

Driving Industrial Sustainability Delivering Value in Fluid-Flow Processes

Seaport Research Partners Summer Investor Conference – 24-25 August 2021

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ENERGY RECOVERY SNAPSHOT



We design and manufacture solutions that accelerate the environmental sustainability of our customers' operations.



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 (ERD) revolutionized seawater reverse osmosis desalination (SWRO), reducing energy costs by up to 60%.¹ The PX is now the industry standard for energy recovery.



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

Financial Snapshot ²		
Product Rev Growth		
Avg. Growth '15 - '20	21%	
2020	27%	
2021 (est.)	10%	
2022 (est.)	25%	
2021 YTD Gross Margin	67%	
Cash & Securities	\$121M	
Debt		

¹Energy Recovery estimate; ²Growth and Gross Margin from Product Revenue only



WE HAVE A STRONG ESG STORY

saved for customers on energy expenses annually¹

25/ PXs installed worldwide

product revenue from energy-efficiency related products

12.5M

metric tons emissions avoided due to PXs = >2.7M vehicles removed from the road annually¹

PXs use components made from recycled materials

Of waste metal from our operations is recycled

Global Installations of Energy Recovery **Desalination Products**



¹Energy Recovery estimates. Assumes all deployed devices are in operation



ESG AT ENERGY RECOVERY – MAKING PRODUCTS TO HELP IMPROVE THE ENVIRONMENT

2nd Annual ESG report to be issued Sept 2021

 Aligned with SASB and GRI sustainability reporting frameworks; select U.N. Sustainable Development Goals

Reflects ongoing commitment to becoming a more sustainable, resilient business

 Our products address climate change, sustainable industrialization, energy efficiency, and water scarcity







To download the full report, please visit

bit.ly/ERI-ESG

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INDUSTRIES BENEFITING FROM PX TECHNOLOGY

Industry	Markets	Customer Type	Key Benefits Provided
	Seawater DesalinationBrackish WaterDesalination	 Global EPC Firms Desalination OEMs Plant Owners and/or Operators 	 Less Energy Consumption Lower Emissions Reduced Costs
	 Industrial Wastewater Treatment 	Global EPC FirmsIndustrial Plant Owners and/or Operators	 Less Energy Consumption Lower Emissions Reduced Costs
魚	 Natural Gas Processing 	EPC FirmsPlant Owners and/or Operators	 Less Energy Consumption Lower Emissions Reduced Costs
	 CO2 Refrigeration 	OEMsSupermarkets	 Lower Emissions vs. HFCs Less Energy Consumption Reduced Costs

OUR ENERGY RECOVERY DEVICES

Desalination





PX® Pressure Exchanger®

Turbocharger

CO2 Refrigeration



PX® G1300

Industrial Wastewater Treatment





PX® Pressure Exchanger®

Ultra PX™

Natural Gas Processing

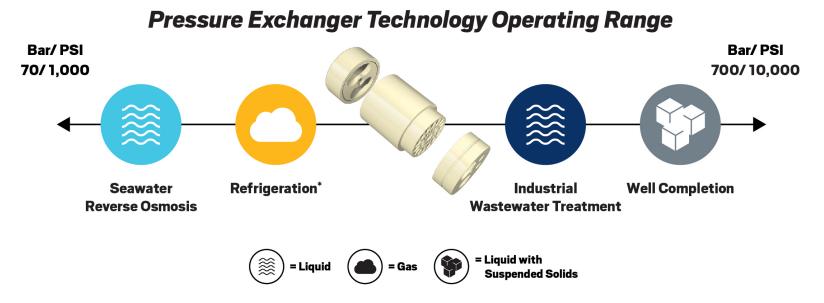


IsoBoost



PX TECHNOLOGY PLATFORM – EXCELLING IN A WIDE-RANGE OF PRESSURE APPLICATIONS

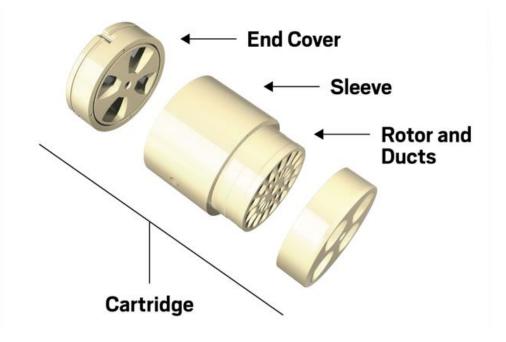
 The Pressure exchanger is Energy Recovery's core technology. This versatile technology acts as a fluid piston, efficiently transferring energy between high- and low-pressure fluids and gases through continuously rotating ducts



*Pressure Exchanger in refrigeration can handle multiple phases of CO2(liquid, gas, and supercritical fluids)

PRESSURE EXCHANGER TECHNOLOGY PLATFORM

- Our pressure exchanger technology works as a platform to build product applications
- The technology is versatile can handle liquid, gas, and a range of pressures
- Benefits include lower lifecycle cost and energy use in industrial fluid-flow systems
- Pressure exchanger technology is at the heart of many of our products



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).

HOW PRESSURE EXCHANGER TECHNOLOGY REDUCES ENERGY CONSUMPTION

Sealed Phase Pressure Exchange Phase Two fluids on opposite sides of 1. Low pressure driven fluid Rotor duct rotates to PX; rotor duct is sealed, isolating enters the rotor duct pressure exchange phase high, low pressure fluid streams 2. High pressure motive fluid enters the rotor duct 1. Low pressure driven fluid that 3. Low pressure driven fluid will be pressurized and sent contacts motive fluid, into system **Rotor duct rotates** expelling it at low pressure to sealed phase 2. High pressure motive fluid 4. High pressure motive fluid that will pressurize low contacts driven fluid, pressure fluid expelling it at high pressure

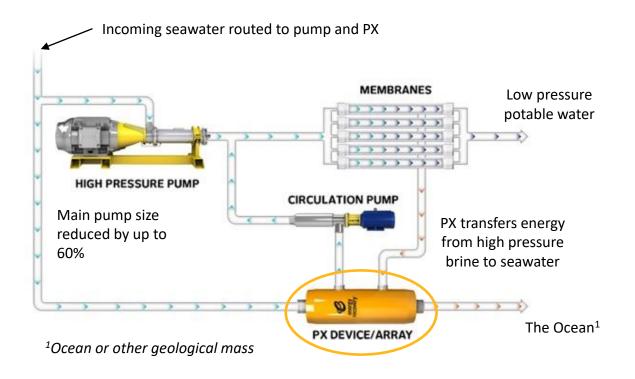
Pressure is exchanged continuously as the rotor spins at high speed



PRESSURE EXCHANGER TECHNOLOGY IN ACTION

PX for SWRO

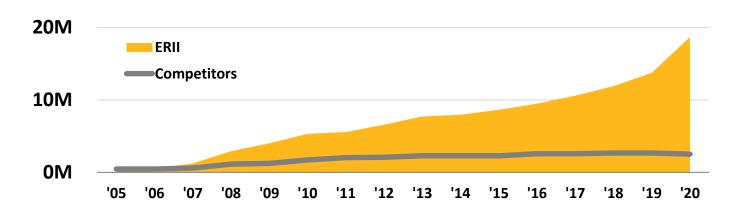
PX lowers energy consumption by up to 60%





OUR PX PLATFORM HAS COME TO DOMINATE LARGE SCALE SWRO DESALINATION

Cumulative Won Mega Project¹ Desal Capacity (m3/day)



Technology Strength = High Margin

67% ERII Gross Margin²

25%

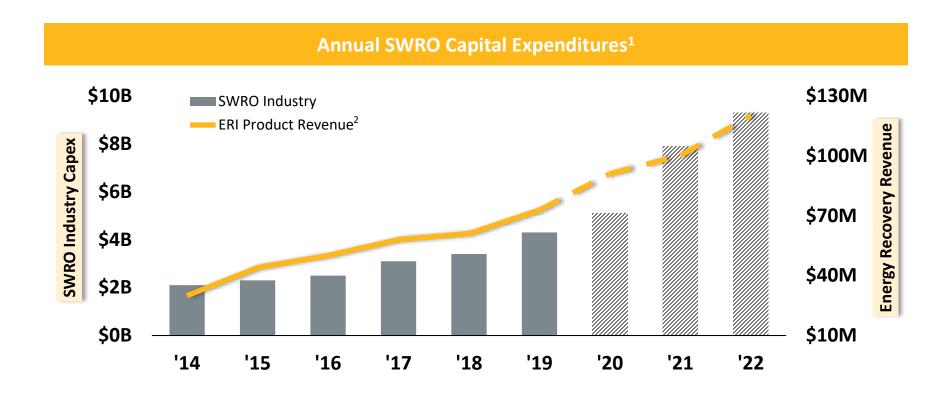
Russell 2000 Industrials

Our ceramic PX Pressure Exchanger is designed for a 25-year life, needs no maintenance and has up to 98% efficiency – unrivalled quality that translates into high profitability

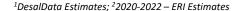
¹ Mega Projects produce 50,000 cubic meters or more of water per day; ²YTD 2021 Reported Gross Margin



NEW WATER DEMAND AND TECHNOLOGY SHIFT DRIVING SECULAR SHIFT IN SWRO



Our growth roughly tracks overall SWRO desal capital spend





FINANCIAL TIMES

No end to crisis in sight as drought grips India's Chennai



Saudi Water Partnership Company has released its Seven-Year Statement for 2020-26

The Washington Post

Africa's largest dam powers dreams of prosperity in Ethiopia – and fears of hunger in Egypt



Australia prepares for 'Day Zero' – the day the water runs out

The New York Times

Flash Drought in the South Brings Record Heat Without Rain



South America ravaged by unprecedented drought and fires



Alaska Villages Run Dry and Residents Worry About a 'Future of No Water'

EXISTING FRESH WATER SUPPLIES WILL LIKELY NOT MEET FUTURE DEMAND



60%

The world will only have 60% of the water it needs by 2030



>2B People

1/4 of all people live in high water-stress territories



30%

Potable water demand expected to increase 30% by 2050



26%

Global population is expected to grow from 7.7B to 9.7B in 2050

All statistics - United Nations

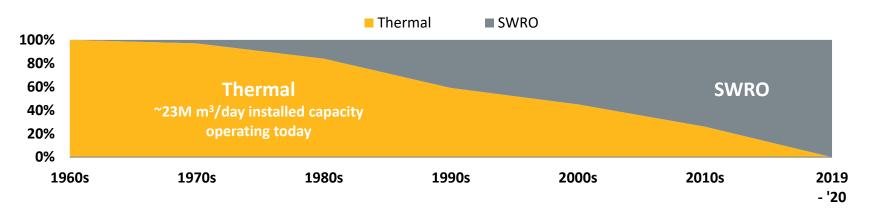


TECHNOLOGY SHIFT FROM THERMAL TO SWRO: \$0.5B TAM TO MAINTAIN EXISTING CAPACITY

SWRO Eclipsed Thermal Desalination as Technology of Choice in the 2000s

- Existing thermal capacity should eventually be replaced by SWRO
- We are seeing this demand in our revenue and pipeline today
- SWRO is more efficient, less energy intensive and far more economical
 - \$1B SWRO retrofit of two Saudi thermal plants will generate OPEX savings of \$360M/year¹





23M cubic meters of thermal capacity equivalent to approximately \$0.5 Billion in PX sales²

¹DesalData: ²ERI Estimate



BUILDING LONG-TERM SUSTAINABLE GROWTH AND VALUE

Revenue Growth

Increase Bottom Line

Sustainability

New Technologies

Develop new PX products, widen technical aperture

Leverage Existing Assets

Large investments in organization not needed for success

Environmental Sustainability

Accelerate the sustainability of customer operations via reduced energy consumption

Diversify Revenue

Diversify outside of desalination, de-risking revenue and accelerating growth

Invest in Achievable Projects

Realistic commercial timelines, manage complexity and scope

Align Organization

Align organizational aspirations with sustainable product aspirations

Protect Position in SWRO

Invest in improved products and operations to protect existing strength in swiftly growing desalination market

Discipline

Disciplined focus on financial KPIs and marketability of technologies

Shareholder Transparency

Open communication with shareholders on progress and plans



LEVERAGING PX TECHNOLOGY FOR SUSTAINABLE DIVERSIFIED GROWTH BEYOND DESALINATION



Fluids

- Manage pressure energy between fluid flows
- Relatively clean seawater to caustic pressure pumping proppant;
 CO₂ gas



Technology

- PX Platform focus on reducing energy consumption
- 1,000 10,000+ PSI (70 700 bar)
- Build off what we know we are not inventing new markets
- Industrial / Commercial applications
- Maintain first-in-class reliability



KPIs

Financial KPIs

3 Year Timeline

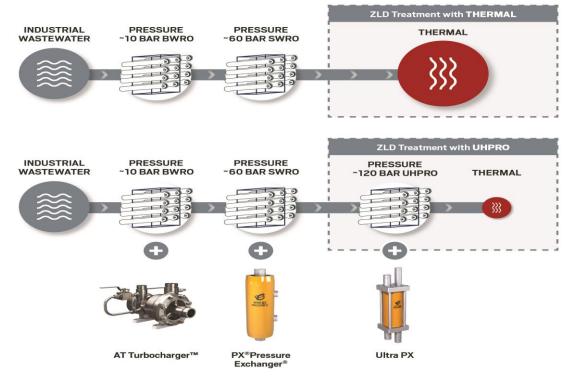
- 20%+ ROI
- 50%+ Gross Margin
- 1 year: prove technical validity
- 2 years: commercial product
- 3 years: cash flow positive run rate
- → Cap R&D Expense to limit size and scope of R&D projects: 15-20% of revenue in 2021
- → Discipline: Maintain rigorous commercial hurdles for ROI, Gross Margin, and Timelines

ULTRA PX – MITIGATING ENVIRONMENTAL EFFECTS OF INDUSTRIAL WASTEWATER DISCHARGE

- Our PX and Ultra PX can recover up to 60% of wasted energy in the RO process with 93%+ efficiency
- RO can significantly reduce the thermal component of mitigating the effects of industrial wastewater due to superior efficiency, much as it has in SWRO

Our PX is applicable in nearly all RO treatment methods and in most stages of the treatment

process



Applying UHPRO to ZLD treatment reduces thermal requirements at the end of the process



HFC PHASE OUT IN THE HEADLINES



...we already operate hundreds of facilities (stores and distribution centers) that utilize ultra-low GWP refrigerants including carbon dioxide (CO2).



Over the next 15 years, the U.S. is set to slash the use of powerful greenhouse gases used in refrigerants. That means changes to your grocery store, a switch that's already underway in California.



New York State Bans Hydrofluorocarbon Refrigerants.



(HFCs) capacity to warm the atmosphere – measured as global warming potential – is thousands of times greater than carbon dioxide, with some being up to 13,850 times more potent.



China's commitment on HFCs, by ratification of the Kigali Amendment, sends key signal of its commitment to reduce emissions.

PX TECHNOLOGY IS A GAME CHANGER FOR THE REFRIGERATION INDUSTRY

Over 35,000 CO₂ Installations Globally

- Conversion to CO₂ from HFCs (current refrigerants) is fully underway in cool climates
- Regulations are driving adoption in moderate to warm climates
- CO₂ is a 'future proof' green refrigerant

Hurdles to Faster CO₂ Adoption Remain

- Electricity usage of CO₂
 systems increases in warm
 climates as pressures
 increase to support
 refrigeration cycle
- This undercuts
 environmental benefits of
 CO₂ and increases operating
 costs of these systems
- Existing technologies do not sufficiently address this hurdle

The PX G enables faster CO₂ adoption

- Reduces/eliminates electricity usage disparity
- Efficiency advantages of the PX G grows the hotter it gets and when refrigeration is most needed
- Helps solve the new CO₂
 market's most pressing pain
 point high electricity costs

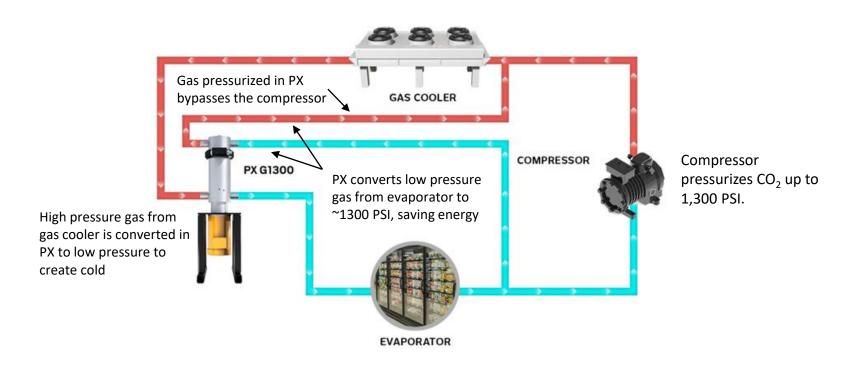
The global transition to CO₂ refrigeration could translate to ~\$1B annual TAM for ERI by 2030¹

¹Energy Recovery estimates.



PRESSURE EXCHANGER TECHNOLOGY IN ACTION

PX G1300 for CO2 Refrigeration



We have expanded the aperture of the PX technology to successfully compress gas, allowing for efficient energy transfer in refrigeration²

WE HAVE COME FAR TO UNLOCKING A LARGE MARKET WITH THE PX G

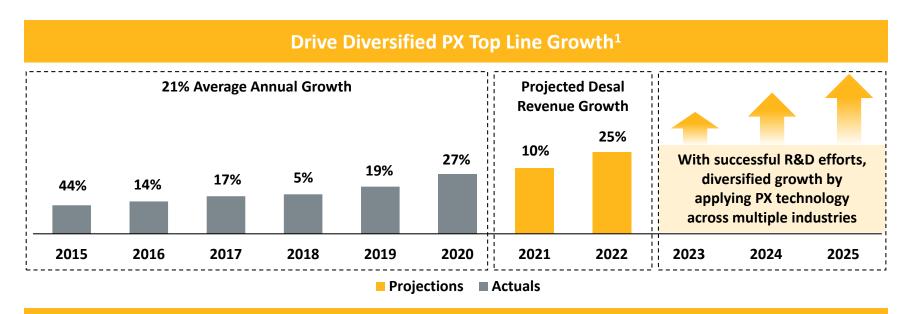
Current status of the PX G1300

- Successfully tested across a range of temperatures in our full refrigeration testloop in California
- Control system developed to manage it in operations
- o Building our first commercial ready system

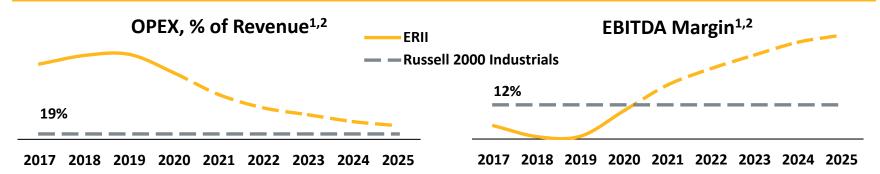




DISCIPLINED FOCUS DRIVING TOP AND BOTTOM-LINE GROWTH



Maintain Gross Margin and Manage OPEX to Drive EBITDA



¹2020 – 2025 are estimated projections; ²Excluding Schlumberger License and Development Revenue







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