Copper demand growth in data centres

Study Name: Opportunities for copper in Data Centres market
Study Author: BSRIA
First Presented: October 2019

Copper use in the Data Centres (DCs) industry will continue to grow as the market is moving toward large and hyperscale DCs on the one hand and edge DCs on the other. Large and hyperscale DCs are projected to account for 67 percent of copper demand in the building contained sector by 2030, up from 37 percent in 2018.

Overview

According to new research commissioned by the International Copper Association (ICA) there is a clear link between the trend for larger DCs, increased edge computing demand and increased copper demand. The research, conducted by BSRIA, found that growing demand for the seamless delivery of an increasing number of Internet of Things related services has resulted in a move toward large and hyperscale DCs. They require increased power generation, often from renewable energy sources, effective power distribution and more Information Communication Technology equipment. These factors will all contribute to an increase in copper demand, including a large share from new construction.

The rise of edge computing, and related DC units as a result of the growth of smartphones and real-time applications, as well as smart cities with their smart transport infrastructures, is likely to increase demand further.

Key Findings

- Large and hyperscale DCs are projected to account for 67 percent demand of copper in the building contained sector by 2030, increasing from 37 percent in 2018.
- The rise of edge computing, alongside the growth of smartphones, smart cities and smart transport infrastructures, is likely to increase demand further from 543,000 tonnes in 2020 to an estimated 725,000 tonnes in 2030.
- Geographically, North America is the largest market, accounting for 48 percent of building contained DC copper demand by 2030.

Geographical demand

North America is the largest market globally and is projected to account for 48% of building contained DC copper demand by 2030. The size of the European market will decrease over the same period, while dynamic growth is expected in South-East Asia.