

Environment & Energy

Duke Energy Carbon Plan Nears NC Regulator Decision (Correct)

By Zach Bright

Dec. 28, 2022, 5:30 AM; Updated: Dec. 30, 2022, 9:00 AM

- Utilities commission has until Dec. 31 to approve plan
 - Proposed Duke Energy options include new natural gas
-

North Carolina's public utilities regulator is poised to decide whether to accept one of Duke Energy Corp.'s proposed plans for carbon reduction that include building new gas-fired power plants.

The North Carolina Utilities Commission has until the end of this year to adopt a plan that steers the state's public utilities on a road to carbon neutrality by mid-century. It could employ one of Duke's proposed pathways or opt for alternatives that call for more renewables.

Duke wants to expand gas infrastructure to replace coal plants, increase solar and wind, and develop hydrogen and small modular nuclear reactors.

Only one of the company's four options would achieve what state law mandates: a 70% cut by 2030, compared to 2005 levels for public electric utilities and carbon neutrality in 2050.

Climate scientists, clean energy advocates, the state attorney general, and tech giants Apple Inc., Meta Platforms Inc., and Alphabet Inc.'s Google oppose Duke's plans.

They warn that expanding gas would lock in future greenhouse gas emissions for decades. Prioritizing hydrogen and small modular reactors (SMRs) over renewables would contribute to higher rates and place the state's climate goal and corporate pledges out of grasp, they said.

Duke's approach is "like speeding toward a cliff saying, 'Hey, we slowed down.' Yeah, but you're still going over," said Drew Shindell, Duke University Earth science professor.

A Carbon Cliff

Shindell said Duke Energy benefits from a structure "set up to incentivize large capital expenses, and they get a guaranteed rate of return. The more stuff they build, the better off their bottom line."

He wrote a letter signed by 44 other scientists calling Duke Energy's proposals "out of step" with climate science. Shindell earlier led a methane report spurring more than 100 countries to adopt a global pledge last year to reduce the potent climate-warming gas.

"Because Duke Energy is one of the nation's largest electric power providers, and is based in this state, action by both of you to change course could have sweeping, positive repercussions well beyond state borders," said the letter to Gov. Roy Cooper (D) and Lynn J. Good, Duke Energy's president and CEO.

Cooper appointed the seven commissioners that sit on the panel today.

"Our governor has gotten away with a lot of climate concern talk," said Jim Warren, executive director of clean energy advocate NC WARN, "but he's not walking his talk."

The governor's office didn't respond to a request for comment.

Duke Energy's Plan

Looking to shutter more than 9,000 MW of coal by 2036, Duke Energy is eyeing about 3,600 MW of natural gas—2,400 MW of combined-cycle and 1,200 MW of single-cycle combustion turbines meant to offer energy supply during peak demand.

Bill Norton, a Duke Energy spokesman, said the company hopes the utilities commission will approve its "near-term action plan" of renewable energy and early development work for hydrogen and nuclear procurement. Duke is also seeking a total 2,000 MW gas capacity in this process for the short-term.

Each plan proposes the near-term target of 600 MW of onshore wind; 2,000 MW of hydrogen-capable gas, which can blend hydrogen with gas; 3,100 MW of new solar; and 600 MW of solar-paired with 1,000 MW of stand-alone battery storage.

The company's plans also call for a mix of early development of 800 MW of offshore wind, 570 MW from small modular reactors, and 1,700 MW in pumped storage.

Of Duke Energy's four possible portfolios, three would miss the 2030 target. One would reduce emissions from utilities by 70% in 2034. Two reach 70% in 2032, which the Public Staff, a state consumer advocate independent from the commission, recommends as its preferred timeline.

State law allows for exceptions that may delay meeting the 2030 deadline.

But North Carolina Attorney General Josh Stein (D), as an intervenor opposing Duke Energy's plan, said an exception should only be made if the development of nuclear or wind sources is impeded or because a plan that misses the initial target will yield stronger carbon reductions.

Alternative Portfolios

Another plan, submitted to the NC Utilities Commission by Synapse Energy Economics, called for no new gas plants and the retirement of some existing plants before 2050. It projects lower rate increases than Duke does.

Synapse's plan, using the same modeling as Duke, turned to publicly available government estimates instead of Duke's in-house assumptions, according to Gudrun Thompson, senior attorney with the Southern Environmental Law Center, which commissioned Synapse's proposal.

Those values were used to determine the cost, resource availability, and viability of new gas plants, SMRs, hydrogen power, and other options.

Another plan came from the Brattle Group, funded by solar industry interests that formed the Clean Power Suppliers Association. It projects that a 74% greenhouse gas reduction is possible and gas capacity expansion would only be limited to a single new 900 MW plant.

Tech companies, seeking to make good on internal climate goals and keep their own costs low at their in-state operations, also came up with their own approach.

Apple, Meta, and Google all have data centers based in North Carolina. Apple and Meta have 2030 net-zero goals, and Google has a 2030 target to become carbon-free.

Settling on the Short Term

Once the carbon reduction plan is adopted, the NC Utilities Commission must revisit it every two years by law.

Thompson and alternative-seekers like her are focused on what she called "no regrets short-term actions" like building out renewable energy including wind and solar to get Duke started on the path for a 70% cut by 2030.

"One of the risks with with new gas and risks to ratepayers is that these are assets that would operate for a long time and might need to be retired before they're fully depreciated," Thompson said.

(Corrects in 15th paragraph of a story published Dec. 28 to show a spokesman said Duke hopes its near-term plan is approved. A previous version corrected the identity of the Public Staff.)

To contact the reporter on this story: Zach Bright at zbright@bloombergindustry.com

To contact the editor responsible for this story: Renee Schoof at rschoof@bloombergindustry.com

Topics

wind energy
solar energy
nuclear energy
natural gas
coal
public utilities
climate change mitigation

Companies

Apple Inc
Alphabet Inc
Meta Platforms Inc

© 2023 Bloomberg Industry Group, Inc. All Rights Reserved