



“Green” Steelmaking

➤ Realistic solution to greenhouse gas emissions

- ✓ Natural gas as reductant and fuel
- ✓ DRI or HBI feeding EAF
- ✓ 60% less CO₂ emissions/MT of steel than BF/BOF route

➤ Lower carbon emission in BF iron production

- ✓ 10% burden metallization increase lowers coke rate 7%
- ✓ 100 kg of HBI replacing coke reduces CO₂ emissions 7%/MT of hot metal



HBI Reduces
Undesirable
Emissions



But how much HBI Reduces the Undesirable Emissions?

+100 Kg HBI

-34 Kg Coke

-64.5 Kg CO₂



Example:

1 Million Metric Tons per Year

Aprox. 2,700 MT/day

Charge: 4,100 MT/day

10% Burden Metallization: 410 MT HBI/day

CO₂ Emissions Reduction: 264.5 MT/Day

264,500,000 g/day

Gasoline-powered Vehicles

Auto: 231 gr/veh.Km

Light Truck : 297 - 387 gr/veh.Km

Heavy Duty: 580 gr/veh.Km

(80 Km per day)

Source: www.greencarcongress.com

**CO₂ emissions
264.5 MT/day**

**What you put in your furnace
affects and will affect everybody
including your grandsons!**

**Autos: 14,300
Light Trucks: 9,600
Heavy Duty: 5,700**

**Traffic Jam
60 Km
50 Km
85 Km**



Final Comments

- **Steel consumption in SEASIA countries** ↑
- **Dependence on imported steel scrap** ↑
- **Global demand for steelmaking metallics** ↑
- **Steel scrap price volatility** ↑
- **HBI can be scrap supplement or substitute** ↑
- **New DRI/HBI capacity** ↑

**All signs point ↑ for HBI as Premium Metallic
for South East Asian Steelmakers**



HBI - The Ideal Ferrous Charge Material

**Thank you for your
attention**

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