



# ODIN

**OUTAGE • DATA • INITIATIVE • NATIONWIDE**

***A NETWORK OF ELECTRIC UTILITY RESILIENCE LEADERS***

# SPEAKERS



**Supriya Chinthavali**

Oak Ridge National Laboratory – Group Leader; Critical Infrastructure Resilience Group



**Matt Highfill**

Ready Kilo, Inc. – ODIN Project Manager



**Scott Sternfeld**

Ready Kilo, Inc – ODIN Project Manager





## Problem:

Outage data from utilities is valuable to customers, neighboring utilities, and regional emergency management partners, but data is too often **fragmented**, **unavailable**, and/or **lacking commonalities**

## Solution:

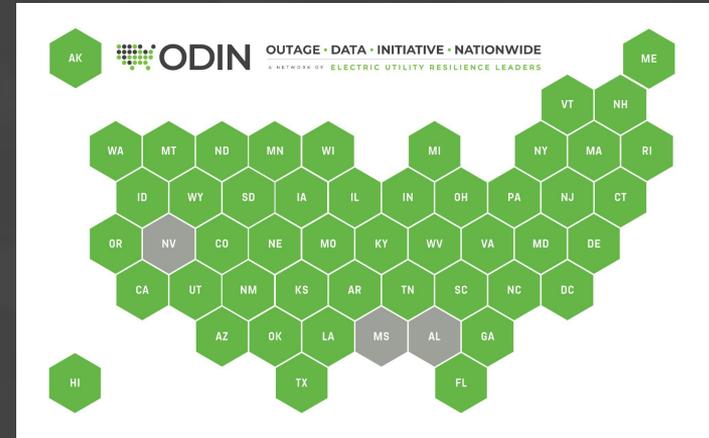
ODIN is a network of **leading electric service providers** who are committed to providing **comprehensive interoperable power outage data** that enables utilities and others to **exchange data freely** with designated stakeholders at all levels — helping restoration, reliability, risk mitigation, storm response, and more



# ODIN PROGRESS TO DATE

**THANK YOU** to our **utilities** and **vendors** for committing to leading resilience!

- ODIN participation has grown to:
  - 47 States
  - Over 47 Million customers
  - Over 155 utilities and 16 vendors



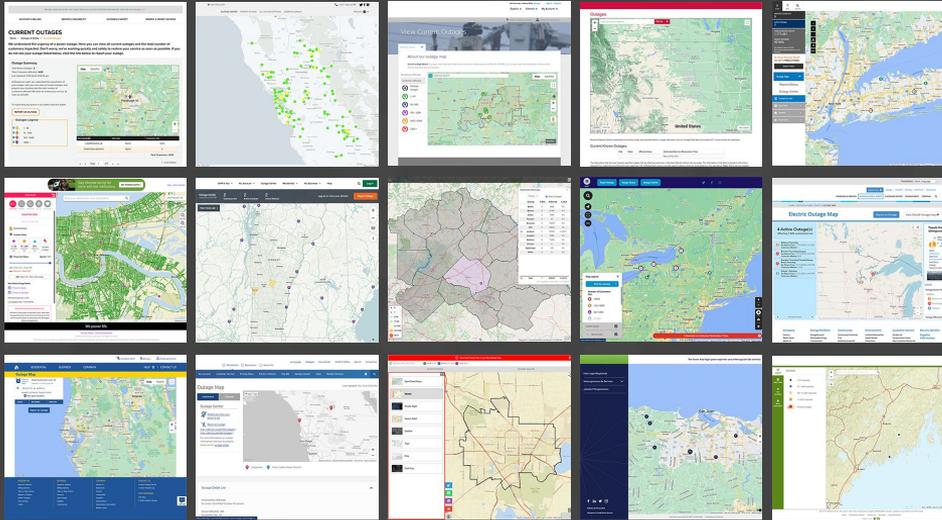
■ = STATES & TERRITORIES SUPPORTING ODIN

**ODIN** OUTAGE DATA INITIATIVE NATIONWIDE



# COMMON OPERATING PICTURE

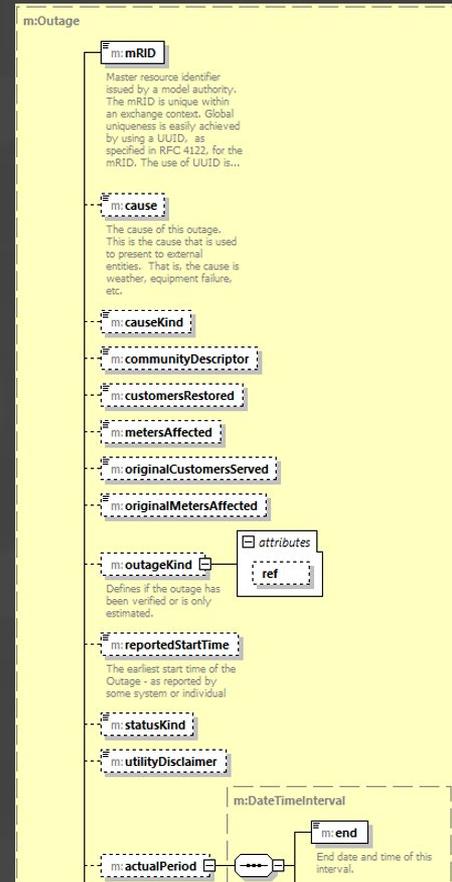
A standardized, single “pane of glass” can tell the complete story



© Dorothy Lozowski, POWER



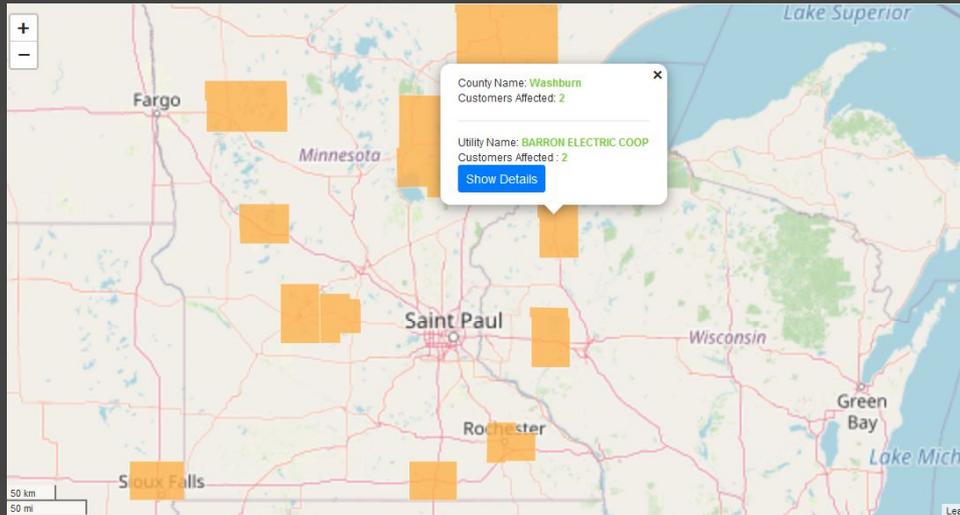
# ODIN's focus is on the data standard, not the map





# ODIN MAP

Not intended to replace vendor products and services



Outage ID: **6167c3b5-200b-4f38-9e32-e405fc50f9dd**

Meters Out: **3**

Last Updated: **01/05/24, 12:15 PM**

Start Time: **01/05/24, 11:38 AM**

Estimated Time to Restore: **01/05/24, 05:30 PM**

Outage ID: **af477dea-b3c8-4647-8927-a1eec7e17a1e**

Meters Out: **14**

Last Updated: **01/05/24, 12:15 PM**

Start Time: **01/05/24, 09:09 AM**

Estimated Time to Restore: **01/05/24, 06:00 PM**



# WHAT IT IS / WHAT ITS NOT

- Near-Real-Time - Updates every 5-15 minutes
- ODIN **IS** an interoperability standard
- ODIN **IS** focused on Restoration and Recovery Phases
- ODIN **IS** working to provide granularity down to census block group
- ODIN is **NOT** a competitor to IEEE 1366, 1782 or any reliability standard
- ODIN is **NOT** a replacement for existing utility outage maps
- ODIN does **NOT** include any PII



# BENEFITS OF DATA SHARING

- 1 Less time on the phone in an emergency, allowing you to concentrate on crucial restoration efforts
- 2 ODIN allows you to control and authoritatively share YOUR data
- 3 Saves lives in underserved communities and for the electricity-dependent
- 4 Unlocks opportunities for federal funding
- 5 Committing to ODIN is a commitment to leading on resilience



# WHO NEEDS DATA?

## Customers, Communities, Agencies

- IOUs, Cooperatives, Municipal Utilities
- Emergency Management Agencies (all levels)
- First Responders
- Medically Dependent Individuals
- Underserved Communities/Energy Equity
- Utility Associations (e.g.; EEI, NRECA, APPA)
- FEMA, HHS, DOE
- And more...

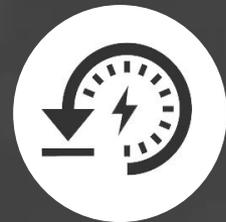
NEIGHBORING  
UTILITIES



EMERGENCY  
MANAGEMENT



OUTAGE  
RESTORATION





# EASY TO SUBSCRIBE

- Send a Subscription request to [ODIN@ORNL.GOV](mailto:ODIN@ORNL.GOV), including 2 sentences about your use case for ODIN data.
- The ODIN team will review and approve
- Follow instructions in the ODIN Subscriber Guide on the [ODIN About webpage](#)
- Send questions to [ODIN@ORNL.GOV](mailto:ODIN@ORNL.GOV)



USE  
CASE

# FEDERAL EMERGENCY RESPONSE

Standardized Outage data (from ODIN) is now ingestible into DOE's real-time situational awareness platform, EAGLE-I.

- Supports emergency management under ESF#12<sup>1</sup>
- Improves interoperability



<sup>1</sup> Emergency Support Function - Energy focused

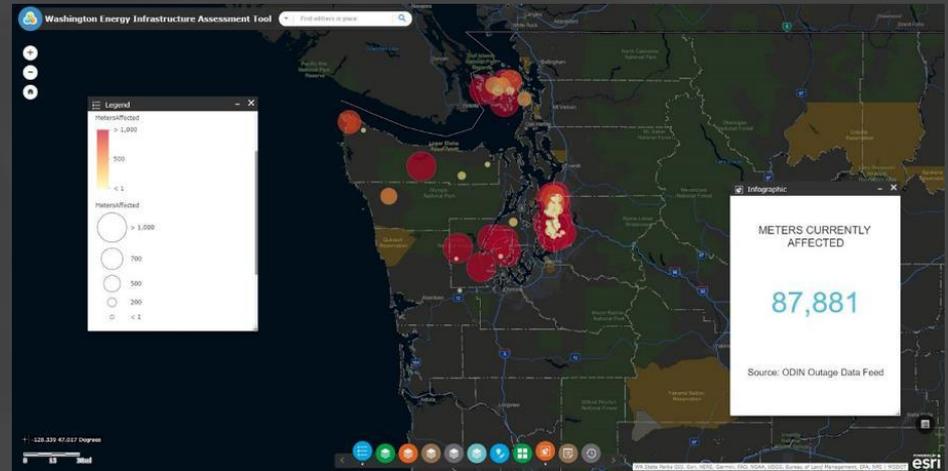
USE  
CASE

# ODIN + State of WASHINGTON

WASHINGTON ENERGY  
INFRASTRUCTURE  
ASSESSMENT TOOL

## Collaborative efforts operational since 2021

- Monitoring electric outages from storms and other causes in a single “pane of glass”
- Energy sector operational status changes due to high-impact events, infrastructure, county status, and other factors
- Covers wildfires and utility service territories
- Supports planning efforts for resilience and coordinates mitigation planning between utilities and local emergency management



© Washington State Department of Commerce

# MINNESOTA RURAL ELECTRIC ASSOCIATION

A statewide association representing 44 not-for-profit coops

85%

of Minnesota's Landmass

1/3 Pop.

of Minnesotans Served

138k Miles

of Electric Line

Standardized outages provide visibility to multiple stakeholders



“Creating a state-wide map of outage data will benefit stakeholders in Minnesota before, during, and after high-impact grid and weather events.”

~ Darrick Moe, President & CEO, Minnesota Rural Electric Association

# FLORIDA MUNICIPAL ELECTRIC ASSOCIATION

A statewide association

33  
Municipals

4 Million  
Floridians Served

Mutual Aid  
Coordinator

Standardized outages provide visibility to multiple stakeholders



# OKLAHOMA ASSOCIATION OF ELECTRIC COOPs

A statewide association

27  
Cooperatives

1.1 Million  
Oklahoman's Served

Mutual Aid  
Coordinator

Standardized outages provide visibility to multiple stakeholders





# INTEGRATION OPTIONS

## Standards

- Common Information Model (CIM) IEC 61968-3
- MultiSpeak v4.1 (and greater)

## Methods

- Vendor Supported Integration
- ESB Integration
- Utility Development via API



As fast as a 30-minute integration setup  
One-on-one support available at no additional cost



# PARTICIPATION MADE EASY

Integrate through your outage data vendor

**AERINET**  
SOLUTIONS

**CGI**

**datacapable**



Hometown Grid

**Hitachi Energy**

**esri**

**MILSOFT**  
Utility Solutions

**nisc**

**ORACLE**

**OSI**  
An AspenTech®  
Business

**Schneider**  
Electric

**Sentient**  
ENERGY

**SEW**

**SIENA**

**STAR**  
energy services

**Survalent.**

Contact [ODIN@ORNL.gov](mailto:ODIN@ORNL.gov) today to see if your vendors support ODIN

**ODIN** OUTAGE DATA  
INITIATIVE NATIONWIDE



# SECURE EXCHANGE OF DATA

The **Outage Data Initiative Nationwide** is part of the the U.S. Department of Energy and Oak Ridge National Lab



 **OAK RIDGE**  
National Laboratory

 U.S. DEPARTMENT OF  
**ENERGY**

Oak Ridge National Laboratory is managed by UT-Battelle LLC for the U.S. Department of Energy

 **ODIN** OUTAGE DATA  
INITIATIVE NATIONWIDE

# Contact ODIN

**Contact us to learn how utilities are leading in grid resilience today.**

*[Read about the White House Call to Action](#) for real-time, standardized, and transparent power outage data and to better understand federal funding opportunities available to your utility.*

Outage Data Initiative Nationwide (ODIN) is a network of leading electric service providers who are committed to providing comprehensive interoperable power outage data. ODIN is a safe, trusted, standard for power outage data.

To learn more from the ODIN team about sharing outage data, complete the form below:

Name

Email address

Organization

Phone (Format: 123-456-7890)

Message

<https://odin.ornl.gov/pages/contact.html>



# LEAD RESILIENCE TODAY

1. Go to [ODIN.ORNL.GOV](https://ODIN.ORNL.GOV) to electronically complete the ODIN participation form or manually complete the Participation Letter and email to [ODIN@ORNL.GOV](mailto:ODIN@ORNL.GOV)
2. The ODIN team will schedule a 30-minute kickoff meeting, if needed
3. Within 2 weeks, project implementation and testing can begin

**VISIT [ODIN.ORNL.GOV](https://ODIN.ORNL.GOV)**