Enabling Advanced Reactors for the Market

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GAIN Gateway for Accelerated Innovation in Nuclear | NEI Nuclear Energy Institute | EPRI Electric Power Research Institute

"Three of our highest priorities at the Department of Energy are reviving and revitalizing nuclear power, accelerating nuclear innovation, and advancing nuclear technology commercialization"

Dan Brouillette, Deputy Secretary
U.S. Department of Energy

Symposium Summary

- Connected 120 representatives from industry, universities, national laboratories, federal government, energy end users, and utilities.
- Engaged in a dialogue about the future energy market and the role of advanced nuclear technologies.
- Identified opportunities and gaps associated with the economic deployment of advanced reactors.
- Enabled connection between technology developers and end users.
- Gained perspective on Capitol Hill energy policy, NRC regulatory stance, and federal government research and development investment.

Taking Action

Understand stakeholder needs for advanced reactor planning.
Develop and execute an economics initiative plan.

The ECONOMICS conversation

The bottom line... end users are driven by economics.

- "Utilities only care about cheap electrons."
- "Cost is the only thing that a utility executive is being evaluated on."
- "Without economic value, there is no decision."
- "We in this community have spent a lot of time talking to each other about how great nuclear is, but we're beyond that--the practical issue is a race to the bottom on price in the power markets."

HOWEVER, there are values to advanced reactors that are beyond financial considerations – we should not walk away from the broader economic conversation.

Nuclear energy is a vital component of the President's strategy and vital to the nation's energy portfolio.

Justin Coleman, Symposium Integrator and Lori Braase, GAIN

Representation and perspectives from

- Advanced Reactor Technology Developers
- Utilities and Energy End Users
- Industry
- U.S. Department of Energy
- Regulators
- Policy Makers
- Universities and National Laboratories

By leveraging our national laboratory system and university research—and encouraging partnerships with the private sector—we are developing an advanced nuclear infrastructure, pushing a resilient supply chain, promoting a strong nuclear pipeline, and ensuring a lasting nuclear revival in this nation.

The KNOWLEDGE conversation

Utilities would like to incorporate advanced reactors into their strategy but don't know how or where to start.

- "I feel like I'm on an island and I don't know how to incorporate advanced reactors into our future strategies."

Utilities need assistance or guidance to determine how advanced reactors fit into their strategic plans.

The POLICY conversation

Federal policy is not necessarily the right answer – the federal government could set the goals and states could structure policies and incentives, driving nuclear forward.

- "It's really hard to explain what the government's role is in this space. It's easier to define what the government's role is NOT."
- "It's important to get a few policies that put you on the right path."
- "If we don't preserve the nuclear fleet, the rest of the conversation doesn't matter."

The ENERGY SECURITY conversation

Energy security is important, but overshadowed by economics.

- "Nuclear has elements of national security, which is not true for other generation sources."
- "We should embrace national security implications of civilian nuclear power."
- "Thanks in large part to innovations at our national labs and universities, we are on the verge of achieving energy independence and on the road to achieving energy dominance...we are on the road to energy security. A key part of this picture are the 99 commercial nuclear reactors in 30 states across America. Nuclear energy is a key component of our nation's energy portfolio."

Key Takeaway

GAIN must engage stakeholders to identify opportunities to be cost competitive in the energy market and to identify the RD&D needed to close the technology and economic gaps.

Panelists providing perspective at the symposium

GAIN
Gateway for Accelerated Innovation in Nuclear

"If you really care about this environment then you need to be a supporter of this amazingly clean, resilient, safe, reliable source of energy."

Secretary Rick Perry
voiced by Deputy Secretary Dan Brouillette,
U.S. Department of Energy

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