Clockworks™
Automated Insights for Smarter Facilities
CLOCKWORKS
ANALYTICS

Facilities organizations face expanded energy, operational efficiency, and reliability goals while aspiring to realize visions for analytics, IoT, and remote management under constrained budgets and staffing. Technology can help.

80%

Of equipment fail for non-age-related reasons, such as insufficient maintenance

40%

Of employees report uncomfortable conditions, too hot, too cold, blowing air...

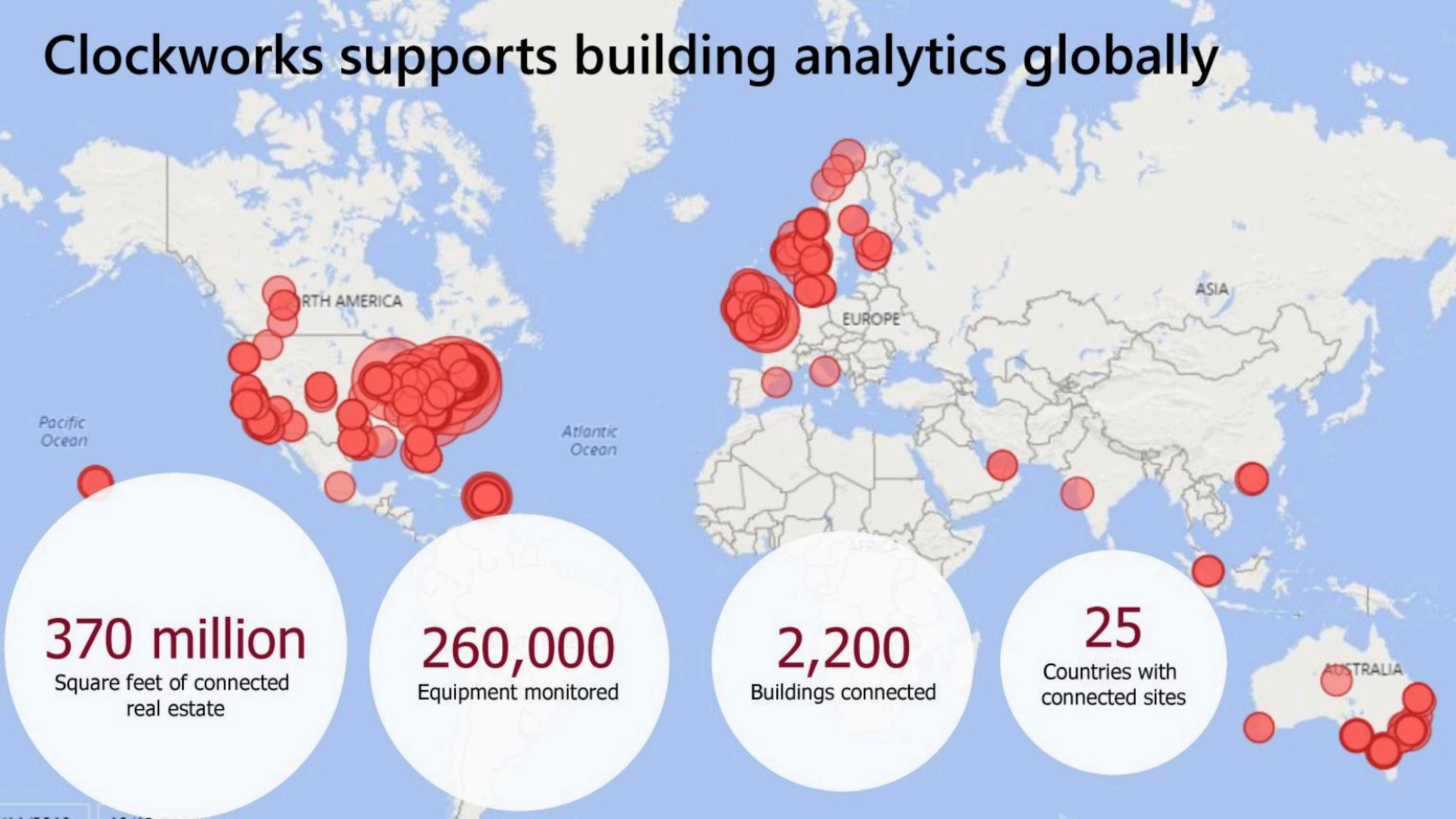
20%

Energy and operational expenses could be saved using predictive maintenance

CLOCKWORKS
ANALYTICS

We empower facilities teams to run smarter buildings with data-driven proactive maintenance

Clockworks supports building analytics globally



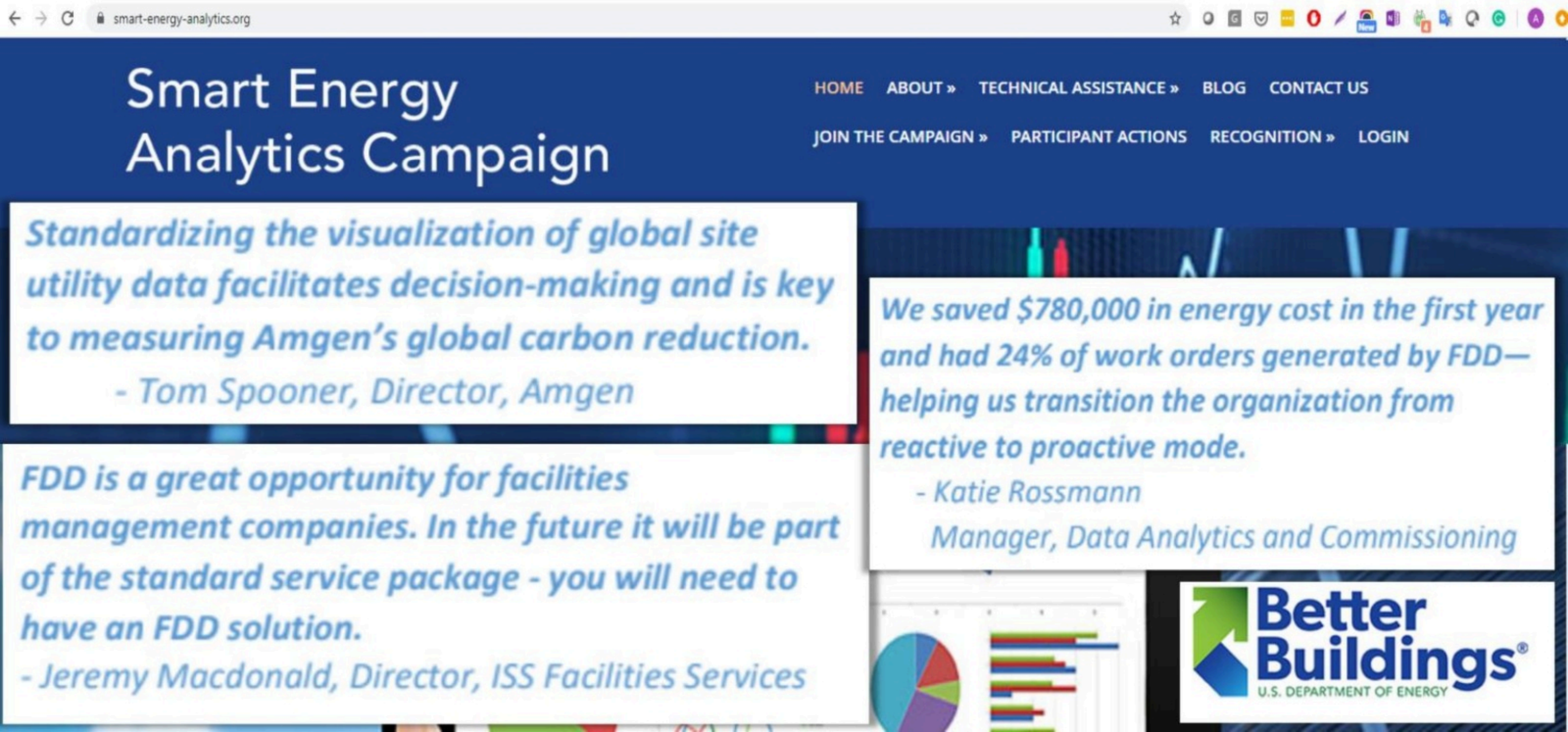
370 million
Square feet of connected real estate

260,000
Equipment monitored

2,200
Buildings connected

25
Countries with connected sites

Our Customers were awarded all of the DOE FDD awards in 2019



The Big Picture – How Facilities Leaders are Realizing Benefits

Reduce energy cost & achieve sustainability goals	Reduce energy cost, energy consumption, and carbon impact by finding and fixing issues otherwise unseen
Increase operational efficiency	Allocate maintenance resources towards prioritized issues to achieve cost and resource efficiency
Improve system reliability	Proactive, condition-based maintenance to extend equipment life, improve comfort, and manage risk

Client Results: Energy Prioritization Reducing Energy Cost and Consumption

Completed Tasks

1114

Annual Projected Task Savings

$1,640,683

With Comfort Impact

472

With Maintenance Impact

922

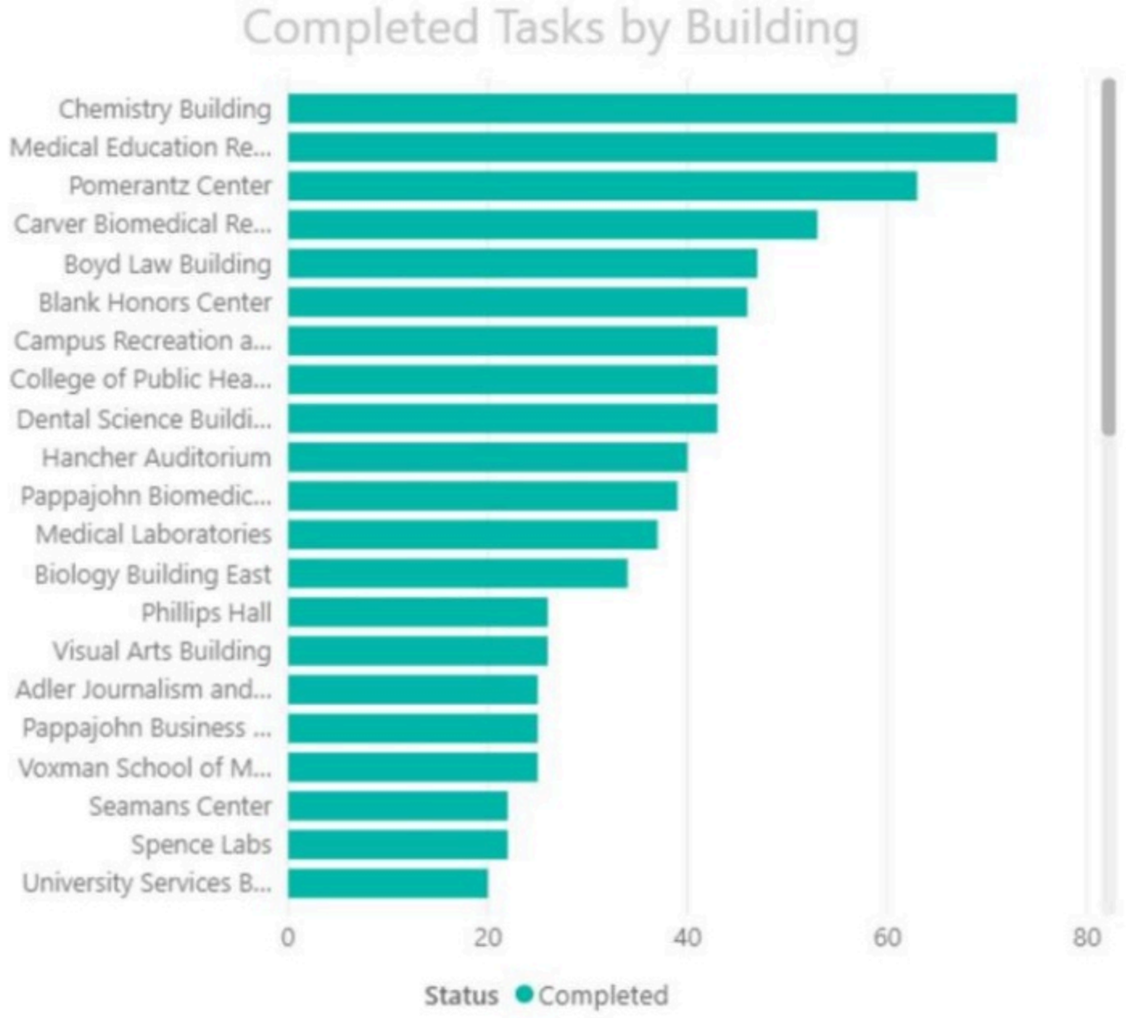
With Energy Impact

249

With calculable savings

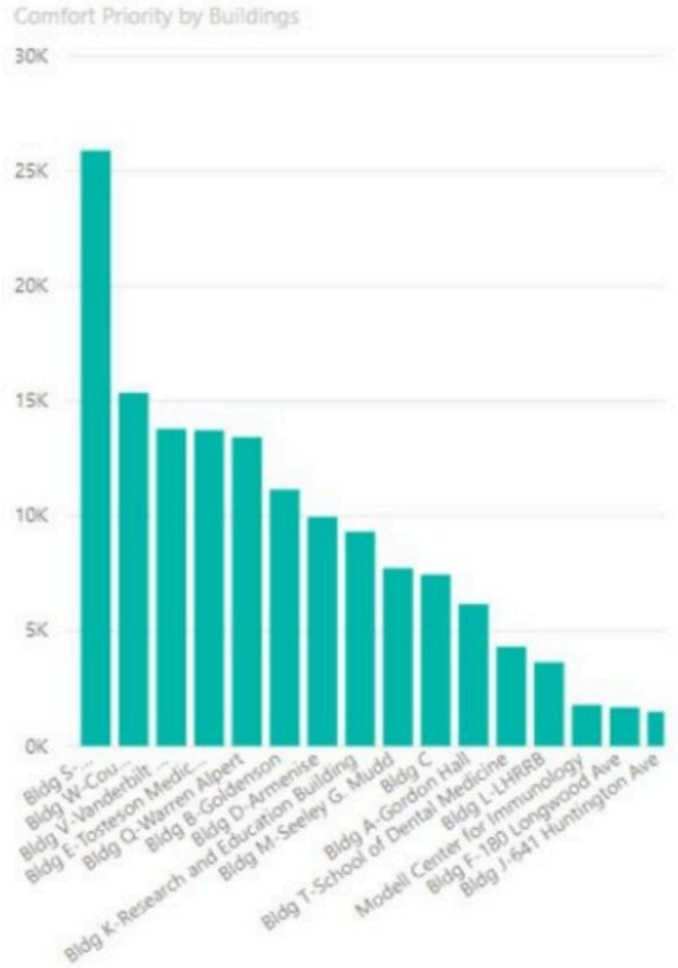
205

With non-calculable savings



Fault prevalence informing maintenance priorities and capital budgets

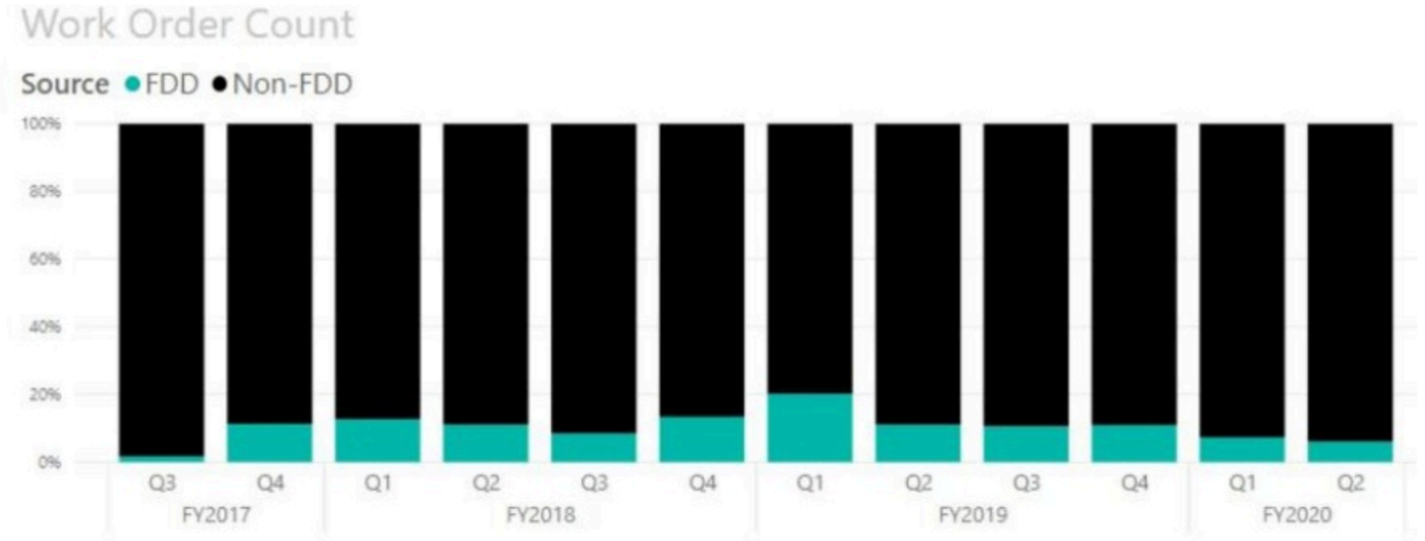
Buildings	Comfort Priority	First Dia...
Bldg S-New Research Building	25893	
Bldg W-Countway Library	15357	
Bldg V-Vanderbilt Hall	13788	
Bldg E-Tosteson Medical Education Center	13729	
Bldg Q-Warren Alpert	13430	
Bldg B-Goldenson	11151	
Bldg D-Armenise	9960	
Bldg K-Research and Education Building	9323	
Bldg M-Seeley G. Mudd	7733	
Bldg C	7453	
Bldg A-Gordon Hall	6170	
Bldg T-School of Dental Medicine	4316	
Bldg L-LHRRB	3641	
Modell Center for Immunology	1783	
Bldg F-180 Longwood Ave	1683	
Bldg J-641 Huntington Ave	1490	
Total	**146900**	



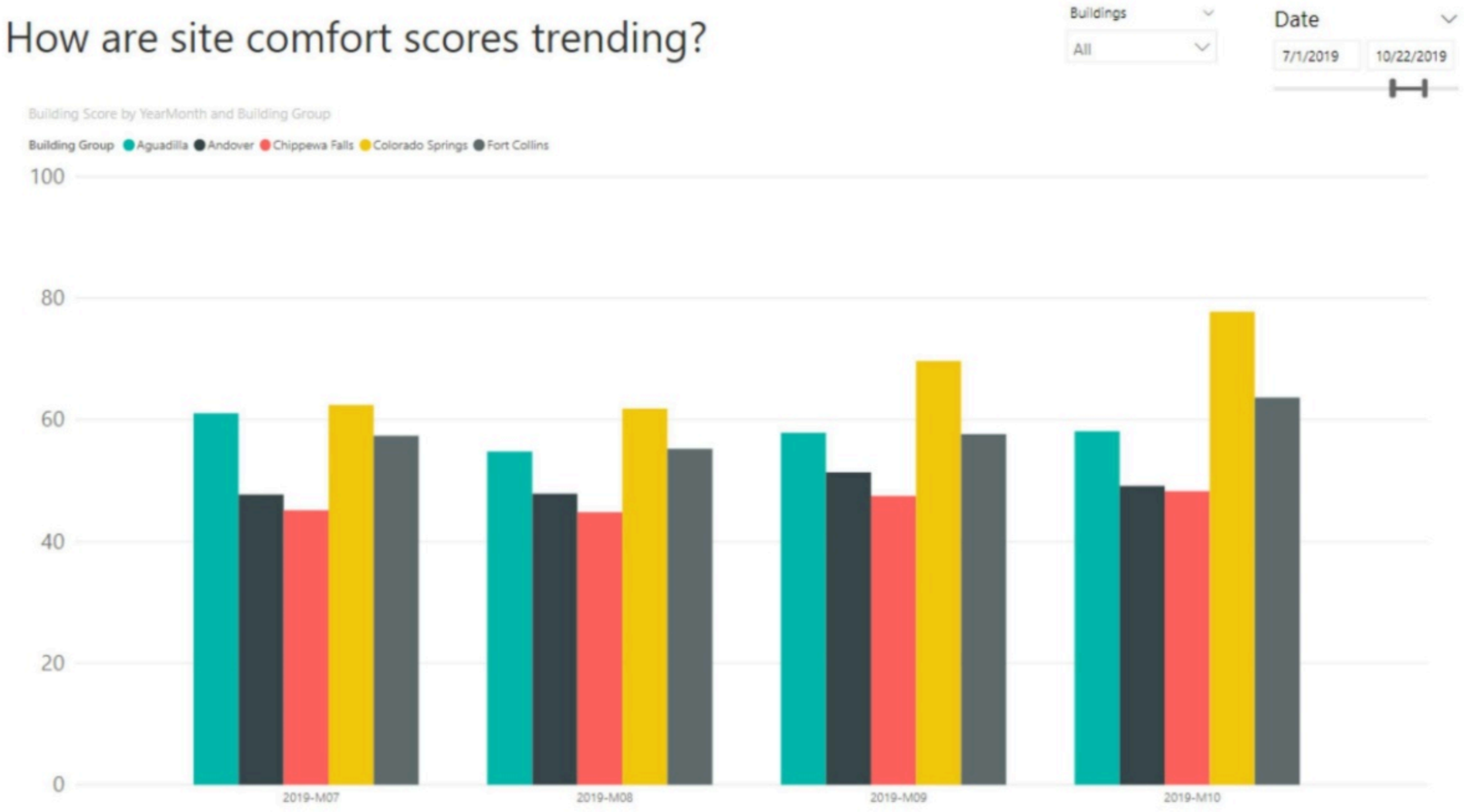
Faults

Result	# Results
Room air temp higher than setpoint	8906
Sensor error (flat)	6133
Room air temp lower than setpoint	4690
Zone occupied, AHU off	4191
Supply flow below minimum	3968
Missing information: fan hp, fan flow	3462
Flat sensor error	3374
Stuck cooling valve	3127
Stuck heating valve	2163
Data quality flag	1800
Sensor error or flow reversal	1153
Room air temp not tracking setpoint	725
Missing information: AHU fan rated HP/flow	696
Setpoint was zero	692
Supply fan status data mismatch	688
Heating and cooling setpoints close together	659
Zone fan on while unoccupied	614
Zone supply air temperature short cycling	584
Stuck zone supply damper	483
Leaking heating valve	454
Simultaneous heating and cooling	425
Fan status data mismatch	410
Exhaust flow above maximum	385

Condition-based maintenance reducing reactive and scheduled maintenance



Fault Data creating comfort metrics to hold facilities vendors accountable



Success Story: $1,800,000 savings across five sites at a top-tier pharmaceutical company

A Fortune 500 biotechnology company operating five campuses in three different countries needed automated analytics to drive a smart and integrated facilities program and achieve energy goals.

IMPLEMENTED GLOBALLY

6 global locations

90 buildings

8.1 million square feet

9,900 equipment connected

15 million daily points

TRANSFORMATIVE IMPACT

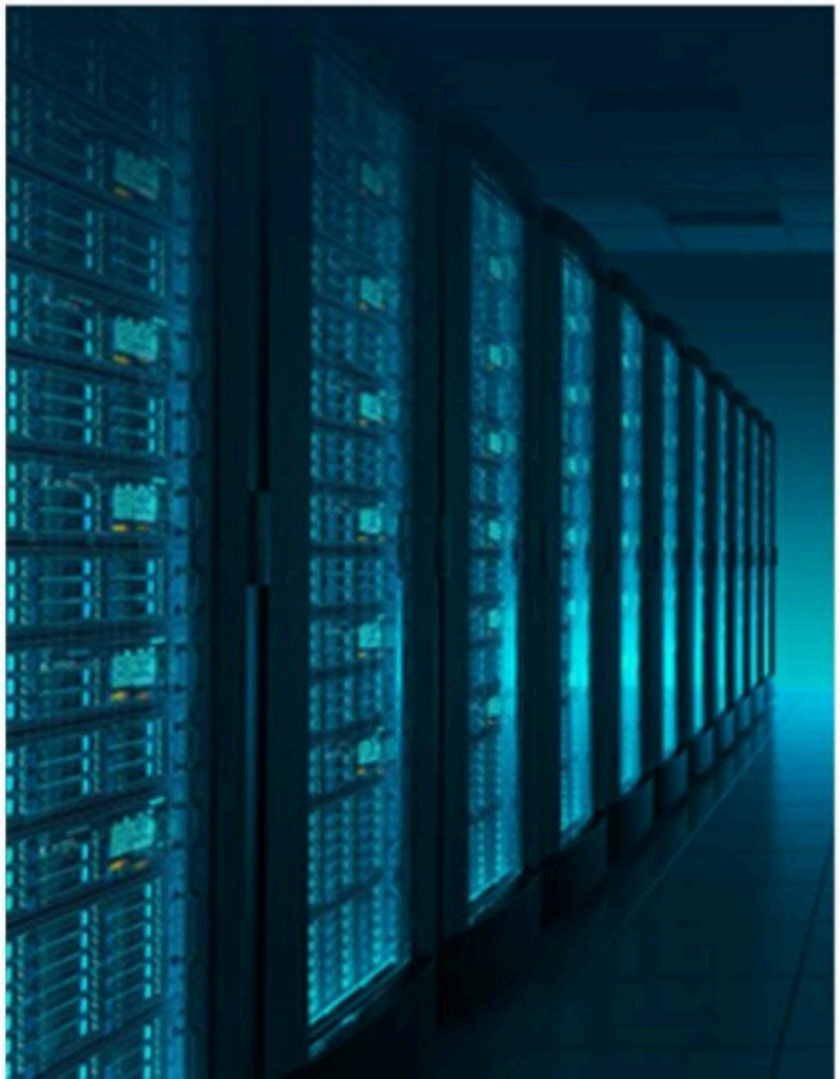
Centralized operations center serving global portfolio

$1.8M savings in the first two years

$5M savings to date

International award for innovative energy project

Success Story: Fault detection transforms facilities at a global information technology company



A global technology company implemented fault detection to enable predictive maintenance and energy savings using their global facilities management services provider.

NATIONAL ROLLOUT

5 sites

15 buildings

2 million square feet

4,400 equipment connected

8.6 million daily points

Link to success story

FUTURE FACILITIES MANAGEMENT

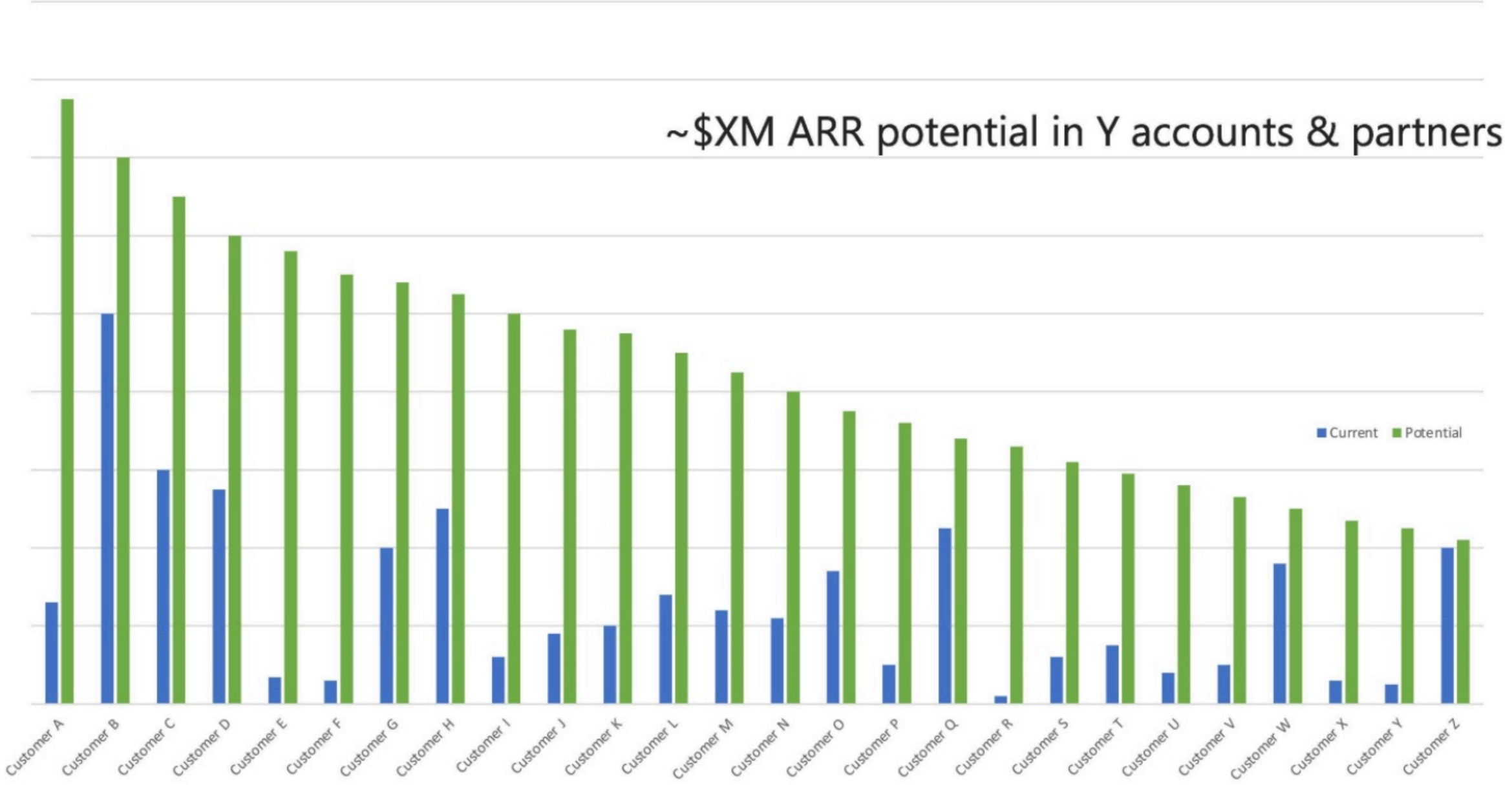
Integrated into facilities management provider service

Reduced hot and cold calls

9% energy savings

Awarded for innovation by the US Department of Energy backed Smart Energy Analytics Campaign

ARR Expansion Potential



The market is big and our momentum is strong

$11B
Building Analytics market emerging according to industry analysts

Redacted
ARR under contract

50%
2018-2019 YoY Revenue growth

$7M
Expansion ARR potential in 27 largest enterprise accounts alone

Service Partners Powered by Clockworks

A New Way To Do Business	Include Clockworks in your standard or premier service offering
Value Add	Building Control Services, Mechanical Services, Energy Services, Facility Management, Commissioning
Vision	We work with you to help your customers understand the transformation in facilities processes and the outcomes in creates