

Dominion CEO charts the company's low-carbon future

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"It's just arithmetic."

That's how Dominion Energy CEO Tom Farrell describes the decisions his company has made as it plans for a future centered on natural gas, nuclear generation and solar power.

During the more than 10 years since Farrell, 62, took the helm of a company then known as Dominion Resources, he has steered the business through a nimble transformation that now has it managing electricity and natural gas assets in 17 states.

Most notable is that in the past few years, Richmond, Va.-based Dominion has grown its natural gas portfolio aggressively to help take advantage of market conditions and fuel the makeover of its utility generation fleet.



Tom Farrell. Dominion Energy

That's one of the reasons shareholders voted to change the company's name in May.

But it's the company's long-term plans filed in May with state regulators in Virginia and North Carolina that reflect a no-turning-back drive to decarbonize, centered on plentiful natural gas.

Dominion's so-called integrated resource plan (IRP) lays out seven scenarios. Each is shaped by three factors, Farrell said in a recent interview.

It's a "combination of regulatory momentum from the federal level — carbon, mercury — the price of natural gas, the abundance of natural gas, and the third one is the increasing competitiveness of solar as a cost," he said.

Among the seven scenarios is a status-quo plan that still sees a cost-efficient future generating electricity from fossil fuels, he said. "But the status quo is not going to happen," he said.

The other six plans envision a variety of regulatory outcomes for dealing with carbon emissions, he said, and for the first time in his experience, each of them calls for 5,000 megawatts or more of solar.

"This IRP is math," Farrell said. "It's arithmetic. And it has to solve for the most cost-efficient way to solve the problem: Provide the power. Solar passed the test the first time."

It also helped that Dominion customers support the plans, he added. "We do poll frequently because we want to know what our customers want and what they are willing to pay for it, because as you know, none of it's free."

Farrell pointed out that in the last 10 years, Dominion has gone from 55 percent coal-fired power to about 22 percent. But he said the trend is accelerating as natural gas, solar and grid technologies improve.

Take, for example, the 1,588-MW Greenville County Power Station under construction on the Greenville and Brunswick county line in Virginia.

"It will be the largest and most efficient gas plant in the world when it's finished," Farrell said. When it's completed late next year, he said, the gas plant will use combined-cycle technology to provide round-the-clock baseload electricity instead of peaking or intermediate generation.

Those gas plants "can replace all of it," he said, referring to the coal plants that Dominion is slowly retiring.

"Until somebody licks [electricity] storage on a very large scale, despite what a segment of our population wants to hear, you're going to have natural gas-fired power plants in play for decades to come," Farrell said.

That answer indirectly spoke to a vocal coalition of landowners and environmental groups protesting Dominion's plans to build new pipelines to send gas to plants like Greenville.

Reliable, meet renewable

The very first thing you see on Dominion's website on the "About Us" page is the headline "Reliable, Meet Renewable."

It reflects not just a belief in the soundness of "the arithmetic" of solar but the belief that integrating renewables poses no threat to grid reliability.

"All customers want us to go all in on renewable. Any poll data that we have, that comes up for top of the heap by far," Farrell said.

"But you can do it," he said, referring to solar integration. "There's going to be a limit, at least with today's technologies."

But Farrell said customers can safely assume that in a decade, technology will be around to allow seamless integration of solar into the broader energy portfolio. That happens to coincide with when Dominion will be in the midst of its build-out of 5,000 MW of solar.

The company has about 409 MW of solar in Virginia, but not a month passes without another solar deal or project being announced. But the buildout "is going to be interesting to see," Farrell said. "Five-thousand megawatts of solar is a lot of land."

Rural areas are already pushing back against use of land to expand into solar power, he acknowledged, even with assorted tax revenues.

"We're just now beginning to get asked, 'What happens when the panels don't work anymore 20 years from now? Are you going to replace them, or are we going to have a bunch of farmland taken up by solar farms that aren't producing?'"

Farrell is bearish, however, about wind, the other renewable technology that has expanded greatly in recent years.

"It's not because we don't like wind turbines. It's because they are no good," he said. "Wind is not a good resource in our part of the country," he said. "It just doesn't blow when you need it."

As an example, Farrell pointed to a 162-MW wind farm on Mount Storm in West Virginia. "A few summers ago, we had 10 or 11 days above 100 degrees. And during those days, that wind farm produced exactly 2 megawatts of power," he said.

Carbon regulation inevitable

Dominion still operates a handful of large, well-scrubbed coal plants. But the IRP options envision shutting some by 2025.

"What we've decided to do is — gas is cheaper, it's more reliable, it's easier to move, and it's more environmentally friendly. Why wouldn't you do that?" Farrell asked.

No matter what happens to the Clean Power Plan as a result of the Trump administration's efforts to scuttle it, "there is going to be regulation. There has to be carbon regulation under the Supreme Court finding, unless the EPA goes back and undoes the endangerment finding. That'll be hard to do, and it'll take years to do," he predicted.

And even if a federal carbon rule is years away, there is pressure on the state level, Farrell said, noting that Virginia Gov. Terry McAuliffe (D) in May directed state air regulators to write a plan to cap carbon emissions from power plants.

"So, depending upon how far carbon regulation goes, whether it's federal or state or whatever, you could end up with almost no coal plants. But I think it's likely there will be at least a couple," he said, referring to Dominion's fleet.

Lights, camera, action

It's safe to say that Farrell has carved out for himself a distinction among his utility CEO peers.

A history buff, he co-wrote and produced the 2014 Civil War film "Field of Lost Shoes," about the Virginia Military Institute cadets who participated in the Battle of New Market against U.S. forces that were slicing their way through Virginia's Shenandoah Valley.

It received mixed reviews after its release in 30 U.S. cities. But Farrell pointed out that it can be ordered through Netflix.

Asked if he has plans for another film project, Farrell smiled and said, "I'm thinking something about Vietnam."