



# Cuyahoga Green Energy

Building clean, resilient, and affordable power together

Cuyahoga County is modernizing and transforming Northeast Ohio's electricity grid by creating a new electric distribution utility. This utility will spur economic development, propel clean energy, and boost resiliency. As a first step, Cuyahoga County is developing green microgrids to benefit local industrial facilities.

## TRADITIONAL MODEL

VS

## CUYAHOGA COUNTY MODEL

### UNRELIABLE & OUT-DATED

Northeast Ohio's energy grid is outdated and unreliable. Grid weaknesses and inadequacies are making the region increasingly vulnerable to power outages. For many industrial customers, these power interruptions interfere with production and lead to economic loss.

### DIRTY FUEL SOURCES

Over 80% of Ohio's electricity is produced from CO2 emitting fossil fuels, rendering Ohio among the top ten greenhouse gas emitters in the country. Traditional utility interests and state policies impede the transition to clean, renewable energy.

### INFLEXIBLE UTILITY & RATE STRUCTURE

Investor-owned utilities like First Energy are rigid and slow to change due to large, encumbered costs from previous investments, a culture that favors the status quo, and a business model that is heavily regulated. As such, existing programs lack innovation, and prevailing rate structures make it difficult to reduce energy costs.

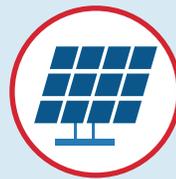
### STATE CONTROLLED

The utility model in Ohio is outdated, crumbling, and too frequently broken. It is structured to benefit anti-competitive investor-owned utilities with guaranteed profits and protection from failure. State officials have far-reaching influence over utilities and support policies which discourage the modernization of our electric grid. Often the public good is forgotten.



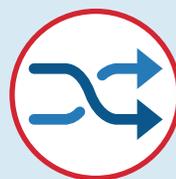
### RELIABLE & STATE OF THE ART

Cuyahoga County's microgrid program will provide an advanced source of highly-reliable power. Locally produced energy and local storage, managed by smart control systems, enable microgrids to disconnect (or island) themselves during times when the main grid is down, resulting in the uninterrupted supply of electricity to microgrid customers.



### CLEAN FUEL SOURCES

Green microgrids reduce carbon emissions through the utilization of renewable and efficient sources of electricity. Solar, wind, and co-generation, for example, can be paired with battery storage and hydrogen fuel cells to reduce dependence on fossil fuels.



### FLEXIBLE UTILITY & RATE STRUCTURE

The County's newly formed utility is free of encumbered costs and excessive regulatory oversight. Our innovative approach enables programming that can be tailored to the needs of Northeast Ohio businesses, making it easier for customers to reduce energy expenses.



### LOCALLY CONTROLLED

As a locally owned distribution utility, Cuyahoga Green Energy is structured to benefit Northeast Ohio communities. Local cities and businesses have more influence over utility operations, and customers benefit from customized rate structures and the adoption of advanced, grid edge solutions.

# Energy Infrastructure Impacts Economic Development: Microgrids Spur Development



## Power outages are more than just a nuisance to businesses.

When the power goes out:

- businesses lose batches of product,
- sensitive equipment needs to be reset, recalibrated, or replaced,
- worker safety is put at risk,
- product shipments are delayed which can bring fees, and
- workforce stands idle and may need to be sent home.



**Microgrids reduce or eliminate such disruptions by providing reliable, flexible, and clean energy.** By keeping the lights on, microgrids create a competitive advantage for their customers. This, in turn, spurs regional economic development.

## What is a Microgrid?

A microgrid is a small-scale local electricity system that can disconnect from the main grid and operate independently. During normal operation, the microgrid is connected to and obtains power from the main grid. During power outages, smart control systems enable the microgrid to disconnect from the main grid and operate in "island" mode, ensuring an uninterrupted supply of electricity to customers.

