

The Business Council and NYSERDA Webinar Series:

# Building Operational Intelligence

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*Patty Mulholland* McDonald's



**The  
Business  
Council**



**NYSERDA**

*July 26, 2019*



# REAL TIME ENERGY MANAGMENT

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Energy Management Technologies for  
businesses in New York State



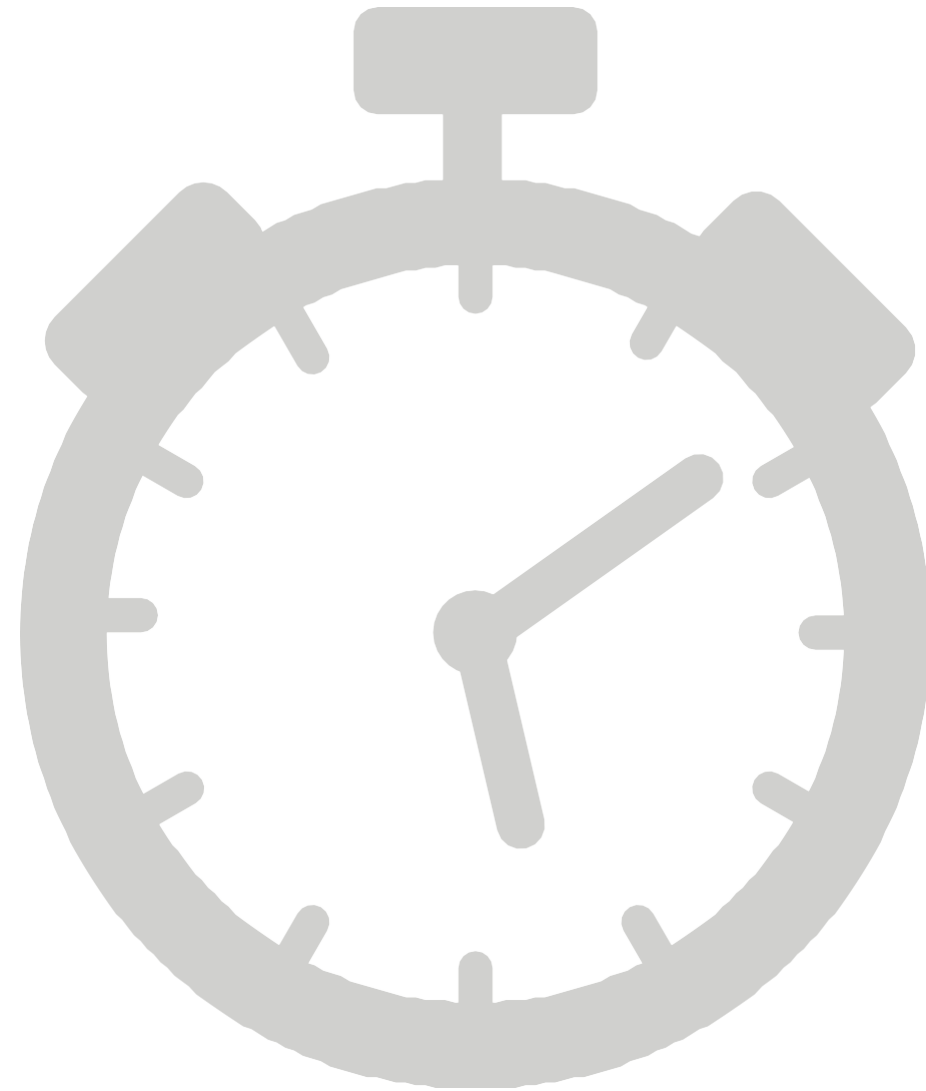
# THE PROBLEM – HIGH ENERGY COSTS

- What is causing high energy costs in your buildings?
- What can be done to control costs and improve performance?

HOW CAN  
REAL TIME ENERGY  
MANAGEMENT  
WORK FOR YOU?

# REAL TIME ENERGY MANAGEMENT

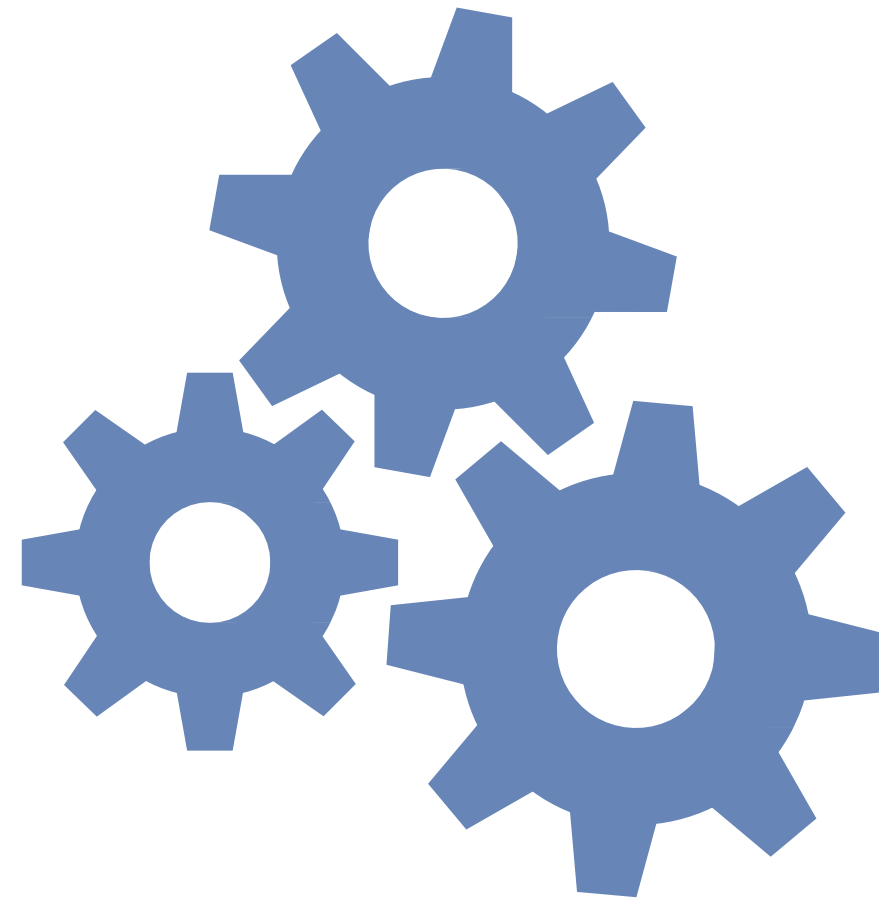
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*Current, continuous and historical view of building operational data.*

# REAL TIME ENERGY MANAGEMENT

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*Optimizing the use of energy to maximize performance and improve the competitiveness of your business.*

THE



SUITE



HARDWARE

SOFTWARE

SERVICES



A modern office interior with desks, chairs, and plants. The scene is dimly lit with a blue tint. In the foreground, there are several potted plants on metal stands. In the background, there are desks with computers and people walking. A staircase is visible on the right side.

CONNECT. COLLECT. CONTROL.


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*Data and connectivity are the core of real time energy management*









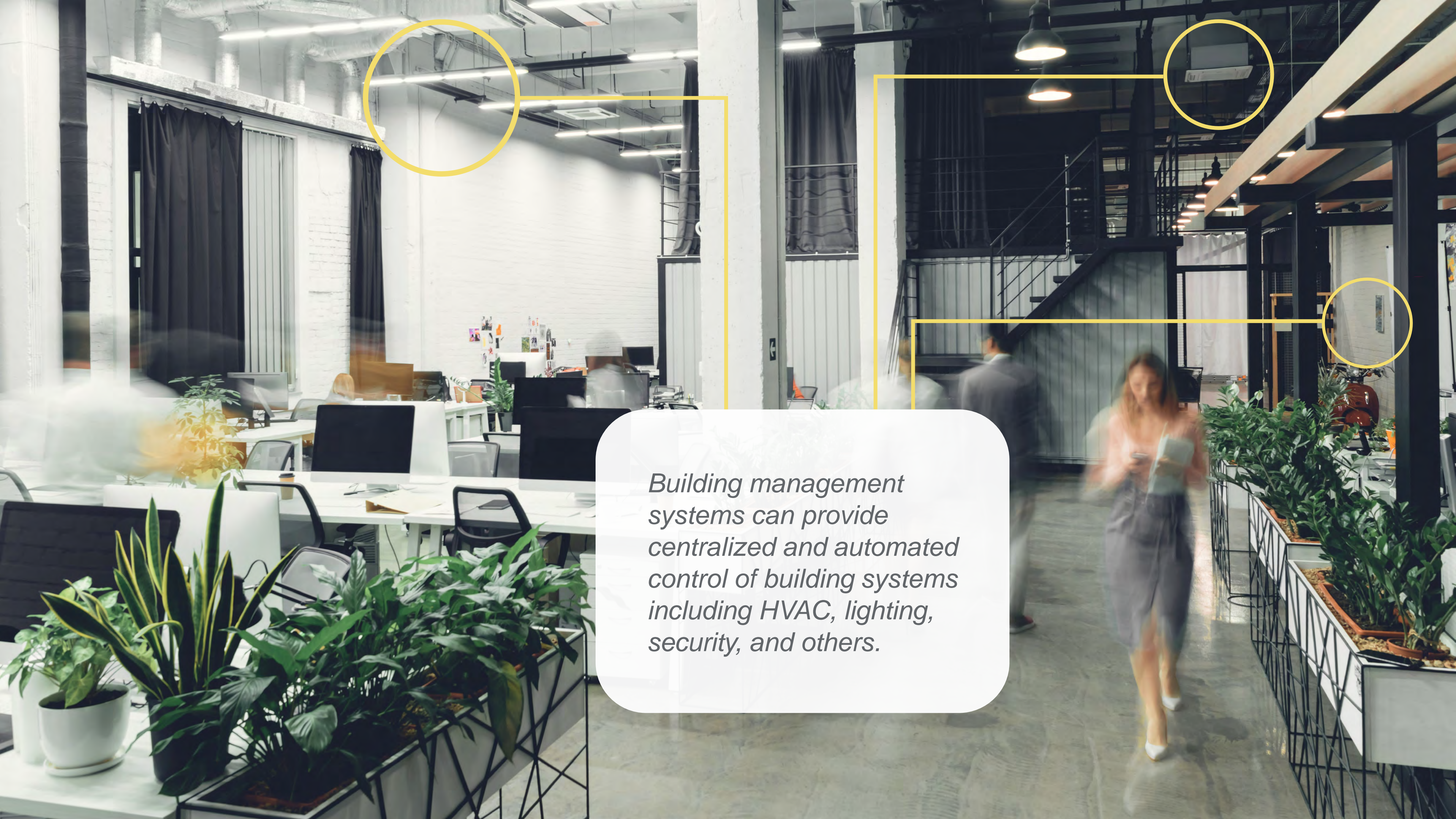
*Sensors and thermostats can provide data on temperature, pressure, occupancy, and air quality.*





*Smart meters and lighting monitor energy use from building electric systems and other building utilities.*





*Building management systems can provide centralized and automated control of building systems including HVAC, lighting, security, and others.*





# RTEM

*Real time energy management connects these data points and controls into a comprehensive, cloud-based building operating system.*



SAVE ENERGY. SAVE TIME. SAVE MONEY.

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*Smart building management benefits building owners, staff, and occupants.*



# ENERGY BENEFITS

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Reduce energy waste



Avoid on-peak  
consumption and  
demand charges



Ongoing  
Commissioning





## ENERGY BENEFITS

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- Optimize scheduling and use of building equipment and plants
- Monitor building equipment performance to detect issues and identify energy efficiency opportunities
- Energy savings achieved can range from **10% to 30% annually**
- Reduce on-peak energy consumption



# FINANCIAL BENEFITS

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Capital planning



Operational  
Efficiency



Risk management





## Financial Benefits

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- Automate scheduling and management of building equipment based on data analytics and forecasting
- Prevent equipment issues before they happen
- Better information for third party maintenance staff
- Greater certainty of current and future energy costs



# OCCUPANT BENEFITS

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Wellness, comfort,  
& productivity



Occupant behavior  
change



Attract and  
retain tenants



# CASE STUDY – McDonald's



## Project Background:

- Managing expenses is central business strategy for restaurants
- The Colley Group, a large NY based franchise, struggled to minimize energy costs, their 3<sup>rd</sup> largest business expense
- The franchise's energy costs were rising, driven in large part by demand charges on their electric utility bill
- McDonald's has ambitious sustainability goals, but local franchisees operate on thin margins with limited capital, so any effort to go green has to have a bottom-line focus



# CASE STUDY – Project Details

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- Partnered with JouleSmart Solutions
- No upfront cost to Franchise Operator
- Installed a Building Management System with central control at franchise HQ
- Lighting retrofits, including parking lot
- Installed Variable Frequency Drives (VFD) on heating/cooling units
- Smart thermostats integrated with the Building Management System
- Fault detection capabilities keep an eye on mechanical equipment



# Questions for Patty

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- Why did you decide to do this project?
- What was the process of installing this project like?
- What did you learn? Any advice for the audience?
- What did the ROI look like?
- Has the project reduced your energy costs?
- Any other benefits from this project?



# PARTICIPATE IN THE NYSERDA **RTEM** PROGRAM

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*Find out which real time energy management solution is right for you.*



# PROGRAM DETAILS

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**\$30 million in incentives still available**

**30% project cost share**

**40 qualified, active vendors**

**Our RTEM Advisor is a free, unbiased expert who can help evaluate if RTEM is a good fit for your business**



# PROGRAM PROGRESS

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**\$14 MILLION**

in incentives provided to date



**4 2 5 SITES**

across New York State





# GET STARTED WITH RTEM

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Learn more and connect with a qualified RTEM vendor by visiting:

[nyserda.ny.gov/RTEM](https://nyserda.ny.gov/RTEM)

Have specific questions? Email:

[rtem@nyserda.ny.gov](mailto:rtem@nyserda.ny.gov)





# What's Next

**Clean Heating and Cooling — A Better Way  
to Heat and Cool Your Business**

***Advancing Innovative  
Energy Solutions  
a series of topical energy  
webinars and resources  
for members of the  
Business Council of NYS***



# Resources

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and information

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