



Vicinity Energy Baltimore
6 S. Frederick Street
Baltimore, MD 21202

Senate Bill 265
Clean and Renewable Energy Standard (CARES)
Senate Finance Committee
February 11, 2020
Position: FAVORABLE

Vicinity Energy supports SB 265 as it expands the number of qualifying technologies under Maryland's energy standard to include cogeneration also known as combined heat and power (CHP).

Vicinity Energy Company Profile

Vicinity Energy is the largest district energy company in North America. It operates in 10 major metropolitan areas including Boston, Philadelphia, and Atlanta in addition to Baltimore. In Baltimore, Vicinity Energy serves over 80 Million square feet in downtown Baltimore, including Hospitals (UMMC and Mercy), the University of Maryland Baltimore campus, City, State and Federal office buildings, the Housing Authority, Ravens Stadium and Oriole Park at Camden Yards, the Baltimore Convention Center, and numerous hotels, office, retail and residential buildings.

Cogeneration - Technology Overview and Applications

Large buildings with large heating requirements like hospitals, universities, public safety buildings and hotels are very good candidates for CHP. These types of buildings have around the clock heating needs and cannot suffer interruption of service. These types of buildings typically burn natural gas for heat and also consume a great deal of electricity. Combined Heat and Power plants, (called CHPs or cogeneration), generate both electricity and heat with the same amount of fuel, making the process much more efficient and reducing the amount of greenhouse gases emitted. It is not unheard of to reach overall efficiencies of above 80%. Because the steam or hot water from a CHP is produced without any additional fuel being burned, the U.S. EPA considers it to be carbon-free energy.

Adding CHPs to district energy systems like Vicinity's in Baltimore reduces the carbon footprint of over 150 large buildings in the City with one or two projects. By including CHP in Maryland's energy standard, Maryland can increase energy efficiency and reduce greenhouse gases.

Cogeneration's Value to the Grid

Cogeneration has significant value to the grid in terms of resiliency. According to the Center of the New Energy Economy, "CHP systems are typically located closer to consumption, which decreases the likelihood of service interruptions and reduces strain on the local distribution grid. In some cases, these systems can disconnect from the grid, or "island". These attributes make CHP systems very resilient energy systems for users that require reliable heat and power and, CHP systems also contribute resilience benefits to the local or regional grid."¹

Potential Applications in Baltimore

Currently, Vicinity Energy is exploring adding a 10 MW cogeneration plant to our downtown Baltimore steam system. The plant will provide electricity to a major campus, and lower the steam costs of all of our customers. By utilizing cogeneration, Vicinity Energy will help this campus meet 50% of its emission / sustainability goals. Including cogeneration in the Maryland energy standard will facilitate the final investment decision this summer.

Cogeneration in State Energy Standards

Maryland would not be alone by including CHP within its energy standard. In fact, at least 11 other states including New York, Massachusetts, Connecticut and Illinois include the technology within their standards.

¹ "Combined Heat and Power / Combined Heat and Power Incentives."
<https://spotforcleanenergy.org/>. Center for the New Energy Economy, 2019.
<https://spotforcleanenergy.org/wp-content/uploads/2019/12/548b51975e971aa2fbb4037a0d94c8f3.pdf>.

Including Biofuels in Biomass

Vicinity Energy also supports the inclusion of renewable fuels in the standard, in particular, renewable natural gas, methane from anaerobic digestion, and biomass. We encourage the State to include biofuels in the definition of “Qualifying Biomass” Vicinity has recently successfully tested biofuels in several of our district plants. Using biofuel provides a CO₂ neutral alternative for our oil produced steam. We view biofuels as a critical step in achieving 100% carbon neutrality of our district heating system.

Conclusion

Vicinity Energy supports SB265 as it expands the number of technologies qualifying under Maryland’s energy standard.

By expanding Maryland’s energy standard to include cogeneration, Maryland would be elevating a key technology to increase efficiency, improve reliability and meet its clean energy goals. Expanding the definition of “Qualifying Biomass” to include biofuels would provide incentive for the development of additional carbon-neutral fuel sources to meet the energy needs of the State of Maryland.



Sincerely,
John C. Moore
Vice President, Operations