

The Industry Standard Solution

The efficiency and lifecycle costs of a plant's energy recovery technology is critical to both winning SWRO projects and achieving maximum plant profitably through the lowest operating costs. Leading international OEM's such as Acciona Agua, Aqua Engineering, Befesa, CH2MHill, Cobra Tedagua, Doosan Hydro Technology, Fisia Italimpianti, GE Water Process and Technologies, GEIDA, IASUR, INIMA, Metito, Siemens and Suez Degrémont have selected the ERI® PX modular technology for their recent projects because it consistently achieves real energy transfer efficiencies—up to 98%, making it the most efficient energy recovery device available today. At the core of the PX device is a single moving rotor made of tough engineered ceramic that is unaffected by chemicals, will not corrode, and requires no periodic maintenance. Over 80 OEMs are standardizing on PX technology with installations around the world, including plants such as Al Shuaibah III, Barcelona, Chennai, Hamma, Perth, Skikda, Torrevieja and Yuhuan.

North Africa Project Facts

- CAPACITY: GREATER THAN 175,000 m³/day
- TRAINS: LARGEST IN THE WORLD: OVER 25,000 m³/day
- 95% ENERGY RECOVERY EFFICIENCY
- MODULAR DESIGN VERSATILITY WITH MULTIPLE PXs PER TRAIN

North Africa Regional SWRO Desalination Project



North Africa Desalination Plant

In 2005, ERI's PX Pressure Exchanger® Technology (PX®) was selected as the energy recovery solution for one of the largest membrane desalination plants in Algeria in Northern Africa.

Reducing energy and overall costs, the build-own-operate project will lessen water scarcity issues, providing an adequate portion of the area's desperately needed drinking water.

ERI was chosen for this project based on the OEM's direct operating experience with PX Technology, as well as its experience in operating and installing PX units in projects around the world. The decision was also supported by the fact that ERI PX-220 modular technology; the most efficient seawater reverse osmosis energy recovery device, is a proven, successful, energy saving solution in large projects located in Cyprus, United Arab Emirates, Dutch Antilles, Australia, China and other countries. ERI has 10 times more operating experience than any manufacturer of isobaric energy recovery devices.

ERI PX technology has rapidly become the desalination industry standard energy recovery solution, and is considered by industry engineers to be the simplest approach to isobaric energy recovery available today; only one moving part and no scheduled maintenance. It's reliability and flexibility in modular design is well suited for plants of all sizes. By operating multiple PX units in parallel, there is no limitation to SWRO train size possible with PX technology. For this reason, PX technology has been specified in the great majority of all SWRO projects awarded or under negotiation over the last 18 months.

North Africa Regional SWRO Desalination Project

Energy Recovery, Inc. (ERI®) is a leading manufacturer of energy recovery devices, which help make desalination affordable. ERI's PX Pressure Exchanger® technology (PX®) is a rotary positive displacement pump that recovers energy from the high-pressure waste stream of sea water reverse osmosis (SWRO) systems at up to 98% efficiency with no downtime or scheduled maintenance.

ERI has research, development and manufacturing facilities in the San Francisco technology corridor as well as direct sales offices and technical support centers in key desalination hubs such as Madrid, Dubai, Shanghai and Florida. ERI service representatives are based in Algeria, Australia, China, India, Korea, Mexico, Taiwan and the Caribbean.

The world's largest energy recovery device manufacturer* delivers:

- Proven SWRO Power Consumption as Low as 1.7 kWh/m[†]
- No Scheduled Maintenance Shutdown
- No Pulsations, or Complicated Controls
- The Simplest Solution to Lowest Lifecycle Costs
- Flexibility, Proven Reliability and Real Savings

Guaranteed.

Contact us today at sales@energy-recovery.com to find out how you can start saving, or to learn more about ERI and the PX solution, visit us at:

www.energyrecovery.com

[†]ADC



FEWA, UAE, Ghalilah Desalination Plant (Phase I/II) 14,700 m³/day



FEWA, UAE, 5,000 m³/day Modular Rack Assembly



FEWA, UAE, 5,000 m³/day Modular Rack Assembly with Sound Enclosure



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Making Desalination Affordable®