Electric vehicles (EV) are contributing to a cleaner, safer and more energy-efficient environment. Powering this sustainable technology is copper, used for its durability, superior electrical conductivity and reliability.

Copper is a major component in EVs used in electric motors, batteries, inverters, wiring and in charging stations.

A pure electric vehicle can contain more than a mile of copper wiring in its stator windings.

In 2016, the number of electric vehicles increased to 2 million globally.

Annual sales of PEVs will exceed 1 million vehicles in 2023, reaching more than 7 percent of annual sales by 2025.

The total number of EVs is projected to reach 7 million by 2025.

About 5 million charge ports will be required to support them.

In 2016, the estimated amount of copper used in all electric vehicles was nearly 26 million pounds.

Copper Use By Vehicle Type

Conventional cars: 18-49 lbs of copper

Hybrid electric vehicles (HEV): 85 lbs

Plug-in hybrid electric vehicles (PHEV): 132 lbs

Battery electric vehicles (BEVs): 183 lbs

Hybrid electric bus: 196 lbs

Battery electric bus: 814 lbs

Demand Surge

The increasing demand will significantly impact the copper market. The demand for copper due to electric vehicles is expected to increase by 1,700 kilotons by 2027.