

GAIN States Overview

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GAIN's Areas of Expertise

- Department of Energy Office of Nuclear Energy initiative
- Focus on initiating and completing projects that support commercial deployment of advanced reactors and technologies

2024 HIGHLIGHTS



Awarded 16 ***GAIN Nuclear Energy Vouchers*** at a value of nearly \$5.4 million



Published the ***advanced reactor cost study*** developed cost ranges for modeling and energy planning and provided the data for NREL's Annual Technology Baseline, which is used by utility planners and grid operators when planning their energy investments



Worked with ***coal communities*** in Kentucky, Arizona and Montana to conduct feasibility studies to convert decommissioned coal stations into nuclear power stations



Worked with ***states and communities*** across the U.S. to provide them with advanced nuclear information through conversation and testimony and connect them with Department of Energy financial and technical resources



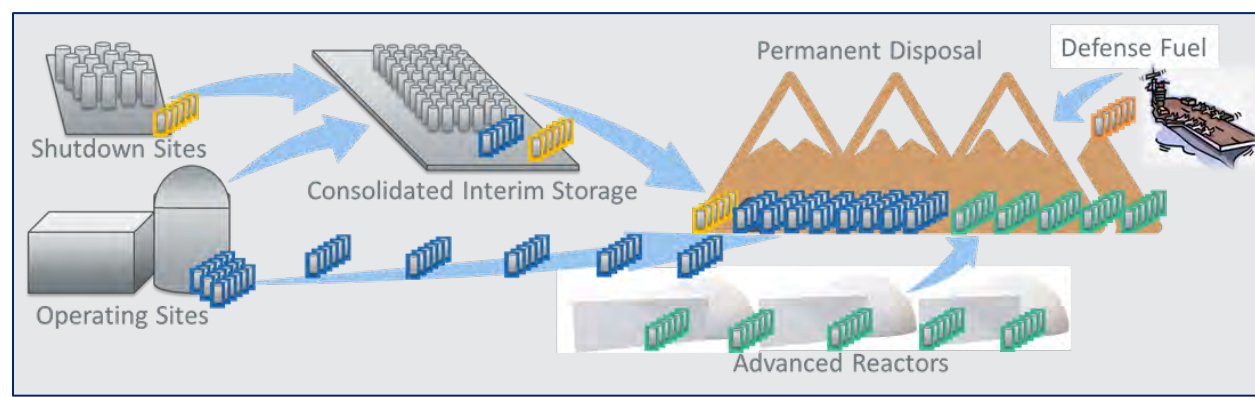
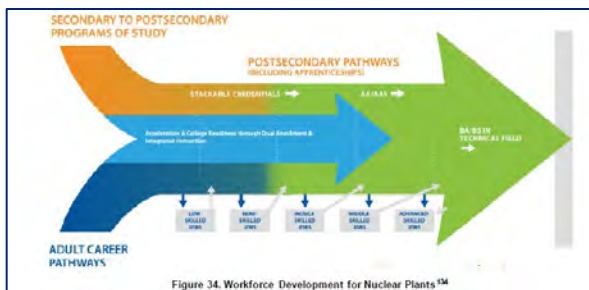
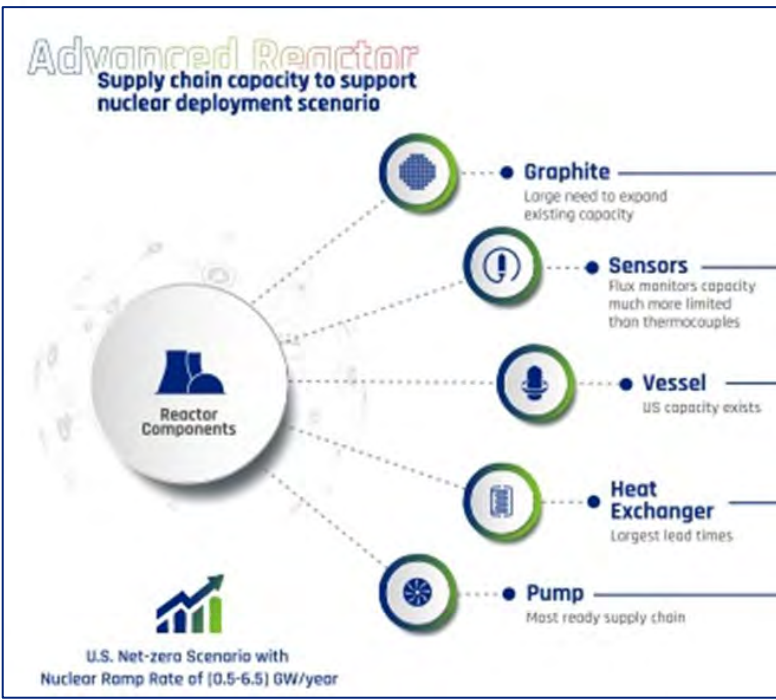
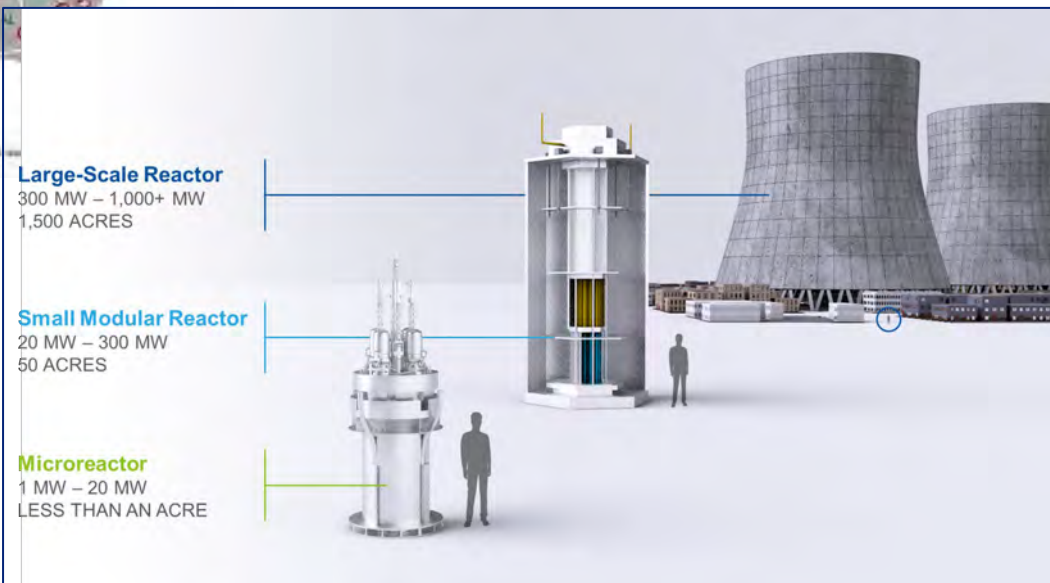
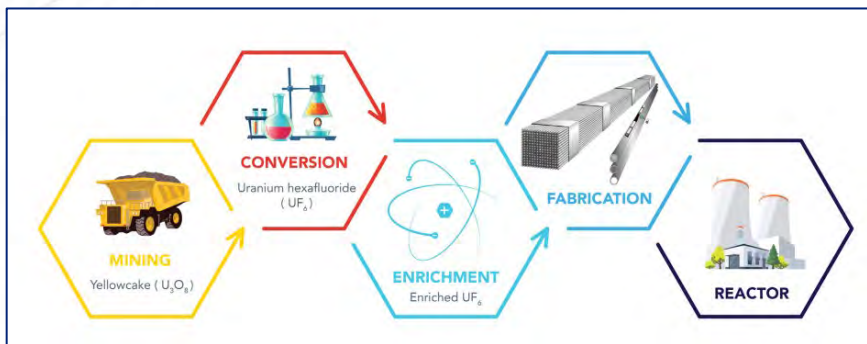
US has 94 operating nuclear reactors @ 54 sites

- 78 units w/licenses that expire by 2050;
- 18 units w/licenses that expire by 2035.

U.S. Operating Commercial Nuclear Power Reactors



Nuclear Ecosystem



2025 state nuclear legislation trends



Construction Work in Progress/Advanced Rate Recovery

- Indiana
- Arkansas
- North Carolina
- Missouri



Direct Support for the Nuclear Industry and Nuclear Projects

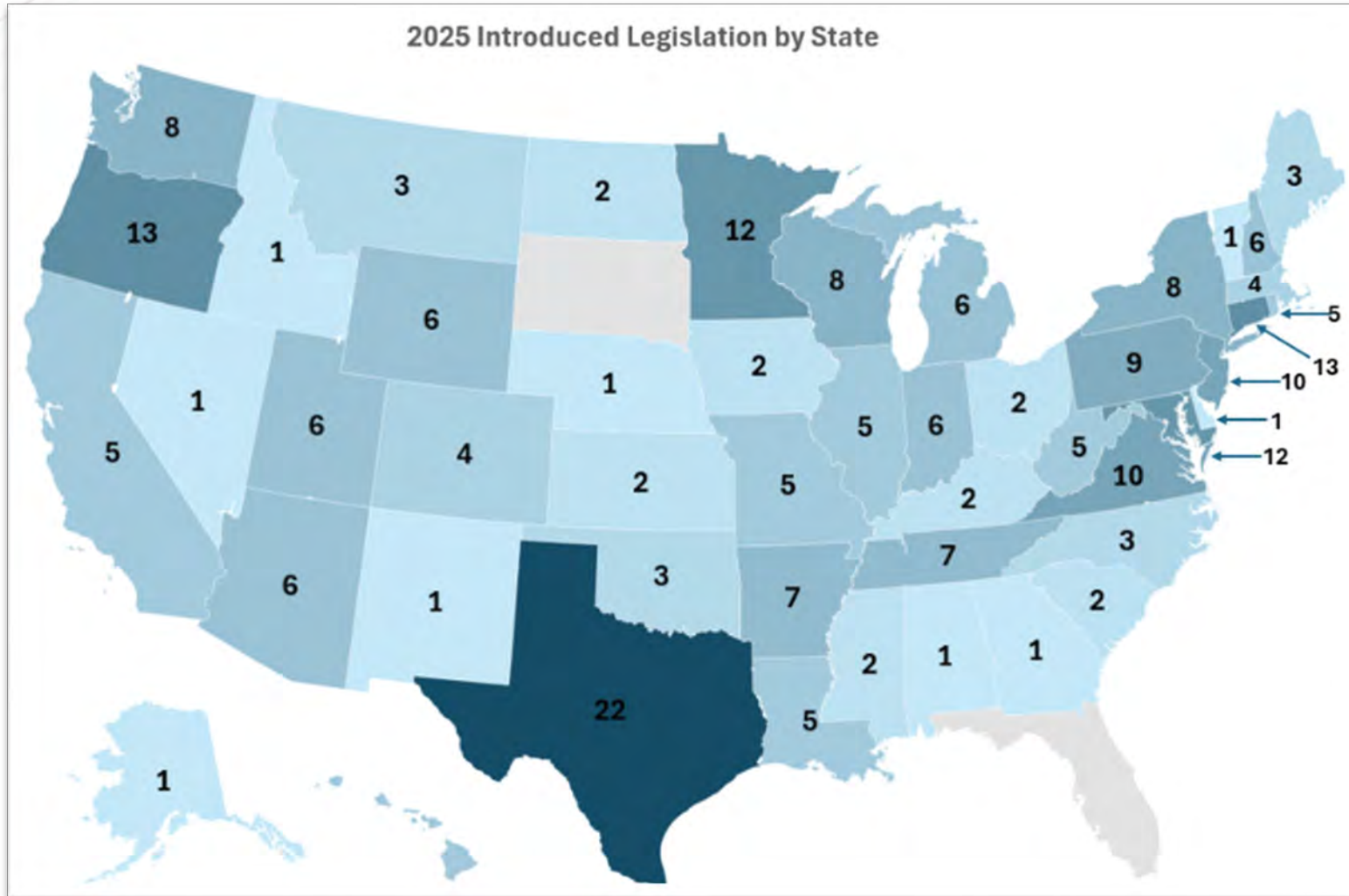
- Texas
- Tennessee
- Utah
- Kentucky
- New Jersey
- Mississippi



Tax Credit Incentives for Generation and Manufacturing

- Indiana
- Maryland
- Michigan
- Pennsylvania
- Texas
- Washington




















Advanced reactor legislation introduced in 2025



48 states
with at least one bill introduced

California, Massachusetts, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, and Wisconsin are still in session.

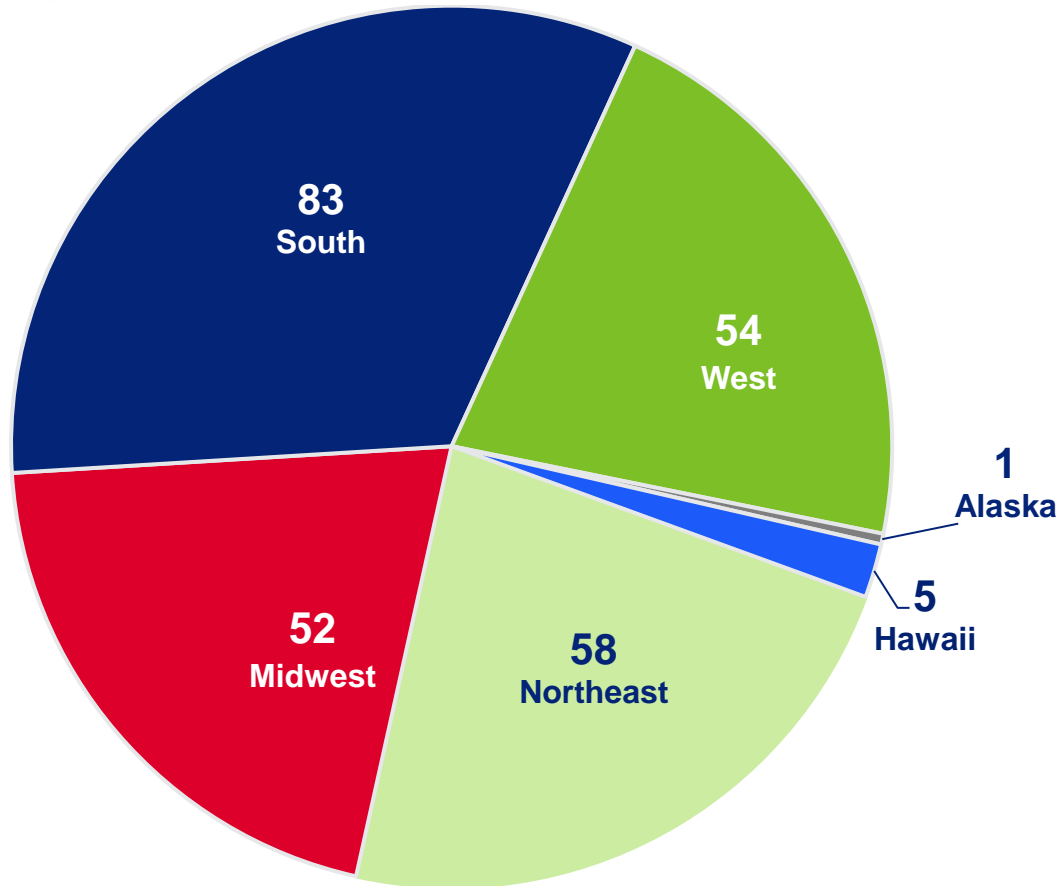
Feasibility Study Categories Covered by State

 Current Fleet License Extension	 Moratorium Repeals/Exemptions	 Classifying Nuclear	 Feasibility Study/Working Groups	 Establishment of Authorities	 Promoting Development	 Fossil Fuel Transition	 Workforce Development	 Supply Chain	 Financial Incentives
Pennsylvania Washington	Connecticut	New Hampshire	Indiana New York North Dakota	Kentucky Texas	Indiana Louisiana Texas Virginia	Kentucky Maryland	Indiana Kentucky Maryland New Hampshire New York Tennessee Texas Virginia	Indiana Kentucky Maryland New Hampshire New York Tennessee Texas Virginia	Indiana Louisiana Michigan New Hampshire New York Tennessee Texas
 Federal Resources	 System-Wide (Framework) Cost	 Advanced Rate Recovery	 Design Suitability/Standardization	 Siting	 Regulatory	 Permitting Pathways	 Consortia	 Community Engagement/Education	
Connecticut Louisiana Virginia	Louisiana Washington	Texas	Indiana New York	Louisiana Nebraska New York Virginia	Connecticut Indiana Louisiana	Colorado Indiana Louisiana Michigan Texas	Louisiana Michigan	Indiana Louisiana Michigan Nebraska New Hampshire New York Texas	

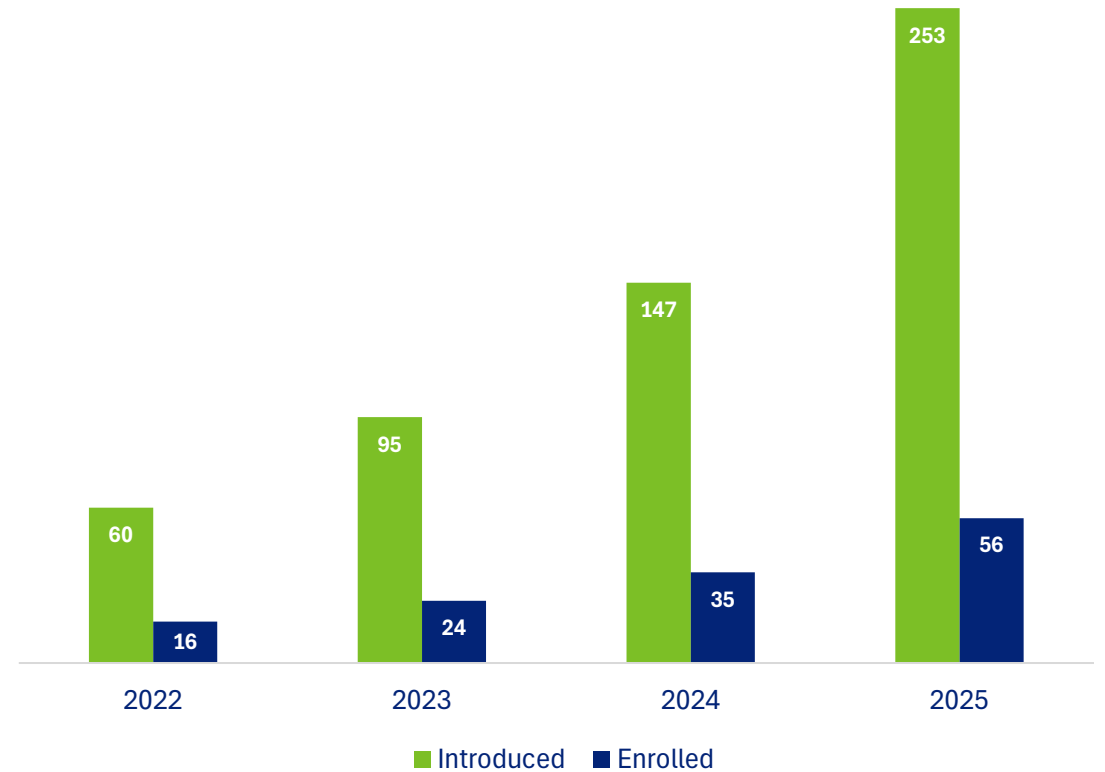
Note: 22 Categories identified – 19 have had actions take

2025 state nuclear legislation

- As of June 27th, 253 bills introduced in 2025 with 56 enrolled into law.



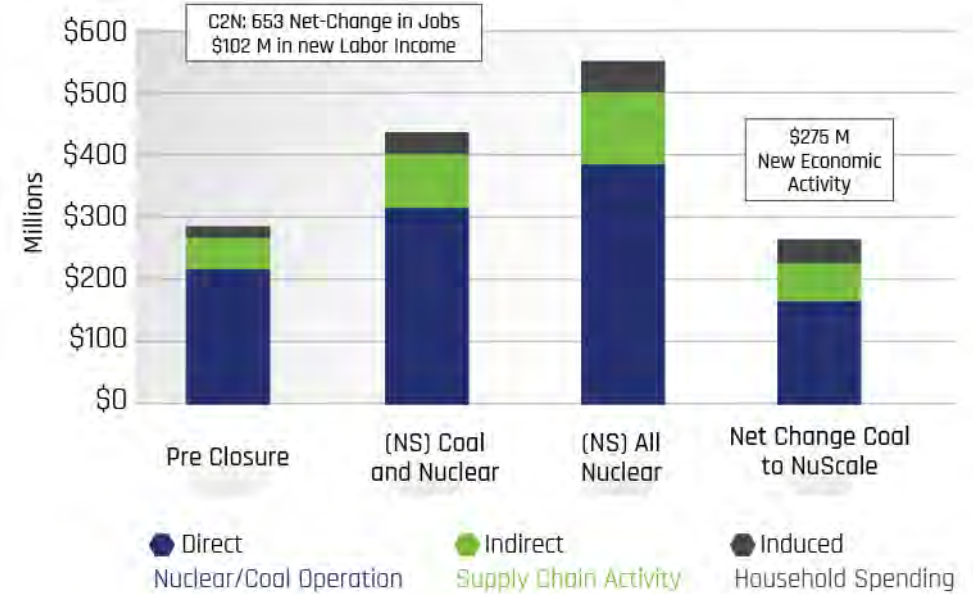
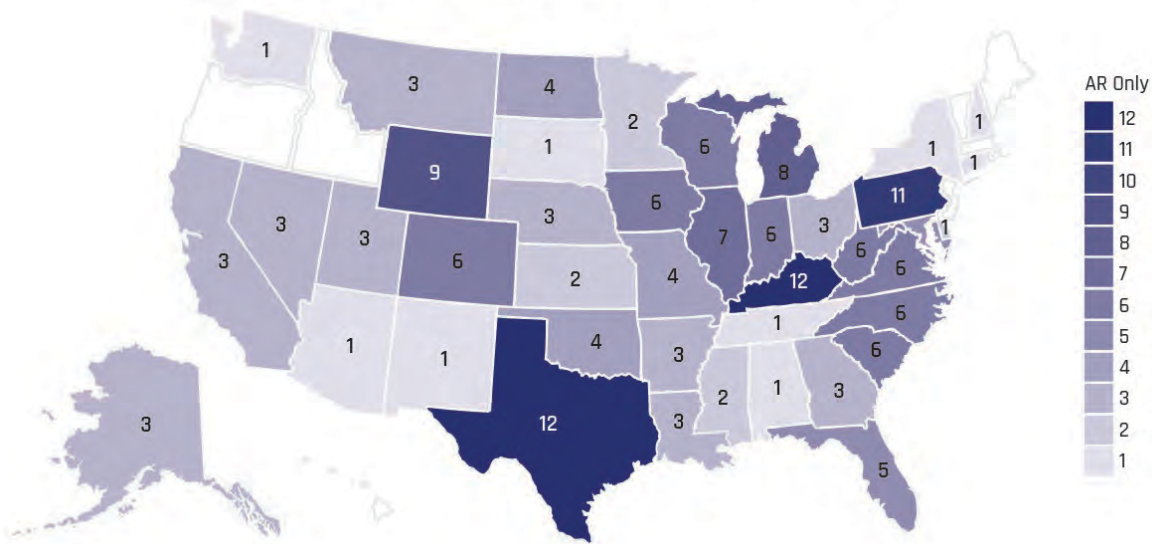
Yearly Comparisons



2022 DOE Report: Investigating Benefits and Challenges of Adding Nuclear to existing Coal Sites

- 80% of evaluated coal sites suitable for advanced reactor
- Estimates on overnight capital cost savings from repurposing viable coal infrastructure range from 15% to 35%

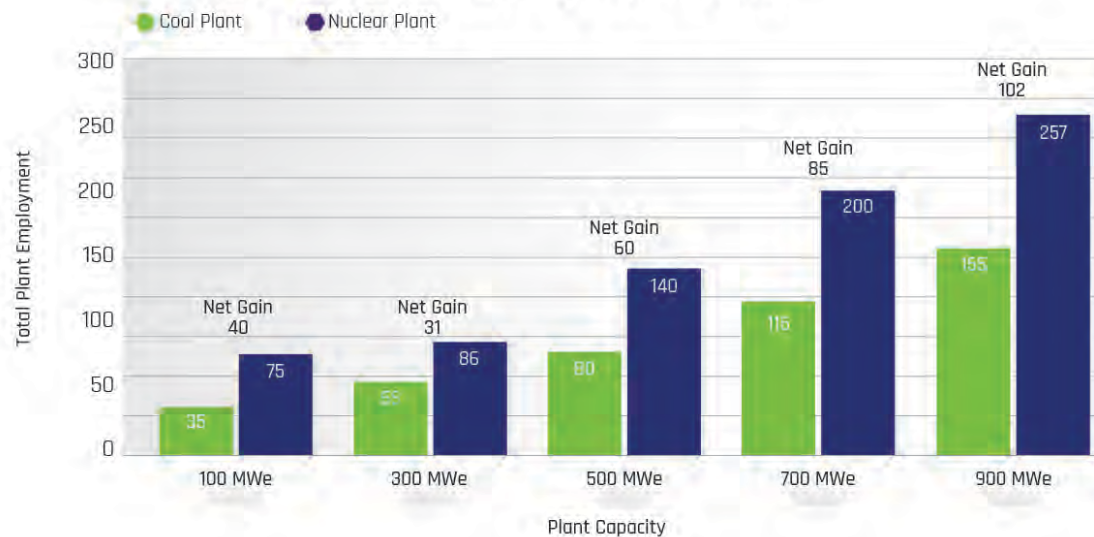
Coal Sites Amenable to AR (176, 75 GW)



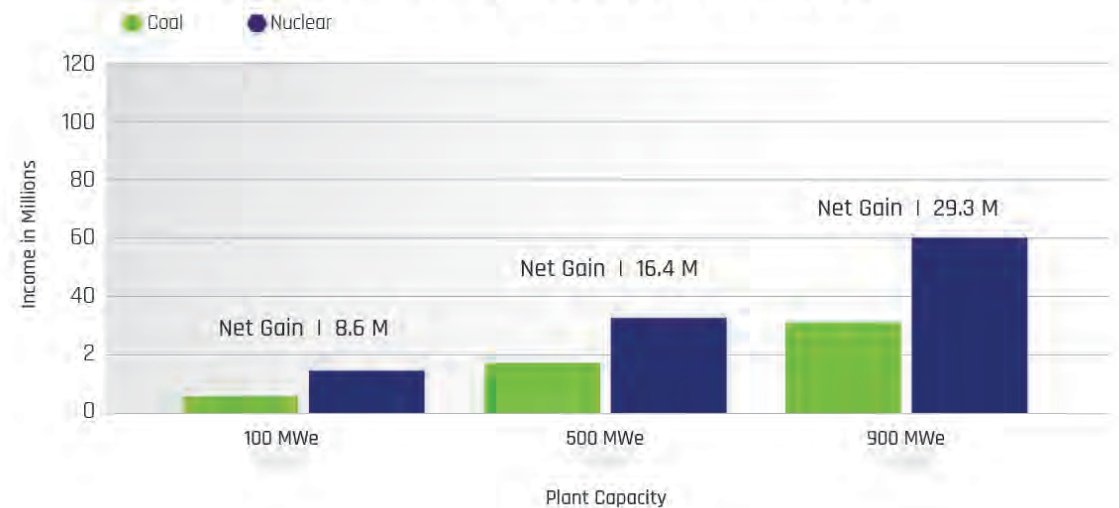
What does nuclear power addition offer a community?

- Nuclear can bring lasting jobs to a plant for 40-80 years
- There are both direct jobs created as well as indirect and induced jobs
- Many other technologies such as wind, solar, and gas only bring construction jobs
- For every \$100 of electricity produced, \$50 of economic activity occurs in suppliers and support industries

Estimated Employment by Generation

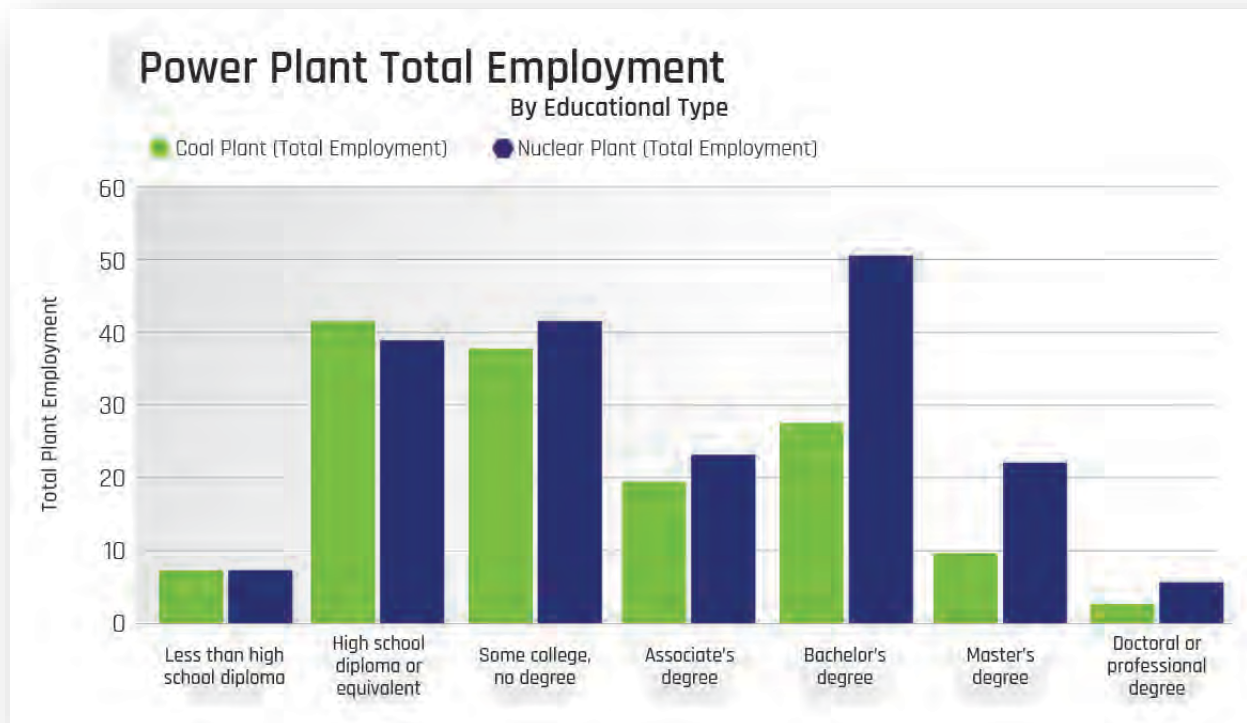


Income for Community Population < 20,000



Overlap in job types and education levels

- Compared occupation codes shows the similarity in roles from each power plant type.
- Many occupations at a coal power plant have the educational background to work at the nuclear power plant.
- Analysis does not account for nuclear, industry-specific training.



45%

of added nuclear jobs share identical occupation codes with a coal plant

72%

of the added jobs share similar occupation codes

GAIN nuclear feasibility studies



CORONADO GENERATING STATION

Location: St. John's AZ

Owner: Salt River Project (SRP)

Results:

- The site has ample, developable land for potential nuclear deployment.
- SRP will need to assess water availability, local ecology, and continue community engagement going forward.



GHENT GENERATING STATION

Location: Ghent, KY

Owner: Louisville Gas and Electric, Kentucky Utilities (LG&E, KU)

Results:

- The site is capable of hosting small and medium-sized reactors, but site topography and potential coal combustion residue will limit the amount of developable land, and therefore total capacity.

Arizona Electric Utilities Team Up to Explore Adding Nuclear Generation

- Arizona Public Service (APS), Salt River Project (SRP) and Tucson Electric Power (TEP) are working together to explore adding nuclear generation in Arizona
- Recently applied for DOE grant to begin preliminary assessments
- Salt River Project previously partnered with GAIN to assess feasibility of deploying nuclear at Coronado Generating Station in Saint Johns, Arizona



Funding opportunities for communities



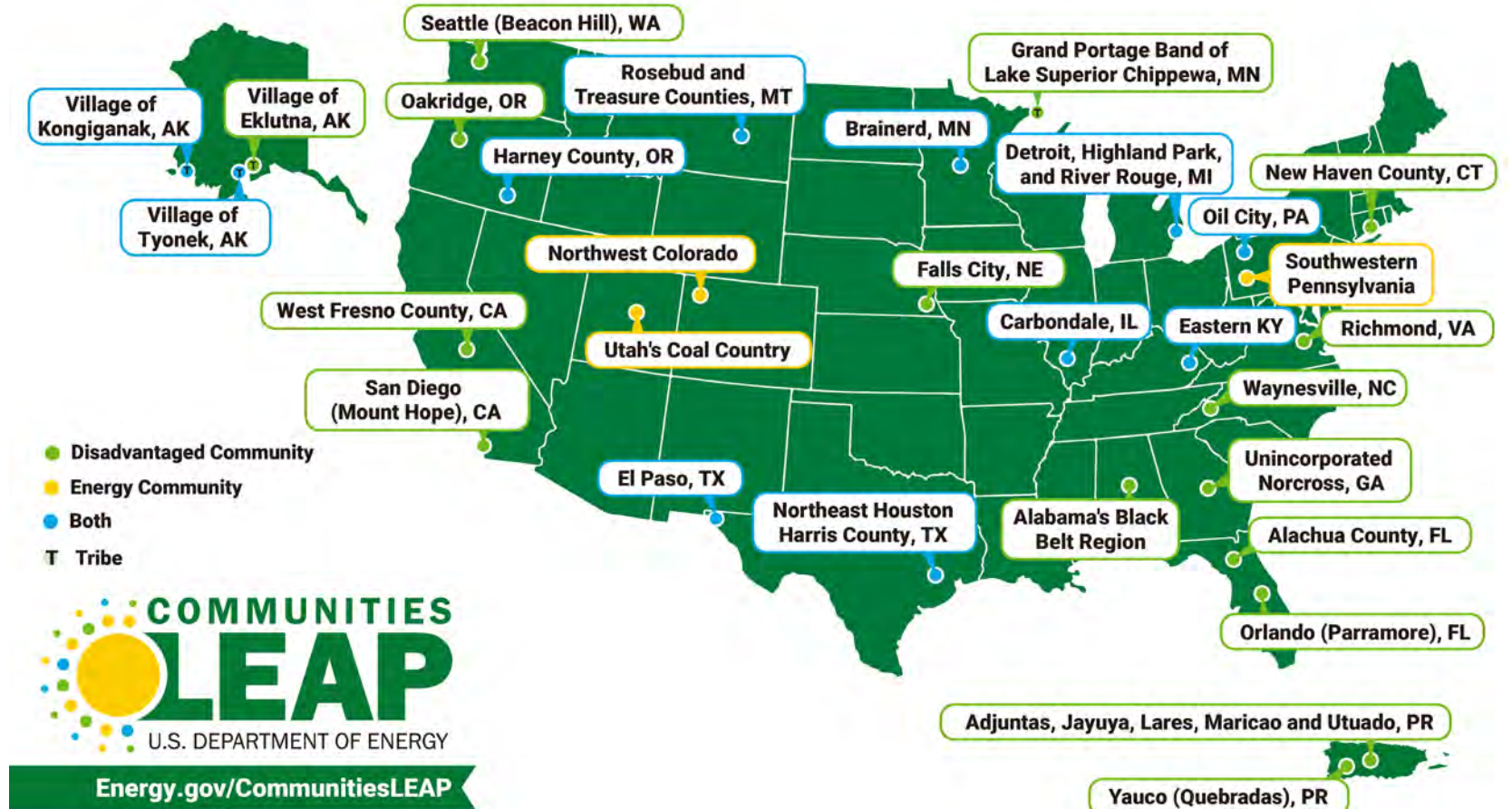
- Facilitating collaboration between DOE, national labs, and external providers
- Coordinating rapid prototyping, demonstration, deployment, and/or manufacturing
- Providing technical assistance for domestic small businesses, academic institutions, and other non-traditional partners
- Performing technology, market research and scouting

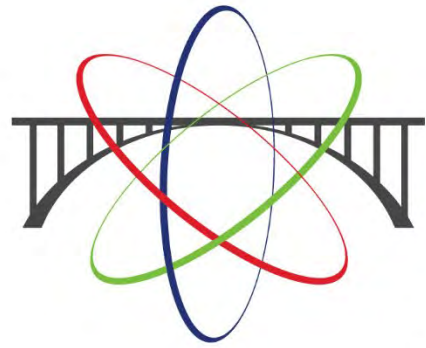


- The Communities Local Energy Action Plan (C-LEAP) drives community-wide economic benefits through DOE.
- Open to low-income, energy-burdened communities facing direct economic impacts from energy plant retirements.

DOE C-LEAP funding opportunities

- C-LEAP communities exploring nuclear:
 - Eastern Kentucky
 - Northwest Colorado
 - Rosebud and Treasure Counties, Montana
 - Southwestern Pennsylvania
 - Utah's Coal Country





GAIN

Gateway for Accelerated
Innovation in Nuclear



@GAINnuclear

gain.inl.gov

Current nuclear restrictions and moratoria

States with Full Moratoria	States with Partial Moratoria
California	Connecticut: Partial repeal; the moratorium does not apply to the state's existing nuclear power plant, meaning new reactors can be constructed only at that site
Hawaii	Illinois: Partial repeal; starting January 1, 2026 construction may begin on a new nuclear power reactor of 300 MW or less
Maine	New York: Partial moratorium; ban on building reactors in Nassau, Suffolk and Queens counties
Massachusetts	
Minnesota	
New Jersey	
Oregon	
Rhode Island	
Vermont	

