July 27, 2022

FROM THE DESK OF
COMMISSIONER BRENT BAILEY
CENTRAL DISTRICT OFFICE

The Central District is pleased to bring you the latest information concerning utility rates, project developments, Public Service Commission actions and other news you can use. I hope you will find this information to be a useful resource to learn about the Public Service Commission, consumer issues and the continuous work we are doing for the citizens in the Central District and across the state of Mississippi. Thank you again for allowing me to serve you in this capacity.

Brent Bailey

Small Modular Reactors: The Future of Nuclear Energy?

Opinions around nuclear energy are as varied as any opinions on matters regarding energy security, energy reliability, energy adequacy and energy affordability. The passion of nuclear advocates and nuclear opponents are equally matched. Only one nuclear facility (Plant Vogtle) is currently under construction in the U.S. However, nuclear energy is the largest source of carbon-free energy in the United States.

It takes years of study, planning, design, evaluation, certification, construction and commissioning to bring a traditional, large-scale nuclear power plant online. The aforementioned nuclear facility under construction is the Plant Vogtle Units 3 and 4 located about an hour south of Augusta, Georgia. The latest financial estimates put the Plant Vogtle nuclear expansion costs at $30.34 billion – more than double the original budget of $14 billion. The addition of the two new AP1000 reactors are also six years behind schedule.

The United States has 92 operating commercial nuclear reactors at 54 nuclear power plants in 28 states. This is down from a high of 104 reactor units in 2012. Around the world, 54 reactors are under construction with 96 in the planning stages. However, the future of traditional nuclear is unclear in America. Or is it?

Because of the challenges associated with the construction of large-scale nuclear reactors, many nuclear researchers, investors and proponents are pitching concepts for smaller, innovative nuclear reactors that can be dispatchable, decentralized and modular and allows easier capacity additions. These small modular reactors (SMRs) or advanced nuclear reactor designs represent the cutting edge in nuclear technology for civilian use. Many are inherently safer by design and can adjust output to meet demand. Furthermore, these advanced reactors can not only produce electricity, but can also produce drinking water, hydrogen, and heat for industries and buildings.

While many SMRs and advanced reactors are still in the development phase, several SMR developers are close to bringing their designs to reality. The Department of Energy (DoE) did approve the first SMR design in September 2020 when it issued its final safety evaluation report on NuScale Power's SMR design. NuScale Power's original application was 12,000 pages. Another 2 million pages of additional documents were included in the record during the design review.

The nation's utility sector has recognized the value that advanced SMRs can provide to the nation's economic, energy security, and environmental outlook. A recent survey of a subset of electric utilities by the Nuclear Energy Institute found that more than 300 new SMRs are planned to be deployed in the U.S. over the next 25 years. Many of these SMRs could be located at currently operating or retired power plants that retained transmission interconnect.

Continued…

In fact, Entergy Corp. recently announced it has entered into a memorandum of agreement with Holtec International for an evaluation of the potential installation of one or more small modular nuclear reactors on one or more existing Entergy nuclear sites within the company's service area. Holtec's DoE application proposes the SMR-160, a 160-megawatt pressurized water reactor, to be developed at sites in groups of four. Entergy is exploring the feasibility of small modular nuclear reactors, especially as to whether it makes sense for customers.

In addition, the Tennessee Valley Authority (TVA) in April announced a partnership with Ontario Power Generation to develop advanced small modular reactors as an effective long-term source of carbon-free energy in both Canada and the U.S. TVA currently holds the only Nuclear Regulatory Commission Early Site Permit in the U.S. for small modular reactor deployment at its Clinch River site near Oak Ridge. TVA has proposed a technology park which would contain one or more advanced nuclear reactors with a cumulative electrical output not to exceed 800 megawatts.

Other near-term SMR designs include Oklo, Inc.'s liquid-metal microreactors to be built at the Idaho National Laboratory near Idaho Falls. Oklo has secured a site license and fuel allocation from the DoE. TerraPower, with plans for a sodium-cooled reactor, paired with molten salt energy storage, is to be built in Wyoming.

The future of nuclear energy is an exciting field, and the technological innovation is impressive. The opportunity to deploy SMRs makes much more sense than the tens of billions potentially needed to place a traditionally sized nuclear reactor facility into service.

Except for Three Mile Island, nuclear has a strong track record for safe operations. In addition to the 92 civilian nuclear reactors, the U.S. Navy has approximately 100 reactors that power ships and submarines. Last week I was in a meeting just across the San Diego Bay from the USS Carl Vinson, a twin 200 MW nuclear reactors powered aircraft supercarrier that was christened in 1980. Who knew that just across the bay were a pair of SMRs that have been circling the world protecting our country for the last 40 years!

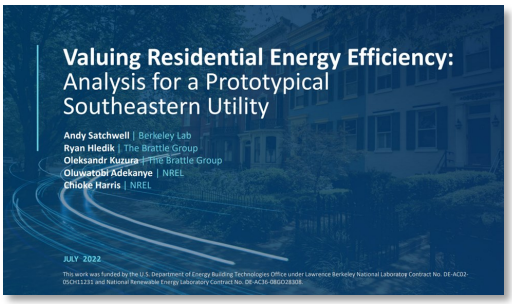
Entergy Settlement News

REMINDER: As part of its recent settlement with the MPSC, Entergy Mississippi customers will have the choice to receive a one-time $80 credit on their September energy bill or receive a one-time $80 check in the mail in September. You don't have to do anything to receive the one-time $80 bill credit. That is the default action. However, if you wish to receive the one-time $80 check, you must make the request through your MyEntergy account web portal between August 1 and August 17, 2022. See https://www.entergy-mississippi.com/credit/ for more information. If you don't have internet access, you can call **1-800-368-3749** to set up a MyEntergy account. Only Entergy customers with active accounts are eligible. This includes residential and non-residential accounts.

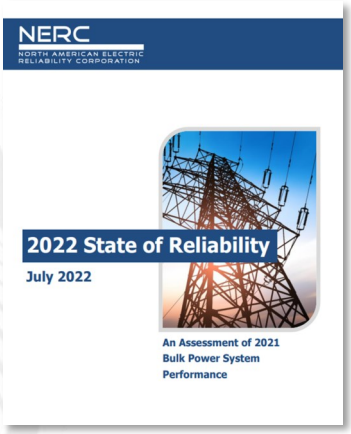
AUGUST 2

The MPSC's August Regular Docket Meeting will be held at 10:00 am on Tuesday, August 2. The meeting is open to the public and will be streamed online.

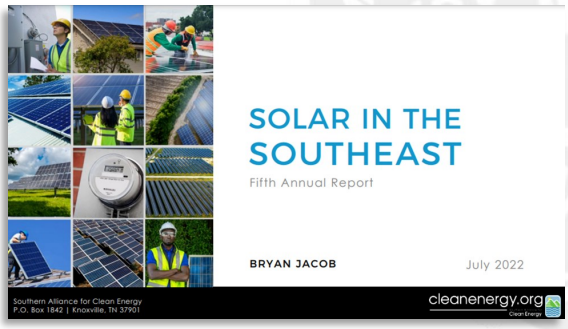
Reports of Interest



- Lawrence Berkeley National Lab and The Brattle Group have released a new report, titled "*Valuing Residential Energy Efficiency: Analysis for a Prototypical Southeastern Utility*." The study quantifies the amount of cost-effective residential energy efficiency (EE) that could be deployed by a prototypical summer-peaking utility in the Southeastern U.S. The study finds that under business-as-usual cost and participation assumptions, cost-effective residential EE could reduce system energy sales by 3.8% per year and save roughly $1 billion (NPV) in resource costs. This is almost 3x higher than what has been achieved historically in the Southeast. Additionally, a number of new policy and program initiatives could increase the historical savings rate by over 7x, resulting in a 9.5% reduction in annual system sales by 2040 and deliver ~$3.7 billion (NPV) in additional power system cost savings. The study, along with a technical appendix, can all be downloaded from here: https://emp.lbl.gov/publications/valuing-residential-energy-efficiency



- On July 20, the North American Electric Reliability Corp. (NERC) released its *2022 State of Reliability* report. The report is a review of the reliability of the bulk electric system during 2021 and was prepared to inform regulators, policymakers, and industry leaders of major reliability risks and performance trends, actions that are being taken to address them, and the effectiveness of past actions. Challenges to the bulk electric system in 2021 included extreme cold weather, Cat 4 hurricane, cyber attacks, physical attacks, inverter-based resources, and the changing resource mix.



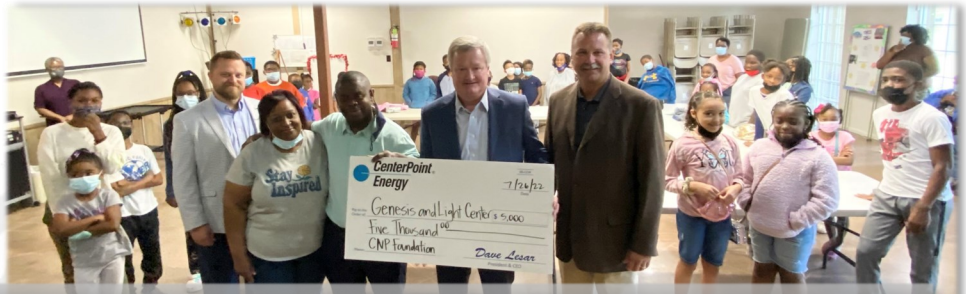
- On July 18, the Southern Alliance for Clean Energy (SACE) released its fifth annual "*Solar in the Southeast*" report highlighting solar data and trends throughout the region, including Alabama, Georgia, Florida, Mississippi, North Carolina, South Carolina, and Tennessee. Using a "watts per customer" (W/C) metric to compare and contrast states and utilities across the region, the report offers a unique analysis with detailed information at the regional, state, and utility levels.

DID YOU KNOW?

From July 2021 to June 2022, the monthly average Henry Hub natural gas spot price nearly doubled. The price rose from $3.84 per million British thermal units (MMBtu) in July 2021 to $7.70/MMBtu in June 2022. The Henry Hub spot price reached a 12-month high of $8.17/MMBtu in May 2022, the highest price since November 2008. Prices have generally increased since mid-2021 because demand and export growth has outpaced domestic production growth. Also, the first quarter of 2022 had colder-than-normal temperatures and the electric power sector had challenges with natural gas-to-coal switching for electricity generation.

FROM THE DESK OF
COMMISSIONER BRENT BAILEY
CENTRAL DISTRICT OFFICE

CENTRAL DISTRICT SNAPS



I had the privilege of joining CenterPoint Energy this week for the presentation of a $5,000 check from the CenterPoint Foundation to support the Genesis and Light Center in Jackson. We appreciate CenterPoint's efforts and contributions to Genesis and Light Center to continue their goal of combating a wide range of issues impacting local youth, including school drop-outs, poor academic performance, college entrance preparation, knowledge of the job market, abuse or neglect, drug use and more.

We made a stop by one of Atmos Energy's work sites this week in Madison County along Yandell Road. Atmos Energy is installing larger natural gas distribution system piping to expand service and capacity and support future economic development in this area of Madison County.

I'll be kicking off the Thursday morning speeches at 9 a.m. under the Founders Square Pavilion at the Neshoba County Fair! I hope to see y'all there!

Last week, our Consumer Complaint Specialists handled a total of 29 complaints in the Central District.

Electric Companies	14
Water/Sewer	10
Telecommunications	4
Natural Gas	1

Last week, the Central District received a total of 102 complaints from consumers against potential telemarketers through our no call app, website and mail-ins.
We encourage consumers to file telemarketing complaints with the Federal Trade Commission at http://www.donotcall.gov/ in addition to filing complaints with the Mississippi Public Service Commission.