Enabling the Success of Advanced Reactor Demonstrations

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NRIC is a national DOE program, launched in FY20

**NRIC Enables Nuclear Reactor Tests & Demonstrations**

- Authorized by the Nuclear Energy Innovation Capabilities Act (NEICA)
  - DOE-Office of Nuclear Energy; INL Nuclear Science & Tech
- Partner with industry to bridge the gap between research and commercial deployment
- Leverage national lab expertise and infrastructure
- Manage demonstrations to success

Vision: Enable commercial nuclear by 2030s
NRIC is partnering regionally and nationally to support testing and demonstrations.
Priority: Empowering Innovators

- Advanced Reactor Test Beds
- Experimental Facilities
- Virtual Test Bed
- Addressing Costs and Markets
- Regulatory Risk Reduction

- Planning Tools
  - NRIC Resource Team
  - Demonstration Resource Network (https://nricmapping.inl.gov/)
  - Siting Tool for Advanced Nuclear Development
INL Participation in ARDP Projects

- 9 projects supported
- Scope range
  - Modeling & Simulation
  - Irradiation & PIE
  - Fuel design & fabrication
- ~$175M – 7 years
  - $1M - $75M per project
- NRIC/INL Coordinator
- NRIC Deployed Digital Engineering and project management tools
NRIC200

- NRIC200 provides 200 hours of Subject Matter Expert (SME) support to nuclear innovators
- Hours can be spent at any national laboratory
  - Narrow and focused work scope on the path to advanced reactor demonstration
  - Can build into larger work scopes under alternate funding means
- Aid industry partners to match technical needs to capabilities within the Laboratory complex
- Lowers financial risk to applicants
- Allows new and smaller participants in the nuclear industry easy access to National Laboratory capabilities
- Cannot be used to supplement an existing DOE funded project
- NRIC publishes a public report at end of year with work scopes and customer feedback
GAIN Vouchers

- GAIN Vouchers started in 2016
- Since Inception
  - 86 vouchers awarded - 58 completed - 50 different companies
  - $30.9M awarded to date
- GAIN Vouchers are open to support multiple areas for advanced nuclear technology developers.
Successful Engagement: Our state/local partners... know the value of local/region assets become a better nuclear customer understand how to engage

1 calls
2 + visit
3 + testify

Arkansas
Colorado
Idaho
Illinois
Indiana
Kentucky
Minnesota
Nebraska
New Mexico
North Dakota
South Dakota
Tennessee
Texas
Virginia
West Virginia

2023 Passed Legislation (15 states)

Alaska
California
Connecticut
Indiana
Kentucky
Michigan
Nebraska
New Hampshire
North Carolina
Pennsylvania
Tennessee
Virginia
West Virginia
Wyoming

2022 Passed Legislation (14 states)
Advanced Reactor Resource Kit

- Curated List of Resources
  - Publicly digestible
  - Variety of sources
  - Various Comms Modes
- Developed from our years in field
- Provides consistency in our response across team
- Allows us to add new information when available
Accelerating advanced reactor demonstration & deployment
Thank you!

Questions?