



March 31, 2025

VIA ELECTRONIC MAIL

Commissioner Katie Dykes
Connecticut Dept. of Energy and Env'tl. Protection
79 Elm Street
Hartford, CT 06106
Email: DEEP.EnergyBureau@ct.gov

RE: Section 16A-3A 2025 Integrated Resources Plan, Sierra Club Comments

Dear Commissioner Dykes:

On behalf of its over 30,000 members and supporters in Connecticut, Sierra Club respectfully submits the following comments in response to the Department of Energy and Environmental Protection's (DEEP's) February 26, 2025 Notice of Proceeding and Opportunity for Public Comment on the 2025 Integrated Resources Plan. Pursuant to Conn. Gen. Stat. § 16a-3a, DEEP is required to conduct a biennial assessment of the state's energy and capacity resources and develop an IRP with the stated purpose of "meet[ing] the projected requirements of customers in a manner that minimizes the cost of all energy resources to customers over time and maximizes consumer benefits consistent with the state's environmental goals and standards, including, but not limited to, the state's greenhouse gas reduction goals established in section 22a-200a." Conn. Gen. Stat. § 16a-3a(a). Section 22a-200a mandates that the state reduce greenhouse gas emissions to at least 45 percent below 2001 levels by 2030, to zero percent from electricity supplied to electric customers in the state by 2040, and to 80 percent below 2001 levels by 2050. Consistent with these parameters, Sierra Club makes the following recommendations:

- 1. The IRP modeling should assume levels of building and transportation electrification that would put the state on track to meet the decarbonization mandates of Section 22a-200a.** Sierra Club recommends that the IRP modeling assume levels of electrification during the study period that would put the state on track to meet the decarbonization mandates of Section 22a-200a. This means the modeling should assume increasing levels of building and transportation electrification through 2035 that would lead to emissions reductions in those sectors consistent with the 2030 and 2050 targets, along with sufficient renewable procurement to supply those end uses with clean electricity by the 2040 zero carbon target.
- 2. The IRP should not assume new fossil fuel pipelines entering the state.** New England is already over-reliant on gas-fired generation, exposing the region to high and uncertain

power costs and reliability concerns.¹ Additional gas capacity would only serve to worsen this overreliance and expose the region to further price shocks due to the volatility of natural gas prices. Further, additional gas capacity would lock the state into expensive fossil fuel infrastructure and would be counterproductive to achieving the state's greenhouse gas mandates. The IRP should instead examine scenarios that rely on clean energy resources and that avoid overbuilding natural gas infrastructure to meet a select few peak heating days for the region.

3. **The IRP modeling should assume that Connecticut will achieve emissions reductions of 80 percent below 2001 levels accounting for in-state consumption of electricity and for generation.** Sierra Club applauds Connecticut's codification of its zero-carbon electricity supply target. Sierra Club notes that the state is a net exporter of power generation, which means that Connecticut could succeed in procuring 100 percent clean energy by 2040 yet still have dozens of in-state gas-fired power plant units emitting GHGs to power other states in the region. This would undermine the climate benefits of Connecticut's zero carbon procurements. Connecticut needs to ensure that it is ratcheting down emissions from in-state sources at the same time it is procuring the zero emission attributes of generation that may be generated out of state. As the state pursues compliance with Section 22a-200a, Connecticut should aim to achieve an 80 percent emissions reduction accounting for both consumption and generation of electricity in the state.
4. **The IRP should factor renewables including utility-scale solar, onshore and offshore wind, and storage into its forecasting to help the state meet its climate targets.** Renewable strategies that should be modeled include utility-scale solar, onshore and offshore wind, and battery storage and the IRP should develop concrete targets and timelines for deployment of these renewables. The IRP should emphasize long-term clean energy contracts for renewable resources, which lock in steady prices for decades at a time, resulting in less price volatility and lower electricity market prices. Sierra Club urges that as part of a regional grid, Connecticut must work with other New England states to ensure sufficient buildout of renewable generation in the region to enable the states to meet their zero carbon electric supply targets. Connecticut must similarly work with other New England states to support transmission that will unlock renewable resources across the region.
5. **The IRP should model demand-side resources including demand response, energy efficiency, distributed behind-the meter solar, solar canopies, community solar, virtual power plants, and behind-the-meter batteries.** These demand-side solutions deliver valuable grid services and have the potential to moderate the growth of both electricity consumption and peak load. Further, such resources are cheaper and faster to deploy than large scale electric system and generation upgrades and can help avoid overbuilding of the electric system to meet peak demand.
6. **The IRP modeling should not assume increased hydroelectric imports to meet the zero-carbon electric supply target.** The IRP modeling should not rely on hydroelectric imports from Canada to meet the zero-carbon electric supply target. New hydroelectric

¹ 2020 Integrated Resource Plan at 7, 81.

procurements would result in new impoundments which are highly carbon intensive.² Procuring hydroelectric imports from new impoundments would not advance Connecticut's objective to achieve zero carbon electric supply so the IRP modeling should not rely on additional hydroelectric imports to meet the 2040 target.

7. **DEEP's forthcoming White Paper on Renewable Portfolio Standard (RPS) reform should recommend removal of non-renewables, including biomass and fuel cells that rely on gas as a feedstock, from Class I of the RPS.** Such resources are not truly zero carbon and should not be included in Class I of the RPS. Biomass is not carbon neutral on any relevant time scale and has very high combustion emissions of carbon dioxide. Fuel cells relying on gas as a feedstock have significant emissions from leaks along the supply chain, and incentivizing reliance on gas is contrary to Connecticut's emissions reduction mandate. The White Paper should recommend that only fuel cells powered by green hydrogen should be considered in Class I of the RPS.

Sierra Club thanks DEEP for the opportunity to provide input on the IRP modeling assumptions and looks forward to continuing to work with stakeholders to achieve Connecticut's climate mandates.

Respectfully submitted,

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² New impoundments are highly carbon intensive as they inundate natural landscapes that function as carbon sinks; inundation not only causes a loss of these natural sinks, but also results in emissions from biomass decomposition, resulting in energy that is not zero-carbon. The carbon footprint is further amplified by ongoing net differences between the carbon uptake and respiration of the pre-flooding and post-flooding biomes and water columns. William Steinhurst, et al., Synapse Energy Economics, Inc., Hydropower Greenhouse Gas Emissions: State of the Research, February 14, 2012, p. 2.