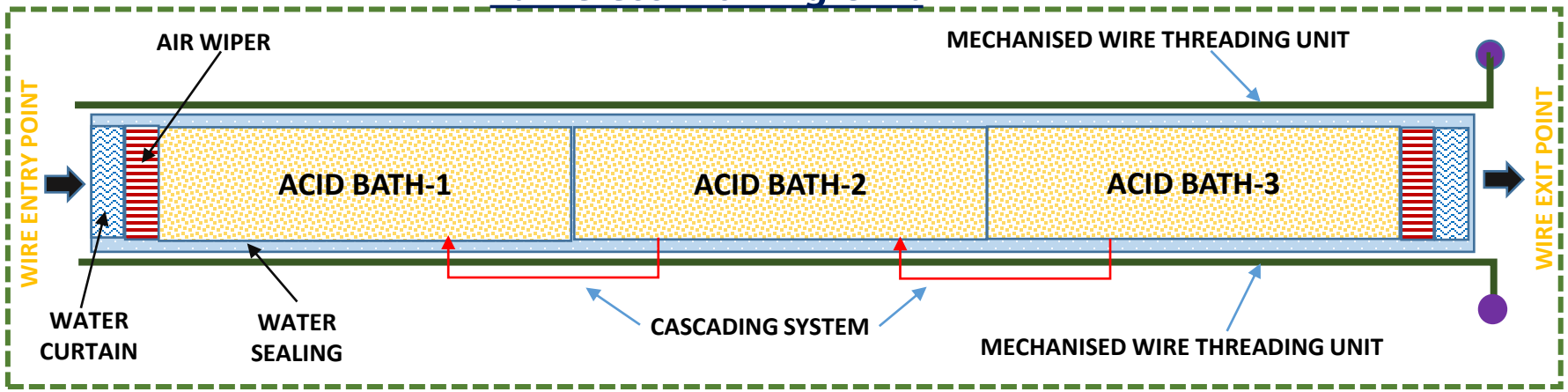
SL No	Project's description	Electricity KWh/Year	Capital Investment in Lakhs	Saving in Lakh
1	33 KV substation		2000	
2	Interlock given to air line of Single LR after cooling trough	13248 KWH	0.00280	0.86
3	Interlock given to hot air blower at the first pass of Pacemaker machine	1620 KWH	Zero investment.	0.105
4	Replacement of Metal halides, sodium vapour light fitting 50 no's with LED light fittings., 100 LED(100 Watts) , 150(30) + 250(70) metal Halides.	55440	15 lakh	3.6
5	Utilization of regeneartive energy of spooler motors in caterpilar motor.	59400	Zero investment.	3.86
6	VFD installation at Furnace blower -2 in Rodmill	72000	7 lakhs	4.68
7	Close loop control of air system at various instrument point in rod mill.	130000	1 lakh	8.45
8	Booster pump power reduction by reducing cooling water requirement through sealing arrangement modification	1500	0.36000	0.0975
9	reduction in power consumption through optimise use of cooling tower fan.	10200	Zero investment.	0.66
10	Heater less vapourises instead of electrical heating	222240	14 lakh	14.4
11	STP blower revamping and overhauling eliminating compressor air.	187500	0.04000	12
12	Replacement of Sodium Vapour replace to LED fitting(24)	18250	2.4 lakhs	1.2
Total			**39.8**	**49.91**

Innovative Project Implemented (Fumeless Pickling)

Wire Galvanizing Process



Fumeless Pickling Unit



Project Brief

- In the process of **Galvanizing, wires** are being **pickled** with HCL.
- fumes extraction was done with **scrubber type FES system**.
- The **Fumeless Pickling System** introduced in the process is a **closed loop system.**
- Recirculated water curtain system where **acid fume is absorbed** and releasing to the working atmosphere.
- This **fumeless pickling system consisted** with 5 different units i.e. **Water Curtain, Acid Bath-1,2 & 3, Air Wiper and wire threading unit**.

 # WC: Water Curtain (Here curtain has been formed by circulation of water for absorbing of acid fumes generated from the pickling bath.)
 # Air Wiper: Dry the wire to removed water/acid from wire surface.
 # Acid Bath-1, 2, 3: Used for pickling of wires in order to remove the scale.

Innovative Project Implemented

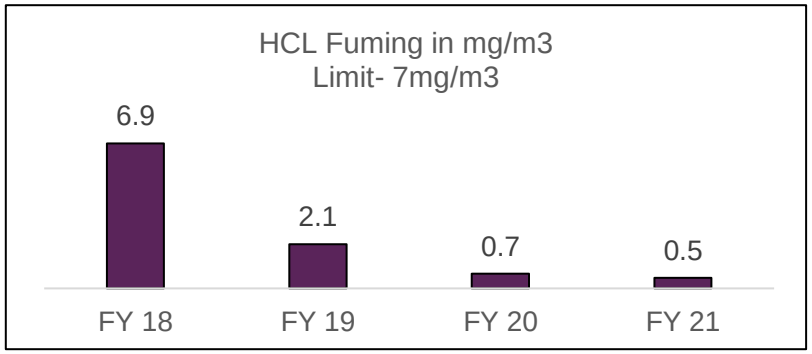
Replication potential : Any wire making industries used galvanizing process can replicate this technology

Implementation in other companies :

- Shivas reinplast company
- TATA STEEL global wire(Tarapur)

HCL FUMES EPOSURE LIMIT

International	National	ISWPL(after installing fumeless pickling)
(1.49-7) mg/m3	7 mg/m3	0.50 mg/m3



Benefits:

- Reduction on HCL fumes of 98% after installation of Fumeless pickling
- 40% reduction in HCL acid consumption.
- Reduction in generation of WPL.
- Surrounding steel structure life increased.
- Work zone environmental condition improved a lot.
- Over all money savings of 80-85 lakhs/annum

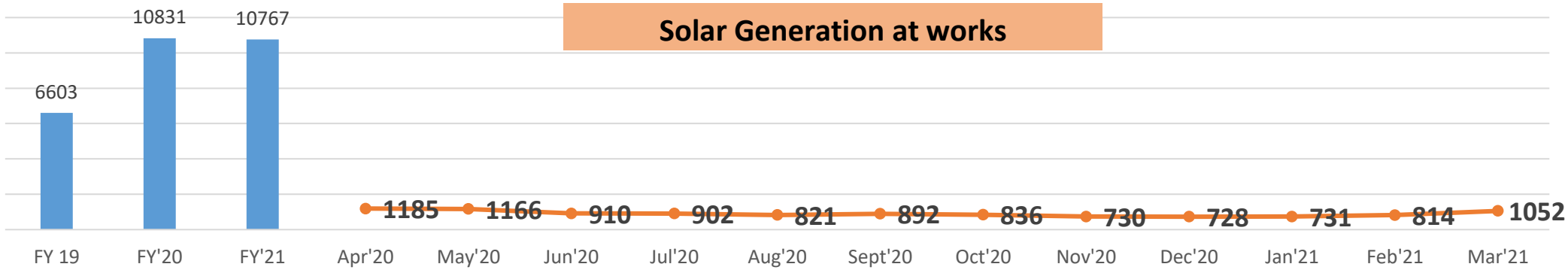
Utilization of Renewable Energy Sources

Renewable / Non-Conventional Energy Sources at ISWP.

Present Scenario
1. Solar Roof Top 10 KWp
2. Biogas 30 Kg capacity
3. Use of Transparent Sheet
4. Installed Recupperator to utilize waste Energy in form of heat into reducing the thermal energy intensity.(Reduced consumption of Fuel)

Future Points
20 Kw Solar roof top grid tied.- Dropped
Use of transparent Sheets – Completed
Thermionic fluid heating through Waste Heat
Solar day lights (Roof of ware house and other workshops)
Explore possibilities of Purchased Solar Power

Onsite Renewable Energy Generation



S.No	RE Projects implemented onsite	Saving In KWH/annum	Impact to environment	Status
1	Transparent sheet across the manufacturing section to reduce Conventional energy Consumption.	18600	➢ 10.5 T CO2 Reduction/Annum. ➢ Reduction in consumption of conventional energy.	Completed
2	Installation of 10 KWp of Solar Roof top system	107	➢ 10.2 T CO2 reduction ➢ Reduction in Natural Resource	Completed

Total RE generated on-site = 31.2 MWh

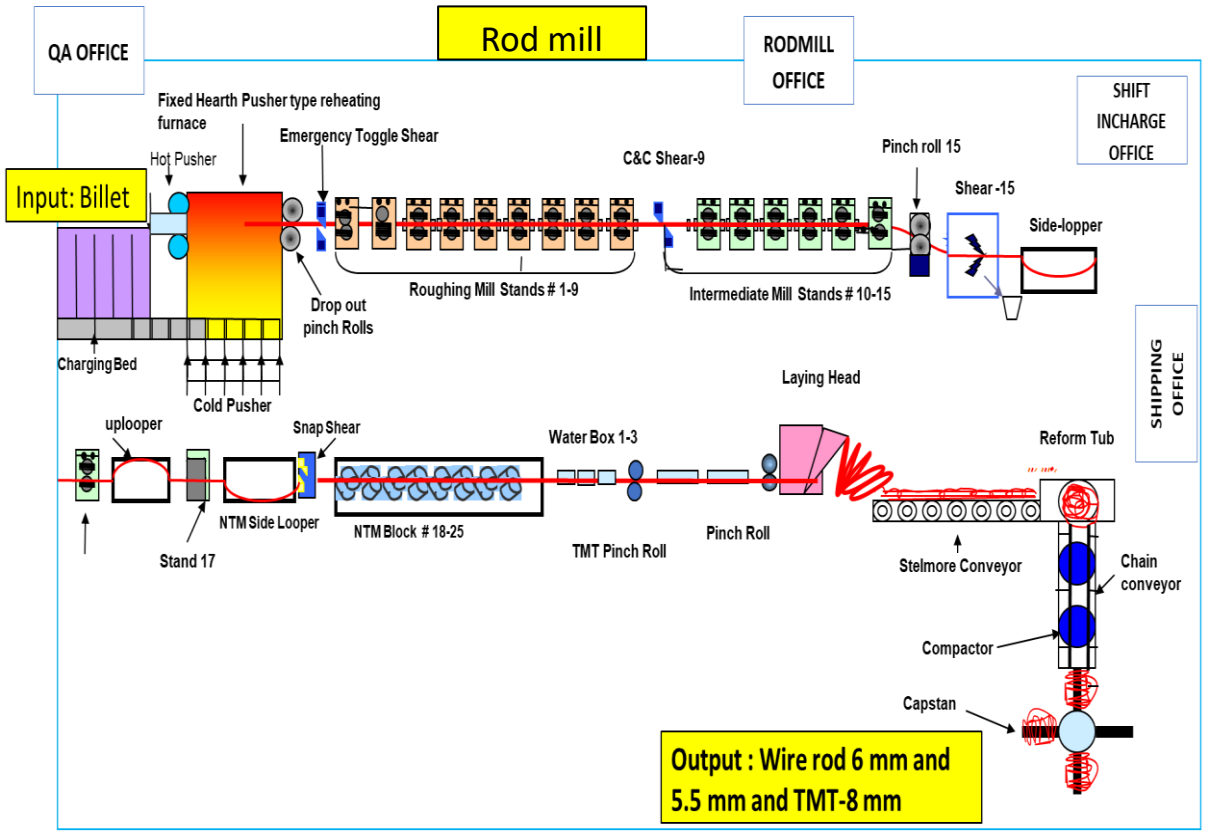
% met from RE source On-site = 0.07 %

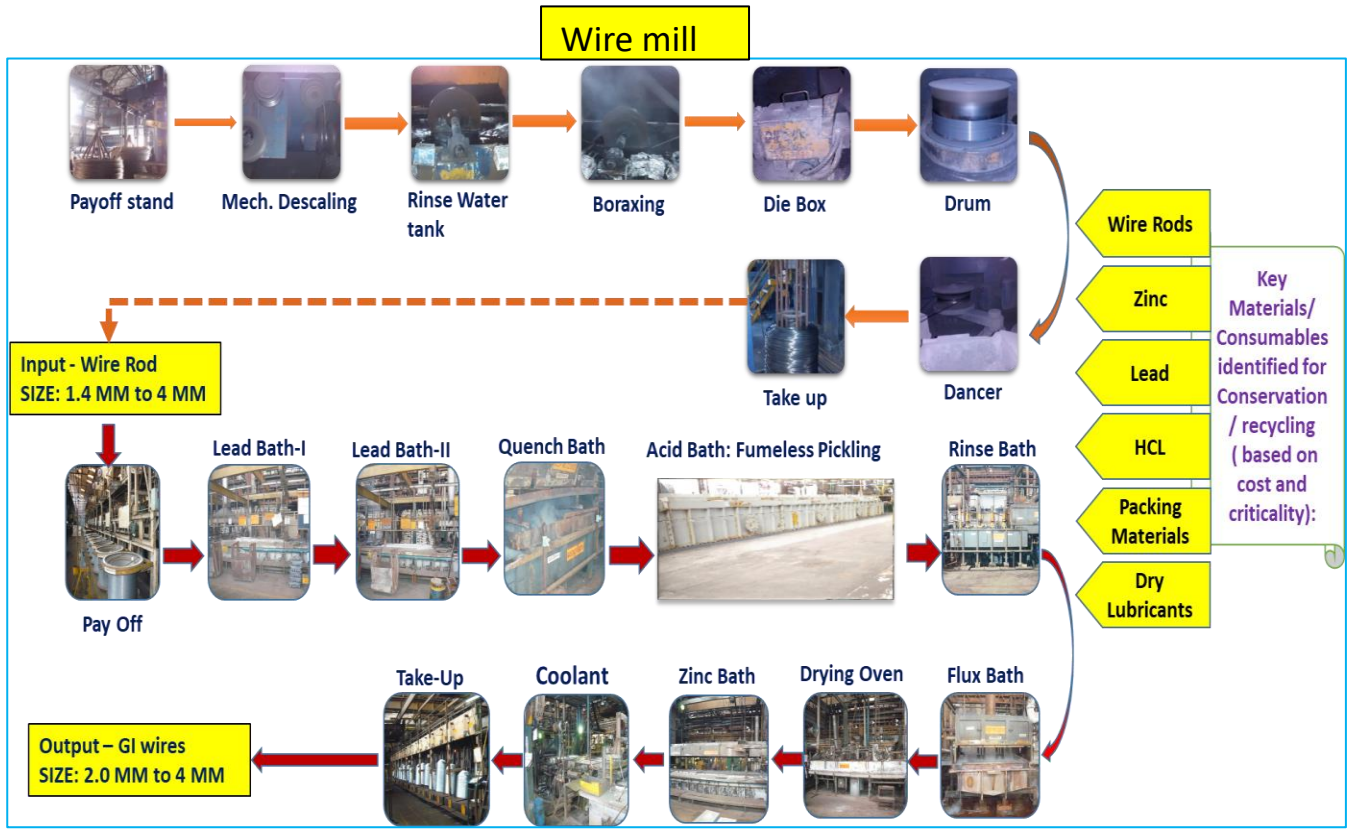
However ISWP has no RPO obligation as it is getting Electricity from the distributing Licensee- Jusco

Utilization of waste material as fuel

As such ISWP does not generate any waste material which can be reutilized as Fuel. However food waste is managed through Biogas System which helps in generate 0.5 Kg/ day of (LPG) crude methane which is utilized in canteen.

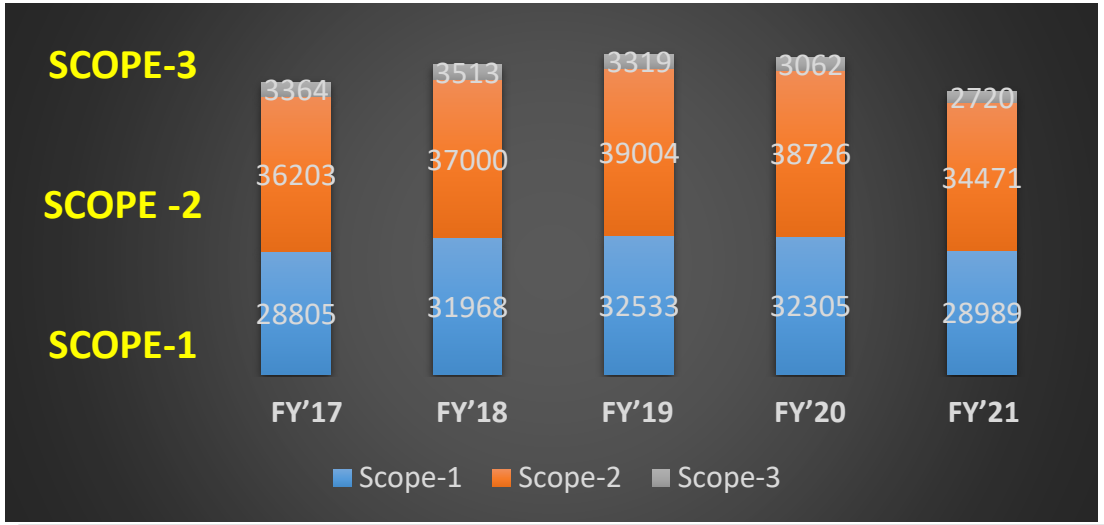
Waste Heat of flue gas is utilized in reheating furnace through Recuperator which helps in reduction FO consumption

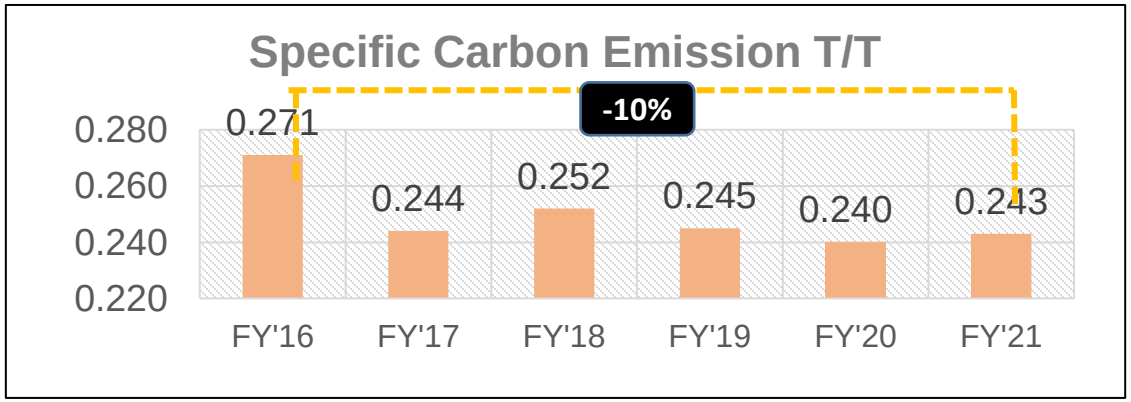




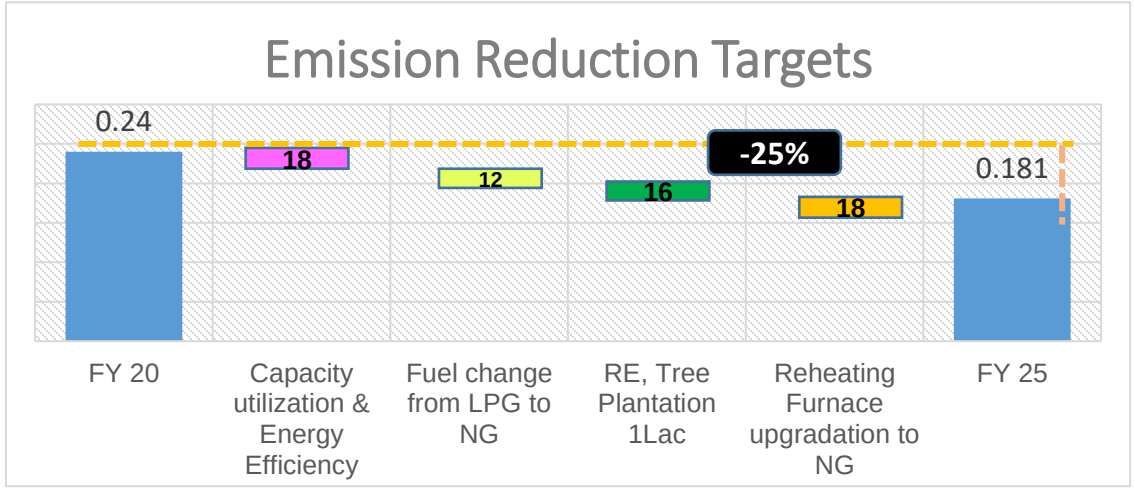
GHG Inventorisation (Co2 emission intensity)

Absolute emission						
Year	FY 16	FY 17	FY 18	FY 19	FY 20	FY'21
Scope-1	33139	28805	31968	32533	32305	28989
Scope-2	37023	36003	37000	39004	38726	34471
Scope-3	3745.7	3364	3513	3319	3062	2720
Total (Scope 1 ,2,3)	73907.7	68437	72481	74878	74093	66180
Production in T	272680	280542	287884	305388	308100	272417
Specific emission TCO2e/T	0.271	0.244	0.252	0.245	0.240	0.243
All Units are measured in T						





Unit: Emission measured in T CO2/ton production



New Initiatives- Organisational level.

- Internal Carbon Pricing- - All Capex projects evaluated with Shadow Pricing.
- Scaled up Climate Disclosure covering all our process since FY 18- Part of CDP disclosure.

Internal Carbon Price

A shadow price of **$15 USD/t of CO2** in approval process of all capex projects.

Daily Monitoring of Energy Consumption section wise

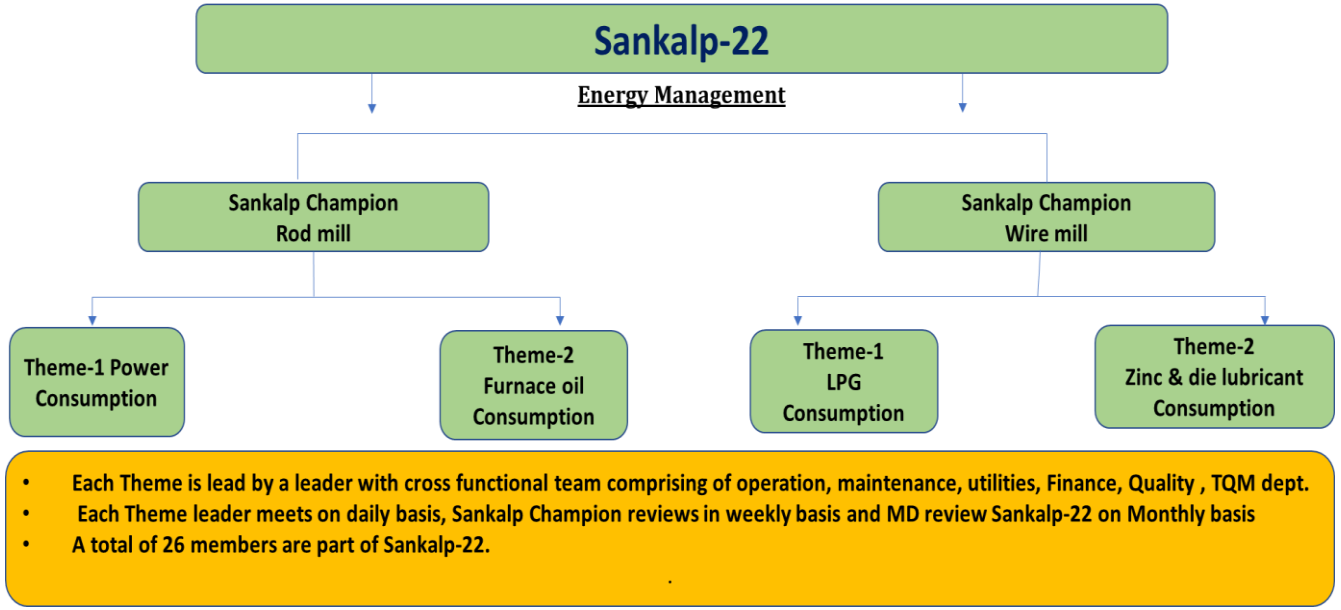
	Area wise Details	Total	01.Jun	02.Jun	03.Jun	04.Jun	05.Jun	06.Jun	07.Jun	08.Jun	09.Jun	10.Jun	11.Jun	12.Jun	13.Jun	14.Jun	15.Jun	16.Jun	17.Jun	18.Jun	19.Jun	20.Jun	21.Jun	22.Jun	23.Jun	24.Jun	25.Jun	26.Jun	27.Jun	28.Jun	29.Jun	30.Jun
HT17	Main ISWP	3465800	59900	48900	49300	48400	51100	50900	49800	50700	54800	141800	154800	151700	141400	147300	156700	127700	114900	132600	100700	116600	160900	161500	162300	139500	129500	150700	147500	154900	161000	148000
HT1	Main Mill Motor no -01 to 05	347900	1900	200	200	200	200	300	200	200	200	15500	18700	18500	16200	17700	20000	12900	10300	12400	6500	9900	22500	22200	21300	14400	12500	17200	17800	19300	20500	18000
HT2	Main Mill Motor no -06 to 09	271300	1500	200	200	200	100	200	200	100	300	12100	14800	13200	13100	14000	15100	10800	9400	10700	6000	8000	15300	16000	16400	11400	9600	13200	14200	15100	15700	14200
HT3	Main Mill Motor no -10,11,9A & 9B	201100	1300	200	200	200	100	200	100	200	200	9200	10500	10400	9600	10200	11900	8200	6500	8000	4400	6500	12600	11700	11800	8200	7300	9900	9700	10500	11100	10200
HT4	AUX TRF-01	128900	1100	200	200	100	200	100	200	300	500	5800	6000	6000	6000	6400	6300	5100	5600	6100	5000	5400	6300	6200	6200	6300	5400	6400	6300	6300	6600	6300
HT4.1	Vent motor & air washer	35329	517	249	230	253	205	222	216	270	345	1529	1530	1572	1594	1606	1612	1447	1529	1559	1488	1525	1546	1562	1595	1614	1586	1574	1590	1587	1586	1591
HT4.2	CR-II	4991	31	0	1	0	0	0	14	5	33	237	236	235	235	235	239	218	232	234	226	236	236	237	234	237	238	237	238	214	235	238
HT4.3	NTM Water management	87213	460	20	22	18	23	17	25	24	250	3888	4071	4152	4010	4382	4410	3404	3666	4189	3255	3518	4475	4306	4323	4441	3460	4513	4358	4467	4634	4432
	Losses	1367	92	-69	-53	-171	-28	-139	-55	1	-128	146	163	41	161	177	39	31	173	118	31	121	43	95	48	8	116	76	114	32	145	39
HT8	AUX TRF-02	170900	3400	1800	1600	1600	1500	1400	1500	2400	2700	7100	7300	7500	6900	7000	7400	6600	7000	7400	6600	6900	7500	7500	7600	7500	7200	7700	7500	7600	7800	7400
HT8.1	Old oil cellor	16882	87	0	0	0	0	0	0	0	204	793	796	793	795	789	807	748	791	788	774	792	794	825	752	793	799	792	798	785	792	795
HT8.2	NTM & S9 Power supply	62949	833	228	165	167	164	167	166	165	331	2885	2886	2879	2724	2855	2918	2537	2772	2937	2756	2797	3008	3052	3010	3067	2603	2991	2941	2995	2993	2957
HT8.3	CR-1(Furnace Area)	39769	575	9	7	18	16	8	75	552	612	1572	1749	1895	1653	1574	1862	1616	1695	1829	1335	1506	1856	1830	1964	1919	1842	2171	1898	2163	2142	1826
HT7																																
HT7.1	NTM Motor -01	237798	0	0	0	0	0	0	0	0	0	12514	12858	12705	11024	12426	13222	9659	8154	10143	5387	7784	13863	13283	13467	9681	8645	11906	11744	13508	13481	12344
HT7.2	NTM Motor -02	251682	0	0	0	0	0	0	0	0	0	13260	13620	13466	11660	13184	14013	10264	8706	10709	5704	8228	14723	14009	14219	10187	9110	12585	12401	14296	14257	13081
HT9	AUX TRF-03	202100	5100	4500	700	4600	6800	7000	5100	4500	4900	7700	8000	7800	7500	7400	7500	7200	7400	7600	7000	7400	7600	7500	7500	7600	7300	7700	7800	7600	8000	7800
HT9.1	Compressor power from RM	198892	5018	4428	659	4573	6753	6958	5052	4437	4855	7578	7845	7637	7348	7270	7347	7072	7277	7467	6917	7297	7476	7361	7371	7484	7204	7575	7668	7469	7854	7642
HT9.2	Crane no -3,4,6,9,10 &11	3244	82	72	41	63	47	42	48	63	45	122	155	163	152	130	153	128	123	133	83	103	124	139	129	116	96	125	132	131	146	158
	Losses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HT10	AUX TRF-04 (PLC SUPPLY)	9400	100	0	0	0	0	0	0	0	0	600	400	500	400	400	500	400	500	500	500	400	400	400	400	400	500	400	400	400	500	400
HT15																																
HT15.1	OMH TRF -01	177319	1990	1180	1400	1320	1410	1315	1270	1300	2525	7825	8075	7815	7910	8075	8115	6840	7705	7830	6895	7305	7960	8050	7770	7955	7465	8005	8145	8005	8010	7854
HT15.1.1	Water station -01	17709	202	123	74	54	55	54	49	94	159	833	824	833	865	845	930	724	827	820	673	712	838	867	787	794	745	789	742	812	807	778
HT15.1.3.1	Town Filter plant	11190	441	432	409	404	390	360	347	360	348	369	358	337	347	345	340	328	341	345	360	314	354	355	359	358	361	348	742	340	346	352
HT15.1.4	Straightening Plant-02(Blue Moon)	11877	223	278	284	268	368	361	352	369	354	384	469	402	345	471	346	379	470	432	387	472	421	435	439	479	444	462	457	424	459	443
HT15.1.4.1	Straightening Plant-03	9953	222	149	435	390	446	381	324	309	368	330	306	304	275	289	297	338	325	335	347	379	335	351	250	374	329	323	327	360	360	395
HT15.1.4.2	Straightening plant 2 & 3 crane & light	5043	146	151	166	161	138	139	187	162	154	156	163	164	167	184	190	157	197	172	167	204	184	184	150	177	181	172	166	184	147	173
HT15.2	OMH TRF-02	64667	1265	534	495	590	535	540	550	1625	1675	2250	2680	2825	2665	2645	2795	2485	2520	2625	2490	2475	2735	2945	2905	2855	2710	2905	2835	2750	2895	2868
HT15.2.1	Crane no -1 & 2	2055	41	53	37	72	46	59	53	67	72	69	73	81	69	43	71	63	67	71	61	73	62	70	66	70	73	65	78	105	109	116
HT15.2.2	Crane no -7 & 8	7739	171	174	153	166	185	152	182	170	198	260	285	342	345	291	318	207	194	209	301	298	313	295	325	278	268	346	343	303	309	358
HT15.2.3	Furnace Blower	48210	914	197	186	188	169	158	258	1199	1230	1817	2050	2097	1956	2102	2093	1928	2041	2054	1926	1879	2175	2278	2185	2200	2095	2159	2127	2139	2189	2221
HT15.4	STEL MORE TRF-01	124682	1823	1371	1264	1254	1521	1524	1286	1589	1934	4911	5620	5434	4847	5033	5435	4892	4897	5434	3699	4445	5030	5409	5439	5441	5128	5734	5706	5994	6030	6558
HT15.4.1	Straightening Plant -01	26052	758	888	837	807	1026	979	777	986	1042	895	932	987	870	765	925	995	1002	1072	581	782	566	852	917	904	800	818	841	825	823	800
HT15.4.2	CHA	98630	1065	483	427	447	495	545	509	603	892	4016	4688	4447	3977	4268	4510	3897	3895	4362	3118	3663	4464	4557	4522	4537	4328	4916	4865	5169	5207	5758
HT15.5	STEL MORE TRF-02 (Blower)	7084	336	19	13	2	110	8	0	19	34	331	318	314	314	296	324	284	287	327	309	304	291	315	316	328	320	324	313	310	313	305
HT15.6	STEL MORE TRF-03	77429	289	28	10	0	60	2	0	13	122	3693	3834	3743	3487	3869	4064	3237	3195	3726	2580	3387	4141	3971	4117	3718	2989	3873	3692	4032	3867	3690
HT15.6.1	Booster pump	53570	126	0	0	0	0	0	0	0	43	2536	2714	2593	2411	2677	2878	2343	2245	2687	1645	2303	2910	2750	2845	2498	2005	2694	2551	2850	2718	2548
HT15.6.2	CHA	23859	163	28	10	0	60	2	0	13	79	1157	1120	1150	1076	1192	1186	894	950	1039	935	1084	1231	1221	1272	1220	984	1179	1141	1182	1149	1142
HT16	Lighting Tranformer	39865	1280	1280	1240	1120	1160	1150	1140	1120	1140	980	1440	1440	1420	1440	1480	1440	1340	1420	1280	1320	1420	1480	1440	1340	1320	1420	1460	1480	1480	1395
HT15.7	Wire mill HT reading	1093014	34192	36327	36545	35811	36038	35809	36827	35937	36671	38014	38806	38306	37713	35800	37143	34961	29242	35375	34302	35004	36517	37968	38950	39284	40248	38611	35389	35537	37800	33887
HT15.7.1	TOWN -02	256320	8640	8820	8640	8460	9000	9720	8820	10260	10440	10260	8640	8280	8100	7920	7740	7560	6840	7740	8100	8100	7560	7920	8820	9540	9180	8640	8460	7740	8100	8280
HT15.7.1.3	Tata indicom	5528	179	183	186	180	188	193	184	196	201	198	181	178	184	179	174	187	176	179	185	179	178	182	189	193	197	171	180	179	183	186
HT15.7.4	BARBED WIRE FROM WIRE MILL(FASTENER)	16797	477	511	434	464	479	459	356	556	583	640	612	659	513	434	628	440	725	635	600	501	363	680	685	747	750	596	524	385	702	659
HT15.7.5	Canteen Supply	1415	46	48	48	46	48	50	48	52	48	50	48	46	48	46	48	46	44	48	46	48	45	48	46	45	46	45	46	48	46	48
	TOTAL ISWP	3405140	55575	47839	44067	46997	49734	49548	48373	49303	52901	141778	152951	149948	140740	145868	155291	125262	112746	130289	98646	114752	158880	158930	159823	136589	127735	147863	145385	152715	158332	146282
	GAP between Main ISWP & Total ISWP	60660	4325	1061	5233	1403	1366	1352	1427	1397	1899	22	1849	1752	660	1432	1409	2438	2154	2311	2054	1848	2020	2570	2477	2911	1765	2837	2115	2188	2667	1718
	Wire mill Total kwh	932501.96	28716.2	30450.5	27937.2	30511.8	32095.7	31809.8	32674.1	29507.2	30481.9	30574.9	33065	32851.4	32889.1	31281.9	32382	30356.8	25297.5	30480.3	29371.6	30213.5	32291.3	32811.5	32772.3	32678.8	34033.3	32900.3	30103.4	31022.3	32541.5	28399.1
	Ammeneties kwh	353039	11823	12112	11989	11694	12386	12976	11824	13722	13840	13635	11909	11638	11108	10858	10927	10680	10231	11155	11033	11181	10322	11236	12049	12965	12444	11749	11924	10753	11322	11554
	Rod mill Total kwh	2152867	179358	4948.48	8009.79	4781.2	5251.34	4721.148	4026.952	5983.77	8961.195	6031.11	10829.6	10572.2	9597.79	10378.7	11189.7	8534.72	7799.75	8952.67	5891.95	7382.65	11709.1	11584.2	11595.8	9228.62	8147.57	10455.6	10409.4	11182.3	11558.6	10651.1

Energy Cost Reduction are Part of Individual KRA

KRA						Weight	Rater Rating
Cost Reduction	KPI	UOM	Target	Achieved	Talent Review	20	
	Reduction in Zinc Coating on TW02 GI wire	GSM	55	58	Yes		
	Reduction in Lead Consumption	Kg / MT	2.9	2.94	Yes		
	Reduction in LPG Consumption	Kg / MT	35.00	35.98	No		

Sankalp'22 champion	KPI	UOM	Target	Achieved	Talent Review
	minimizing power consumption through improvement in fixed,idle and auxiliary system.	Kwh/Mt	147 (ABP'19)	148.2((till jan'19)	Yes
	Setup loss reduction through process improvement,SMED analysis,JDIs,Other plants knowledge sharing & new technology equpts installation etc in the mill stand and ntm area.	Hrs/Month	29 (ABP'19)	24.87	Yes
	cobble reduction in operation (Selected as theme for FY19)	%	0.35 (ABP'19)	0.30	No

Teamwork, Employee Involvement & Monitoring



- Each Theme is lead by a leader with cross functional team comprising of operation, maintenance, utilities, Finance, Quality , TQM dept.
- Each Theme leader meets on daily basis, Sankalp Champion reviews in weekly basis and MD review Sankalp-22 on Monthly basis
- A total of 26 members are part of Sankalp-22.

Sankalp-22 Review by MD, ISWP at the Sankalp Centre

Review by front line manager includes energy Manager- Daily | **HOD review - Fortnightly** | **MD Review - Monthly**

Projects implemented through Sankalp theme

	Ideas Generated	Projects implemented
FY18	27	17
FY19	35	24
FY20	41	29

Sankalp-22 Impact centre

Implementation of ISO 50001/Green Co/IGBC rating

GreenCo Silver rating by CII-GBC*
Assessed on Energy Efficiency , Water Conservation , Green Supply Chain, Material Conservation, GHG Management, Green Infrastructure & **Environment Innovations** and Renewable Energy

*** CII- Sohrabji Godrej Green Business Centre**

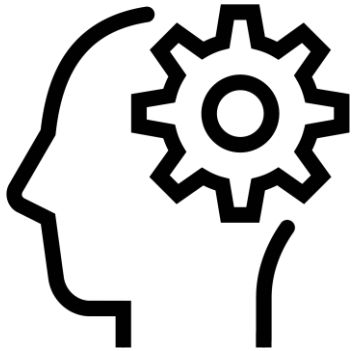
We are certified with ISO 9001, ISO 14001, ISO 18001, ISO 39001

We are working on Energy Management system and will get the certification by end of FY 22

Recently participated in CII National award for environmental best practices & won the award for most innovative environmental project.

SKILL ENHANCEMENT

These award competition teach us to be focus in our goals & objectives towards a continual improvement which will lead us to enhance our skills.



KNOWLEDGE ENHANCEMENT

We learn many more techniques an ideas from other participating Companies from their good practices which will redefine our intelligence, expand our strategic vision and planning.

STRENGTH & WEEKNESS

Through our jury members and panelist guidelines and OFI's we came to know about our strength & week ness and had an opportunity to improve our self in stated field in future.

Confederation of Indian Industry

8th CII National Award for Environmental Best Practices 2021

This is to certify that

The Indian Steel & Wire Products Limited, Jamshedpur

Project Title: **Air (VOC) Pollution/ Occupational Health by Fumeless Pickling at Galvanizing Process**

is a "Most Innovative Environmental Project"

This is being given on completion of the National Competition for CII National Award for Environmental Best Practices held on 28 - 30 July 2021 over Virtual Platform.

K S Venkatagiri
Executive Director
CII - Godrej GBC

Pradeep Bhargava
Chairman
GreenCo & Environmental Council
CII - Godrej GBC

L S Ganapati
Chairman
CII Environmental Best Practices Award
CII - Godrej GBC

Recently we have won the CII National Award For Environment best practices 2021


Thank
you!