The transition to renewable energy and electrification will require commodities like copper. Copper has the highest electrical conductivity rating of all non-precious metals. Here’s a snapshot of copper’s role in a low-carbon economy.

Copper has four key properties that make it ideal for the clean energy transition:

**Conductivity**
Copper can easily be shaped into pipes, wires or sheets.

**Ductility**
Copper’s thermal efficiency is about 60% greater than aluminum, so it can remove heat far more rapidly.

**Efficiency**
Copper is 100% recyclable and can be used repeatedly without any loss in performance.

**Recyclability**
Copper Demand for Low-Carbon Technologies
As the adoption of wind and solar technologies grows, so will the need for copper. Electric vehicles (EV) can require up to 4 times as much copper as gasoline vehicles.

Copper helps reduce CO2 emissions and lowers the amount of energy needed to produce electricity. Renewable energy systems can require up to 12x more copper compared to traditional energy systems.

Copper is the Most Needed Mineral for Clean Energy Technologies
As the world moves towards renewable energy technologies, copper will remain the most widely used metal.

Visit Teck’s Copper Facts to learn more about copper’s role in a low-carbon economy.

Teck.com

**Copper Demand for Wind and Solar, 2020-2050**
Source: Copper Development Association

**Copper Drives Electric Vehicles**
Copper is the most necessary for energy storage, electrical propulsion (e.g. electric vehicles), and renewable energy.

**Copper Required Copper Demand (Kt)**
2017 2027
2017 2027
2017 2027
2017 2027

**Copper Supply vs Demand, 2017-2035**
Source: International Energy Agency

**The Race for Copper**
Operating mines and proposed projects are not meeting projected demand and the supply scenario looks quite constrained over the medium term.