





SECURING A BRIGHT FUTURE

In the dynamic US energy space, PowerSecure Inc. stands as a leader in distributed energy solutions. We speak to Chief Development Officer Eric Dupont about the microgrids energizing customers across the country

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“ The energy industry is a very dynamic and ever-changing space which creates immense opportunity, more so than ever before.”

For Eric Dupont, Chief Development Officer at PowerSecure Inc. (PowerSecure), the US energy industry is characterized by rapidly evolving developments due to the critical nature of electric energy for business operations.

PowerSecure is focused on providing the best distributed energy solutions for its customers based on the business objectives they are each looking to achieve. The company's



solutions typically fall within two primary business areas or categories: energy efficiency services, which focus on how energy is utilized within a consumer’s facility, and microgrid or distributed energy solutions.

“The former also includes identifying new technologies and operational practices to reduce the energy consumed by that facility; we want to make sure that the energy consumption is optimized,” Dupont elaborates. “In this business, PowerSecure’s services include the identification, development, design, installation, and commissioning of energy efficiency measures.

“As for microgrid or distributed energy solutions, this business segment of PowerSecure is focused on the vertical delivery of onsite power production, integrating a single or multiple distributed energy resources (DERs) together to work in conjunction with the grid, and to isolate an electric load from it. PowerSecure operates as an engineering, procurement, and construction (EPC) service provider in this field.”

PowerSecure develops the conceptual design of the distributed energy solutions based on the consumer’s business objectives

from both a technical and financial standpoint. At the same time, PowerSecure supports its customers in building the financial value stack associated with the distributed energy solution. This is all supported by the company’s team of experts who understand the utility tariffs, deregulated markets, and utility requirements, and can translate these programs or tariffs into the right system to drive the maximum value to customers.

RENEWABLE RESOURCES

PowerSecure is known for its microgrids in the energy industry. ■

NORTH AMERICA OUTLOOK: HOW DOES POWERSECURE STAND OUT IN THE INDUSTRY?

ERIC DUPONT, CHIEF DEVELOPMENT OFFICER: “We stand out in the industry in many ways: our vertically integrated delivery model provides the customer with a full turnkey solution from concept to design, to own, operate and maintain. They come to PowerSecure and we deliver a fully comprehensive system for them that supports meeting their business objective.

“Our microgrid systems are designed to be flexible and adaptable to new DERs as those technologies become economically viable. As we think about designing our microgrid systems, we must remain focused on retaining flexibility in our system design to allow current and future technologies to be easily adopted into the microgrid – we call this ‘future proofing’.

“We are also technology agnostic – it is most important for us that we support our customers in meeting their business objectives and tailoring the solution to meet those objectives. We do this by understanding the most important business objectives that our customers want to achieve.”

Microgrids themselves are localized electricity grids that are connected to the main power grid, yet act as a single and controllable entity, outsourcing to a small network of electricity users, versus the vast reach of a general electricity grid.

The present-day iterations have evolved from the traditional fossil fuel-based reciprocating engines to include DERs such as solar and battery energy storage, to name a few. On top of this, the company’s microgrids boast long-life assets of over 20 years, while retaining a flexible and adaptable design to minimize loss.

“PowerSecure has implemented over 2,400 microgrids in its history, and we are currently working with Bright Canyon Energy (BCE) on the Los Alamitos microgrid in Orange County (California) on the integration of an advanced microgrid system with 31 megawatts (MW) of solar, 20 MW of battery storage, and three MW of backup generators,” Dupont explains.

“Under normal grid conditions, Los Alamitos will sell energy, capacity and renewable attributes to San Diego Gas and Electric (SDGE)

under a long-term power purchase agreement. Under emergency grid conditions, Los Alamitos will provide energy resiliency to the U.S. Army and California National Guard at Joint Forces Training Base Los Alamitos.”

One such microgrid example is installed in Lillington (North Carolina). Here, PowerSecure, South River Electric Membership Corporation (South River EMC) and its power supplier, North Carolina Electric Membership Corporation, partnered with Butler Farms, a sustainability-focused pig farm, to develop a local microgrid. The microgrid connects to South River EMC’s distribution system to supplement and diversify traditional power resources.

During outages, it can also operate in island mode to power Butler Farms and surrounding homes. In this microgrid, PowerSecure integrated renewable energy resources, including solar and biogas, with energy storage to supplement traditional power sources, diversify the electric grid and provide environmental benefits.

“PowerSecure executed the Tech Square advanced microgrid with 1.4

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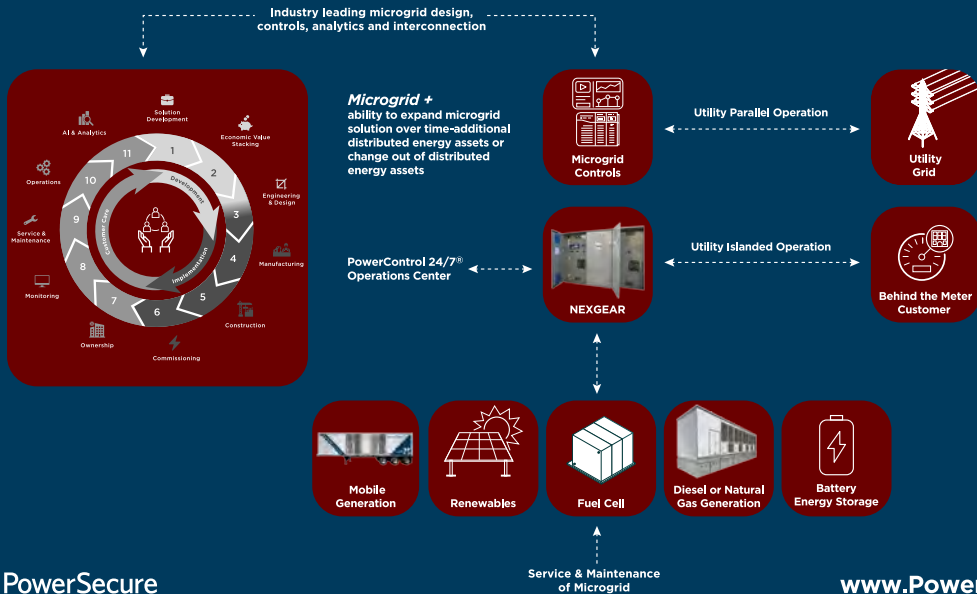
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MW of generating capacity in conjunction with Georgia Power, a Southern Company subsidiary,” Dupont tells us. “This microgrid is located on the Georgia Institute of Technology (Georgia Tech) campus, and during

power outages, the microgrid acts as an emergency backup for Georgia Tech’s high-performance computer center (HPCC).

“This advanced microgrid has incorporated in a custom enclosed

dual fuel system with natural gas and Tier 4 Final Volvo Penta generators for long-term resiliency, a 300-kilowatt (kW) fuel cell and 500 kilowatt-hour (kWh) battery energy storage systems (BESS).”

NORTH AMERICA OUTLOOK: CAN YOU TELL US HOW THE US ENERGY SPACE IS CHANGING?

ERIC DUPONT, CHIEF DEVELOPMENT OFFICER: “The consumer is demanding more from their energy providers, and I believe it is for a few reasons.

“Business energy consumers have investors or shareholders, boards of directors, customers and other stakeholders that are driving and demanding a focus on climate, carbon footprint reduction, and viable energy solutions to meet those goals.

“Secondly, electrification will drive an increasing demand in electricity requirements, but will further drive a higher expectation of resiliency in electric energy. This means that electric energy to business operations becomes a key risk that needs to be evaluated, managed, and mitigated. These create a really interesting, dynamically changing industry where PowerSecure is excited to participate.

“One of our primary solutions, a microgrid, is positioned to become a significant contributor to the future reliability and resiliency of the global power grid. As such, the microgrid industry, as a subset of the energy industry, is a very exciting field with strong growth potential. According to a major research firm, between DERs and the microgrid industry, these markets are expected to hit \$40 billion by 2026 with a 7.6 percent and 8.7 percent compound annual growth rate (CAGR) respectively.”

TECHNOLOGY AND SUPPORT

PowerSecure is always working on advancing new technologies to provide enhanced value for its customers. The microgrid industry continues to evolve with new technologies, new products, and new fuel sources, among other things. PowerSecure is constantly evaluating new technologies to be utilized in its microgrid and energy efficiency services.

PowerSecure, as a subsidiary of Southern Company, has the additional benefit of working closely with Southern Company R&D, which is responsible for identifying future technologies and how they can commercialize and support PowerSecure’s business model.

“PowerSecure provides an enhanced service to its customer after the microgrid system is installed. This is a critical service that enhances the value to our customers. It ensures a hands-off approach by the customer ■



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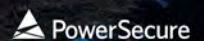
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Powersecure is the Leading Microgrid Developer in North America



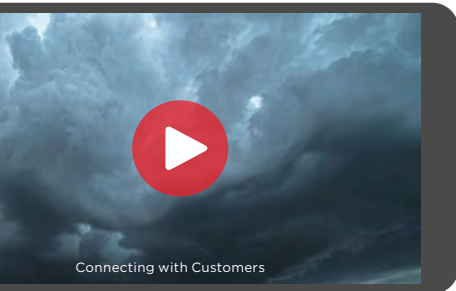


“THE ENERGY INDUSTRY IS A VERY DYNAMIC AND EVER-CHANGING SPACE WHICH CREATES IMMENSE OPPORTUNITY, MORE SO THAN EVER BEFORE”

- ERIC DUPONT, CHIEF DEVELOPMENT OFFICER, POWERSECURE INC.

to know that the microgrid system is going to deliver the best value,” Dupont says.

“Our customer care functions are



extremely important. Microgrids are critical investments and significant to both our customers and the communities they serve, and they must be reassured with confidence in our microgrids when it comes to driving value and achieving returns.”

PowerSecure’s PowerControl 24/7 service which monitors, manages, dispatches, and controls microgrid systems is key to driving value for the microgrids. PowerControl 24/7 ensures that the operation of the microgrid creates value from the energy markets or utility programs,

while also ensuring that there is a high level of microgrid reliability to ensure electric resiliency is achieved during grid outages.

This energy asset/microgrid control is also coupled with data analytics to drive performance optimization and maximum value capture. Equally important to the equation is a strong service division that develops and executes servicing plans for the microgrid systems.

“Our PowerControl 24/7 is integrated with service division through our customer care model.



When there is an issue identified within the microgrid by PowerControl that cannot be resolved remotely, our service technician is dispatched to rectify any issues. This efficient service model is highly valued by our customers,” Dupont adds.

LEADING THE WAY

PowerSecure is the leader in mobile microgrid deployments to date in the US, with market leadership in both basic and advanced microgrids. As a market leader, the company continues to expand its offering

to maintain its position and serve its customers with the best in the industry.

“Our industry is constantly evolving, and consumers are demanding more. Our key priority for the coming year is to ensure that PowerSecure is aligned with consumer requirements to meet their business goals today and in the future,” Dupont continues.

“We have announced our expansion into using renewable diesel and renewable natural gas in our reciprocating engines, which are a part of our microgrids. We need to continue to improve distribution to get that to our customers’ doorsteps in an efficient and viable approach. Our goal is to continue to expand the technologies that we integrate into our advanced microgrid systems and provide a low to no-carbon solution for our customers that is economically viable.”

The Inflation Reduction Act (IRA) has also created a window for microgrid controllers to get the investment tax credit (ITC). For PowerSecure, this is something that its customers can leverage, with the additional incentive to drive growth in the adoption of microgrids in the market.

Further, the IRA should also have a significant impact on the ability to economically deploy stand-alone BESS, so PowerSecure is looking forward to deploying such technology into its solutions more often.

“As we look across the landscape of the technologies within the IRA and the related tax credits available, we need to ensure that our customers are educated on IRA, further getting the full benefit of these tax credits, and moving with a sense of urgency to maximize the value,” Dupont concludes. ^{NO}

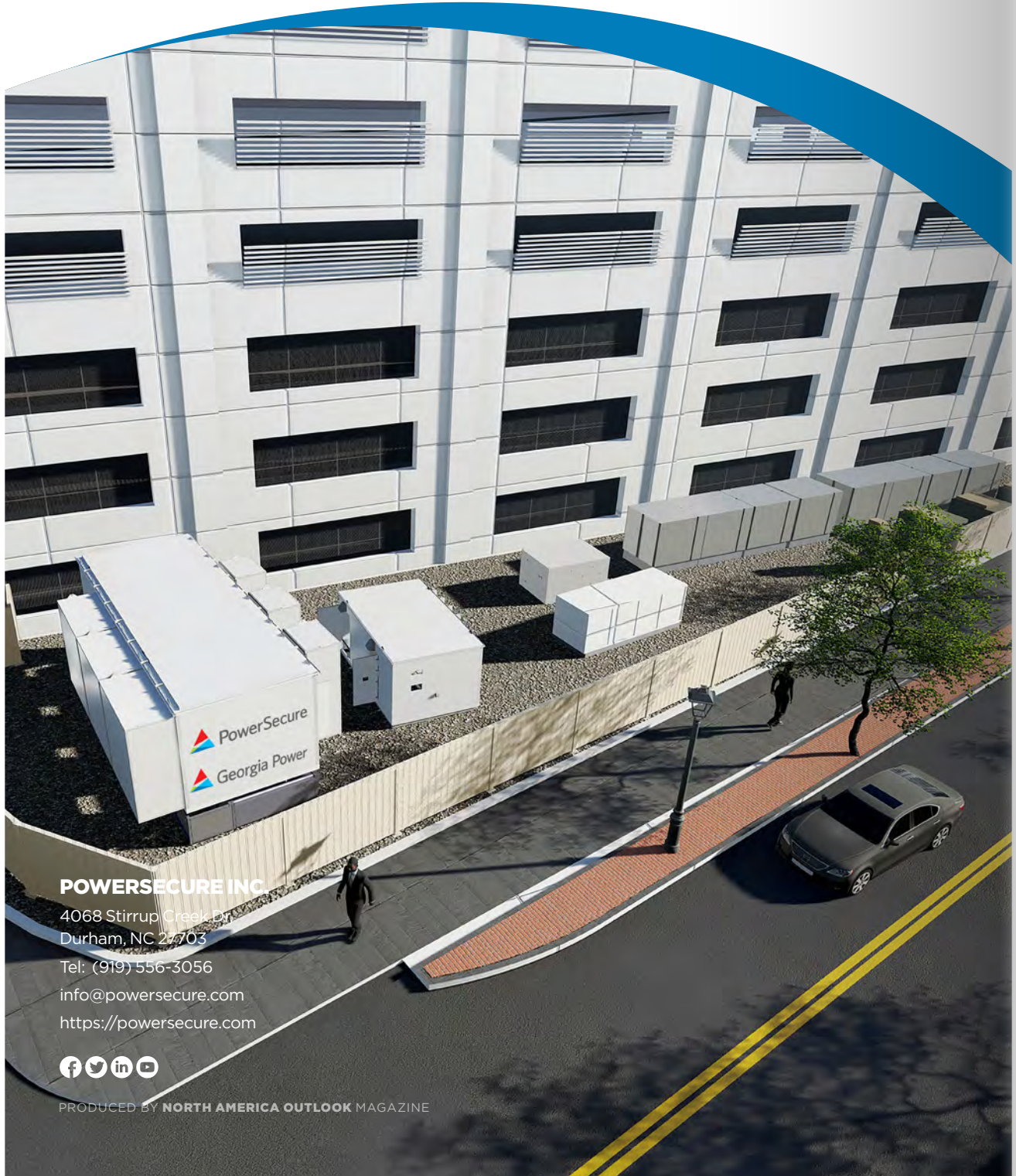


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