

Utah's Strategic Nuclear Energy Pathway

Development Considerations: Utah Nuclear Consortium

In order to leverage expertise and accelerate the deployment of an operational nuclear power plant within the state, Utah should pursue the creation of a Nuclear Consortium. This document outlines the purpose, membership, structure, and support required for the consortium.

Targeted Outcomes

The “Utah Nuclear Consortium” (UNC) is an umbrella organization of resources driving nuclear deployment through targeted strike teams (see figure). This group is distinct from the recommended Utah Nuclear Authority (see Nuclear Pathways: Synchronizing Regulatory Frameworks), which may be supported by the Consortium but will remain focused on the Utah nuclear legal framework as a whole. The UNC would attract public and private stakeholders to the state and encourage cooperation between them to meet common goals in the state’s first nuclear deployment. The three primary objectives of the Consortium are:

- Identification of site(s) for a nuclear project in the state
- Full deployment of an operational nuclear power plant(s)
- Development of the nuclear economic ecosystem

Membership

A key component of the Consortium is a well-organized network of expert resources that efficiently aligns both resources and stakeholders with focused, outcome-driven teams. The Office of Energy Development (OED) will play a crucial administrative role, gathering stakeholders from the entire nuclear spectrum and facilitating connections between groups. A non-exhaustive list of resources the Consortium will want to pull experts from include:

- State legislature and relevant agencies
- Academic experts and national labs, such as Idaho National Lab and Utah’s universities
- Regional partners, such as Idaho, Wyoming, Montana, and groups like the Intermountain West Nuclear Energy Corridor
- Nuclear industrial leaders and relevant Utah companies and utilities
- The Nuclear Regulatory Commission (NRC) and other federal parties

Many of these entities are eager to be involved and have already engaged in discussions with the OED. According to the NRC, the optimal time to begin deployment discussions with the NRC would be as soon as this Consortium brings all resources to the table.

Structure

To keep focus on the overarching goals, the Consortium will consist of three components: the administration and facilitators, expert resources, and small strike teams with targeted outcomes. Each strike team will be formed with a specific charter aimed at a crucial component of deployment. These teams are:

Social Licensing

- Responsible for public education and community outreach.

Education and Workforce Development

- Setting up the future workforce pipeline, worker conversions, and schooling.

Reactor Operations

- The general management and immediate crew for operation of the reactor.

Finance

- Financial considerations like capitalization of projects, seeking federal funding, development strategies e.g., forward PPAs, Construction Work In Progress.

Construction / Manufacturing

- The site design, physical construction of the site, and required material resources.

Supply Chain

- Everything to do with the nuclear fuel cycle: Extraction, transportation, processing, recovery, and disposal.

Energy Economic Development

- Capturing value from the reactor and nuclear ecosystem; energy intensive parks, site planning, cascade uses, site demand.

Utilities and Grid

- Planning site interconnection and energy off-takers.

Regulation and Policy

- Interface with the state on regulation, incentives, permits, and siting.

Regional Strategy

- Pursuing partnerships with neighboring states and specialized groups.

Support

In order to ensure that the UNC is an effective body that drives to actionable outcomes, a facilitation team will be required to coordinate the operations of the various strike teams. Along with facilitation, the state may directly add additional power to the Consortium by supporting:

- Grants and federal funding
- State incentives and programs
- Competitive bidding with utilities and communities and other engagement strategies