Energy under the Trump Administration

Rick Perry as Secretary of Energy

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By Alan Ahn

Besides the obvious--he had expressed his intention to eliminate the Department of Energy during his 2012 presidential campaign[i]--objections regarding Rick Perry's appointment to Energy Secretary have generally revolved around two broad concerns: (1) his stance on climate change, and how that may negatively impact progress on the development and deployment of clean energy technologies, and (2) his perceived lack of background and experience on issues of importance to DOE's multifaceted research programs and fundamental mission of managing assets related to the U.S. nuclear arsenal. As the next Secretary of Energy, Perry is unlikely to carry out his plan to eliminate the agency he will lead, although some remain unsettled regarding what may unfold during his tenure. Nevertheless, Perry's time as Governor of Texas may be telling as to the future of DOE under his direction.

Climate and Clean Energy

Perhaps the foremost source of alarm regarding Perry's selection as Secretary of Energy has been his outspoken positions on climate change, which some fear may prompt him to constrain DOE's involvement and activities in energy efficiency, renewable energy, grid modernization, and other areas vital to the clean energy revolution. During the campaign in which he promised to eliminate DOE, he also publicly stated that climate change was a "contrived, phony mess."[ii] Reportedly, the Texas Commission on Environmental Quality (TCEQ), which was led by Perry political appointees during his time as Texas Governor, refused to accept commissioned reports because they made explicit statements that climate change "is caused by human activity and is causing the sea level to rise."[iii] Perry's expressions of skepticism regarding climate-related issues have generally been directed at the community of climate researchers and advocates rather than climate change itself--he has accused scientists of manipulating data so "that they will have dollars rolling into their

projects"[iv] and called Al Gore "a false prophet of a secular carbon cult."[v]

However, if actions speak louder than words, then Perry's record on energy as Governor of Texas could be more revealing than his public proclamations on climate. Under his governorship, Texas had its per MWh emissions of SO2, NOX, and CO2 drop 56%, 66%, and 17%, respectively.[vi] During his term as Governor, Texas was a significant factor in the decline of national carbon emissions for two key reasons. First, it is a major producer of natural gas, the increased use of which has arguably been the primary driver behind U.S. carbon reductions in recent years.[vii] Not only does Texas produce enough gas so that it plays a significant role in its own energy mix, it "also has a ton left over to export to other U.S. states, ally Mexico, and around the world (via LNG), allowing them to meet their own clean-energy goals."[viii] Second, Texas steadily became the country's largest wind power state under Perry, from 115 megawatts of installed nameplate capacity in 2000 to almost 18,000 MW of capacity in 2015.[ix] Perry was particularly instrumental in the expansion of wind power within Texas, stemming from his efforts on infrastructure development--as the capacity of the state's electric grid became saturated from the increasing number of wind farms, Governor Perry was heavily involved in guiding Texas to invest in "$7 billion in new transmission infrastructure to connect more than 18,000 megawatts of remote wind power to the grid."[x]

Even though support for federal clean energy programs is unlikely to continue as it did under the Obama administration, the incoming Secretary of Energy's history of strong advocacy for wind power suggests that fears about the elimination or significant curtailment of DOE's clean energy activities are likely unfounded. For example, programs such as DOE's Grid Modernization Initiative may receive additional attention given Perry's work in expanding the electricity network within Texas and the Trump administration's pro-infrastructure agenda. Ultimately, accelerated expansion and improvement of U.S. grid infrastructure could facilitate increased renewable energy penetration in the future.

Although Perry may find climate rationales for clean energy technologies unconvincing, he would most certainly be receptive to the economic imperatives of clean energy development. Not only is the clean energy sector a major source of jobs domestically--for instance, Texas' wind power industry "employs around 25,000 people in the state"[xi]--clean energy is also a rapidly burgeoning global market, presenting sizable export opportunities for U.S. companies. The new administration would likely be keen on supporting the competitiveness of domestic energy industries, and DOE would have an important role in this effort--leveraging of the highly advanced R&D capabilities of the various national laboratories would help keep U.S. firms at the forefront of innovation, including in clean energy. Perry would doubtlessly encourage the utilization of DOE assets to advance national economic interests; Professor Larry Faulker of the University of Texas at Austin said of Perry: "I found him to be interested in scientific research and technical innovation and to be willing to support investment in them... His interest was usually driven by the possibilities for economic opportunity for the state, which is not surprising for a governor."[xii]

Management of Science Research and the U.S. Nuclear Deterrent

DOE, at its core, is a physical science R&D organization, arguably the largest and most sophisticated of its kind, buttressed by 17 national laboratories performing research on a host of areas, ranging from human genetics to nuclear material security. It is this nature of DOE's work that has caused concern in many circles regarding the future secretary's qualifications; certainly, Perry's technical chops pale in comparison to his immediate predecessors--Steven Chu and Ernest Moniz were both physicists. Moreover, the preponderance of DOE's budget is actually dedicated to the management of the U.S. nuclear weapons complex, and as some have argued, Perry has relatively little background in this area: Senator Martin Heinrich of New Mexico called him "utterly unqualified" and publicly stated, "I'm not confident that Rick Perry is

fully cognizant of the role that DOE plays in keeping our nuclear deterrent safe, secure and reliable."[xiii]

Despite these concerns regarding Perry's apparent lack of the relevant credentials, as Energy Secretary, he will not be conducting scientific research as much as he will be managing a labyrinthine complex of laboratories and scientists. In this regard, a successful Energy Secretary will need "experience heading up a vast bureaucracy with tens of thousands of employees and an annual budget roughly the size of a large state, like Texas,"[xiv] which Perry undoubtedly possesses in spades. Regarding familiarity with issues concerning the U.S. nuclear arsenal, it is arguable that Perry does not lack this either--John Davidson, Senior Correspondent at *The Federalist*, pointed out: "After all, the largest nuclear maintenance facility in the country is just outside Amarillo. Nearly every nuke in the country makes its way through the Pantex Plant in northern Texas, which ensures their continued capability and functionality. Perry worked with the National Nuclear Security Administration for more than a decade, ensuring the security of Pantex and every piece of freight into and out of it."[xv]

Former Secretary of Energy Spencer Abraham, who interestingly also called for the abolition of the Energy Department prior to his appointment to the post, has suggested that Perry will likely be surprised by the breadth of work covered by the agency, but will eventually be able to adjust: "There's a lot of elements to the department that people don't necessarily know about until you get there... you find yourself surprised by what it really entails."[xvi]

Nuclear Power and Advanced Nuclear Innovation

Perry has been a longtime supporter of nuclear power, especially with regard to limiting the regulatory burdens on existing U.S. nuclear plants and lowering barriers to new build. According to the ClearPath Foundation, an advocacy organization that supports conservative principles and "an all-of-the-above strategy for cleaner and cheaper energy,"[xvii] Perry's "stance was that the federal government must remove barriers to investment in new nuclear plants."[xviii] As Texas Governor, Perry had significant civil nuclear assets within his jurisdiction, which were outlined in an official statement by the U.S. Nuclear Infrastructure Council (USNIC) following his Energy Secretary nomination: "He [Perry] has dealt with formidable state energy and nuclear energy resources, which include four nuclear reactors, thousands of nuclear-related jobs, the U.S.'s largest nuclear engineering program at Texas A&M, a pending two-unit expansion at the South Texas Project..."[xix]

As previously mentioned, the incoming administration is expected to prioritize strengthening the competitiveness of the domestic energy industry, and arguably, in no other area is DOE's R&D role more critical to the improvement of U.S. competitiveness than nuclear energy, particularly advanced nuclear. Whereas the leading competitors in the global nuclear power market are generally state-owned enterprises with full backing from their respective national governments, the U.S. nuclear industry is largely under the direction of the private sector. In the area of advanced reactors and next-generation nuclear energy technologies, R&D efforts around the world are predominantly national programs. In contrast, the advanced nuclear industry in the U.S. is comprised of many small and medium-sized enterprises and startups that not only require substantial investment,[xx] but are in need of advanced research capabilities and facilities that DOE possesses in its national laboratories. It is in this realm that DOE can arguably have the greatest impact on the competitiveness of the U.S. energy sector--allowing American innovators to utilize DOE's cutting-edge R&D infrastructure so that they can keep pace with nationally-backed nuclear energy research programs abroad.

Although President Obama's record on nuclear power has been debated, late in his term he did introduce a number of initiatives aimed at supporting nuclear energy innovation--for example, the Gateway for Accelerated Innovation in Nuclear (GAIN), a DOE initiative, was

established to "provide the nuclear community with access to the technical, regulatory, and financial support necessary to move innovative nuclear energy technologies toward commercialization while ensuring the continued safe, reliable, and economic operation of the existing nuclear fleet."[xxi] If the Trump administration is serious about advancing energy independence and U.S. competitiveness, expect programs such as these to continue, if not in name, then in substance.

Conclusion

Although Perry's declaration of his intent to dissolve DOE in 2012 appears as inauspicious as ever following his Energy Secretary nomination, he now has an obvious deterrent to following through with that promise. In spite of that issue, Perry was arguably the most qualified and rounded of Trump's shortlist of candidates for the position, which included industry executives as well as senators and representatives from states far less endowed than Texas in terms of energy, scientific, and economic assets. Perry's experience as Texas Governor will serve him well in leading DOE, perhaps on a course that will not deviate as much as some might fear or suspect.

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