

1. Legal Metrology issues related to Electric vehicles

In Rep of Korea, for decreasing carbon dioxide (CO₂), there are some policies to reduce CO₂. One of way to reduce CO₂ is Electric vehicles (EV) which run on battery power, charged from electric power. To supply electric vehicles, it is necessary to supply electric vehicle chargers too.

The legal metrology issues are occurred on how to measure electricity from EV chargers to consumers. Actually, there is an electricity meter inside of EV chargers, in this case there are no problems in legal metrology. However, some manufacturers try to cost down and develop new design without electricity meters (Embedded system). In this case, there are no standards and requirements as type approval & verification.

Korea Agency for Technology & Standard (KATS) has researched and asked to Korea Testing Certification (KTC) to establish a working group for developing type approval & verification with stakeholders.

Moreover, according to National Statistical Office in Korea, the ratio of residence in apartment is more than 72 % and the construction expenses for EV charger are around \$ 7,000. To solve these issues, it is necessary to supply portable EV chargers. It does not need extra expenses for construction and is easy to use AC power if there are outlets.

KTC will develop new legal metrology standard for type approval & verification in 2015. In 2016, there is pilot project to conduct type approval with some manufacturers and then add EV charger as legal metrology.