



Energy under the Trump Administration

Prospects for Nuclear in the New Administration: FERC and Yucca Mountain

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Federal Energy Regulatory Commission (FERC)

An open question in 2017 will be the nature of President Trump's infrastructure plans, his restructuring plans for the electricity markets, and his re-alignment of the energy sector's economic regulator, the FERC.

The FERC oversees inter-state energy market issues such as: electric transmission and wholesale sales and services; natural gas pipeline transportation rates and services; and oil pipeline transportation rates and services. The FERC is managed by five Presidentially appointed and Senate confirmed Commissioners. Under the Federal Power Act, no more than three FERC Commissioners may be from the same political party.

One of the first indications of whether the nuclear industry will get FERC support will come when the President nominates his new Commissioners. In the weeks ahead, President Trump will have the opportunity to nominate three new, pro-business Commissioners to fill the current vacancies. Later this year, he will have yet another opportunity to nominate a fourth, perhaps Independent Party Commissioner to replace Democratic Commissioner Colette Honorable whose term expires in June 2017.

President Trump's "America First Energy Plan" emphasizes more fossil-fuel infrastructure development, support for coal miners and clean coal power systems, and enhanced use of American-produced natural gas and oil resources to lower energy costs. These fossil energy systems are all competitors to nuclear energy. Moreover, there was no specific mention of

nuclear energy in the President's 100-day action plan. This suggests that nuclear energy may take a back seat in the Trump Administration's energy development plans. It is worth noting that President Trump has publicly affirmed on Fox News that he was very strongly in favor of nuclear energy-but he added "... as long as it is not subsidized."

Given these statements, it seems likely that a couple of the new FERC Commissioners will be chosen from the private business sector or Public Utility Commissions in the tight oil and shale gas states (TX, ND, WY, PA, WV). About 60% of the past FERC Commissioners have had a PUC background. Also, much of the initial Trump infrastructure expenditures are likely to relate to tight oil and shale gas expansion projects. Think pipelines.

The gas infrastructure projects are needed to not only expand gas pipeline capacity and coverage, but also to upgrade the existing network. Close to 50 percent of the Nation's gas transmission and gathering pipelines were constructed in the 1950s and 1960s. Under Obama, these pipeline upgrades were estimated to cost between US\$2.6 billion to US\$3.5 billion per year through 2030 with a total investment of \$270 billion to replace all leak-prone, cast iron, and bare steel piping. Under the Trump Administration, these investment numbers could easily double or triple. Unfortunately, the efforts to upgrade and expand the U.S. natural gas supply system will come at a cost to the competitiveness of nuclear power.

The already dirt cheap low natural gas prices could extend even further into the future as more pipeline is installed into the currently undeveloped shale gas regions. The low gas prices, if they persist, could push back the 2025 time horizon when new nuclear plants were expected to become cost competitive again with natural gas plants.

Also, the Trump Administration has pledged to reduce the regulatory burden on the coal supply and coal power industry. Revisions to the Clean Power Plan may now allow some of the older, non-compliant coal power stations that had been scheduled for retirement or derating, to continue supplying their power to the grid. The increased competition from the coal sector could be counterproductive to the nuclear energy sector.

On the plus side for nuclear, under the Trump Administration, there is anticipation of declining support for further subsidies to the renewable energy sector. A key question will be whether the State governments make any effort to roll back the Renewable Energy Portfolio Standards that have introduced large anti-nuclear distortions into electricity markets. Overall, the Trump realignment of subsidies for renewable energy should result in more realistic cost-benefit studies for renewable energy, resulting in benefits to nuclear power.

Yucca Mountain and Interim Storage of Nuclear Waste

Under the Trump Administration, many people are expecting that DOE will restart the long-stalled licensing process for Yucca Mountain. That project was opposed by former Nevada Senator Harry Reid and eventually halted by President Barack Obama in 2011. So far, there has been no indication yet what the Trump Administration is planning. However, since the current surface waste storage systems have been demonstrably safe for decades, we predict that Yucca Mountain will initially remain on hold while the Trump Administration assesses the repository idea. There are at least three novel approaches by which President Trump could immediately and legally resolve the Yucca Mountain issue via "deals" or Executive Orders.

Located on federally owned desert land about 90 miles northwest of Las Vegas, Yucca Mountain has been under consideration for more than three decades. DOE has spent over \$8.6 billion studying the site and preparing an NRC license application. A Senate Committee dubbed Yucca Mountain the "Most Studied Real Estate on the Planet."

Yet today, three decades later, the DOE waste repository project remains unfinished. The site is now essentially abandoned and is marked only by the fenced-off railroad entrance. DOE has estimated that it might need to spend another \$49 billion on the site as well as pay as much as \$56 billion in litigation damages for not picking up spent fuel at reactor sites as promised.



With an expected total taxpayer cost of over \$100 billion, the Yucca Mountain project literally represents the second largest fiscal disaster in nuclear history—well ahead of Chernobyl (at \$15 billion) and just behind Fukushima (at \$180 billion). It seems unlikely that President Trump will enthusiastically restart that bandwagon.

Part of the Yucca Mountain problem stems from the original idea to turn over nuclear waste management to the federal government. Yucca Mountain then became the football in a decades-long playoff game with constant player turnovers. Albert Einstein once said: "No problem can be solved by the same consciousness that created it." One can expect that the Trump Administration will heed Einstein's wisdom and choose a new course of action that replaces DOE bureaucracy with more efficient, private sector, business acumen.

In *The Art of the Deal*, one of Donald Trump's core business strategies was to "contain losses." Consequently, it is expected that the Trump Administration will move to quickly contain DOE's \$56 billion+ potential litigation liabilities by putting in place some form of privatized, centralized, interim storage. That strategy would immediately relieve the pressure on reactor owners whose spent fuel pools are filling up. It would also help to quickly de-politicize the nuclear waste issue by replacing some of the DOE players with players from the private sector.

We note that Texas Governor Rick Perry, now confirmed as the new Secretary of Energy, has a couple of immediate options available for interim waste storage. In 2016, for example, a private company (Waste Control Specialists) applied for an NRC license to build an interim storage site in the Texas panhandle. Additionally, in 2015, Holtec International and the Eddy Lea Energy Alliance announced plans to build an underground interim storage facility in New Mexico along

the Texas border. Unlike Yucca Mountain, both of these interim storage proposals seem to already have the tacit support of the local State governments and both would offer new, long-term jobs to the community.

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