

The Role of Nuclear in the Clean Energy Transition

June 28, 2023

Dan Shea, Program Principal - Energy



 Serves 7,383 legislators and 30,000+ legislative staff across 50 states, as well as commonwealths and territories

#### **Services**

- State policy research
- Technical assistance and training
- Provide a forum where policymakers can exchange ideas
- Lobbying for states' interests at the federal level



Strengthening the legislative institution

Report 0

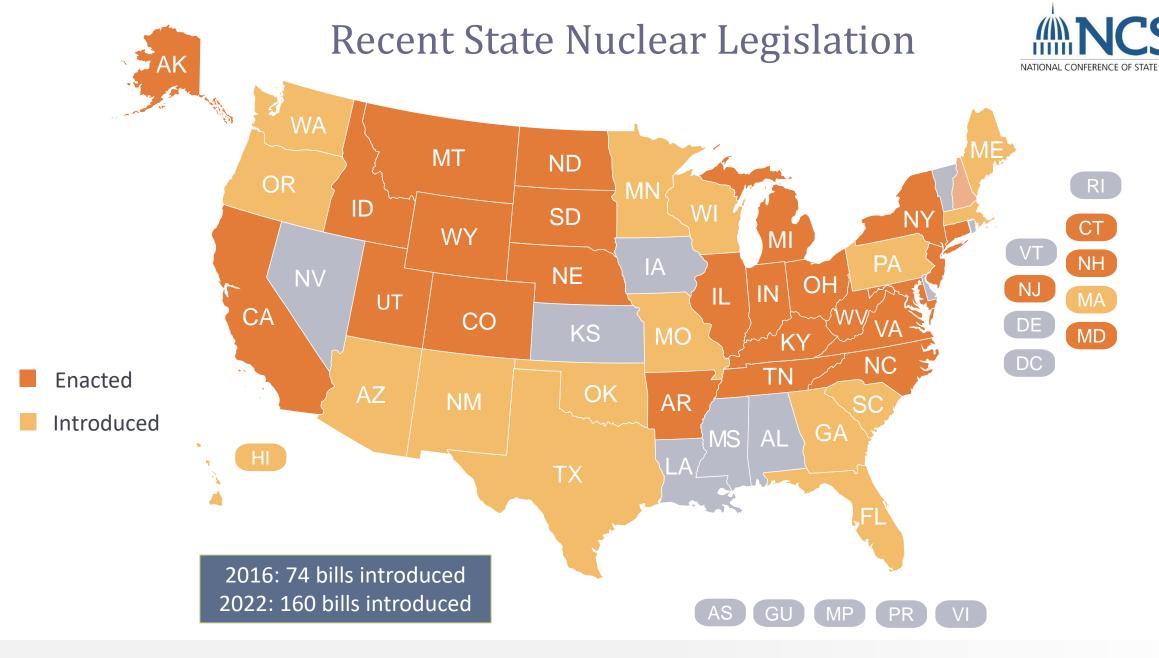
### **Nuclear Power and the Clean Energy Transition**



Updated April 06, 2023 | Daniel Shea

This recent NCSL report provides background on nuclear energy in the U.S. and a review of recent state and federal policies.

https://www.ncsl.org/energy/nuclear-power-and-the-clean-energy-transition





## Nuclear Policies

A growing number of states have enacted and considered policies to support existing and new nuclear, while management of spent nuclear fuel remains a sticking point





Support for Existing Nuclear Power Plants



Support for SMRs & Advanced Reactors



Opening the Door to New Nuclear



Management of Spent Nuclear Fuel and Other Waste



#### **Zero Emissions Credits**

- o IL, NJ, NY
- Provides \$/MWh for nuclear plants that demonstrate they're at risk of closure

#### **State-Supported PPAs**

- C1
- Allows the state's lone nuclear plant to bid half of its capacity into state-backed power purchase agreements

#### **Civil Nuclear Credit Program**

- CA
- Legislature enacted two measures to extend the life of Diablo Canyon NPP for grid reliability



# Preserving the Existing Fleet

Five states have acted to prevent the premature closure of existing nuclear reactors and a recent federal program will provide additional support moving forward.





States are increasingly enacting policies to support advanced reactor development, including particular interest in coal-to-nuclear conversions.



Coal-to-Nuclear

Streamlining Rules & Regulations

Studies/Task Forces/Workforce

Establish preference for replacing retired coal plants with advanced nuclear.

Incorporate nuclear into state energy policy, planning and regulations.

Explore policies to reduce barriers, provide funding for workforce development.

## Renewable & Clean Energy Standards





Clean Energy Standard



## Restrictions on New Nuclear Development





Restrictions on New Nuclear

Repealed Restrictions



The Clean Energy Transition is forcing nuclear back into the discussion. Red and Blue states are considering how nuclear might contribute.

States are looking to nuclear due to:

- Dispatchable, Carbon-Free Power
- Reliability & Resilience
- Economic & Workforce Issues
- Capacity & Scale
- Federal Support (IIJA/IRA)

Opponents most often point to concerns over spent nuclear fuel and the high upfront capital costs for new builds.



Why are states taking action?





daniel.shea@ncsl.org

720.713.0312



### Reach out anytime!