

Testimony by Dietmar Detering for the 2/1 Executive Budget hearing (Environmental Conservation)

Chairs, committee members: thank you for letting me speak to you. My name is Dietmar Detering. I live in Queens and am co-founder of Nuclear New York. We are a volunteer-driven non-profit organization with no paid staff.

Section EEE of part 9008 mandates that all new construction is going to be “zero emission”. I know what that means, because I have had an air source heat pump for twelve years now in order to reduce my emissions. I have no alternative heat source, and in the first years, I even paid a little extra to subscribe to 100% wind energy. I felt so green!

Unfortunately, I eventually realized that the extra electricity I was using was ALWAYS coming from fossil-fueled generators. You might claim that part of my electricity was from Indian Point or some other green source, but that emission-free electricity was already in use without my heat pump, and it wouldn't scale with my decision to use more electricity. Gas and Oil scaled instead!

I am looking at your zero-emission mandate for new buildings and tell you: There is nothing emission-free about this if the extra electricity demand is being served by high emission generation. Unfortunately, most electricity for heating will be used on the coldest days, which will feature our peak demand in the near future. This peak demand will be the hardest and most expensive to transition to clean electricity. And New York must not compromise here: Heating, and therefore electricity, means life. “Loss of Load” means people die!

The CAC and NYSEERDA say that we are on the way to an almost all-renewable future. It will be cheap and offer plenty of benefits.

“[T]he future energy grid will be dominated by wind, solar and hydropower, said New York State Energy Research and Development Authority President and CEO Doreen Harris. Harris said she sees a future beyond nuclear, dropping from nearly 30% of the state's energy mix currently to around 5%, but the state will need advanced, long-duration battery storage and perhaps cleaner-burning fuels such as hydrogen.”¹

At least on nuclear, New York approaching Harris' target fast, having lost Indian Point: Our nuclear plants only contribute a mere 20% to our generation right now. Indian Point's 13% of our generation has been replaced by gas and oil. Two giant new plants had been built for that purpose. But the State is planning for offshore wind and much more industrial solar and wind upstate, sometime in the future. Boosted with a \$500 million subsidy in this proposed budget and planned to start generating electricity next year, the timelines are far from certain. BP and Equinor just announced a delay in their project by a year and a half. Furthermore, we have no idea yet how much it is going to cost the state to connect all these turbines to the grid. All the

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<https://www.npr.org/2022/01/18/1073726137/the-us-is-divided-over-whether-nuclear-power-is-part-of-the-green-energy-future>

cabling is the responsibility of the State and not included in the negotiated prices, and only on January 20 of this year the State's PSC issued an order to finally figure out how much all that will cost and how it might be done.² Meanwhile, NYSERDA announces to sign up another 2,000 MW of offshore wind generation this year, in addition to already signed 4,300 MW worth of contracts. The CLCPA mandates 9,000 MW by 2035, so why can't we find out the price tag for ratepayers first?

9,000 MW in offshore wind capacity, possibly expanding to 19,000 MW according to NYSERDA's calculations in the Climate Action Council scoping plan, is not just a financial challenge, but also a technical one. NYSERDA promises to buy all the turbines' output. 19,000 MW coming into Long Island and New York City will be a massive amount of electricity. Unfortunately, the real problems arise when none of this electricity is coming in due to a wind lull or storm out at sea. What is replacing the 19,000 MW? We are going to convert several hundred thousand acres of productive farmland upstate into fields of industrial solar and send that power to the city! But where is the transmission to do this? Already, it is almost impossible to build new transmission on a rather modest scale. The massive transmission projects needed to send the vast amounts of electricity from one end of the state to the other are not going to be easily built in New Yorkers' backyards.

Unfortunately, even if the transmission challenges are solved one day, there will be times when there is no solar and no wind electricity generation, no matter how much of the state we sacrifice for "green" projects. To carry us through, we need massive amounts of battery storage, and when that runs out we need massive amounts of backup capacity. If not served by fossil gas then we need to produce and store enough hydrogen. But what if that storage runs out? Right now, New York has several dual-fuel power plants that can switch to burning stored oil when gas supplies become tight, and much home heating runs on oil, as well. Can the future, hydrogen-ready turbines and fuel cells switch to stored oil so we can all keep running our heat pumps? I doubt it, and NYSERDA doesn't even know yet what technology we are going to use. Are we supposed to freeze to death, Texas-style, when things get tough? Ironically, NYSERDA includes imported hydrogen and imported renewable electricity in its projections. How much are these numbers worth when not just New York, but the entire North-East is caught in a deep-freeze energy crisis?

NYSERDA has presented a cost-benefit analysis of the CLCPA to the CAC. It includes a reference case and two different versions of the 2050 emission-free economy CLCPA case. At least we can rest assured that the benefits outweigh the costs by \$80-\$150 billion. Or do they? I call the NYSERDA numbers, eagerly accepted by the CAC and included in their scoping plan, deceptive:

- The reference case is not a no-action case but instead includes the most expensive, because the earliest, projects of the CLCPA.
- The reference case assumes the premature demise of the State's remaining nuclear capacity, which will trigger higher costs due to climate change and air pollution. Magically, these social costs are being avoided in the CLCPA cases - because much of

² <https://t.co/kU0WK11ImS>

New York's nuclear capacity is now back in. Does the CLCPA or the CAC scoping plan offer some support for nuclear to rescue it? No, quite the contrary: Doreen Harris of NYSERDA is gleeful about displacing nuclear in the State's energy mix, and the CAC's scoping plan is littered with disparaging comments on nuclear energy, if it is being mentioned at all. Yet the health and climate benefits of retaining nuclear generation, at little costs, are gladly claimed as the result of the CLCPA.

- Future costs, and also health benefits, are being translated into today's dollars by using a discount rate. Fair enough. However, the benefits include the full, Department for Environmental Conservation-calculated and globally-shared climate costs of carbon emissions. This is unacceptable because the DEC used a rather low discount rate of 2% - about half the discount rate used otherwise in NYSERDA's analysis!

NYSERDA is painting a rosy picture of our energy transition in their proposed contract with Clean Path, as well. 3,800 MW of wind and solar capacity, distributed throughout the state, are serving NYC by building a mere 1,300 MW transmission line between Fraser and Astoria? With generation switching erratically between nothing and a triple of the transmission capacity, how does this make sense? The answer: NYSERDA dedicates the State's existing Blenheim-Gilboa pumped hydro facility to Clean Path Inc., free of charge. Suddenly, all issues of intermittency disappear and the contracted weather-dependent generation matches the short and thin transmission line perfectly. Most importantly, the subsidy for this generation will be a mere 13 cents/kWh. Not quite a bargain at ~\$1 billion per year, but certainly not replicable. No other project will be able to benefit from free storage, and a mere 175 mile connection won't cut it either to span our great state.

CLCPA, NYSERDA, and CAC are steering our great state into a future of expensive and unreliable energy. The climate and air quality benefits will come at the cost of an industrialization of our shores and mountaintops as well as much of our productive agricultural land. New transmission lines will cut through nature and communities - if they get built at all. Massive storage and backup capacities of unknown technology, along with all the materials for transmission and renewable generation, will trigger massive environmental destruction due to the required mining and processing. For poorer New Yorkers, rising costs of energy will mean additional economic hardship, and the risk of blackouts during most vulnerable times are real.

With all this, NYSERDA has revealed how to reap the benefits of decarbonization with lower costs: Retain our existing nuclear fleet, and add to it. Using minimal space, the smallest amount of mined resources, and not emitting any harmful pollution, nuclear energy offers affordable, reliable, and resilient electricity without the need for massive transmission expansion or storage and backup capacities. Other states are open to new nuclear construction, both Democrats and Republicans in Congress are working on support for new and existing nuclear generation, and American entrepreneurs are eager to move forward with amazing new, green technology in nuclear. New York, home to the Knoll labs, should proudly take the lead instead of being sneaky about the benefits of nuclear energy. Therefore, I call on you to balance, if not replace, the \$500 million subsidy for offshore wind power in this budget proposal with one to stimulate the development of new nuclear generation in our state.