Middle East Energy Dubai

Electric Mobility in the Gulf:
An Overview of Market Growth in the UAE and KSA

By
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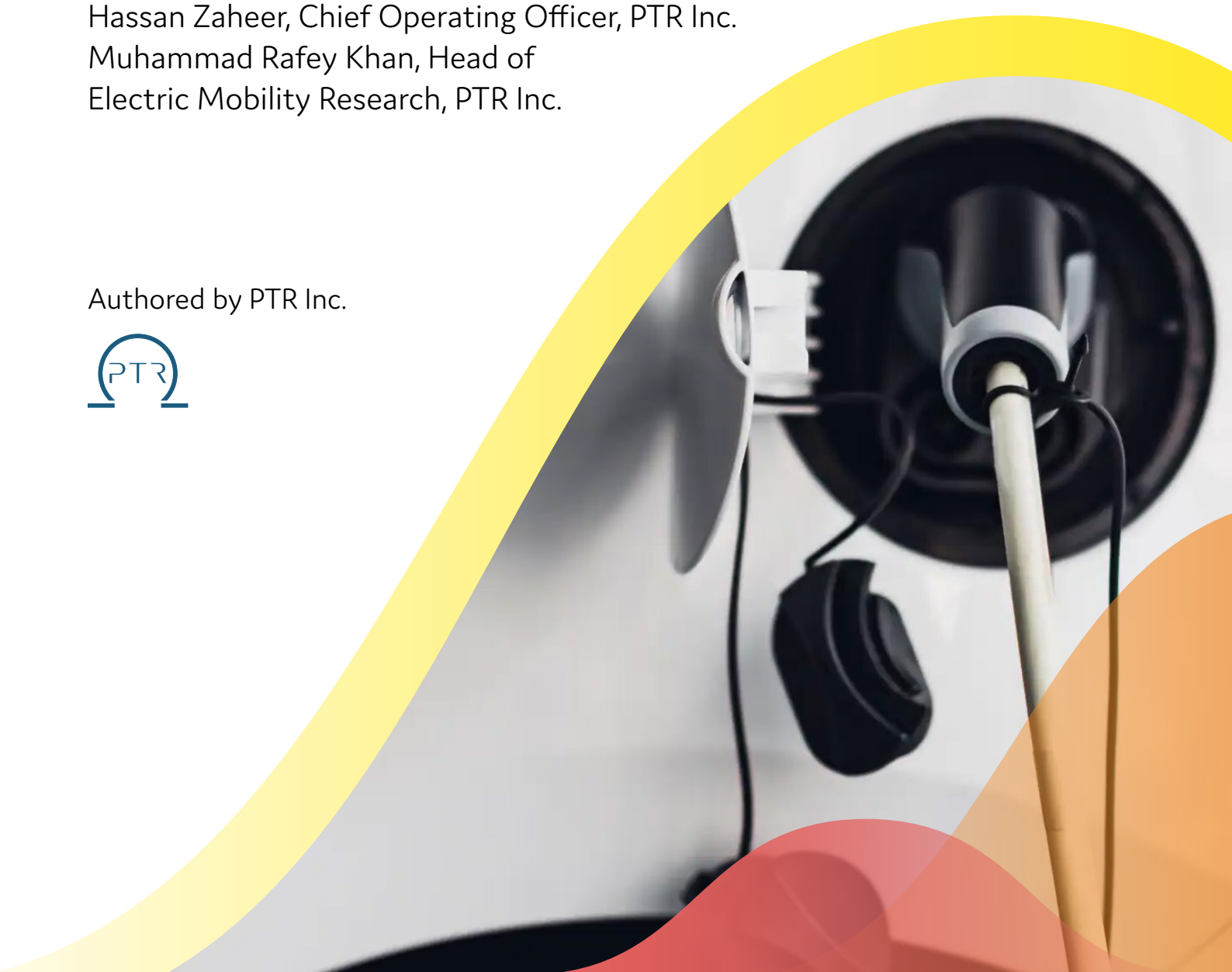

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- Countries in the Middle East are actively diversifying away from fossil fuel-based economies and have committed to reducing carbon emissions in the short term, with the ultimate goal of achieving carbon neutrality in the long run.
- Both the UAE and KSA have implemented a range of national and local strategies to drive the growth of the e-mobility market.
- The region is set to emerge as a key player in the global transition toward sustainable transportation.

Countries in the Middle East are actively diversifying away from fossil fuel-based economies and have committed to reducing carbon emissions in the short term, with the goal of achieving carbon neutrality in the long run. As part of their climate strategies, these nations are focusing on electrifying the transport sector, a major contributor to carbon emissions.

Over the years, the UAE, Saudi Arabia, Jordan, Oman, and Qatar have emerged as key players in the region's e-mobility market. However, majority of developments are concentrated in the UAE and Saudi Arabia. The UAE leads in the installation of public EV charging points, while Saudi Arabia has taken the lead in private charging infrastructure, driven by strong demand for passenger electric vehicles and residential chargers. Jordan plans to install 3,000 solar-powered EV charging stations by 2025, alongside encouraging EV imports through customs exemptions and simplified licensing processes. Qatar has set ambitious goals, including achieving 10% EV market penetration by 2030, fully electrifying public transport by 2030, and installing 15,000 EV charging stations by the same year. To meet these objectives, Qatar has introduced subsidies and incentives for EVs and tax exemptions for EV charging infrastructure. Meanwhile, Oman is working towards carbon neutrality by 2050, with a goal to reach 79% EV penetration by 2035. The country has implemented tax exemptions to support EV adoption.

This whitepaper provides an in-depth comparison of the UAE and Saudi Arabia's e-mobility markets, both of which have set ambitious targets for electric vehicle deployment and the development of associated charging infrastructure.

Major Countries in the Middle Eastern EVCI Market

Driving Factors Behind the Middle Eastern Region's EVCI Market: Targets, Initiatives, and Incentives

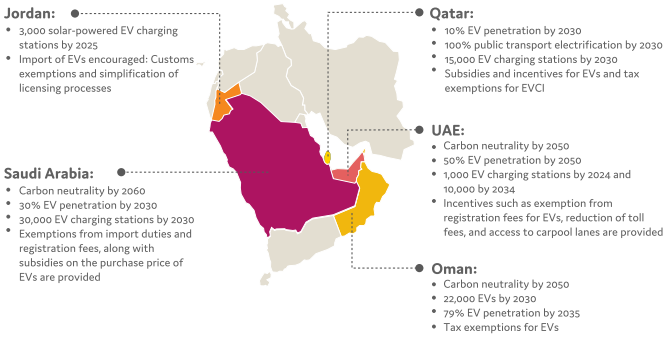

Figure 1: Major Countries in the Middle Eastern EVCI Market.
Source: PTR Inc.

Comparing National and Regional EV Strategies: UAE vs. Saudi Arabia

Both the UAE and KSA have implemented a range of national and local strategies to drive the growth of the e-mobility market. At the national level, the UAE's Net-Zero Strategy aims to achieve carbon neutrality by 2050, while KSA's Vision 2030 sets the foundation for reaching net-zero emissions by 2060. At the local level, the UAE, Dubai, Abu Dhabi, and Sharjah have undertaken initiatives to facilitate the adoption of EVs and associated EV charging infrastructure. In the KSA, Riyadh has set targets for the deployment of EVs and associated EV charging infrastructure in the city.

National Strategies and Targets: UAE vs. KSA

The UAE, under its Net-Zero Strategy, is investing USD 163 billion in clean energy to achieve carbon neutrality by 2050. As part of this effort, the National Electric Vehicles Policy (NEVP) targets 50% EV penetration by the same year. To expand charging infrastructure, e&'s Charge&Go initiative plans to deploy 1,000 chargers by 2024 and 10,000 by 2034, while the UAEV network, launched by the Ministry of Energy and Infrastructure (MoEI) and Etihad WE, marks the country's first fully government-owned EV charging initiative.

Saudi Arabia, as part of Vision 2030, aims to generate 50% of its electricity from renewables by 2030 and achieve carbon neutrality by 2060. The country is making significant investments in local EV manufacturing, targeting 500,000 EVs annually by 2030, backed by a USD 700 billion Public Investment Fund (PIF) and strategic partnerships with Lucid Motors and Hyundai. In addition to fostering domestic EV production, Saudi Arabia plans to integrate autonomous vehicles into 15% of public transport by 2030. To support EV adoption, the Electric Vehicle Infrastructure Company (EVIQ)—a joint venture between PIF and the Saudi Electricity Company (SEC)—aims to install 5,000 fast chargers across 1,000 locations by 2030.

Emirate/city-level strategies & targets: UAE vs. KSA

Dubai, Abu Dhabi, and Sharjah are at the forefront of the UAE's e-mobility transition. Dubai's Green Mobility Strategy 2030 targets 30% EV adoption in the public sector, with plans to have 42,000 EVs on the roads by 2030. The RTA is working towards a full transition of its taxi fleet to hybrid or electric vehicles by 2027, alongside the introduction of 4,000 autonomous taxis and a broader goal of achieving 25% autonomous transport by 2030. Meanwhile, DEWA is expanding charging infrastructure, aiming to install 1,000 public EV chargers by 2025.

In Abu Dhabi, E2GO—a joint venture between TAQA and ADNOC—plans to roll out 70,000 EV charging points across the UAE by 2030, significantly boosting nationwide infrastructure. In Sharjah, the SRTA, in collaboration with BEEAH Group, is actively expanding its EV charging network, including the deployment of fast chargers at strategic locations.

In Saudi Arabia, Riyadh remains the only city to set a specific EV adoption target, aiming for 30% EV penetration by 2030, which translates to approximately 700,000 EVs on the roads. To support this transition, the city is projected to require 30,000 EV charging stations, signaling a major push toward electrification and infrastructure development.

Market Trends in the UAE and Saudi Arabia

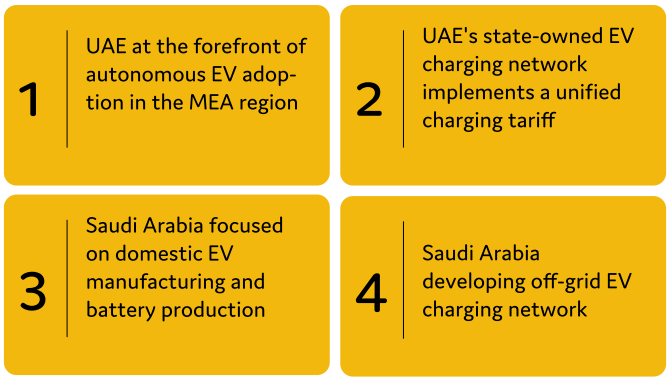

Figure 2: Market Trends in the e-mobility markets of the UAE and KSA.
Source: PTR Inc.

Market Trends in the UAE and Saudi Arabia: Key Developments and Innovations in EV Adoption

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Meanwhile, KSA is focused on building a domestic EV manufacturing and battery production ecosystem, strengthening its position as a regional hub for e-mobility. The Kingdom is also pioneering off-grid charging solutions powered by solar PV and battery energy storage systems, transforming the EV charging landscape and enhancing sustainability across the region.

UAE at the forefront of autonomous EV adoption in the MEA region

The UAE is leading the MEA region in the adoption of autonomous EVs, a technology already well-established in the U.S., particularly among younger users who benefit from driverless convenience. Masdar City was the first in the UAE to introduce autonomous EVs, and they continue to operate successfully. Dubai's RTA is accelerating this trend, planning to deploy 4,000 autonomous taxis by 2030 as part of its broader smart mobility strategy. Meanwhile, Saudi Arabia is integrating autonomous EVs into its transport network, aiming for 15% of public transport to be autonomous by 2030, with significant initiatives underway in NEOM and Red Sea Global.

UAE's state-owned EV charging network implements a unified charging tariff

Starting in January 2025, the UAE is rolling out a standardized national tariff for EV charging under a new cabinet resolution. Previously, the country lacked a uniform pricing structure, with some areas offering free charging. Under the new system, service providers must charge a minimum of USD 0.33 plus VAT per kWh for express (DC) charging and USD 0.12 plus VAT per kWh for slow (AC) charging, ensuring greater pricing consistency and transparency across the nation.

Saudi Arabia's push for domestic EV manufacturing and battery production

As part of its energy transition strategy, Saudi Arabia is rapidly developing its domestic EV manufacturing sector. In 2022, PIF launched CEER, the country's first homegrown EV brand, in partnership with Foxconn, with a target production of 150,000 EVs annually by 2025. PIF has also acquired a majority stake in Lucid Motors, which opened its first international manufacturing facility in Saudi Arabia in 2023. Initially capable of assembling 5,000 EVs annually, the plant aims to scale up to 155,000 units once fully operational.

To further strengthen its EV ecosystem, the Ministry of Industry and Mineral Resources is investing USD 2 billion in an EV battery metals plant, while Saudi Arabia has committed USD 26 billion to Vale Base Metals Limited (VBM) to secure critical raw materials for EV battery production, positioning itself as a key player in the global EV supply chain.

Saudi Arabia's off-grid EV charging revolution

The electrical grid in the MEA region is less developed compared to Europe and the U.S., and expanding grid connections for EV charging can be a slow, permit-intensive process. Additionally, EV charging requires significantly higher power levels than standard residential usage. To overcome these challenges, Saudi Arabia is pioneering off-grid charging solutions powered by battery energy storage systems (BESS) and solar PV.

A standout example is Red Sea Global, which is developing the Kingdom's largest off-grid EV charging network. The first phase of this initiative includes over 150 charging stations powered by five solar farms with 760,000 photovoltaic panels, operating entirely independent of the national grid. This approach is set to revolutionize EV charging in the region, making charging infrastructure more resilient, sustainable, and widely accessible.

Market Trends in the UAE and Saudi Arabia

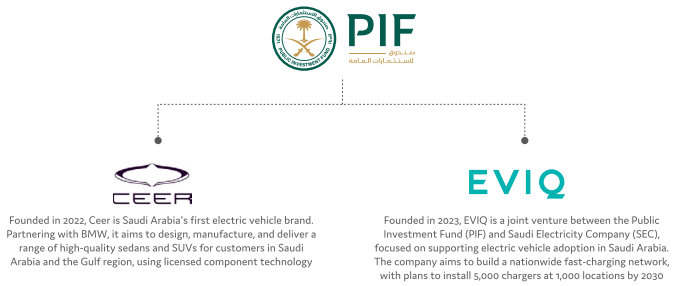

Figure 3: An overview of Red Sea Global's off-grid EV charging network.
Source: PTR.Inc, Red Sea Global

Looking Ahead

The Middle East is undergoing a significant transition away from fossil fuels, driven by international commitments to reduce carbon emissions in the short term and ultimately achieve net-zero goals—ranging from 2050 onwards, depending on the country. Recognizing the transport sector as a major contributor to emissions, Saudi Arabia, the UAE, Qatar, Oman, and Jordan are accelerating efforts to electrify mobility as a key pillar of their sustainability strategies.

Leading this shift, Saudi Arabia and the UAE have set ambitious targets for EV adoption and charging infrastructure deployment, positioning themselves at the forefront of the region's clean transportation movement. Their national roadmaps prioritize scaling up EV production, expanding charging networks, integrating renewable energy sources, and fostering innovation in smart mobility solutions. As these initiatives gain momentum, the region is set to emerge as a key player in the global transition toward sustainable transportation.

About the authors

Hassan Zaheer | Chief Operating Officer - PTR Inc.

Hassan is the Managing Partner & COO at PTR Inc. based in Abu Dhabi, UAE. With more than a decade of experience in the energy transition space, Hassan advises various Fortune-500 and blue-chip clients in the electrical infrastructure sector to sustainably grow their businesses, both through custom consulting work, marketing support services and tailored research reports by PTR, helping their executive management and boards make data driven decisions. Hassan is also a Member of Advisory Board for CWIEME Berlin and MENA EV Show, part of the Executive Editorial Board of APC Media and an advisor to the educational non-profit Better Humans Academy.

Hassan has a tech background with a Masters in Power Engineering from the Technical University of Munich (TUM) and a BS in Electrical Engineering from the Lahore University of Management Sciences (LUMS). Additionally, he is also an Alumni of Center for Digital Technology & Management (CDTM).

Muhammad Rafey Khan | Head of Electric Mobility Research - PTR Inc.

Rafey Khan is the Head of Electric Mobility Research at PTR Inc. His research focuses on e-mobility topics, specializing in electric vehicles and it's charging infrastructure. He has worked with major EVCI systems and component manufacturers, utilities and CPOs supporting them with research on EVCI markets around the world. He holds comprehensive knowledge of the E-Mobility market of USA particularly around EV and EVSE technologies, emerging market trends, and regional competitive landscape. Prior to joining PTR, Rafey has worked in the strategy teams of Schneider Electric and K-Electric (Pakistan's only private utility with 30M consumers). He holds a BS in Electrical Engineering from Lahore University of Management Sciences (LUMS) and an MBA from Institute of Business Administration (IBA).

About PTR

With over a decade of experience in the Power Grid and New Energy sectors, PTR Inc. has evolved from a core market research firm into a comprehensive Strategic Growth Partner, empowering clients' transitions and growth in the energy landscape and E-mobility, particularly within the electrical infrastructure manufacturing space.

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