# Understanding **Global Demand for** Steelmaking Coal

Global population growth, increased urbanization, and a growing middle class will continue to drive long-term demand for steel and the steelmaking coal required to produce it.

Projections show that another **2.5 billion** people could be added to urban populations by 2050. That's the equivalent of building a new city nearly the size of the Greater Toronto Area every single month for the next 30 years.

**Golden Gate Bridge** 

83,000,000 kg Steel 58,100,000 kg Steelmaking Coal

Car 900 kg Steel 630 kg Steelmaking Coal **Average Wind Turbine** 260,000 kg Steel

170,000 kg Steelmaking Coal

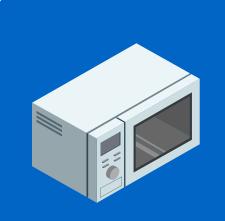
Source: Teck, World Steel Association

1 km of Light Rail Track 112,000 kg Steel 78,400 kg Steelmaking Coal

#### Fundamentally different from thermal coal, which is used for power, steelmaking coal is needed to make the steel used in everything from:

### **Everyday Items**





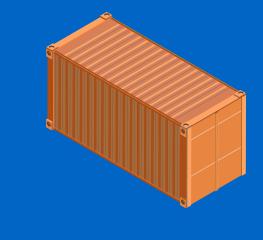
**Microwave** 13 kg Steel 9 kg Steelmaking Coal



**Gas Stove** 68 kg Steel 48 kg Steelmaking Coal



Refrigerator 69 kg Steel 48 kg Steelmaking Coal



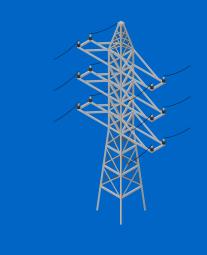


**40-Foot Shipping Container** 

4,000 kg Steel 2,800 kg Steelmaking Coal

### **Boeing 787-10 Aircraft**

13,500 kg Steel 9,450 kg Steelmaking Coal

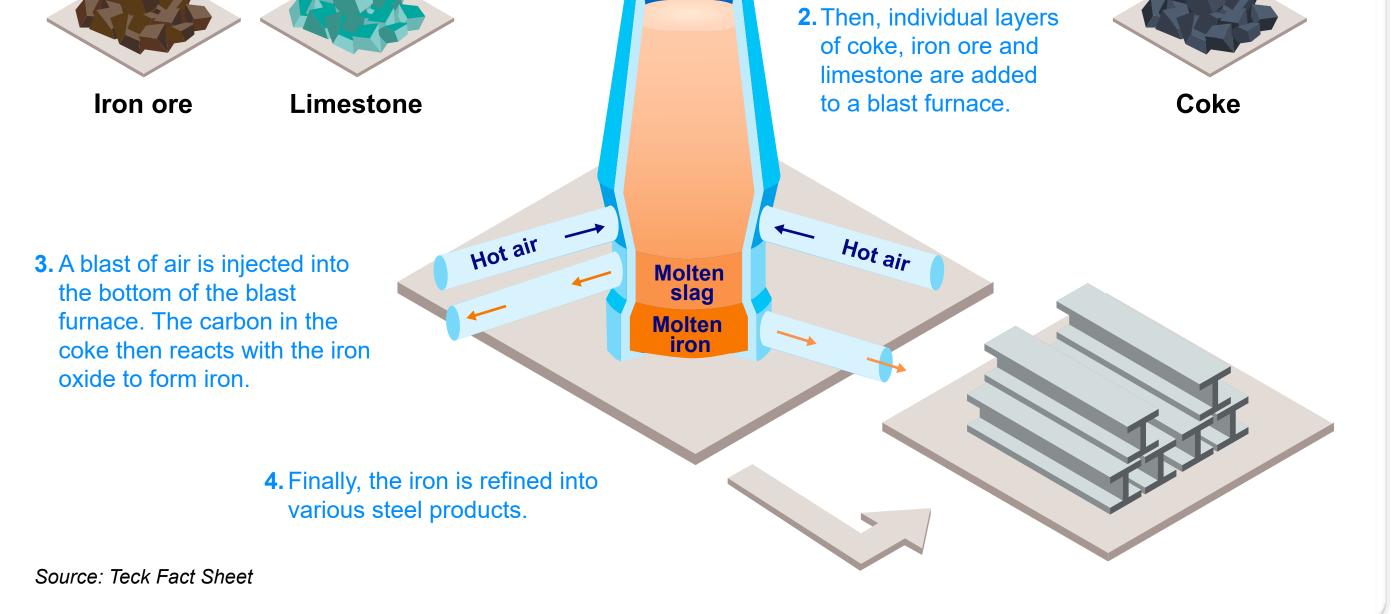


**High-Voltage Transmission Tower** 

27,000 kg Steel 18,900 kg Steelmaking Coal

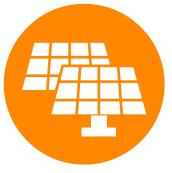
Sources: The American Iron and Steel Institute, World Steel Association, Boeing

# **The Steelmaking Process** About 72% of global production of steel relies on steelmaking coal. 1. Coal is first converted to coke, a grey, hard and porous fuel with a high carbon content. Coal



## **Steelmaking Coal in the Low-Carbon Future**

Clean and renewable technologies needed to mitigate climate change also demand steelmaking coal.



Each megawatt of solar power requires up to 45,000 kg of steel, which requires 31,500 kg of steelmaking coal.



The average wind turbine requires up to 260,000 kg of steel, which requires 170,000 kg of steelmaking coal.

As the steel sector works to decarbonize, several primary pathways will contribute to reducing GHG emissions from steelmaking.

Carbon Capture, Utilization and Storage (CCUS) is the only commercially ready technology capable of decarbonizing the steelmaking industry at the rate and scale required by 2050 to limit global temperature increases to 1.5°C.

#### The CCUS **Process**

#### **0 1.Capture**

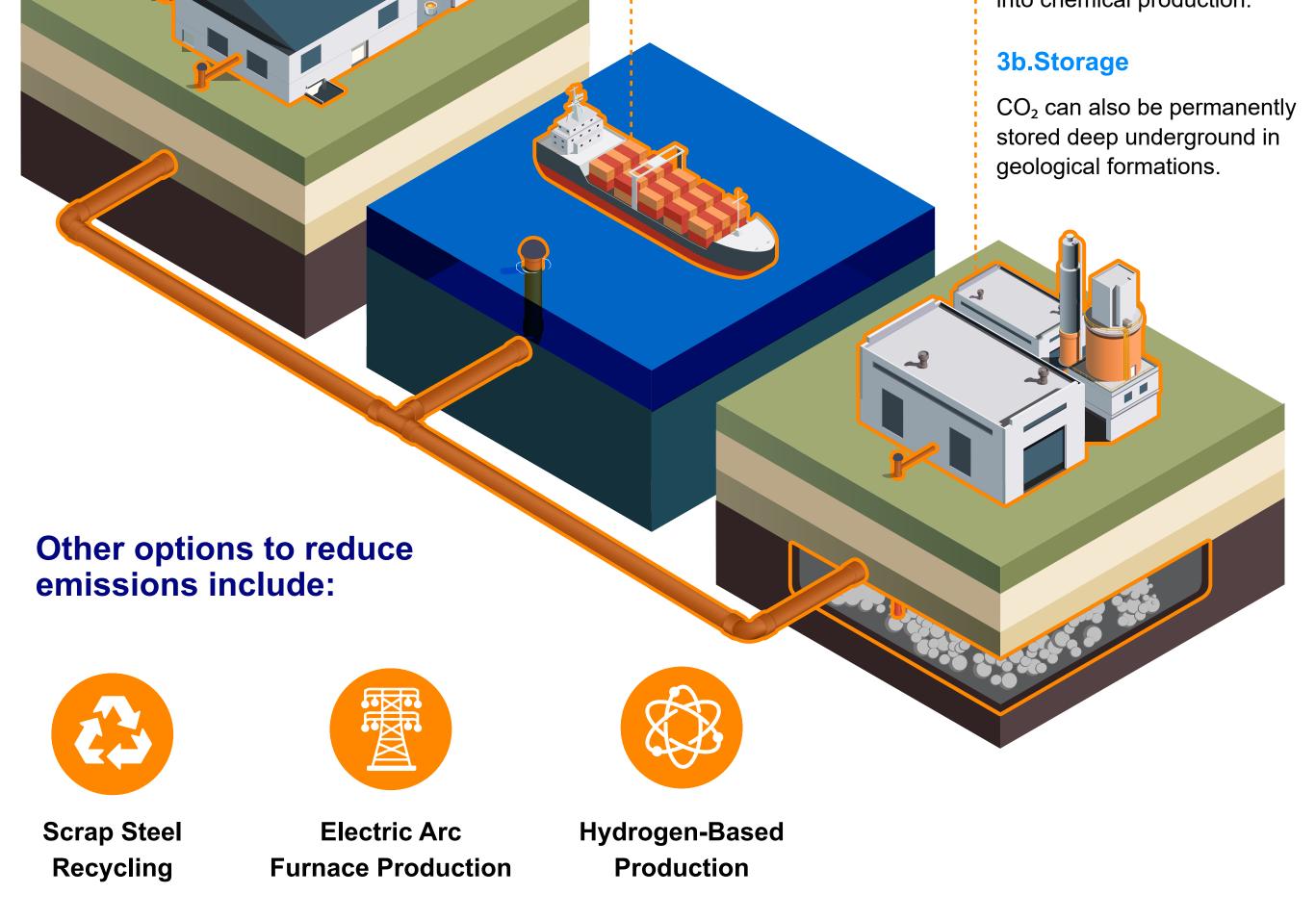
Carbon dioxide (CO<sub>2</sub>) is captured during the steelmaking process.

#### **2.Transport**

CO<sub>2</sub> is transported via ship or pipeline.

#### **3a.Utilization** 0

Once captured, the gas can be utilized in other industrial processes such as producing fuels, or as input into chemical production.



Sources: IOGP, IEA, World Steel Association, ArcelorMittal

#### As demand for steel grows in the low-carbon economy, so will the role of sustainable production.

Teck is the world's second-largest seaborne exporter of steelmaking coal and is among the lowest carbon-intensity producers.

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Learn more about steelmaking coal and its critical role in infrastructure and building a low-carbon future.

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