rhythmos.io®

Cadency EdgeAI^{SM}

End-to-End Optimization Platform

The Rhythmos.io® Cadency EdgeAI^{SM} platform creates transparency for customers to understand the hidden effects of electric vehicle (EV) load on the distribution grid at a granular level. Cadency EdgeAI^{SM} was designed using artificial intelligence, power system engineering, and machine learning-driven data analytics to provide distribution system-optimized charging and critical asset management for utilities and EV fleets.

Reduced Energy Costs and Infrastructure Investments

With Cadency EdgeAI^{SM}, fleet customers gain transparency and insight into a fleet's charging load and infrastructure impacts. Optimized charging can save 10% on energy costs annually, reduce demand charges, and avoid infrastructure costs.

Utilities can save 40-50% on energy costs compared to unmanaged charging while avoiding service transformer upgrades, making it possible to more than double a typical utility's EV charging capacity compared to unmanaged charging scenarios. Additional values:

- EV detection at 96% accuracy (for Level 2 charging and above)

- EV adoption planning scenarios to identify locational infrastructure additions and associated costs

- Transformer loading analysis and forecasting

- Other distributed energy resource (DER) detection, forecasting and optimization

OPTIMIZATION SOLUTION

> At the substation level, we've got years of SCADA data that we can analyze; at the distribution transformer level, we don't. That is the insight Rhythmos.io® provides.
>
> **Manager of Electrical Systems Engineering**

MODEL SIMULATIONS

Utility Forecast Transformer, Feeder, Substation

EV Data & Load Management

Operational & Locational Constraint

AWARENESS, IMPACT, AND ACTION

Fleet
EXPLORE FLEET MANAGEMENT ▶

Cadency EdgeAI[SM] creates transparency and **Awareness** into a fleet's charging load and infrastructure **Impact**. The optimized charging tool analyzes daily operational requirements for EV fleets, identifies flexibility within assets, and coordinates charging needs against utility and market conditions to enable fleet managers to take **Action** and facilitate savings.

Utility
EXPLORE UTILITY MANAGEMENT ▶

Cadency EdgeAI[SM] gives utilities the **Awareness** of where and how EVs are charging on their distribution systems, provides insights into how EV charging loads **Impact** transformers and distribution assets. Utilities can then take **Action** by optimizing EV charging to minimize energy costs, protect distribution assets, and maximize the use of zero-carbon energy sources. Utilities avoid costly grid capacity upgrades and provide savings to EV customers.

Market
EXPLORE WHOLE-SALE ENERGY MARKET ▶

Cadency EdgeAI[SM] creates a direct link between EV energy demand, energy resource procurement, and scheduling that ties together EV fleet, utility and market opportunities, enabling access to new revenue streams via emerging wholesale and grid services markets.

Rhythmos.io® opens a tremendous opportunity to drive the electric mobility transformation: Linking wholesale markets, utility transmission and distribution systems, EV fleet operators, and even individual EV owners to create incentives for all participants to play an active role in the transition while sharing in its economic benefits. Cadency EdgeAI[SM] is the connective tissue along the EV and utility value chains, creating awareness and transparency that enables greater EV adoption worldwide.

To learn more or to request a demo, go to **www.rhythmos.io**