New Mexico Takes a Look at Small Modular Reactors

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New Mexico House of Representatives
District 55
New Mexico’s Nuclear History:
In Summary, Everything But a Reactor

Uranium Mining
- Manhattan Project (1942-46)
- Trinity Site Detonation (July 1945)

R&D
- Project Gnome (Dec. 1961)
- Ongoing Nuclear Research
  - Los Alamos National Lab
  - Sandia National Labs

Waste Disposal
- WIPP (Mar. 1999)

Nuclear Fuel Enrichment
- URENCO USA

Future Possibilities:
- Consolidated Storage
  - Eddy-Lea Energy Alliance
- Small Modular Reactor
  - HM 57
A MEMORIAL

REQUESTING THE ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT TO INCLUDE EVALUATION OF THE FEASIBILITY AND ECONOMIC BENEFITS OF CONSTRUCTING AND OPERATING A SMALL MODULAR REACTOR IN NEW MEXICO IN ITS STATE ENERGY PLAN.

WHEREAS, energy production is a vital industry to New Mexico, a leading energy production state; and

WHEREAS, the energy, minerals and natural resources department is in the process of developing a state energy plan so New Mexico can maintain its leadership well into the future; and

WHEREAS, the United States Department of Energy has recognized the need to include small modular reactors in the nation’s future energy mix and has a cost-share program to help fund small modular nuclear reactors that will enable two small modular reactor designs through the design certification process and one through the site licensing process; and

WHEREAS, small modular reactors are being designed and tested by companies with extensive experience in the nuclear industry, including Babcock & Wilcox’s Generation mPower, NuScale power, Westinghouse and others; and

WHEREAS, the United States Department of Energy plans to site small modular reactors at Federal facilities to provide clean, reliable and secure energy; and

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WHEREAS, small modular reactors emit no carbon emissions, can be installed in remote locations, are modular in design, have an operating life of sixty to eighty years and can be air-cooled, making them suitable for arid regions like New Mexico; and

WHEREAS, small modular reactor designs feature below-ground containment and utilize passive safety features such as gravity, convection and conduction to cool the reactor in an emergency; and

WHEREAS, small modular reactors have a significantly lower capital cost than that of large conventional nuclear plants and, due to their smaller size, are suitable for the New Mexico electric grid; and

WHEREAS, the construction and operation of small modular reactors would create high-quality, high-wage jobs for current and future residents of New Mexico; and

NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE STATE OF NEW MEXICO that the energy, minerals and natural resources department be requested to include evaluation of the feasibility and economic benefits of constructing and operating a small modular reactor in New Mexico in its state energy plan; and

BE IT FURTHER RESOLVED that the energy, minerals and natural resources department identify the legal and regulatory requirements of constructing and operating a small modular reactor in the state and that, in cooperation with the economic development department, the energy, minerals and natural resources department include in the energy plan a strategy to attract investment by the nuclear industry supply chain; and

BE IT FURTHER RESOLVED that the energy, minerals and natural resources department report on its energy plan and its progress in fostering small modular nuclear reactor use and related manufacturing in New Mexico to the appropriate committees of the legislature by December 2014; and

BE IT FURTHER RESOLVED that copies of this memorial be transmitted to the secretary of energy, minerals and natural resources and the secretary of economic development.
High Points of HM 57

- Directed to the attention of NM’s Energy, Minerals and Natural Resources Department (David Martin, Secretary).
- Requests an evaluation of the
  - Feasibility
  - Economic benefits
  of constructing and operating an SMR in New Mexico.
- Evaluation will be included in the forthcoming state energy plan.
- Asks Energy Department to identify the legal and regulatory requirements of operating an SMR in New Mexico.
- Asks Energy Department to suggest a strategy for attracting investment by the nuclear energy supply chain, working in cooperation with the state’s Economic Development Department.
- Report to appropriate committees and legislature by December 2014.
Why Consider SMRs in the Land of Enchantment?

- **Suitable for:**
  - arid states
  - small electric grids
  - isolated areas

- **Safety**
- **Security**
- **Reliability**
- **Economics**
- **Environmental benefits**
Who Might Be Interested in Having an SMR?

- Military installations
  - Kirtland AFB
  - Holloman AFB
  - Cannon AFB
  - White Sands Missile Range
- Utilities
- Municipalities
- Rural Electric Cooperatives
- Consortiums
Next Steps

- Introduce legislation that acknowledges nuclear power in energy portfolio standards.
- Support energy policies that are sound and rational.

“Drivers”:

- Existing coal-fired plants are being regulated out of existence.
- New Mexico has plentiful natural gas. Nuclear will be competing with low natural gas prices.
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