Bronzeville Community Microgrid
ComEd - An Exelon Company

Our Customers:
• 4 million customers
• Northern third of Illinois
• City of Chicago

Our Company:
• One of six Exelon Utilities
• ~6,400 Employees
• Service Territory: 11,428 square miles

Our Grid:
• Peak Load: 23,753 MW (7/20/2011)
• 553,800 distribution transformers
• 66,200 circuit miles of primary distribution
  • 53% overhead, 47% underground
• 5,800 circuit miles of transmission
  • 93% overhead, 7% underground
Bronzeville the Community of the Future

BRONZEVILLE
A Community of the Future

FUTURE
POSSIBILITIES
IMMEDIATE

- Energy Efficiency / Demand Response
- Solar PV
- Microgrid
- Smart Street Lights
- Citizen Engagement
- Disaster Management / Emergency Response / Traffic Routing
- Traffic Monitoring
- Wi-Fi Access
- Dumpster Level Detection
- Snow Removal Monitoring
- Air Quality Monitoring

Inset: Headquarters of the Chicago Police Department, 3510 S. Michigan Ave.

Aerial overview of Bronzeville community, Chicago, Illinois

An Exelon Company
Partnerships and Engagement

Engage with communities to understand their priorities...
- Climate, Energy, Resilience
- Mobility
- Economic Development, Training & Jobs
- Public Safety & Health
- Public Services & Administration
- Culture & Education
- Food and Agriculture

Leverage partnerships to identify solutions...
- Government
- Academic
- Business
- Tech
- Civic Organizations

Deliver on the vision of a smart community that’s...
- Connected
- Green
- Resilient
Bronzeville Community Microgrid Footprint
Bronzeville Community Microgrid (BCM)
Why the BCM Matters

Grid Operations
- New ways of operating the grid
- Learn about 2-way flows
- Customer/Utility Collaboration

Resilience
- Protect critical infrastructure
- Value of Resilience
- Resilience Metrics

Innovation
- First utility-operated microgrid cluster
- $5.2 Million in DOE Grants
- Test bed for new and innovative technologies
Microgrid Integrated Solar Storage Technology

Integrated, Scalable, and Cost-Effective technologies for solar PV that incorporate energy storage in a microgrid

• $4 Million DOE grant (SHINES)
• 750 kW Solar
• 500 kW/ 2 MWh Battery Energy Storage
• Address availability and variability issues inherent in photovoltaic (PV) technology
Solar Installation
## Value of Resilience

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**Integrated Metrics**
Resilience Collaborations

The City of Chicago and ComEd are collaborating around three themes to meet each organization’s goals while adding additional resilience value for communities and the city overall.

- **100% RENEWABLE ENERGY** for all city facilities by **2025**
- **IMPROVING RESILIENCE** of city facilities
- **CARBON REDUCTIONS** through an initiative to **REDUCE ENERGY USE BY 20%** and use of renewable energy in the microgrid
Shovels in the Ground