

Recommended List of Energy Saving Technologies in Integrated Steel Plants

No.	Title of Technology	Effect of Technologies		
		Electricity Savings	Fuel Savings	CO2 Reduction
		kWh/t of Product	GJ/t of Product	Kg-CO2/t of product
Sintering				
1	Sinter Plant Heat Recovery (Steam Recovery from Sinter Cooler Waste Heat)	-	0.251/ t-sinter	23.9/t-sinter
2	Sinter Plant Heat Recovery (Power Generation from Sinter Cooler Waste Heat)	22.1 kWt/t-sinter	-	19.9/t-sinter
3	High Efficient (COG) Burner in Ignition Furnace for Sinter Plant	-	0.011/t-sinter	0.50/t-sinter
Cokemaking				
4	Coke Dry Quenching (CDQ)	-	1.9/t-coke	135/t-coke
		150 kWh/t-coke	-	74.9/t-coke
5	Coal Moisture Control (CMC)	-	0.3/t-coke	27.6/t-coke
Ironmaking				
6	Top Pressure Recovery Turbine (TRT)	50 kWh/t-pig iron	-	45.0/t-pig iron
7	Pulverized Coal Injection (PCI) System	-	1.55/t-pig iron (at 125kg coal inj.)	147/t-pig iron
8	Hot Stove Waste Heat Recovery	-	0.08/t-pig iron	7.8/t-pig iron
Steelmaking				
9	Converter Gas Recovery Device	-	0.84/t-steel	79.8/t-steel
10	Converter Gas Sensible Heat Recovery Device	-	0.126/t-steel	12.0/t-steel
11	Ecological and Economical Arc Furnace	150 kWh/t-steel	-	135 /t-steel
12	Waste Heat Recovery from Electric Arc Furnace	87.7 kWh/t-steel	-	78.9 /t-steel
Common System				
13	Regenerative Burner Total System for reheating furnace	-	0.17-0.21/t-billet	16.2-20.0/t-billet
General Energy Savings & Environmental Measures				
14	Energy Monitoring and Management System	-	0.12/t-steel	11.4/t-steel
15	Cogeneration (include Gas Turbine Combined Cycles (GTCC))	47.5% (HHV) [*5]	-	56.1/t-steel