the price of solar and wind power has gone down drastically since then, and continues going down. Solar power is less expensive and faster to build than any other source of power, requires less permitting, requires no cooling water,[12] emits no pollutants, and needs no fuel.

Something else has changed. It was 100 degrees for five days out of two weeks in late May and early June in Lowndes County, Georgia, when the typical high during those days is 90. Valdosta, Georgia, spiked to 106, matching its record all-time high, of August 1, 1999. But this wasn't high summer in August: this was still spring, on June 1st. Hurricane Michael devastated the Florida panhandle and southwest Georgia last year. The U.S. midwest is under water again. We don't have time for a "bridge fuel."

No doubt no fuel for solar or wind is of great concern to Georgia Power and Southern Company, since they cannot charge for no fuel. Yet if they don't figure out how to deal with that, somebody else will.

Not only has the price of solar and wind dropped rapidly, battery power has become available sooner and less inexpensively than expected. I mentioned to Tom Fanning that Florida Power & Light (FPL) is building the world's largest battery and shutting down two natural gas power plants. He said that's just current battery technology, and there is research into other means of storage. Indeed, Southern company has been doing such research for at least six years now,[13] conveniently with no results yet that the company likes.

Meanwhile, SO is content to plunge ahead with the biggest, hardest, most expensive project of them all, new nuclear power units, even after that project bankrupted the company previously in charge of it, and the neighboring state of South Carolina cancelled a very similar project.

It was six years ago, in 2013, that Fanning appointed a tiger team to look into a smart grid to integrate sun and wind power.[14] That team reported to the company in the summer of that year, but its results were never made public.[15] There has been plenty of time for that team or another to report again on fixes to whatever dire difficulties they found the first time.

Meanwhile, Duke Energy is building 74.9 megawatt solar farms in Florida.[16]

Photo: John S. Quarterman, 1 June 2019, of Duke Energy Hamilton Solar Farm, Hamilton County, Florida.

Florida Power & Light is also building solar installations of that size all over Florida. FPL's parent company, NextEra Energy, brags in every quarterly earnings statement and SEC report that it is the world leader in solar power, especially since Southern Company sold Gulf Power to NextEra last year.[17]

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[12] "Ask Georgia Power to conserve our water –WWALS to GA PSC," WWALS Board, 12 June 2013, http://wwals.net/?p=679

[13] "Southern Company Energy Storage Study: A Study for the DOE Energy Storage Systems Program," James Ellison, Dhruv Bhatnagar, Clifton Black, and Kip Jenkins, Sandia National Laboratories Report, SAND2013-2251, March 2013, https://www.sandia.gov/ess-ssl/publications/SAND2013-2251.pdf

[14] "SO's plan to make the Southeast a net exporter of the energy from solar and wind? –John S. Quarterman @ SO 2013-05-22," John S. Quarterman, LAKE, 8 July 2019, http://www.l-a-k-e.org/blog/?p=4594

[15] "Slight changes at Southern Company @ SO 2014-05-28," John S. Quarterman, LAKE, 29 May 2014, http://www.l-a-k-e.org/blog/?p=9177

[16] "Duke opens Hamilton Solar Power Plant," Suwannee Democrat, 10 January 2019, https://www.suwanneedemocrat.com/news/duke-opens-hamilton-solar-power-plant/article_634e6dfe-14f6-11e9-8e66-0bee3a0e1252.html

[17] "NextEra adds to Florida portfolio with Gulf Power purchase," Tampa Bay Times, 2 January 2019, https://www.tampabay.com/florida-politics/buzz/2019/01/02/nextera-adds-to-florida-portfolio-with-gulf-power-purchase/