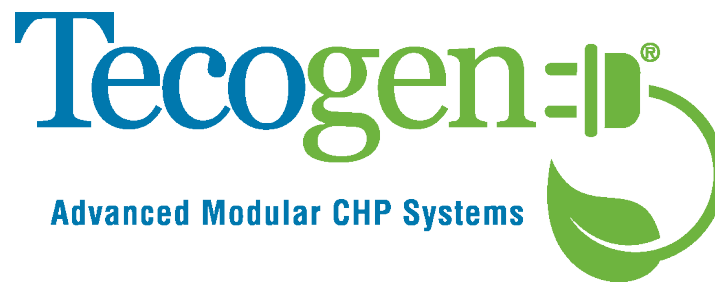


# Case Study



## InVerde, INV-100, Inverter-Based Cogeneration



**Manhattan Beer Distributors**, one of New York City's largest beer distributors, is the exclusive distributor of Heineken, Amstel, Guinness, Brooklyn Brewery and Anchor Steam as well as cider, wine and other beverages. Its fleet of some 250 trucks make more than 2500 deliveries daily. When the company moved in 2010 to Red Hook Pier 7 they took over a building that had been used as a cocoa warehouse.

While there were some electric lines running to the pier, they were not capable handling anything approaching the power load required by the company's cutting edge, fully temperature controlled warehouse. Cooling, lighting and mobility functions essential to the facility's operation represented highly demanding power requirements.

**"With the 90+ percent efficient power plant driving our grid independent CHP strategy, we expect to save more than a million dollars" - Patrick Simeone, Director of Facilities Management**

With sufficient power from Con Edison, the local utility, not a option, Manhattan Beer Distributors achieved grid independence and smooth operation thanks to its on-site (600kW) combined heat and power (CHP) plant, designed by Rochester, NY-based Energy Concepts Engineering and featuring six Tecogen InVerde CHP modules.

Within the massive building, individual temperature-controlled rooms store the beverages at optimal temperatures thanks to electric refrigeration equipment. A large forklift recharging station keeps the many battery-powered forklifts operating. Finally, the warehouse must be heated in the winter and cooled in the summer. The Tecogen CHP system is meeting all these challenges.



Six Tecogen INV-100s, create 600kW of power on-site to keep Manhattan Beer Distributors operating efficiently and cost effectively.

Manhattan Beer Distributors operates smoothly and independent from the power grid. “With six Tecogen InVerde units available, our system is designed to sustain our remote microgrid with maximum reliability and efficiency,” said Patrick Simeone, Director of Facilities Management “With the 90+ percent efficient power plant driving our grid independent CHP strategy, we expect to save more than a million dollars and reduce carbon emissions by more than 3,100 tons annually.

“While it is clear that given its lower emissions and greater energy efficiencies, natural gas cogeneration

may represent the most practical bridge to an energy efficient future,” said Robert Panora, President and COO of Tecogen, Inc. “It is also true that a cogeneration strategy may represent a compelling alternative to power grid dependence.”

The beer distributor was grateful for another benefit of grid independence in the Fall of 2011 when Hurricane Sandy left much of the Greater New York City area in the dark for a week or longer. Manhattan Beer Distributors was able to remain operational and was delivering to their customers one day after the storm.



Manhattan Beer Distributors is **BIG**... a wall of beer cases in their temperature controlled warehouse.

For more information about Tecogen's InVerde,, INV-100, Inverter-Based Cogeneration or our other Natural Gas Engine-Driven Products please email us [products@tecogen.com](mailto:products@tecogen.com)