

**Written Testimony Submitted to the  
United States House of Representatives**

**Committee on Energy and Commerce  
Subcommittee on the Environment**

***The Nuclear Waste Policy Amendments Act of 2017***

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Good Morning, Chairman Walden, Ranking Member Pallone, Subcommittee Chairman Shimkus and Subcommittee Ranking Member Tonko and members of the Subcommittee on Environment. Thank you for your invitation to appear before the committee today to discuss the state of the nuclear energy industry and its economic impact on our country.

My name is Mark McManus and I serve as General President of the United Association of Union Plumbers, Pipefitters, Welders and Service Technicians. We represent 340,000 of the hardest working, most highly-trained men and women in the piping industry. When it comes to nuclear power, our members are at the forefront ensuring we deliver safe, clean energy to consumers.

However, the nuclear energy industry is at a dire crossroads in America. To remain viable, we must recognize nuclear energy as a key component of our energy future, and be actively committed to its overall success. This hearing could not come at a more important time. With many recently announced closures and other plants on life support, the time to act is now.

As the best method of generating electricity without producing greenhouse gases, expanding nuclear power must be a top priority. In fact, most scientists agree that the world cannot sufficiently battle climate change without a serious commitment to expanding our nuclear fleet.

Nuclear power currently makes up roughly 20% of the energy mix in the United States. Our current fleet, which stands at 99 reactors, is facing severe difficulties due to intense pricing pressure from natural gas. Natural gas alone, while less carbon intensive than coal, is simply not enough to meet our overall reduction goals. To be successful, it is critical that we not only keep our current fleet of nuclear reactors open, but that we also expand the nuclear power industry in the United States.

Consider the following:

1. Nuclear power produces 70 percent of our carbon-free electricity today. In contrast, wind and solar power provide only 2 percent of our electricity and only 6 percent of our carbon-free electricity. Nuclear energy also produces none of the air pollution that comes from burning fossil fuels.

2. America's nuclear reactors operate all day and night, every hour on the hour, making nuclear our most reliable source of electricity. Renewable energy is intermittent, with power available only when the wind blows or the sun shines — which is only about a third of the time.

3. According to the National Academy of Sciences, nuclear energy can produce electricity at or below the cost of wind, solar or coal with carbon capture. Renewable sources may seem cost effective, but only because they are subsidized with billions in government subsidies. At current rates, the government and taxpayers would have to pay \$170 billion to subsidize the 186,000 wind turbines necessary to equal the output of 100 nuclear reactors.

Nuclear power is also vitally important to the American economy and job creation. The vast majority of nuclear reactors generating carbon-free power in the United States have been successfully maintained by United Association members and our union contractors.

Each nuclear facility in our country employs 400 – 700 workers per 1,000 megawatts of power capacity. A new reactor like the AP1000, currently under construction in Georgia, will employ thousands of our members for nearly a decade. When construction is complete, our members will handle the refueling and maintenance on these plants for 60 - 80 years. This is truly long-term employment.

The same can also be said for the next generation of reactors. Small Module Reactors (SMR) are in various stages of development. As it stands now, the first SMR that will be deployed in the United States is the reactor being built by NuScale for the Utah Municipal Authority on the Idaho National Lab site. This project includes the installation of over 150,000 linear feet of piping, 2,500 pieces of equipment and over 4,500 valves. These numbers represent thousands upon thousands of man hours for our members. This offers them the opportunity to provide for their families and sustain the middle-class life they have worked so hard to achieve. Many good paying jobs depend on the vitality and success of the nuclear industry.

The economic benefits reach beyond project construction and maintenance. Consider the tax revenue generated for local schools and hospitals, or the impact on local businesses that rely on the workers and their family's patronage. These projects create viable communities for our citizens. When a nuclear plant closes, it jeopardizes the ancillary jobs and economies that support the plant. Communities are left devastated much like we saw when an auto or manufacturing plant closed.

The nuclear industry needs your assistance. It's no secret that the Westinghouse bankruptcy has cast a cloud over the future of nuclear power in the United States. Over the next month or two, we hope to have a clearer picture of the long-term ramifications. But even before the Westinghouse situation, the United States was rapidly losing ground to countries like China and India, who are outpacing us in the deployment of new nuclear power generating facilities. As is happening with infrastructure in our country in general, we are falling behind other civilized countries. We must do more and become a world leader in this industry.

Hearing all of this makes nuclear energy sound like a no-brainer. So why are we falling behind as other countries push forward? Why, despite all the environmental benefits and job creation, do we see reactors closing? The short answer is politics and public misconception. Yucca Mountain is a prime example.

It has been 30 years since Congress designated Nevada's Yucca Mountain as a secure site for our nation's nuclear waste. Since then, and \$11 billion dollars later, Yucca Mountain sits empty.

Yucca Mountain is in a remote section of the Mojave Desert and the secure storage facility is located 1,000 feet underground. A study released by the Nuclear Regulatory Commission in 2014 concluded that the design met all the agency's requirements. They stated, the "proposed repository as designed will be capable of safely isolating used nuclear fuel and high-level radioactive waste for the 1-million-year period specified in the regulations."

There is currently 79,000 tons of existing nuclear waste in America. Right now, it is stored in smaller facilities scattered across the country. These facilities are much less secure than the more permanent, long-term solution offered by Yucca Mountain.

Each of these smaller sites, 34 in all, require constant maintenance and vigilance. From a safety and security standpoint, this is a haphazard approach to nuclear waste storage. Unlike the nearly impenetrable Yucca Mountain, the 34 smaller storage sites, scattered across the country, create an unnecessary risk of environmental disasters and terrorist attacks. They also place a burden on the national deficit. The federal government has had to subsidize these facilities that have been forced to store the spent fuel — a cost expected to approach \$25 billion.

In closing, I believe the Nuclear Waste Policy Act of 2017, offers a great first step in revitalizing the nuclear energy and putting people back to work. The United Association of Union Plumbers, Pipefitters, Welders and Service Technicians looks forward to working with congress in a bi-partisan way to ensure this critical industry remains viable in providing energy to consumers, reducing greenhouse gases and creating thousands of jobs for American workers. It is with great confidence that I can guarantee that our members are standing by, ready and willing, to build and maintain these plants to secure America's clean energy future.