

Clean Energy Innovator Fellowship

Host Institution Project Descriptions

The Clean Energy Innovator Fellowship program is seeking candidates with a demonstrated interest in the clean energy transition to participate in projects with state and territory public utilities commissions, municipal utilities, electric coops, Tribal utilities, regional Tribal organizations, and Puerto Rico essential energy organizations for up to two years. The Project Descriptions contain information about a Host Institution's project, location, and Host Institution operating status, and skills relevant to the project.

The following list is organized alphabetically by Host Institution State or Territory.

Arizona

- **San Carlos Apache Tribe:** San Carlos Apache Energy Sovereignty, Tribal Utility and Renewable Energy Projects
- **Trico Electric Cooperative, Inc.:** Support Design of a Comprehensive Program to integrate EVs, Smart Home Devices, Smart Grid Devices, and Distributed Energy Resources into Trico's System and Practices

California

- **Blue Lake Rancheria:** Advancing Blue Lake Rancheria's Energy Resiliency Efforts through Tribal and Community Engagement

Colorado

- **Colorado Public Utilities Commission:** Help the Grid Sparkle with Distributed Energy Resources!
- **Longmont Power & Communications:** Data and Systems Integration for Distributed Energy Resources and Grid Optimization
- **Tri-State Generation and Transmission Association, Inc.:** Optimizing Supply and Demand Side Resources to Maximize the Value of the Cooperative Energy Ecosystem

Connecticut

- **Connecticut Public Utilities Regulatory Authority:** Conducting the Annual Reviews of Connecticut's Electric Distribution Companies' Reliability & Resilience Plans

District of Columbia

- **District of Columbia Public Service Commission:** Grid Integration of Distributed Energy Resources in the District of Columbia

Florida

- **Florida Public Service Commission:** Developing grid resilience metrics and electrification considerations from vehicles and charging infrastructure

Illinois

- **Illinois Commerce Commission:** Enhancing Resource Adequacy through Grid Modernization

Louisiana

- **Louisiana Public Service Commission:** Advancing an equitable and resilient clean energy future for Louisiana

Maryland

- **Maryland Public Service Commission:** Energy Storage Program Development and Deployment of other Distributed Energy Resources

Massachusetts

- **Massachusetts Department of Public Utilities:** Alternatives for Integrating Distributed Generation in a Modernizing Grid

Michigan

- **Great Lakes Energy:** Electric Vehicle (EV) Adoption & Infrastructure Impact for Great Lakes Energy
- **Lansing Board of Water & Light:** Creating Customer-Focused Energy Programs
- **Michigan Public Service Commission #1:** Incentivizing Resilience through Distributed Energy Resource Expansion
- **Michigan Public Service Commission #2:** Resiliency Metrics, Valuation, and Application to Undergrounding Backlot Electrical Lines
- **Migizi EDC/Saginaw Chippewa Indian Tribe of Michigan:** Recommendations on feasibility and optimization of innovative microgrid design

Minnesota

- **Minnesota Public Utilities Commission:** Advancing Grid Resiliency and Interconnection Requirements

Mississippi

- **Mississippi Public Service Commission:** Capturing the Benefits of Advanced Metering Infrastructure

Montana

- **Blackfeet Community College:** Developing Grid Resilience Metrics

New Jersey

- **New Jersey Board of Public Utilities:** Analyzing and Aligning Regional Energy Market Reforms with New Jersey's Local Distribution and Clean Energy Goals

New Mexico

- **New Mexico Public Regulation Commission:** Developing policies and incentives to enable essential grid services on the distribution system

Ohio

- **Public Utilities Commission of Ohio:** Advancing Equity, Environmental and Energy Justice Priorities through Grid Resilience Program Funding

Oregon

- **Affiliated Tribes of Northwest Indians:** Maximizing the chances of Tribal success on the path towards energy sovereignty

Puerto Rico

- **Cooperativa Hidroeléctrica de la Montaña #1:** Microgrid of the Mountain
- **Cooperativa Hidroeléctrica de la Montaña #2:** Community Energy Resilience through Photovoltaics
- **LUMA Energy #1:** Enhancing resiliency in Puerto Rico through mission critical microgrids – (e.g., Vieques and Culebra Networked Microgrids Project)
- **LUMA Energy #2:** Quantification of the Impact of Grid-Forming Inverters on Island Grid Stability
- **LUMA Energy #3:** Virtual Power Plant Strategy for Puerto Rico's T&D operator
- **Puerto Rico Energy Bureau:** Creating a Distributed Energy Resources Action Plan for Puerto Rico

South Carolina

- **Public Service Commission of South Carolina:** The Costs, Benefits, and Effective Implementation of Utility Hosting Capacity Maps

Texas

- **Austin Energy:** Community Benefit Measures, Equity Planning, and Stakeholder Engagement for Grid Resilience

U.S Virgin Islands

- **Virgin Islands Public Services Commission:** Analyze and Address existing Advanced Metering Infrastructure Interoperability

Wisconsin

- **Great Lakes Inter-Tribal Council, Inc.:** Supporting Tribal Nations with Sustainable Energy Innovations and Climate Change Resiliency Plans
- **Public Service Commission of Wisconsin #1:** Analysis and Modeling for Wisconsin's Roadmap to Zero Carbon
- **Public Service Commission of Wisconsin #2:** Economic Analysis of Grid Services and Distributed Energy Resources

Arizona

San Carlos Apache Tribe

San Carlos, AZ

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

San Carlos Apache Energy Sovereignty, Tribal Utility and Renewable Energy Projects

Project Description:

The Innovator will support further expansion of the San Carlos Apache Tribe's Tribal utility, the development of a microgrid at the Tribal Health Center, and the development of community scale and utility-scale solar projects.

Relevant Skills: Program Development, Tribal Engagement, Research & writing

An ideal Fellow will have experience collaborating with Tribes and strong written communication skills.

Trico Electric Cooperative, Inc

Marana, AZ

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status.

Support Design of a Comprehensive Program to integrate EVs, Smart Home Devices, Smart Grid Devices, and Distributed Energy Resources into Trico's System and Practices.

Project Description:

The Innovator will research and analyze potential grid improvements needed due to EV adoption, the need and placement for EV charging infrastructure, the impact of incentives for off-peak EV charging, and the impact of distributed energy resource programs. Additionally, the Fellow may support a Smart Neighborhood Pilot project.

Relevant Skills: Analysis & Modeling, Program Development, and Regulatory Process Administration

An ideal Fellow will have interest in developing a broad set of skills including project support, data analytics, depth of knowledge in key industry trends, and understanding of smart grid technologies.

California

Blue Lake Rancheria

Blue Lake, CA

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Advancing Blue Lake Rancheria's Energy Resiliency Efforts through Tribal and Community Engagement

Project Description:

The Innovator will support Blue Lake Rancheria to further develop their microgrid and integrate it with their existing system. The Fellow will support engagement across Tribal nations to assist with efforts to become more resilient to impacts associated with chronic wildfires and other causes of power outages. The Fellow may also support other efforts related to energy resilience.

Relevant Skills: Analysis & Modeling, Program Development, Tribal Engagement

An ideal Fellow will have experience collaborating with Tribes, conducting outreach and engagement across Tribal nations, and marketing and outreach experience relevant to sharing climate change actions with the public.

Colorado

Colorado Public Utilities Commission

Denver, CO

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Help the Grid Sparkle with Distributed Energy Resources!

Project Description:

The Innovator will develop a deeper understanding of the challenges and solutions for integrating distributed energy resources (DER's) in the grid to perform demand response/demand flexibility and grid resiliency functions, while focusing on technologies, and the enabling policy and regulatory framework within a vertically integrated utility context. The Innovator will investigate the regulatory and economic structures that will enable use of distributed energy resources (DERs) as a tool that both provides demand response capacity as well as resilience.

Relevant Skills: Analysis & Modeling, Market Assessment, Research & Writing

An ideal Fellow will have an interest in sectors such as distribution operations and microgrids, energy storage, and renewable energy generation.

Longmont Power & Communications, City of Longmont

Longmont, CO

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Data and Systems Integration for Distributed Energy Resources and Grid Optimization

Project Description:

The Innovator will conduct research, data analysis, and integration to support data-driven decision-making for 100% renewable energy supply, grid investment, and programming. The Innovator may map a data inventory, develop a strategy for systems integration to enable ongoing analyses, conduct foundational integration and analysis, build an understanding of data, systems, processes, metrics, and outcomes through an equity lens, and develop metrics and a roadmap for future projects.

Relevant Skills: Analysis & Modeling, Market Assessment, Program Development

An ideal Fellow will have effective analysis and modeling skills and the ability to translate the analytics and modeling into actionable targets and activities.

Tri-State Generation and Transmission Association, Inc.

Westminster, CO

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Optimizing Supply and Demand Side Resources to Maximize the Value of the Cooperative Energy Ecosystem

Project Description:

The Innovator will conduct research to identify key opportunities to advance Tri-State's demand response management, and therefore, our energy efficiency and electrification goals. The Fellow will assist in developing programs that create value by utilizing available data on consumer behavior, location, income level and other metrics. The Innovator Fellow will conduct desktop research on best-in-class examples of effective demand response strategies across the industry and directly applying that research to create similar solutions that are ambitious and achievable for Tri-State and our members to implement.

Relevant Skills: Analysis & Modeling, Program Development

An ideal Fellow will be familiar and confident with analysis and modeling with interest in program development.

Connecticut

Connecticut Public Utilities Regulatory Authority New Britain, CT

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Conducting the Annual Reviews of Connecticut's Electric Distribution Companies' Reliability & Resilience Plans

Project Description:

The Innovator will support reviews and evaluations of each electric distribution company's (EDC) annual Reliability and Resilience Plans and help evaluate Data Tracking Metrics and Benefit-Cost Analysis models. The Innovator will assist staff with Annual reviews by conducting analysis of EDC data reporting, preparing cross-examination, interrogatories, requests for written comments, and other discovery and stakeholder engagement measures.

Relevant Skills: Analysis & Modeling, Regulatory Process Administration, Research & Writing

An ideal Fellow will have some background on regulatory procedural processes, but Fellows can expect to be coached on this skill regardless of experience level.

District of Columbia

District of Columbia Public Service Commission Washington, DC

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Grid Integration of Distributed Energy Resources in the District of Columbia

Project Description:

The Innovator will research the field of distributed renewable energy resources, study relevant emerging new technologies, study regional retail and wholesale electricity markets, collaborate with staff within the Commission and other experts in the District Government, review stakeholder comments, and support existing and new regulatory proceedings in the distributed energy renewables area. The Fellow will prepare presentations, draft written documents, and preparing a summary overview document describing their recommendations, findings, and conclusions.

Relevant Skills: Analysis & Modeling, Regulatory Process Administration, Stakeholder Engagement

An ideal Fellow will have strong analytical skills, excellent writing ability, demonstrated verbal communications capabilities, knowledge of environmental and energy issues, and a strong interest in improving the District's electricity market and achieving its renewable energy goals.

Florida

Florida Public Service Commission Tallahassee, FL

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status.

Developing grid resilience metrics and electrification considerations from vehicles and charging infrastructure

Project Description:

The Innovator has the opportunity to research grid resilience metrics to understand the effectiveness of past and current grid resilience activities, and the value proposition of future grid resilience options. The Innovator will also conduct research on EV charging programs including customer

acceptance and utilization, the effects of charging on the reliability of the grid, and the cost considerations for all utility customers.

Relevant Skills: Analysis & modeling, Market assessment, Research & writing

An ideal Fellow will be familiar with Florida current policy and regulatory issues of sectors such as distribution operations and microgrids, sustainable transportation, and transmission infrastructure.

Illinois

Illinois Commerce Commission

Chicago, IL

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Enhancing Resource Adequacy through Grid Modernization

Project Description:

The Innovator will analyze the interaction of transmission planning with energy transition activities and concerns about resource adequacy in both regional markets (Midcontinent Independent System Operator (MISO) and PJM Interconnection (PJM)) that operate in Illinois. The Innovator will identify the benefits of transmission for resource adequacy and analyze the interactions between transmission and accreditation; analyze models of transmission cost allocation mechanisms; research transmission planning in MISO, PJM, and across regions; and analyze the impact non-wire alternatives and other grid enhancing technologies can have on transmission planning processes.

Relevant Skills: Analysis & Modeling, Regulatory Process Administration, Stakeholder Engagement

An ideal Fellow will have knowledge of the technical complexities of transmission planning.

Louisiana

Louisiana Public Service Commission

New Orleans, LA

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Advancing an equitable and resilient clean energy future for Louisiana

Project Description:

The Innovator will conduct research on topics related to four key regulatory proceedings about equity and energy justice, resilience, and distributed energy resources. The Innovator Fellow will collaborate with the Commissioner and Commission staff to review and evaluate party filings, research best practices in relevant jurisdictions, and develop decision options for review by the Louisiana Public Service Commission.

Relevant Skills: Research and writing

An ideal Innovator will have strong research, communications, and writing skills.

Maryland

Maryland Public Service Commission

Baltimore, MD

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Energy Storage Program Development and Deployment of other Distributed Energy Resources

Project Description:

The Innovator will conduct research, analysis, and assist with Commission dockets, rulemakings, and proceedings necessary to establish their energy storage program, to cost effectively deploy 3,000 MW

of energy storage by 2033. The Innovator will also support ongoing dockets related to distributed energy resources including energy efficiency, energy storage, electric vehicles, community solar, unified benefit cost analysis, and distribution system planning.

Relevant Skills: Market Assessment, Program Development, Stakeholder Engagement

An ideal Fellow will be a strong writer, proficient in math, and have knowledge of energy storage evaluation, energy markets, distributed energy resource evaluation, or distributed system planning, and/or previous experience conducting cost benefit analysis.

Massachusetts

Massachusetts Department of Public Utilities

Boston, MA

MA DPU can host on site in a hybrid set up (in-office 1 or more days per week) and have a slight preference for that but are willing to consider other options depending on individual candidate circumstances and can discuss preference during interviews.

Alternatives for Integrating Distributed Generation in a Modernizing Grid

Project Description:

The Innovator may conduct research on rate design changes, load management and other methods for reducing demand, and enabling flexible demand and supporting dispatchable demand response that may provide more cost-effective solutions compared to traditional infrastructure investments. Initially, the Innovator will research the requirements for implementing flexible interconnection options for distributed generation.

Relevant Skills: Analysis & Modeling, Program Development, Regulatory Process Administration

An ideal Fellow will be creative in how to develop recommendations for designing changes to the existing interconnection and grid integration processes, able to understand and analyze concepts and complex issues related to the generation and distribution of electricity, and willing to navigate regulations, tariffs, and procedures.

Michigan

Great Lakes Energy

Boyne City, MI

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Electric Vehicle (EV) Adoption & Infrastructure Impact for Great Lakes Energy

Project Description:

The Innovator will conduct research for an EV Adoption and Infrastructure Impact project through activities such as analyzing hourly load data and member demographics, developing EV adoption rate analysis scenarios and system impact studies, identifying EV program design recommendations, research best practices for forecasting, key performance indicators, and metrics, and support the development of engagement and outreach strategies to increase awareness and promote EV programs.

Relevant Skills: Analysis & Modeling, Market Assessment, Program Development

An ideal Fellow can understand and analyze load growth data, assess usage data to develop programs and rates, and have knowledge of EVs and their grid impacts.

Lansing Board of Water & Light

Lansing, MI

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Creating Customer-Focused Energy Programs**Project Description:**

The Innovator will help create customer-focused energy programs aimed at promoting residential, commercial, and industrial electrification and demand response. The Fellow will research and analyze energy usage patterns and electrification potential, support electrification and demand response program design, and research monitoring and evaluation best practices.

Relevant Skills: Analysis & Modeling, Market Assessment, Program Development

An ideal Fellow will be able to analyze customer usage, model load impacts of electrification, demand response and installation of renewable energy generation, and perform market assessments of demand response and electrification programs.

Michigan Public Service Commission #1

Lansing, MI

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Incentivizing Resilience through Distributed Energy Resource Expansion**Project Description:**

The Innovator will conduct extensive research into best practices related to electric system reliability and resilience improvements focused on critical facilities and most vulnerable customers, research best practices on how the Michigan Public Service Commission (MPSC) can prepare for and facilitate the integration of electric vehicles on the grid with vehicle-to-grid (V2G) and vehicle-to-everything (V2X) capabilities, and assess the impact of Federal Energy Regulatory (FERC) Orders 2222 and 2222-A on MPSC regulatory structures.

Relevant Skills: Program Development, Stakeholder Engagement

An ideal Fellow will have the ability to conduct research, collaborate with stakeholders, and develop programs related to resilience, V2G/V2X programs, and a roadmap for consumer protections that Michigan may consider implementing related to demand response and distributed energy resources aggregation.

Michigan Public Service Commission #2

Lansing, MI

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Resiliency Metrics, Valuation, and Application to Undergrounding Backlot Electrical Lines**Project Description:**

The Innovator may help develop resiliency metrics and valuation methods, conduct a root cause analysis of a random sample of equipment damaged in recent storms, and study undergrounding backlot secondary costs and benefits, including resiliency benefits as measured by the developed metrics and valuation methods.

Relevant Skills: Analysis & modeling, Research & writing, and experience with cost-benefit analysis and statistical analysis.

An ideal Fellow will have experience with benefit/cost analysis, or the technical capabilities to conduct such analysis, and statistical analysis.

Migizi EDC/Saginaw Chippewa Indian Tribe of Michigan

Mount Pleasant, MI

Innovator Fellow can participate on-site or in a hybrid status.

Recommendations on feasibility and optimization of innovative microgrid design

Project Description:

The Innovator will support technical and system design efforts related to the development of a microgrid for the Isabella Reservation and the Saganing Community. The Fellow will also support the development of performance metrics and operational processes for the microgrid, and support studies of financial feasibility for operating the microgrid in front of the meter and capturing Midcontinent Independent System Operator (MISO) market revenue streams.

Relevant Skills: Analysis & Modeling, Market Assessment, Tribal Engagement.

An ideal Fellow will have skills related to technical analysis and financial modeling, and experience with Tribal communities and Tribal engagement.

Minnesota

Minnesota Public Utilities Commission

St. Paul, MN

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Advancing Grid Resiliency and Interconnection Requirements

Project Description:

The Innovator will research grid resiliency processes, outcomes, and best practices, review data and comments in resiliency-related dockets, and research specific issues within distribution planning, transportation electrification, and resource planning dockets. The Innovator will also provide support to Commission staff and engage with other stakeholders participating in the Distributed Generation Working Group to implement IEEE 1547-2018.

Relevant Skills: Analysis & Modeling, Stakeholder Engagement, Research & writing

An ideal Fellow will have technical knowledge and experience with electric utility systems and an ability to explain complex concepts in simple terms through multiple modes of communication.

Mississippi

Mississippi Public Service Commission

Jackson, MS

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Capturing the Benefits of Advanced Metering Infrastructure

Project Description:

The Innovator will conduct research and analyze methods for using Advanced Metering Infrastructure (AMI) data to promote awareness of energy efficiency benefits and support the development of utility programs to maximize energy and economic savings while innovating operational strategies. The Innovator will analyze AMI data to seek distributed energy resource aggregation solutions and other applications of AMI data. The Fellow will engage with the Mississippi State Energy Office and other stakeholders to aid the Commission in crafting new strategies for utilizing data from AMI devices to help consumers better understand their energy consumption patterns. The Innovator will produce a final report on opportunities to use AMI data analysis to support innovative approaches to energy efficiency, cost saving, and energy conservation measures for customers and utilities.

Relevant Skills: Analysis & Modeling, Program Development, Stakeholder Engagement

An ideal Fellow will have the ability to analyze AMI data and think creatively about ways to use the information to create programs and support new ideas for promoting energy efficiency throughout the system.

Montana

Blackfeet Community College

Browning, MT

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Developing Grid Resilience Metrics

Project Description:

The Innovator will create baseline data that informs Tribal energy resilience planning practices and decision-making. This project will help launch a more comprehensive approach that is informed by Tribal and community stakeholders and engages utilities to strengthen efforts of Grid Resilience Formula Grant program implementation. Deliverables include technical and narrative reports that would be distributed across the community.

Relevant Skills: Stakeholder Engagement, Tribal Engagement, Research & Writing

An ideal Fellow will have communication skills to engage with diverse stakeholders including utilities, and the ability to synthesize information in written reports.

New Jersey

New Jersey Board of Public Utilities

Trenton, NJ

NJ BPU prefers to have a Fellow in office interacting directly with the BPU team (3 days in the office, 2 days remote per week). However, BPU can successfully offer a fully remote operating status if necessary and have been able to appropriately support staff, Fellows, and interns in prior situations.

Analyzing and Aligning Regional Energy Market Reforms with New Jersey's Local Distribution and Clean Energy Goals

Project Description:

The Innovator will research and analyze policies being developed at the federal (Federal Energy Regulatory Commission (FERC)) and regional (PJM Interconnection (PJM)) levels that will need close coordination with local utilities and consistently evolving state policies. Specifically, the Fellow will gain an understanding of FERC Order 2222 and PJM's Compliance with Order 2222 and help launch a stakeholder proceeding to identify barriers that may remain at the distribution level that may prolong the inability for distributed energy resources to participate in PJM markets.

Relevant Skills: Market Assessment, Program Development, Regulatory Process Administration, Stakeholder Engagement

An ideal Fellow will have experience engaging with stakeholders, an interest in program development, a clear understanding of regulatory process administration, and advanced writing skills. An ideal Fellow will also have a desire to expand their technical knowledge of distribution and transmission assets, the PJM market, and FERC proceedings.

New Mexico

New Mexico Public Regulation Commission

Santa Fe, NM

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Developing policies and incentives to enable essential grid services on the distribution system

Project Description:

The Innovator will assist the New Mexico Public Regulation Commission (NMPRC) in performing the research necessary to support a rulemaking on integrated distribution planning that facilitates modernization of the electricity delivery system and supports new opportunities for aligning distributed resources with wholesale generation (via Integrated Resource Planning (IRP)) to meet evolving utility system needs. The innovator will identify tools and research the market potential for new grid services that could be provided by distributed resources and explore developments in other states that would lead to new rate structures, compensation mechanisms, and operational requirements to fully realize the potential benefits. The Innovator's research will be incorporated into various planning efforts, both at the distribution or transmission level, to develop both the strategy and rate or payment incentives that help achieve the vision of a modernized grid for New Mexico.

Relevant Skills: Market Assessment, Program Development, Stakeholder Engagement

An ideal Fellow will exhibit intellectual curiosity, dedication to innovative thinking, flexibility to test new ideas, and an openness to finding creative solutions.

Ohio

Public Utilities Commission of Ohio

Columbus, OH

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Advancing Equity, Environmental and Energy Justice Priorities through Grid Resilience Program Funding

Project Description:

The Innovator will support efforts to advance equity, environmental and energy justice priorities in the context of the Public Utilities Commission of Ohio (PUCO)'s grid resilience investment efforts. The Innovator will analyze and develop recommendations for how grid resilience investments can best support equity and environmental and energy justice priorities. The Innovator may meet with interested stakeholders to discuss and seek input.

Relevant Skills: Analysis & Modeling, Stakeholder Engagement, Research & Writing

An ideal Fellow will have experience in equity, environmental and energy justice, but some experience with grid resilience and energy storage would also be beneficial.

Oregon

Affiliated Tribes of Northwest Indians

Portland, OR

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Maximizing the chances of Tribal success on the path towards energy sovereignty

Project Description:

The Innovator will serve as Tribal Liaison for the energy program and support assist with the Climate Resilience Program. The Fellow will help develop core functions of the Tribal Liaison and engage with Tribes and energy sector stakeholders on technical assistance for the region's Tribes.

Relevant Skills: Program Development, Stakeholder Engagement, Tribal Engagement

An ideal Fellow will have experience collaborating with Tribes, and interest in supporting the development of the Tribal Liaison program.

Puerto Rico

Cooperativa Hidroeléctrica de la Montaña #1 Utuado, PR

El Becario en Innovación tendrá que trasladarse a la región para trabajo híbrido (una combinación de días presenciales y virtuales durante una semana laboral o periodo de pago).

La Microrred de la montaña

Descripción del proyecto:

En colaboración con los Laboratorios Nacionales, el Becario en Innovación apoyará a la Cooperativa Hidroeléctrica de la Montaña para desarrollar una microrred intermunicipal en Puerto Rico—la Microrred de la Montaña—que combinará la generación de plantas hidroeléctricas y los sistemas de energía solar fotovoltaica para alimentar nuevas líneas eléctricas de 38kV entre los municipios de Adjuntas, Jayuya, Lares y Utuado. El Becario en Innovación también apoyará el desarrollo de soluciones innovadoras para los residentes de la Cordillera Central. Los candidatos interesados pueden obtener más información sobre el proyecto en

<https://cooperativahidroelectrica.coop/microgrid-of-the-mountain-en.html>

Destrezas relevantes: Modelaje y análisis, administración de procesos regulatorios, y redacción

El candidato ideal tendrá la capacidad de coordinar satisfactoriamente con partes interesadas, como el Negociado de Energía de Puerto Rico, los Laboratorios Nacionales y las autoridades locales.

Cooperativa Hidroeléctrica de la Montaña #1 Utuado, PR

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Microgrid of the Mountain

Project Description:

In collaboration with the National Labs, the Innovator will support the Cooperativa Hidroeléctrica de la Montaña in developing an intermunicipal microgrid in Puerto Rico—the Microgrid de la Montaña —which will combine the generation of hydroelectric plants and solar PV to power new 38kV lines between the municipalities of Adjuntas, Jayuya, Lares and Utuado. The Innovator will also support the development of innovative solutions to residents of the Cordillera Central. Interested fellows can read more about the project at: <https://cooperativahidroelectrica.coop/microgrid-of-the-mountain-en.html>

Relevant Skills: Analysis & Modeling, Regulatory Process Administration, and Writing

An ideal Fellow will have the ability to successfully coordinate with valuable stakeholders such as the Puerto Rico Energy Bureau, National Laboratories, and local authorities.

Cooperativa Hidroeléctrica de la Montaña #2

Utualdo, PR

El Becario en Innovación tendrá que trasladarse a la región para trabajo híbrido (una combinación de días presenciales y virtuales durante una semana laboral o periodo de pago).

Resiliencia energética comunitaria a través de la energía fotovoltaica**Descripción del proyecto:**

El Becario en Innovación apoyará a la Cooperativa Hidroeléctrica de la Montaña en el desarrollo y la instalación de 10 MW de sistemas fotovoltaicos en techos y 20 MWh de sistemas de almacenamiento en pequeñas empresas, centros comunitarios (incluyendo iglesias) y residencias en los municipios de Adjuntas, Jayuya, Lares, Utualdo y Maricao. El becario también ayudará a proporcionar soluciones innovadoras a los residentes de la Cordillera Central para ampliar su acceso a energía asequible y confiable. Los candidatos interesados pueden obtener más información sobre el proyecto en <https://cooperativahidroelectrica.coop/microgrid-of-the-mountain-en.html>

Destrezas relevantes: Modelaje y análisis, desarrollo de programas, redacción y publicación

El candidato ideal apoyará el desarrollo de programas y análisis mientras asiste en los esfuerzos de coordinación con líderes comunitarios para fomentar el desarrollo de microrredes.

Cooperativa Hidroeléctrica de la Montaña #2

Utualdo, PR

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Community Energy Resilience through Photovoltaics**Project Description:**

The Innovator will support the Cooperativa Hidroeléctrica de la Montaña's development and installation of 10 MW of rooftop photovoltaic systems and 20 MWh of energy storage systems at small businesses, community centers (including churches), and residences in the municipalities of Adjuntas, Jayuya, Lares, Utualdo, and Maricao. The Innovator will also help provide innovative solutions to the residents of the Cordillera Central, to expand their access to cost-effective, reliable energy. Interested fellows can read more about the project at: <https://cooperativahidroelectrica.coop/reenfoco-en.html>

Relevant Skills: Analysis & Modeling, Program Development, Writing & Publication

An ideal Fellow will support program development and modeling while assisting coordination efforts with community leaders.

LUMA Energy #1

San Juan, PR

El Becario en Innovación deberá trasladarse a la región para trabajar en persona (preferible). Sin embargo, una opción híbrida está disponible también.

Mejorar la resiliencia energética en Puerto Rico mediante microrredes en la red eléctrica de misión crítica - (el proyecto de microrredes en la red eléctrica para Vieques y Culebra)**Descripción del proyecto:**

El Becario en Innovación apoyará el desarrollo de tecnologías en las islas de Vieques y Culebra, incluyendo controles avanzados de microrredes, estimación del estado del sistema utilizando sincrofasores conectados al sistema de distribución y de subtransmisión. El Innovador también apoyará un estudio de microrredes mediante la investigación de la secuencia óptima de operaciones para microrredes, teniendo en cuenta: los aspectos innovadores de la puesta a tierra efectiva y algoritmos de estimación de estado.

Destrezas relevantes: Modelaje y análisis, desarrollo de programas, redacción y publicación

El candidato ideal poseerá conocimiento técnico y previo sobre dinámica de sistemas eléctricos y controles para configurar exitosamente controles óptimos de microrredes y mejorar el rendimiento general de los recursos energéticos distribuidos (DER) presentes en la red eléctrica.

LUMA Energy #1

San Juan, PR

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status (preferred). However, a hybrid option is also available.

Enhancing resiliency in Puerto Rico through mission critical microgrids – (e.g., Vieques and Culebra Networked Microgrids Project)**Project Description:**

The Innovator will support the deployment of technologies on the islands of Vieques and Culebra, including advanced microgrid controllers, system state estimation using distribution and sub-transmission-connected phasor measurement units (PMUs). The Innovator will also support a microgrid study by researching the optimal sequence of operations for microgrids, with consideration for: innovative aspects of effective grounding, stability and control, and state estimation algorithms.

Relevant Skills: Analysis & Modeling, Program Development, Writing & Publication

An ideal Fellow will have technical skills and previous knowledge in power system dynamics and control to successfully shape optimum microgrid controls and enhance overall present distributed energy resources (DERs) performance in the networked system.

LUMA Energy #2

San Juan, PR

El Becario en Innovación deberá trasladarse a la región para trabajar en persona (preferible). Sin embargo, una opción híbrida está disponible también.

Cuantificación del impacto de inversores avanzados para la estabilización del sistema eléctrico**Descripción del proyecto:**

El innovador apoyará la investigación de escenarios energéticos de transición y futuros en Puerto Rico e implementará tecnologías que usen inversores avanzados (“grid-forming inverter-based resources”), compensadores síncrono estático (“grid-forming static synchronous compensators”), volantes de inercia (“flywheels”) y condensadores síncronos (“synchronous condensers”) para cuantificar su impacto. El becario innovador ayudará a calcular medidas que incluyen la mejora del arranque autógeno, la energía esperada no servida y la reducción de minutos de interrupciones al cliente. El becario innovador tendrá conocimiento de los estudios de sistemas de potencia, incluyendo flujos de carga, cortocircuitos, dinámicas, el dominio del tiempo y softwares asociados, y demostrará competencia en PSSE, PSCAD y MATLAB.

Destrezas relevantes: Modelaje y análisis, redacción y publicación

El candidato ideal tendrá experiencia con softwares especializados para ajustar y optimizar los parámetros operativos de los inversores para completar el objetivo de investigación de este proyecto.

LUMA Energy #2

San Juan, PR

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status (preferred). However, a hybrid option is also available.

Quantification of the Impact of Grid-Forming Inverters on Island Grid Stability**Project Description:**

The Innovator will support transitional and future energy scenarios in Puerto Rico and implement technologies such as Grid-forming Inverter Based Resources (GFM IBR), Grid-forming Static Synchronous Compensator (GFM STATCOM), Flywheels, and Synchronous Condensers to quantify their impact. The Innovator will help calculate metrics that include black-start enhancement, expected energy not served (EENS), and reduction in customer-minute-interruption (CMI). The Innovator will leverage knowledge of power system studies—including load flow, short-circuit, dynamics, time-domain, and associated software—and proficiency in PSSE dynamic, PSCAD, and MATLAB to accomplish the project.

Relevant Skills: Analysis & Modeling, Writing & Publication

An ideal Fellow will have experience with specialized software to adjust and optimize operational parameters of inverters to successfully complete the research focus of this project.

LUMA Energy #3

San Juan, PR

El Becario en Innovación deberá trasladarse a la región para trabajar en persona (preferible). Sin embargo, una opción híbrida está disponible también.

Estrategia de centrales eléctricas virtuales para el operador de T&D de Puerto Rico

Descripción del proyecto:

El Becario en Innovación investigará una estrategia para la implementación de centrales eléctricas virtuales ("virtual power plants") en Puerto Rico, incorporando consideraciones operacionales de los equipos de finanzas, regulación, despacho, planificación y servicio al cliente, así como el insumo de los clientes y desarrolladores a medida que LUMA implemente y perfeccione su programa de respuesta a la demanda.

Destrezas relevantes: Análisis y modelaje, evaluación de mercados, desarrollo de programas

El candidato ideal tendrá la capacidad de colaborar con muchos equipos de LUMA y partes interesadas externas en actividades como coordinación y educación.

LUMA Energy #3

San Juan, PR

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status (preferred). However, a hybrid option is also available.

Virtual Power Plant Strategy for Puerto Rico's T&D operator

Project Description:

The Innovator will research a strategy for implementation of Virtual Power Plants (VPPs) in Puerto Rico, incorporating operational considerations from teams in finance, regulatory, dispatch, planning, and customer experience, as well as input from customers and developers as LUMA implements and refines its demand response program.

Relevant Skills: Analysis & Modeling, Market Assessment, Program Development

An ideal Fellow will have the ability to engage with many LUMA teams and external stakeholders in activities such as outreach and education.

El Negociado de Energía de Puerto Rico (NEPR) San Juan, PR

El Becario en Innovación deberá trasladarse a la región para trabajar en persona.

Creación de un Plan de Acción de Recursos Energéticos Distribuidos para Puerto Rico

Descripción del proyecto:

El Becario en Innovación llevará a cabo investigaciones y desarrollará un plan de acción para el NEPR que informará regulaciones actuales y futuras relacionadas a los recursos energéticos distribuidos (DER, por sus siglas en inglés). El Becario en Innovación revisará los procedimientos relacionados con los DER en el NEPR, colaborará con los Comisionados y el personal del PREB para desarrollar una visión a largo plazo para los DER en Puerto Rico, identificará las acciones a corto y largo plazo para lograr la visión del NEPR, e involucrará a las partes interesadas internas y externas en el desarrollo y la implementación del Plan de Acción de DER.

Destrezas relevantes: Modelaje y análisis, administración de procesos regulatorios, coordinación con partes interesadas

Un candidato ideal estaría interesado en sectores como las operaciones del Sistema de distribución y las microrredes, el almacenamiento de energía y la generación de energías renovables.

Puerto Rico Energy Bureau (PREB) San Juan, PR

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status.

Creating a Distributed Energy Resources Action Plan for Puerto Rico

Project Description:

The Innovator will conduct research and develop an Action Plan for Puerto Rico Energy Bureau (PREB) to guide current and future regulatory activities related to distributed energy resources (DERs). The Innovator will review open proceedings related to DERs at the PREB, collaborate with PREB Commissioners and staff to articulate a long-term vision for DERs in Puerto Rico, identify near and long-term actions to achieve the Bureau's vision, and engage internal and external stakeholders in the development and implementation of the DER Action Plan.

Relevant Skills: Analysis & Modeling, Regulatory Process Administration, Stakeholder Engagement

An ideal Fellow would be interested in sectors such as distribution operations and microgrids, energy storage, and renewable energy generation.

South Carolina

Public Service Commission of South Carolina Columbia, SC

Innovator Fellow will need to relocate to the area for an on-site, in-person operating status.

The Costs, Benefits, and Effective Implementation of Utility Hosting Capacity Maps

Project Description:

The Fellow will conduct research and analysis on the use of hosting capacity maps to reduce interconnection issues. The Fellow will create a report that will address various considerations of hosting capacity maps such as costs, advantages and disadvantages, lessons learned from other states, strategies, and metrics. The Fellow also will collaborate with staff of the Utility Analyst Department to prepare briefings and research for Commissioners on a multitude of topics, ranging from the competitive procurement of renewable energy and the impact of EVs on the state's electric grid to the evaluation of utilities' integrated resource plans and preparation for an interesting case of first impression involving securitization of storm recovery costs.

Relevant Skills: Analysis & Modeling, Research & Writing

An ideal Fellow will have strong research, analysis, writing, and presentation skills.

Texas

Austin Energy

Austin, TX

Innovator Fellow can participate in a fully remote operating status and does not need to relocate to the area. The Innovator Fellow may need to travel to the Host Institution a few times throughout their appointment for in-person site visits.

Community Benefit Measures, Equity Planning, and Stakeholder Engagement for Grid Resilience

Project Description:

The Innovator will study community needs related to the equitable installation of distributed energy resource (DERs) and support the City of Austin's multi-departmental efforts to create Resilience Hubs at City facilities, which provide a safe place for vulnerable community members to shelter and find relief during disaster events. The Innovator will engage Austin stakeholders and collect data needed to provide specific technical, process, and/or programmatic recommendations that help Austin Energy prioritize among Resilience Hub investments.

Relevant Skills: Stakeholder Engagement, Research & Writing

An ideal Fellow will have strong community engagement skills as well as knowledge about Environmental Justice, specifically Justice 40 initiatives. A technical or engineering background is preferred but not required.

U.S. Virgin Islands

Virgin Islands Public Services Commission

St. Croix, VI

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Analyze and Address existing Advanced Metering Infrastructure Interoperability

Project Description:

The Innovator will support research on the decline of the Utility's Advanced Metering Infrastructure (AMI) infrastructure interoperability on the grid and help implement new strategies for management response systems that support resilience. The Innovator will also collaborate with the utility to gather data on the existing AMI architecture pertaining to its operations center, collecting systems, and end meters. This project will contribute to best management practices for the territory's grid and outline solutions that integrate hardware, software, monitoring and control technologies.

Relevant Skills: Analysis & Modeling, Program Development

An ideal Fellow will have experience and knowledge of the interoperability of all assets that supports the grid.

Wisconsin

Great Lakes Inter-Tribal Council, Inc.

Lac du Flambeau, WI

The Innovator Fellow may be located at GLITC headquarters in Lac du Flambeau or with one of the Tribal Communities that GLITC serves. The location will be determined based on the Fellow and with input from the GLITC Board of Directors, representative Tribal Leaders from each member Nation, and upon approval by the GLITC CEO.

Supporting Tribal Nations with Sustainable Energy Innovations and Climate Change Resiliency Plans

Project Description:

The Innovator will collaborate closely with Great Lakes Inter-Tribal Council (GLITC) staff to develop a Green Energy Plan for a youth residential recovery and wellness center that will serve 12 member Tribes, and on research to better understand development and construction needs to implement a Green Energy Plan. The Fellow will assist smaller Tribal Nations with planning their Green Energy infrastructure as part of the Housing, Economic Development, and Emergency Management Planning Support Priorities and action plans.

Relevant Skills: Program Development, Tribal Engagement

An ideal Fellow will have or be willing to develop skills including green energy design, estimating construction costs, an understanding of Tribal governance, and knowledge of local, State, Federal, and Tribal regulatory policies.

Public Service Commission of Wisconsin #1

Madison, WI

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Analysis and Modeling for Wisconsin's Roadmap to Zero Carbon

Project Description:

The Innovator's primary project will be to perform engineering analysis and modeling, with the support of Commission engineering staff, related to the transition to clean energy as part of the Public Service Commission of Wisconsin (PSCW) Roadmap to Zero Carbon. The Fellow could analyze and evaluate the clean energy transition plan for Wisconsin, including a statewide look at the resource plans for Wisconsin as a whole, challenges associated with tariff changes, required transmission infrastructure, and a chronology of solutions for such a clean energy transition. The objective would be to help identify risks and solutions to help Wisconsin utilities transition to clean energy in a reliable way, individually and as a part of Wisconsin's grid.

Relevant Skills: Analysis & Modeling, Program Development, Regulatory Process Administration

An ideal Fellow will have a background in analysis and modeling and a desire to understand regulatory processes.

Public Service Commission of Wisconsin #2

Madison, WI

Innovator Fellow will need to relocate to the area for a hybrid operating status (hybrid meaning a combination of on-site, in-person days and virtual during a work week or pay period).

Economic Analysis of Grid Services and Distributed Energy Resources

Project Description:

The Innovator will conduct advanced economic analysis, with the support of Public Service Commission of Wisconsin (PSCW) staff, to investigate the regulatory and economic structures that allow distributed technologies to interact more seamlessly with the bulk power system and even provide essential grid services, including frequency regulation, voltage support, and operating reserves, while ensuring asset owners and operators receive fair compensation for these services and energy remains reliable and affordable to customers.

Relevant Skills: Analysis & Modeling, Market Assessment, Regulatory Process Administration

An ideal Fellow will have a background in analysis and modeling, market assessment, and an understanding of regulatory processes and the role it plays in the energy transition.