



NASEO Advanced Nuclear First Mover Initiative Joint State-Federal Strategy to Accelerate Nuclear Energy Deployment

Since February 2025, the eleven states leading the National Association of State Energy Officials' (NASEO) [Advanced Nuclear First Mover Initiative](#) (additional background on the Initiative below) completed initial, high-level screenings for advanced nuclear with support from the U.S. Department of Energy's (DOE) Idaho National Laboratory and Oak Ridge National Laboratory. These initial screenings yielded valuable information to help inform states on next steps in beginning to identify potential sites for advanced nuclear projects. The next critical phase in speeding up advanced nuclear deployment is support by the states and federal government for Pre-FID (Pre-Final Investment Decision) Activities. Pre-FID activities include:

- Early-site permitting (ESP) or other tools that can achieve similar outcomes of de-risking the federal and state approval and shortening timelines for approvals to construct,
- front end engineering and design,
- Long lead material procurements,
- Obtaining local permits,
- Negotiating labor agreements,
- Pre-construction activities (e.g., site characterization, grading and leveling, support structures and services),
- Arranging financing, and
- Community engagement.

Reducing Advanced Nuclear Building Time by 12-24 Months

Acting on pre-FID activities now allows for simultaneous state, federal and private investment actions in other key areas (e.g., design approvals, reactor selection, workforce, financing) and will substantially reduce the length of time and cost of building advanced nuclear projects, potentially up to 12-24 months. NASEO and the First Mover states recommend a joint state-federal pre-FID activities strategy to significantly speed up advanced nuclear construction.

NASEO and the First Mover states believe strategic state-federal action on pre-FID activities is needed to:

- Mitigate financial and NRC risks associated with final site selection by granting early site permits while reactor design selection and investments are being considered;
- Speed overall project development by conducting siting and other permitting processes, where appropriate, in parallel rather than sequentially;

- Ensure states have adequate time to fully engage stakeholders and implement necessary policy and regulatory structures that will provide greater certainty for private-sector developers and customers about the timeline for project launch and completion; and
- Optimize the selection of sites to support state and national goals such as maximizing the use of existing infrastructure to lower costs and speed delivery, enhancing grid reliability, and lowering long-term energy costs to expand economic opportunities.

A state-federal pre-FID activities strategy should include the following elements:

I. Establish a Federal-State Interagency Effort to Speed Adoption of Generic and Pre-Existing Siting Information

Federal interagency coordination alongside the states could be key in speeding up deployment of advanced nuclear reactors and reducing costs. This interagency coordination would include DOE, the NRC, USGS, EPA, and NOAA on the federal side and also involve State Energy Offices and other relevant state agencies. These agencies would integrate data sets, compare relevant review timelines, and harmonize processes where applicable. DOE and the relevant National Laboratories should also develop a standardized process to identify potential sites for advanced reactors and support states and private partners to identify and select nuclear-ready sites and communities.

II. Streamlining State and Federal Permitting and Approval Processes

Multiple state and federal permitting processes take place sequentially, lengthening the time to acquire key approvals for new technologies. Through this state-federal early site permitting strategy, DOE, NRC, and the states would coordinate permitting processes and allow for simultaneous approvals while technological development is ongoing. This could include the use of AI as a tool to standardize and streamline as much as possible, reducing time and cost-burden of advanced nuclear deployment.

III. Pilot Cost-Share Program for Early Site Permitting

This pilot initiative would cover a portion of the cost of a pre-determined number of early site permits or a pre-determined percentage of eligible costs associated with obtaining an early site permit. Following are examples of the types of criteria and requirements that could guide this pilot:

- a. Eligible applicants would include state governments, electric utilities, independent power producers, developers, or a consortium made up of one or more of these entities. Applications not being led by a state government must indicate the support of the defined roles the state will play to support the project. States are encouraged to set up a process to engage potential applicants to clear barriers and help the applicants move more quickly with less “red tape”. This is similar to the concept for the DOE Nuclear Reactor Pilot Program, whose "Assist Teams" are integral to the ability for those projects to move quickly through the process.

- b. Eligible applicants must have already completed a qualified preliminary site screening or be in the final stages of site screening. DOE together with the states should establish the criteria for qualified preliminary site screenings. Criteria could include the use of ORNL Sage or other tools and should include additional considerations such as where the best locations are on a state's existing transmission grid (and attendant switchyards) as well as access to sufficient volumes of cooling water.
- c. Significant state and industry cost share would be required to demonstrate commitment from the applicant and further bring down costs.
- d. State applicants should coordinate on multi-state basis where actions or agreements lead to supportive policy incentives, workforce development, etc.
- e. Criteria to guide funding could include:
 - Technical readiness of the site
 - Strategic value of the site, based on:
 - Regional electricity demand or reliability needs
 - State electricity demand or reliability needs
 - Local electricity demand or reliability needs
 - Ability of the applicant to provide cost share
 - Long-term potential of the site, both technical and financial
 - Replicability potential, including:
 - Potential for multi-unit development within a state
 - Applicability to multi-state or multi-region deployments
 - Geographic diversity of applicants including consideration of states and territories with more remote locations (e.g., Alaska)
 - Site characteristics, such as:
 - Located on a former power plant site
 - Located on a non-power generation brownfield site
 - Co-located with an existing reactor
 - Co-located with an industrial facility
 - Co-located with a data center
- f. Funds should be awarded to the applicant under a milestone or phased approach based on meeting criteria (these may include the application being submitted to the NRC, NRC reviews being completed, the permit being issued, etc.).
- g. The initiative should allow for flexibility in early site permits that enable development of all reactor types including small modular reactors and large light water reactors.
- h. Eligible applicants should be prepared to provide information on local government and Tribal consultation; labor and workforce coordination; local economic benefits; and safety, waste, and emergency planning and response.

IV. State Analytical and Policy Project Development Needs

DOE should provide analytical and policy support to states on early site permitting actions, and other supportive state actions, through National Laboratories and other

means. National Laboratories are equipped to conduct comprehensive site screenings; work with experts on the development of financial models and analysis; and host exercises around permitting, emergency planning, and local coordination. States would greatly benefit from having expanded access to this expertise throughout the early site permitting process and other deployment actions.

V. State-International Nuclear Exchange to Speed Development and Utilization of U.S. Technologies

A federal-state international exchange activity targeted to 1) learning from international advanced nuclear development to speed and refine state actions; 2) encourage global use of U.S. advanced nuclear technologies to foster economic development; 3) support development of a more robust U.S. nuclear supply chain. Fostering these exchanges can also help ensure that approved early site permits have access to more investment, reactor designs, and essential components.

Background Information

In February 2025, the National Association of State Energy Officials (NASEO), U.S. Department of Energy Gateway for Accelerated Innovation in Nuclear (GAIN), and Idaho National Laboratory (INL) formally launched the Advanced Nuclear First Mover Initiative in partnership with eleven states: state co-chairs Indiana, Kentucky, New York, Tennessee, and Wyoming, and participating states Louisiana, Maryland, Pennsylvania, Utah, Virginia, and West Virginia. Additionally, sixteen states have signed on as observers to the Initiative: Arizona, Connecticut, Idaho, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Dakota, South Carolina, Texas, Washington, and Wisconsin. NASEO and the states are committed to working with the private sector, U.S. Department of Energy (DOE), and Nuclear Regulatory Commission (NRC) to accelerate advanced nuclear projects and bring more power to the electric grid for reliability, sustainability, and economic growth.