Energy under the Trump Administration

Nuclear Power under President Trump

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Although President-elect Trump has openly expressed his support for nuclear power, given his anticipated energy policy agenda-expanded production of fossil fuels and shifts in positions on climate change and renewable energy-there remains a high degree of uncertainty with respect to how his overall energy priorities may affect nuclear energy in the U.S. Ultimately however, the Trump presidency should be viewed as an opportunity for nuclear power to fulfill its vast potential.

The Effect of Increased Competition from Fossil Fuels

Streamlined regulations and expanded domestic development of hydrocarbon resources are a market opportunity for, not a threat to, nuclear energy's growth. Combined with abundant heat energy from atomic fission, America's raw materials can be fully developed into finished products for global markets while improving the environment.

The chemical processes needed to convert materials like coal or natural gas into clean liquid fuels have been known for almost a century, but they can be more cleanly and effectively applied with abundant heat from clean atomic fission.

Abundance lowers market prices and reduces the financial incentive for extreme resource exploitation in underdeveloped areas. When there is competition for an expanding market, suppliers work hard to eliminate waste and to expand the productivity of already built infrastructure.

New pipelines reduce the risks associated with both old pipelines and alternate sources of transportation like trucks and trains. Expanding demand provides the incentive for financial investments in improvements and maintenance; falling demand results in riskier practices

known colloquially as "milking the cash cow."

The Effect of Competition from Renewables

Wind and solar energy development will be put on a more rational basis by allowing the currently scheduled phase out of tax credits to progress without intervention. Both industries have made it abundantly clear that they are mature technologies with falling costs and increasing ability to compete. They should be taken at their word and allowed to compete fairly.

Like raw hydrocarbons, biomass can benefit from partnering with abundant fission heat to improve both productivity and product quality.

Nuclear energy is fully capable of competing. Its compact fuel lowers many barriers by reducing the need to invest in controversial, capital intensive, and intrusive transportation systems.

A rapidly expanding atomic fission industry can make a vast improvement in the cleanliness and capacity of our energy supply. Fission heat use can be expanded well outside of its current narrow niche of large centralized electricity generation into district heating, industrial process heat, and distributed electricity generation. Moreover, nuclear is eminently suited for certain transportation markets-especially the maritime transportation application that has been technically proven since 1955.

The Trump Administration: An Opportunity for Nuclear Power in the U.S.

President-elect Trump's acceptance speech includes a statement that should stimulate creative people who appreciate the capabilities of nuclear energy yet are saddened by the huge gap between the promise and the current reality:

"I've spent my entire life in business looking at the untapped potential in projects and in people all over the world. That is now what I want to do for our country."

Nuclear energy is the mother lode of untapped potential.

Nuclear energy's potential benefits have barely begun to be exploited and put to beneficial use.

Political actions could release a great wave of creative solutions to reduce or eliminate the barriers that have been erected to purposely slow the growth of nuclear energy. An inspired and motivated industry could improve its internal management practices, begin effective marketing efforts, and solve the remaining cost and schedule challenges that scare potential customers away.

With a newly elected president who states that he wants to make America great again, there is a golden opportunity to remind technology, industry, and government leaders that nuclear energy development was once a great business full of optimism and ingenuity. Those leaders can help inspire the public's excitement about growth and prosperity.

Compared to the 1960s through the 1980s, when nuclear energy production was expanding rapidly around the world, there are more people, more energy demands, and a greater realization of the importance of using sources that do not pollute, have a minimal footprint, and require less supporting infrastructure. The universe of challenges that can be mitigated or overcome with the intelligent use of the vast, emission-free energy locked inside the nuclei of certain superfuels--uranium, thorium and plutonium--continues to expand.

The existing nuclear power plant sites in the U.S. are underdeveloped assets with available land, buildings that can support a much greater production level, transmission corridors whose capacity can be readily increased, a trained workforce capable of expansion, and supportive communities that recognize the value of having productive enterprises that serve important societal needs and desires.

The Nuclear Regulatory Commission (NRC) is an organization full of capable people, but its effectiveness has been hampered during the past decade or more by unproductive, politically divisive oversight. Its budgets have been attacked as being too large, but the responses to the attacks have often resulted in practices that reduce the effective ability to regulate. Decisions take longer than they should, adding unaccounted costs without making any improvement in the outcome. Staff members have been reassigned into unfamiliar roles, slowing down their reviews as they learn their new responsibilities. Corporate knowledge gets lost in waves of early retirements or buyouts, adding an unrealized burden by breaking the necessary level of continuity that contributes to efficiency.

Development of a robust nuclear energy industry can and should be a unifying activity. A prosperous industry serving a growing appetite for affordable energy would be capable of funding the kind of research and development effort that will be needed to begin working up the evolutionary S-curves of technological development. Now is the time to begin expansive efforts to tap the incredible potential of the only new energy source discovered in the past couple of centuries.

Government enabling action is needed more urgently than government funds. The president's bully pulpit can be used to inspire the workforce, to improve regulatory effectiveness, to create new energy demands as work is being done to improve crumbling infrastructure, and to help expand on the growing realization that it is possible to have both an expanding economy and a clean economy based on essentially inexhaustible resources.

Rod Adams is Publisher and Writer of *Atomic Insights*, a blog that discusses atomic energy, the competitors to atomic energy, radiation, the risks and benefits of using nuclear technology, the hazards of avoiding the use of nuclear technology, the hazards of avoiding the use of nuclear technology, and a variety of other topics associated with atomic technologies. Mr. Adams is an atomic energy expert with small nuclear plant operating and design experience, as well as experience as a financial, strategic, and political analyst. He is a former submarine Engineer Officer, and Founder of Adams Atomic Engines, Inc.