Nuclear Power

Background
Nuclear power is the nation’s largest source of emissions-free electricity, accounting for 60 percent of domestic emission-free electricity generation and 19.5 percent of total electricity generation. It is a reliable source of baseload (i.e., available most of the time) energy. Given these characteristics, nuclear plays a significant part in ensuring reliable, zero-emissions electricity service.

Overall, public power utilities in 2015 generated 17.1 percent of their electricity from nuclear power. Public power utilities both own and operate nuclear reactors outright, or partner with other utilities to co-own a facility. In addition, public power utilities receive power from nuclear power plants through bi-lateral contracts, indirectly through electricity markets, or in the case of those located in the Tennessee Valley, by purchasing power generated by the Tennessee Valley Authority (TVA), which owns and operates several nuclear power plants.

The American Public Power Association (Association or APPA) supports the continued use of nuclear power, a key source of baseload, emissions-free electricity. The Association believes the federal government should make the construction of an interim storage facility for nuclear waste in a willing host community a priority. The Department of Energy (DOE) must also follow its statutory obligations and construct a final repository for nuclear waste, whether at Yucca Mountain, or another location. Federal policies should be enacted to facilitate the construction of new nuclear facilities and further the development of small modular reactors (SMR). APPA also believes that the federal government should allow the public power co-owners of the two nuclear plants currently under construction in South Carolina and Georgia to allocate their portions of the production tax credit (from which, as not-for-profit utilities, they derive no direct benefit) to other co-owners.

Spent Nuclear Fuel
The United States has long searched for a solution to address the back end of the nuclear fuel cycle (also referred to as spent nuclear fuel or “nuclear waste”). In 1982, Congress passed the Nuclear Waste Policy Act (NWPA), which assigned responsibility to DOE to site, construct, and operate a final repository for spent nuclear fuel. In 1987, Congress amended the NWPA and designated Yucca Mountain as the sole site for DOE to consider, after conducting studies of nine potential sites.

As part of the NWPA, a surcharge of one-tenth of one cent was placed on electricity produced from nuclear power plants to fund the federal government’s efforts to construct the final depository. Nuclear energy consumers, through this surcharge, paid a total of $30 billion into the nuclear waste fund, or more than $750 million per year. In 2008, DOE began pursuing a license with the Nuclear Regulatory Commission (NRC or Commission) to construct a facility at Yucca Mountain. However, despite spending nearly $15 billion dollars on the project, the Obama administration, in 2009, eliminated funding for the project and in 2010, DOE moved to withdraw its license.

Due to the federal government’s failure to fulfill its obligations under the NWPA to construct a repository, the U.S. Court of Appeals for the D.C. Circuit, in 2013, ordered DOE to zero out the nuclear waste fee. DOE complied with the order, and as of May 2014, no longer collects the fee. Separately, on August 13, 2013, the court also ordered the NRC to use already obligated funds to resume its review of DOE’s license, which the Commission had stopped in 2010.

In 2014, NRC staff finished a five volume safety evaluation report and found Yucca Mountain to be a safe location for the long-term storage of spent nuclear fuel. However, the reports recommended against NRC approval of the site until land and water rights are acquired and a supplement to DOE’s environmental impact statement (EIS) has been completed. While the NRC has been pressed to use its own funds to complete the EIS, it is unlikely that other necessary actions for approval will be completed without DOE cooperation or congressional action.
In 2010, the Obama Administration formed the Blue Ribbon Commission on America’s Nuclear Future (BRC) to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle. The BRC released its report in 2012, which contained eight key recommendations. APPA, along with the National Association of Regulatory Utility Commissioners (NARUC), Nuclear Energy Institute (NEI), Nuclear Waste Strategy Coalition (NWSC), National Rural Electric Cooperative Association (NRECA), and Edison Electric Institute (EEI) endorsed the report. The Association also supports the construction of a final repository for nuclear waste, including, but not limited to, Yucca Mountain.

On March 24, 2015, President Obama signed a memorandum authorizing the Secretary of Energy to develop separate repositories for high-level radioactive waste resulting from atomic energy defense activities and waste produced at nuclear power plants. By authorizing the “de-commingling” of civilian and nuclear waste, President Obama reversed a policy that was set by President Reagan in 1985 that essentially provided blueprints for the development of the Yucca Mountain site as a permanent repository for nuclear waste. Currently, most defense waste, which makes up about 15 percent of nuclear waste inventory, is stored at the Hanford Nuclear Reservation in Washington, Idaho National Laboratory in Idaho, and Savannah River Site in South Carolina. The Obama Administration believed the memo would help make it easier to locate and license a permanent site for the storage of defense waste. Supporters of Yucca Mountain were concerned that this reversal of policy was another attempt by the Obama Administration to stop any efforts to develop the site in Nevada.

Nuclear Production Tax Credit
As part of the Energy Policy Act of 2005 (EPAct05), Congress created the nuclear production tax credit (PTC) to facilitate the construction of new nuclear plants. While investor-owned utilities (IOU) are able to take advantage of the nuclear PTC, public power utilities and rural cooperatives cannot, due to their not-for-profit status. However, public power utilities and rural cooperatives have partnered with IOUs in the construction of new nuclear plants.

Public power utilities are critical partners in the construction of new reactors for a variety of factors, including having the best credit ratings in the electric utility industry. When public power utilities (and rural cooperatives) and IOUs partner to construct and co-own a new nuclear plant, the PTC is divided among the plant’s owners on a pro-rata basis. The part apportioned to the non-profit owner is not usable, and, therefore, languishes — providing no benefit to electric customers and eliminating the incentive intended by Congress. APPA believes that Congress should modify the PTC for nuclear facilities to permit a public power utility or cooperative to reallocate its allocation of the PTC to an investor-owned utility project co-owner or an entity engaged in the design or construction of the project in a manner agreeable to each party. The Association also believes the placed-in-service date currently in the statute that limits by when facilities can claim the nuclear PTC should be eliminated. This will enable new nuclear that may not be in service by the end of 2020 to claim the remaining credits, thus fostering the construction of new nuclear generation, the intended policy goal of this provision in EPAct05.

On April 7, 2016, APPA joined other trade associations, EEI, NEI, NRECA, and the Large Public Power Council, in a letter to Senate Finance Committee Chairman Orrin Hatch (R-UT) and Ranking Member Ron Wyden (D-OR) supporting the needed aforementioned fix to the advanced nuclear production tax credit.

Small Modular Reactors
SMRs, currently under development, have the potential to be an important addition to America’s energy mix. SMRs are nuclear reactors that can generate up to 300 megawatts of power and can be linked together to provide incremental power as load grows. SMRs can yield significant economic, energy security, and environmental benefits. They are expected to be attractive options for generating electricity from an energy source that does not emit greenhouse gases and can provide utilities with flexibility with regard to scalability and plant siting.

DOE has provided funding for the accelerated development and commercialization of SMRs. They will provide utilities with another carbon dioxide emissions-free resource and should therefore be a significant component of future energy plans.

On February 19, 2016, DOE announced an agreement to support possible siting of an innovative SMR project at its Idaho National Laboratory (INL). The Site Use Permit allows APPA member, Utah Associated Municipal Power Systems (UAMPS), to access the INL site to analyze environmental, safety, and siting conditions to identify potential locations suitable for building its Carbon Free Power Project (CFPP).

Congressional Action
In the 114th Congress, several nuclear-related bills were introduced. Senators Lamar Alexander (R-TN), Lisa Murkowski (R-AK), Diane Feinstein (D-CA), and Maria Cantwell (D-WA) introduced S. 854, the Nuclear Waste Administration Act of 2015. The legislation sought to implement the BRC’s recommendations to establish a Nuclear Waste Administration and create a consent-based process for siting nuclear waste facilities. Senators Harry Reid (D-NV) and Dean Heller (R-NV) introduced S. 691, the Nuclear Waste Informed Consent Act.
The legislation would have required the governor, affected counties and cities, and affected tribes to sign off before the Nuclear Regulatory Commission could authorize construction of a nuclear waste repository. Companion legislation (H.R. 1364) was introduced in the House by Representatives Dina Titus (D-NV) and Joe Heck (R-NV).

Also in the 114th Congress, Senate Environment and Public Works Committee Chairman Jim Inhofe (R-OK) introduced S. 2795, the Nuclear Energy Innovation and Modernization Act. The legislation would have helped the NRC prepare for the future by establishing new transparency and accountability measures on its budget and fee programs and ensure the NRC was able to develop the regulatory framework necessary to enable the licensing of advanced nuclear reactors. It would also have established performance metrics and reports to Congress to improve transparency into the timeliness of decision making. A hearing was held on the legislation on April 21, 2016. H.R. 4979, the Advanced Nuclear Technology Development Act of 2016, was approved by the House on September 12, 2016. This legislation by Representatives Bob Latta (R-OH) and Jerry McNerney (D-CA), would have required DOE and NRC to work together to provide certainty for the development of advanced nuclear technology.

Lastly, in the House, Reps. Tom Rice (R-SC) and Earl Blumenauer (D-OR) introduced H.R. 5879, legislation that would have allowed not-for-profit utilities, including public power utilities, to assign their allocation of credits to entities with tax obligations that are involved in the project. The bill would also have removed the placed-in-service deadline for claiming the nuclear production tax credit (currently the end of 2020). H.R. 5879 passed the House Ways & Means Committee on September 21, 2016, but was not considered by the full House of Representatives.

**American Public Power Association Position**

APPA supports the construction of a consolidated interim storage facility in a willing host community in the next 10 years. The Association also supports the creation of a congressionally chartered federal corporation dedicated to implementing the waste management program and the construction of a final repository for nuclear waste, including, but not limited to Yucca Mountain.

Furthermore, APPA urges Congress to modify the PTC for nuclear facilities to permit a public power utility to transfer or sell its allocation of these tax credits to an investor-owned utility project co-owner in a manner agreeable to each party, as well as eliminate the placed-in-service date. In addition, the association supports federal efforts to further the development of SMRs, including the licensing and commercialization of SMR technologies for the use of electric utilities in the U.S.

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