

CAWTILE Proposed Suggestion on Alternative to Wind Turbines in Lake Erie

Introduction:

The following outline describes promotion of nuclear power in opposition to suggestions that negotiations with the wind industry could result in an assurance to place wind turbine electricity generating facilities exclusively on brownfield lands instead of the waters of Lake Erie.

In short, CAWTILE sees no evidence that the wind industry should be considered a good faith negotiator. And the outline serves to offer the alternative of **nuclear power** favored over attempts by the wind industry to power NY State's 9th largest world economy with intermittent wind generated electricity.

- I. Failures of the Wind Industry Globally and Statewide
- II. Rationale for nuclear power in NYS
- III. Nuclear power technology
- IV. Public acceptance of nuclear power

Global Failures of the Wind Industry:

- Environmental hazards comprehensively described in links at CAWTILE.com
- Greenhouse gas emissions reductions due to use of wind energy not significantly demonstrated in major industrialized nations following decades of application.
- Failure to displace use of fossil fuels in all aspects of sourcing, manufacturing, transporting, installing, operating and maintaining wind energy plants.
- Failure to demonstrate true Energy Returned Over Energy Invested (EROEI) metrics due to limitations in laws of physics and self-imposed redactions of efficiency measurements by trade secret laws.

NY State Failures of the Wind Industry:

- Intermittency illustrated by day-to-day review of NYISO Real Time Fuel Dashboard
- Recent (September, 2023) offshore wind energy developers' threat to walk away from 9,000 MW offshore wind CLCPA mandate unless previously agreed NYSERDA MWH strike price is not increased by up to 80% before installation of wind turbines begins
- Failure of wind developers to comply with operational Certificate of Environmental Compatibility and Public Need conditions regulating noise emissions at existing wind facilities at Cassadaga Wind And Baron Winds facilities, and continued failure of NYS PSC to enforce those conditions.
- Failure to disclose wind energy facility post-construction bird and bat mortality surveys
- Failure to consider placement of wind energy facilities in brownfields locations with the sole exception of Steel Winds facility in Lackawanna, NY with 35 MW installed capacity out of approximately 2,500 MW total statewide installed capacity
- Failure of wind industry lobby and NYS Legislature allies to permanently abandon development of Great Lakes offshore wind facilities after consecutive negative assessments by NYSERDA in 2014 and 2022.

Rationale for Nuclear Power in NY State:

- Dispatchable, zero-emissions power generation requiring a fraction of land area needed by diffuse wind energy while assuring adequate energy for NY's present and future economy.
- The only currently available Dispatchable Emissions Free Resource as recognized in the Scoping Plan of the State's Climate Act and by NYISO as necessary to insure reliability of the power grid .
- Ability to be located near load centers to avoid expensive offshore wind facilities and offshore and onshore transmission system expansions to remote wind facilities.

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- www.cityandstate.com/policy/2023/04/will-ny-rely-nuclear.
- Need to maintain 3 remaining NYS nuclear plants not stated in CLCPA, but is implied as necessary To meet 2030 and 2040 goals.
- Loss of Indian Point results in 12% increase in use of gas/oil for electricity generation downstate.

Nuclear Power Technology:

- Licensing of newer nuclear reactors such as Small Modular Reactors
- ** www.energy.gov/ne/articles/nrc-certifies-first-us-small-modular-reactor-design. 2023 NuScale
- SMR design approved by NRC. First plants to be built in Idaho 2029 and 2030
- Safety of routine discharges of radioactive isotope tritium from nuclear facilities
- www.nrc.gov “Backgrounder on Tritium, Radiation Protection Limits and Drinking Water Standard” Drinking water for one year from a well contaminated by tritium from nearby Nuclear plant results in radiation dose 12X lower than one round trip cross-country air trip
- NYS Senator Harkham (yes, our friend who tanked GLW moratorium) introduces bill banning Discharge of tritiated water from nuclear facilities on March 1, 2023. Harkham also led effort to stop the permitted discharge of tritiated water from closed Indian point decommissioning Into Hudson Rive

Current Manufacturers:

- Nuscale reactor that includes 77MW modules that can be configured in 4, 7 or 12 module assemblies,
- TerraPower Natrium reactor which is part of a 345MW demonstration project in Wyoming,
- Westinghouse eVinci micro reactor that is currently rated at 5MW.

Each of the above designs are in the development stage and are subject to ever increasing development costs. A SMR could be readily installed on recently decommissioned coal or gas power plant sites and repurpose the auxiliary infrastructure and the transmission system interface.

Costs:

SMN Capital Costs: \$8,894/KW of capacity. Production Costs: \$88.24/MWhr.

Offshore Wind Capital Costs: \$8,139/KW Production Costs of \$136.51/MWhr.

*Based on the most current DOE - EIA cost estimates the

Summary:

1. The "need" for Wind and Solar is based on massive Climate Fraud, funded by the US and the UN.
2. The US is currently shipping Gen 3 SMRs to Romania and other places already. We could be installing them in the US now.
3. Gen 4 SMRs are under high-speed development in India, China, and Russia already. The US is getting on-board late in the process.
4. Gen 4 reactors are inherently safe, and the Thorium-fueled versions will have little or no waste to deal with.
5. AND MOST IMPORTANT: US Nuclear Regulation is purposely over-burdensome to make Nuclear look too expensive compared to Wind and Solar. But even with all that regulatory burden on Nuclear, and all the Subsidies given to Wind and Solar, Nuclear is still about 1/3 the cost of Wind and Solar over time.