

## Ilios Announces New Split Air-Sourced Natural Gas Engine Driven Heat Pump

Waltham, Mass., Feb. 18, 2015 /PRNewswire/ -- Ilios Dynamics Inc., a subsidiary of Tecogen<sup>®</sup> Inc. (NASDAQ: TGEN) today announced the new Ilios™ HEWH-500-ASSplit System air-sourced natural gas driven heat pump water heater. The only engine driven heat pump water heater cuts water heating costs in half, reduces a facility's carbon footprint, and does so with near zero criteria pollutant emissions.

The new split system allows a significant portion of the machine to be installed inside the mechanical room (namely the engine, compressor, and condenser), placing these components out of the harmful elements, minimizing the installation costs, and increasing serviceability.

The Ilios HEWH-500-AS *Split* System consists of two pieces of equipment, the engine driven heat pump portion which is contained in a small acoustic enclosure within the building mechanical space, and a remote air-source evaporator package which can be placed outside the mechanical room. The remote evaporator has very minimal service needs so it can be placed in areas that are difficult to access such as a roof, or cantilevered on an exterior wall above a dumpster, or on the ground beside other existing mechanical equipment. The indoor component is tightly packaged in a 3' x 5' enclosure to ease retrofitting into existing mechanical spaces. The outdoor component includes state of the art noise reduction measures to ensure its fans operate quietly, which is critical in urban environments both in the U.S. and overseas.

One important advantage to this arrangement is that the outdoor component is connected via refrigerant lines, therefore eliminating all freeze protection issues in colder climates. All of the water being heated remains inside the conditioned space eliminating the need for a costly isolation heat exchanger and additional pumps. This simplifies the installation and increases the overall efficiency by being able to operate at a lower delivery temperature.

"This is our answer for urban areas in colder climates that have a significant need for hot water such as New York City, which we see as a major market for this product. In addition to the Northeast in the U.S. we see significant opportunity in the U.K. as well. A natural gas engine driven heat pump operating as a water heater is the perfect match as all of the waste heat recovered from the engine can be purposefully used all of the time, allowing the system to reach its utmost efficiency. Our unique engine driven approach combines the efficiency of the heat pump cycle with a low-cost and readily available fuel such as natural gas," says Steve Lafaille, Ilios Product Manager. "Our goal is to continuously improve and expand our product offering to meet the market needs and provide unique solutions for our customers and this split system is another innovative way to achieve that goal."

The Ilios product line comes equipped with an industry leading emission-control system. The patented Tecogen *Ultra*™ system reduces the criteria pollutants (in particular, carbon monoxide and nitrogen oxide compounds) to near zero, meeting the toughest standards in the country today.

## About Ilios

Ilios Inc., a subsidiary of Tecogen Inc., was formed in April 2009 to develop and distribute a line of ultra high-efficiency heating products for commercial and industrial applications utilizing advanced thermodynamic principles. Products incorporate mechanical work to extract heat from the environment to supplement chemical energy available from natural gas or propane. The result is a significant boost in efficiency and reduced carbon emissions relative to conventional heating systems. Please visit <a href="https://www.iliosdynamics.com">www.iliosdynamics.com</a>.

## **About Tecogen**

Tecogen manufactures, installs, and maintains high efficiency, Ultra-clean Combined Heat and Power products including natural gas engine-driven cogeneration, air conditioning systems, and high-efficiency water heaters for industrial and commercial use. Tecogen has shipped more than 2,000 units, supported by an established network of engineering, sales, and service personnel across the United States. For more information, please visit <a href="https://www.tecogen.com">www.tecogen.com</a>.

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