Topics for Discussion

- A.O. Smith History and Products
- Innovation Opportunity Identification
- Some Key Needs within Water Energy Nexus
1874 – Founded in Milwaukee by C.J. Smith

1899 – Entered automotive industry supplying auto and truck frames

1923 – Introduced welded pressure vessels

1927 – Introduced field welded large diameter oil field pipe

1936 – Patented the process for glass-lined water heater tanks – still the industry standard

Publicly-Traded (NYSE: AOS) – Headquartered in Milwaukee, WI
Product Offerings

Product Categories

Residential Heaters & Boilers

- Residential Hybrid Electric
- Residential Electric
- Tankless
- Lochinvar “Knight”
- Residential Gas
- Combi
- Solar

Commercial Heaters & Boilers

- Commercial Electric
- Commercial Heat Pump
- Commercial Gas
- Commercial Oil Fired
- Commercial Boilers
- Crest Boilers
- Wall Hung Commercial

Water Treatment / Other

- Residential Water Purifiers
- Commercial Water Purifiers
- Pump & Expansion Tanks
Global Manufacturing And Distribution

Renton
Irvine
Milwaukee
Fergus
McBee
Juarez
Nashville
Banbury
Veldhoven
Istanbul
Dubai
Bangalore
Nanjing
Hanoi
Global Engineering

- Milwaukee, WI
- Fergus, Canada
- Veldhoven, Netherlands
- Nanjing, China
- Lishui, China
- Shanghai, China
- McBee, SC
- Bangalore, India
- Johnson City, TN
- Lebanon, TN

- 600+ Engineers
- $70+ Million Annual R&D Spend
Sales & Adjusted Operating Margin*

* excludes corporate expenses

11% CAGR

Sales in millions

Sales & Adj EBIT Margin

2010 2011 2012 2013 2014 2015
Segment Revenue

NA
- Water heaters growing
- Lochinvar 10% expected growth in 2016

ROW
- China/India = 93%
- Europe/Middle East = 7%

North America 68%
Rest of World 32%

2015 full year
Growth Strategy: Acquisitions

Geography
- China
- India
- High Growth GDP markets

Core
- New Products & New Technologies
  - Water Heating
  - Water Treatment

Adjacencies
- Water-themed platforms for growth
- New technologies beyond water for China
Investment Criteria

- Value creation opportunities
- ROIC in excess of cost of capital by second or third year
- Meet risk adjusted IRR hurdle rates
- Margin accretion with growth rates higher than U.S. GDP
- Accretive to earnings in the first year
“...Innovation can be viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs. This is accomplished through more-effective **products, processes, services, technologies or business** models that are readily available to markets, governments and society. “
Research Needs in Water Heating

- Improved efficiency water heating
- Thermal batteries with increased capacity
- Micro-grid opportunities with micro-combined heat and power and/or combined heat and power
- Improved heat exchangers
- Combustion sensing and control
- Data analytics and predictions/predictors
Research Needs in Water Treating

- Zero-waste-water water purification
- Reduced-waste-water water purification
- Low-energy water processes
  - Water treatment
  - Water purification
- Improved biological control technologies
- Water re-use technologies
- Salt-less softening
- Water quality sensing and control
- Data analytics and predictions/predictors
Keys to Research

- Meaningful value
- Sufficient opportunity size
- Path to affordability and commercialization
- Start with the end in mind (a vision)