

Duke Energy wants to help Big Tech buy the 24/7 clean energy it needs

The utility's new proposal would let large corporate customers fund novel technologies like long-duration storage and advanced nuclear as they try to decarbonize.

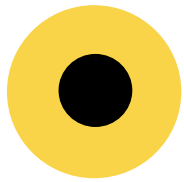


By **Julian Spector**
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A Google data center in Berkeley County, South Carolina (Google)

Some of the biggest companies in the world have bought renewable electricity for their operations for years – and now crave something more.



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can get reliable, clean electricity at any time of day. The trick is figuring out how to do that in today's electricity system.

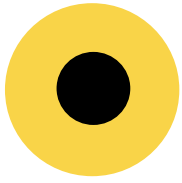
Now mega-utility Duke Energy wants to make it happen. The power provider, which serves 8.4 million customers in the Carolinas and four other states, worked with those tech giants on a novel plan to let large corporate energy consumers purchase higher levels of clean energy than previously available, all the way up to the fabled 24/7 coverage.

Essentially, willing corporations could bankroll Duke's construction of advanced clean energy technologies to deliver on their advanced climate or 24/7 commitments. For instance, the structure could fund early deployments of long-duration energy storage, like the iron-air battery that Form Energy is commercializing for multiday storage. The mechanism could even deploy small modular nuclear reactors, if that long-simmering technology class manages to clear regulatory approvals and produce a viable commercial product.

Duke rolled out the concept at a late-May White House summit on nuclear energy deployment. The utility plans to submit the plan to regulators in the coming months, starting in the Carolinas, Lon Huber, senior vice president of pricing and customer solutions, told Canary Media.

"How do you start having repeatability with whatever technologies you need to hit deep decarbonization? How do you get it at scale?" Huber said. "We're opening up a whole new pillar of support leveraging these very large companies and loads."

The proposal includes a "comprehensive" suite of new tariffs that would pay for the different building blocks required to get to 24/7 clean energy, Huber said. That means tariffs for on-site generation at customer facilities, for buying power from dedicated renewables and battery storage projects, and a Clean Transition Tariff that would pay for emerging technologies that bridge the gap to round-the-clock carbon-free energy.



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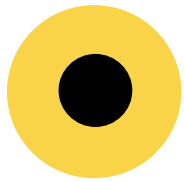
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pledges.

This is coming at a time when tech company climate commitments are colliding with intense new electricity demand to power the AI computing arms race. Utilities are scrambling for new power sources, and some, like Duke, are planning to expand fossil gas generation to meet that need.

Duke's combined Carolinas portfolio is already more than half carbon-free, Huber noted. If a company wants to bump that up to 75 percent carbon-free, that may be doable with solar and standard lithium-ion batteries without too much fuss. But the premium goes up as companies approach 100 percent clean, just like it does for delivery dates that are sooner rather than later.

This package of ideas is by no means a real thing yet. It exists in the liminal state known as a memorandum of understanding between companies: A handful of major electricity consumers publicly avowed that they would be interested in subscribing to this sort of thing



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Regulators frequently shoot down clean energy programs if they perceive them to increase power costs for regular customers (for example, California axing its landmark rooftop solar subsidies last year). In this case, Duke was careful to mention in its press release that “this would be a voluntary program for larger customers seeking to advance their clean energy goals, and it would include protections for non-participating customers.”

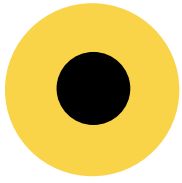
Duke has been testing a range of new grid technologies for years. But to build them at scale, it needs to convince regulators that this would be a prudent use of the customer base’s collective money. That’s hard to do when the energy tech is new; it’ll be expensive because it hasn’t come down the cost curve yet, and it won’t have the kind of run time in the field that bolsters confidence in solar, batteries, or gas plants.

Regulatory skepticism (or utility risk aversion) could prevent novel clean energy technologies from getting built, leading to a catch-22 of waiting for them to reach large-scale deployments before they can be deployed on a large scale.

Duke’s new Clean Transition Tariff has the potential to sidestep that. The structure would lean on some of the wealthiest corporations in the world to voluntarily pay for initial deployments of relatively untested climate solutions, in theory buying down the cost of subsequent installations. Once these technologies prove what they’re capable of on Duke’s grid system, the utility could then use their performance as justification to install them more broadly to meet its own decarbonization goals.

“It provides extra financial support to bring some of these more emerging technologies to scale faster,” Huber said.

This also amounts to an economic development play for the regions Duke operates in: these major customers can expand operations there without jeopardizing their own climate commitments. That’s especially relevant for the Southeast’s booming Battery Belt manufacturing sector, which has a keen interest in powering its clean energy factories with clean energy.



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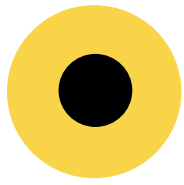
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Julian Spector is a senior reporter at Canary Media. He reports on batteries, long-duration energy storage, low-carbon hydrogen, and clean energy breakthroughs around the world.



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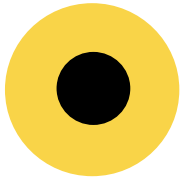
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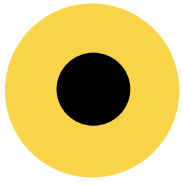
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