Spring 2025 Collaborative Supplemental Projects

INTRODUCTION

EPRI is pleased to present our Spring 2025 collaborative supplemental project offerings. Supplemental projects reflect emerging and specific research needs of EPRI members, and collaborative supplementals encourage broad cooperation and collaboration among members at early project stages, amplifying the value of the research.

Collaborative projects are an important component of EPRI offerings and support enhanced and efficient technology transfer among those who participate. EPRI's Spring 2025 slate of supplementals covers research across our Energy Delivery and Customer Solutions, and Generation sectors. Other supplemental projects can be found in the ***Additional Supplemental Projects*** section.

If you have questions about a supplemental topic or a need not available below, please contact your EPRI account team.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
DISTRIBUTION	
AMI and Relay Alarms to Identify Down Energized Conductors*	Many utilities have been working towards or have deployed Advanced Metering Infrastructure (AMI) systems. Each utility's infrastructure and topology are unique, and most are driven by the need to accurately collect data associated with electricity usage. This project is planned to specifically focus on approaches to integrate AMI data with an outage management system (OMS) to identify when a down conductor event occurs. EPRI intends to work with utilities to design, develop, and demonstrate approaches for automating AMI data integration for the use case of identifying down energized conductors.

**Indicates new supplemental project offering*

PROJECT TITLE (BY SECTOR)	DESCRIPTION
DISTRIBUTION *(continued)*	
Better Application of Arc-Flash Ratings for PPE*	Recent EPRI testing found that many arc-rated FR shirts do not meet their advertised ratings, with Internet-sourced shirts averaging 71% and mainstream models 73% of their claimed ratings. The variability in ASTM testing and the push for lighter fabrics may lead to inflated arc ratings, potentially leaving utility workers insufficiently protected. This project aims to improve testing protocols to help utilities specify appropriate clothing and reduce worker injuries.
The Distribution Forum	This project establishes a confidential environment for distribution utilities where they can share issues, concerns, experiences, and lessons learned with the objective of helping each other hone their practices and achieve operational excellence.
Electromagnetic Transient (EMT) Screening, Modeling, Analysis, Tools, and Training for DER Integration*	The integration of inverter-based Distributed Energy Resources (DERs) is rapidly increasing, introducing complex dynamics that traditional phasor-domain simulation tools cannot fully capture. This shift has created an increasing need for Electromagnetic Transient (EMT) studies to assess grid impacts such as temporary overvoltage, risk of islanding, rapid voltage changes, control instability, DER ride-through behaviors, etc. Despite their necessity, EMT studies are resource-intensive, complex, and time-consuming. The objective of this project is to provide utilities with standardized EMT screening criteria to help them efficiently identify when detailed EMT studies are needed for DER interconnections.
Emerging Energy Storage Technologies de-RISKED (Readiness Informed by Shared Know-how, Evaluation, and Data)	Lithium ion is currently the dominant form of new energy storage being deployed; however, there are numerous emerging technologies being developed that have potential for low-cost at long durations, and that may also address safety, supply chain, or degradation concerns associated with lithium ion. The objective of this project to increase understanding of the technology readiness, operational characteristics, and safety considerations of pre-commercial emerging energy storage products to inform planning models, demonstration and deployment decisions, and corporate strategy.
EPRI Distribution System Operator Certification*	The position of “Distribution System Operator” has evolved over the decades from a true “dispatcher” stationed at the Construction Service Center to a true “operator” positioned at the Distribution Control Center. Today, there is no formal industry wide definition of a Distribution System Operator, or the capabilities needed to perform their work. Recognizing these gaps, EPRI and our members have identified the need for a formal Distribution System Operator certification process, which will support the desire to establish standards for roles and responsibilities, training curriculum, and certification requirements. This supplemental project aims to provide a mechanism for utilities to participate in a DSO Certification process, that EPRI and members have developed, by submitting candidates to take a formal examination.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
DISTRIBUTION *(continued)*	
Grid Model Verification and Validation for Operational Applications and Planning Studies	The distribution grid is constantly changing requiring planning engineers to spend significant amounts of engineering time and effort developing and validating grid models for accurate representation of the power system to conduct a wider breadth of studies. Recognizing these challenges, EPRI has been working to improve grid modeling processes so engineers can more efficiently develop and leverage these models in the studies they are performing today. The objective of this project is to provide engineers and grid data specialists with guidance on processes to enhance the development and maintenance of distribution grid models as well as a GMVV tool to enable readily available grid models. Additionally, the project will apply and further refine the Grid Model Verification and Validation (GMVV) tool in the automation of manual processes.
Modernizing Reliability Planning: Processes, Tools, and Benefit Analysis	Current distribution planning tools are geared toward tactical planning applications, aimed at providing a detailed assessment of individual projects. For reliability projects, this may involve several iterations across functional groups including planning, protection, automation, telecommunications, and system operations. New processes, methods, and tools are needed for planning and improving distribution system reliability. This project seeks to develop, test, and demonstrate a new planning and evaluation method that enables more holistic and integrated distribution planning and informs no-regrets, prioritized decision making for reliability investments.
Planning Criteria for Modern Grid	As distribution systems evolve and become more dynamic and complex, so too must distribution planning criteria that planners employ to assess risks and develop optimal mitigation plans. Having clear distribution planning criteria will promote informed and consistent decision making and facilitate consensus with stakeholders on a plan forward. This objective of this project is to work directly with distribution utilities to understand their future objectives and provide guidance on updating their planning criteria leveraging recent EPRI research investigating distribution planning criteria associated with electrification of vehicles and buildings, DER interconnections, non-wires alternative (NWA) assessments, equipment ratings, and grid modernization applications in a manner suitable for managing risks and delivering on defined objectives.
Retrofitting Overhead Structures for Resilience*	This project evaluates products used to improve the resilience of existing overhead lines, expanding on previous EPRI work and including strength testing in various conditions. It aims to answer questions about the effectiveness of these products compared to traditional methods and their performance under different environmental conditions. The research seeks to guide the appropriate use of these products, potentially increasing reliability, reducing outage durations, and extending asset life cost-effectively.
Risk Evaluation of Next-Generation Manhole Covers and Retention Systems*	Utilities frequently experience Manhole Events, and the growth of electrification is expected to worsen the gas buildup causing these events. Despite suggested mitigation strategies, most covers remain unchanged, posing risks to public safety and utility infrastructure. Research at the EPRI Manhole Test Facility aims to provide data on how mitigation strategies would perform in various scenarios.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
DISTRIBUTION *(continued)*	
Self-Executed Energy Storage and Microgrid Controls*	Energy storage system (ESS) functionality is software driven and dependent on control systems to properly execute the desired use cases and run the system safely. Energy storage is also at an inflection point with cell manufacturing overcapacity and downward price pressure, like what transpired in solar over the last decade, forcing several players out of the market, including many vendors of energy storage control systems. EPRI surveyed members in the Energy Storage program and found that the vast majority had some level of problems with energy storage and microgrid controls and that 93% would be interested in self-executed controls. The objective of this project is to collaboratively work towards a common understanding of storage plant controls thereby promoting fleet serviceability and reliability while reducing risks and costs across storage fleets.
Wildfire Impacts on Utility Poles*	More utilities are considering the selection of pole materials in the context of wildfire performance; however, there is limited data available to inform these decisions. This research aims to develop and apply a methodology to assess the short-term and long-term implications of wildfire exposure on utility poles
ELECTRIFICATION & SUSTAINABLE ENERGY STRATEGY	
Evaluation of Wide-Area Residential Monitoring for Advanced Power System Analytics*	Whisker Lab's wall-plug-based TING sensor performs continuous voltage monitoring and arcing detection inside residential homes. Coverage with dozens of Ting wall-plug sensors at different households on the same distribution line enables grid level disturbance analytics. The research question EPRI intends to investigate, and answer is to what degree can such residential PQ measurements be leveraged to make useful inferences about wildfire risks, electrical grid power quality and electrical fault performance.
GridFAST™ Enabling the Secure Exchange of Information, Expertise, and Guidance to Help Accelerate EV Project Timelines*	Electric power companies are crucial in the transition to electric vehicles (EVs), but face challenges like lengthy project lead times and communication issues. To address these, EPRI developed GridFAST, a platform that facilitates early and efficient engagement between businesses and utilities to accelerate EV infrastructure projects.
Lab Evaluation of New-to-Market Window Heat Pump*	Window air conditioners have been popular for decades, with 32 million U.S. homes using them as of 2020. New models with A2L refrigerants like R-32 claim to offer higher energy efficiency, better heating capacity at low temperatures, and reduced energy consumption, which EPRI plans to test in a lab.
Stray and Contact Voltage Training, Diagnostics, and Support Research and Development	Shock and perception complaints at human and animal contact points continue to challenge electric utility field investigators when attempting to diagnose and resolve associated concerns. The industry requires more clarity, standardization, and unbiased factual information for both measurement and mitigation of shock scenarios and this work targets knowledge and technology gaps associated with stray and contact voltage industry challenges, thereby saving members significant investigation time.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
ENERGY SYSTEMS & CLIMATE ANALYSIS	
Canadian Transition Scenarios and Data for Long-term Planning*	Canada is actively considering pathways to deep decarbonization of its energy sector, pathways that could dramatically change the way energy is produced and consumed across the country. EPRI has developed a forward-looking energy-economic modeling framework 'REGEN' which can quickly model many alternative scenarios of the future, looking both at customer electrification decisions and energy producer investment decisions through 2050, providing insights and data that can help electric companies define and narrow the range of uncertainty for their strategic and resource planning. This EPRI project offers participants a collaborative forum to discuss drivers of uncertainty in the Canadian energy sector, and the ability to design and have EPRI implement one or more custom scenarios that reflect their own assumptions and beliefs about potential futures.
Characterizing Vulnerabilities and Adaptations Associated with Physical Climate Risk to Wind and Solar Assets*	As climate conditions continue to change and threaten power system components, wind and solar plants in particular may be vulnerable to failures and damages due to more frequent and intense extreme weather events. It is important for power companies to better understand the potential impacts of these extreme events on their service territories and how to use this information to characterize and minimize implications to their wind and solar assets. The objectives of this new project are to leverage EPRI's Climate READi and other EPRI research to: 1) quantify in more detail the impacts of future extreme weather events on structural challenges of offshore and land-based wind and solar plants. 2) provide information to quantify the risks at their facilities, and 3) estimate costs and benefits of effective adaptation strategies that can be applied to enhance the resilience of wind and solar assets to physical climate hazards.
Facilitating Development of Grounded and Reliable Social Cost of Carbon Estimates and Use	EPRI's SC-GHG Scientific Initiative to date has been playing a unique and crucial role—advancing understanding and facilitating dialogue for a more informed and scientifically rigorous process and path. EPRI's Initiative has provided new analyses, science and methods evaluation, public comments, technical briefs, an educational webcast series, and an extensive scientific and public engagement. This new project will allow EPRI to continue playing this valuable role. This research will help to continue advancing transparency and understanding of an extremely complex topic through evaluation, facilitating dialogue, identifying improvement opportunities, addressing scientific gaps, and facilitating the scientifically rigorous process and path needed.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
ENERGY SYSTEMS & CLIMATE ANALYSIS *(continued)*	
Forward-Looking Wildfire Projections for the Northeastern United States (FWiP)*	Resilience to wildfire is of increasing importance to electric utilities. In recent years, wildfire is transforming from a regional hazard with well-defined seasons to a potentially year-round hazard occurring throughout the country. To effectively manage current and future wildfire-related risk, utilities need spatially detailed information on the likelihood of wildfire in their service territory that represents current risk and accounts for potential shifts in fire weather conditions and related changes in the burnability of vegetation. Through this collaboration, EPRI will work with the U.S. Department of Energy's Pacific Northwest National Laboratory (PNNL) to develop probabilistic and/or scenario-based wildfire hazard data that utilities can utilize to better understand exposure to wildfire hazards in their service territories.
Integrated Strategic System Planning Interest Group	Electric companies are increasingly recognizing that an integrated system planning process across generation, transmission, distribution, and customer end-use resources may provide a more cost-effective and reliable power system than planning individual parts of the system in isolation. While a more integrated approach can help identify robust portfolio solutions, the multi-disciplinary nature of the effort requires a deeper understanding of how the different components of integrated planning work together and can be applied. Using its multi-disciplinary team of subject matter experts and industry collaboration, this project seeks to convene a collaborative forum designed for participants to exchange information and processes for implementing integrated planning with experts and electric company peers.
Managing Dark Doldrums in the Resilient Power System of the Future*	Managing weather-related extreme power-system events such as dark doldrums (time periods when the wind isn't blowing and the sun not shining) is particularly important in power systems with high penetrations of wind and solar energy. Companies need to understand the characteristics, frequency, intensity, and locations of dark doldrums and how they change in the future to inform future investment decisions to mitigate their impacts to ensure a resilient and reliable power system. This new supplemental project plans to advance previous EPRI research by investigating the characteristics and spatial variations of dark doldrums that occur especially in conjunction with high net loads (i.e., load served by the bulk system) and in the context of climate variability. Guidance will be developed to support future system investments such as short and long-term storage to inform siting decisions.
Scenario Development for Electric Company Integrated Resource Planning	This project seeks to extend the analysis of EIA Annual Energy Output and NREL Futures Studies to develop new planning scenarios not analyzed or explored by these other institutions, and that may be highly relevant for utility long-range planning.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
ENERGY SYSTEMS & CLIMATE ANALYSIS *(continued)*	
SMARTargets 2025: Methodology Rollout, Transition Risk Management, and Grounded Stakeholder Dialogue*	In 2023, EPRI initiated development of a company greenhouse gas (GHG) target setting methodology, known as SMARTargets. Substantial progress has been made and the new methodology will help companies identify actionable transition strategies, manage risk, and set targets aligned with science, while the scientific foundations will inform and ground stakeholder dialogue. SMARTargets has an opportunity to be transformative—providing educational resources that inform dialogue and ground expectations and creating a methodology that facilitates enhanced transition planning and risk management. This project will allow EPRI to realize this potential by collaborating with participants to: 1) finalize the methodology, 2) facilitate methodology implementation and acceptance, and 3) enable validation and verification.
TAGWeb 2025	This project provides annual access to TAGWeb enables company resource planners, engineers, and strategists to identify lower-cost, environmentally-compliant power generation and storage options related to new capacity additions, plant retrofits and retirements, and major asset replacement and refurbishment.
Uncertainty Management, Stochastics, and Hedging Techniques for Resource Planning*	Regardless of modeling choices or tools used, resource planners determining optimal long-term resource portfolios must navigate uncertainty about the future. How influential factors such as fuel prices, policy and regulatory changes, technology costs, load, renewable resource availability, and potential weather events interact and materialize can vary. Representing these possibilities in capacity expansion models (CEMs) result in a multitude of possible scenarios, each of which results in different investment decisions. This project intends to compare several methods for generating sets of scenarios to explore future conditions and methods for selecting a smaller subset of scenarios that provide useful information for investment decisions.
INFORMATION, COMMUNICATIONS & CYBER SECURITY	
Assessment of DER-Ready Meter Forms	Comprehensive evaluation the 43S meter form and associated metering and communication products to determine the technical and economic opportunities and limitations that it provides relative to alternatives.
Assessment of MATTER Protocol for Utility Applications	The CSA's Matter Protocol, developed by major tech companies, aims to improve interoperability and security among smart home devices by allowing seamless communication without relying on cloud services. If adopted by utilities, Matter could enhance integration with systems like SCADA and AMI, enabling real-time energy monitoring and improved grid management, though no utility-specific applications currently exist.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
INFORMATION, COMMUNICATIONS & CYBER SECURITY *(continued)*	
Benchmarking Cybersecurity Operations, Technological Innovation, and AI Advancement in Peer Utilities*	A survey among executives revealed significant cultural challenges in implementing new technologies, with 92% reporting issues in change management, communication, and skill gaps. In response, EPRI is launching a benchmarking project to explore how utilities are adopting cybersecurity technologies, including Artificial Intelligence (AI) and Large language models, (LLMs), to enhance resilience and share best practices.
Data Requirements for GIS Upgrades*	The electric grid is transitioning to a hybrid system with variable and distributed energy resources, requiring advanced equipment and management systems. Utilities are modernizing systems like ADMS, OMS, EMS, and GIS to handle increased data complexity. GIS modernization is crucial but challenging due to data quality issues and resource limitations. EPRI proposes research to address GIS network data migration challenges, emphasizing data readiness for new network models to maximize benefits.
DER Secure Settings and Communication Verification*	With the rise of Distributed Energy Resources (DER), ensuring proper configuration and communication capabilities is crucial to prevent grid technical violations. EPRI's project aims to secure DER settings files and verify local communication by developing a public tool that reads settings directly from the device and saves them in an encrypted format.
Operational Technology Data 101: Cultivating Data Literacy and Stewardship in Utilities*	The Operational Technology (OT) Data 101 project aims to enhance data literacy and stewardship in the utility sector by equipping professionals with essential data skills for better decision-making and innovation. The project offers eight interactive modules in both on-site and online formats, focusing on transforming OT data into actionable insights while promoting responsible data usage and compliance.
Operationalizing Software Bill of Materials (SBOMs)	The SBOM initiative enhances software supply chain visibility, transparency, and vulnerability notifications but faces challenges like inventory management, vendor cooperation, and vulnerability prioritization. By collaborating with other utilities and refining tools like Software Composition Analysis (SCA), the industry aims to improve insight into software vulnerabilities while addressing the issue of false positives and focusing on exploitability.
Red Team	This project leverages a Red Team Collaborative approach to simulate cyber threats for electric utilities, providing insights into vulnerabilities, response mechanisms, and recovery protocols. It aims to enhance cyber resilience through peer collaboration, develop red team experience, and share industry trends, ultimately fostering a proactive cybersecurity culture and improving incident preparedness.
Utility Digital Worker Collaborative	The Utility Digital Worker Collaborative provides a platform for professionals in the utility nuclear, generation, transmission, and distribution field to explore and assess emerging digital technologies in the power industry. By facilitating case study learning and information sharing, the collaborative enables participants to make informed decisions, accelerating the adoption of advantageous solutions while identifying those not yet ready for commercial deployment.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
INFORMATION, COMMUNICATIONS & CYBER SECURITY *(continued)*	
Zero Trust for Operation Technology (ZT4OT)	The Zero Trust for OT (ZT4OT) project will explore pathways towards zero-trust security in operational technology in utility (OT) environments. The three-year project will focus on developing high-availability authentication solutions for key protocols like DNP3 and IEC-61850, conceptual architectures for substation and distributed energy resource (DER) systems, and best practices for OT visibility and monitoring under NERC CIP-015 compliance. Additionally, the project will leverage digital twin modeling to evaluate security control options and develop a technology roadmap for implementing zero-trust capabilities in OT environments.
TRANSMISSION	
Accelerated Aging of Aramid Insulation Paper With a Synthetic Ester in a Model Power Transformer*	The research of a system with a synthetic ester and aramid paper seeks to provide insight into what the long-term property trends of the solid and liquid insulation could be, as well as provide insights into changes that may occur when an elevated temperature is used.
Application of IBR Standards: Collaborative Forum*	The integration of large-scale inverter-based resources (IBRs) is growing at a rapid pace. The electric power industry is collaborating to meet the challenges by enhancing applicable IBR reliability and interconnection standards, for example IEEE 2800 which specifies capability and performance requirements for IBRs interconnecting to transmission and sub-transmission systems and soon will add test and verification procedures in IEEE P2800.2. These standards are focused on new IBRs and may not be appropriate for application to existing IBRs. This project provides participants with a collaborative forum to support adoption/implementation of IBR standards, provides guidance on utilization of IBR capabilities, and allows sharing of challenges and learnings that may inform revision of IBR standards.
Automated Extraction of Asset Information from Nameplate Images: Applying Artificial Intelligence and Advanced Image Processing Techniques	Accurate and complete asset demographic and descriptive data are essential for analysis-based decisions. However, such data are often incorrect or missing from existing utility databases. Asset nameplates are a potential source for the most accurate asset data. However, extraction of the information from the nameplate or an image of the nameplate is a tedious and manual process. The proposed project intents to assess the feasibility of applying artificial intelligence and advanced image processing methods to automatically extract asset information from nameplate images.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
TRANSMISSION *(continued)*	
Building a Prototype Agentic Artificial Intelligence Platform for Transmission Planning*	Rapid and consistent progress in the development of Large Language Models (LLMs) offers considerable possibilities in the electric sector to improve the insights produced by analysis as well as improving the process of engineering analysis itself. While current use cases are currently focused on information retrieval and knowledge synthesis, emerging capabilities offer the possibility to combine the reasoning capabilities of frontier LLMs together with established engineering analysis models and data into advanced, dynamic workflows that can be defined based on user commands. In order to enable such use cases, coordinating software is required to be able to interface and guide the correspondence between the user, data, engineering tools and large language models specifically in the context of transmission operations and planning. The purpose of this project is to develop this concept further, into a prototype platform to orchestrate between data, engineering tool APIs and LLMs.
The Climate Risk Screening Tool (RiSc) User Group*	EPRI has developed the Risk Screening (RiSc) Tool which enables users to assess the reliability and resilience of increasingly complex and weather dependent electric system configurations. The RiSc tool provides a consistent, transparent, and reproducible way to identify scarcity events and cluster those driven by similar conditions so that high-fidelity scenarios that stress test system performance in multiple ways according to possible asset vulnerabilities can then be produced. The RiSc User's Group provides a forum for participants to collaborate and work towards common objectives that include better understanding how to utilize RiSc and interpret its results; evaluating the impact of different customizations and datasets; and developing best practices for the tool's use.
Direct Embedment Foundation Backfill Performance	Transmission structure foundations are an integral part of the transmission system, responsible for transferring climatic loads into the soil. This project intends to conduct a series of lateral foundation tests on direct embedment foundations systems to understand the relationship between backfill material and installation procedures and foundation performance.
European Modeling and Model Validation Interest Group	The objective of this interest group is to continue this engagement by providing a forum to share knowledge among participating members, and to provide continued support on the modeling guidance for power system dynamic studies and guidance on emerging topics in inverter-based resource (IBR) modeling.
Evaluating Speech-to-Text Technology to Automate Maintenance Work Order and Inspection Reporting*	The objective of the proposed project is to identify and evaluate technology providers in the space of automating maintenance reporting in the field with the objective of populating key fields in work management systems (e.g. maintenance cause) without human intervention, thereby improving the quality and completeness of vital asset performance data.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
TRANSMISSION *(continued)*	
Evaluating the Efficacy of Drone Based Insulator Inspection Tools	Asset inspection via drone, including transmission line insulators, using visual cameras have found success for several years prompting the inspection industry to develop more drone compatible devices. Inspection technology such as infrared (IR), ultra-violet (UV), acoustic, and electric field (E-field) can detect various anomalies that can alert inspection to insulator degradation and pending failure. The objective of this work is to prepare examples of typical in-service anomalies in a controlled lab setting and have drone operators perform blind inspections to document how effective each inspection tool is at finding the anomaly.
Evaluation of Substation Robotics – Phase 2*	The project will evaluate a range of robotic platforms alongside advanced analytics solutions to improve substation asset inspections and enhance physical security. The analytics component will focus on using data-driven insights, machine learning models, and predictive analytics to optimize maintenance schedules, enhance fault detection, and improve decision-making processes. By integrating robotics with analytics, the project aims to boost operational efficiency, reduce downtime, and increase the safety and reliability of substation operations.
Extruded Cable Manhole Inspections*	To improve worker safety and inspection efficiency, EPRI has developed an approach to perform manhole inspections of energized extruded dielectric underground cable circuits from aboveground and demonstrated this approach a various utility sites. This project aims to enhance the developed approach by evaluating other applicable technologies such as infrared and mechanical arm additions to further improve the quality of inspections. This project plans to assess and demonstrate the effectiveness of future developments at participant sites and share gained experiences.
FERC Order 1920 Implementation Phase 1: Gap Identification and Readiness Evaluation	FERC Order 1920 introduces a need for comprehensive and integrated planning approaches by reforming existing transmission planning processes in the electric utility industry. The Order expands upon previous regulatory directives to coordinate long-term scenario development and planning, quantification of reliability benefits, and evaluation of emerging alternative transmission technologies. The objective of this project is to provide key industry stakeholders, which include independent system operators/regional transmission organizations, transmission providers, vertically integrated utilities, public utilities, and other planning organizations, a comprehensive and coordinated process to address potential challenges associated with the implementation of the Order. The results are expected to inform the coordination and reforms needed for entities to align with the compliance deadlines in 2025, and provide direction on further needs and research during the implementation stages.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
TRANSMISSION *(continued)*	
Incorporating Online Monitoring Data "at scale" in Substation Asset Management*	Many utilities are deploying online monitors "at scale" to understand the condition and rapidly evolving anomalies of power transformer, circuit breaker, and substation battery fleets. However, there are several challenges, for example, accessing raw data and transforming it so it is analysis ready, developing useful models that can yield actionable insights, etc. The proposed project aims at investigating the value and use of incorporating online monitoring data for development of analytics to guide asset management decisions. For example, reveal anomalies that are indicative of degrading assets, initiate triggers and alarms to initiate maintenance and/or inspection and enable condition-based maintenance.
Leveraging Advanced Analytics and Machine Learning for Enhanced Load Tap Changer (LTC) Fault Detection*	Load tap changers can adversely affect transformer performance either by requiring unplanned maintenance or in-service failures. Current testing and monitoring techniques are insufficient to detect incipient faults. EPRI has developed the unique capability to assess LTC mechanical performance. The proposed project intends to leverage advanced techniques such as machine learning to investigate the development of analytics capable of robust detection of rapidly evolving defective condition.
Leveraging Machine Learning to Monitor and Manage IVM Program Effectiveness*	The ability to track changes in right-of-way vegetation in response to management is essential to demonstrating value of an Integrated Vegetation Management (IVM) program. This project will evaluate a new machine learning tool that leverages ground collected photos to create vegetation metrics used to assess and inform IVM program effectiveness.
Live Line Bypass System for Overheard Line Switches	Industry-level, fleet-level, turbine-level, and system-level.
Mechanical Parameter Testing for Underground Transmission Extruded Dielectric Cables*	To aid in the understanding of the mechanical behavior of underground transmission extruded dielectric cables, EPRI developed test setups to empirically measure four key mechanical parameters related to the thermo-mechanical behavior of the complete cable construction; axial stiffness, coefficient of thermal expansion, bending stiffness, and torsional stiffness. The tests were designed to determine the fundamental mechanical parameter values of the cable. This project aims to optimize the EPRI mechanical parameter testing protocols and methods to reflect impacts to the parameters from practical installation and operation conditions on a cable system.
Modeling and Model Validation Tools User Group	The objective of this interest group is to continue this engagement by providing a forum specifically for European members, to share knowledge among participating members, and to provide continued support on the modeling guidance for power system dynamic studies and guidance on emerging topics in inverter-based resource (IBR) modeling.
Post Insulator Capacity Calculator – Phase II*	In this project, EPRI will leverage its mechanical testing experience to update and improve its Post Insulator Capacity Calculator. This calculator may be used to derive mechanical loading interaction diagrams for polymer post insulator systems.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
TRANSMISSION *(continued)*	
Transmission Protection Analysis Tools User Group	The objective of this User Group is to provide participating utilities with PSET, GridCOPS, PIPS, and CrankProt and work with them to apply it to their ASPEN OneLiner™, Siemens PSS-CAPE, and Digsilent PowerFactory studies.
Adsorptive Capacity and Retention Capabilities of a New Material Designed to Remove Dielectric Fluids from Water*	There are various materials and equipment commercially available to respond to a release of dielectric fluid that come in different shapes, sizes, and absorptive capacities to allow flexibility for spill containment and remediation. A material developed by Argonne National Laboratory (ANL) called the Oleo Sponge is a new product that while not commercially available at this time shows potential for remediating oil spills to water. This project proposes to evaluate the product effectiveness and durability of the oleo sponge developed by ANL and several other commercially available products under real-world conditions often encountered in transformer containment structures and during spill remediation.
GENERATION	
Byproduct Harvesting: Risks and Environmental Impacts	Characterize the effects of harvesting closed and capped coal combustion product (CCP) deposits on porewater quality.
CO_2DA: CO_2 Capture and Storage Deployment Acceleration	This project brings power generation companies, technology providers, and other stakeholders together to collaborate on CCS acceleration objectives and share in the learnings from a series of activities potentially leading up to and including commercial-scale demonstrations.
Demonstration of Sorbent Traps for Continuous Measurement of Metal Hazards Air Pollutants (HAPS)	Enable direct measurements of metal HAPs emissions and compliance with the MATS Rule emission limit.
Efficient Landfill Wastewater Monitoring	Improve the quality and optimize the cost of required landfill wastewater characterization efforts as energy companies take steps to comply with evolving guidelines.
Enhanced Gas Turbine SCR Process Control	Improving the gas turbine SCR process control response time and emissions tracking by demonstrating in-situ integrated path NOx and NH_3 measurements between the ammonia injection grid and SCR catalyst.
Generation Transitions Supplemental Program: Mitigating Uncertainty and Reducing Risk Through the Energy Supply Transformation	The Generation Transitions supplemental program draws on EPRI's technical expertise to minimize uncertainty and reduce risk surrounding the energy supply transformation by identifying viable technology pathways and bringing much-needed clarity to decision-making.
Integrated Energy Pathways for Utilities and Industry	This supplemental project is focused on improving coordination and integration of industry and energy company planning activities for net-zero strategies.
Integrated Life Management of Wind Turbine Bolts	Provide fundamental understanding of factors impacting wind turbine bolt service life and generate best practices to improve bolted joint serviceability, reliability, and longevity.

PROJECT TITLE (BY SECTOR)	DESCRIPTION
GENERATION *(continued)*	
Leaching and Improved Hazardous Waste Determinations for End-of-Life PV Modules*	This work aims to contribute to the understanding of the range of end-of-life options available for PV modules, investigating the potential to improve the certainty, cost, and time-intensity of hazardous waste determinations. It also seeks to develop more knowledge about the potential risks associated with possible leaching of hazardous material from PV modules.
Offshore Wind Supplemental Program: Cross-Cutting Solutions to Improve Accessibility and Value	Enhancing the accessibility and value of offshore wind power by developing cross-cutting solutions.
Reducing Rotor Life Extension Risk Through Material Analysis	Inform the implementation of an integrated strategy underpinned by comprehensive materials data to extend the operating life of rotors installed in F-class industrial gas turbines.
Reducing Wind Generation Risks to Bats: Enabling Commercial Deployment of Bat Fatality Reduction Strategies	Declining bat populations are a threat to overall biodiversity and a growing regulatory risk for the wind industry. There is an opportunity for the energy industry to take a proactive approach to broadly deploy bat fatality mitigation strategies through focused research, collaboration, and technology demonstration.
Security Design Architecture Review: Solar Inverters	Improving renewable energy reliability by assessing inverter security, communications protocols, reference architecture, and supply chain risk.
Wind + Energy Storage Techno-Economic Assessment	Analyze several energy storage technologies paired with a wind plant capacities to identify configurations with the lowest cost and highest capacity factors.
Wind Network for Enhanced Reliability (WinNER) Web-Based Tool	The goal of this project is to develop a collaborative web-based reliability tool, Wind Network for Enhanced Reliability (WinNER) for operators to conduct reliability assessments at industry-level, fleet-level, turbine-level, and system-level.

ADDITIONAL SUPPLEMENTAL PROJECTS

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS	
3D Scanning Technologies: Substation Applications	3002028634
A Roadmap for Adoption of Future Inverter Technologies in Power Systems	3002029383
Addressing Utility-Specific Low Inertia and Frequency Response Adequacy Challenges	3002025848
Advanced Energy Communities	3002025524
Alternative Technologies for Recloser Backup Power	3002020031
Application of Advanced Tools for Transmission Contingency Analysis	3002022725
Application of Advanced Transmission Reliability Tools	3002029385
Application of High-Level Screening (HILS) Tool for Power System Planning Data Analytics	3002029384
Applied Grid Model Data Management (GMDM) for Distribution	3002014739
Applied Grid Model Data Management (GMDM) for Transmission	3002023866
Assessing Risk of Sub-Synchronous Oscillations: Screening and Risk Confirmation	3002028605
Assessing the Use of Voice Assistants for Industry	3002019871
Assessment and Mitigation of High-Altitude Electromagnetic Pulse Impacts on Distribution Systems	3002020707
Assessment of Anthraquinone (AQ) Wood Pole Treatment	3002030295
Assessment of DCOI and Alternative Wood Pole Treatments	3002020814
Assessment of Electric and Magnetic Fields (EMF)/Radio Frequency (RF) Impacts on Local Wildlife	3002025837
Assessment of Satellite Derived Radar Imagery for Initial Storm Damage Assessment	3002026273
Automated Mitigation Assessment	3002019862
Avian Collision Avoidance System: Marking Power Lines with Light	3002014285
Batch vs. Bobbin Annealed ACSS Conductor Analysis	3002025177
Battery Energy Storage Fire Prevention and Mitigation Phase III	3002028531
Battery Firewater Composition and Risk Assessment	3002020017
Building Performance Standards: Evaluating Regional and Utility-Scale Impacts of Emerging BPSs	3002029533
Business Capability-Based Investment Optimization (BCM Phase II)	3002025237
Capacitor-Based Energy-Saving Devices	3002022781
Centralized Dynamic Reactive Power Support for High DER Feeders	3002026474
Charging Options for Hard to Reach Spaces	3002023317

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Circular Economies for Energy Technologies Interest Group	3002025780
Company Emissions Target Setting Based on Sound Science	3002027963
Computer-Assisted Circuit Breaker Work Order Categorization and Information Extraction	3002030286
Concrete Inspection Technologies Evaluation	3002028743
Conductor Burndowns and Wildfire Mitigation When Using Compact Single-Phase Reclosers	3002029148
Control Center of the Future Roadmap – Distribution: Defining the Requirements to Meet the Needs of the Modern Decarbonized Distribution System	3002030216
Control Center of the Future Roadmap: Developing Operational Capabilities for the Transmission Network of the Future	3002030665
Corporate Strategic Landholding Analysis	3002016713
Corrosion Control of the Substation Ground Grid	3002014006
Creating Effective Analytics to Monitor Operation Technology (OT)	3002029440
Custom Ergonomics Assessment Services for Electric Utilities	3002019663
Customer Willingness to Pay for Decarbonization, Electrification, Reliability and Resilience	3002029532
Customized Electric System Technology Assessment	3002022908
Cyber Security Incident Response and Recovery Tabletop Exercise	3002017679
Cyber Security Operational Technology Equipment Familiarization Course	3002022698
Cyber Security Program Assessment for Utility Transmission and Distribution Operations	3002020210
Cyberjoule™ Platform Implementation for Utility Cyber Security Metrics	3002023817
Data Management Collaborative: Surviving the Data Avalanche	3002029355
Data-Driven Evaluation of Animal Intrusion Issues in Substations	3002025743
DCFlex: Data Center Flexible Load Initiative	3002031004
Demand Flexibility Tariff Design Framework: Guidelines for Data Centers and other Large Commercial and industrial Customers	3002029538
DER Commissioning Procedure and Toolkit	3002025697
DER Configuration Validation	3002017325
DER Systems of Record to Support Enterprise-Wide Applications	3002022048
Design and Installation of Vibrated Steel Caissons: Phase 2	3002022285
Designing and Testing Adaptive Protection Schemes for Tailored Applications	3002019673
Development of Electric Vehicle and Non-Road Charging Infrastructure Project	3002016766
Distribution Asset Inspection and Maintenance Maturity Assessment	3002030241

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Distribution Recloser Life-Cycle Management	3002014406
Distribution Resource Integration and Value Estimation (DRIVE) Tool User Group	3002020018
Distribution Resource Integration and Value Estimation (DRIVE) Tool User Group: 2024–2026	3002028273
Distribution Sensor Life-Cycle Testing	3002030222
Distribution Solid-State Transformers: Applications and Laboratory Evaluation	3002030242
Distribution System Operator Capabilities to Enable DER Services	3002024914
Distribution System State Estimation Test	3002017789
EPRIU4 – Distribution	3002028690
Drone Dock Lab Testing and Utility Applications	3002026330
Ecosystem Risk and Resilience	3002028829
Effects of Cellular Antenna Attachments on Transmission Line Structures	3002007575
Effects of Pipelines and Railroads on Transmission Line Structure Corrosion Rates	3002017919
Efficient Electrification: State and Utility Assessment	3002012402
Electric and Magnetic Fields (EMF) Facility Surveys to Inform Implanted Medical Device Policies	3002025754
Electric Agriculture Technology Collaborative	3002019376
Electric and Magnetic Field (EMF) Assessment of Submarine Cables	3002030382
Electric and Magnetic Field (EMF) Engineering Support	3002030380
Electric School Bus Demonstration	3002014385
Electric Transportation Infrastructure Program Support (ETIPS) 2.0	3002027653
Electrification Portfolio Assessment	3002004112
Emerging Energy Storage Technology Testing and Demonstration	3002019070
EMF Characterization and Assessment	3002022516
EMF-RF Training and Knowledge Transfer	3002022445
EMFast v1.5.1 and Software Training	3002025752
Energy Storage Analysis Framework for Utility Service Territory Deployment	3002022011
Energy Storage Analysis: Finding, Designing, and Operating Projects	3002011930
Energy Storage for Customer Resilience	3002021151
Energy Storage Performance and Reliability Foresight	3002020038
Energy Sustainability Interest Group	3002025444

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Enhanced Surveillance Over Wireless	3002027808
Enterprise Architecture Maturity Assessment	3002025287
EPRI U for Transmission	3002025458
Ergonomically Enhanced Tool for Manhole and Vault Cover Removal: Phase II	3002028453
Evaluating Demand Response Capabilities of Connected Variable Capacity Heat Pumps	3002023989
Evaluating Landholdings for Monarch Habitat	3002020219
Evaluating Remote Inspection Technologies for Underground Structures	3002028228
Evaluation and Economic Feasibility Analysis of Commercial DER Gateways	3002025435
Evaluation of Aesthetic Wraps for Padmount Equipment	3002025821
Evaluation of Automated GIS Data Cleanup Methods	3002027888
Evaluation of Consumer-Grade Extremely Low-Frequency (ELF) Meters	3002027647
Evaluation of High Emissivity Coated Conductors	3002019820
Evaluation of Large Heat Pumps for Electrifying Building Hydronic Heating	3002017667
Evaluation of Optical Fiber as an Overhead Transmission Line Monitoring Sensor: Full-Scale Laboratory Testing	3002030285
Evolving DER Interconnection Practices, Processes, and Standards	3002030010
Exploring Climate Impacts in Utility Operations & Planning Interest Group (Year 3)	3002025420
Extreme Fast Charging (XFC): DC Power Supply (DC as a Service) for Grid Integration, Interoperability, and Modularity	3002016739
Fat Bats: Supporting Hibernating Bats Affected by White-Nose Syndrome	3002020232
FESTIV Power System and Market Simulation User's Group	3002029727
Field Asset Unique Identification System	3002025238
Fleet Electrification Planning and Assessment	3002022598
Fleet Management Approach to Structure and Foundation Corrosion Management	3002007574
Flexible Demand Response Collaborative (Flex DR – Phase 2)	3002024828
Forecast Arbiter User Group	3002025099
Fuel Removal for Wildfire Management: Evaluation and Options	3002022712
Fuel Removal for Wildfire Management: Performance Measurement	3002022713
Fuel Removal for Wildfire Management: Priority Research	3002022714
Geomagnetically Induced Current (GIC) Harmonic Analysis	3002017272

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Geomagnetically Induced Current (GIC) Model Validation	3002017965
Grid Integration of Hydrogen Electrolysis	3002028630
Grid Model Data Management (GMDM) Vendor Forum Phase II: An EPRI-Sponsored Vendor-Funded Collaborative Initiative	3002027444
Grid Model Manager (GMM) for Distribution Interest Group	3002027863
Guidance for Dynamic Line Rating (DLR) Equipment Specification and Assessment	3002026226
Heat Pump Working Council (HPWC)	3002019816
Heat Stress Monitoring and Management Tools for Worker Health and Safety	3002030637
High Renewable Standards: Economic, System, and Environmental Implications	3002014568
High-Voltage Recloser Life-Cycle Testing	3002024878
Hyperscale Data Center Grid Integration	3002028627
Identifying At-Risk Overhead Transmission Spans for Exceeding Thermal Limits and Lightning Strikes: Improving Methods for Locating and Ranking Critical Spans	3002030284
Improving Distribution Control Center Situational Awareness with New Alarm Management Philosophies and Rationalizations	3002017636
Improving Grid Safety and Resilience to Mitigate Ignition Incident and Fire Risks	3002026177
Industrial Center of Excellence	3002011229
Industrial Heat Pumps for Electrification and Energy Efficiency	3002025533
Integrated Cyber-Physical Security for Distribution Automation	3002025419
Integrating AMI into Distribution Operations	3002017197
Inverter-Based DER Dynamic Response Characterization for Protection, Planning, and Power Quality	3002014731
ISO and RTO Market Design and Market Operations Technical Forum and Collaborative (2025–2027)	3002031011
Localized Residential Electrical Panel Survey	3002029523
Low-Carbon Distributed Generation Demonstration	3002024793
Maritime Electrification Collaborative: Electric Workboat Technology Demonstration	3002029528
Marketing and Program Development for Deployment of Electrification Technologies	3002004115
Measurement Data Cleaning and Utilization	3002028746
Mitigating Vibration on Steel Pole Davit Arms-Phase II	3002023676
Model-Based Analysis of DER Functions and Settings: Phase II	3002027902
Modeling, Control, Demonstration, and Standardization of Grid Forming Inverters-UNIFI Consortium	3002023017
Multi-Vendor Satellite Technology Evaluation for Vegetation Management Applications	3002025732

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
National Collaborative Demonstration and Monitoring of Indoor Food Production (IFP) Facilities	3002011857
Next Generation Metering – Distributed Intelligence	3002025322
Next Generation Wireless Local Area Network (WLAN)	3002022297
Next-Gen Heat Pumps: Meeting Residential and Small Commercial Customer Needs for Space Conditioning	3002009414
Open Platform for Plug-in Vehicle-Grid Integration	3002004761
Open-Source Power Quality Trending-Data Analytics Platform (TrenDAP)	3002018148
Optical Ground Wire and Shield Wire Corrosion Due to Bird Mutes	3002030280
Oscillation Monitoring, Analysis and Control: Mitigation of Natural, Forced, and Sub-Synchronous Oscillations	3002028608
OT Cyber Risk Assessments for Transmission and Distribution Operations	3002023216
Pollinator Responses to Vegetation Management Practices in Rights-of-Way	3002011786
Portable Radiated Emissions Measurement System (PREMS II)	3002020882
Power Delivery Cyber Security Tailored Assessment for Utility Transmission and Distribution Operations	3002022419
Power Quality (PQ) Investigator	3002004287
Power Quality Facility Assessments	3002030303
Power Quality Knowledge Development and Transfer	3002019904
Power-In-Pollinators	3002025907
Radio Frequency Grain/Biomass Drying	3002015214
Radio Frequency Safety Program Assessment	3002028026
Residential Secondary Design for Electrification: Refined Residential Secondary Design Accounting for Electrification	3002028367
Responding to High Impact Cyber Security Events (RHISE)	3002022733
Safety Excellence Maturity Assessment	3002025146
Scope 3 Greenhouse Gas Emissions Accounting for Electric Companies and Combined Utilities	3002025796
Secure IED Management Strategies	3002022701
Sensing to Detect Faults and Downed Conductors on Ungrounded Delta Systems	3002029226
SF6 Alternatives	3002027651
SF6-Free Breaker Pilots	3002028512
Short-Circuit Modeling and Protection System Performance Analysis for Systems with High Levels of Inverter-Based Resources	3002028606
Site Assessment and Evaluation of Indoor Food, Fish, and Shrimp Production (IFFSP) Facilities	3002011856
Situational Awareness During Extreme Loss of Control Center Capabilities	3002017213

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Smart City Pole Demonstration	3002015499
Solar PV + Energy Storage Techno-Economic Analysis, Phase 2	3002029087
Space Conditioning Discovery, Energy Disaggregation for Electrification Planning and Analysis	3002029213
Special Topics in Greenhouse Gas Emissions Accounting for Electric Companies and Combined Utilities	3002028628
Specifications and Hardware for E-Field and Radiated Arcing Emissions Detection	3002027533
Standalone Storage Resource and Hybrid Storage Resource Participation Model Assessment Studies	3002025038
Steel Core Conductor Corrosion Predictive Model Development	3002030269
Streaming Synchrophasor Data Quality Conditioning	3002020246
Substation Seismic Studies	3002013990
Substation Sensor Demonstration Project	3002008143
SUNBURST Network Membership	3002014144
SUNBURST Node Installation	3002014143
Supplemental Program 261: Greenhouse Gas Emissions Accounting and Strategic Applications	3002030629
Sustainability Assurance Assessment	3002019740
Sustainability Leading Practices	3002026046
Sustainability Priorities Assessment	3002025463
Sustainability Program Assessment	3002025462
Switching Safety and Reliability	3002022903
System Compatibility Requirements for the Semiconductor Industry	3002016943
TAGWeb	3002025747
Technical Assessment of Resiliency Metrics and Analytical Frameworks	3002008641
Testing Artificial Bat Maternity Roost Structures on ROWs	3002014309
Testing of Porcelain/Glass Suspension Insulators to Assess an Aging Population	3002017157
The 24/7 Carbon-Free Energy (CFE) “Buyers” Forum	3002028543
The Microgrid Cohort	3002028527
Time-Varying Pricing for Residential Customers: Preference Simulation Model to Design Pricing Options and Estimate Customer Enrollment	3002029531
Training and Educating a Workforce for the Emerging Clean Hydrogen Industry via the H2EDGE Initiative	3002027469
Transmission and Substations Safety Interest Group (TSIG)	3002024995

PROJECT TITLE (BY SECTOR)	PRODUCT ID
ENERGY DELIVERY AND CUSTOMER SOLUTIONS *(continued)*	
Transmission Asset Management Implementation Maturity Assessment (TAMIMM)	3002028542
Transmission Harmonic and Power Quality Analysis for Changing Resource Mix	3002028366
Transmission Line Conductor and Shield Wire Performance Analysis	3002030287
Transmission Reliability Assessment Using Risk-Based Planning Framework	3002022721
Transmission System Resilience Analysis	3002020259
TS Carbon Core Conductor/Connector Evaluation: Long-Term and Short-Term Testing	3002030268
Ultraviolet Disinfection Using Light-Emitting Diodes for Municipal Water Treatment Facilities	3002014757
Underground Structure Monitoring Guiding Alarm Settings and Monitor Deployment	3002022789
Unified Grid Control Platform (UGCP) Laboratory Demonstration Project – Phase II	3002029345
Unmanned Mobile Technologies Collaboration Group	3002030221
Updating and Applying the Social Costs of Carbon, Methane, and Other Greenhouse Gases	3002020652
Urban Pollinator Conservation and Multifunctional Site Design	3002028221
Using Machine Learning and Artificial Intelligence to Identify Precursors of Serious Injuries and Fatalities (SIFs)	3002019785
Using Machine Learning to Supplement the EPRI-GTC Siting Model	3002028196
Utility-Specific Blackstart and Restoration Strategies and Evaluation	3002022954
Vehicle Impacts on Utility Poles	3002025812
Verifying Performance of Bulk Power-System-Connected Solar, Wind, and Storage Plants	3002025832
Volt/Var Control and Optimization in Transmission Systems	3002028631
Water Quality Monitors for Wastewater Treatment Process Control	3002008993
Wildfire Smoke Health and Safety Hazards	3002028621
GENERATION	
2024 Toxics Release Inventory for Power Plants User's Group	3002027973
Adaptive Predictive Expert Control Optimizer	3002027895
Advanced Manufacturing Demonstrations to Develop Alternative Supply Chain Routes for Common Piping System Product Forms	3002026036
Air-Cooled Condenser Assessment	3002017422
Anguillid Eel Interest Group	3002023103
Application of Well-Engineered Weld Repairs for Creep Strength Enhanced Ferritic (CSEF) Steels	3002011997
Ash Beneficial Use Center	3002016767
Assessment and Mitigation of Intentional Electromagnetic Interference (IEMI)	3002027562

PROJECT TITLE (BY SECTOR)	PRODUCT ID
GENERATION *(continued)*	
Atmospheric Emissions and Reactions Observed from Megacities to Marine Areas (AEROMMA) Aircraft Measurements	3002026248
Bulk Energy Storage Costs and Performance	3002021190
Combined Cycle Thermal Performance Interest Group	1023663
Combustion and Carbon Control Issues for All Fuels Supplemental Program	3002022444
Compressor Stator Vane Ping Testing and Analysis	3002011796
Continuous Natural Gas or Gas Blends Analysis with Raman Spectroscopy	3002025216
Cooling System and Heat Transfer Research Test Center	3002009809
Costs and Performance of Emerging Bulk Energy Storage Technologies	3002027705
Cycle Chemistry Assessment	3002014346
Digital Demonstration Facility	3002016322
Digital Transformation Research Initiative (DXRI)	3002027598
Dual Fuel Users Group	3002027565
Eel Passage Research Center	3002014705
Electrostatic Precipitators Working Group	3002016614
Emissions Control for Coal and Other Fuels Supplemental Program	3002022443
Enabling Automated Diagnostics Using Knowledge-Based Fault Signatures: Enabling Automated Diagnostics	3002029143
Enabling Renewable Hydrogen in Europe	3002026199
Environmental Aspects of Solar Supplemental Program	3002023160
Environmental Aspects of Wind Supplemental Program	3002025881
EPRI Groundwater Resource Center	3002009778
EPRI Procedure Writer Workshop	3002015301
Fabric Filter Working Group	3002011221
Fitness for Service for Critical Components in the Energy Industry	3002017295
Gas Turbine Component Quality Characterization	3002015408
Gas Turbine Integration with High-Temperature Thermal Energy Storage	3002028006
Gas Turbine Off-Stack In-Situ Optical CEM Demonstration	3002022794
Gas Turbine Workshop: Delivering Targeted Training to Inform Asset Development and Operation	3002030352
Generation OT Cyber Security Assessment	3002014441
Grade 91 HRSG Oxidation/Exfoliation Damage Mitigation	3002014334

PROJECT TITLE (BY SECTOR)	PRODUCT ID
GENERATION *(continued)*	
Hybrid Gas Turbine (GT) Working Group	3002017089
Hydroelectric Equipment Reliability Program Development	3002025267
Implementation of Smart Cycle Chemistry Alarms to Ensure Proper Response to Upset Conditions	3002014349
Improving the Assessment, Monitoring, and Diagnostics of PV Plant Generation	3002017092
In-Situ Optical Monitor Test Facility	3002026139
Increased Automation Case Study Assessments and Implementation	3002017251
Inlet Air Filter Testing and Performance Analysis	3002009216
Intake Operation, Maintenance, and Optimization Interest Group	3002017668
Integrated Life Management of Tee Intersections in High Temperature High Energy Piping Systems	3002025353
Lockout/Tagout (LOTO) Assessment	3002008637
Natural Language Processing (NLP) for Asset Information Sorting	3002028559
NDE Proficiency Assessment	3002017227
NET Power Cycle Testing and Assessment Study	3002022641
Online Gas Turbine Assessment Utilizing Combustion Dynamics Algorithm for Health Monitoring	3002016901
Operation and Maintenance Cost Estimates for Gas Turbine and Combined-Cycle Plants	3002016666
Operational Flexibility Implementation: Case Studies	1022811
Operational Flexibility Workshop	3002017191
Operations and Maintenance Assessment	3002019455
Penstock Performance Monitoring Digital Twin	3002026220
Per- and Poly-Fluorinated Alkyl Substances (PFAS) Interest Group	3002019810
Pilot Testing of a Real-Time Permeability Monitor	3002022561
Piloting Water Technologies to Enable the Energy Transformation	3002025406
Plant Decommissioning and Site Redevelopment Supplemental Program	3002025883
Reciprocating Internal Combustion Engine (RICE) – Asset Management	3002027968
Renewables Communications: Use Cases, Communications Technologies, and Implementation Considerations	3002028707
Root Cause Failure Analysis: An Interactive Workshop for Sustainable Corrective Action Programs	3002029672
SCR NOx Reduction Capability Assessment	3002025947
Site-Specific Assessment of Particulate Matter Control Options	3002016615
Site-Specific Assessment of SO_2 Control Options	3002014125

PROJECT TITLE (BY SECTOR)	PRODUCT ID
GENERATION *(continued)*	
Solar Owners League (SOL)	3002017889
Solar PV Trackers Technology Assessment	3002028604
Sturgeon Interest Group	1023132
Tools for Managing Flexible Operation of Power Plants	3002016820
Turbine Generator Users Group	3002019488
U.S. Center for Industrial Decarbonization and Energy Transition	3002029697
Waterwall Working Group (WWG)	3002016619
Wind Turbine Performance Monitoring Automation and Implementation	3002017913
Wind Turbine Performance Monitoring Demonstration	3002014162
LOW CARBON RESOURCE INITIATIVE	
Low Carbon Resource Initiative: Accelerating Technologies that Enable Deep Carbon Reductions	3002017723
NUCLEAR	
Common Initial Training: Chemistry, Radiation Protection, Maintenance, and Fundamentals	3002030452
Deployment of Heavy Section Electron Beam Welding (EBW) Technologies	3002027860
Digital Systems Engineering Users Group	3002022140
Environmentally Assisted Fatigue Component-Type Specimen Testing	3002013939
Extended Fuel Storage at Decommissioning and Decommissioned Reactors	3002005758
External Hazards: Information Compilation and Analysis	3002019337
Facilitating Nuclear Power Uprates	3002025839
Implementation of Risk-Informed Categorization and Alternative Treatment of Structures, Systems, and Components for Nuclear Plants	3002013983
Plant Modernization Benchmarking and Assessment	3002024058
Research and Development to Support Deployment of Advanced Nuclear Energy Systems	3002017333
Standardized Task Evaluation Program	3002030453
Streamlined Training for Engineering Proficiency (STEP)	3002030472
Technology Transfer Support for Nuclear Power Plants	3002019540
TECHNOLOGY INNOVATION	
EPRI Global Innovation Effectiveness (GIE) Project	3002031016
Incubatenergy Labs Challenge	3002031013
Interest Group On 24/7 Carbon-Free Energy (CFE)	3002027730

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