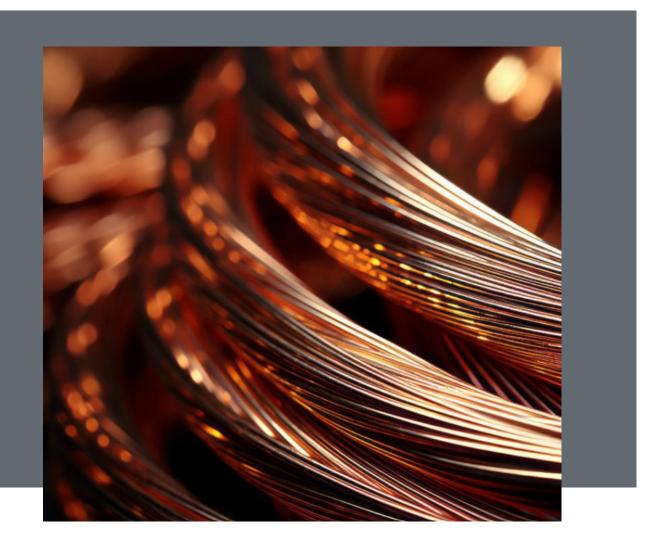
Market Intelligence Briefing



Content

Key Takeaways

- 1. Cables
- 2. Megatrends

Key Takeaways

			Impact
<u> </u>	Cables	 China's green computing base initiative reinforces copper's energy efficiency advantage EU utilities seek standardized copper GHG emissions reporting, and ICA exchanges with EU utilities reveal the need for further developments Increased U.S. underground transmission lines strengthen ICA's market position in power cable application South Korea's cable export revenues grew over 15% in 2024 due to the demand for global grid modernization and offshore wind installation 	Very high
29 Cu	Megatrends	 China's 5% GDP growth target in 2025, emphasizing domestic consumption, open trade, and rural development, suggests positive copper demand U.S. and Qatar challenge the application of EU sustainability due diligence requirements EU proposes extending the leaded brass exemption in electrical equipment until 2026 In the U.S., Copper champion and Natural Resources Committee Chairman Bruce Westerman (R-AR) announces support for copper mining India's metro and airport expansion plans could drive 23 Kt of copper demand by 2030 South Korea's copper cathode demand reached 888 Kt in 2024, a 4.6% increase y-o-y 	High



ICA Market Intelligence Briefing – January 2025



Cables



China's newly released national guidance states to build a green, safe, and high-quality computing base by 2029, aligning with ICA's advocacy against aluminum

- The construction of computing power facilities will boost the demand for cables, which aluminum seeks to penetrate
- The guidance stresses optimizing the overall operational efficiency of the data center power system; copper cable is more energy-efficient and carbon-friendly to meet this goal
- ICA China has been collaborating with industry organizations and partners to establish a working group aimed at promoting copper solutions while preventing misleading claims about aluminum's environmental benefits



现碳达峰碳中和。支持利用"源网荷储"等新型电力系统模式。加强数据中心智慧能源管理,开展数据中心用能监测分析与负荷预测,

优化数据中心电力系统整体运行效率。

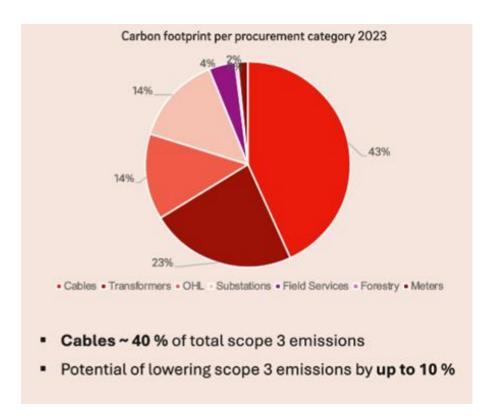
探索绿电直供新模式, 有序

开展绿电、绿证交易。

Optimize the overall operation efficiency of the data center power system

ICA exchanges with EU utilities reveal the need for further developments in the field of measuring and reporting greenhouse gas emissions

- Scope 3 emissions of utilities can be very important; utilities aim to lead the development of a low-carbon equipment through high environmental requirements in their tenders
- A copper industry-wide standard for measuring and reporting GHG is asked by utilities so that they can trust declared values and compare offers of different suppliers on equal footing
- In the absence of such a standard, some utilities are developing complex methodologies to estimate embedded emissions of copper in the equipment they purchase
- Some utilities already specify in their tenders the requirement to use "low-carbon aluminum" only, and they wish to extend this approach to copper; this requires a definition of "lowcarbon copper"



Scope 3 emissions split down for EON Sweden (distribution electricity network), with cables and transformers being the main contributors

Underground transmission lines are increasing in the U.S.; new intel upgrades ICA's market data and ability to defend demand in a key power cable application

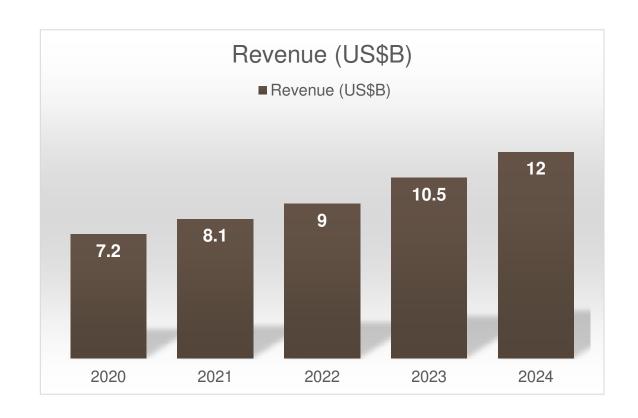
- Researchers at Stanford found that a 10% increase in underground line miles was correlated with a 14% reduction in annual interruption durations across the U.S., strengthening the business case for underground (procopper) vs. overhead (almost exclusively aluminum)
- High-pressure fluid-filled lines are most common, but cross-linked polyethylene (XLPE) cables are less expensive and gaining traction in new installations
- Horizontal directional drilling (HDD) can avoid sensitive landmarks and installs transmission cable underground from one point to another
- 10 HDDs known on Coastal Virginia Offshore Wind project



Horizontal directional drilling on the Coastal Virginia Offshore Wind project

South Korea's Export Revenue of Major Electric Facilities and Equipment Manufacturers increased significantly in 2024

- Revenue from Major Electric Equipment exports in Korea increased by 10.6%, reaching US\$12B in 2024
- Major Cable Producer: DaiHan Cable, LS Cable, and iLJin Cable made revenue growth of over 15% in 2024.
 - World-Wide GRID Upgrade Demand
 - Offshore Wind Farm Installation
- ESS, Transformer, and Circuit Breaker continue to grow
 - Hyosung Heavy Ind., LS Electric, Hyundai Electric



Source: Korea Electric Association 2024 Report

Megatrends



China's target of 5% GDP growth by 2025, with a focus on domestic consumption, efficient investment, rural revitalization, and stabilizing asset markets, provides a positive signal for the country's copper demand this year

The recent Central Economic Work Conference of China outlined the country's economic priorities for 2025, emphasizing proactive fiscal and moderately accommodative monetary policies to support economic growth. The targeted GDP growth rate is set at around 5%. Key goals include:

- Vigorous consumption growth, efficient investment, and comprehensive domestic demand expansion are prioritized. This includes consumer trade-in, voucher incentives, and stabilizing property and stock asset markets.
- Expand high-level opening to the world and strengthen foreign trade and foreign investment; investment in manufacturing and infrastructure remains crucial.
- Promoting new urbanization and rural revitalization is critical, as well as activating rural resources and promoting the modern rural economy.



US and Qatar challenge the application of EU sustainability due diligence requirements, as the European Commission plans simplification

- The EU's Corporate Sustainability Due Diligence Directive (CSDDD)

 which sets human rights and environmental due diligence requirements spanning throughout companies' chains of activities from 2027 will also apply to non-EU companies with significant operations in the EU
- In a letter, members of US Congress criticized the Directive for imposing complex, extraterritorial regulations on U.S. companies and asked to delay its implementation and engage with EU counterparts to modify or repeal it
- Qatar has also challenged the directive, with the QatarEnergy CEO warning that Qatar would halt gas exports to the EU if the Directive is strictly enforced
- On 26 February, the EU Commission is expected to publish a proposal to simplify EU sustainability reporting requirements contained in three legislative acts, including the CSDDD

Qatar threatens to stop EU gas sales if fined under due diligence law, FT reports

By **Reuters**December 23, 2024 2:09 PM GMT+1 · Updated a month ago



Congress of the United States

September 27, 2024

The Honorable Janet Yellen Secretary Department of the Treasury 1500 Pennsylvania Avenue, NW Washington, DC 20220

Secretary Yellen,

The European Union (EU) has long been known for implementing vague, broadly scoped, and complex regulations that hinder business growth and raise consumer costs. The EU's longstanding regulatory overreach has had deleterious effects on its member states' economies

E.U. draft delegated directive recommends extending the exemption for leaded brass in electrical equipment through December 31, 2026

- Electrical applications are an important market segment for brass rod, sheet, and strip
- The E.U. Restriction of Hazardous Substances Directive (RoHS) restricts the use of materials containing >0.1% lead by weight in certain electrical applications
- Brass containing up to 4% lead is currently exempt from RoHS restrictions, but this is reviewed every few years
- OEMs are concerned that the exemption will be revoked or narrowed in the next cycle, forcing substitution despite no viable low-lead alternatives for many applications
- The draft recommendation is a positive sign that the brass exemption will remain, but the shorter review period for the next cycle signals increasing pressure on the industry





In the U.S., Copper champion and Natural Resources Committee Chairman Bruce Westerman (R-AR) announces support for copper mining

- Westerman offered up support for Twin Metals project in Minnesota and the Resolution Copper mine in Arizona
- CDA has lobbied Chairman Westerman and his staff repeatedly, and he previously championed copper's inclusion on the USGS Critical Minerals list on the floor of the House in November of 2024
- As Chairman, Westerman will be leading the charge for permit reform efforts by Congress and the Trump Administration
- Said of Twin Metals "Quit the political ping pong, build the mine"

E&E DAILY

Westerman plots approvals for stalled mining projects

By Garrett Downs

01/16/2025 06:51 AM EST



Mine shafts at the Resolution Copper mining facility in 2023 in Miami, Arizona. | Matt York/AP



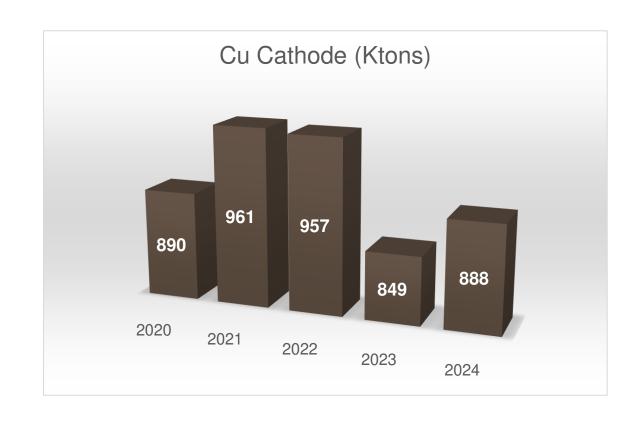
India to complete 577 metro stations by 2028 & 43 Airport terminals by 2030

- Metro and airport expansion is aimed at meeting urbanization, decongesting roads, and catering to increased air traffic
- 577 metro stations in 15 cities across the country
- If all planned additions come online, there will exist
 23 Kt copper equivalent opportunity



In 2024, the demand for Copper Cathodes in Korea has increased by 4.6%, reaching a total of 888 Kt (by Government Statistics, e-Nation figure)

- The total demand for copper cathodes, including both exports and imports, has reached 888 Kt in 2024
- In 2023, the amount was 849 Kt, representing an 11% decrease compared to 2022; it was caused by financial circumstances and a decreasing real economy investment
- Investment in construction and equipment spending is experiencing a moderate decline, resulting in expectations for steady economic growth in 2025
- The total demand for Cu cathodes is anticipated to be similar to that of 2024



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