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New Report Highlights Copper's Vital Role in the Advancement of Electro Mobility

New York, NY, March 15, 2017 – The International Copper Association (ICA) issued a report today that details the increasing role copper plays in the development of electrified transportation and the integration of energy storage. The research, conducted by IDTechEx, demonstrates that copper will have a critical impact in three key areas as this sector grows: energy storage, charging infrastructure, and the production of electric vehicles.

“The adoption of electric vehicles is projected to increase throughout the world and the demand for copper will increase accordingly since it is an important element to the entire progression of the industry,” said Colin Bennett, Market Analysis and Outreach, ICA. “Just as internal combustion engine vehicles need a network of filling stations, electric vehicles require a charging infrastructure that will involve a significant use of copper.”

Energy storage is the most copper intensive component in the electro mobility spectrum. It is estimated that for every kilowatt-hour of a lithium ion battery, 1.1 to 1.2 kilograms of copper is used. Projections show that over time, this could result in as much as 600 kilotonnes of additional copper demand by 2027.

To further demonstrate the importance of the battery and its relationship to copper, an average electric bus has 395 kilograms (kg) of copper in its battery, which accounts for 85% of the vehicle's total copper content. By comparison, a pure electric vehicle (EV) has a battery pack with 40 kg of copper, or 53% of its total copper content, while in hybrid electric vehicles (HEVs) the battery comprises just 3% of the total copper content.

Total copper content by vehicle type shows an electric bus contains 560 kg of copper followed by EVs with 75 kg, 52 kg for PHEVs, and 31 kg in HEVs.

The analysis also outlined the following factors that could potentially lead to increased copper use: larger battery capacity, increases in EV range, more electronics within the vehicle, and the development of smaller cells.

For greater detail into the role copper plays within the electrification of transportation, attend the ICA workshop and panel discussion during the [World Copper Conference 3–5 April 2017 during CESCO Week in Santiago, Chile.](#)

About International Copper Association (ICA)

ICA brings together the global copper industry to develop and defend markets for copper and to make a positive contribution to society's sustainable development goals. Headquartered in New York, ICA has offices in four primary regions: Asia, Europe and Africa, Latin America, and North America. Copper Alliance[®] programs and initiatives are executed in nearly 60 countries through its regional offices. For additional information please visit copperalliance.org.