Georgia Power adding wind, boosting solar

By Matt Kempner - The Atlanta Journal-Constitution

Georgia Power plans to use wind energy for the first time to power tens of thousands of Georgia homes, and already regulators are pushing it to explore doing more.

The foray into wind is a small piece of a big shift underway in the state's energy mix as Georgia shifts farther away from coal as the primary fuel. Nuclear is slated to grow with the $14.8 billion expansion of Plant Vogtle near Augusta. And cheaper natural gas has already overtaken coal, which now accounts for just over one-third of the mix.

Renewables comprise just 3 percent of Georgia's energy diet, and most of that is from traditional hydropower dams.

But both solar and wind show signs of growth, which advocates say will diversify the state's energy base and reduce environmental issues without raising monthly bills.

This week the Georgia Public Service Commission, the state's utility regulator, unanimously approved Georgia Power's contracts to expand into wind energy starting in 2016. The company will buy enough wind power to energize the equivalent of 50,000 homes.

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Georgia Power said the wind power will cost less than power from its traditional power plants, though it's unclear whether the savings would be enough to reduce rates consumers pay in the future.

The PSC also directed the company to analyze other potential wind projects and report back by March. That’s raised hopes from renewable energy fans that Georgia Power may be pressed to do more.

The PSC has already encouraged Georgia Power to boost the use of solar energy. The cost of solar cells has fallen significantly, giving that sector a boost.

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- "shows that fuel-free energy resources like solar and wind power are reliable and cost-effective—not in some distant future, but now," Kurt Ebersbach, an attorney at the Southern Environmental Law Center, said in a written statement. "We are confident that this is the beginning of many opportunities for customers to reap significant cost-savings from clean wind energy."

Georgia Power’s new wind energy won’t be generated in state, where winds have been considered too calm, on average, for power production. The company will have to rely on another provider, EDP Renewables, to supply energy from 140 wind turbines in Oklahoma, nearly 1,000 miles from Atlanta. The energy will be fed into transmission lines for use in Georgia.

The long commute doesn’t trouble Ashten Bailey, an attorney for GreenLaw, which has supported growth in wind energy.

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"As long as we are getting the benefits of the renewable resources it doesn’t matter where it is coming from," she said.

**Fuel issues**

Wind doesn’t have fuel costs or use large amounts of water, as do most power plants.

Georgia’s top power sources – natural gas at 39 percent, coal at 35 percent and nuclear at 23 percent – all have issues.
Natural gas prices are volatile historically. Coal power is saddled with pollution problems and ever more costly emissions regulations. Nuclear power faces steep upfront costs and concerns about waste.

Wind can be problematic too. Energy depends on the wind blowing, and the blades of turbines can kill birds.

PSC commissioner Tim Echols sees the new wind contracts as a way to limit risk from rising natural gas prices and potential cost overruns from Georgia Power building its own generating plants. (The Vogtle nuclear expansion is already hundreds of millions of dollars over its original budget.) It's also a hedge, he said, against any federal renewable energy mandates that might come.

While Georgia officials say they have resisted requiring use of specific energy sources, they encouraged Georgia Power to add more solar to its 10-year energy plan, which the company and PSC review every three years. Georgia Power obliged.

With solar energy prices plummeting, the company expects a tenfold increase in its use between now and the end of 2016.

The costs to generate solar power are about half what they were three years ago, said Norrie McKenzie, Georgia Power's vice president for renewable development, a position created last year. Costs for solar equipment have fallen.

Such stunningly fast change could be interpreted as both a caution against jumping in too soon and a sign that renewables can quickly become more financially attractive.

"You never know what opportunities will arise in the next three years," McKenzie said.

Southeast lags

He doesn't think solar or wind will take the place of any of Georgia's big fossil-fuel plants, noting renewables depend on cooperation from nature.

"I don't ever see us relying on intermittent resources to supply the base-load energy requirements" of plants that can run 24 hours a day, 365 days a year.

Andy Pusateri, a utilities analyst for Edward Jones, predicts solar and wind energy will grow as it becomes cheaper but "I don't see a time in the near future where Southern (Georgia Power's parent company) is generating 40 percent of its power via wind and solar."

"I wouldn't call Southern Company a leader in the move to using renewable power," Pusateri wrote in an email to the AJC. "On the West
Coast, there is a greater focus, but also better resources. In the Midwest and west Texas there are greater opportunities for wind power.

“There are many states that have renewable standards or voluntary goals to have a certain percentage of their power generated from renewable resources by a certain date. Almost none of those states are located in the Southeast,” Pusateri noted.

Georgia Power has not recently studied the potential for generating wind energy in-state. Seven years ago the company studied off-shore wind but nothing has come of it. Company officials say most of the state has too little sustained wind to supply big commercial wind farms.

However, a recent federal study by the National Renewable Energy Laboratory suggested much broader swaths of Georgia and other parts of the nation might be able to harness wind efficiently if turbines were built higher. Such changes could require height approval from aviation regulators as well pose challenges in moving equipment to sites.

**Georgia Power’s energy mix**

Natural Gas (and oil): 39 percent

Coal: 35 percent

Nuclear: 23 percent

Hydro and other renewables: 3 percent*

*Solar accounted for less than 1 percentage point. Wind accounted for none.

Source: Georgia Power, 2013 figures