# WELCOME

Facilities, Energy and Water

Presented by Gary Wong, Industry Principal, Water

David Doll, Industry Principal, Facilities & Energy Management

WELCOME!!

Reliability
Millions of Streams
Real-time
Visualization CBM Scalability
Asset Framework PI System Analytics Quality
IoT Connectivity Sensor-based Data Big Data
Infrastructure High Speed Business Transformation
Security Connected Services
Operational Intelligence Regulatory Compliance
Enterprise Agreement Business Impact
Enterprise Process Operational Efficiency
Time Series Event Frames Future Data
Energy Management Streaming Data Open System
Asset Health Safety

Performance over time

Scheduled Maintenance

Efficiency (%) — Time
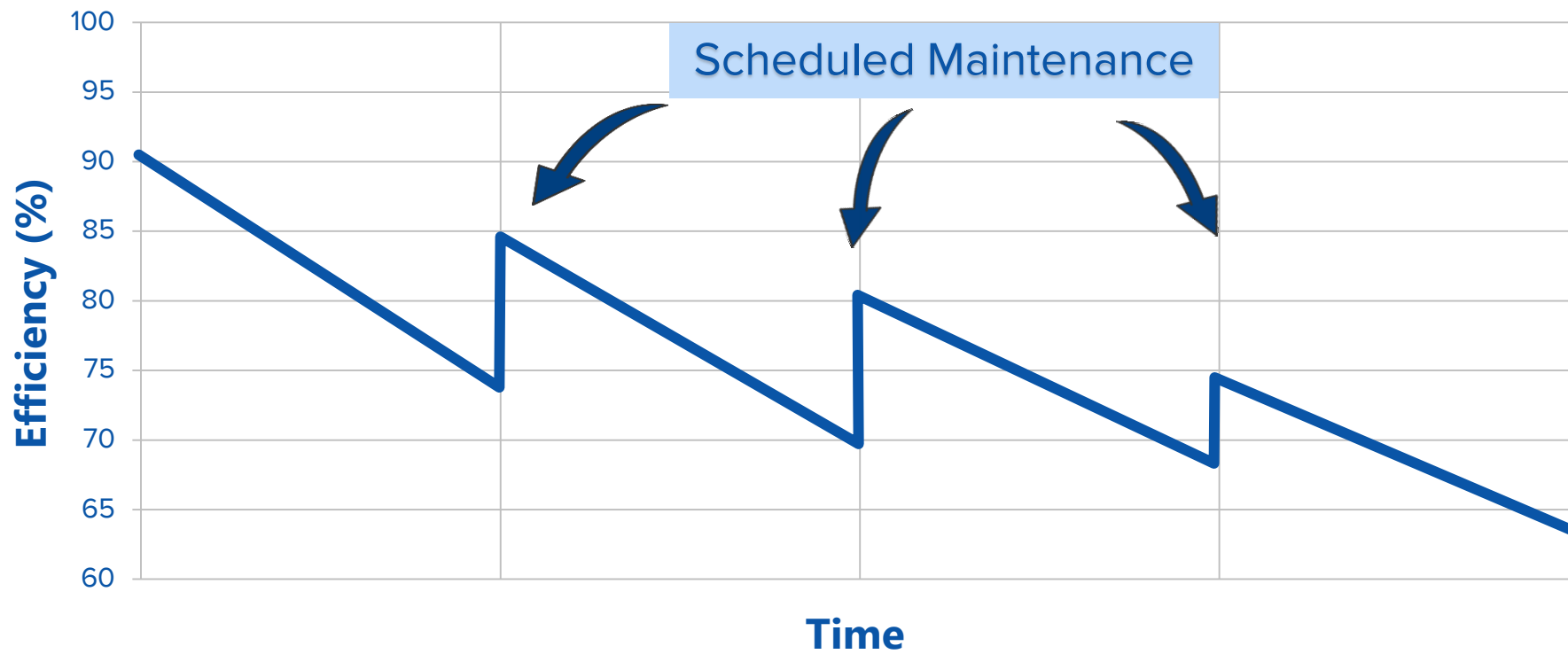
Are you treating Energy and Water as a Fixed Cost or a Variable Cost?
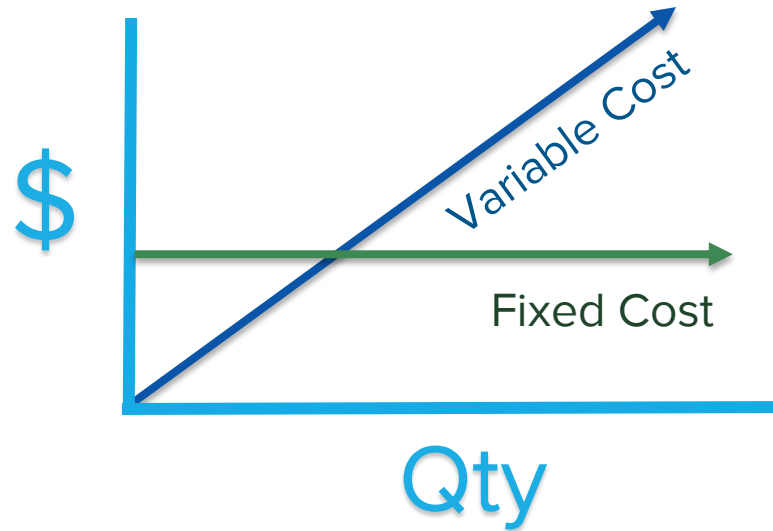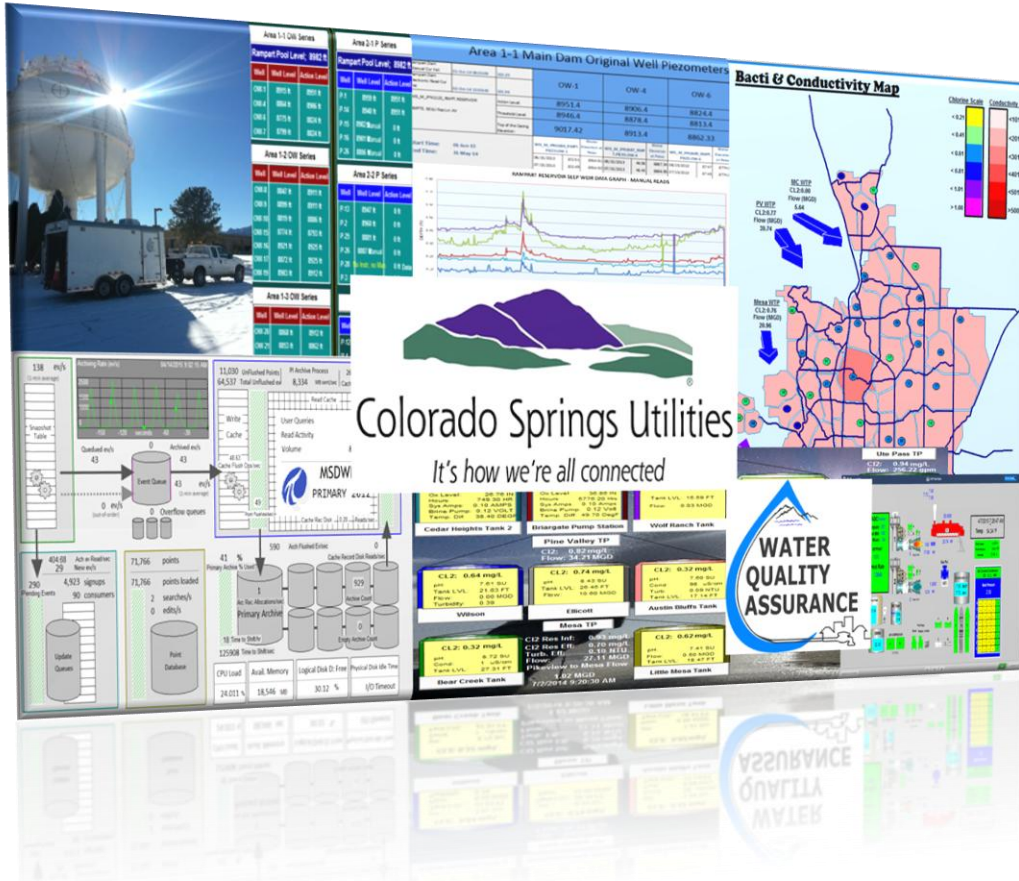
A sneak peek….

David Mora, Jeannette Ortiz Colorado Springs

Improving Business with Operational Intelligence

- A 4-Service utility

- Ensuring water quality and optimal distribution

- Realizing 58% reduction in overtime
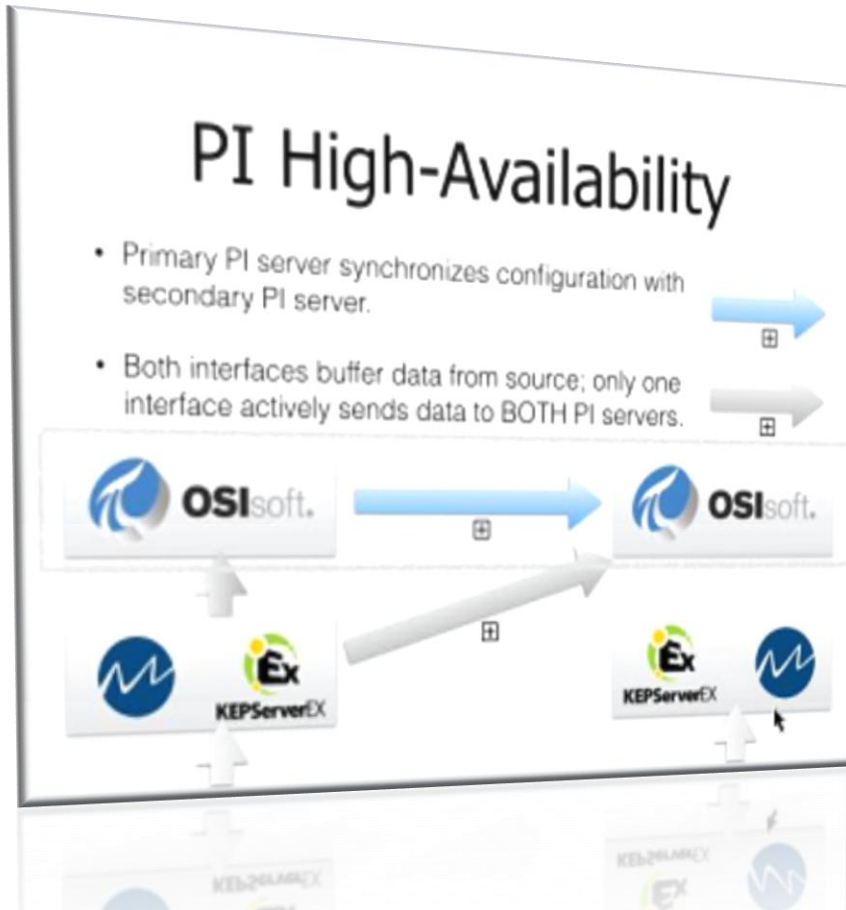
- Meeting FERC reporting requirements

Paul Van Buskirk, Genentech
Oliver Yu, Zymergi

Facilities Energy Optimization and Alarm Management

- Replacing a limited, fault-prone system

- "Why the PI System" for the new vision

- Utilizing HA and the OSIsoft partner network to create a reliable architecture

David Phillips, David Trombly
UC Davis

Maximizing the Value of Each Existing Meter

- Getting more insight rather than installing more meters
- Using Machine Learning for real-time analysis
- Getting the whole campus involved in water conservation

Steve McCormack
City West Water

Data Driven Decision Making

- Verifying water purchases

- Reducing non-revenue water

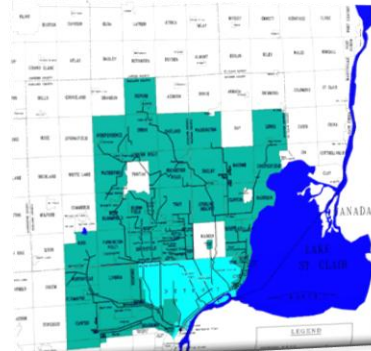- Realizing 7–12% target energy savings

Ilfat Maatouk, Betty Thomas
Detroit Water & Sewerage

Operational Intelligence in your Water Supply

- Reaching $500,000 in savings last 3 years

- Automated reporting providing quicker insight

- Real-time dashboards for better decision making

GIS | Integrates All Types of Geospatial Information

James Sullivan
Esri

Spatially Enabling Your Real-time Facilities Data

- We all use maps; friendly and familiar

- Integrate your building and utility data into maps

  - Manage your portfolio

  - Improve Operations

  - Ensure Security
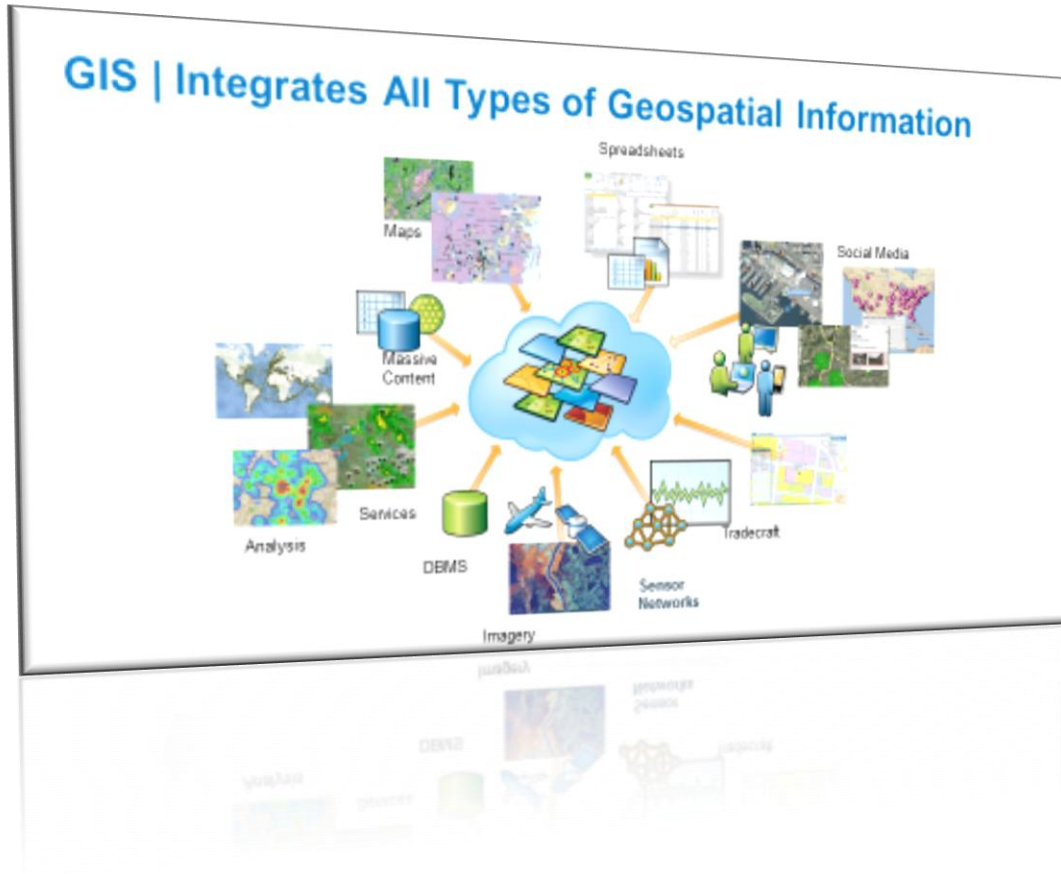
Marvin Wong
Secure Energy

Analytics and Excellence in Oil Treatment Facilities

- Moving from Qualitative to Throughput analytics

- Increased capacity with better performance

- Realized payback in less than 3 years

DCIM as a Service according to CLARIDION

Salvatore Cimmino, Claridion
Rémi Duquette, Maya

Data Center Operational Excellence as a Service

- Global market growing to $3 billion by 2017

- Optimizing resources; preventing downtime

- Bridging control systems and IT systems

- Real-time insight using the cloud for DCIM as a Service

Sequoia Parameters

- IBM Blue Gene*/Q architecture
- 98,304 nodes
- 1,572,864 cores
- 20 PF, 3rd on Top 500 – June 2013
- 96 racks
- 91% liquid cooled
- 30 gpm/rack at 62 F
- 9% air cooled
- 1700 cfm/rack at 70 F
- 4800 square feet
- *Copyright 2013 by International Business Machine Corporation

Ghaleb Abdulla, Anna Maria Bailey and John Weaver
Lawrence Livermore Nat Lab

Monitoring Energy and High Performance Computing

- Currently the third largest super computer in the world

- Small changes create a big impact on energy efficiency and consumption

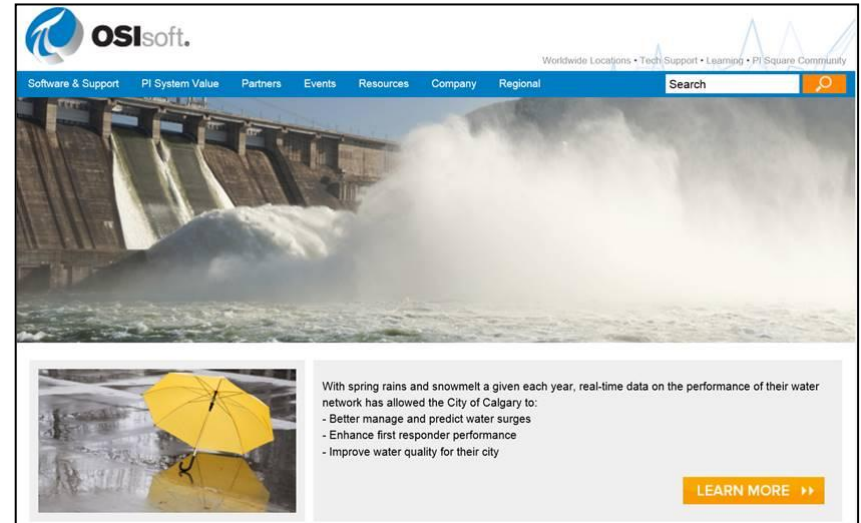- Need to manage load to avoid causing problem on the larger utility grid

THANK YOU

Want more information?

www.osisoft.com/corporate/facilities

www.osisoft.com/city-of-calgary.aspx

THANK YOU