The Office of Electricity
## Transmission Reliability and Renewable Integration (TRRI)

<table>
<thead>
<tr>
<th>Program Areas</th>
<th>Goal</th>
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<tbody>
<tr>
<td><strong>Advanced Applications</strong></td>
<td>Improve transmission system visibility and controllability to ensure reliability and resilience given new operational challenges.</td>
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<tr>
<td>Research and Development</td>
<td></td>
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<tr>
<td><strong>Decision Support Systems for Transmission Operations</strong></td>
<td>Build sector capability to develop effective visualizations, and to provide more useful alarms and cues for grid operation, planning, and workforce development.</td>
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<tr>
<td><strong>Reliability Metrics, Standards, and Emerging Issues</strong></td>
<td>Develop new ways of measuring and characterizing the power system to ensure high quality, accurate data for model and tool development.</td>
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# Sensors and Data Analytics (SDA)

<table>
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<th>Program Areas</th>
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<tbody>
<tr>
<td>Enhanced Distribution System Resilience and Control</td>
<td>Utilizing sensors to improve distribution system visibility and controllability to address new operational challenges</td>
</tr>
<tr>
<td>Data Integration and Event Detection</td>
<td>Data analytics for proactive resilience with high frequency data, ML/AI. Creating research data sets to develop applications.</td>
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<tr>
<td>Sensor Valuation, Validation and Standards</td>
<td>Improve system sensing through better sensor placement and improved data acquisition, consistency and validity</td>
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TRRI and SDA

- Address data quality at the source
- Utilize existing data sources for better visibility and control
- Demonstrate Tools and for Reliability and Resilience

Transmission
- Reliability Metrics, Standards, and Emerging Issues
- Advanced Applications Research and Development
- Decision Support Systems for Transmission Operations

Distribution
- Sensor Valuation, Validation and Standards
- Data Integration and Event Detection
- Enhanced Distribution System Resilience and Control
Digitizing Utilities Prize

AMERICAN MADE
U.S. DEPARTMENT OF ENERGY
Digitizing Utilities Prize

$1.1 million in prizes

2 Phases:

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.

3 Tracks:

Track 1 – Load Modeling
(Bonneville Power Administration)

Track 2 – Data Analysis Automation
(Dominion Energy)

Track 3 – Competitor-Identified Challenge
Digitizing Utilities Prize
Connecting utilities with teams of software developers and data experts to transform digital systems in the energy sector for utilities.

Enter by January 26, 2023

Learn More
https://www.herox.com/digitizingutilities

Register for the informational webinar
Nov. 15, 2022, 11 am PST: https://nrel.zoomgov.com/webinar/register/WN_TU18dn2kS72eoQwDcOW-__w
THANK YOU

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