

Nuclear Subsidies in New York: Myth vs. Fact

MYTH: Nuclear power is the cheapest option for combatting climate change.

Nuclear proponents claim that it will be more expensive to replace nuclear power with renewable energy. This claim relies on anecdotal evidence of some past prices for renewable energy, ignores the fact that renewable energy is getting cheaper, and discounts the role that energy efficiency can play in reducing costs for consumers.

FACT: Independent analyses and the NY Public Service Commission's (PSC) own numbers show that nuclear subsidies are more expensive than renewable energy and energy efficiency.

- Renewable energy prices continue to fall, and the levelized (unsubsidized) cost of onshore wind in the Northeast can already be purchased for \$44 per megawatt hour (MWh) unsubsidized.¹ This is much cheaper than what the nuclear operators said they needed to survive in the market (\$50/MWh).² Purchasing wind in the near term would be even cheaper than \$44/MWh because New York could take advantage of the federal investment tax credit for wind, further reducing costs for consumers.
- Studies by Synapse Energy Economics show that if New York were to adopt an energy efficiency policy to achieve 25.4 million MWhs of annual energy savings, consumers would save approximately \$3 billion.³ Incidentally, this would nearly replace all of the upstate nuclear reactors (approximately 27 million MWhs/year).
- The PSC's own cost study for the Clean Energy Standard projected that it would cost only \$2.4 billion in subsidies to build enough renewables to produce 33.7 million megawatt hours, which is 22% more than the upstate nuclear plants can generate, at a cost of \$7.6 billion.⁴

MYTH: If the upstate nuclear reactors shut down, electricity rates will go up.

Nuclear proponents have been claiming that without the nuclear power plants, we would face major rate hikes. The evidence for these claims is an industry-funded Brattle Group study.⁵

FACT: There is no independent analysis showing that market electricity rates would rise without the nuclear subsidies and logic and history dictate otherwise.

- The same rate-hike scare tactic was used when the Vermont Yankee reactor was slated for closure at the end of 2014. In actuality, rates went down in the region the very next year after Vermont Yankee closed and continued to drop in 2016.⁶
- The same people who claim that the nuclear plants will be replaced entirely by cheap gas are claiming that rates will go up if the nuclear plants close. Both cannot be true, as gas is much cheaper than nuclear power.

MYTH: The cost of the nuclear subsidies will go down over time.

The PSC projects that even though the social cost of carbon upon which the nuclear subsidies are based will go up, the nuclear subsidy costs will drop over time because wholesale market rates for electricity are projected to rise.

FACT: No one can predict market rates, but recent trends do not show market rates rising enough to reduce the nuclear subsidy costs.

- The Public Utility Law Project and the Alliance for a Green Economy have each, independently of each other, calculated the projected costs at \$7.6 billion, if market prices in Western New York stay below \$39/MWh. It's true that market rates *could* increase enough to reduce the cost of the subsidies, but based on the fact that rates have been declining for years, this is speculative.
- Neither the PSC nor the Governor has released any projections for the costs of the nuclear subsidies, other than the PSC's own number that the first two years would cost nearly \$1 billion. If they disagree with the analyses that have been done by others, they should release their own.

MYTH: All of the upstate nuclear plants are at risk of immediate closure and they cannot all be replaced quickly with renewable energy.

FACT: It is not known whether all of the nuclear plants in upstate New York would close immediately without subsidies. Meanwhile, nuclear proponents grossly underestimate how rapidly renewable energy and energy efficiency is already growing.

- It is definite that FitzPatrick would close immediately without subsidies and likely that Ginna would close within the next 18 months because retirement notices have been accepted for each of those reactors.
- The New York Independent System Operator's (NYISO) recent "Power Trends" report includes enough projected energy efficiency and wind projects already proposed to replace both FitzPatrick and Ginna in the near term.⁷ NYISO has also found that both of these reactors can close, along with three upstate coal plants, with no new resources needing to be built to maintain reliability.⁸
- It is speculative as to whether or when either of the Nine Mile Point reactors would close because the PSC never required nuclear owners to submit retirement notices in order to become eligible for subsidies. No retirement notices have been submitted for Nine Mile Point. The state does require nuclear operators to submit a retirement notice 6 months in advance of a planned closure, so that any reliability implications can be assessed and addressed. NYISO rules mandate that power plant closure impacts be evaluated beforehand. If a plant closure would impact reliability, the owner is prohibited from closing the power plant and is compensated fairly for the cost of continuing to operate it until more cost-effective alternatives are in place.
- Even if not all of the plants can be replaced with renewable energy in the immediate term, there are alternatives to a 12-year subsidy for all of the nuclear plants. The state could phase out the subsidies gradually over the next several years at a rate of one reactor per year to provide time for additional renewable energy comes online. Such a process could save consumers billions of dollars.

MYTH: The nuclear subsidies were approved through a transparent and accountable process.

FACT: For months, the PSC claimed the nuclear subsidies would cost less than \$1 billion, only to raise the price three weeks before its decision to approve the nuclear bailout.

- The initial proposal to subsidize nuclear reactors in NY was announced in January 2016. The PSC claimed the program would cost only \$270 million⁹, and did not mention any possibility of a 12-year binding contract. The PSC held public hearings and multiple public comment opportunities on this initial proposal.
- In July 2016, two months after all the public hearings had been held, the PSC released a new proposal, raising the costs exponentially, and committing the state to 12 years of increasingly expensive subsidies. No public hearings were held on this new proposal and the public was given a mere two weeks to comment.
- During the months leading up to the PSC approval of the subsidies, the Governor's office reportedly participated in frequent secret negotiations with the nuclear owners to broker the sale of the FitzPatrick reactor from Entergy to Exelon, all predicated on the approval of nuclear subsidies for the upstate nuclear reactors.¹⁰ None of these meetings were logged in the Project Sunlight database as of November 2016.
- As part of the secretly negotiated deal for the sale of the FitzPatrick reactor, the New York Power Authority agreed to transfer approximately \$1.5 billion in public decommissioning funds to the nuclear owners.¹¹ No public notice for this decision was provided.
- From January to August 2016, over 15,000 people submitted comments opposing subsidies for nuclear power and supporting renewable energy. This dwarfed the number of comments in favor of the nuclear subsidies by a ratio of 4 to 1. To the extent that the public learned what was happening and expressed their opinion, they were overwhelmingly opposed to the nuclear subsidies, yet the PSC ignored these comments.

MYTH: The nuclear subsidies will cost consumers only \$2 per month.

The PSC has claimed through media spokespeople that the nuclear subsidies will cost only \$2 per month for the average customer, yet has provided no analysis to back this assertion up.

FACT: All electricity consumers will pay for the nuclear subsidies, including residential customers, small and large businesses, and municipalities. Some customers who use little electricity may pay as little as \$2 per month, but some business and municipal customers will pay millions per year.

- No information has been provided by the PSC about how the different kinds of customers will be impacted by the nuclear subsidies. Independent analysis from the Public Utility Law Project shows a range of projected costs paid by residential customers, cities, towns, hospitals, and school districts.¹² Residents will pay for the rate-hikes on their own bills, but they will also be impacted when their municipalities have to pay more for energy or when their local hospital sees millions of dollars in cost increases.
- The Town of Rockville Center, which has its own municipal utility and can more easily estimate the costs per customer, has announced that its residents will see an average increase of \$5-8 per month and its businesses will see an increase of \$19-38 per month.¹³

MYTH: The upstate nuclear plants are safe and clean.

FACT: The upstate nuclear reactors, like all nuclear plants, pose inherent safety risks and contribute to global radioactivity by design.

- Researchers in Europe recently calculated the odds of another Chernobyl-size nuclear accident in the world before 2050 to be 50/50.¹⁴ With four nuclear reactors, including two of the oldest in the world, upstate New York is vulnerable to one of these accidents.
- FitzPatrick and Nine Mile Point 1 suffer from known design flaws, which the Nuclear Regulatory Commission has been trying to resolve since the 1980s. These same design flaws in reactors of the same style led to the explosions at the Fukushima nuclear reactors, when those reactors were challenged by power outages and the loss of their battery backup systems during a natural disaster.¹⁵
- The uranium fuel used in nuclear power plants poisons communities across the world through the mining, milling, enrichment and waste storage process. Producing one pound of nuclear fuel generates 25,000 pounds of uranium waste, before a single kilowatt of electricity is generated. The upstate reactors consume about 62 tons of fuel per year, resulting in over 3 billion pounds of uranium waste.
- All nuclear power plants are allowed by law to routinely release radiation, as long as these emissions stay below the legal limit. “Legal” does not mean safe. Scientists have determined that there is no safe level of exposure to radiation. Accidental leaks are also common: 75% of the nuclear plants in the U.S. have experienced a tritium (radioactive water) leak.¹⁶
- More detailed information about recent safety concerns and incidents at each of the upstate nuclear reactors can be found at: www.allianceforagreeneconomy.org/upstate-nukes

Sources:

- ¹ Lazard Levelized Cost of Energy. December 2016. <https://www.lazard.com/media/438038/levelized-cost-of-energy-v100.pdf>
- ² Exelon filing to the Public Service Commission. July 22, 2016. Page 10. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={2862BFCE-0F0F-43AE-8E5B-A4B36C6C6DD5}>
- ³ Synapse Energy Economics "Aiming Higher" April 22, 2016. <http://www.synapse-energy.com/sites/default/files/Aiming-Higher-NY-CES-White-paper-15-056.pdf>
Synapse Energy Economics "Clean Energy for New York" February 23, 2017. <http://www.synapse-energy.com/sites/default/files/Clean-Energy-for-New-York-16-121.pdf>
- ⁴ NY Department of Public Service Clean Energy Standard Cost Study. April 8, 2016. Page 283. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2}>
- ⁵ At a joint Assembly committee hearing on the nuclear subsidy program, when asked under oath who had paid for the Brattle Group study in New York, its author replied that Exelon has paid for it.
- ⁶ ISO New England. "New England's Wholesale Electricity Prices in 2016 Were the Lowest Since 2003." February 27, 2017. www.iso-ne.com/static-assets/documents/2017/02/20170227_pr_2016_price_release.pdf
- ⁷ New York Independent System Operator "Power Trends 2016" http://www.nyiso.com/public/webdocs/media_room/publications_presentations/Power_Trends/Power_Trends/2016-power-trends-FINAL-070516.pdf
- ⁸ New York Independent System Operator. "Generator Deactivation Assessment." April 22, 2016. http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Reliability_Planning_Studies/Generator_Deactivation_Assessments/FitzPatrick_Generator_Deactivation_Assessment_2016-04-22.pdf
- ⁹ NY Department of Public Service Clean Energy Standard Cost Study. April 8, 2016. Page 283. <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={7B564AD9-E6E9-4FA9-93B6-1AA85B1719E2}>
- ¹⁰ Mark Weiner. *Syracuse Post-Standard*. August 11, 2016. "Inside the hardball tactics to save FitzPatrick: NY threatened to seize the nuke plant" http://www.syracuse.com/politics/index.ssf/2016/08/nys_threat_to_seize_fitzpatrick_nuclear_plant_sparked_deal_to_save_6_15_jobs.html
- ¹¹ New York Power Authority Minutes. July 26, 2016. <http://www.nypa.gov/Trustees/2016%20Minutes/072616/MINUTES072616.pdf>
- ¹² Public Utility Law Project projections on the costs of the nuclear subsidies. <http://www.stopthecuomotax.org/wp-content/uploads/2017/03/Public-Utility-Law-Project-of-New-York-Inc.-Case-15-E-0302-Sector-Analysis-of-Subsidy-Costs-Updated.pdf>
- ¹³ Christina Daly. LIHerald.com "Electric bill hike coming." December 21, 2016 <http://www.liherald.com/stories/Electric-bill-hike-coming.86741>
- ¹⁴ Spencer Wheatley, Benjamin Sovacool, Didier Sornette. "Of Disasters and Dragon Kings: A Statistical Analysis of Nuclear Power Incidents & Accidents." April 7, 2015. <https://arxiv.org/abs/1504.02380>
- ¹⁵ Beyond Nuclear. "Freeze Our Fukushimas." <http://www.beyondnuclear.org/freeze-our-fukushimas/>
- ¹⁶ Jeff Donn. Associated Press. "Tritium leaks found at many nuke sites" <https://www.ap.org/press-releases/2012/part-ii-ap-impact-tritium-leaks-found-at-many-nuke-sites>