

ORACLE

Oracle Energy and Water
Customer Edge
Conference

Digitization: The Energy of Water

And they say that electricity and water don't mix?

Maria DeChellis

Sr. Director, Strategy and Value

Jack Lucy

Global Industry Specialist – Asset and Work



Energy and Water: What are we trying to solve for?



4%
Of global energy use
Coming from water utilities

Forecasted to double by 2040

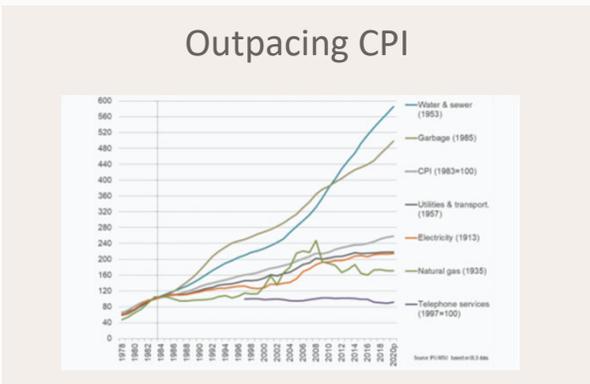


60%
of energy consumption in water industry
will come from water re-use & De-Sal

But only 4% of supply by 2040



- Options for Water Utilities
- Combined Heat and Power
- Solar Panels
- Green Power Partnership



Least Energy Efficient Measures of Residential Conservation

- Landscape Conversion
- Water Loss Control

- Water and Sewer is the utility experiencing the highest growth over the last 50 years well above the CPI
- Gas has grown under the rate of the CPI
- Electricity has stayed appx. at the rate of the CPI



The Business Value of Data in \$\$\$ and Sense

- **CUSTOMER - REVENUE**

What is the impact of 1 gallon of water on \$1.00 of energy?

- **PLANT - OPERATIONS**

How can we reduce the overall energy profile of water while keeping operations smooth?

SETTLE THE FIGHT.....



Impacts of H2O On Energy: Consumer-side

Savings

1.5-2%

Energy savings when
Presented with water
reports

Rationale

75%

Of energy savings is
Found to be because
Customers start paying
attention

Timing

3pm- 7pm

Reduction in energy usage
By customers receiving water
Notifications – Peak period on grid





ORACLE

“A more-efficient showerhead alone can save \$16 in water, \$19 in wastewater, and \$30 in energy bills annually.”

—
Pacific Institute

Quote from Advancing Affordability through Water Efficiency report



Some Innovation Ideas

- Piloting targeted messaging along with personalized data reports to customers on water consumption and the tie-in to energy billing
- Co-innovation with energy utility to aggregate energy and water interval data to show day to day impact and predict daily dollar to dollar performance.
- Smart meter to home device piloting with Water Sense and Energy Star for tracking and notification



Plant Savings in Energy

Motors consume >50% of the power used around the World

- **Understanding**

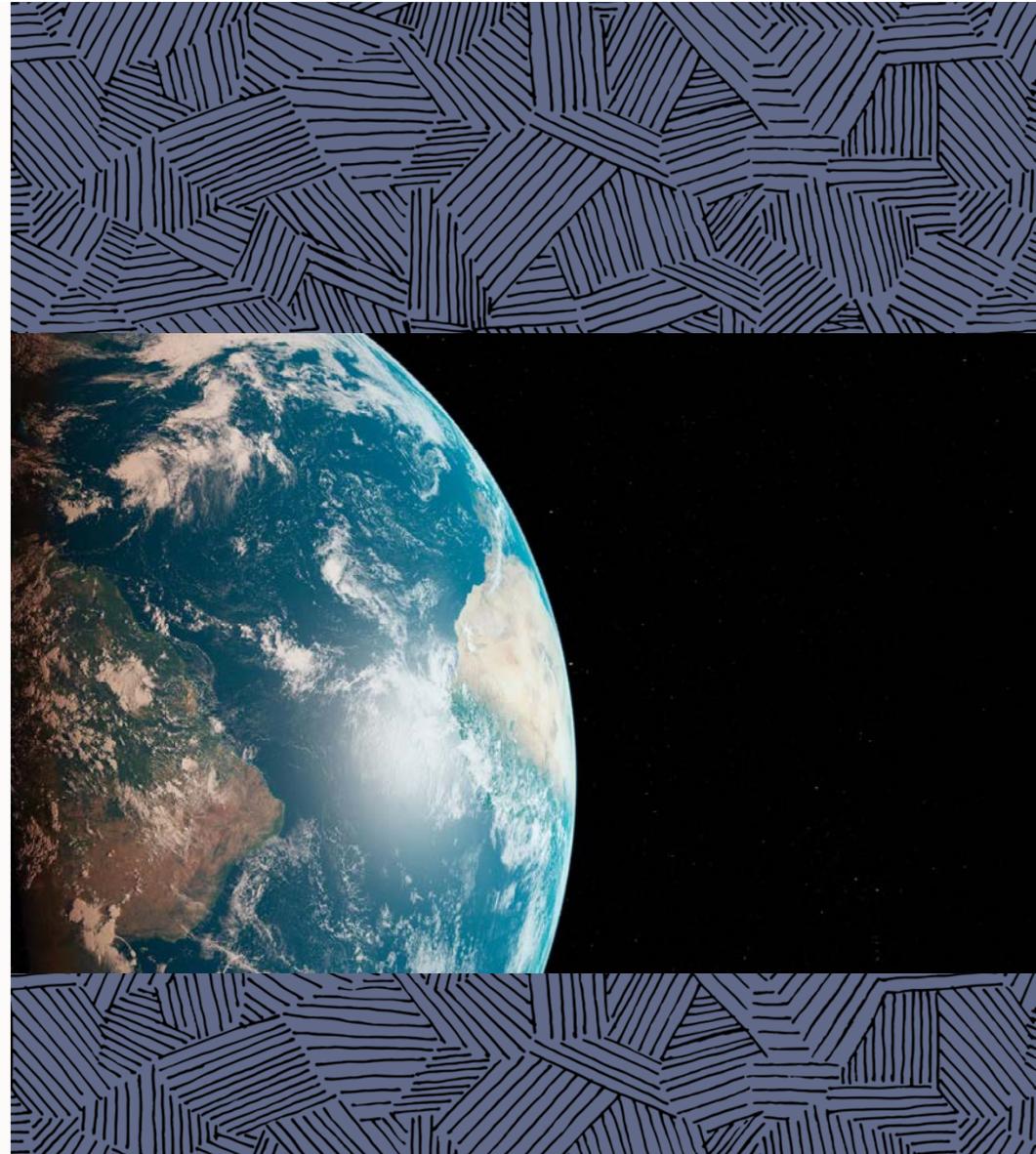
Depending on the industry, centrifugal pumps consume **between 25% and 60% of a plant's electrical motor energy.**

- **Opportunity**

Proper matching of pump performance and system requirements, however, can **reduce pump energy costs by an average of 20%** in many cases.

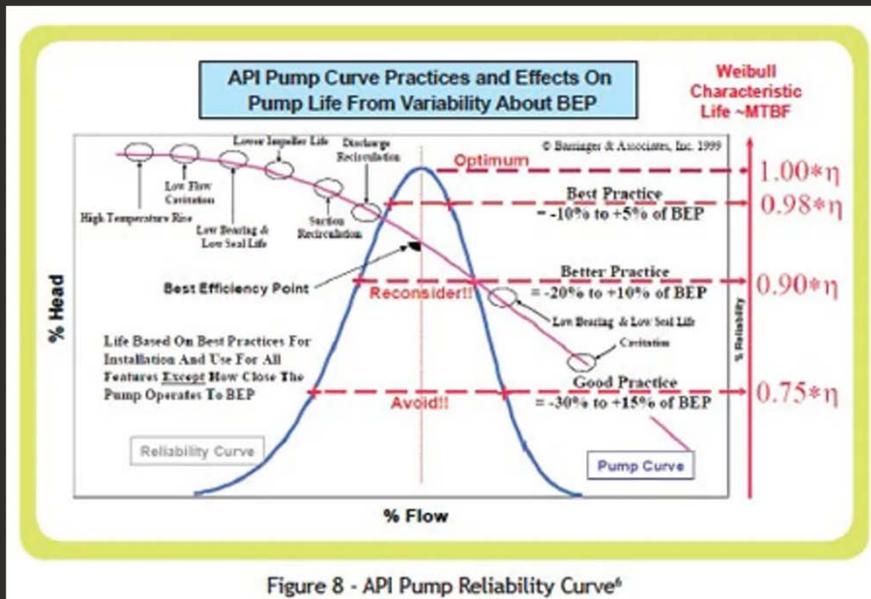
- **Value**

Less energy used = O&M Savings and Less Greenhouse gases

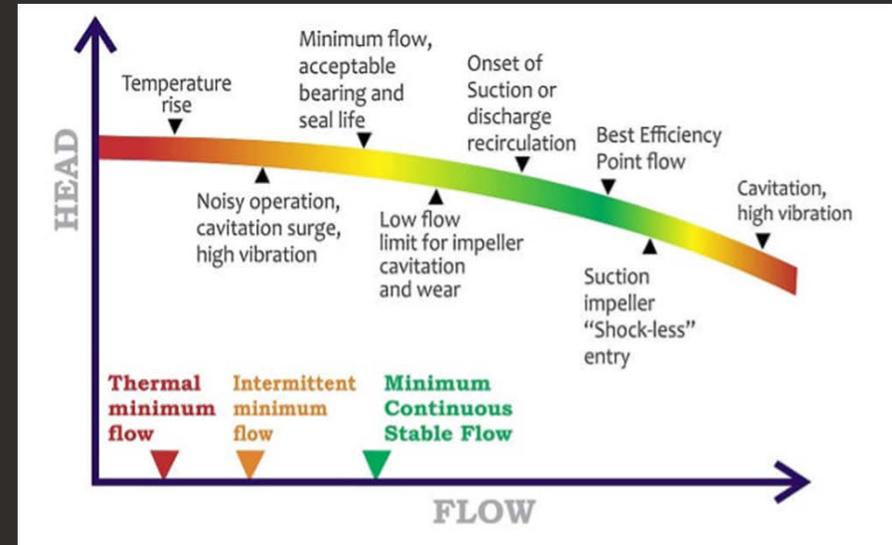


The Cost of Energy and Equipment Performance

Opportunity



Understanding



Who's at the Lab?

Oracle Industry Verticals

- Oracle Energy & Water
- Construction & Engineering Communications
- Communications Application
- Manufacturing
- State & Local

+ the latest Oracle Technology & Apps

- CX
- Internet of Things
- Analytics/Visualization
- AI
- AR/VR
- Blockchain

Oracle Energy and Water Partners



Innovation – Not a Museum Piece

Using augmented reality in field



Accelerating remote asset Inspection



Settle the Argument

—
Your quiz for the day



Go to www.menti.com and use the code 7273 0388

What side of the water-energy topic needs innovation first?

 Mentimeter



- 1st | Customer
- 2nd | Operations (Plant, etc)
- 3rd | Other



You convinced me! What's next?

- Define what you want to solve for first
- Speak to your account team or to Maria/ Jack
- Let's innovate together!



Thank you



Come Innovate With US!

Maria.DeChellis@oracle.com

Jack.Lucy@oracle.com

