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# Qualcomm and Ricardo Sign Commercial Wireless Electric Vehicle Charging License Agreement

## -- Global Automotive Engineering Consultancy Licenses Qualcomm Halo™ Patent Portfolio --

SAN DIEGO, April 1, 2016 /PRNewswire/ -- Qualcomm Incorporated (NASDAQ: QCOM) and Ricardo today announced they have entered into a Wireless Electric Vehicle Charging (WEVC) technology license agreement. Ricardo, a global engineering, strategic, technical and environmental consultancy business, with world-renowned expertise in powertrain and vehicle engineering – including the niche manufacture and assembly of high-performance products – has licensed Qualcomm Halo™ technology to commercialize WEVC systems for Plug-In Hybrid (PHEVs) and Electric Vehicles (EVs). Under the terms of the agreement, Qualcomm has granted to Ricardo a royalty-bearing technology license to develop, make and supply WEVC systems for automobile manufacturers. Qualcomm subsidiaries will provide technical expertise and engineering support.

There is an increasing focus from automakers on hybrid and electric vehicles as they look to reduce tail pipe emissions. Ricardo sees WEVC as an enabling technology for automakers to drive mass adoption of EV/PHEVs by simplifying the charging challenge. Ricardo views Qualcomm Halo technology as an advanced WEVC solution that has the potential to encourage more widespread adoption of EVs, meeting the requirements of automakers and drivers for simple and convenient EV charging.

Working with Qualcomm will enable Ricardo to design and build WEVC systems that meet automakers' requirements for wireless charging today and in the future, as demand becomes more prevalent for higher power, faster charging, different deployment methods such as buried charging pads, and for WEVC systems which charge SUVs, taxis and autonomous vehicles.

"The increasing electrification of transportation is important in enabling society to reduce its reliance upon CO<sub>2</sub> emitting fossil fuels while also improving the quality of air in our towns and cities," said Dave Shemmans, chief executive officer, Ricardo. "Wireless charging is a potentially very promising enabler for more widespread adoption of pure electric and plug-in hybrid vehicles, with consequent environmental benefits. I am extremely pleased, therefore, that through the agreement announced today, Ricardo is now able to engineer solutions based on Qualcomm Halo technology, as an integral part of our own portfolio of low and zero emission vehicle and transportation technologies."

"Ricardo brings a wealth of automotive engineering expertise and a real focus on performance, advanced engineering solutions, and a deep understanding of the direction the automobile industry is headed," said Steve Pazol, vice president and general manager, wireless charging, Qualcomm Incorporated. "We are pleased to be working with Ricardo. This collaboration further strengthens the Qualcomm Halo automotive supply chain, providing options for WEVC both to the traditional automakers and the burgeoning EV entrants."

Ricardo will benefit from comprehensive engineering support provided by Qualcomm subsidiaries which aims to enhance their ability to develop commercially viable and technically advanced WEVC systems and will support the future design of evolving WEVC systems. Qualcomm Halo WEVC technology has been developed with a focus on cost and package optimization, power, interoperability, and co-existence with vehicles systems. An advanced technology pipeline delivers ongoing improvements, supporting standardized and interoperable WEVC technology suitable for stationary and, eventually, dynamic charging.

Qualcomm continues to expand commercial relationships across the EV ecosystem, reinforcing the value of its technology, and its engineering and collaborative approach. For more information on Qualcomm Halo, visit [www.qualcommhalo.com](http://www.qualcommhalo.com).

### About Qualcomm Incorporated

Qualcomm Incorporated (NASDAQ: QCOM) is a world leader in 3G, 4G and next-generation wireless technologies. Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services

businesses, including its semiconductor business, QCT. For more than 30 years, Qualcomm ideas and inventions have driven the evolution of digital communications, linking people everywhere more closely to information, entertainment and each other. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

### **About Ricardo**

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. With a century of delivering excellence and value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. For more information, visit [www.ricardo.com](http://www.ricardo.com).

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