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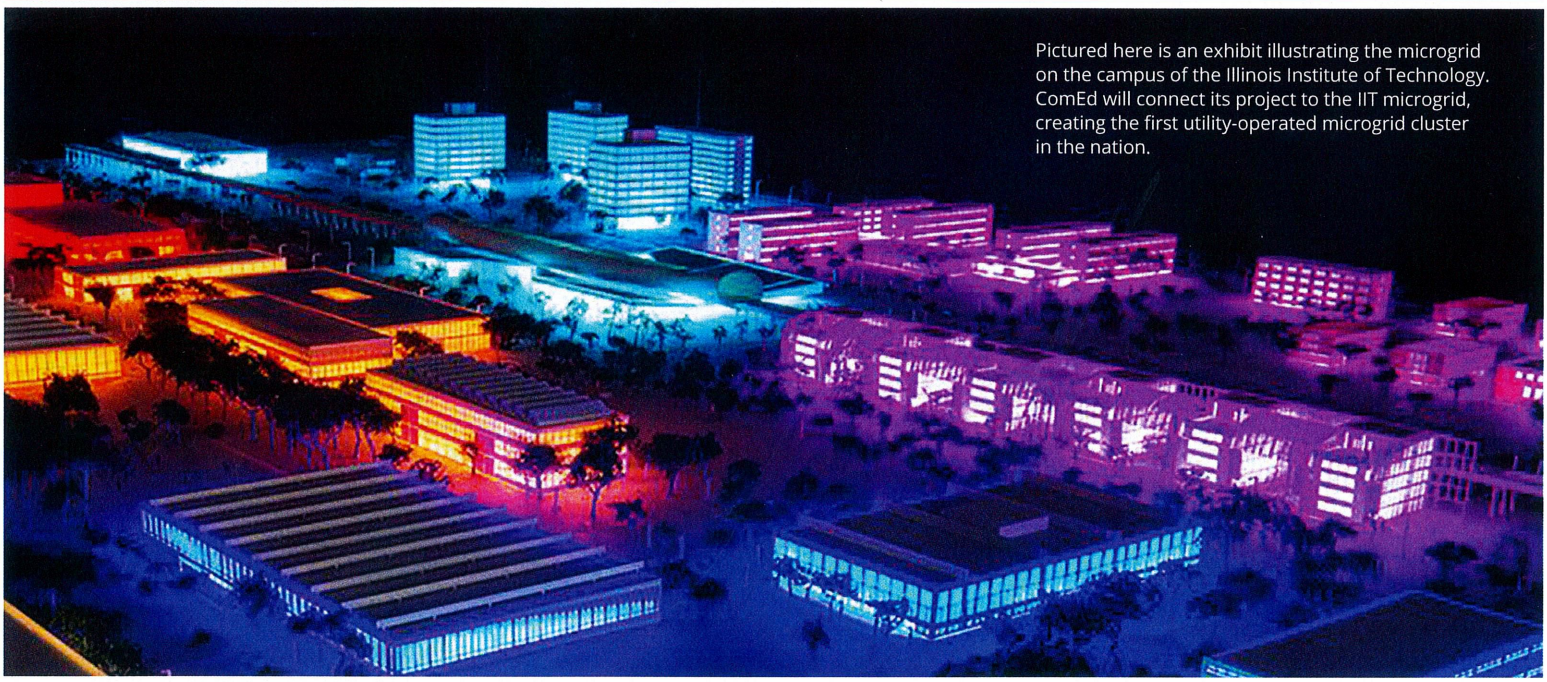
THE MICROGRID DEMONSTRATION PROJECT



Pictured here is an exhibit illustrating the microgrid on the campus of the Illinois Institute of Technology. ComEd will connect its project to the IIT microgrid, creating the first utility-operated microgrid cluster in the nation.

Green Light for Microgrid

The Illinois Commerce Commission approved in February ComEd's plan to construct a microgrid in Bronzeville on Chicago's South Side. The project, which has received more than $5 million in grant funding from the U.S. Department of Energy (DOE), will enable the study of how microgrids support the integration of clean energy onto the grid and increase grid security to keep power flowing even during extreme weather or other emergency event.

Microgrids have been used in niche applications for many years, providing backup energy to military bases, college campuses and other institutions. As the electric grid becomes increasingly digital and the demand for renewable power, security and reliability grows, microgrids are expected to become mainstream and serve as a core piece of the electric system's infrastructure.

Essentially a small power grid with defined boundaries, a microgrid can operate both when connected to the larger electric grid and as an "island" when there's an interruption on the main grid. It draws on distributed energy resources (DERs), such as solar power, to serve customers within the microgrid footprint. These benefits extend to surrounding communities through better access to food, supplies, and public services.

The project will provide real world learnings with respect to the optimal coordination of different types of distributed energy resources. The project also provides opportunities for solar developers to connect to the microgrid.

"Our reliance on electricity in our digital age is only going to increase, and so will our need for system resiliency."

Michelle Blaise
Senior Vice President,
Technical Services, ComEd

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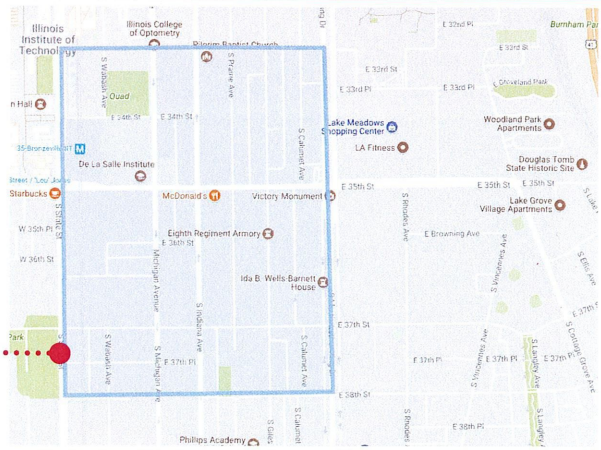
Strong Case for Bronzeville

Bronzeville was selected following a comprehensive study. An overall resiliency metric was applied to ComEd's entire northern Illinois service territory in small microgrid-sized sections. This identified locations where a microgrid could best address both security and resiliency, with a focus on public good. A diverse load profile, including single and multi-family dwellings, commercial and industrial and public facilities and critical infrastructure, made Bronzeville an ideal location. The proximity to Illinois Tech was an added bonus, allowing for the first utility-operated microgrid cluster in the nation.

The microgrid will be a key component of ComEd's Community of the Future Initiative in Bronzeville, where it's collaborating with residents to identify needs and opportunities to leverage smart grid technology and related services. Technology pilots planned or underway include an electric vehicle transportation service, sensor-based technologies, off-grid wind and solar LED streetlights, outdoor interactive digital display technology providing community news, emergency alerts, way finding and free Wi-Fi. Community programs include ComEd's first ever Ideathon which exposes Bronzeville high school students to smart city and smart grid technologies and supports the development of skills in Science, Technology, Engineering and Math (STEM).



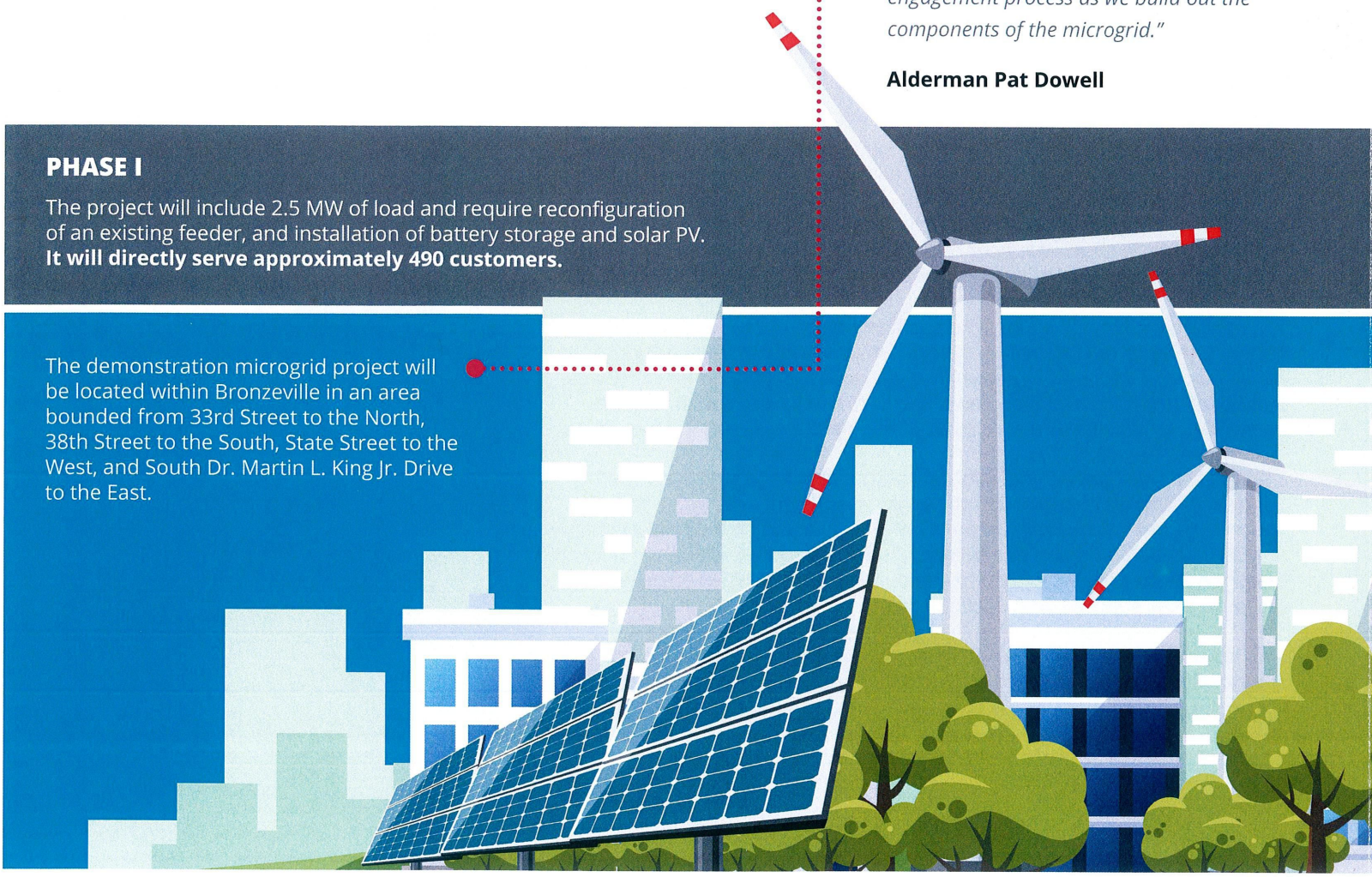
"The microgrid project complements Bronzeville's long history of innovation. Our vision for our historic community is centered on sustainability and accelerating the adoption of smart technology and infrastructure. The Bronzeville community looks forward to continuing a robust civic engagement process as we build out the components of the microgrid."

Alderman Pat Dowell

PHASE I

The project will include 2.5 MW of load and require reconfiguration of an existing feeder, and installation of battery storage and solar PV. **It will directly serve approximately 490 customers.**

The demonstration microgrid project will be located within Bronzeville in an area bounded from 33rd Street to the North, 38th Street to the South, State Street to the West, and South Dr. Martin L. King Jr. Drive to the East.



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Measurements for Success

The microgrid is expected to be completed in 2019 and its performance and impact, including a cost benefit analysis, will be studied over approximately 10 years. A broad range of metrics have been established to evaluate the project and its ability to positively impact the resilience of the energy system, the Bronzeville community and critical infrastructure.

The Project will not only deliver benefits to the customers it directly serves, but during a major system disruption, it will also provide an "oasis" of functioning critical infrastructure where residents can obtain food and supplies.

Energy System Resilience

measuring energy system performance and resilience to threats

Community Resilience

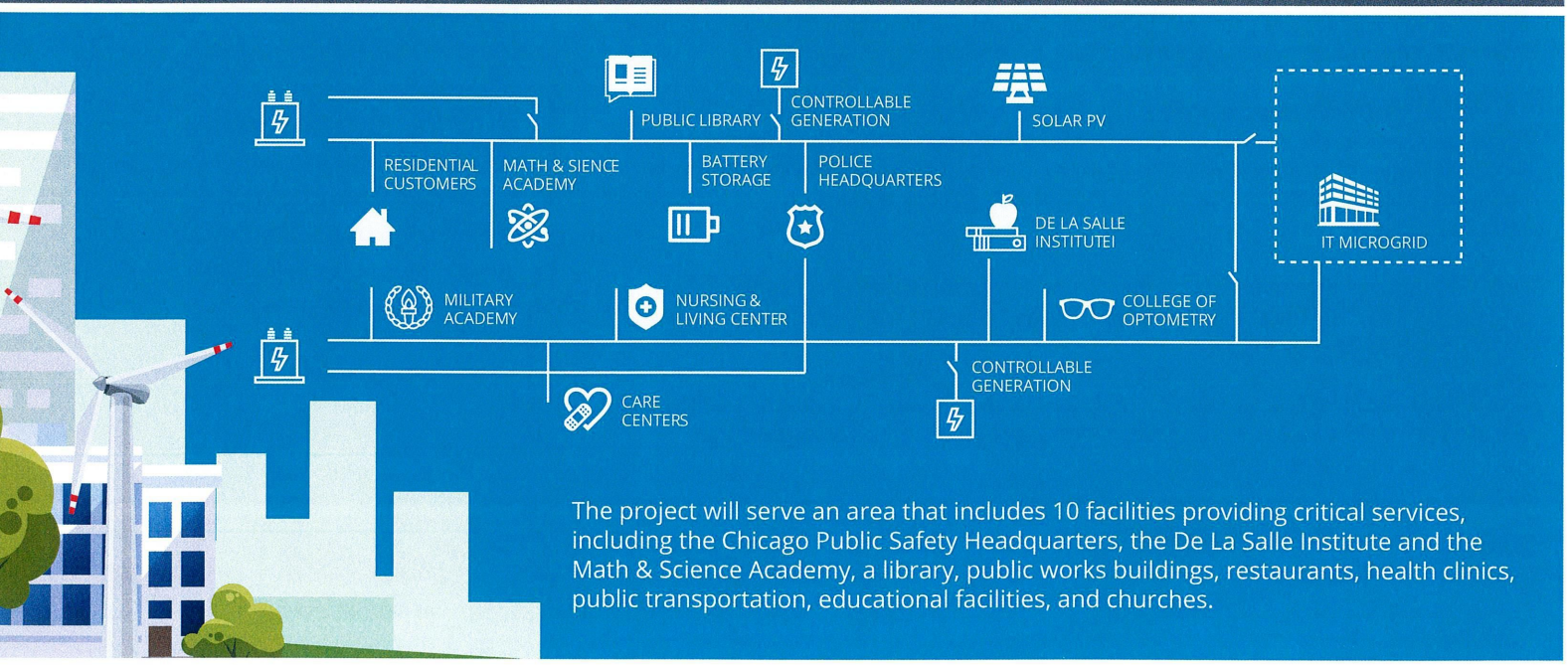
measuring primary and secondary impacts that the Project may have on the community in Bronzeville

Infrastructure Resilience

measuring the ability of critical infrastructure systems to prepare for and adapt to changing conditions and to withstand and recover rapidly from disruptions

PHASE II

Will add approximately 570 customers and an additional 4.5 MW of load and 7 MW of DERs, enough to meet the peak electricity demand of customers within the microgrid footprint and maintain service when the microgrid is islanded from ComEd's grid. **The completed project will serve approximately 1,060 residential, commercial, and small industrial customers.**



The project will serve an area that includes 10 facilities providing critical services, including the Chicago Public Safety Headquarters, the De La Salle Institute and the Math & Science Academy, a library, public works buildings, restaurants, health clinics, public transportation, educational facilities, and churches.

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"The project is expected to demonstrate a range of microgrid benefits, among them grid security, an area of growing concern in an era of cyber vulnerability." —**Elisa Wood**, Microgrid Knowledge

1st

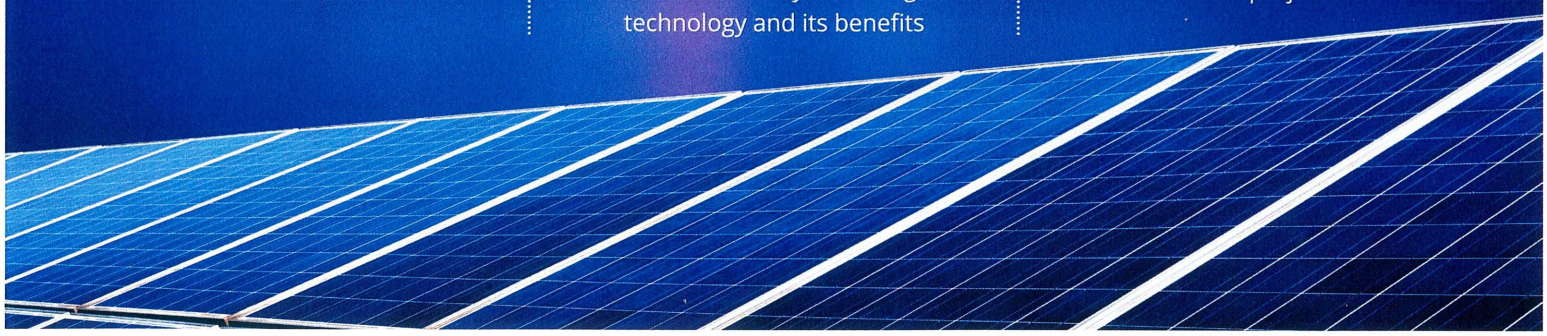
Utility-operated microgrid cluster in the nation

$5M

In Grant Funding from the U.S. Department of Energy to advance the study of microgrid technology and its benefits

10YR

Study of a broad range of metrics to evaluate the project



Preparing for a Distributed Energy Resource (DER) Environment

The project builds upon ComEd's smart grid platform and a continuous effort to advance the design and performance of the electric system serving northern Illinois.

The project provides real world learnings about the optimal coordination of different types of DER. Generation like solar PV offer tremendous opportunities in terms of limiting society's carbon footprint and supporting the economy, but their intermittent production also poses challenges to the grid.

The project provides deep learning into the integration of higher levels of solar PV to be able to provide the full benefits of this generation while ensuring the safety and reliability of the grid. It will also enable ComEd to more efficiently integrate customer-owned DER into the grid, so customers get the maximum benefit from their investment.

This microgrid project will help us learn how to optimize the integration of DER so that we can truly meet the potential of this change to the electric system as we shape our new energy future.

ComEd will not own the generation included in the microgrid. Instead, it will seek a third-party to do so via a competitive bidding process designed to produce cost-effective generation choices.

Integrating renewable energy sources is increasingly important here in Illinois after passage of the Future Energy Jobs Act in 2016. FEJA sets goals requiring that by 2025, 25 percent of our state's energy will be derived from renewable energy sources. The new law also strengthens and expands funding for the Renewable Portfolio Standard by establishing a long-term procurement process and providing up to $220 million per year in funding for wind and solar development.

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