

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT  
Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): March 12, 2019

**Energy Recovery, Inc.**

(Exact Name of Registrant as Specified in its Charter)

Delaware  
(State or Other Jurisdiction of Incorporation)

001-34112  
(Commission File Number)

01-0616867  
(I.R.S. Employer Identification No.)

1717 Doolittle Dr. San Leandro, CA 94577  
(Address if Principal Executive Offices)(Zip Code)

510-483-7370  
(Registrant's telephone number, including area code)

Not applicable  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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**Item 7.01 Regulation FD Disclosure**

The Company is furnishing with this report an investor presentation that will be used by the Company during meetings with investors and analysts. The presentation is attached hereto as Exhibit 99.1, which is incorporated herein by reference and will also be posted on our website at <http://www.energyrecovery.com>.

The Company is not undertaking to update this presentation. This report is not intended as a statement concerning the materiality of any information contained in the presentation.

The information furnished in this Item 7.01 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section, nor shall such information be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
99.1	<a href="#">Management Presentation.</a>

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: March 12, 2019

Energy Recovery, Inc.

By: /s/ William Yeung  
William Yeung  
General Counsel

# ENERGY RECOVERY INVESTOR PRESENTATION

(NASDAQ: ERII)

March 2019



## FORWARD LOOKING STATEMENT

This presentation contains forward-looking statements within the “Safe Harbor” provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements in this report include, but are not limited to, statements about our expectations, objectives, anticipations, plans, hopes, beliefs, intentions, or strategies regarding the future. Forward-looking statements that represent our current expectations about future events are based on assumptions and involve risks and uncertainties. If the risks or uncertainties occur or the assumptions prove incorrect, then our results may differ materially from those set forth or implied by the forward-looking statements. Our forward-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 are difficult to predict; therefore, actual results may differ materially and adversely from those expressed 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 certain risks 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 results set forth or implied by our forward-looking statements.

### Investing in Critical Infrastructure for Near-Term Execution and Long-Term Growth

#### Water

- Record levels of revenue, gross profit, and operating income
- Strong global water demand provides optimism for 2019 and beyond
  - Historically high backlog and most robust project pipeline
  - Expanding water manufacturing capacity to meet anticipated demand
- Pursuing water growth initiatives focused on expanding product portfolio
  - Leveraging global sales and distribution channel

#### Oil & Gas

- VorTeq
  - Focus remains on commercialization
  - Accelerated implementation of system-level enhancements agreed to by Energy Recovery and the product licensee ahead of Milestone 1
- Invested in R&D autonomy to shorten product development cycle
  - Acquired field resources and hydraulic fracturing equipment for greater independence and less reliance on partner resources
  - Broke ground on Commercial Development Center in Houston, TX area
  - Center allows for constant testing of oil & gas solutions

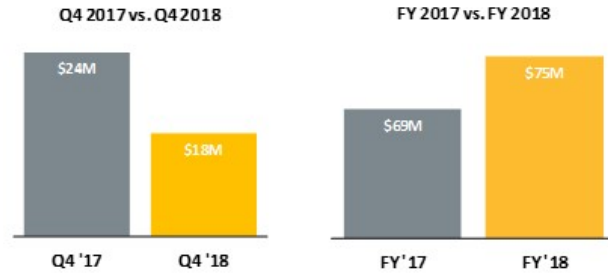
**Record 2018 Results**

- 7.8% total revenue growth
- 11% water revenue growth
- Generated \$7.6M in operating cash vs. \$2.9M in 2017
- Net cash and securities position of over \$96M

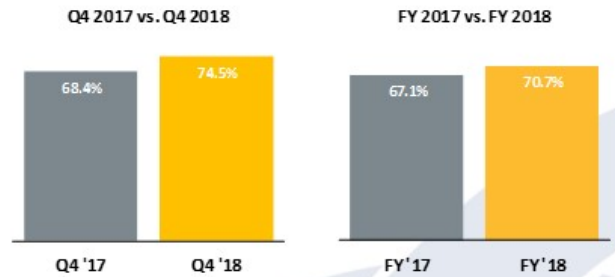
**Record Product Gross Margins**

- Steady rise in product gross margins since 2014
- Profitability driven by PX Pressure Exchanger sales
- High margins expected to continue for foreseeable future

**Revenue**



**Product Gross Margins**



### Who Are We

- A global, engineering-driven technology company delivering solutions for industrial fluid flow processes
- We drive meaningful, immediate cost savings and operational efficiencies for customers

### Our Approach

- Convert wasted pressure energy into a reusable asset
- Preserve or eliminate pumps that are subject to and destroyed by hostile process fluids

### Our Current Markets

- Water
- Oil & Gas





Water

Energy Recovery Devices



PX® Pressure Exchanger®



AT™ Turbocharger

Pumps



AquaBold™ High Pressure Pump



Vertical Circulation Pump



Horizontal Circulation Pump

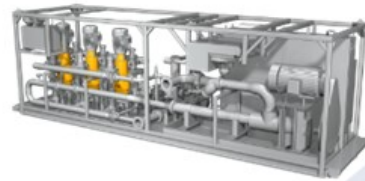
Oil & Gas

Hydraulic Fracturing Solution



VorTeq™

Mud Pumping Solution

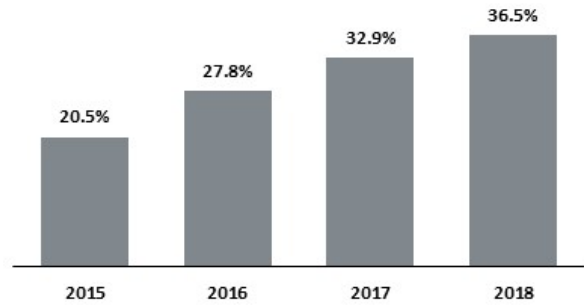


MTeq™



- Energy Recovery is anchored by world-class engineers
- One-third of our company holds engineering degrees
  - 9 Ph.Ds and 14 Masters Degrees
  - Over 45% increase in R&D headcount since 2013
- Advanced testing capabilities in CA and at-scale in TX
- Rapid concept to prototype process

## R&D Spend as % of OPEX



## Our In-House Expertise Spans Critical Engineering Disciplines

*Fluid Mechanics & Aerodynamics*

*Solid Mechanics*

*CFD & FEA*

*Hydrodynamic Bearings*

*Multi-Phase Flow*

*Dynamics & Controls*

*Acoustics & Vibrations*

*Tribology*

*Material Science & Coatings*

*Pumps and Turbines*

*Turbomachinery*

*Rotating Equipment*

**Advanced Ceramics Manufacturing Capabilities Help Drive Water Success**

- Vertically integrated ceramics manufacturing facility located in-house in CA
  - Creates potential competitive barrier to entry
- Best practices ensure high-quality production process
  - Approximately 99.9% of every PX Pressure Exchanger passes final stringent quality control before shipping

**Ceramics Expertise Directly Translates to Tungsten Carbide for Oil & Gas Applications**

- Similar manufacturing process for tungsten carbide PX Pressure Exchanger
  - Production follows comparable path – from powder to final machining
  - Rigid quality control and precision manufacturing
- Commercial Development Center in Houston, TX area broke ground in 2019



### Seasoned Water Salesforce and Global Distribution Channel

- Salesforce's tenure delivers strategic advantages in a relationship-driven market
  - Business unit leader Rodney Clemente, a 20 year industry veteran, has overseen rapid water growth
  - Entrenched, stable global water team
- Strong relationships and extensive database enable early project identification

### Oil & Gas Sales Strategy Differs Due to Our Position

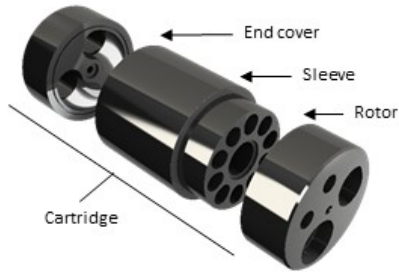
- Licensing model is more effective for a newcomer in a large, mature and vastly competitive industry
  - De-risks market entry
  - The right partnerships provide quicker credibility
  - Eliminates need to build our own distribution channel
  - Reduces time to market



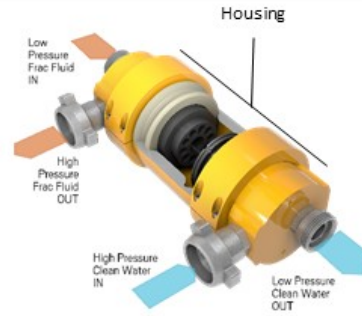
# OUR CORE TECHNOLOGY IS THE PX PRESSURE EXCHANGER

## Pressure Exchanger Key Components

Transfers energy with only one moving part (rotor)

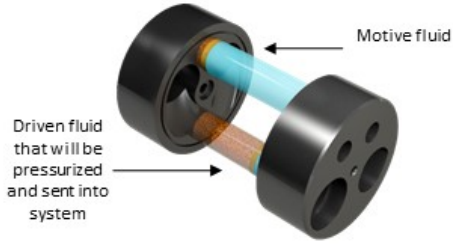


## Fluid Flows in PX Pressure Exchanger

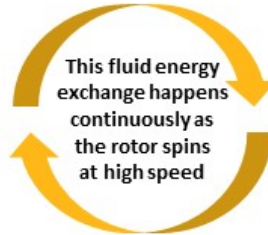


## How the PX Pressure Exchanger Works

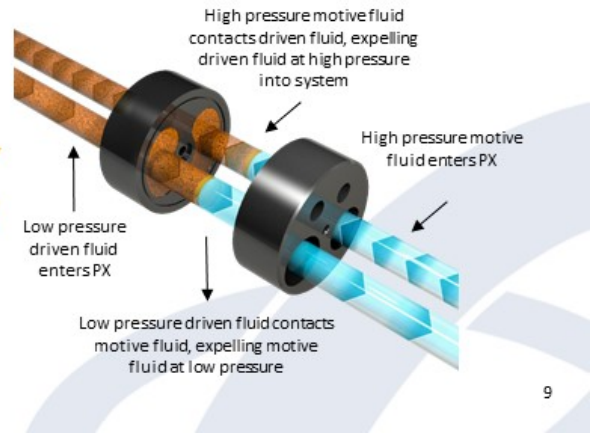
Two fluids on opposite sides of the PX; the rotor duct is sealed, isolating high and low pressure fluid streams



Rotor duct rotates to pressure exchange phase



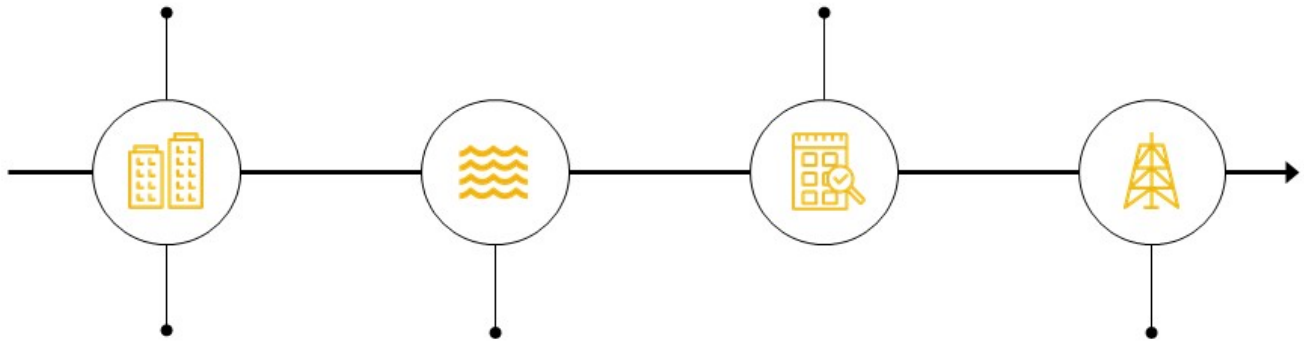
Rotor duct rotates to sealed phase



# NEAR-TERM BUSINESS OBJECTIVES

Further execute on two business units to make capital allocation decisions based on opportunity

Commission Commercial Development Center

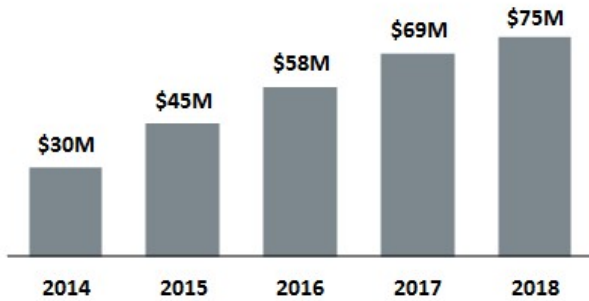


Build infrastructure for growth

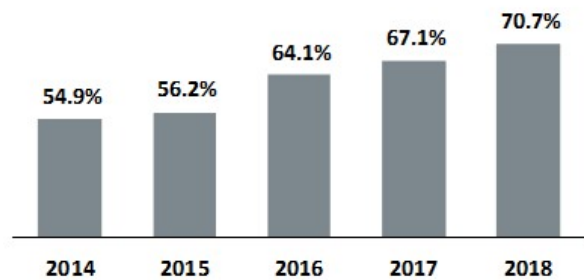
Grow and expand existing market presence in seawater desalination and beyond

Commercialize VorTeq  
Further Develop MTeq

### Revenue: 25% CAGR 2014-2018



### Product Gross Margin Strength



### Net Cash and Securities Position of over \$96M

- We are positioned to make critical investments in our business
  - Organic or inorganic opportunities to expand our water business
  - Commercialization and subsequent launch of VorTeq, further development of operational infrastructure
- Financially prepared for market fluctuations





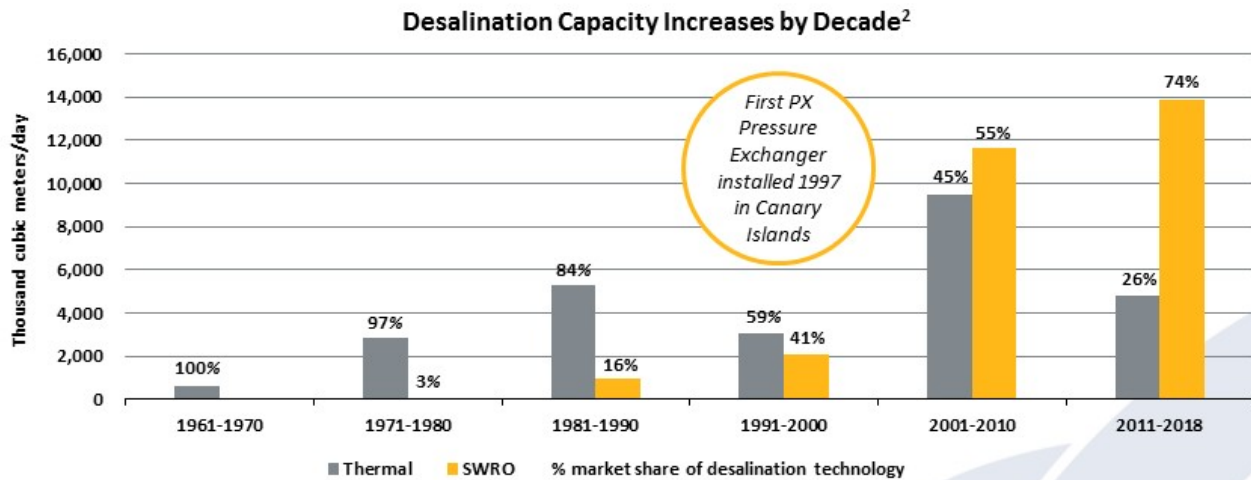
# Water – Our First Market Transformed





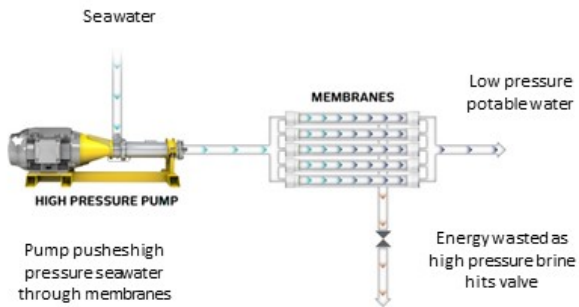
## HELPING MAKE SWRO DESALINATION ECONOMICAL

- Thermal desalination was the norm before our PX Pressure Exchanger technology
- Our PX Pressure Exchanger reduces energy costs by up to 60%, making seawater reverse osmosis (SWRO) desalination plants more economically viable
- Our solutions deliver meaningful economical benefits to customers
  - \$1.9 billion savings on energy expenses
  - Reduces project lifecycle costs due to durability of products
- We dominate the SWRO industry (89% market share in large-scale desalination projects<sup>1</sup>)



# OUR PX RECYCLES HYDRAULIC ENERGY, REDUCES ENERGY COSTS

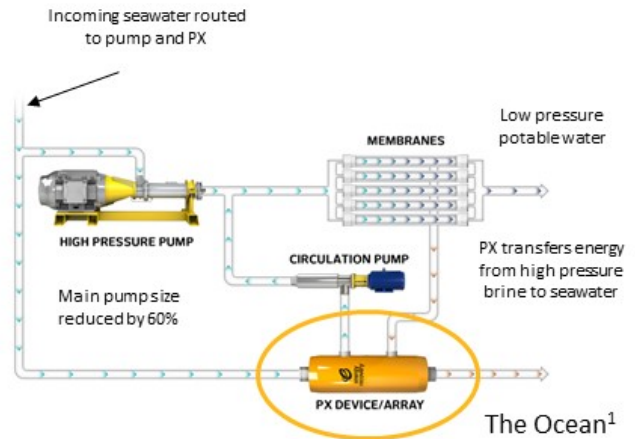
## Without Energy Recovery Devices (ERDs)



The Ocean<sup>1</sup>

- Energy consumption and costs made SWRO uneconomical historically
- Approx. 60% of energy wasted during SWRO prior to implementation of ERDs

## With PX Pressure Exchanger



- PX reduces energy consumption and cost by approx. 60%
- Recycles energy, reduces high pressure pump size making SWRO more economical

### Energy Recovery Devices

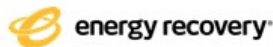
#### PX Pressure Exchanger

- Unmatched efficiencies for desalination up to 98%
- Highest uptime in the market (99.8%)
- Designed for up to 25+ years of useful life



#### AT Turbocharger

- Efficiencies up to 80%
- Volute insert technology for best efficiency range
- Lower initial capital costs



### Pump Products

#### AquaBold High Pressure Pump

- Water lubricated bearing for long life and low maintenance
- Cast, duplex stainless steel hydraulics for higher quality and uptime

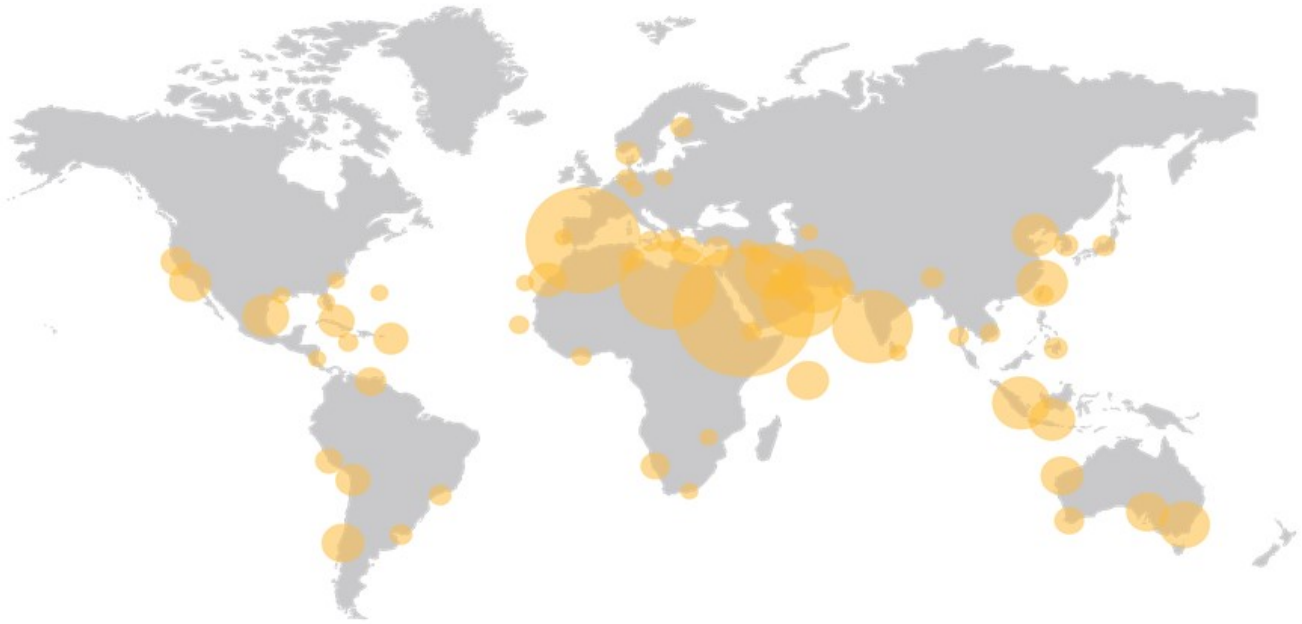


#### Vertical and Horizontal Circulation Pumps

- Specialized pumps pair with PX application
- Designed for long life with low maintenance
- Reliable performance in high suction pressure operating environments



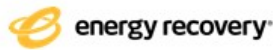
## GLOBAL REACH OF ENERGY RECOVERY PRODUCTS



17M cubic meters/day of  
potable water produced<sup>1</sup>

>19,000 devices  
installed worldwide

\$1.9B/year saved  
for customers<sup>2</sup>



<sup>1</sup>Assuming all deployed devices are in operation; <sup>2</sup>ERI estimates

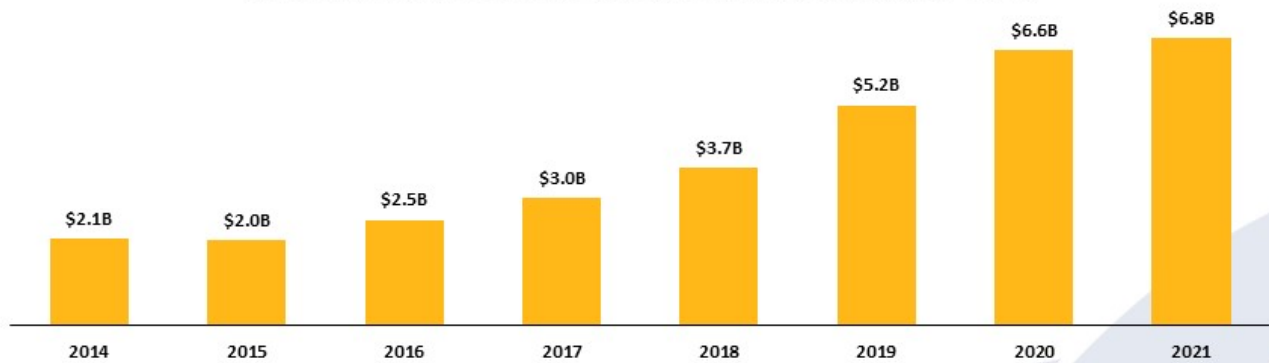
### Water scarcity is increasing

- According to the OECD<sup>1</sup>, the world will only have 60% of the water it needs by 2030
- Desalination can help build a resilient, diversified water system

### We are positioned to benefit from the ongoing secular shift in water demand

- SWRO expertise and commanding market position offers a springboard to growth
- Sales team can leverage distribution channel to increase desalination sales
- We are investing to expand our product portfolio

Continued Growth in SWRO Desalination CAPEX Spend 2014 – 2021<sup>2</sup>



## Consistent Revenue Growth

- Mega projects drove growth in 2018
- Owing to our strong backlog, robust pipeline and continued demand for desalination, we expect strong growth to continue into 2019 and 2020

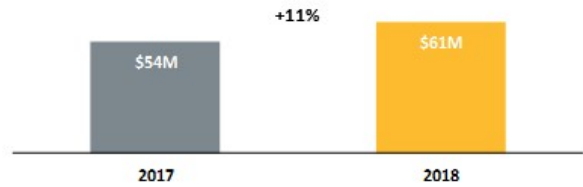
## Extended Growth Cycle

- Upward revenue trend since 2014
  - Evidence of extended cycle or shift in global demand curve

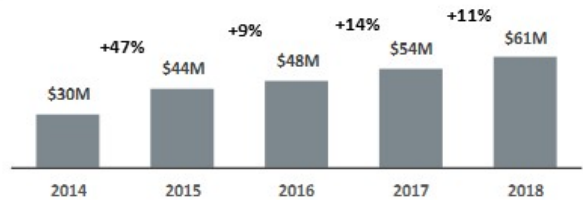
## Exceptional Margins

- Water gross margins have grown from less than 54% in 2014 to over 71% today
- Margin strength provides optionality as growth initiatives are explored

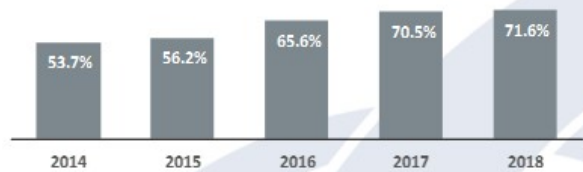
### FY Water Revenues



### Historical Water Revenues



### Water Gross Margins



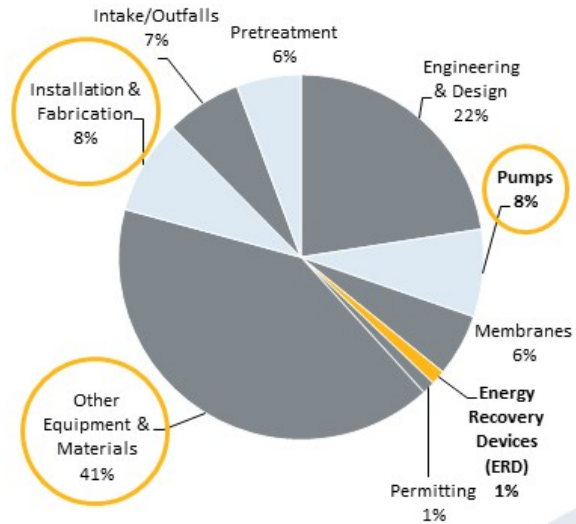
**We Currently Focus on Only 1-2% of a Project's Capital Spend**

- Energy recovery devices are critical to make plant operations affordable
  - We dominate this market
- Current standing serves as competitive barrier to entry
- Limited exposure to other areas of desalination spend
  - Small offering in Pumps (<1%)

**Leverage Our Market Leadership Presence**

- Our desalination position and distribution channel is a springboard to expand sales
- Focused on increasing offering in pumps and packaged/engineered solutions
- Utilize demand for and recognition of our strong PX Pressure Exchanger brand

**Average Desal Project Capital Spend<sup>1</sup>**



**Energy Recovery dominates the ERD segment and has select offerings in Pumps**




A high-contrast black and white photograph of a liquid splash, likely oil, against a white background. The splash is dynamic, with various droplets and a large, dark, flowing mass.

# Oil & Gas – Our Next Market to Transform

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 energy recovery®

- Our PX Pressure Exchanger technology can add strategic value to the Oil & Gas industry
- Water and Oil & Gas have similarities
  - High pressure fluid environments
  - Transference of hydraulic energy from a high pressure fluid to a low pressure fluid
- We have leveraged our water experience to evolve our core competencies for Oil & Gas success
  - Advanced fluid & structural mechanics, bearing performance and material expertise of R&D
  - Precision manufacturing coupled with enhanced experimental capabilities
  - In-house state of the art simulation tools to model performance and results

### Pump Preservation

**Oil & Gas high pressure pumps present design and material challenges:** Susceptible to abrasion, erosion, fatigue and corrosion

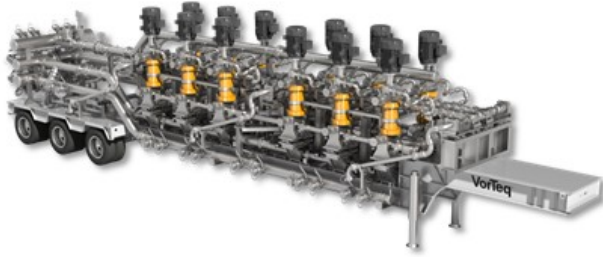


**Our technology helps protect pumps:** hostile fracking and drilling fluids handled by the PX, clean water processed by pumps



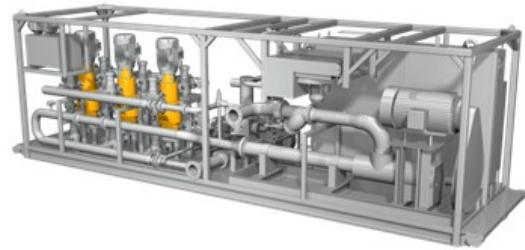
- ✓ Increased life expectancy
- ✓ Increased reliability
- ✓ Reduced maintenance costs
- ✓ Lower CAPEX (less required redundancy)

### VorTeq



- Hydraulic fracturing technology solution
- Houses 12 PX Pressure Exchangers
- Designed to isolate and save frac pumps
- Addresses pump failure at frac sites
- Re-routes hostile frac fluid away from critical and costly pumps
- Currently in R&D stage
- Annual royalty of \$1.5M/VorTeq or \$80-\$200M following commercialization

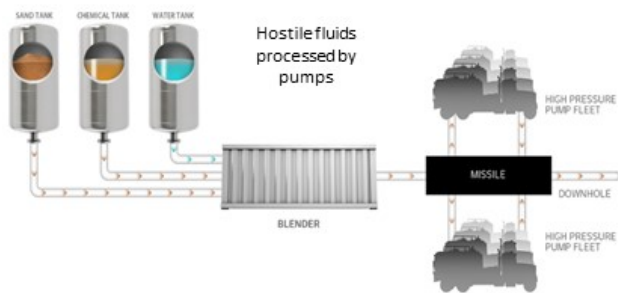
### MTeq



- Mud pumping technology solution
- Houses three PX Pressure Exchangers
- Designed to isolate and save mud pumps
- Addresses pump failure at drilling sites
- Re-routes hostile drilling fluid away from critical and costly pumps
- Currently in R&D stage

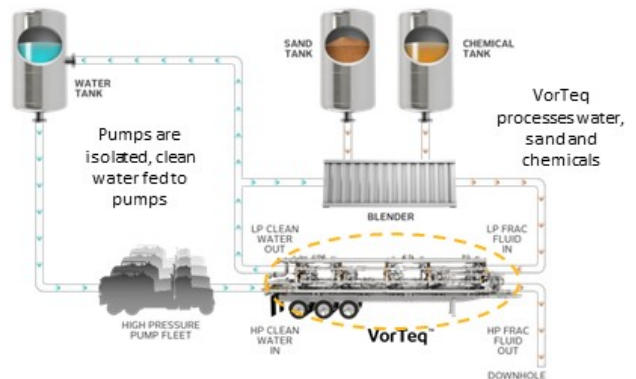
# VORTEQ PROTECTS HIGH PRESSURE PUMPS, REDUCES COSTS

## Status Quo



- Pumps process water, chemicals and sand
- Pump assets quickly destroyed

## With VorTeq

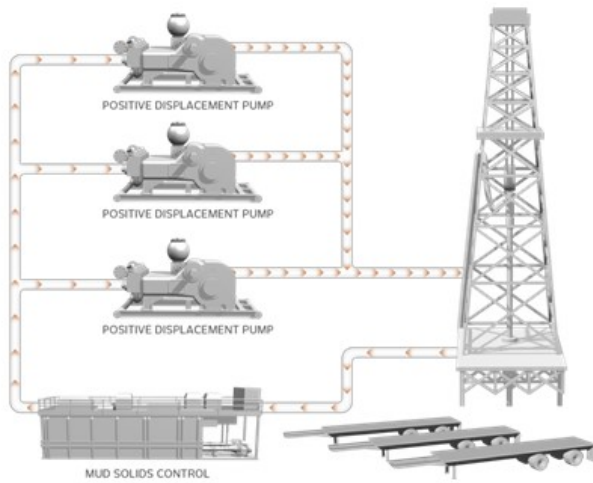


- Maintenance savings (\$3M - \$4M<sup>1</sup>)
- Lower pump redundancy and CAPEX (\$1M - \$2M<sup>1</sup>)

**Longer-term it may be possible to pair VorTeq with centrifugal pumps  
Further decreases need for pumps (\$8M to \$12M savings<sup>1</sup>)**

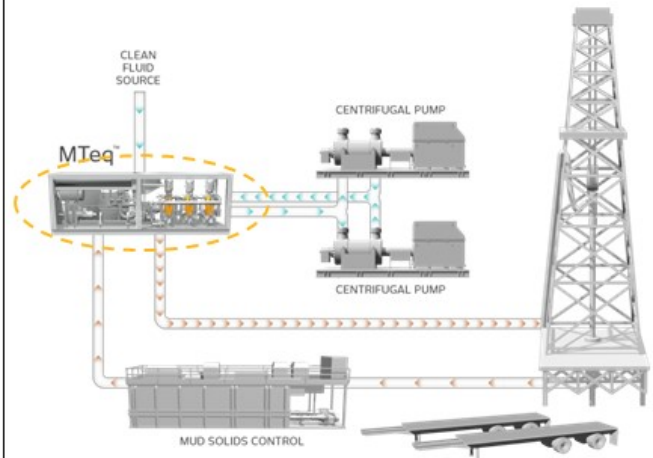
# MTEQ REPLACES POSITIVE DISPLACEMENT PUMPS, REDUCES COSTS

## Status Quo



Positive displacement pumps process drilling fluid today, wearing down and destroying pump assets

## With MTeq



Highly efficient centrifugal pumps process clean water, reduce/preserve pump assets, lengthen life and reduce costs

### Entered into a 15 year license agreement with Schlumberger Technology Corporation

- Exclusive rights to VorTeq for on-shore hydraulic fracturing
  - Upfront **\$75M** exclusivity fee
  - Two separate **\$25M** milestone payments (for a total of **\$50M**) subject to certain KPIs
    - ✓ Milestone 1 (M1): Frac at product licensee test facility
    - ✓ Milestone 2 (M2): Frac at customer exploration & production (E&P) well
  - Commercialization Highlights:
    - ✓ \$1.5MM per VorTeq per year
    - ✓ Acceptance standards inclusive of M1 and M2, as well as other performance tests
    - ✓ Product licensee responsible for missile manufacturing; ERI provides PX Pressure Exchangers, housing and motors
    - ✓ Five years from first unit to full deployment across product licensee fleets

### Liberty Oilfield Services carve-out (our early-stage test partner)

- Rights for up to 20 VorTeq units for up to 5 years
- We provide full missile and cartridges – vendors have been qualified
- Commercialization standards differ and thus speed to market may be faster
- Pricing based on contractual ROIC



### **In 2018, we invested in critical human and capital resources**

- We purchased our own high pressure pumps and ancillary equipment to execute testing
  - Already shown dividends when utilized at partner facility in 2018
- We hired field service personnel with fracing expertise to further build our operations team

### **Lease signed for new four-acre Commercial Development Center near Houston, Texas.**

#### **Once operational, the center will:**

- Allow us to test all our Oil & Gas technology solutions at scale and in real-world conditions
- House advanced equipment to machine, inspect and test tungsten carbide components

### **The expanded capabilities of the center should shorten the path to commercialization**

- Reduces time between design enhancement, implementation and testing
- Removes reliance on partner and product licensee resource availability
- Enables rigorous testing of tungsten carbide pressure exchangers prior to field deployment



# STRATEGIC SUMMARY



### **Water: Steady, Visible Growth**

- Global demand for potable water leads to further optimism
- Robust backlog and pipeline driving expected water segment growth in 2019 and 2020
- Looking to leverage our current desalination position
  - Sales and distribution channel offers product portfolio expansion potential
  - Exploring organic and inorganic growth initiatives

### **Oil & Gas: Applying PX Pressure Exchanger Expertise to a New Industry**

- Commercialization focus
- Commercial Development Center increases autonomy
  - Reduces the cycle time to test and validate PX advancements
  - Allow us to test all our Oil & Gas technology solutions at scale and in real-world conditions

### **Financially Flexible Balance Sheet**

- Solid net cash position enables progression of corporate strategy throughout industry cycles
- Allows for strategic options

THANK YOU

