N.J. Board of Public Utilities Advances Development of Microgrid Systems

Christie Administration’s Energy Master Plan supports microgrids as a technology to make critical facilities more resilient to major storms

TRENTON, NJ – The N.J. Board of Public Utilities (Board) today moved forward the development of advanced and Town Center Distributed Energy Resource (TCDER) microgrids with the acceptance of staff’s microgrid report and the Board’s direction to staff to begin a process to develop New Jersey microgrid policies for the Board’s consideration. The report provides detailed information on advanced microgrid systems and distributed energy resources (DER) technologies and recommendations on policy considerations.

Advanced and Town Center DER (TCDER) microgrids are capable of providing power on-site should the electric grid lose power due to damage caused by severe weather events.

“Advanced and TCDER microgrid systems offer community critical facilities with increased resiliency and a platform to deploy onsite generation with new and emerging technologies” said Richard S. Mroz, N.J. Board of Public Utilities President.

Potential locations for advanced and TCDER microgrids include municipal or county government critical facilities such as police, fire and administrative facilities, along with other facilities that serve as emergency shelters during major storm events. Potential locations also include hospitals and health care facilities and critical facilities such as water and wastewater treatment facilities.

The report is an analysis and assessment of the current publicly available microgrid reports and Distributed Automation/Smart Grid reports; review and evaluation of the microgrid statutes, regulations, orders, proceedings and filings in other states, as well as interviews and discussions with officials from those state programs; and discussions with representatives of New Jersey electric and gas distribution companies, the U.S. Department of Energy and their federal labs, microgrid developers/organizations and DER microgrid customers.
The report is comprised of nine sections covering the areas of:

- General impact of major weather events, including a summary of the overall economic impacts.
- Generally accepted definition of microgrids and microgrid classifications, the types of distributed energy resource (DER) technologies that can operate within a microgrid, general benefits including resiliency and cost ranges of DER microgrid technologies.
- New Jersey’s relevant Public Utility Statutes and the statute’s relationship to the general microgrid definitions and classifications and other regulations, codes and policies that relate to advanced microgrids.
- Energy management functions within the distribution and transmission grid system and the advanced microgrid.
- Current and projected DER cost trends that are impacting microgrid development, the current status of microgrid development in some key states, and including a list of national and international microgrid projects.
- Current microgrid development in New Jersey and a summary of the New Jersey Town Center microgrid market potential analysis.
- Distribution Automation and Smart Grid systems definitions and descriptions, summary of national and New Jersey distribution automation and smart grids pilots and programs, general cost and benefits of smart grids, and the status of distribution automation and smart grid development in New Jersey and other states.
- Summary of various microgrid meetings between Board staff, microgrid developers, electric and gas distribution companies, N.J. Division Rate Counsel and microgrid market sector customer associations.
- Recommendations to the Board related to developing advanced or Town Center DER (TCDER) microgrid policies. This section was developed based on an evaluation of the current microgrid data and information and on discussions with stakeholders at four advanced microgrid meetings.

The report’s eight Board approved recommendations are:

- Establish New Jersey definitions for DER, microgrids and the different levels of microgrids.
- Establish a stakeholder process to develop and implement TCDER microgrid pilot projects.
- Consistent with the 2015 EMP Update, the EDC’s continued enhancement of SG/DA should include a SG/DA filing providing for optimized use of DER microgrids that expand the capacity for a two-way flow of power and communications between the EDC and the DER microgrid.
- With stakeholder input, develop and implement a Town Center microgrid feasibility study incentive program as part of the current NJCEP budget.
- Initiate a TCDER microgrid pilot within each EDC service territory, initially limited to municipalities within the 9 FEMA designated counties or municipalities that meet the same criteria identified in the NJIT report.
- With Stakeholder input, develop and implement a Town Center microgrid financing program.
- Review BPU funding for DER and determine if there is a need to consolidate existing funding and whether other DER advanced microgrid financing mechanisms might prove beneficial in the future.
- Expand the NJIT/RPA Town Center Microgrid Potential study to the 12 non-FEMA Superstorm Sandy designated counties and explore with local governments the potential for developing microgrids for improved and enhanced resiliency.
To view the full Microgrid Report please visit