Update: "The Regional Joint Utility Energy Data Hub: Advancing Community DER Enablement and Customer Analytics in New England" U.S. DOE Grant Application

Key Details:

- Grid Resilience and Innovation Partnerships (GRIP) Program Projects, Smart Grid Grants (Topic Area 2) Proposal submitted on 5/21/24.
- The grant application was submitted by Unitil on behalf of four States and seven subrecipients with a total project cost estimate of $35.2M and request for $17.6M in federal grant funds.
- The U.S. DOE sent a notification on 10/18/24 that the application **was not selected** for award.
- The process was highly competitive, with funding requests totaling over 5x the amount of available funding.
- The U.S. DOE made awards to 24 recipients in the amount of $1B in federal grant money.[1]

1. https://www.energy.gov/gdo/grid-resilience-and-innovation-partnerships-grip-program-projects

West Monroe Analysis

Next slides represent some discussion shared by West Monroe and presented to the NH Governance Council.

West Monroe is the contractor hired by the Utilities hired to assist in development of the grant application.

Having been involved in dozens of GRIP Applications and awards, West Monroe offered some analysis on overall results and perspective on this DOE-provided feedback.

West Monroe GRIP Award Debrief

Round 2 Awards Focused on Resiliency and Transmission

DER/DERMS Technology Solution Assessment

- No data-based awards were made to any applicants in Round 2

DOE Webinar Indicated Preference for Physical Projects and Unions

- Major focus on reducing interconnection queues: flexible interconnection, DER management systems, microgrids, and virtual power plants
- Advanced conductors/reconductoring was a specific focus
- Over 80% of projects will work with IBEW and invest in DACs

Smart Grid Grants (TA2) Focused on Utility Operational Technologies

Of the 24 Smart Grid Grant awards made this year, they can be generally categorized as follows:

- Grid Modernization & Resilience Technologies (9 projects)
- Smart Technologies (8 projects)
- DER and EV Integration Technologies (7 projects)

Awards are Increasingly being led by Non-utilities or Vendors

- 34 awards were made last year – this year was more competitive
- In Round 1: 3 out of 34 (9%) awards were non-utility/vendor applicants
- In Round 2: 9 out of 24 (38%) awards were non-utility/vendor applicants

Highlighted Non-Utility or Vendor-Led projects Under Topic Area 2 (Click on link on awardees name to go to project 1-pagers)

	Title	Partners	Brief Description
Board of Trustees of the University of Illinois	Increasing Transmission Capacity and SMART Grid Capabilities in Rural North Dakota by Reconductoring with Advanced Conductor Technology	Montana-Dakota Utilities Co.; Slope Electric Cooperative	Enhance the transmission capacity of a 54-mile segment from Hettinger to Elgin, North Dakota by replacing aged 69 kV conductors with 115 kV advanced carbon-core ACCC conductors. The initiative also upgrades three substations to accommodate the new voltage and integrate smart grid functions, all within the existing right of way. Some of the specific upgrades include installing software, sensors, and interfaces for online weather data, allowing for dynamic line rating (DLR) and quicker system response
E Source	Increasing Energy Resilience via Technology Investment Acceleration (INERTIA)	Diverse coalition of small, mid-sized, and large grid operators, technology providers, and community partners in the Intermountain and Pacific Northwest regions	Predictive analytics and comprehensive wildfire risk modeling will identify wildfire risk days in advance and provide on-demand spread predictions, allowing for better preparedness. Additionally, by integrating advanced sensing technologies and AI-driven analytics, INERTIA aims to improve the speed of grid fault detection by 60% on average over non-automated solutions.
Elevate Renewables F7, LLC	Innovative Inertia-Providing Clean Energy Pilot Enhancing the Resiliency of Peaking Infrastructure Located at the Devon Generating Station (Innovative Inertia Project)	Connecticut Department of Energy and environmental Protection; Connecticut Public Utilities Regulatory Authority	Reconfigure an existing fossil-fueled peaking unit and enable the deployment of a battery energy storage system (BESS) to provide synchronous condensing (i.e., “green sync”) and other essential grid services
Generac Power Systems	Accelerating Clean Energy Resiliency for the Grid and California Water Utilities	California Water Association (CWA)	Integrate clean energy solutions with water utilities across the state. The project will invest in approximately 100 sites across California, with a focus on Disadvantaged Communities (DACs). These microgrids, powered by battery energy storage and managed by distributed energy resource management systems (DERMS), will form virtual power plants (VPPs) to deliver predictable load reduction during grid stress
GridUnity Inc.	Digital Integration for Grid Interconnection Tools, Analysis, and Logic (DIGITAL)	Not indicated in one-pager	Significantly reducing the time required to review, approve, and commission new generation interconnections across the United States. the project introduces DIGITAL Grid Analytics Learning Engine and Financial Tools (GALE), a machine-learning AI engine, to transform cost estimation by providing more accurate, transparent, and timely analyses.
Highland Electric Fleets, Inc.	Scaling Vehicle-to-Grid Integration Nationally (SVIN)	Ameren; Baltimore Gas and Electric Company; the Climate Center; Colorado State University Energy Institute; Commonwealth Edison; Consumers Energy; Duke Energy; Evergy; Eversource; Green Mountain Power; Holyoke Municipal Light and Power; National Grid; Orange and Rockland Utilities; Sacramento Municipal Utility District; Tierra Resource Consultants; Xcel Energy; and Zero Net Energy Alliance	Deploy 14 V2G pilot projects using electric school buses (ESBs) in 12 diverse utility territories across the country.
Maine Governor's Energy Office	Flexible Interconnections and Resilience for Maine (FIRM)	Central Maine Power ;Versant Power	Central Maine Power will utilize an Network Management (ANM) solution while Versant Power till utilize an Advanced Distribution Management System (ADMS) solution. In addition, Central Maine Power will implement a targeted dynamic line rating (DLR) solution to increase capacity of transmission lines
Switched Source	CARPE DIEM: Catalyzing the Adoption and Rollout of Power Electronics to Distribution Infrastructure to Enhance System Performance	Florida Power & Light	Deploy Phase-EQ, distribution automation power flow controller technology in Florida—one of the fastest growing, highest storm-risk regions of the United States. Phase-EQ intelligently optimizes power flow in distribution circuits, which will unlock over 200 MW of system capacity and improve reliability on circuits
VEIR, Inc.	Access Clean Energy with Superconductors (ACES) Project	Not indicated in one-pager	Deploy an innovative 3.7-mile superconducting power line in Eaton County, Michigan, to connect a utility-scale solar facility to the grid

STRENGTHS AND WEAKNESSES
TOPIC AREA 2 – 40107

Grid Deployment Office (GDO)
BIL – Grid Resilience and Innovation Partnerships (GRIP)
DE-FOA-0003195

APPLICATION CONTROL NUMBER	3195-1940
APPLICANT NAME	Unitil Service Corp.
APPLICATION TITLE	The Regional Joint Utility Energy Data Hub: Advancing Community DER Enablement and Customer Analytics in New England

CRITERION 1	IMPACT, TRANSFORMATION, AND TECHNICAL MERIT (40%)
DESCRIPTION	This criterion involves consideration of the following factors: • The extent to which the project supports the objectives and desired outcomes for Topic Area 2. • The level of advancement and innovation associated with the proposed approach relative to business-as-usual approach of the industry and/or applicant team. • The extent to which the project has the potential to deliver near-term impact. • The magnitude of the community or regional benefits that the project will generate, such as by reducing the likelihood and consequences of disruptive events, increasing system flexibility, and/or enabling additional integration of clean generation.

COMMENT TYPE	COMMENTS
STRENGTHS	• Project aims to improve data awareness and transparency which is a priority for the FOA.
WEAKNESSES	Most aspects of the criterion are not adequately addressed and the project did not clearly respond to the topic area priorities. • Project's custom-built data solutions are mostly business-as-usual and already offered by industry. • Application's project impact description may be unrealistic.

CRITERION 2	PROJECT MANAGEMENT TEAM, FINANCIAL FEASIBILITY, PROJECT PLAN, STATEMENT OF PROJECT OBJECTIVES (SOPO) (20%)
DESCRIPTION	This criterion involves consideration of the following factors: **Project Approach, Workplan, and SOPO** • Degree to which the approach and critical path have been clearly described and thoughtfully considered. • Degree to which the task descriptions are clear, detailed, timely, and reasonable, resulting in a high likelihood that the proposed Workplan and SOPO will succeed in meeting the project goals. **Project Management** • Clarity and appropriateness of the roles and responsibilities of the project management organization and the project team, including relevant and critical subrecipients and vendors. • The capability of the Project Manager(s) and the proposed team to manage and address all aspects of the proposed work with a high probability of success. • The qualifications, relevant expertise, and time commitment of the individuals on the team. • The level of participation by project participants as evidenced by letter(s) of commitment and how well they are integrated into the Project Plan/Workplan. • Degree to which the applicant includes and documents partnerships with critical entities that will help ensure project success. • The degree to which the applicant has defined and described a project management structure that addresses interfaces with DOE. **Project Financial Feasibility** • The reasonableness of the budget and spend plan for the proposed project and objectives. • Soundness of proposed cost share; level of dedication as demonstrated by letter(s) of commitment that clearly identify type and amount of proposed cost share. Proposed cost share meets requirements outlined in the FOA. • The degree to which the applicant justifies the project's economic viability.

COMMENT TYPE	COMMENTS
STRENGTHS	All aspects of the criterion are addressed to some degree and the application generally responds to the project management expectations. • Project utility organizations are committed, and project management components of application are appropriate. • Application hits most of the necessary components for criteria 2.
WEAKNESSES	• Application includes no partnerships with product developers or vendors, so it's unclear if the utilities can properly manage this technology. • Project budget includes some items that need more detail. • The application does not justify the project's economic viability.

CRITERION 3	VIABILITY, REPLICABILITY, AND ADDITIONALITY (20%)
DESCRIPTION	This criterion involves consideration of the following factors: **<u>Project Viability, Risks, and Mitigations</u>** • The level of clarity and appropriateness of the project's physical scope and implementation plan. • The extent to which sufficient technical detail is provided to demonstrate that the proposed project is feasible and would likely result in the described community or regional benefits including resilience, increased access to clean or distributed energy resources, health benefits, and reduced energy burden. • The extent to which a comprehensive and thorough understanding of the key anticipated risks (e.g., technical, financial, market, supply chain, environmental, regulatory) involved in the proposed work is demonstrated. • The quality of the mitigation strategies to address the key anticipated risks. • The thoroughness of the discussion of specific risk mitigants or commitment to develop appropriate mitigants for anticipated risks and risks that develop over the project lifecycle. **<u>Project Replicability, Baseline, Metrics, and Deliverables</u>** • The level of clarity in the definition of quantitative, measurable baseline, metrics, and milestones. • Relative to a clearly defined baseline, the strength of the quantifiable metrics, milestones, and mid-point deliverables defined in the application, such that meaningful interim progress will be made. • Extent to which project supports and works in tandem with State, local, Tribal, or regional resilience plans; resource or system plans; decarbonization plans; or other energy strategies and plans as applicable. • The potential impact of the project to catalyze additional private sector investments and/or non-federal public or regulated capital. • Extent to which the project offers the greatest public benefit with a clear path to replication, scale, and ability to ensure electricity system reliability and/or resilience, provide enhanced system value and economic benefit, and contribute to the decarbonization of the electricity and broader energy systems. • Degree to which the application identifies any partnerships with entities (including other states) outside of the applicant's jurisdiction, who will commit to encourage asset operators (e.g., utilities, merchant developers) to replicate the proposed approaches, technologies, or solutions, as applicable. **<u>Project Additionality</u>** • The degree to which the proposed project yields additive benefit(s) from the federal funding to undertake additional efforts that would not be taken but-for the funding or to accelerate or expand planned activities that would not be accelerated or expanded but-for the funding. • The degree to which the proposed project will deliver the greatest benefits for the requested Federal investment.

COMMENT TYPE	COMMENTS

STRENGTHS	• DOE funding for project is justified in order to expand the data platform to a regional basis.
WEAKNESSES	Some aspects of the criterion are not adequately addressed and the application fails to demonstrate the potential for the project to deploy a [resilient/innovative] approach. • Project development tasks are unclear, making it difficult to understand what requirements will be used to govern the project scope and procurement activities. • Application contains no metrics for the project. • Project has limited potential for replicability. • Application fails to address significant risks and mitigations for the project including data sharing agreements and regulatory issues. • The application does not adequately build a case that the proposed project will lead to proposed benefits.

CRITERION 4	COMMUNITY BENEFITS PLAN (20%)
DESCRIPTION	Every BIL-funded project is expected to contribute to the country's energy infrastructure modernization goals, energy technology demonstration and deployment goals, and climate goals, and also to (1) support meaningful community and labor engagement; (2) support quality jobs and ensure workforce continuity; (3) advance diversity, equity, inclusion, and accessibility; and (4) contribute to the Justice40 Initiative's goal that 40% of the overall project benefits flow to disadvantaged communities. To ensure these goals are met, applications must include a Community Benefits Plan that illustrates how the proposed project plans to incorporate the four goals stated above and are encouraged to submit Community Partnership Documentation from established labor unions, Tribal entities, and community-based organizations that demonstrate the applicant's ability to achieve the above goals as outlined in the Community Benefits Plan. This criterion involves consideration of the following factors: <u>Community and Labor Engagement</u> • Extent to which the applicant demonstrates community and labor engagement to date that results in support for the proposed project. • Extent to which the applicant has a clear and appropriately robust plan to engage—ideally through a clear commitment to negotiate enforceable Workforce & Community Agreements—with labor unions, Tribal entities, and community-based organizations that support or work with disadvantaged communities and other affected stakeholders. • Extent to which the applicant has considered accountability to affected workers and community stakeholders, including those most vulnerable to project activities, with a plan to publicly share SMART Community Benefits Plan commitments. • Extent to which the applicant demonstrates that community and labor engagement will lead to the delivery of high-quality jobs, minimal environmental impact, and allocation of project benefits to disadvantaged communities. <u>Job Quality and Workforce Continuity</u> • Quality and manner in which the proposed project will create and/or retain high quality, good-paying jobs with employer-sponsored benefits for all classifications and phases of work. • Extent to which the project provides employees with the ability to organize bargain collectively, and participate, through labor organizations of their choosing, in decisions that affect them and that contribute to the effective conduct of business and facilitates amicable settlements of any potential disputes between employees and employers, providing assurances of project efficiency, continuity, and multiple public benefits. • Extent to which applicant demonstrates that they are a responsible employer, with ready access to a sufficient supply of appropriately skilled labor, and an effective plan to minimize the risk of labor disputes or disruptions. <u>Diversity, Equity, Inclusion, and Accessibility</u> • Extent to which the Community Benefits Plan includes specific and high-quality actions to meet DEIA goals, which may include DEIA recruitment procedures, supplier diversity plans, and other DEIA initiatives.

	• Quality of any partnerships and agreements with apprenticeship readiness programs, or community-based workforce training and support organizations serving workers facing systematic barriers to employment to facilitate participation in the project's construction and operations. <u>Justice40 Initiative</u> • Extent to which the Community Benefits Plan identifies specific, measurable benefits for disadvantaged communities, how the benefits will flow to disadvantaged communities, and how negative environmental impacts affecting disadvantaged communities would be mitigated. • Extent to which the project would contribute to meeting the objective that at least 40% of the overall benefits of certain climate and clean energy investments will flow to disadvantaged communities.

COMMENT TYPE	**COMMENTS**
STRENGTHS	• Project has a strong commitment to job creation.
WEAKNESSES	Some of the four factors of the criterion are not adequately addressed and the application has not provided adequate discussion or commitments on community benefits efforts. • Applicant's claims that the project would benefit disadvantaged communities is only moderately justified. • Project's commitments to creating quality jobs is limited and has no union participation. • Applicant does not commit to a Community Benefits Agreement.

10/18/2024

SENT VIA ELECTRONIC MAIL

Unitil Service Corp
Patrick Taylor
taylorp@unitil.com

SUBJECT: Topic Area 2: Smart Grid Grants (40107), Application Control Number 3195-1940 titled, "The Regional Joint Utility Energy Data Hub: Advancing Community DER Enablement and Customer Analytics in New England"

Dear Patrick Taylor:

Evaluation of your application received in response to Funding Opportunity Announcement (FOA) number DE-FOA-0003195 titled "Bipartisan Infrastructure Law (BIL) – Grid Resilience and Innovation Partnerships (GRIP)" has been completed in accordance with the process specified in the "Application Review Information" section of the Funding Opportunity Announcement.

We regret to inform you that based on this evaluation, your application has not been selected for award. This process was highly competitive, with funding requests totaling over 5x the amount of available funding for Grid Resilience Grants (40107). The enclosed document provides a copy of your application's strengths and weaknesses. This information is provided to you as important feedback on your application and will hopefully be valuable to you in the preparation of future applications. This letter and the enclosed attachment constitute your sole debriefing for this FOA.

On behalf of the U.S. Department of Energy, I would like to express a sincere appreciation for your interest and participation in the GRIP Program.

Sincerely,

Jeffery S. Kooser
Contracting Officer
Finance and Acquisition Center

Enclosure

cc: FOA File
Eisfeller@unitil.com
campbellm@unitil.com