CEBC Webinars Series (Webinar #6)

"Electric Vehicle Infrastructure in MENA: Landscape and Outlook post COVID-19"

20 May 2020, 2:00 PM GST

CEBC organized this webinar to talk about the current landscape of the electric vehicle (EV) infrastructure and how COVID-19 is impacting the market.

Webinar speakers include:

- Abdelrahman Sami, Key Account Manager at Schneider Electric
- Sam Alawiye, CEO at GreenParking
- Torsten Hager, Innovation Manager – Energy Management at Hager Group
- Yarob Awwad, Regional Director at CATEC Mobility
- Stephan Gobert, Senior Strategy Manager at ENGIE and Board Member at CEBC
- Moderated by Ridah Sabouni, MENA Managing Director at Energetics

The key takeaways from the webinar discussions are summarized below.

- Lessons learned from the European EV market:
  - Germany is the leading electric vehicle market in Europe in terms of BEV and PHEV. Germany has around 56, 544 charging points, most of which are type 2 socket (58%). Almost half of the installations (48%) are 22 kW.
  - France follows Germany as the second EV market in Europe. France currently has 12,522 charging points, most of which are also type 2 socket (35%). 37% of the installations are 22 kW and 35% are up to 10 kW.
  - The typical challenges that currently faces the EV market in Europe is that substations can typically deliver 600 kVA, however in grid planning each house/apartment is assumed with a power consumption of 2 kVA (based on simultaneity factor) and Simultaneously charging EV would dramatically overload the transformer. There are two possible solutions:
    1. Hybrid and Electric Mobility Solutions (HEMS) that shift charging of the vehicles to avoid overloading the transformer.
    2. Energy storage systems that could provide additional power for charging the EV, especial at peak hours.
  - Bi-directional or vehicle-to-grid (V2G) charging is already in operation in some places in Europe, where the EV could be used to provide electricity to the grid. V2G is growing very fast in Europe.

- Overview of the EV charging market in Jordan:
  - 60% of the overall emissions in Jordan comes from the transport sector. Jordan has more than 22k EV's today due to different reasons such as the government incentives in form of tax

exemptions on EV import and the high cost of fuel (for example: for 180km an EV driver could pay 3$ where it would cost around 14$ for ICE.)

- The main challenges facing EV charging in the Jordan market include:
    - Majority of the EV owners live in apartments
    - Selling electricity is currently only allowed for gas stations which limit the spread of the charging stations.
    - Upfront cost for setting fast chargers is very high
    - Grid limitations, especially with the increase in the number of EV's
- EV market has been negatively impact by COVID-19 mainly due to the supply chain disruption.
- There are though good opportunities especially in infrastructure upgrade, electric fleet and EV charging management.

- Insights into the EV market in the UAE and the GCC:
    - Power limitations along with the associated high CAPEX is the main challenges facing EV infrastructure in the region. However, some flexibility from the government stakeholders and more collaboration with the private sector is expected in the near future.
    - EV charging management systems are going to solve a lot of the challenges related to the grid limitations and
    - The UAE has around 3,000 EV's and more than 700 EV charging stations but they are not evenly distributed throughout the country (a ration of almost 4:1 charger/EV)

COVID-19 and the recent resulting oil price collapse most likely won't impact the EV charging market, especially since the government didn't reflect these price collapse as it is known that this price decrease is temporary.

For more information about the Clean Energy Business Council (CEBC) and the Future Mobility Club (FMC) and how to join, please email us at: ahmed@cebcmena.com