

GAIN NE VOUCHER RECIPIENTS FY 2016 – FY 2023

Click on the for a copy of the completed summary	GAIN NE Voucher Recipient	Proposal	Partner Facility
	FY2023 Round 1		
	Dow Midland, Michigan	Assessment of SMRs for Dow	Idaho National Laboratory
	Flibe Energy, Inc. Huntsville, AL	Thermal Property Measurements for an LEU-Fueled Molten Salt Reactor	Argonne National Laboratory
	Oklo Inc. Santa Clara, CA	Experimental and Software Validation of Integral Thermal-hydraulic Behavior in Fuel Assemblies	Argonne National Laboratory
	Radiant Industries Inc. El Segundo, CA	An Advanced Multiphysics Simulation Capability for Radiant's Microreactor Design and Shielding Analysis	Argonne National Laboratory
	FY2022 Round 4		
	Curio Solutions Washington, DC	Criticality Safety Analysis for NuCycle	Oak Ridge National Laboratory
	ElementlPower LLC Greer, SC	Elementl Power LLC	Oak Ridge National Laboratory
	Tennessee Valley Authority Chattanooga, TN	TVA Siting Study	Oak Ridge National Laboratory
	FY2022 Round 3		
	Orano Federal Services LLC Charlotte, NC	LEU+ UF6 Physical Chemistry Study	Oak Ridge National Laboratory
	TerraPower, LLC Bellevue, WA	Chlorine Nuclear Data Measurement and Evaluation	Los Alamos National laboratory
	FY2022 Round 2		
	Elysium Industries USA New York, NY	Advanced Functional Membrane Testing for Noble Gas Management in a Molten Salt Reactor	Pacific Northwest National Laboratory
	Kairos Power Alameda, CA	Deployment of Advanced Electroanalytical Sensos in the Kairos Power Engineering Test Unit (ETU)	Argonne National Laboratory







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	Terrestrial Energy USA, Inc. Charlotte, NC	Investigation of the Structural Integrity and Corrosion Resistance of Surface Treatment on Alloy-709 in a Molten Fluoride Salt Environment	Idaho National Laboratory
	Ultra Safe Nuclear Corp. Seattle, WA	Support for Analysis of USNC Micro Modular Reactor Fuel Performance	Idaho National Laboratory
FY2022 Round 1			
	Framatome Inc. Lynchburg, VA	Modeling of Two-Phase Boiling Flow and Critical Heat Flux with the Star-CCM+® and NEK-2P CFD Codes	Argonne National Laboratory
	Ultra Safe Nuclear Corp. Seattle, WA	Deployment and Characterization Support for USNC Pilot Fuel Manufacturing Facility	Oak Ridge National Laboratory
FY2021 Round 4			
	Kinectrics AES, Inc. Naperville, IL	Extension of Cable Electrical Assessment Techniques to Detect and Discriminate Radiation Aging on Cable Insulation Systems	Pacific Northwest National Laboratory
FY2021 Round 3			
	Engineered Solutions Group LLC Brevard, NC	SMR Containment Cable and EPA System	Oak Ridge National Laboratory
	Vega Wave Systems, Inc. West Chicago, IL	Radiation Testing for High-Resolution, Radiation-Hardened Camera Systems	Argonne National Laboratory
FY2021 Round 2			
	Lightbridge Corp. Reston, VA	Development of Casting Techniques for δ-phase Uranium- Zirconium Alloys	Pacific Northwest National Laboratory
	Oklo Inc. Sunnyvale, CA	Experimental and Systems-Level Validation of Thermal-Hydraulic Behavior in SFRs	Argonne National Laboratory
	Radiant El Segundo, CA	Microreactor Control Drum Failure Simulation	Idaho National Laboratory

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	Exelon Generation Kennett Square, PA	Advanced Nuclear Fuel Pellet Designs	Oak Ridge National Laboratory
	TerraPower, LLC Bellevue, WA	Density Measurements of Plutonium Bearing Salts via Neutron Beam Dilatometry	Los Alamos National Laboratory
	Westinghouse Electric Company, LLC Columbia, SC	Multiphysics Design Optimization and Additive Manufacturing of Nuclear Components	Oak Ridge National Laboratory
FY2020 Round 4			
	Kairos Power Alameda, CA	Pebble Bed Large Eddy Simulations for Lower Order Methods Benchmarking and Uncertainty Quantification Development	Argonne National Laboratory
	Natura Resources, LLC Abilene, TX	RELAP5-3D Development and Assessment for Liquid-fuels Molten Salt Reactor Licensure	Idaho National Laboratory
	TerraPower, LLC Bellevue, WA	Thermophysical Properties Measurements of NaCl-PuCl₃	Argonne National Laboratory
FY2020 Round 3			
	SMR, LLC Camden, NJ	Coupled Neutronic and Thermal Hydraulic Analysis of a Natural Circulation Based Small Modular Reactor Using VERA-CS	Oak Ridge National Laboratory
	Ultra Safe Nuclear Corporation – Technologies (USNC-Tech) Seattle, WA	Graphite Finite Element Model Verification	Oak Ridge National Laboratory
FY2020 Round 2			
	Neutroelectric, LLC Williamstown, NJ	Combined Effects Testing of High- Temperature and Neutron Fluence to Support the Qualification of NE- 300, a High-Temperature Neutron Shielding Material	Oak Ridge National Laboratory
	Oklo, Inc. Sunnyvale, CA	Addressing Gaps in Legacy Data on Fuel Steel Interactions	Idaho National Laboratory

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	FY2020 Round 1		
	Hydromine, Inc. New York, NY	On-Line Lead/Water heat Exchanger Sensor/System Feasibility	Pacific Northwest National Laboratory
	Lightbridge Corporation Reston, VA	Advanced Test Reactor Experiment Design for Measurement of Lightbridge Fuel™ Thermophysical Properties	Idaho National Laboratory
	FY2019 Round 4		
	Analysis and Measurement Services Corporation (AMS) Knoxville, TN	Testing of Instrumentation and Control Sensors and Cables for Small Modular Reactors	Oak Ridge National Laboratory
	HolosGen, LLC Manassas Park, VA	Advanced Coolant and Moderator Enclosure Solutions for Micro Gas Cooled Reactors with Enhanced Efficiency and Safety	Argonne National Laboratory
	FY2019 Round 3		
	Flibe Energy Inc. Madison, AL	Metal Organic Frameworks for Noble Gas Management in the Liquid Fluoride Thorium Reactor	Pacific Northwest National Laboratory
	TerraPower LLC Bellevue, WA	Improvements to SAS4A Severe Accident Modeling Capabilities to Support Licensing and Commercialization of TerraPower’s Traveling Wave Reactors	Argonne National Laboratory
	Westinghouse Electric Company, Columbia Fuel Fabrication Facility (CFFF) Hopkins, SC	Nuclear Material Holdup Modeling and Measurement Campaign for the Columbia Fuel Fabrication Facility	Oak Ridge National Laboratory
	FY2019 Round 2		
	Flibe Energy Inc. Madison, AL	Liquid Fluoride Thorium Reactor (LFTR) Preliminary Safeguards Assessment	Oak Ridge National Laboratory
	Framatome USA Lynchburg, VA	Advanced Metallic U-Zr Fuel for LWR Applications – FMEA and PIRT Development	Idaho National Laboratory

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✓	Kairos Power Alameda, CA	Develop ASME Section III Division 5 Design Rules for Elevated Temperature Cladded Class A Type 316 Stainless Steel Components	Argonne National Laboratory
	FY2019 Round 1		
✓	Framatome USA Lynchburg, VA	Advanced Fuel Stability Analysis Using High-Fidelity Large-Scale Computational Fluid Dynamic Simulations	Argonne National Laboratory
✓	GE-Hitachi Wilmington, NC	Enabling System Technologies to Improve the Economics and Performance of Existing LWRs and Advanced BWR Plants: Improving Off-gas System Performance	Idaho National Laboratory Argonne National Laboratory
✓	Kairos Power Alameda, CA	Chemical Method Development for Quantifying Oxygen in Beryllium Salt	Argonne National Laboratory Oak Ridge National Laboratory
	FY2018 Round 3		
✓	Eastman Kingsport, TN	Integrated Nuclear Hybrid Energy System	Idaho National Laboratory Oak Ridge National Laboratory
✓	Elysium Industries USA Boston, MA	Assessing Fuel Cycle Options for Elysium Molten Chloride Salt Fast Reactor from Spent Nuclear Fuel, Plutonium, and Depleted Uranium	Argonne National Laboratory
✓	Exelon Corporation Kennet Square, PA	Plasma Separation Process Feasibility Study for the Commercial Enrichment of Gadolinium-157	Oak Ridge National Laboratory
	NexDefense Inc. Atlanta, GA	NexDefense - Nuclear Cybersecurity Initiative	Oak Ridge National Laboratory
✓	Westinghouse Electric Co. Cranberry Township, PA	Development and Testing of Alumina-forming Austenitic Stainless Steels for Lead Fast Reactor Application	Oak Ridge National Laboratory
	FY2018 Round 2		
✓	ThorCon Stevenson, WA	Quantify Sodium Fluoride/Beryllium Fluoride Salt Properties for Liquid Fueled Fluoride Molten Salt Reactors	Argonne National Laboratory
	*Yellowstone Energy Knoxville, TN	Characterization of the Radiation Stability of Molten Nitrate/Nitrite Salts for use as Heat Transfer Fluids in Nuclear Reactor Power Plant	Sandia National Laboratory

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	FY2018 Round 1		
✓	Oklo Inc. Sunnyvale, CA	Accelerate Development of Industry-Relevant Features in Modern Simulation Tools	Argonne National Laboratory Idaho National Laboratory
	*Terrestrial Energy USA New York, NY	Advancement of Instrumentation to Monitor IMSR® Core Temperature and Power Level	Oak Ridge National Laboratory
✓	ThorCon Stevenson, WA	Electroanalytical Sensors for Liquid Fueled Fluoride Molten Salt Reactor	Argonne National Laboratory
	Urbix Resources Mesa, AZ	Nuclear Grade Graphite Powder Feedstock Development	Oak Ridge National Laboratory
✓	Vega Wave Systems, Inc. West Chicago, IL	Radiation Testing for Nuclear Inspection Systems	Argonne National Laboratory
	FY2017		
✓	AMS Corp. Knoxville, TN	Radiation Aging of Nuclear Power Plant Components	Oak Ridge National Laboratory
✓	Columbia Basin Consulting Group LLC Kennewick, WA	Methodology for Meeting Containment System Principal Design Criteria for Heavy Metal Fast Reactor Systems	Pacific Northwest National Laboratory
✓	DYNAC Systems LLC Del Mar, CA	Dynamic Natural Convection System	Idaho National Laboratory
✓	Elysium Industries Clifton Park, NY	Synthesis of Molten Chloride Salt Fast Reactor Fuel Salt from Spent Nuclear Fuel	Idaho National Laboratory Argonne National Laboratory
✓	Fauske & Associates LLC Burr Ridge, IL	Development of an Integrated Mechanistic Source Term Assessment Capability for Lead- and Sodium-Cooled Fast Reactors	Argonne National Laboratory
✓	GSE Systems Inc. Sykesville, MD	Human Factors Engineering for the Move to Digital Control Systems – Improved Strategies for Operations	Idaho National Laboratory

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	Kairos Power LLC Oakland, CA	NEAMS [Nuclear Energy Advanced Modeling and Simulation] Thermal-Fluids Test Stand for Fluoride-Salt-Cooled, High- Temperature Reactor Development	Argonne National Laboratory Idaho National Laboratory
	MicroNuclear LLC Franklin, TN	Development of the Microscale Nuclear Battery Reactor System	Idaho National Laboratory
	Muons Inc. Batavia, IL	Conversion of Light Water Reactor Spent Nuclear fuel to Fluoride Salt Fuel	Oak Ridge National Laboratory
	NuVision Engineering, Inc. Pittsburgh, PA	Evaluation of Power Fluidic Pumping Technology for Molten Salt Reactor Applications	Oak Ridge National Laboratory
	Oklo Inc. Sunnyvale, CA	Risk-Informed Mechanistic Source Term Calculations for a Compact Fast Reactor	Sandia National Laboratories Argonne National Laboratory
	SMR Inventec LLC Camden, NJ	Small Modular Reactor-160 Primary Flow Stability	Oak Ridge National Laboratory
	Terrestrial Energy USA Ltd. New York, NY	IMSR® [Integral Molten Salt Reactor] Fuel Salt Property Confirmation: Thermal Conductivity and Viscosity	Argonne National Laboratory
	Transatomic Power Corporation Cambridge, MA	Fuel Salt Characterization	Argonne National Laboratory
FY2016 (Abstracts not available for this year)			
	BGTL, LLC Laramie, WY	High Efficiency and Low Cost Thermal Energy Storage System	Argonne National Laboratory
	Ceramic Tubular Products Rockville, MD	Robust Silicon Carbide Cladding for LWR Application - Corrosion and Irradiation Proof Test of Low-Cost Innovations in MIT Research Reactor	Massachusetts Institute of Technology
	Columbia Basin Consulting Group, LLC Kennewick, WA	Lead-Bismuth Small Modular Reactor (SMR) Licensing Development	Pacific Northwest National Laboratory
	CompRex LLC De Pere, WI	High Efficiency Heat Exchanger for High Temperature and High Pressure Applications	Argonne National Laboratory

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	Creare LLC Hanover, NH	Investigation of Materials for Continuous Casting of Metallic Nuclear Fuel	Idaho National Laboratory
	Oklo Inc. Sunnyvale, CA	Legacy Metal Fuel Data Exploration for Commercial Scale- Up	Argonne National Laboratory Idaho National Laboratory
	Terrestrial Energy USA Ltd. New York, NY	Verification of Molten-Salt Properties at High Temperatures	Argonne National Laboratory
	Transatomic Power Corporation Cambridge, MA	Optimization and Assessment of the Neutronics and Fuel Cycle Performance of the Transatomic Power Molten Salt Reactor Design	Oak Ridge National Laboratory
FY2016 Nuclear Energy Voucher Pilot Program Summary Report			

(*) Indicates voucher recipient withdrawal from awarded voucher