



July 24, 2019

The Honorable Paul Tonko
Chairman
Subcommittee on Environment & Climate Change
U.S. House of Representatives
2123 Rayburn House Office Building
Washington, D.C. 20515

The Honorable John Shimkus
Ranking Member
Subcommittee on Environment & Climate Change
U.S. House of Representatives
2123 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Tonko and Ranking Member Shimkus:

Decarbonizing our economy will be a huge challenge. Nuclear energy, which is our largest source of emissions-free power, must play a big role in solving the problem, and prompt actions now can give us a leg up on reaching our goal of climate stabilization.

Several studies have shown that decarbonizing with nuclear energy significantly reduces the cost. For example, a recent study by several MIT experts found, “Across a wide range of sensitivities, firm low-carbon resources—including nuclear power, bioenergy, and natural gas plants that capture CO₂—consistently lower the cost of decarbonizing electricity generation. ... Availability of firm low-carbon technologies, including nuclear [...], reduces electricity costs by 10%–62% across fully decarbonized cases.”¹

America’s 98 power reactors provide nearly 20 percent of our electricity. Nuclear power also represents over 50 percent of all the clean, carbon-free electricity in the U.S. That’s more than twice the amount of wind and solar combined. That much carbon-free electricity is the equivalent of retiring over 100 million passenger cars.

And this nuclear carbon-free electricity is created very efficiently. There are 8,000 power plants connected to the grid, and less than one percent of them are nuclear plants.

¹ “The Role of Firm Low-Carbon Electricity Resources in Deep Decarbonization of Power Generation,” by Nestor A. Sepulveda, Jesse D. Jenkins, Fernando J. de Sisternes, and Richard K. Lester, *Joule*, November 21, 2018.

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The problem today is that some of these nuclear plants are operating in energy markets that are poorly structured and do not recognize the value of emissions-free energy. As a result, some plants have closed and others are threatened. The ones we have lost, and are poised to lose, will take many years and billions of dollars to replace with new emissions-free generators. Replacing just one, 1,000-MW nuclear reactor would require an investment of nearly \$3 billion to site 937 wind turbines or \$5 billion for 18.5 million solar panels.

Many of our nation's nuclear plants are facing a decision whether to apply for extensions on their operating licenses. These major capital assets can be run safely for decades more, but they will require investment and modernization. Keeping them operating also provides benefits beyond climate. It keeps the electric system reliable and moderates price swings, and provides well-paid, year-round employment.

The nuclear energy industry supports 475,000 American jobs. The industry contributes \$60 billion to the country's GDP. And it pays \$10 billion in federal and \$2.2 billion in state taxes each year.

The federal government should take steps to preserve the nuclear fleet and extend its life. The other short-term step is to encourage the commercialization of new reactor technologies. In coming years, we are likely to begin an accelerated effort to decarbonize, and now is the time to establish what works and what needs refinement. New nuclear reactors have other economic benefits: They provide very substantial construction employment and permanent jobs for high-skilled, high-wage operators and maintenance personnel. They pay the taxes that fund our schools and our towns.

Government can be a lender, and a customer for the clean electricity these plants will produce. Government regulators must continue their vigilant, independent safety regulation, while continuing to modernize their rules to take account of new designs.

We cannot know today the details of what a low-carbon economy will look like, but we do know that it will be mostly electric.

A strong nuclear backbone in our electric system is important now and will become more so in the future, because the vast quantities of low-carbon energy that reactors produce makes everything else work better, too. Electric cars, which the government is subsidizing heavily, are only as clean as the electricity that goes into them. That means putting nuclear on the grid. Electric heat pumps that displace fuel oil and methane in home heating likewise need clean

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electricity to justify their expense. And beyond electricity, steam from new nuclear plants can replace fossil fuels in oil refineries and other industrial uses. These will be mostly new designs. American ingenuity is up to the challenge of designing these machines, and American labor is ready to build and operate them.

The IBEW and the nuclear industry look forward to being a major part of the campaign for climate stability. Our jobs, environment and economy demand it.

Yours very sincerely,



Lonnie R. Stephenson

International President

International Brotherhood of Electrical Workers



Maria Korsnick

President and CEO

Nuclear Energy Institute

c: The Hon. Frank Pallone, Chairman, Committee on Energy and Commerce
The Hon. Greg Walden, Ranking Member, Committee on Energy and Commerce
Members of the Committee on Energy and Commerce