

CN Department

Tarsheed EV Charging Infrastructure Efforts

Determine, Install & Commission the infrastructure of EV Charging in the State of Qatar

- Setting Qatar EV Charging Strategy through Consultancy LTC 1528-2019 with Siemens
- Locations of 200 electric vehicle express charging stations for public use have been identified and allocated.
- to be implemented at Q4 of 2021 (Phase 1) & Q2 of 2022 (Phase2) .
- Impact of the loads on the network and the reduction in harmful carbon emissions were studied
- Coordination with related parties such as Rail & Public Works Authority to add their needs to Kahramaa network map
- Tariffs have been determined to be announced with strategy in June 2021
- Operating and maintenance models have been studied as well as payment systems platform to be implemented.
- 15 pilot DC fast charging stations are being implemented in various public, commercial and governmental sites
- EV Guideline, Technical Specs, Installation Procedures and EV Chargers Blueprints have been identified and announced by Tarsheed



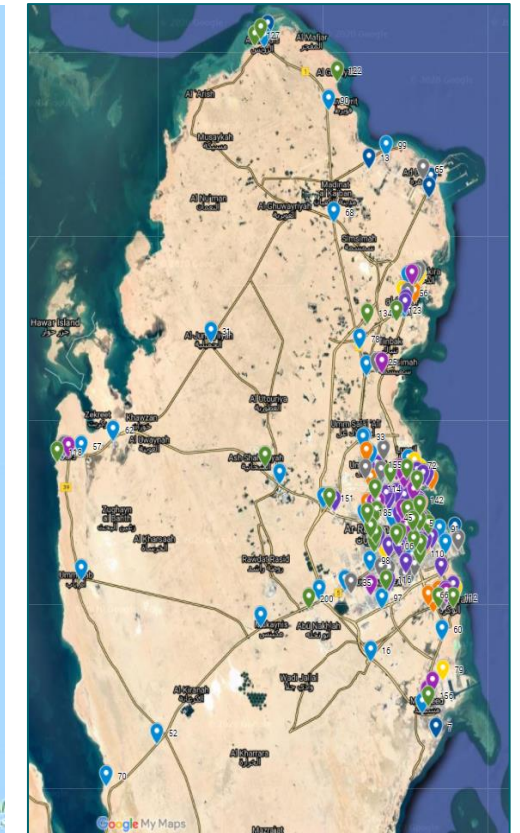
200 charging stations are facilitated in order to support the charging demand in public areas



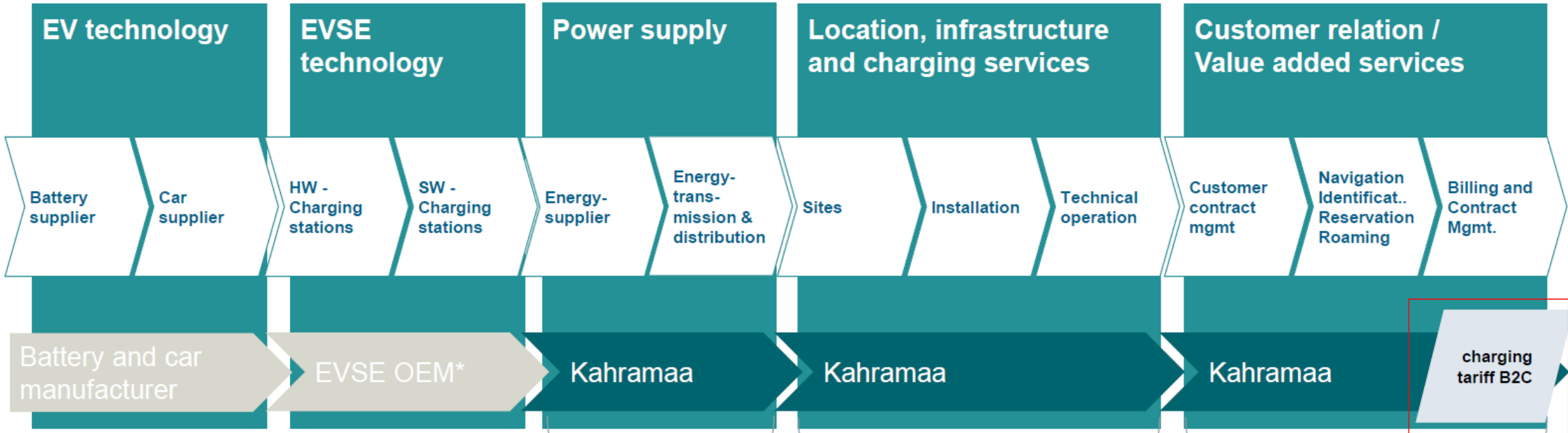
The charging stations were allocated based on the following rules:

- Placement based on POI**s density on map
- Weighting factor per municipality based on population applied
- Weighting factor per CBP based on customer preference
- Area coverage factor*** of ~ 4 km for CBP.2 and ~0.5 km (CBPs) applied

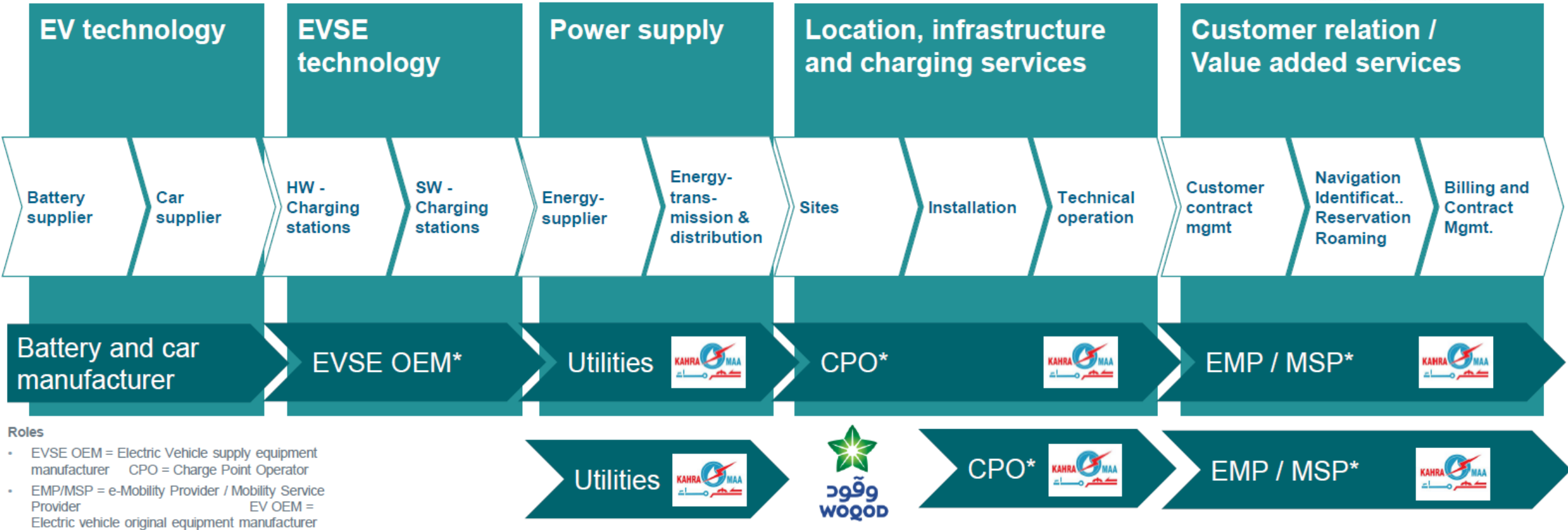
- 📍 CBP.1: Corporate site (14x)
- 📍 CBP.2: Traffic / Mobility site (36x)
- 📍 CBP.3: Parking Facilities (14x)
- 📍 CBP.4: Lodging (14x)
- 📍 CBP.5: Places of worship (21x)
- 📍 CBP.6: Shopping, Food & Beverage (29x)
- 📍 CBP.7: Public Services (20x)
- 📍 CBP.8: Leisure, Parks & Sport Facilities (36x)
- 📍 CBP.9: Domestic charging



Business Model 1



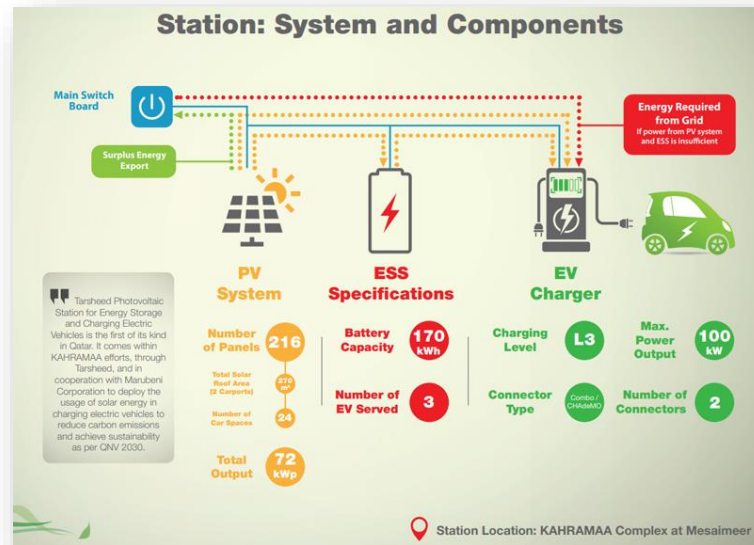
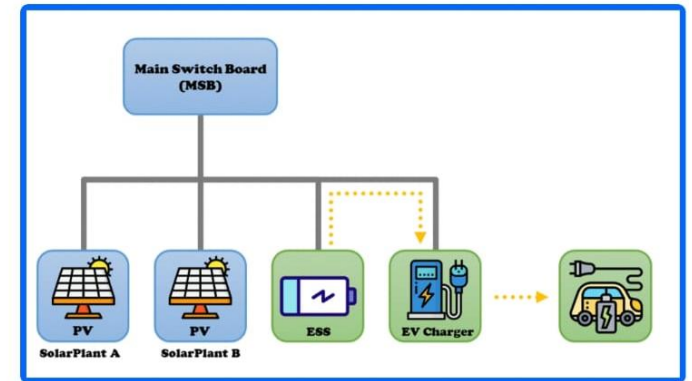
Business Model 2



- Investment of charging stations/units (CAPEX) by Woqod
- Installation, operation and in billing by Kahramaa (CPO/MSP functionality), connection to CPO-IT backend - OCPP
- Service fee (monthly fee - QAR) for installation and operation between Kahramaa and WOQOD need to be clarified
- Access to charging station based on RFID/App credentials

First solar charging station in Qatar for electric vehicles opens

- It charges vehicles with electricity produced from solar energy via 216 photovoltaic panels fixed in a total area of 270 sq meter. The total power produced from these panels is 72 KW at peak.
- Has a unit that has two connections of Combo and CHAdeMO types, which are compatible with various types of vehicles to allow two cars to be charged at a time with fast charging of 15–20 minutes for a car.
- The maximum charging capacity is 100 KW.
- - The station also contains a power storage unit in a battery with a capacity of 170 KW/h. The charging cord of 100 KW is enough to charge 3 cars.



POWER METER						
	MSB	PV A	PV B	ESS	EV CHARGER	
ACTIVE POWER	-0.1	0.1	0.1	56.8	-56.7	kW
VOLTAGE	428.1	428.0	427.8	427.9	428.0	V
CURRENT	4.3	0.3	0.3	74.5	77.0	A

CHARGING STATION POWER		
IMPORTING / EXPORTING	IMPORTING	-
TODAY'S IMPORT	17.5	kWh
TODAY'S EXPORT	10	kWh

ESS STATUS	
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Ask Tarsheed Initiative

- Ask Tarsheed is an initiative to create a channel to communicate directly with consumers looking for the right EV Charging technical information as well as other technical devices. An email & WhatsApp number is assigned to direct contact with the AskTarsheed@km.qa .
- The department responds to consumer inquiries also on on webpage <https://km.qa/Tarsheed/Pages/SavingWithTarsheed.aspx>



Thank You