



Digitizing Utilities Prize

AMERICAN
MADE
U.S. DEPARTMENT OF ENERGY

AMERICAN MADE

U.S. DEPARTMENT OF ENERGY

The American-Made program is your **fast track to the clean energy revolution**. Funded by the U.S. Department of Energy, we incentivize innovation through prizes, training, teaming, and mentoring, connecting the nation's entrepreneurs and innovators to America's national labs and the private sector.





supercharge

A REVOLUTION OF **BOLD IDEAS**

Fast track your ideas for the clean energy revolution



\$100M
in cash prizes
and support



30+
prizes



300
Network
members

AMERICAN
MADE
U.S. DEPARTMENT OF ENERGY

Digitizing Utilities Prize



- Connect utilities with interdisciplinary teams of software developers and data experts to facilitate transforming digital systems in the energy sector and data analytics for utilities.

Prize Structure

Phase 1: Plan



Form teams and propose a solution for one of the utility issues presented.

Up to nine winners of Phase 1 will receive a cash prize of **\$75,000**.

Phase 2: Progress



Develop your proposed solution and demonstrate how this method and process could be utilized by other utilities in the future.

Up to four winners of Phase 2 will receive a portion of the **\$425,000** total cash prize pool.

Prize Tracks



Track1 – Load Modeling (Bonneville Power Administration)

Competitors will use load modeling to help correctly forecast future power demands, specifically addressing the dynamic nature of weather-sensitive loads for residential and commercial buildings.



Track 2 – Data Analysis Automation (Dominion Energy)

Competitors will propose methods for automation of data analysis to help engineers scrutinize and evaluate a data-driven approach to resolving nuanced complexities across the system.



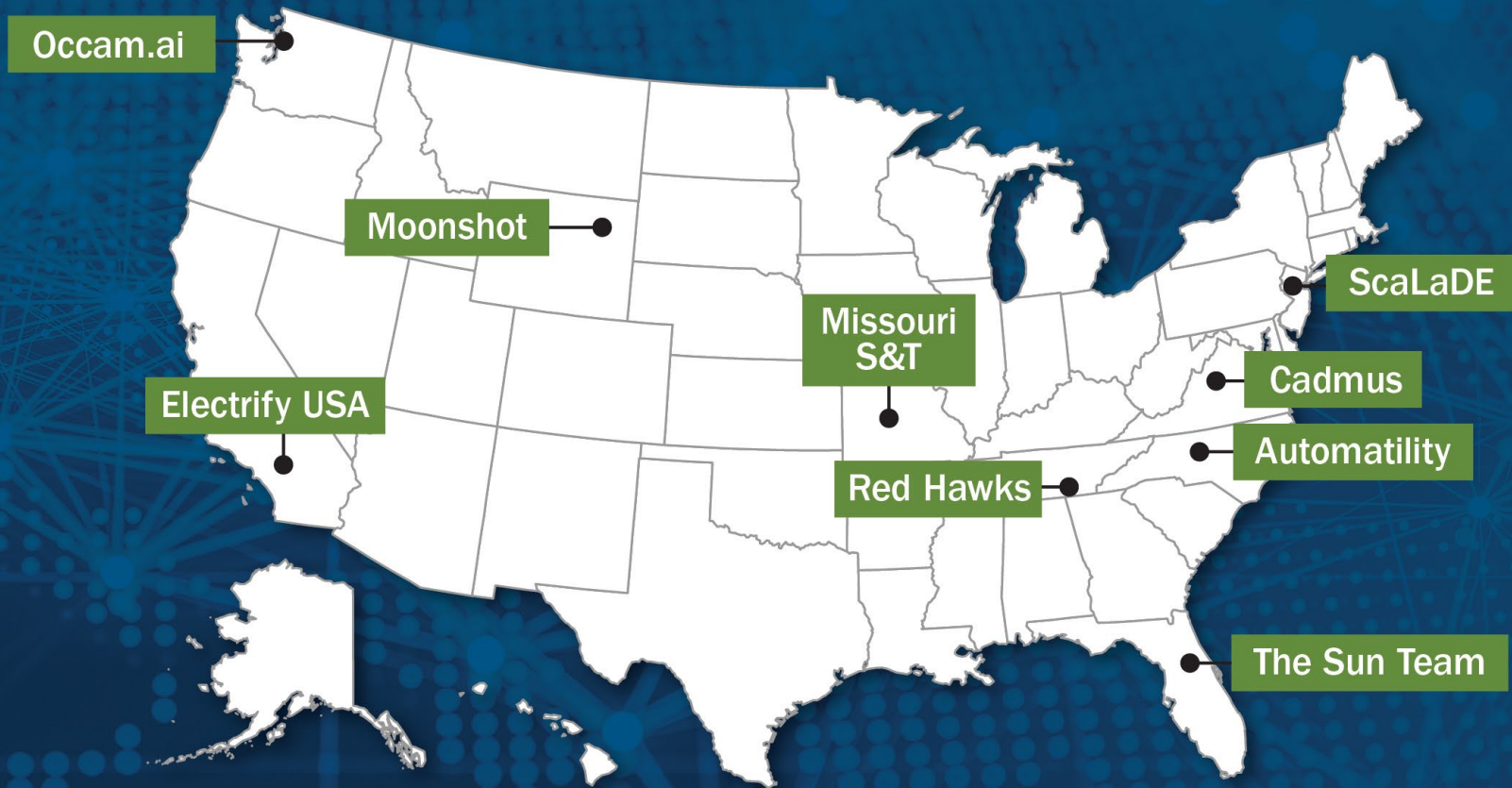
Track 3 – Competitor-Identified Challenge

Teams with an existing utility partner may apply with their own digitization or data challenge and proposed solution. Eligible topics are outlined in the official prize rules.

Congratulations Phase 1 Winners!

AMERICAN
MADE
U.S. DEPARTMENT OF ENERGY

Office of Electricity
Digitizing Utilities Prize



Finalists – Track 1 – Load Modeling

- **Load Forecast Using Autoencoder and Regression (Rolla, MO)** – Missouri University of Science and Technology and Grid Vision Technologies aims to estimate load composition and forecast load using machine learning and regression methods.
- **The Data Wave of the Future (Arlington, VA)** – This team will use machine-learning modeling techniques to provide insights into the distribution network to characterize weather-sensitive loads. This team will use a distributed computing platform to run the models and develop workflows to process and organize the data.
- **Occam.ai (Seattle, WA)** – This team provides analytics and highly configurable scenario-based forecasts using a unified, easy-to-use interface. It will allow users to upload location-specific historical data, analyze the current system, design future scenarios, and share results with other planners and stakeholders.

Finalists – Track 2 – Data Analysis Automation

- **Toward Real-Time High-Sampling-Rate Monitoring (Chattanooga, TN)** – This team is developing data analytics functions using phasor measurement unit and point-on-wave data for asset diagnostics and performance evaluation systems.
- **Automatility (Cary, NC)** – This team is developing a modular, platform-agnostic systems integrator focused on utility needs for data integrity, transformation, visualization, historical analysis, and alarm thresholding.
- **ScalADE** – Scalable Labeling for Data Enrichment (Princeton, NJ) – This team uses machine learning to enrich large datasets with event labels by incorporating domain knowledge from power system experts.

Finalists – Track 3 – Competitor Identified

- **Expedite Integration of EV in Distribution System (Riverside, CA)** – This team is developing an integrated and data-driven planning platform that predicts feeder-level EV adoption, forecasts charging profiles and analyzes impacts on the distribution network.
- **Digitizing Distribution System Model Validation (Orlando, FL)** – This partnership between the University of Central Florida and Duke Energy Corporation is developing a system to identify the root causes of model mismatch by combining domain knowledge with first principles and data analytics.
- **Leverage AMI Data with ML to Mitigate Wildfires (Gillette, WY)** – This team will use machine learning to review voltage and load interval data from smart meters to detect physical connection issues to mitigate wildfires.