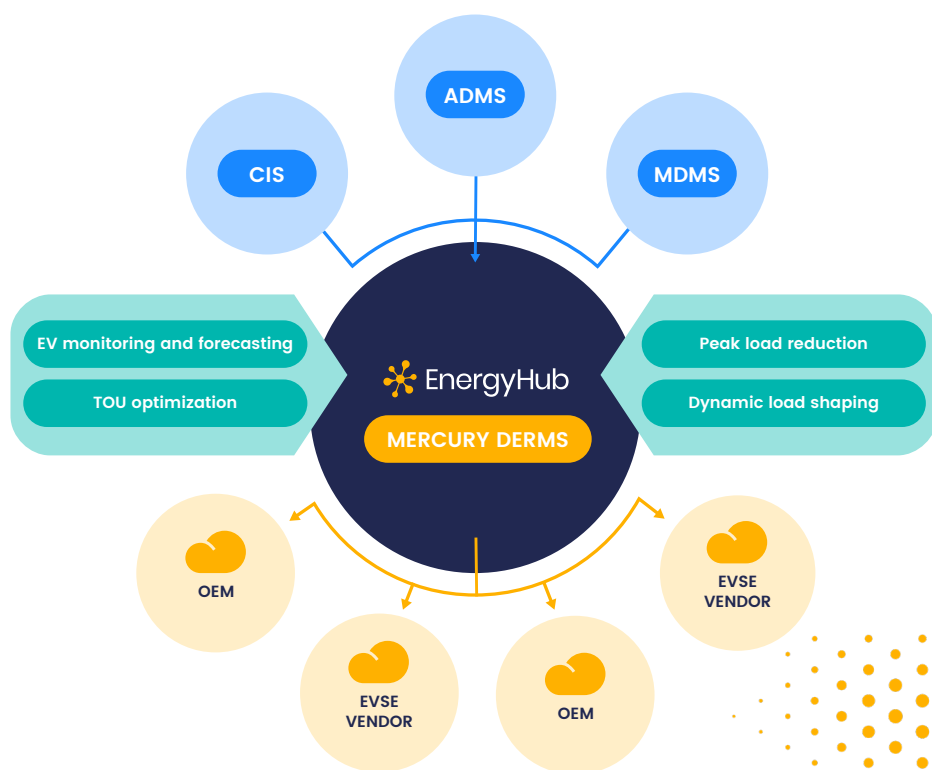# Scalable and customer-centric **EV management**

The **rapid adoption of electric vehicles** (EVs) is creating both challenges and opportunities for utilities.

While the rise of EVs represent a significant energy sales and decarbonization opportunity for utilities, they also pose stability risks to the grid. The energy required to charge EVs, their tendency to be adopted in pockets, and the unique charging behaviors of customers will result in significant threats to utilities including overall load growth and overloaded grid infrastructure, necessitating the need for new grid balancing and energy procurement strategies.

THE MERCURY DERMS FOR EV MANAGEMENT

EnergyHub's Mercury DERMS empowers utilities to adopt a customer-centric approach to leverage EV as flexible assets.

ADMS

CIS

MDMS

EV monitoring and forecasting

TOU optimization

EnergyHub

MERCURY DERMS

Peak load reduction

Dynamic load shaping

OEM

EVSE VENDOR

EVSE VENDOR

OEM

The platform allows utilities to monitor, coordinate and orchestrate EV charging in concert with other distributed energy resources (DERs) across the grid hierarchy, all while enabling customer choice and accounting for customer preferences.

Utilities are leveraging the platform to operationalize various configurations of EV programs.

EnergyHub

A TURN-KEY SOLUTION FOR ENABLING EV MANAGEMENT →

The Mercury DERMS platform enables all aspects of EV management - from customer acquisition and EV data monitoring to managed charging. The Mercury DERMS also delivers the ability to manage EVs as part of a multi-DER grid service strategy.

TYPES OF EV MANAGEMENT PROGRAMS SUPPORTED

| Time of Use Enablement | Peak Management | Dynamic Load Shaping |
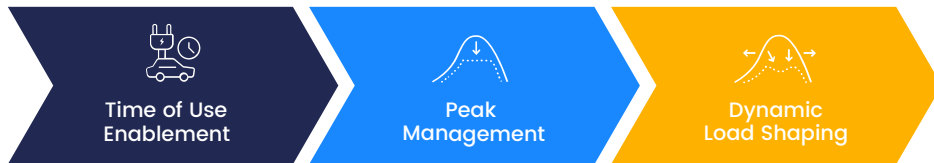
TOU-enablement

TOU rates incentivize customers to move charging away from peak times. To operationalize TOU programs, EnergyHub's marketing team creates campaigns that markets these rates to customers and the Mercury DERMS gathers EV charging data from our ecosystem of EVSE partners and calculates customer incentives and provides robust ongoing reporting on the performance of the rates.

Managed charging: peak management

Many utilities are encouraging customers to allow limited control of their EV charging by the utility in exchange for a financial incentive in the form of a bill rebate or discount on charging equipment. With the Mercury DERMS platform, utilities can schedule point in time events for peak reduction and load shifting, informed on an ongoing basis by situational intelligence of EVs and other DERs.

Managed charging: dynamic load shaping

This phase of managed charging dynamically takes into account grid and market conditions and intelligently optimizes EV charging multiple times a day - potentially in concert with other DERs. This helps meet ongoing utility objectives such as congestion management, renewable firming, and voltage management. In this phase, the Mercury DERMS also coordinates the management of EVs with other utility systems (such as the ADMS and EMS) in a way that delivers value across the utility enterprise.

As utilities take a phased approach to EV management, they should look to a solution that can scale and advance at their pace and simultaneously be future proof. The Mercury DERMS is a platform built to support the dynamic and iterative nature of EV programs. It enables customer choice, manages multiple brands and classes of DERs at scale, and integrates with complementary utility systems to unlock value across the utility enterprise.

Integrations with multiple EVSE and EV OEMs

Our vendor-neutral approach enables customer choice and allows utilities to tap into the largest ecosystem of customer-owned EVs and EVSEs.

Customer-centric acquisition marketing

EnergyHub's program marketing services allow utilities to engage customers effectively through high performing, personalized channels that go beyond typical utility outreach.

Robust situational awareness

The platform gathers and analyzes charging data to monitor and forecast EVs across the network. EV-specific models are used to forecast individual vehicle charging under a range of scenarios to inform control strategies. Real-time visibility of EV charging across the grid hierarchy gives grid operators the insight they need to manage the grid optimally.

AI-enabled EV optimization

The Mercury DERMS ingests and updates forecasts, based on the latest aggregation state, and uses them to identify the optimal portfolio of individual EV-specific charging schedules. Mercury's optimization models are technology-agnostic, built around a resource's operational capabilities.

Enterprise integrations

The Mercury DERMS platform integrates with utility systems of record, including the MDMS, the CIS, and the GIS, for program measurement and verification, settlement calculations, enrollment verification, and grid topology data.

EnergyHub

Helping over 60 utilities unlock value from DERs at the grid edge.

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