

Nuclear Remains Unclear under Trump

—— トランプ政権下の原子力政策 ——



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米国戦略国際問題研究所（CSIS）エネルギー・国家安全保障部シニアフェロー Jane Nakano氏による連載第3回のテーマは「トランプ政権下の原子力政策」。3月に発表された2018会計年度予算案骨子から見える方向性や、米ウェスチングハウスの破産法申請が政策に与える影響、州政府の動向などについて考察する。

In the American politics, the “First 100 Days” is the period when a newly elected president has the highest level of political capital to undertake key agenda that will define his/her presidency. As President Trump’s “First 100 Days” has come to a close, there is one source of energy that the Trump administration’s thinking remains unclear; that is nuclear energy. President Trump during the campaign was generically positive towards nuclear energy. His administration, however, has neither articulated its vision for nuclear energy nor introduced policy measures by which nuclear energy may be sustained or expanded.

As it stands today, the United States has 99 nuclear power reactors, most of which were built in the 1970s and 1980s. Eighty-four reactors have had operational licenses extended for an additional 20 years to operate for a total of 60 years, and several of them plan to apply for an additional extension to operate for a total of 80 years.

However, many nuclear power plants face steep economic competition from a steady growth of natural gas power generation, combined with the growing deployment of renewable energy. Five nuclear power plants with a combined capacity of 4,664 megawatts have been driven to closure since 2013 even if their operational license remained valid for many years to come. Moreover, utilities have announced decision to close five additional nuclear power plants, with a combined capacity of 6,406 megawatts.

New construction has not been robust, either. As capital and construction costs have risen over the period of half a century, only four reactors—two in

South Carolina and two in Georgia—have been approved for construction and operation since the significant overhaul of the nuclear regulatory framework following the Three Mile Island accident in 1979.

There are several key signposts as we seek to ascertain the Trump administration’s position on nuclear energy and they can be found in the preliminary federal budget proposal for Fiscal Year 2018 (October 2017 to September 2018), called *America First—A Budget Blueprint to Make America Great Again*, which was released in March.

First, the budget blueprint stresses the administration’s focus on “early-stage research and development (R&D)” over “later-stage R&D and commercialization” of energy technologies. The basic political philosophy behind this is that taxpayer money is better spent where the private sector funding is less likely or available. Many of the ongoing nuclear science and technology programs, such as advanced reactor programs, may be deemed to fall in the category of later-stage R&D, and thus could see reduced level of federal funding under the Trump administration. In particular, the level of future government support for the commercialization of small modular reactors (SMRs), which proponents believe promises a more economic approach and will help revitalize the U.S. nuclear industry, warrants close attention as the budget details become available.

Moreover, the proposed budget indicates the termination of the Innovative Technology Loan Guarantee Program, for nuclear or otherwise.

Although there has been only one nuclear project the federal loan guarantee has been used for, the monetary value was significant, at \$8.3 billion. Lastly, the budget blueprint indicates the Trump administration's support to restore the high-level spent fuel repository at Yucca Mountain in Nevada. The administration is requesting \$120 million to restart licensing activities for the project. The actual budget rarely ends up looking like a proposed budget as the power of purse rests with the Congress. It thus warrants close attention as to how much the members of Congress may push back on such shift once the administration submits more detailed budget request later this spring.

Developments beyond the presidential power can also influence the administration's stance on nuclear energy. The biggest such development may be the bankruptcy filing by Westinghouse Electric Co. in late March that stemmed largely from the significant delays and cost overruns at the two U.S. nuclear projects in the United States. The challenges at the Vogtle site in Georgia and at the V.C. Summer site in South Carolina can be attributed to several factors, such as additional regulatory requirements post Fukushima, multiple financial and legal disputes, and fixed-price contracts with the project owners. The projects, which were originally planned to come online 2016-2018, are already three to four years delayed and billions of dollars over the initial estimates of \$4.8 billion per unit for Vogtle and \$5.7 billion per unit for V.C. Summer. The bankruptcy and the underlying troubles at the two U.S. nuclear project sites are a major discouragement to the already weak appetite for new builds in the United States, at least for large-scale reactors.

The situation may also imperil future political support for nuclear power generation. It has become highly uncertain whether the projects can enter into service before the federal deadline of December 31, 2020, to qualify for the nuclear energy production tax credit, which was a key support for nuclear energy out of the Energy Policy Act of 2005. Also, if the Vogtle project is abandoned, future political willingness to issue loan guarantees to a nuclear project may severely wane as the three

main members of the project ownership consortium received the aforementioned \$8.3 billion federal guarantee. Congressional concern seems to be on rise that the Westinghouse bankruptcy and the potential termination of Vogtle project can place taxpayers at risk for the loan guarantees. Moreover, electricity customers in this area are highly concerned about a rise in electricity price in case of Vogtle termination as the borrower utilities who are obligated to repay the outstanding loan amount could shift the burden to their ratepayers.

All things considered, the role of federal government is quite limited in the affairs of electric power sector in the United States not only because the country is under the federal system, but also because about two-thirds of the electricity consumption in the United States today occurs in non-regulated markets under an independent system operator and with retail competition.

Indeed, initiatives and movements are underway at an individual state level to preserve nuclear power generation capacity. Most notably, New York and Illinois have introduced measures to essentially shield existing nuclear plants from premature retirements by recognizing their non-carbon emitting attribute. A similar measure is being pursued—although it is in a much earlier phase—in Ohio and Connecticut, while consideration to pursue a similar approach seems to be just beginning in several other states, including Pennsylvania, Massachusetts, and New Jersey.

Telling the fortune for the U.S. nuclear sector may continue to require looking outside the nation's capital for some time rather than to the presidency.

※著者略歴：Jane Nakano is a senior fellow at the Center for Strategic and International Studies. Her areas of expertise include U.S. energy policy, energy security issues in Asia, global gas market dynamics, and global nuclear energy trends. She frequently writes and speaks on these issues at conferences and to the media. Also, she has testified before Congress on energy issues in Asia. Prior to joining CSIS in 2010, Ms. Nakano was with the U.S. Department of Energy and served as the lead staff on energy engagements with China and Japan.

