



The Honorable Janet Yellen
United States Department of Treasury
1500 Pennsylvania Avenue, NW
Washington, D.C. 20220

August 20, 2024

Dear Secretary Yellen –

We are writing to comment on the implementation of the Code section 45U Zero-Emission Nuclear Power Production Credit created by the Inflation Reduction Act, with the goal of ensuring that clean, based-load nuclear power – regardless of ownership – is not prematurely retired. When first introduced as a legislative proposal in 2021, the credit was initially designed to benefit merchant generators in organized energy markets out of concern that market pricing was not recognizing the reliability and non-emitting benefits of nuclear power and forcing nuclear power plants into early retirement. However, because these same market pricing impacts affect all owners and not just merchant generators, the provision was expanded in the IRA to be available to all owners of a “qualified nuclear power facility” as defined in section 45U(b)(1), including public power utilities that will monetize credits through elective payment. The expansion of the credit since introduction to other types of generation owners creates new complications that must be addressed to achieve these important goals.

By way of background, public power utilities are generally units of state or local government, including political subdivisions of a state, instrumentalities, agencies, and joint powers agencies. Public power utilities own 8,027 megawatts of the nation’s 99,435 megawatts of nuclear power generating capacity. These public power utility owners of nuclear power generating capacity include both municipal utilities providing service to end users and joint action agencies that provide power to municipal utilities for resale. Public power utilities both own and operate nuclear reactors outright, or partner with other utilities (including other public power utilities, rural electric cooperatives, investor-owned utilities and merchant generators) to co-own facilities. In addition, public power utilities located in the Tennessee Valley purchase power generated by the Tennessee Valley Authority, which owns and operates several nuclear power plants.

The per kilowatt hour (kWh) rate of the 45U credit depends on the gross receipts per kWh sold by a qualified facility. Generally, the credit is at its maximum where gross receipts per 1,000 kWh are \$25 or less, and fully phases out when gross receipts per 1,000 kWh reaches \$43.75, with no credit available when gross receipts are above \$43.75 per 1000 kWh.

The pricing mechanics of power markets within the United States are complex and vary depending on geography, with some markets being regulated and others operating outside of regulated markets. Where power from an applicable facility is not being sold in a regulated market, defining “gross receipts” is more complicated, and the effect on the value of the credit could lead to unintended consequences.

First, where power generated from a qualified nuclear power facility is used by the owner to serve retail customers, determining “gross receipts” per kWh is challenged by the inclusion of multiple costs that are unrelated to the operation of nuclear power generation but necessarily incurred to serve retail customers, including the cost of generation resources other than nuclear facilities. Generally, retail customers are segregated into separate customer classes, each charged a different rate under separate rate tariffs. These customers are served by a portfolio of generation sources and do not specifically pay for the power supplied by specific generation assets. Additionally, while retail customers often pay some fixed costs as a separate line item on their bill, variable electric rates for retail customers also typically include some fixed costs for transmission, distribution, and customer service. As a result, it would be little more than educated guesswork to say what the retail customer is “paying” for nuclear power generation used to serve its needs and an alternative methodology is needed to accomplish the goals of the credit for owners of nuclear generation facilities serving retail customers within regulated markets.

Many public power utilities, as governmental entities, charge rates to cover system costs rather than provide profit. Those rates frequently are based on system wide costs, involve assets in different regions, and do not reflect necessarily the recovery of costs for a particular nuclear generation facility, being increased by higher costs of operating and maintaining other system assets, including hazards in other distant areas. In calculating “gross receipts” we believe it is appropriate in such instance to only consider the portion of such governmental entities rates to recover costs of the particular nuclear facility. The necessity of guidance in this area was suggested by the IRS in Notice 2022-49. Comments relating to this matter have been previously submitted by the Los Angeles Department of Water and Power and the Southern California Public Power Authority. While additional details relating to calculating gross receipts are suggested below and certain other alternative methods are suggested, we believe confirmation relating to the above approach is essential.

Second, where power generated from a qualified facility is sold at wholesale via longer-term bilateral contracts (a power purchase agreement) or via a regulated, cost-based recovery rate, receipts from those

sales will include coverage for fixed costs, primarily the cost of capital. On its face, including such costs may seem reasonable, but this does not account for how generation facilities are economically dispatched to serve load. Generally, the next most economic unit is started to serve increasing load, with the most uneconomic unit being the one that is shut down first as load declines. In regulated markets, this economic dispatch process takes into account a unit's fixed costs and, since the fixed costs of nuclear units is usually the highest in the fleet, emission-free nuclear generation can be priced out of the market, which sparked the initial concern that section 45U was meant to address. Even outside of organized markets, where generation dispatch may include less or no fixed costs, existing nuclear generation may almost always be online because of its low incremental variable costs, but the plant owner and co-owners are still bearing the high fixed costs to provide incrementally low-cost energy. Thus, capital costs have to be recovered, in either scenario, through the rates charged for emission-free nuclear generation. Additionally, under joint-ownership, different owners in the same plant will have different fixed costs for their cost of capital (typically the project is financed with each owner providing its own pro rata financing, with a different mix of equity, debt or cash). As a result, if gross receipts is defined as the cost-based recovery rate (including the cost of capital) then some owners in the same plant could qualify for the 45U credit, while others might not – which would undermine the purpose of the credit while also raising questions of horizontal equity.

These cost attribution and allocation issues do not just affect public power utilities but are also a problem for other nuclear-power-generation owners. For example, recently you received a letter from members of Congress from Arizona, North Carolina and Michigan asking that for purposes of section 45U, gross receipts be defined by:

(R)eference to the established or approved cost-of-service, rate-of-return revenue requirement attributable to owning and operating such nuclear facility during the tax year for which the credit is claimed.”¹

Looking to cost of recovery as a proxy for gross receipts where power is not being sold in regulated markets could help resolve some of the issues discussed above. However, we would suggest that “gross receipts” instead be defined as the incremental cost of generation from the facility, including operation and maintenance (O&M) and fuel costs, but excluding fixed costs, primarily the cost of capital. We would propose excluding fixed costs, largely because such fixed costs do not bear on whether a unit is economic to operate at any specific time.

¹ The Honorable Alma S. Adams, Ph.D., et alia, Letter to Secretary Yellen, March 28, 2024.

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Additionally, requiring the owner of a qualified nuclear power facility to include fixed costs, including capital, would have unintended affects given the mechanics of the credit. Again, the credit is greatest when gross receipts per kWh are lowest, and phases out when receipts are at \$43.75 per 1,000 kWh or higher. Defining gross receipts as the full cost of recovery – including cost of capital – would mean that qualified nuclear power facilities (and even individual co-owners in the same qualified nuclear power facility) with higher fixed costs would receive a lower credit rate or no credit at all. Excluding fixed costs would reduce the chance that the facility would receive no credit at all, and would not arbitrarily limit the support that section 45U provides for keeping existing emission-free nuclear generation in the fleet of generation resources.

We would also suggest an alternative “safe harbor” to be used as a proxy for section 45U’s gross receipts divided by power generation calculation. Specifically, we would propose allowing an owner to use the wholesale market price for energy at the wholesale market or hub nearest to the qualified facility when determining the section 45U credit rate. For owners either using power generation to serve retail customers or selling power at wholesale, this could provide a visible and fair assessment of the market price for power sold from the qualified nuclear power facility. Again, this would be an alternative to, not replacement for, the cost-based option discussed above.

Finally, we understand that the approaches discussed above may still be inadequate for some owners of qualified facilities based on the complex nature of the contracts under which they are operating. Under such circumstances, we would urge Treasury to provide for a case-by-case opportunity for owners of qualified facilities to evidence gross receipts on an individualized basis, understanding that the intention of the statute – supporting the ongoing operation of qualified nuclear facilities – may not be readily achieved with a single approach.

Thank you in advance for your consideration of these comments. If you have any questions, please feel free to contact me at jgodfrey@publicpower.org or via phone at (202) 467-2929. Additionally, APPA staff would be happy to meet with you or your staff to discuss these comments in greater detail.

Sincerely,

John Godfrey
Senior Government Relations Director