

Energy Recovery to Save Carlsbad Desalination Plant \$12 Million and Reduce CO₂ Emissions by 41,000 Metric Tons Annually

Premium PX® Q300 from Energy Recovery Chosen for Largest Plant in Western Hemisphere — Demonstrating Desalination as an Environmental and Economically Viable Resource for Water in the U.S.

SAN LEANDRO, Calif., July 30, 2013 /PRNewswire/ -- [Energy Recovery](#) Inc. (NASDAQ: ERII) announced today that its technology will be used in the Carlsbad Desalination Project to help reach its ambitious carbon neutral goals while significantly reducing overall energy costs. [IDE](#), technology provider and future operator of the plant, awarded Energy Recovery a contract for its innovative energy recovery device (ERD) technology to the project, which will be the largest desalination plant in the western hemisphere. As part of the agreement, Energy Recovery will provide 144 of its PX Pressure Exchanger Q300 units to the seawater reverse-osmosis (SWRO) plant, aiding the estimated production output of [189,250 cubic meters of desalinated water per day \(equivalent to 50 million gallons per day\)](#). The units are expected to ship by the end of the year.

By choosing the PX technology, the vanguard project for California's first large-scale plant will save an estimated 116 million kWh (kilowatt-hours) of energy per year, the equivalent of \$12 million.¹ This energy savings will also reduce CO₂ emissions by 41,000² metric tons per year - roughly the annual greenhouse gas emissions from [8,542 passenger vehicles](#).

Energy Recovery's [PX Pressure Exchanger devices](#) work by capturing hydraulic energy from the high-pressure reject stream of SWRO processes and transfers this energy to low-pressure feed water with an efficiency of over 98 percent. Because the PX device itself consumes no electrical power and recycles otherwise lost energy in the form of pressure, the overall energy consumption of the process is drastically reduced.

Carlsbad Desalination Project Represents Opportunity for Desalination in U.S.

When the Carlsbad plant comes online in 2016, it will bring the largest, most technologically advanced and energy-efficient desalination plant in the western hemisphere to San Diego County. In California and across the U.S., long-standing sources for fresh water are either diminishing because of droughts or becoming unsustainable given population and agricultural growth. [The Carlsbad Desalination Project](#) will provide the region with a locally-controlled, drought-proof supply of high-quality water that meets or exceeds all state and federal drinking water standards.

Semi-arid San Diego County has very limited local water resources; the County Water

Authority's long-term strategy to enhance the reliability of the region's water supply includes diversifying its water supply sources. The Carlsbad Desalination Project is a crucial element of this plan and will provide enough high-quality drinking water to serve up to 112,000 households.

Along with the other project partners, Energy Recovery is working to demonstrate that desalination is a viable solution to growing water demand. The Carlsbad desalination plant is signaling a trend for upcoming projects in the U.S. According to Global Water Intelligence, there are currently more than 12 desalination projects in various stages of planning in California, and more than 40 medium and large projects on the drawing board across the U.S.

"The Carlsbad project has moved the needle for the desalination industry in the U.S.," said Tom Rooney, CEO at Energy Recovery. "We're excited to bring our experience and technologies to help this project and future U.S. desalination plants maximize their energy savings just as we have helped quench demand in regions and countries lacking fresh water like Australia, China and the Middle East North Africa."

Energy Recovery PX Technology Highlights and Impact

Over the past decade, Energy Recovery has been refining its SWRO clean technologies and employing its premium PX Pressure Exchanger solutions around the world – currently accounting for 90 percent of the ERD market share globally. IDE selected the [PX Q300 device](#) for the Carlsbad project because the solution boasts:

- The lowest life cycle cost of any energy recovery device in the market.
- Highest guaranteed efficiency of 97.2 percent.
- Highest availability (99.8 percent uptime) with zero downtime.
- Smallest installed footprint than any other ERD.
- Lifetime designed for 25+ years.

Energy Recovery devices have made it possible for the desalination market to flourish. The Carlsbad desalination plant is signaling a trend for upcoming projects in the U.S.

"At 50 million gallons per day, we chose the most reliable and efficient energy recovery technology on the market. For larger plants such as the Carlsbad Desalination project, it's important to weigh the energy saving solutions and economies of scale," states Avshalom Felber, CEO of IDE Technologies. "We have a long and trusted relationship with Energy Recovery and together we'll show that advanced clean water solutions make desalination possible for California by reducing and mitigating the negative CO₂ effects and water costs."

Peter MacLaggan, VP of Poseidon Water - developer of the Carlsbad plant - states, "IDE's choice of Energy Recovery's PX technology was the right choice. The economics and environmental benefits are clear. This is part of our goal and promise: to keep costs down and make sure we are carbon neutral in the plant's operation."

Additional Project Details

Poseidon Water LLC is the developer responsible for securing the Water Purchase Agreement (WAP) with San Diego County Water Authority (SDCWA). Financing up to \$734

million was secured through the sale of Private Activity Bonds. The plant is a joint venture between [Kiewit/JF Shea Construction and it has been contracted to IDE Technologies as the SWRO design contractor](#). IDE will operate the plant and is responsible for all process and performance guarantees.

For an animated video showing how the PX device works, click [here](#).

For high-resolution photographs of the PX device, click [here](#).

Forward-Looking Statements

This press release contains forward-looking statements that reflect management's current expectations, assumptions and estimates of future performance and economic conditions. Such statements are made in reliance upon the safe harbor provisions of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The company cautions investors that any forward-looking statements are subject to risks and uncertainties that may cause actual results and future trends to differ materially from those matters expressed in or implied by such forward-looking statements. Statements about the expected shipment date of the PX energy recovery devices are forward-looking and involve risks and uncertainties. Energy Recovery disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

About Energy Recovery

Energy Recovery Inc. (NASDAQ: ERII) technology harvests power from high-pressure fluid flows and pressure cycles. Through collaboration with industry, Energy Recovery helps make industrial processes within water, oil & gas, and other industries more profitable and environmentally sustainable. With over 14,000 energy recovery devices installed worldwide, Energy Recovery sets the standard for engineering excellence, cost savings, and technical services to clients across the globe. Year after year, the company's clean technologies save clients over \$1.2 Billion (USD) in energy costs. Headquartered in the San Francisco Bay Area, Energy Recovery has offices in Madrid, Shanghai, and Dubai. www.energyrecovery.com

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¹ Calculations are based on the electricity costs for San Diego County of approximately .10 cents / kWh (as of July 2013).

² Emissions are derived from San Diego's utility (SDG&E) mix of generation assets (781# CO₂/mWh).

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