



THE SHEFFIELD CONDOMINIUMS POISED FOR IMMENSE ANNUAL SAVINGS WITH CLEAN ENERGY, FLEX TURBINE® POWERED COGENERATION

In the first installation of its kind in the heart of Manhattan, the facility will use its original steam-based infrastructure to help power the system. Residents will benefit from Local 97 compliance and reliable, critical power amidst NYC blackouts.

NEW YORK, NEW YORK (March 1, 2021) – The Sheffield condominium facility, located amidst high-end residential skyscrapers at the southern end of Central Park, is readying for the installation of a combined heat and power (CHP) system to be powered by a single, 333kW Flex Turbine. The 49 story Sheffield is comprised of 814,000 square feet, collectively housing 580 luxury condominiums, a full-service fitness center, health spa, glass-enclosed rooftop swimming pool, multiple entertainment spaces and lounges, child playrooms, common spaces, and laundry facilities. The Sheffield is funding 90% of project costs with reserves and using a 10% Federal Tax Investment Credit for CHP projects. Doing so enabled them to pay for the installation without having to pay interest on borrowed funds and without having to hit residents with special assessments or other cost increases. With expected annual energy savings of \$200,000 to \$250,000, the system is expected to have a full payback period of less than six years and will also help to stabilize energy costs for The Sheffield in subsequent years.

Energy savings were not the only motivating factor behind the project. Steve Schoenberg, Sheffield resident, Board Chairman of Building Operations, and Treasurer, cited numerous other benefits from the CHP system that Sheffield residents can look forward to. Chief among them was resiliency – the continuation of power in extended blackouts. In the event of power outages, the CHP system will maintain operation of the building's high and low rise facilities, service elevators, common area lighting, lobbies, halls, stairways, and laundry rooms. Winter heating, ventilation, and exhaust fans, as well as hot and cold running water will be sustained in all residential units. Electric charging stations on every floor and use of the laundry rooms will also remain powered as will use of most of the facilities' lounge areas, the gym, pool, building maintenance and management services, as well as the package room.

Mr. Schoenberg enumerated a number of other system efficiencies the residents can look forward to. "We will remain connected to the Con Ed grid and will continue to purchase power to meet The Sheffield's peak demand." Flex Turbines only require eight hours of service maintenance per year but there is no concern over potential gaps in power if the generator goes offline (i.e., for maintenance). Con Ed will automatically supply any power necessary with no interruption of electric service. The Flex Turbine will not produce more power than what is needed. It efficiently scales back and runs at a reduced output when the demand is low, avoiding any wasted energy.

Another driving factor of the CHP project is the recent passing of New York's Local Law 97, also known as the Climate Mobilization Act. With this law, NYC buildings over 50,000 square feet are mandated to reduce their carbon emissions by 2024 and then again in 2030. Excessive fines, which can exceed \$100,000 each year, will result from non-compliance. Because less fuel is burned to produce energy output and because transmission and distribution losses are avoided, CHP reduces emissions of Greenhouse Gases (GHGs) and other air pollutants. CHP from the Flex Turbine will lower GHGs and other harmful emissions by over 30% compared to traditional plant and boiler options and will help The Sheffield comply with the new environmental regulations.

"The selection of a Flex Turbine to power the CHP system was a no-brainer," Steve explained. "Flex Turbines produce high temperature exhaust that is hot enough to generate the steam needed to heat our building. In addition, the advanced technology of the generator is fully synchronous, so it matches its rotation to the same frequency and phase of the Con Ed power grid. This enables a seamless connection and efficient power load share with the Con Ed network. Most of the newer buildings currently being erected around The Sheffield are equipped with backup generators. These generators only run

during power outages and otherwise are sitting idle. They produce no payback and, therefore, are less economically desirable. By contrast our CHP system leads the charge on a much more practical and modernized approach. The system will run 24/7, saving us money continually.” Mr. Schoenberg said.

The Sheffield will enter into a long-term service contract with Flex Energy Solutions, the turbine’s manufacturer. The Flex Turbine has a remote monitoring system, which helps Flex Energy Solutions predict and avoid most unscheduled service calls. The fixed price service contract will cover the cost of overhauls. The design life of the Flex Turbine is 20 years but can be extended with the right maintenance.

A GT333S Flex Turbine is slated for installation into The Sheffield’s mechanical room in June 2021. Low clearances in the mechanical room and access areas initially presented a challenge that Flex Energy Solutions’ engineering team quickly tackled. The solution is specific to the customer’s needs and includes the modification of a standard Flex Turbine unit so that it can be disassembled on site and then reassembled directly in the mechanical room. In addition, the Engineering team is designing special lifting equipment to support both the installation and the overhauls.

About Flex Energy Solutions

Derived from FlexEnergy, a manufacturer of small gas turbine generators (microturbines) and custom-fit heat exchangers, Flex Energy Solutions expedites commercial accessibility of and outstanding localized service for the Flex Turbine. We provide on- and off-grid power that is always on, so our customers can save money and focus on their business without interruption. From our field service teams to our engineers and support staff, we work together to provide value to our customers with power solutions that are reliable, clean, and simple. Each feature of the Flex Turbine solution is beneficial in helping our customers perform better. Combined, they deliver total product value.

Industrial, commercial, and remote facilities that have a consistent need for reliable, scalable, and low emissions power benefit from our ability to administer the highest level of service and expertise available quickly and economically.

Flex Energy Solutions

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