





Enabling Green Refrigeration:
The Energy Recovery PX G1300
Future-Proof Your Refrigeration
Operations at Lower Cost

Joseph Marchetti | Satyaki Das

Forward looking statement

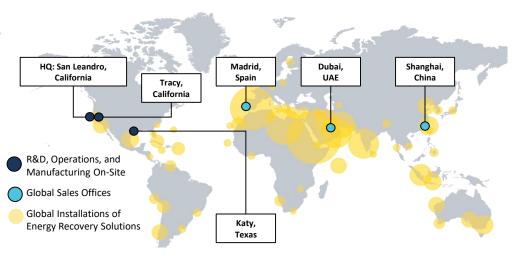
This presentation contains forward-looking statements within the "Safe Harbor" provisions of the rivate Securities Litigation Reform Act of 1995. Forward-ooking statements in this report include, but are not limited to, statements about our expectations, objectives, anticipations, plans, hopespeliefs, intentions, or strategies regarding the future. Forward-looking statements that representour current expectations about future events are based on assumptions and involve risks and incertainties. If the risks or uncertainties occur or the assumptions prove incorrect, then our resultsmay differ materially from those set forth or implied by the forward-looking statements. Ourforward-looking statements are not guarantees of future performance or events. Words such as expects, "anticipates," believes, "estimates," variations of such words, and similar expressions are also intended to identify such forward-looking statements.

These forward-looking statements are subject to risks, uncertainties, and assumptions that ardifficult to predict; therefore, actual results may differ materially and adversely from thosex pressed in any forward looking statements. You should not place undue reliance on these forward-looking statements, which reflect management's opinions only as of the date of this presentation. All forward-looking statements included in this presentation are subject to certainrisks and uncertainties, which could cause actual results to differ materially from those projected in the forward-looking statements, as disclosed from time to time in our reports on Forms 10-K, 10-Q, and 8-K as well as in our Annual Reports to Stockholders and, if necessary, updated in our quarterly reports on Form 10 Q or in other filings. We assume no obligation to update any such forward-looking statements. It is important to note that our actual results could differ materially from the sults set forth or implied by our forward-looking statements.



- 1. About Energy Recovery
- 2. History of the PX® Pressure Exchanger®
- 3. PX G1300™ for CO2 Refrigeration
- 4. Indio, CA Supermarket Project
- 5. What's Next

Financial Snapshot NASDAQ: ERII	
2021 Revenue	\$103M
Market Cap	~\$1B as of 03/28/2022



Saved in Electricity Consumption*

Metric Tons of Carbon

in Energy Expenses* Emissions Avoided* *Energy Recovery estimates

Saved by Customers

of Energy Recovery Product Revenue from Energy Efficiency-Related Sources

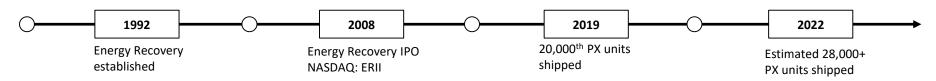


ENERGY RECOVERY SNAPSHOT:

Energy Recovery designs and manufactures solutions that reduce waste, improve operational efficiency, and drive cost-savings for our customers.





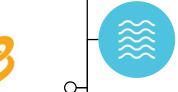




WHY ENERGY RECOVERY?



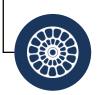
Our solutions increase efficiency and lower lifecycle cost by reducing waste and energy consumption in industrial fluid-flow systems.



Our flagship PX® Pressure Exchanger® (PX) energy recovery device revolutionized seawater reverse osmosis desalination (SWRO), reducing energy costs by up to 60%.* The PX is now the industry standard for energy recovery.



Through our vertically integrated manufacturing, we ensure the quality, durability, and reliability of our products.



We continue to push the boundaries of our core technology, the pressure exchanger, to handle different operating environments and industrial applications.

*Energy Recovery estimate



energy recovery

OTHER INDUSTRIES SERVED – PRODUCT OFFERINGS ACROSS MULTIPLE SECTORS

Industry	Markets	Customer Type	Key Benefits Provided
	Seawater Desalination Brackish Water Desalination	 International EPC Firms Desalination OEMs Plant Owners and/or Operators 	 ✓ Less Energy Consumption ✓ Lower Emissions ✓ Reduced Costs
<u>\$</u>	Industrial Wastewater Treatment	International EPC FirmsIndustrial Plant Owners and/or Operators	
魚	Sour Gas Processing	EPC FirmsPlant Owners and/or Operators	
	CO ₂ Refrigeration	Commercial End UsersIndustrial End UsersSystem/Rack OEMs	



ESG AT ENERGY RECOVERY: ACCELERATING INDUSTRIAL SUSTAINABILITY

- Energy Recovery's ambitious Environmental, Social, and Governance goals include:
 - Double emissions reductions from Energy Recovery products by the end of 2025 based on a 2019 baseline
 - Report climate-related risk strategy and management aligned with the Task Force on Climate-related Financial Disclosures' recommendations by the end of 2024

Awards & Recognition











To download the full report, please visit bit.ly/ERII_ESG_2020

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The Pressure Exchanger (PX)



THE PX ENERGY RECOVERY RUGGED AND COMPACT DESIGN



Rotor

- Only moving part
- Hydrodynamic bearing
- No material to material contact

State-of-the Art Materials

- Trade-secret ceramic formulation
- Extremely durable material (3X steel hardness)
- Never corrodes
- No fatigue

Lightweight/Small footprint



PX MANUFACTURING: CERAMIC PROCESS

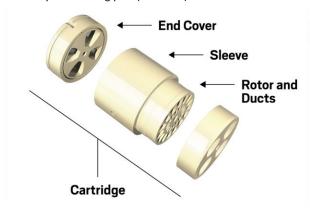




PX TECHNOLOGY PLATFORM

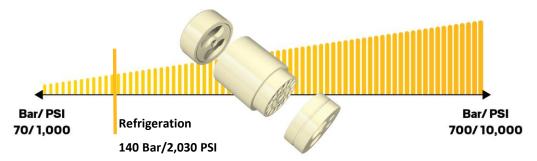
Anatomy of a Pressure Exchanger

Transfers energy from high-pressure to low-pressure fluids (both liquids and gas) through continuously rotating ducts with only one moving part (the rotor)



- The pressure exchanger technology is versatile can handle liquid, gas, slurry, & supercritical fluid and range of pressures
- o Benefits include lower lifecycle cost and energy use in industrial fluid-flow systems
- Pressure exchanger technology is at the heart of many of Energy Recovery's products

Pressure Exchanger Technology Operating Range



Pressure Exchanger can handle liquid, gas, liquid with suspended solids and supercritical fluids







Refrigeration: The PX G1300



PX G1300[™] FOR REFRIGERATION





Energy savings leads to lower total cost of ownership



Designed for easy operation and maintenance

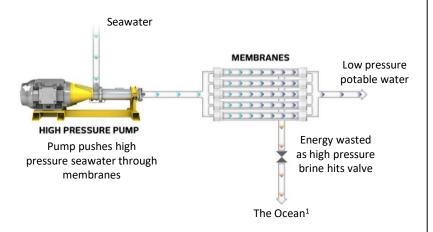


Enhanced system efficiency and reduced compressor loading

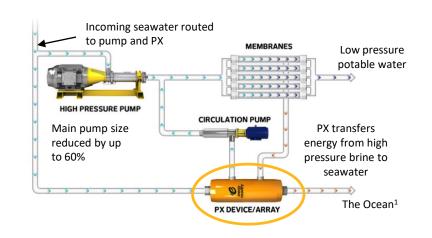


PRESSURE EXCHANGER RECYCLES HYDRAULIC ENERGY, REDUCES ENERGY COSTS

Without Energy Recovery Devices (ERDs) = Approx. 60% of Energy Wasted



With PX Pressure Exchanger = Energy recycled, up to 60% decrease in energy use



¹Ocean or other geological mass



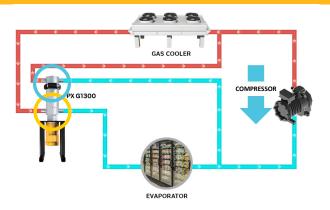
PX G1300™ FOR REFRIGERATION

Without Energy Recovery Devices (ERDs)*



Existing simplified refrigeration system

With PX G1300*



Pressure energy harnessed to reduce compressor work



PX G1300™ WORKING PRINCIPLE



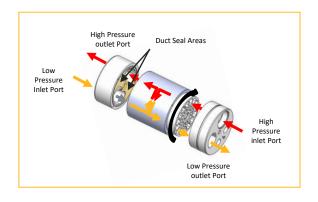
Cycle 1* (Part 1) - Low pressure fluid enters rotor ducts that are open to a low pressure port



Cycle 2 - Low pressure fluid in the ducts are sealed within the sealed area



Cycle 3* - Low pressure fluid in the ducts are exposed to high pressure fluid when ducts rotate and open to high pressure port





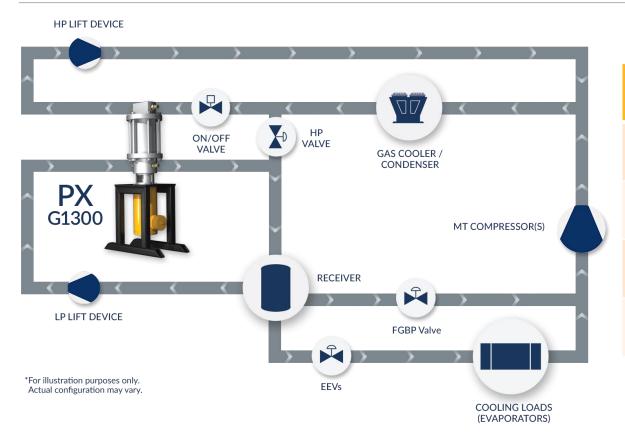
Cycle 4 – Remnant High pressure fluid in the duct is sealed



Cycle 1* (Part 2) – Remnant high pressure fluid loses pressure as it opens to low pressure outlet port, as low pressure fluid enters from low pressure port.



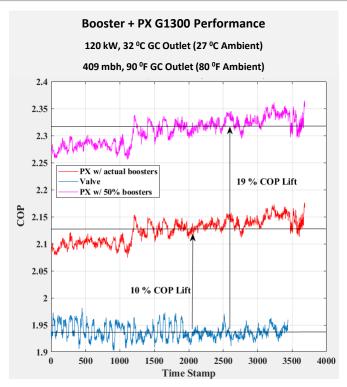
SYSTEM INTEGRATION

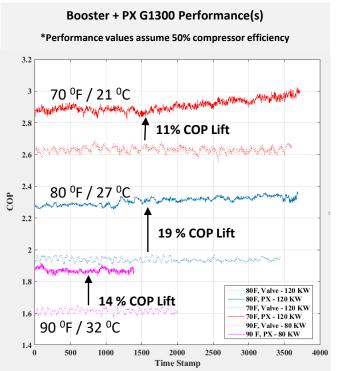


PX G1300 Spec.	US Value	EU Value
Pressure Rating	2,030 PSI	140 Bar
Applicable System Size Range	205-409 MBH	60-150 kW
Dimensions (H X W X L)	42" x 22" x 12"	1067mm x 559mm x 305mm
Weight	278 lb.	126 kg



PX G1300™ PERFORMANCE RESULTS

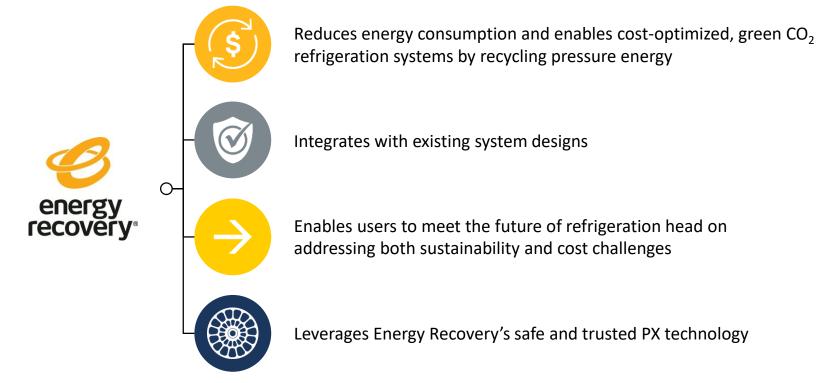




* PX numbers assume 50% booster efficiency



HELPING SUPERMARKETS REDUCE ENERGY CONSUMPTION AND OPERATING COSTS









Indio, CA & What's Next



PX G1300™ IS GENERATING EXCITEMENT ACROSS THE INDUSTRY

- Existing System Installation
 - Vallarta Supermarkets, Indio, California, USA
 - Planned installation 2022
- New System Installation:
 - Agreement with global OEM
 - PX installed with new rack in Europe
 - Planned installation 2022
- Contact us for future installations and more information!



ARTNERS MARKET

ACE

EVE

Device

ovember 9, 2021 COMMERCIAL REFRIGERATION NORTH AMERIC



The Coachella Valley, California, where the Vallarta Supermarket store using the PX G1300 is locat

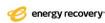
Vallarta Supermarkets, a California (U.S.) chain with more than 50 locations, will be the first food retailer to install a PX G1300 pressure-exchanger device from Energy Recovery to improve the efficiency of a transcritical CO₂ (R744) refrigeration system.

Vallarta plans to install the PX G1300 device at a store in Indio, in southern California, Energy Recovery said in a <u>statement</u>.

Energy Recovery, a San Leandro, California (U.S.)-based manufacturer of pressure-exchanger devices for various industries, <u>announced in June</u> that was close to marketing a pressure exchanger designed to significantly improve the efficiency of transcritical CO₂ refrigeration systems, especially in high-ambienttemperature locations. Search The Site

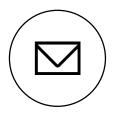


Related Partner



Related Products





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Thank you for listening.

