Why Nuclear Subsidies are an Unnecessary Threat to Building a Least-Cost, Low-Carbon, Electricity System

A New Report by Dr. Mark Cooper

Proposals from the White House and Congress, such as Sen. Cardin’s (D-MD) S.2291, would invest up to $50 billion dollars in subsidies for aging, uneconomical nuclear power plants over the next decade. A new report by economist and consumer advocate Dr. Mark Cooper shows that these subsidies for nuclear energy would undermine the goals of President Biden’s infrastructure and climate plans. In contrast to renewables, subsidizing aging nuclear reactors and other false solutions would obstruct the transition to a zero-emissions energy system and squander the economic and environmental benefits that such a transition would yield.

Dr. Cooper’s report concludes that the best investment for climate, jobs, and the economy is in a rapid transition to a renewable, modern energy system, phasing out nuclear power along with fossil fuels. Focusing on the transition to 100% renewable energy will feed a virtuous cycle of job creation, climate protection, technological innovation, and cost reduction.

Key Conclusions

- A sound energy and economic policy must be founded upon a rapid transition to 100% renewable energy, energy efficiency, and a modern, smart electricity grid.
- Advances in renewable energy now make it possible to both grow an equitable economy and phase out greenhouse gas emissions at the lowest cost.
- Policy makers and regulators must pursue this path to the fullest extent possible, in pursuit of decarbonization, economic development, pollution reduction, public health and protection of the environment.
Economy

Investing in renewables is the best choice now and in the future. Keeping uncompetitive nuclear reactors online through subsidies would squeeze out and delay the growth of renewables for decades. The costs of nuclear power are high and rising, reducing spending and jobs economy-wide, impacting families’ disposable income, and increasing utility costs for consumers. Bailing out existing nuclear reactors would forgo approximately 80% of economic benefits of the transformation and still require future replacement of nuclear facilities, further increasing the cost and risk. Further, the nuclear industry is sitting on $64 billion in decommissioning trust funds which can be used to keep nuclear workers employed and help communities transition to the clean energy economy.

The cumulative value of federal subsidies for nuclear power dwarfs the value of subsidies for renewables and efficiency by 10 to 1. With a much smaller level of subsidy, renewables have achieved dramatically declining costs in a little over a decade, a result that has eluded the nuclear industry for half a century. The right choice is to let nothing stand in the way of the transition to renewables and get it done as quickly as possible.

Environment

Given the overwhelming superiority of the alternatives on cost and economic impacts, the U.S. should follow a strategy of pursuing 100% decarbonization on the basis of the four elements of the 21st century system: efficiency, wind, solar and intelligence. The falling costs of renewables and advances in grid infrastructure will assure a reliable, cost-effective energy system.

The report finds that decarbonization with the phase-out of nuclear power appears to be possible. As reactors retire, they are being replaced quite easily without any disruption in decarbonization of the electricity sector. The primary lesson is not that nuclear power should be subsidized so it can continue to generate electricity; it is that more planning and lead time about retirements will make the process smoother.

Read the full report here