THE POWER SOURCE

IGNITING THE FUTURE OF FLORIDA

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Power Profile: Hala Ballouz, P.E.

President

Electric Power Engineers, LLC | Ener-i.AI, Inc.

Hala, your personal story and transition into the energy industry are unique and inspirational. Provide some personal background on you, your studies, and how you arrived at Electric Power Engineers, a company you now own.

I grew up in Lebanon in a small town of "poetry and wind" in the heart of a beautiful valley. I remember walking near the river with my dad as a little kid and hearing him talk about the power of our footsteps and speculating on harnessing that power..... ***Read More***

You have a good understanding of how the current opportunities in energy generation and delivery are impacting the grid and what companies should be doing prospectively to address supply, security, and resilience. When you are speaking to a utility company about your work, how do you explain how they can integrate your planning studies into their strategic planning?

Absolutely key to a discussion with a utility is first understanding what challenges they are facing in their strategic planning. At EPE, we have close to 200 power systems subject matter experts focused on grid planning studies, from distribution and transmission planning, to grid modernization..... ***Read More***

Your work is not limited to Texas, a state that has deregulated the provision of energy. How does your work differ in states where the provision of electricity remains regulated.

Our skillset serves both regulated and deregulated utilities. With our regulated utility clients, we also apply a deep understanding of the end-to-end product of generating, transmitting, distributing and delivering power to the end consumer, where we help connect all elements of T,D&G..... ***Read More***

Included in this issue:

Read Hala Ballouz's Full Interview

New power station to be built on MacDill Air Force Base

Tampa Electric and MacDill Air Force Base have announced plans to construct a new power station on the northwest corner of the base, aiming to enhance its resilience during local or national emergencies. This project, in development for over a decade, is described as the largest energy assurance lease in the history of the Air Force. While smaller than TECO's Big Bend Power Plant, the new natural gas-powered station will enable the base to achieve energy independence when needed. With an investment of nearly $200 million from TECO, the plant is expected to be partially operational by early 2025, with full completion anticipated by the end of 2026. This initiative is designed to ensure continuous electrical power for MacDill Air Force Base, contributing to both local resilience and national security.

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New NARUC Gas-Electric Working Group to Address Growing Grid-Related Challenges

The National Association of Regulatory Utility Commissioners (NARUC) has launched the Gas-Electric Alignment for Reliability (GEAR), a 15-month initiative to enhance coordination between the gas and electric industries. The electric sector's increasing dependence on gas for power generation, coupled with misalignments in infrastructure and markets, poses reliability challenges highlighted during recent winter storms like Uri and Elliott.

GEAR will assemble state regulators and industry representatives to develop solutions addressing these challenges, drawing from reports by various entities. The working group will provide updates on its progress in 2024 and present recommendations at the 2025 Winter Policy Summit. Julie Fedorchak, NARUC President, emphasized the importance of addressing the alignment issues to enhance the safety and reliability of the power grid. Georgia Commissioner Tricia Pridemore has been appointed as the chair of the working group.

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Chesapeake Utilities Corporation Completes Acquisition of Florida City Gas

Chesapeake Utilities Corporation has successfully completed the acquisition of Florida City Gas (FCG), making it a wholly-owned subsidiary. This transformative transaction significantly increases Chesapeake Utilities' operations in the high-growth Florida market, covering five of the top 10 most populous counties. The acquisition more than doubles the company's customer base and natural gas infrastructure in the state, positioning it for substantial future growth. The move aligns with Chesapeake Utilities' long-term earnings and dividend growth targets.

The company plans a capital expenditure of $1.5 billion to $1.8 billion for the five-year period ending 2028, with approximately 60% allocated to Florida for pipeline replacements, expansions, and increased transmission capabilities. Regulated operations are expected to represent about 87% of Chesapeake Utilities' business mix. The integration plan details will be disclosed during the Fourth Quarter and Full Year 2023 Earnings communications in February 2024. ***Read more***

Tampa Electric Hits a New Solar Milestone

Tampa Electric has achieved a new solar milestone with the commencement of operations at four new solar plants, marking the completion of a significant phase in its solar expansion initiative. These projects contribute to a total solar capacity of 1,252 megawatts (MW), equivalent to 1.25 gigawatts, enough to power over 200,000 homes. The solar plants include Dover Solar in Hillsborough County, Juniper Solar in Pasco County, and Alafia Solar and Lake Mabel Solar in Polk County. With this expansion, about 14% of Tampa Electric's energy can now be sourced from the sun.

The company's strategic investment in solar power has resulted in approximately $200 million in fuel cost savings for customers over the past five years. Construction for the next phase of solar power is scheduled to begin in January, aiming to reach over 1,600 MW of solar capacity, serving around 260,000 homes by the end of 2026.

Tampa Electric's commitment to solar energy has contributed to fuel cost savings, water conservation, and a reduction in greenhouse gas emissions, aligning with its goal of a cleaner-energy future. Upon completion of the planned projects, Tampa Electric will have the highest percentage of solar generation among all utilities in the state, accounting for approximately 17% of its total energy generation. The company encourages customers to explore solar energy solutions through its dedicated webpage. Tampa Electric serves around 830,000 customers in West Central Florida and is a subsidiary of Emera Inc., headquartered in Halifax, Nova Scotia, Canada. ***Read More***

JEA and UNF Advance Sustainable Solutions at Lab Opening

JEA and the University of North Florida are collaborating to support clean and renewable energy education and research, through the establishment of the new JEA Sustainable Solutions Lab at UNF.

Made possible through a five-year financial commitment from JEA, the Solutions Lab will provide UNF undergraduate and graduate students hands-on opportunities to learn about clean and renewable energy technology and conduct related research in a dedicated space on campus.

As part of the collaboration, UNF students will be working directly with JEA experts on clean energy projects, while JEA staff and UNF faculty work together to develop relevant academic programming related to green energy. The lab will be a hub for research to develop sustainable solutions for JEA and other industries.

JEA has long partnered with UNF, originally providing support in 2001 for a Clean and Renewable Energy Lab. That gift created one of the most successful research labs in UNF history, resulting in more than $18 million in research funding through federal, state and private sources. This latest collaboration furthers that work and helps to ensure a growing pipeline of engineers, scientists and other industry professionals with knowledge and experience to contribute to the economic development in Northeast Florida. To date, more than 100 undergraduate and graduate students have participated in JEA/UNF research and education projects.

Student projects already underway in the lab include small-scale, operational microgrid solar panel systems, solar photovoltaic projects, solar thermal and internal combustion engines, a hydrogen-fueled, fuel cell golf cart and autonomous vehicle projects.

“It’s great having the backing of JEA,” said John Davis, a UNF senior studying mechanical engineering. “Their funding helps support our research. I feel like I’m helping to move things forward as it pertains to clean energy, utilizing available resources to better the environment.”

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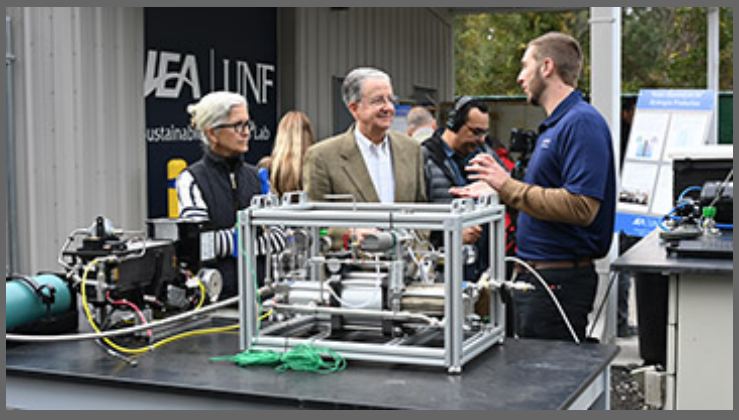

DOE Launches New Office to Coordinate Critical and Emerging Technology

The U.S. Department of Energy (DOE) has unveiled the Office of Critical and Emerging Technology to harness the Department's extensive assets and expertise in crucial fields such as artificial intelligence (AI), biotechnology, quantum computing, and semiconductors. The goal is to expedite progress in these sectors and ensure that U.S. investments align with DOE capabilities, accelerating advancements in clean energy, national defense, and pandemic preparedness. This new office will centralize DOE efforts to address science, energy, and security challenges posed by critical and emerging technologies (CET), which carry significant economic and national security potential but also entail risks. The office, reporting to the Under Secretary for Science and Innovation, will be led by Helena Fu, who will also serve as DOE's Chief Artificial Intelligence Officer. F

The office will act as a hub for CET efforts across the DOE, including its 17 National Laboratories and various university research programs, serving as a pivotal point of contact to ensure ongoing collaboration between the federal government, private sector, and academia. U.S. leadership in science, technology, and innovation is deemed crucial for economic, national security, and social benefits, providing the nation with a competitive advantage in critical and emerging technologies. The DOE, with its diverse expertise and capabilities, aims to uphold this leadership role in key technology areas through collaborative research, development, and deployment initiatives. ***Read more***

Orlando Utilities Commission Fuels Greener Grid With New Battery Storage System

OUC—The Reliable One is taking strides towards a cleaner and more resilient energy future by installing a 4-megawatt (MW)/8-megawatt-hour (MWh) Battery Energy Storage System (BESS) in St. Cloud. This project, in collaboration with renewable energy company Ameresco, aims to enhance grid resiliency and contribute to OUC's goal of achieving Net Zero CO2 emissions by 2050. The BESS, capable of storing excess energy from solar and other sources, will play a crucial role in ensuring a consistent power supply during periods of low solar generation, such as storms or cloudy days. Additionally, it addresses the challenge of high electric demand during times when solar energy may not be readily available, such as early morning, late afternoon, or evening.

The installation, taking place on October 11th and 12th, involves the deployment of two 2MW battery systems, each comparable in size to a shipping container and weighing 75 tons. Positioned at OUC's St. Cloud Substation in Osceola County, the battery system will be installed using a crane. Attila Miszti, OUC Chief Operating Officer, emphasized the significance of modern energy storage in expediting OUC's transition to net-zero emissions. He highlighted the role of battery storage in overcoming the challenges of solar production intermittency, ensuring the reliability of services while incorporating clean energy resources like solar.

The battery storage systems are anticipated to be fully operational by mid-January, facilitating a smoother integration of solar energy into OUC's grid. ***Read more***