COAL FAST FACTS: A SECURE ENERGY FUEL





ABOUT COAL

- Coal is one of three widely used naturally occurring fossil fuels.
- Coal remains a primary driver of industrial development in emerging
- Coal is still the most widely used energy fuel globally
- Greater than 85% of total energy used in developing nations is coal based
- Coal's 36% share of global electricity generation is expected to increase to 50% by 2040 (IEA)



BENEFITS

- Reliable, constant Base-Load energy resource, unlike renewable energy resources that are intermittent generators and highly inefficient
- Easily convertible to multiple physical states, i.e. gas or liquid, for use as fuel or primary constituent for petro-chemical products
- Cheapest fuel source for energy generation in multiple forms. Significantly cheaper to produce and transform to usable energy than other fossil fuels. Natural Gas and Crude Oil; also significantly cheaper to produce and much faster to transform to base load energy than Nuclear fuels
- Coal production and use as a fuel creates and sustains millions of jobs across its value chain globally, both directly and indirectly. Fly Ash, the residues from coal based energy generation is able for use as low cost high strength generating construction material ingredient
- With available 'Clean Coal' technologies, Coal to Electrical Energy transformation has acceptable and minimal environmental impacts through removal of Noxious Gas emissions, and a lower overall Carbon Footprint than any 'same-sized' renewable powerplant



REGIONAL MARKET



Base Load Power Generation: 140 Mtpa (Demand Increasing)



Global Seaborne Market: 90 Mtpa (Demand Increasing)



Feedstock for Petro-Chemical production: 60Mtpa (Demand Increasing)



Pyro-metallurgical Processes: 20 Mtpa (Demand Increasing)



Industrial Heating: 10 Mtpa (Demand Stable)



Domestic Heating: 5 Mtpa (Demand Increasing)







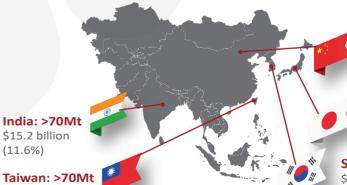
(11.6%)

(11.5%)

\$15.1 billion

GLOBAL SEABOURNE MARKET

Five biggest coal importers in the world are in Asia Growing coal demand in South East Asia (SEA) Five biggest coal importers >600Mt



China: >85Mt \$18.5 billion

(14.1%)

Japan: >110Mt US\$22.9 billion (17.5%)

South Korea: >70Mt \$15.1 billion

(11.5%)

Coal Demand in SEA doubled in 2017/18 period and expected to double again in 2019