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April 11, 2018

The Honorable Rick Perry
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Secretary:

Our nation's nuclear power plants deliver benefits that go far beyond a reliable and resilient electrical grid. Nuclear energy contributes to a strong economy, a cleaner environment, and national security. Yet today we are at risk of losing much of what nuclear energy delivers.

FirstEnergy Solutions has announced plans to shut down several electricity generation facilities, including four nuclear reactors at three sites – two reactors each in Ohio and Pennsylvania.¹ These four reactors join eight others that have already announced plans to shut down, and another six that have permanently closed over the past five years. The announcement of these additional nuclear retirements is further proof that the industry has reached an inflection point in the debate over market reforms to recognize the value of the nation's largest and most resilient source of emissions-free energy. The simple fact is that nuclear energy's many benefits are not being recognized by the markets in which they operate. We are therefore writing to request that immediate action be taken to prevent the closure of these four nuclear power reactors and to more fully recognize the benefits that nuclear energy delivers to our nation.

As demonstrated by the recent announcement that Exelon's Three Mile Island reactor will prematurely shut down in September 2019², once a deactivation decision is made, the plant owner ceases investment in capital investments, including fuel. Moreover, refueling outages must be planned a year in advance. Thus, in the case of TMI and the FirstEnergy Solutions plants, without urgent action, it will be too late to reverse these decisions and allow for continued operation.

Nuclear energy accounts for nearly 20 percent of the electricity generated in the United States. And regardless of what you value in our electricity system, nuclear energy delivers. Our nation's 99 nuclear power reactors have an unmatched combination of attributes that are central to a clean, modern electrical grid, but that are under-valued or not valued at all in most electricity markets.

For example, if you value system resilience and low electricity prices, you should value that nuclear plants operate around the clock for up to two years between refuelings, providing valuable fuel security,

¹ See <https://www.fes.com/content/fes/home/restructuring.html>

² <http://www.exeloncorp.com/newsroom/exelon-to-retire-three-mile-island-generating-station-in-2019>

reliability and price stability to our electricity markets. Losing these and other nuclear power reactors would imperil the resilience of the grid and drive up costs to consumers. A recent Department of Energy study³ showed the PJM electricity system was heavily reliant on these and other economically challenged plants to provide generation during the bomb cyclone event this winter. Even with these plants helping to provide power, electricity prices soared above \$200 per megawatt hour as natural gas prices spiked. Managing severe cold weather events without these nuclear plants will be costlier as the system becomes increasingly dependent on generation that depends on “just-in-time” fuel deliveries and lacks firm fuel supply capabilities.

In addition, multiple studies have made clear that when nuclear plants shut down, electricity prices rise – even under normal weather conditions. For example, the Brattle Group⁴ found that New York would save customers a billion dollars a year by acting to preserve nuclear plants. Providing financial support for nuclear power plants facing premature closure decisions will cost consumers far less than any of the alternatives.

If you value clean electricity generation, you should value nuclear energy as our nation’s single-largest source of carbon-free generation, representing nearly 60 percent of all zero-carbon electricity. In addition, nuclear energy generation emits no sulfur dioxide, nitrogen oxides, mercury, and particulate emissions. The four nuclear reactors announced for closure generated more non-emitting electricity last year than all of the wind and all of the solar produced in PJM combined. If these reactors close, carbon emissions will increase over 20 million metric tons, the equivalent of putting over 4 million additional cars on the road. It simply won’t be feasible to replace all or even most of the lost clean energy generation with renewables; the increased fossil fuel generation that would replace the lost nuclear generation would wipe out more than 25 years of progress toward a cleaner electricity system.

If you value national security and global influence, you should be concerned that the U.S. leads the world in nuclear energy generation, but has seen its civil nuclear leadership erode as Russia and China have captured an increasing share of the global market.⁵ For several decades, our strong domestic nuclear industry has helped the U.S. enforce the world’s highest standards for nuclear safety and nonproliferation. American influence is strengthened through the century-long relationships built when the U.S. engages in nuclear commerce with another nation, and other nations seek us out as commercial partners in part because we operate the safest and most efficient nuclear power plants in the world. Unfortunately, other nations will be increasingly less likely to look to the U.S. for nuclear products and services if we let our operating nuclear fleet continue to shrink.⁶

And finally, if you value well-paying, long-term jobs, you should know that losing these and other reactors would have dire consequences for the communities that host the plants. For example, closure would mean the loss of over 3,000 full-time jobs for the Ohio and Pennsylvania employees who work at the four plants, as well as thousands more jobs in the surrounding communities that are supported by their economic activity. This translates into the loss of millions of dollars in taxes and negative impacts

³ <https://www.netl.doe.gov/research/energy-analysis/search-publications/vuedetails?id=2594>

⁴ [http://files.brattle.com/system/news/pdfs/000/001/046/original/comments_on_the_new_york_dps_\(2\).pdf](http://files.brattle.com/system/news/pdfs/000/001/046/original/comments_on_the_new_york_dps_(2).pdf)

⁵ <https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/59947949f43b55af66b0684b/1502902604749/EFI+nuclear+paper+17+Aug+2017.pdf>

⁶ https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/130719_Wallace_RestoringUSLeadershipNuclearEnergy_WEB.pdf

to the GDP of each state. The economic hardships faced by other communities where nuclear plants have already shut down should both alarm and motivate state and national leaders to act.

The announcement by FirstEnergy Solutions demonstrates the urgency for federal policymakers to act in markets where nuclear energy is undervalued. All appropriate options should be explored to prevent the premature closure of nuclear plants and preserve the nuclear energy option. It is past time for the federal government to ensure proper valuation of nuclear energy's many attributes in electricity markets and to take other measures to preserve nuclear energy for our nation's future.

As the trade association for the nation's largest source of emissions-free energy, NEI urges policymakers to pursue long-term sustainable reforms to market rules that will correct widely acknowledged flaws that unfairly disadvantage nuclear plants, without interfering with state planning processes and regions (such as MISO) where federal markets are functioning. We have advocated in prior comments to FERC for "cost-of-service compensation for nuclear generation units, at least until other market structures are put in place that appropriately value the resiliency attributes that nuclear generation units provide."⁷ Accordingly, a Section 202(c) remedy for nuclear resources that are facing premature retirement can provide a necessary bridge before longer-term reforms can be enacted. In developing longer-term reforms, federal policymakers should consider narrowly tailored action, including supportive tax policies (including expanded production tax credits and investment tax credits), inclusion of nuclear energy in federal energy procurement goals and mandates, market design changes that allow all resources to set price, and recognition of nuclear energy's non-emitting attributes consistent with recognition provided to other non-emitting resources. The policy tools discussed above have long been used to support other components of our nation's "all of the above" energy portfolio; policymakers should now do the same for nuclear energy. And when considering these policies, we encourage you to work closely with states and FERC to ensure that any federal proposal makes sense for energy producers and consumers throughout the nation.

There is still time for policymakers to act. Leaders in New York and Illinois crafted solutions that recognize the contribution the states' nuclear plants make to maintaining clean air for their citizenry. The state of Connecticut has also acted to level the playing field for all sources of clean energy, including nuclear, to support the state's electricity needs. Federal policymakers should avoid interfering with these state programs which, like renewable portfolio standards, protect a valuable state interest in protecting the environment. But while state policy actions have been essential in preserving nuclear assets, it is imperative that federal policymakers assure federal policies appropriately value nuclear energy's attributes, to ensure it continues making important contributions to America's energy, environmental, national security and economic interests.

Sincerely yours,

A handwritten signature in cursive script that reads "Maria Korsnick".

Maria Korsnick

⁷ <https://www.nei.org/resources/letters-filings-comments/nei-comments-ferc-grid-resiliency-rulemaking>