Bolstering Communities with Microgrids in Montgomery County Maryland

CampusEnergy 2018
Baltimore, MD
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Office of Energy and Sustainability
Superior government service with the smallest possible environmental footprint
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North Atlantic Hurricane Season, WeatherBellAnalytics April 5, 2012
Tropical Storm Hurricane Tracks, Dr. Jeff Masters September 3, 2013
Statewide Average Summer Temperatures - NOAA
June 29, 2012 Midwest to East Coast Derecho
Radar Imagery Composite Summary 18:04 UTC
~600 miles in 10 hours / Average Speed ~60 mph

Over 500 preliminary thunderstorm wind reports indicated by
Peak wind gusts 80-100 mph. Millions w/o power.
Energy-Efficient
Reuses waste heat from power generation to heat building

Resilient
Independent of grid – power stays on regardless of storms

Sustainable
Reduces greenhouse gas emissions

Cost-Effective
Innovative financing through public-private partnership

MICROGRID
Two facilities Public Safety Headquarters (PSHQ) and Correctional Facility (MCCF)

Microgrid as a Service

Duke Energy Renewables owns the generation facilities

Schneider Electric builds and maintains the system

County purchases electricity for 25 years

No significant impact on County budget caps

Standard contract
Path to the future

- Comprehensive critical facility planning
- Standards for public facility projects and infrastructure
- Public amenities and critical facility support
- Addressing regulatory hurdles for public purpose and community scale microgrids
- Improved financing for stand alone and community scale microgrids
- Transactional technologies such as blockchain
- Microgrids for economic development
Eric R. Coffman
Chief
Office of Energy and Sustainability
Department of General Services
Montgomery County, MD
240-777-5595
Eric.Coffman@montgomerycountymd.gov
www.montgomerycountymd.gov/dgs-oes