

# WIRELESS POWER

## CONSORTIUM

### WPC To Establish Standards For Rapidly Expanding Light Electric Vehicle Sector

#### New eBike and Electric Scooter Market Will be the Next Industry to Adopt a Standardized Charging Model.

**Berlin, August 31, 2023** – The [Wireless Power Consortium](#) (WPC), the leading global standards development organization for wireless power standards, is turning its attention to the emerging and rapidly expanding Light Electric Vehicle (LEV) market for its next wireless charging standard and to provide consumers and manufacturers alike with improved safety and convenience.

The WPC has successfully introduced its global standard for mobile devices with the [Qi2](#) standard and will be introducing its [Ki](#) standard for kitchen appliances in 2024. The growing popularity of eBikes and electric scooters and the lack of a global charging standard for their rechargeable lithium-ion batteries is an opportunity for the WPC to apply its expertise to establish a universal wireless charging standard that ensures safety, convenience, and interoperability.

“A lack of a charging standard for this sector can easily lead to poor user experience and significant safety issues such as fires. A standard – like Qi2 or Ki - assures consumers that their devices are safe, efficient, and interoperable with other brands,” says Paul Struhsaker, executive director of the Wireless Power Consortium. “Consumer demand for convenience and efficiency is driving universal standards. Furthermore, standards provide consumers safety and reliability – from mobile devices to LEVs.”

Most eBikes and eScooters have rechargeable lithium-ion batteries, the same batteries that power smartphones and laptops, and can fail when damaged, overcharged, or operated in extreme temperature conditions. Batteries for LEVs though are much bigger— up to 100 times larger —than the ones in personal electronics and pose a greater risk.

Electric cars or electric vehicles (EVs) also contain lithium-ion batteries, but fires are less common compared with eBikes. The EV sector is also recognizing the value of universal standards demonstrated by recent efforts to streamline the hardware used to charge EVs.

Authorities in Europe and the United States are responding to a spike in LEV fires. For example, the New York Fire Department investigated 30 eBike fires in 2019. Last year, that number jumped to 220. The London Fire Brigade said it has been called to an eBike or eScooter fire every two days so far this year.

The popularity of LEVs surged during the pandemic and the corresponding drop in prices made them more affordable. However, inconsistent manufacturing standards and the availability of after-market chargers that may not be compatible with the battery is leading to more fires and injuries. The dominant problems with battery charging today for LEVs include:

- The absence of a universal standard for chargers. Riders need a brand-specific one to charge their eBike, requiring them to charge only at home to avoid getting stranded.
- The connectors on the charging cable and the eBike wear out and break, leading to a costly repair.
- There exists no mobile charging alternative. Riders are required to carry their home charging “brick” and find an AC wall outlet to charge.

“The global marketplace – from mobile phones to the vehicles we park in our driveways – recognizes the value of universal standards,” says Ken Moore, Chair for the WPC LEV Spec Group. “This is an ideal time to introduce universal charging standards for the LEV industry. The development and design of eBikes and eScooters are relatively new and innovations and modifications will continue to occur as the industry matures and consumer preferences are reflected in these new products.”

#### **At IFA Berlin**

Learn more about WPC’s wireless power standards: the new Qi2 standard, the Ki Cordless Kitchen, and LEV wireless charging at WPC’s stand located at Hall 3.2 stand #104.

#### **About the Wireless Power Consortium**

The Wireless Power Consortium leads the world in ensuring consumers, retailers, and manufacturers that they can rely on universal, interoperable standards and certifications for wireless power. Through rigorous testing and certifications, the global body is dedicated to ensuring safe, efficient, and interoperable wireless charging and wireless power. The WPC’s nearly 400 member organizations established and support the current Qi standard and are developing standards for innovative new wireless power applications, including the Ki Cordless Kitchen.

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