


First email

Greetings!

We are the [Gateway for Accelerated Innovation in Nuclear \(GAIN\)](#), a Department of Energy initiative, and we're reaching out with a resource kit to help inform decisions regarding advanced nuclear energy in your respective states. Advanced nuclear energy is being developed and adopted across the country; this resource kit equips you with accurate resources to better understand what nuclear energy has done and can do in states across the U.S.

We are delivering this information through a series of four emails in order to uncover the resources section by section. Each resource is linked and there's a description below the link to help you better understand how it can serve you.

- **Introduction Information** 
 - [Advanced Nuclear 101](#) (Third Way)
 - This report presents a basic introduction to the different technologies under development and illustrates the need for further private and public sector research into next generation nuclear energy.
 - [Advanced Nuclear Reactor Technology: A Primer](#) (NIA)
 - The Nuclear Innovation Alliance provides fundamental information on advanced nuclear reactors for the public and stakeholders to familiarize themselves with the achievements and new developments occurring with nuclear technologies.
 - [What is operating in the US currently?](#) (NEI Map)
 - The Nuclear Energy Institute (NEI), a non-governmental policy organization of nuclear technologies, has mapped out where the 92 operating nuclear reactors are located today. Select your state's fact sheet to see how nuclear energy benefits your community.
 - [Advanced Nuclear and Supply Chain Directory](#) (GAIN)
 - GAIN created a directory that provides an inside look into the nuclear energy industry, including a list of developers, suppliers, and national laboratories.
 - [How to Reform Nuclear Policy?](#) (ClearPath)
 - Read ClearPath's advice on reforming nuclear policy
 - Overview of Nuclear Waste/Spent Fuel
 - Below are the general facts regarding nuclear waste. In a later email, you will learn more about how nuclear waste is being dealt with today.
 - [What is nuclear waste?](#) (NEI)
 - Learn about the fundamentals of nuclear waste
 - [Spent Nuclear Fuel \(SNF\) fact sheet](#)

- This sheet provides information on spent nuclear fuel from boiling water reactors and pressurized water reactors—two types of commercial nuclear reactors operating in the U.S today.
- Consider these [five facts](#) about spent nuclear fuel from the Department of Energy.
- **What's Going On?**
 - [Milestones in Advanced Nuclear](#)
 - The industry is growing fast. In order to keep up with what's going on, GAIN and Envoy Public Labs have created Milestones in Advanced Nuclear as a one-stop portal to crucial developments in the advanced nuclear energy industry. Sign up for email alerts to stay on top of advanced nuclear milestones.
 - Demonstrations
 - [ARDP](#): In 2020, the Department Of Energy (DOE) launched the Advanced Reactor Demonstration Program (ARDP) with the Office of Nuclear Energy to provide \$160 million for initial funding to build two reactors that can be operational within the next five to seven years. DOE [awarded TerraPower](#), Bellevue, WA and [X-energy](#), Rockville, MD \$80 million each in initial funding to build two advanced nuclear reactors within seven years. The awards are cost-shared partnerships with industry.
 - [ARDP Timeline](#): Third Way created this video to help better understand the ARDP timeline
 - [Hydrogen](#): The DOE is investing billions of dollars to reduce the cost and increase the production of clean hydrogen using the country's existing energy resources, such as nuclear power plants.
 - [Nine Mile Point](#)
 - [Davis-Besse](#)
 - [Prairie Island](#)
 - [Palo Verde](#)
 - [Carbon Free Power Project](#): The CFFP, which will be NuScale Power's first small modular reactor (SMR) plant in the U.S to begin operation, will be located near Idaho Falls at the DOE's Idaho National Laboratory.

Again, this is the first of four emails that will be sent to walk you through GAIN's resource kit. We will be following up with the second part of the resource kit next week.

If you have any questions, comments, or feedback about these resources, please reply to this email.

Second Email

You are receiving this email because last week you received part one of GAIN's advanced nuclear technology resource kit. Below is part two of the resource kit for you to engage with.

- **How does nuclear fit in?** 🌱
 - Do the math yourself ([Energy Calculator](#))
 - To help communities better understand their energy choices, GAIN developed this Energy Calculator
 - [Vibrant Clean Energy Study](#) (NEI)
 - This study, which was commissioned by the Nuclear Energy Institute, examines the potential for advanced nuclear technologies to contribute to a clean and reliable source of electricity in a decarbonized energy system.
 - [E3 Study on Energy Northwest](#)
 - This report examines the role of zero-emitting resources in meeting future energy needs under state-based carbon policies.
 - [Nuclear Energy as a Keystone Clean Energy Resource](#) (NARUC)
 - This report examines the contributions nuclear energy has made in providing carbon-free, reliable, and economic benefits to states; it cross examines the setbacks nuclear energy has faced and discusses potential efforts to avoid future setbacks.
- **Applications** ✨
 - Electricity
 - [Coal Transitions](#)
 - Nuclear reactors can be sited at a retired coal power plant; this is called a coal-to-nuclear transition. This report presents a case study and evaluates the impacts and outcomes from a coal-to-nuclear transition.
 - [Non-Electric](#): Nuclear power can be used beyond generating electricity. Learn about the other implications nuclear energy can have below.
 - [Hydrogen and Nuclear](#)
 - [Heat-Intensive Industry](#)
 - [Integrated Energy Systems](#)
 - [Advanced Manufacturing](#)

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Third Email

We are back to provide you with the third section of the resource kit 🙌. The third and fourth parts of the resource kit will consist of resources for exploring nuclear energy. By now, you've been presented with introductory information and current ongoings regarding advanced nuclear energy; here, you will find ongoing initiatives, important contexts, recognized organizations, and more.

- **Resources for Exploring Nuclear** 🇺🇸
 - **Federal Funding Avenue**
 - [Vouchers](#)
 - The U.S Department of Energy's Office of Nuclear Energy (DOE-NE) vouchers provide funds to assist applicants seeking access to the world class expertise and capabilities available at DOE's national laboratories.
 - [Technology Commercialization Fund \(TCF\)](#)
 - Established through the Energy Policy Act of 2005, the TCF aims to promote promising energy technologies for commercial purposes. The TCF is overseen by the Office of Technology Transitions (OTT).
 - [Loan Program Office \(LPO\)](#)
 - The Department of Energy's Loan Program Office finances large-scale energy infrastructure projects; explore the technology sectors the LPO has helped support.
 - [Advanced Research Projects Agency-Energy \(ARPA-E\)](#)
 - The ARPA-E advances high-potential, high-impact energy technologies that are too early for private-sector investment. Explore the programs and projects on their website linked above.
 - **Policy options and Committee Underway**
 - [NEI Policy Options](#)
 - This document identifies policy tools already in use or being considered by state decisionmakers to achieve energy goals through the deployment of advanced nuclear technologies.
 - [Advanced Reactors for State Policymakers, In Brief \(NIA\)](#)
 - This Brief describes advanced reactors, the benefits, and existing federal policies enabling their existence. It also provides case studies of emerging state leaders in advanced reactor technology, and lastly, provides a compendium of topics like reactor safety and waste remediation.
 - [Advanced Nuclear Technology Taxonomy](#)
 - To help understand the complex definitions of advanced reactors, GAIN, along with a group of stakeholders, developed this guide.

- [NARUC/DOE-NE Partnership](#)
 - The National Association of Regulatory Utility Commissioners (NARUC) launched a five-year Nuclear Energy Partnership with support from the U.S Department of Energy. The educational partnership identifies the possibilities for the U.S nuclear fleet and the barriers associated with the technology, and provides analysis on regulatory issues, which leads to workshops and forums at NARUC's state membership. The partnership website is above, and more details can be found in [this press release](#).
 - [NGA's Nuclear Learning Collaborative Series](#)
 - The National Governors Association (NGA), in collaboration with the Department of Energy Office of Nuclear Energy (DOE-NE), is hosting a four-part educational series for Governors' advisors to explore different aspects of nuclear opportunities, policy options, and lessons learned.
 - [ECA's New Nuclear Initiative](#)
 - The Energy Communities Alliance (ECA) Board of Directors created a self-funded initiative to define the role of local governments in supporting the development of new nuclear technologies. Local governments have filled vital roles, like establishing U.S based supply chains and promoting training programs at local colleges around nuclear sites.
 - [NCSL Nuclear Legislative Working Group](#)
 - The National Conference of State Legislatures conducts policy research across 1,400 issue areas. NCSL's Nuclear Legislative Working Group provides legislative members with opportunities to learn about nuclear energy issues, federal nuclear weapons production and research facilities, and transportation and storage of radioactive waste.
 - [State Nuclear Regulatory Dashboard](#)
 - There's been a growing number of states that have passed laws or are considering legislation on nuclear energy. GAIN and [Envoy Public Labs](#) have created this dashboard to keep track of nuclear-related policy at the state level.
- **Nuclear Waste/Spent Fuel**
 - [Consent-Based Siting](#)
 - The DOE is ultimately responsible for the management of the nation's nuclear waste, and committed to a consent-based approach that focuses on the needs and concerns of people and communities
 - Recycling the waste: Nuclear reprocessing/recycling is the chemical separation of fission products and actinides from spent nuclear fuel. Click the links below to learn about how the U.S is approaching spent fuel recycling.
 - [Policy principles for recycling spent fuel](#)
 - [PNNL - Research on spent fuel recycling](#)

- [World Nuclear Organization - Detailed Overview on reprocessing spent nuclear fuel](#)

You are almost through with the resource kit! The final section will be sent out next week.

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