

## Electric Vehicle Charging with Dynamic Energy Management

**Francko Nasarino**  
**Final Distribution Product Application Specialist, Schneider Electric**  
**Indonesia**

**Keywords:** *Electric Vehicle, Charger, Battery, Energy Management*

### Abstract

Today we all agree that moving to a cleaner mobility is one of the pillar to decrease CO<sub>2</sub> emission and thus reach climate goals. Some countries or cities decide to ban diesel cars in the next coming years. Many car manufacturers are also announcing that they will electrify a big part of their production and also stop manufacturing of diesel cars. Plug-in electric cars are becoming more commonplace on streets all around the globe. According to the International Energy Agency (IEA) and its latest Global Electric Vehicles Outlook report, “The number of electric and plug-in hybrid cars on the world’s roads exceeded 3 million in 2017, a 54% increase compared with 2016.”

In addition, modern electric vehicle battery capacity is increasing, leading to a longer full charging time. Thus, there is an increasing need of bigger capacity of charging power. On the other hand, customer is concerning about the occurrence of overload while charging their electric vehicle, that leads to tripping risk in their houses.

To avoid the tripping risk while charging electric vehicle, Schneider Electric created a solution of Electric Vehicle (EV) charger that considers the subscribed power and the instant home consumption. This solution, when operating, would monitor the electricity consumption in the house, and allocate the available electricity to the charger, thus the total electricity consumption would not exceed the subscribed power.