



COMMERCIAL BUILDING ENERGY OPTIMIZATION

CHICAGO ADVANCED ENERGY STAKEHOLDER SERIES

Koben Calhoun | September 22, 2016

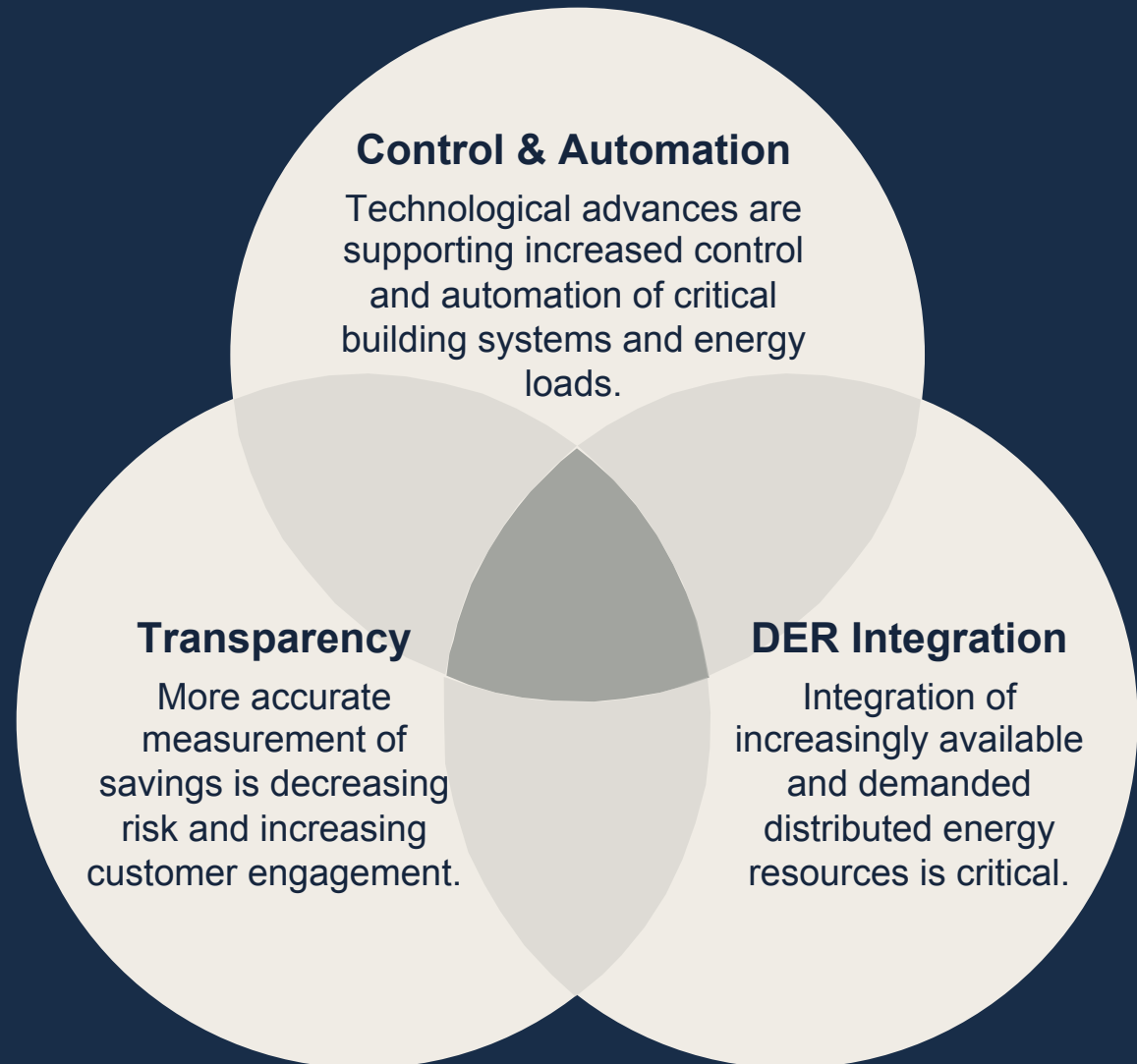


Transforming global energy use to create a clean, prosperous, and secure low-carbon future.

TECHNOLOGY IS ENABLING NEW OPPORTUNITIES IN BUILDING ENERGY OPTIMIZATION

Technology is enabling new and better integration of resources through increased control, automation, and additional transparency.

As a result, there are additional opportunities to optimize the energy use of our existing building stock.



CURRENT LANDSCAPE OF BUILDING ENERGY OPTIMIZATION



Renewable Energy and Storage

Integrating on-site renewable energy and storage to drive additional value

Energy Retrofit Measures

Focus on measures that decrease total energy consumption and increase control & flexibility

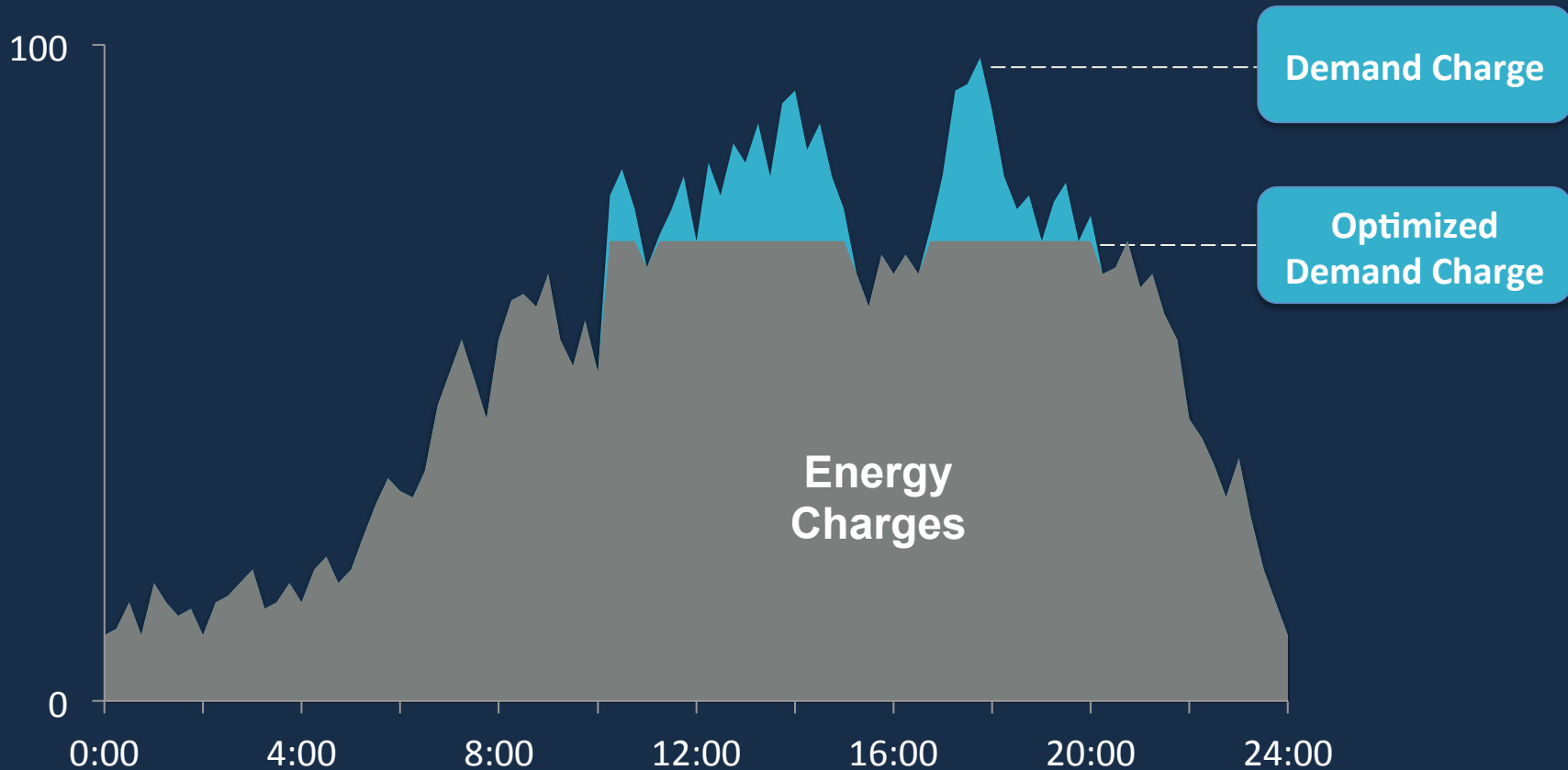
Existing Building Systems

Focus first on low-cost, high return action to bring the building to optimal working condition

Building Energy Management

Implement technology that enables the integration of measures and supports ongoing performance tracking and optimization

BREAKING DOWN THE VALUE OF ENERGY COST SAVINGS



kW

Demand charges

Based on highest 30-minute peak each month



kWh

Energy charges

Based on total amount of energy used

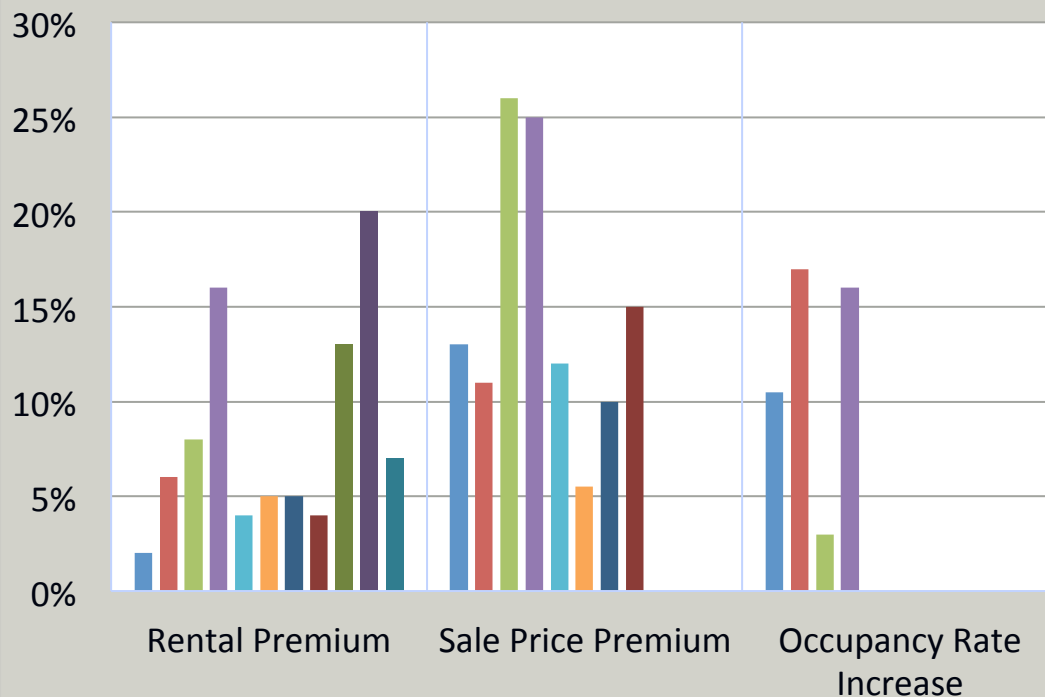


OPTIMIZATION SUPPORTS VALUE BEYOND ENERGY COSTS AND INCREASES CUSTOMER ENGAGEMENT

Interest in high-performing buildings

- **93%** of CEOs view energy performance as a “critical driver” of future business success
- **40%** of corporations have quantified energy targets
- **40%** of corporate shareholder proposals cover environmental/social issues

High-Performance Buildings Driving Increased Value²



¹ UN Global Compact and Accenture, “A New ERA of Sustainability”, 2010. CoreNet Global, The Energy Challenge, 2012.

² RMI analysis (sources available upon request)

INNOVATIVE BUILDING ENERGY OPTIMIZATION IS ADVANCING NEW UTILITY PROGRAMS AND MARKETS

1

Alternative rate design to support changing customer needs

2

A shift to measured performance for energy efficiency

3

The creation of new markets and utility business models



COMMERCIAL ENERGY+

RMI is working to develop tools and processes, and to demonstrate deployment through partnerships and commercial engagements.

Technical Evaluation

Testing technology products to assess specific capabilities and values

Industry Expertise

Developing new methods and standards

Commercial Deployment

Working with large real estate portfolios to test new approaches to building energy optimization



THANK YOU

FOR ADDITIONAL INFORMATION & RESOURCES

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