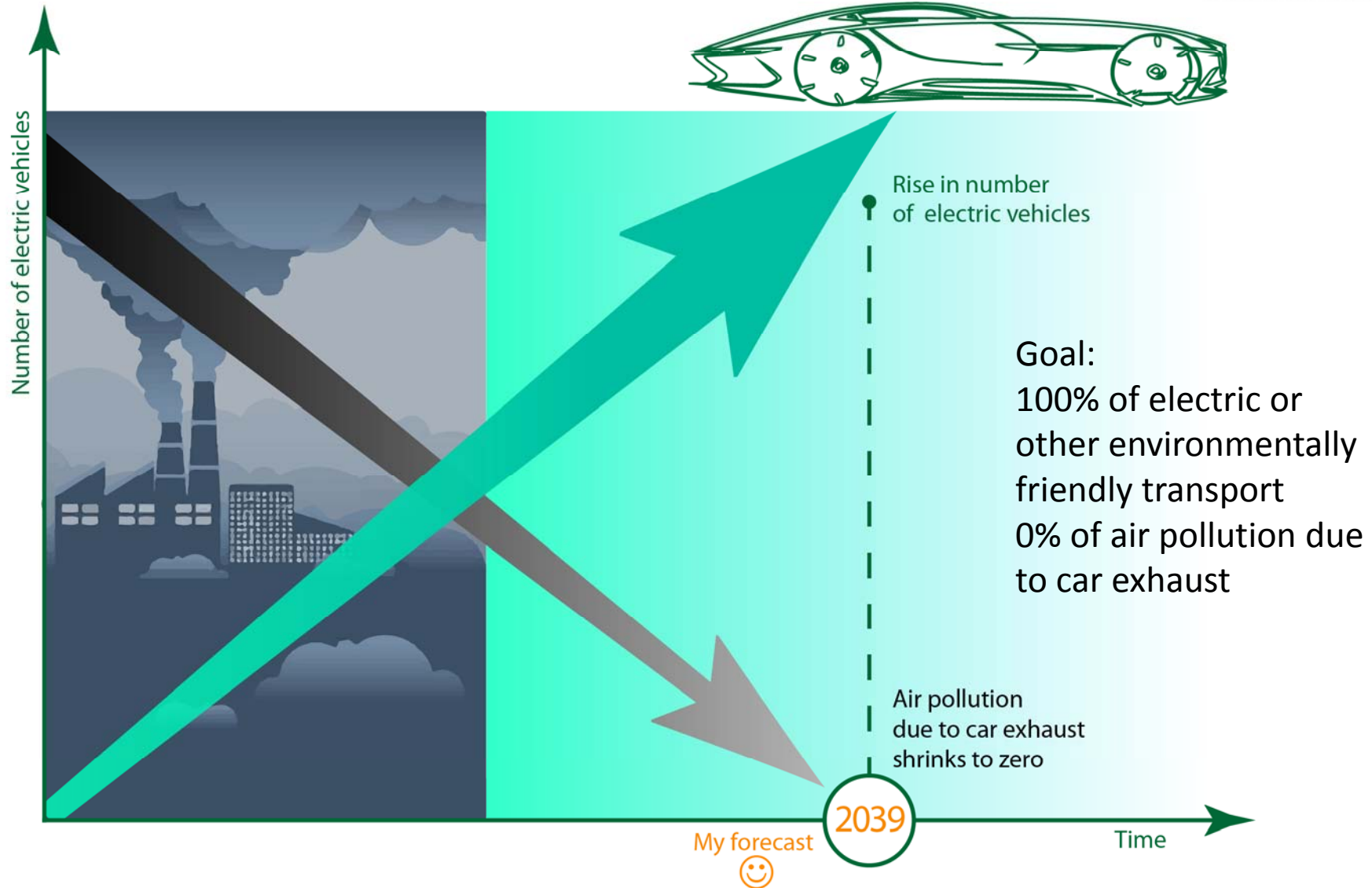


Mars-Energy EVSE Testing Solutions

Mars-Energy, Saint-Petersburg, 2025

A step toward improving environmental situation in cities

2



Role of metrology in handling public charging stations

3



The care for air quality and people's health is the reason for a rapid growth in the number of electric vehicles on our roads. This leads to the expansion of the EV supporting infrastructure and, in turn, to the increase in electricity consumption. This is why the problem of accuracy in energy measurements performed by a charging station becomes of great importance, especially in the context of measuring the electricity consumed and paid by the owners of electric vehicles.



When does energy become “visible”?

4



To make electrical energy "visible", a charging station should be equipped with a certified electricity measurement system, such as a built-in smart metering unit, or smart meter.

The information on the amount of electrical energy supplied to the EV should be displayed on the built-in display of the charging station and transmitted to metering and billing systems via communication ports. Therefore, the Electric Vehicle Supply Equipment is a measuring equipment, and it requires metrology maintenance: verification or calibration.



Test set for calibration of EVSE with DC output


5



Multifunctional Reference Standard Energomonitor 3.1KM together with Electronic Current Transformer EMT-200/ EMT-500 provides for on-site accuracy testing of EVSE with DC output in 2 ways: ① as a whole unit, or ② by testing EVSE components (DC meters) individually


Test Set

Energomonitor-3.1KM

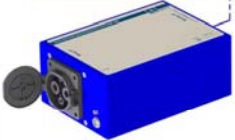



EMT-200/500

Modification 1
Through-type current transformer with GB/T connector



Modification 2
Busbar type current transformer



Devices under Test

Electric Vehicle Supply Equipment (EVSE)

①



②



DC meter



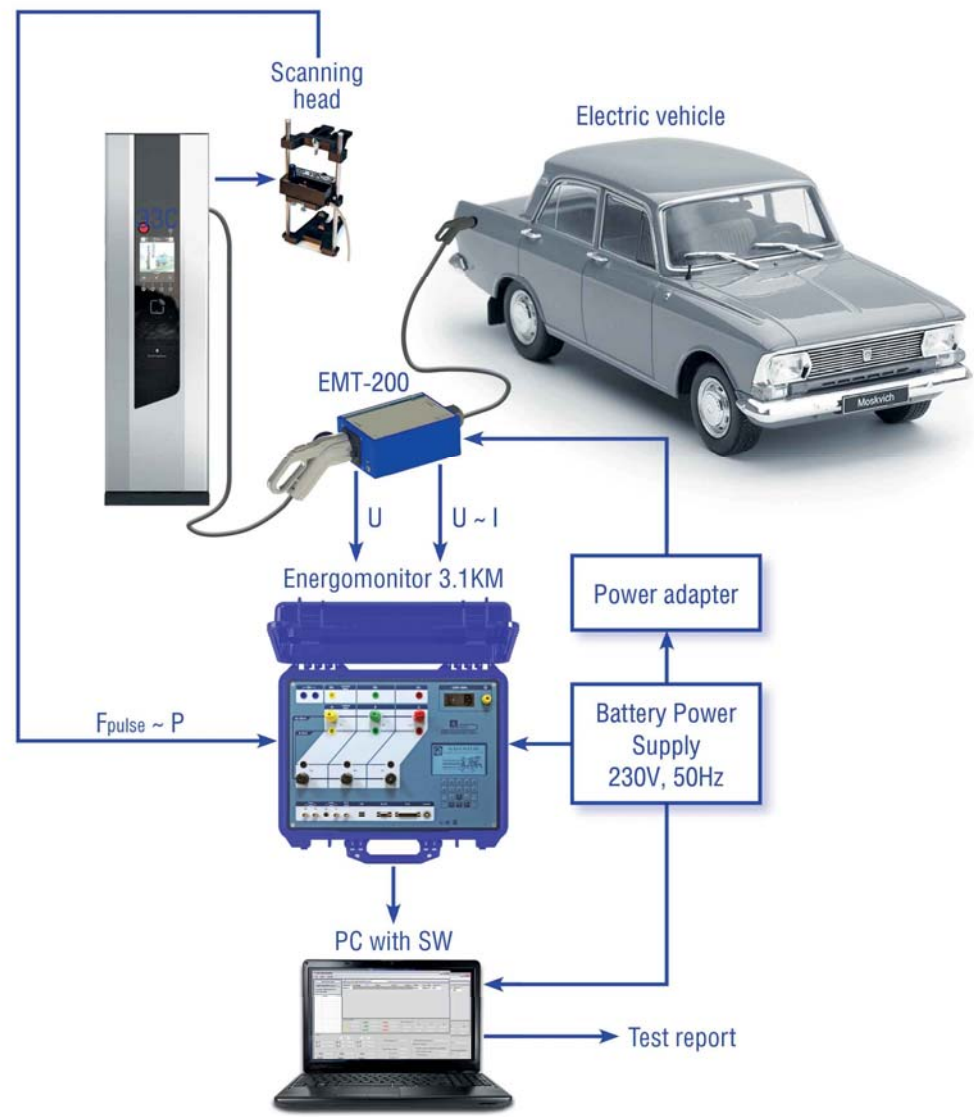
200A/500A



Shunt 100A

On-site calibration of EVSE

6



Meter test systems of MTS-MONO-ME series

7



MTS--MONO--ME 3.120
For single and three phase
meters connected directly or
via transformers



MTS--MONO--ME 1.120
For directly connected
single-phase meters



MTS--MONO--ME 3.12
For transformer connected
single and three phase
meters

Global contacts

8



By now Mars-Energo products are sold in more than 20 countries all over the world.

We have representatives in India, Vietnam, South Korea, and the United Arab Emirates.

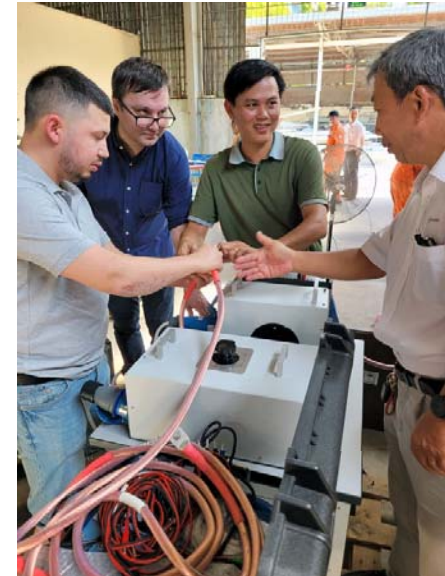
More than 6,000 test sets intended for calibration of energy meters and instrument transformers forming part of metering and billing systems have been manufactured and delivered to our customers.

The majority of the equipment is in operation in Russia and CIS countries.



“As per Indian tradition, our customer performed puja as it was an asset to his company and for expecting prosperity with the new instrument.”

Vietnam



South Korea

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I sincerely appreciate your attention!

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