

June 27, 2022

U.S. Department of Energy
Office of Nuclear Energy
1000 Independence Ave. SW
Washington, DC 20585

Subject: Comments from the American Nuclear Society on the Department of Energy's (DOE) Proposed Guidance Amendment for the Civil Nuclear Credit (CNC) Program

Background

In November 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA). The act included the CNC program, which provides financial incentives for the continued operation of nuclear power plants projected to cease operations due to economic factors. The program would provide credits on a per megawatt-hour basis for "certified nuclear reactors," with the credits not exceeding the average projected annual operating loss. By definition, certified nuclear reactors must compete in a competitive electric market.

On April 19, 2022, DOE issued guidance for the CNC program. Among other things, the guidance requires that the reactor "...competes in a competitive electricity market," which can be done by showing that the reactor will receive 50 percent or more of total revenue from sources that are exposed to electricity market competition. The guidance further states that applicants that recover more than 50 percent of the cost of operation from cost-of-service regulation or regulated contracts will not be deemed to qualify for the CNC program. The deadline for applications for the first cycle of awards was established as May 19, 2022 (30 days after the guidance was issued). The deadline was subsequently extended to July 5, 2022.

On May 23, 2022, the office of the Governor of California requested revisions to the guidance, as summarized below.

1. Remove the limitation that a nuclear reactor is ineligible if it recovers more than 50 percent of its cost from cost-of-service regulation or regulated contracts.
2. Specify that operating losses include "costs not recovered through cost-of-service-ratemaking." Specifically, California seeks to recover transition costs for operation beyond the current license expiration dates.
3. Explicitly include grid reliability and support for state clean energy goals, as well as emissions reductions, as a rationale for payments under the CNC program.

On June 17, 2022, DOE invited public comment on proposed changes to the guidance. DOE proposes to change the 50 percent requirement (item 1) to one of receiving "a material amount of its total revenue from sources that are exposed to electricity market competition." DOE does not propose to make the change requested in item 2, stating that transition costs are already included in costs allowed by its guidance. DOE also does not propose to make any change pursuant to item 3, noting that the enabling legislation does not explicitly contemplate the additional rationales for awards under the CNC program.

In addition to comments on its proposed action, DOE seeks input on the following specific questions:

1. If DOE revises the Guidance with respect to the criteria to determine whether a Nuclear Reactor competes in a competitive electricity market, should DOE revise the Guidance for a future award cycle, or amend the Guidance for the first award cycle?
2. If DOE amends the Guidance with respect to the criteria to determine whether a Nuclear Reactor competes in a competitive electricity market for the first award cycle, should DOE extend the deadline for submission of certification applications and sealed bids, currently July 5, 2022?

Discussion

The intent of Congress in the IIJA was clear: to prevent currently-operating nuclear power reactors from shutting down for economic reasons and thereby leading to an increase of pollutants emitted by replacement energy sources. The IIJA provides for payments to operators of nuclear power plants to compensate for economic losses those owners would incur due to continued operation of the plants.

The CNC program is complicated by the fact that the country's 92 nuclear power reactors operate under different economic regulatory frameworks that are administered at the state level. The frameworks can be loosely categorized as either cost-of-service (traditional regulatory approach) or market ("competitive" market for generation). However, within those two categories, practices vary dramatically, and state mandates, regulations, and subsidies often favor some generation sources over others. Such is the case in California, where the state encourages intermittent renewable resources over carbon-free nuclear baseload power and carbon-emitting, fossil fuel-fired generation. During the last decade state agencies facilitated the planned shutdown of the two Diablo Canyon nuclear reactors in 2024 and 2025, respectively. The California framework is a mixture of the two approaches, with cost-of-service treatment for some generation sources and market for others. DOE is wrestling with how to provide guidance that is consistent with the IIJA and applicable to the nuances of all of the frameworks under which the country's nuclear power reactors operate.

It is increasingly clear that California made a serious mistake during the last decade when it decided to discontinue operations at Diablo Canyon in the hope that clean, affordable, reliable renewable energy sources would spring into being and address all of the state's electricity generation needs. A lack of regional hydropower due to the drought and the inherent unreliability of renewable resources have put California into a serious risk of blackouts even before Diablo Canyon shuts down. If the nuclear units go offline as planned in 2024 and 2025, the situation in California will be dire indeed. Notwithstanding the state's role in creating the problem, the federal government should take all available and legal actions to enable continued operation of Diablo Canyon, to the benefit of the U.S. citizens who live in or travel to California or rely on economic activity in the state. This includes appropriate adjustments to the guidance for implementing the IIJA.

Regarding the economic future of at-risk nuclear energy in U.S. electricity markets, the American Nuclear Society favors technology-neutral, performance-based energy and climate policies and market constructs that treat all carbon-free energy sources fairly and equally. Nuclear must be treated on a level playing field with other clean energy technologies.

Deep decarbonization and electrification of the U.S. economy will require the increased availability of firm, “dispatchable” zero-carbon energy technologies. Nuclear energy is the only energy source with a proven track record of producing firm, zero-carbon energy at the scale needed to meet decarbonization and electrification targets.

Comments

Regarding the proposed changes to the guidance, they do not go far enough. The letter of the IIJA states that a certified nuclear reactor (one eligible for aid) “competes in a competitive electricity market.” It is a fairly simple criterion, and one that does not require a determination of “materiality” (as the DOE is suggesting) or a quantitative measure of 50 percent of costs as was included in the original guidance. The DOE guidance should be as broad as possible within the wording of the act, in order to maximize the ability to meet the intent of the act for as many nuclear power reactors as possible. If a reactor competes in a competitive electricity market at all, regardless of the degree to which it does so, it should be deemed to be eligible.

Regarding DOE Question 1, DOE should amend its guidance for the first award cycle. Given the current and projected high prices of natural gas, there does not appear to be an imminent need to rush the program into operation. In this situation, it is more important to do it right than to do it fast. First amend the guidance to be as broadly applicable as possible, and thereby most capable of fulfilling the intent of the IIJA under the current circumstances.

Regarding DOE Question 2, DOE should extend the deadline to provide time for all potential applicants to apply under the revised guidance during the first cycle. That would be most consistent with the intent of the IIJA under the current circumstances.

Sincerely,

Craig H. Piercy

A handwritten signature in black ink, appearing to read "C. H. Piercy", with a stylized flourish at the end.

Executive Director/CEO
American Nuclear Society

Steven P. Nesbit

A handwritten signature in black ink, appearing to read "S. P. Nesbit", with a long horizontal line extending to the right.

Immediate Past President
American Nuclear Society