NRIC Support for Communities

Planning and constructing advanced nuclear facilities this decade requires collaboration among communities, innovators, regulators, and the U.S. Department of Energy. The National Reactor Innovation Center provides a platform for these groups to work together to accomplish shared goals.

Communities that host nuclear power technology are its most trusted stewards. Constructing new plants requires identifying communities willing and suitable to take on this responsibility. To do this, NRIC is heavily invested in engaging with communities interested in hosting these facilities. This helps align needs among stakeholders to cultivate lasting ownership.

NRIC Resource Team: Support for Communities

The NRIC Resource Team is a support mechanism directly funded through the Department of Energy and made available to qualifying organizations. Limited support to nuclear energy innovators is provided by NRIC and affiliated staff and generally covers topics related to siting, fuels, licensing and regulation, modeling and simulation, digital engineering, safeguards and security, operations and training, stakeholder engagement, and access to supporting infrastructure for activities such as post-irradiation examination.

The Resource Team is also available to qualifying organizations at the community, regional and state level that are planning to use advanced nuclear power to meet their energy and climate goals. Support can include services such as:

- Guided stakeholder mapping and stakeholder engagement strategy development
- Subject matter expertise to support local communications efforts
- Research into specific community, regional and state issues and considerations that can frame conversations around nuclear energy and challenges to technology rollout in a specific place or region
- Siting and feasibility studies through our Siting Tool for Advanced Nuclear Development (STAND)
- Providing expert information to community, regional and state governmental entities to inform efforts around siting, licensing, safety and operations
- Access to technical experts across the DOE national laboratory complex for technical presentations, consultations and analysis, including information on environmental impacts and the National Environmental Policy Act (NEPA) process for nuclear energy projects
- Coordination of meetings and work sessions

Case Study: NRIC support for the Alaska Microreactor Roadmap

In late 2021, representatives from Alaskan universities, state agencies, and utilities asked NRIC to provide support for the development of the Alaska Microreactor Roadmap. The roadmap is an advanced reactor deployment strategy funded by the Alaska governor's office. The entities tasked with designing the roadmap are the Alaska Center for Energy and Power, headquartered at University of Alaska Fairbanks, and the Alaska Department of Environmental Conservation.

Key considerations for the roadmap include:

- Historical context of nuclear technologies in Alaska
- Specific considerations related to infrastructure development in Alaska and the arctic
- Engagement with a broad range of stakeholders including communities and Native organizations, advanced reactor vendors, local elected officials, Alaskan industries, environmental organizations, power utilities, and regulators, with special consideration afforded to sovereign Alaska Natives
- A roadmap development process deemed "useful" and "fair" by all stakeholders

Beginning with early scoping discussions, the NRIC Stakeholder Engagement team has supported their Alaska partners in multiple ways:

- Research into Alaska-specific considerations that can frame the roadmap conversations, focused on potential challenges for microreactor deployment in Alaska
- Research into models for similar roadmaps (International Atomic Energy Agency milestones, Canadian SMR Roadmap) that can be applied to the Alaska Microreactor Roadmap
- Stakeholder mapping and stakeholder engagement strategizing
- Coordinating with other Alaska state government entities about lessons learned that could apply to the roadmap, specifically public health entities and their response to COVID-19
- General coordination of biweekly meetings and work sessions

To date, NRIC's support has helped its partners in Alaska build local capacity by connecting them with the capabilities of the U.S. national lab system and codesigning a roadmap development process that will maximize stakeholder input and buy-in.

> *"NRIC has been a truly invaluable resource, bringing a deep wealth of expertise and knowledge to the table that has elevated the quality and scope of our work as we consider ways to introduce this new technology to a place that has limited experience with it. Their team is action-oriented, thoughtful, pragmatic, and just the "A" team in every way."*
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> *— Gwen Holdmann, director of the Alaska Center for Energy and Power.*

Successful and sustainable project outcomes are rooted in local support, which is why NRIC firmly believes that communities and community-based organizations must be active participants throughout the deployment of advanced reactors. If you would like to discuss how our support can help your community reach its goals, please contact us at nric@inl.gov.

Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy.

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