

Johnson Controls

Creating a more comfortable, safe and sustainable world



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Three global businesses focused on sustainability



Building Efficiency

Commercial/residential systems & equipment

Technical, workplace & energy services

Energy efficiency, comfort and security



Power Solutions

Starting batteries – new & replacement

Hybrid batteries (lead acid, NiMH, Li-Ion)

Battery recycling, reliability and safety

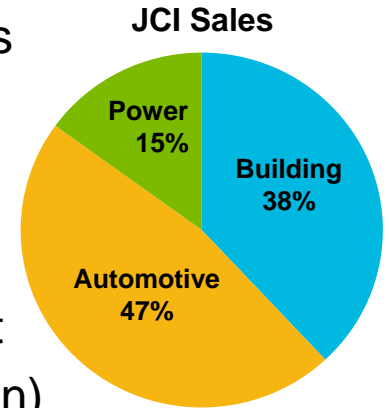


Automotive Experience

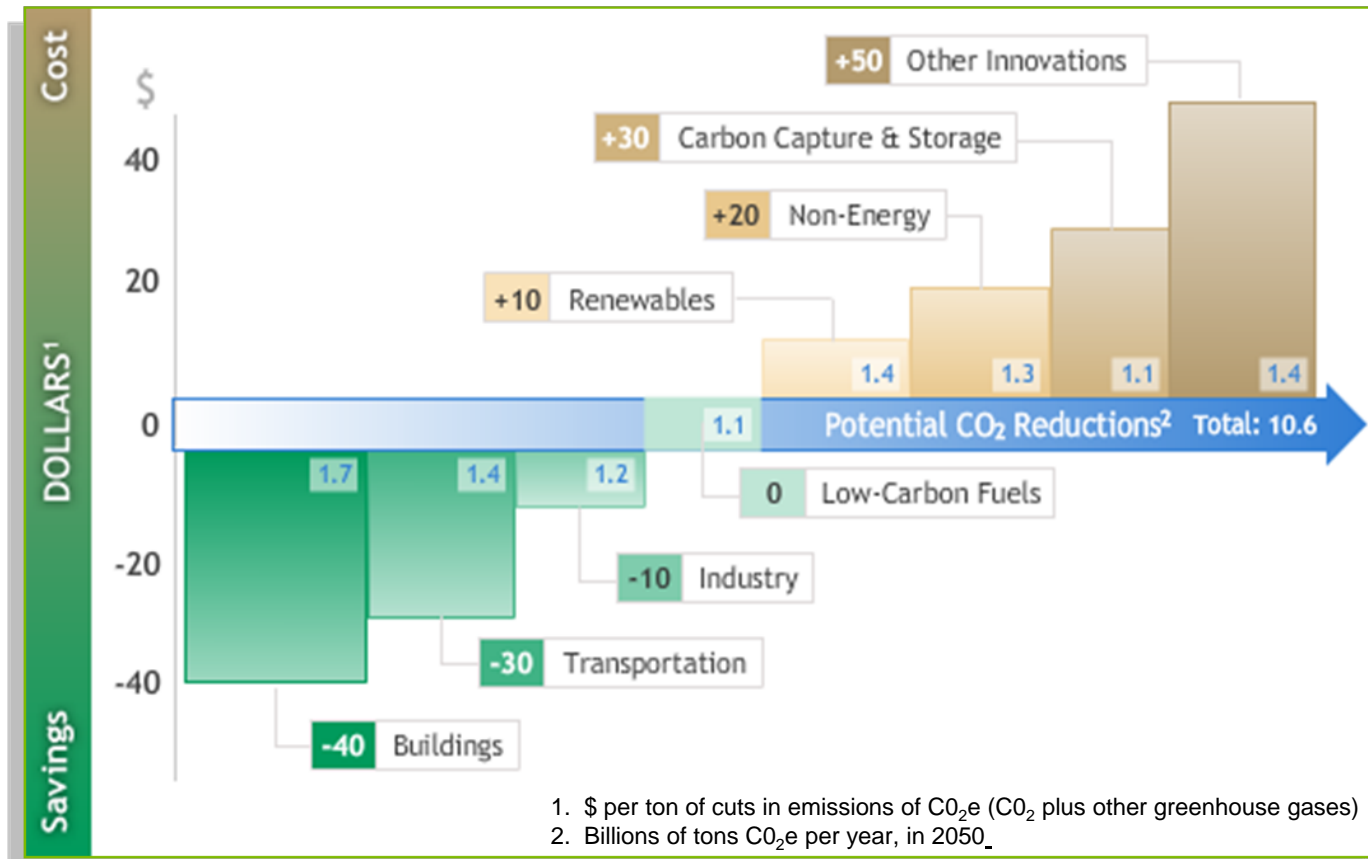
Seating, interiors and electronics

Light-weighting, bio-materials and recycling

Fuel efficiency, comfort and safety



Focused on efficiency in buildings and vehicles



Green actions have a **positive net present value** while avoiding GHG emissions (\$/ton)

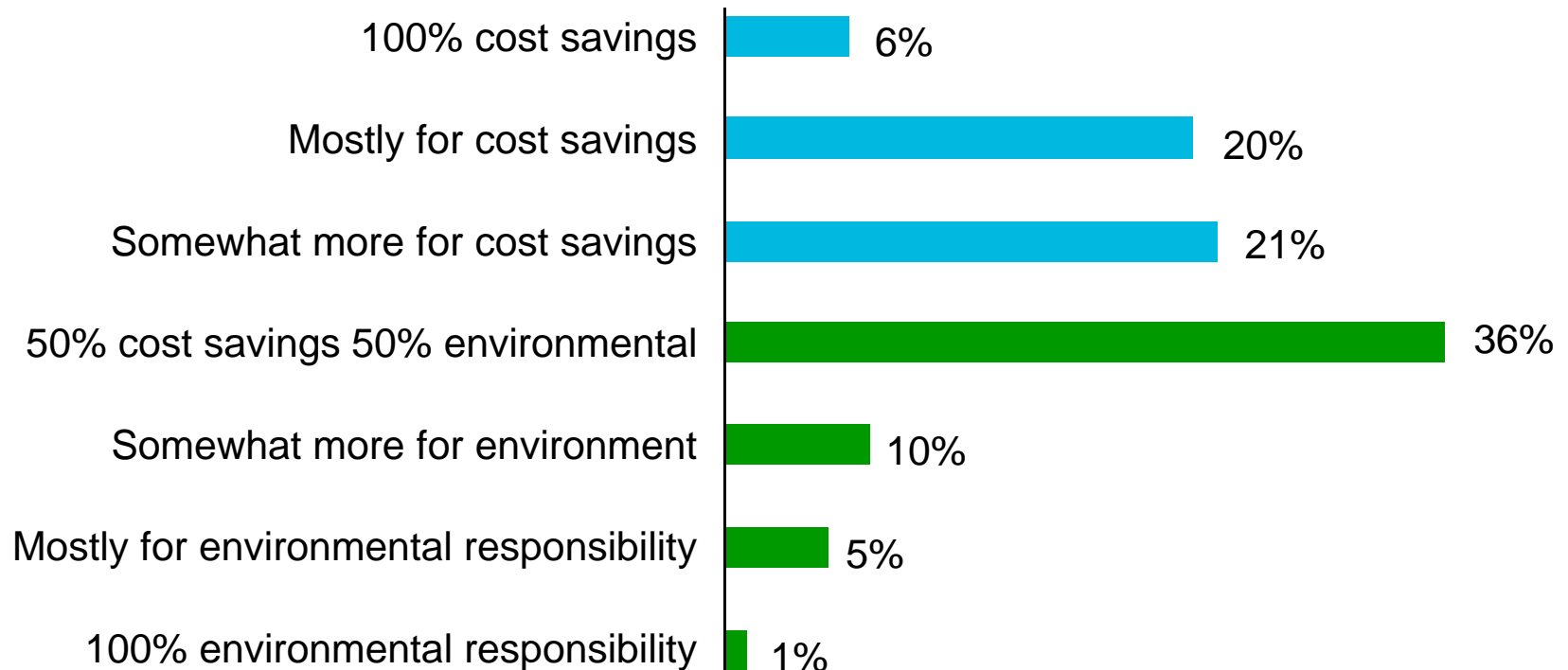
Brown actions have a **negative net present value** while avoiding GHG emissions (\$/ton)

Blue values describe how many **GHGs are avoided in billions of tons per block**

Source: Natural Resource Defense Council (NRDC); extrapolations from McKinsey Global Institute

Business motivation for energy efficiency

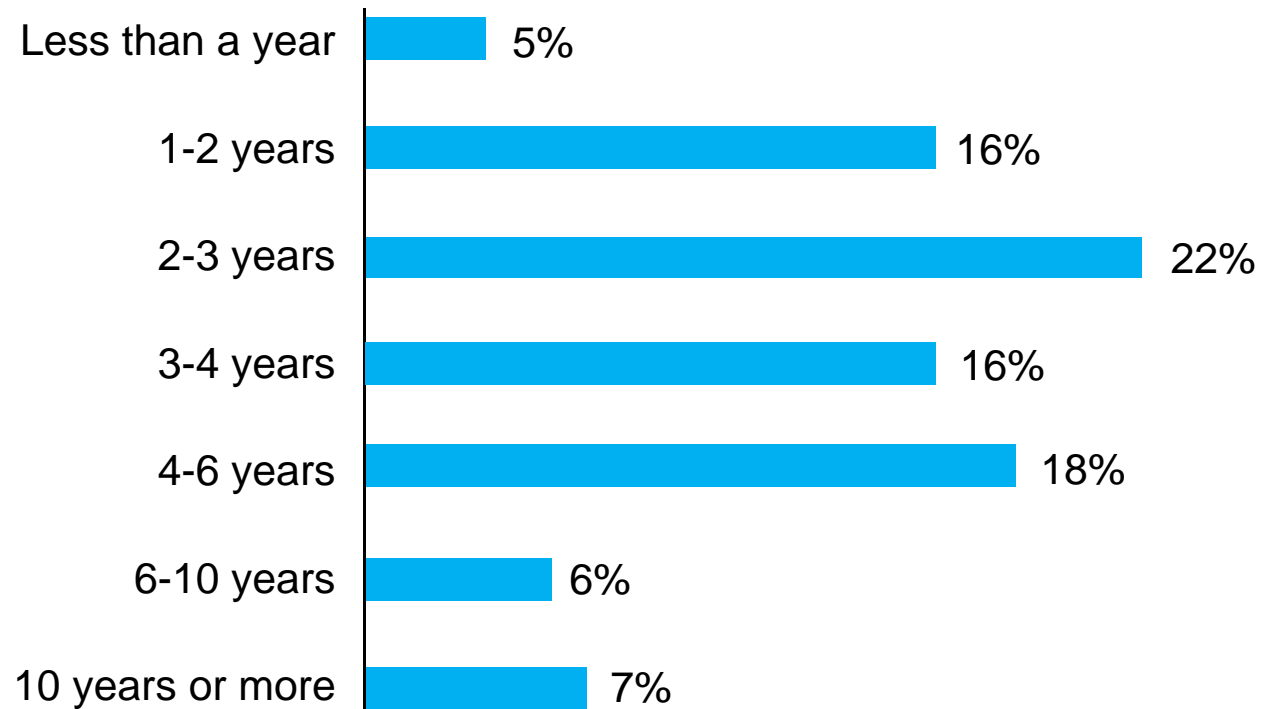
52% of survey participants feel that environmental responsibility is at least as strong a motivator as cost savings



Source: JCI on-line survey conducted in March 2008 of 1145 North American executives/managers responsible for energy management decisions

Payback expectations for efficiency investments

- The average payback expectation is 3.6 years
- 21% allow longer paybacks today than five years ago



Source: 2008 Energy Efficiency Indicator Research Report, Johnson Controls, Inc.

Priorities for energy efficiency investments

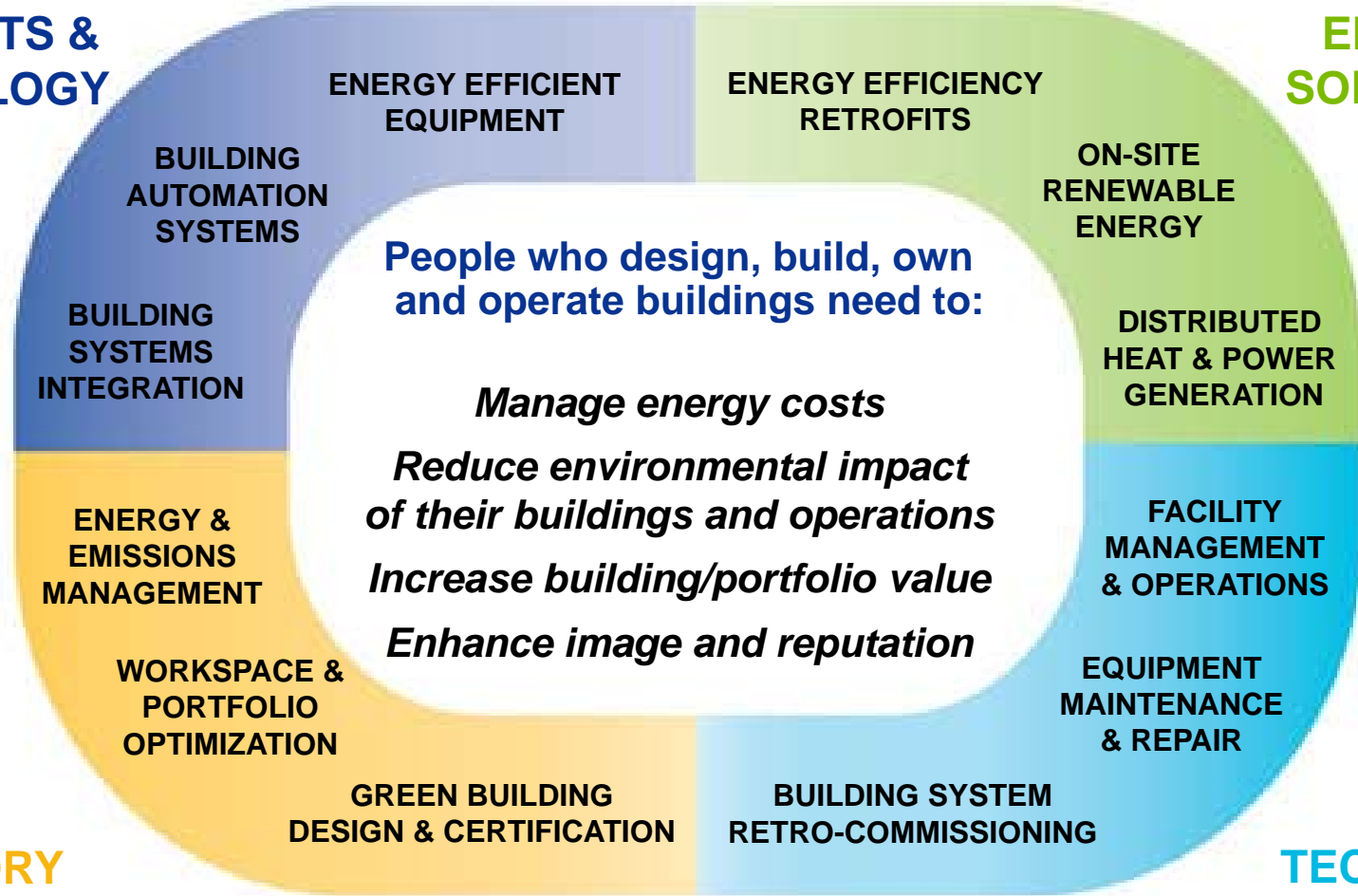
- 20% of participants view energy management as extremely important to their organization (up from 15% last year)
 - 56% expect to make energy efficiency capital investments over the next year (9% of capital budget will be used)
 - 61% expect to fund energy efficiency improvements through operating budgets (7% of operating budget will be used)
 - These improvements are expected to reduce energy consumption by an average 9% per year (up from 8% last year)
 - 78% are installing energy efficient lighting (up from 67% last year)
 - 41% are replacing inefficient equipment before the end of life (up from 28% last year)
 - 38% are considering solar PV in new construction and retrofit projects
 - 60% state that climate change is a significant factor in efficiency investment decisions (28% rated it very/extremely significant)
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Source: 2008 Energy Efficiency Indicator Research Report, Johnson Controls, Inc.

Products and services for building efficiency

PRODUCTS & TECHNOLOGY

ENERGY SOLUTIONS



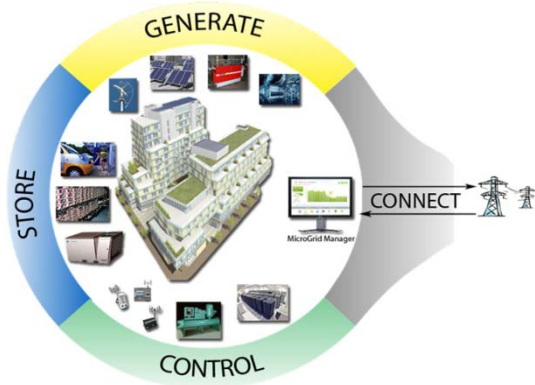
People who design, build, own and operate buildings need to:

- Manage energy costs*
- Reduce environmental impact of their buildings and operations*
- Increase building/portfolio value*
- Enhance image and reputation*

ADVISORY SERVICES

TECHNICAL SERVICES

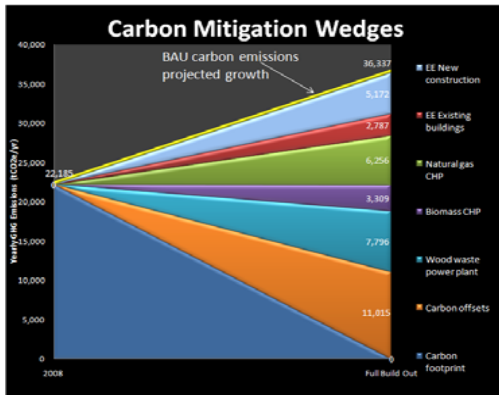
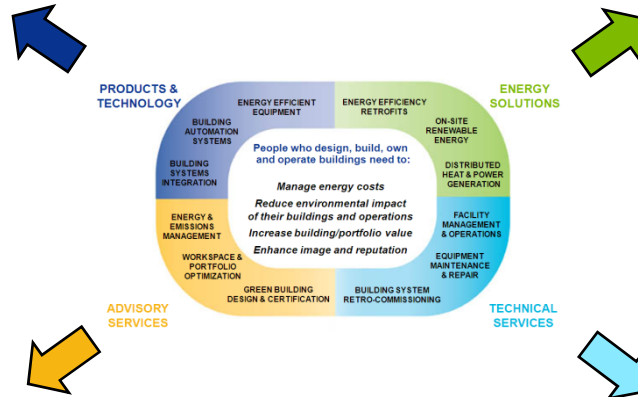
Business solutions for energy efficiency



MicroGrid Management



Net Zero Energy Buildings

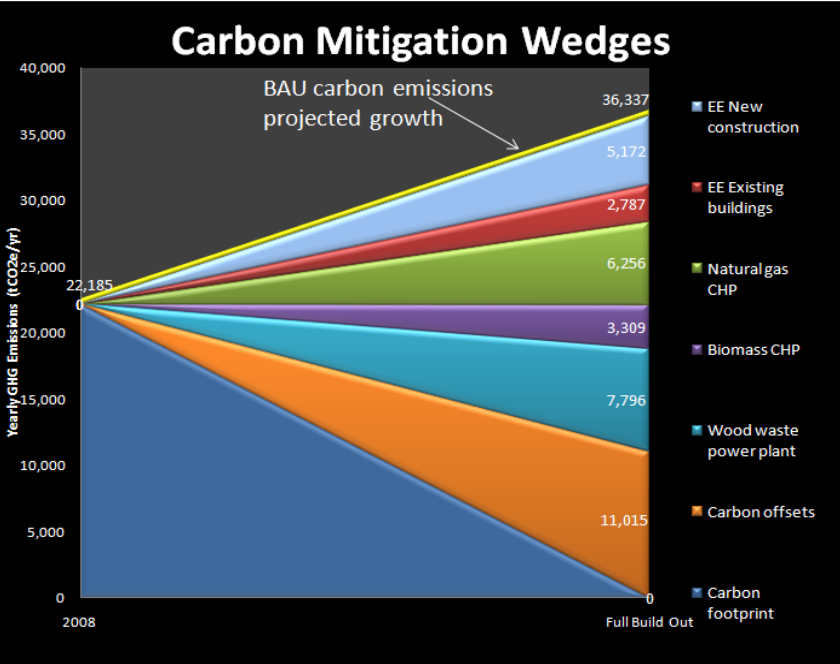


Energy & Emissions Management



Enterprise Data Integration

Efficiency through energy & emissions management



Utilities Consumption

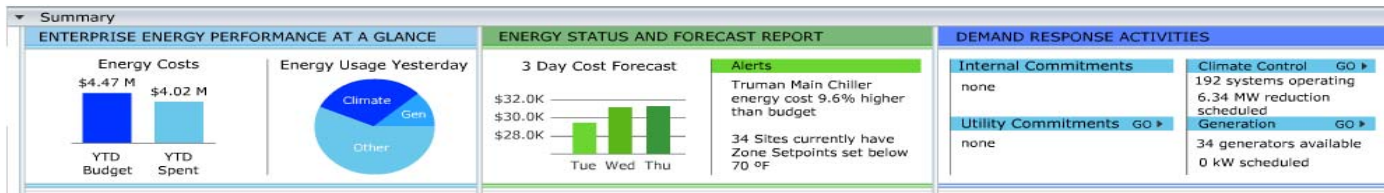
GHG Emissions

Efficiency Projects

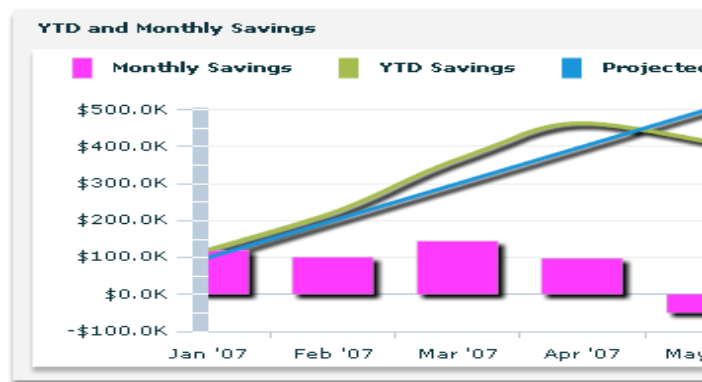
Category	2008	2007	% Change
Electricity	2,733,502	2,353,054	-13.9
Steam	4,528,867	3,999,537	-13.8
Total	7,262,459	6,343,991	-13.8

- Bill Audit, Rate/Tariff Analysis
- Bill Processing & Payment
- Energy Forecasting & Budgeting
- GHG Emissions Reporting
- Enterprise Energy Benchmarking

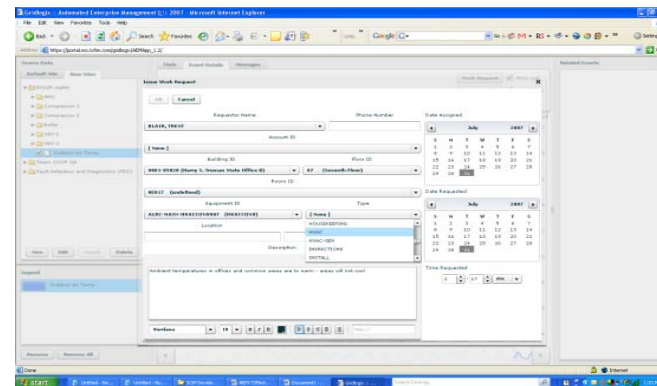
Efficiency through enterprise-wide integration



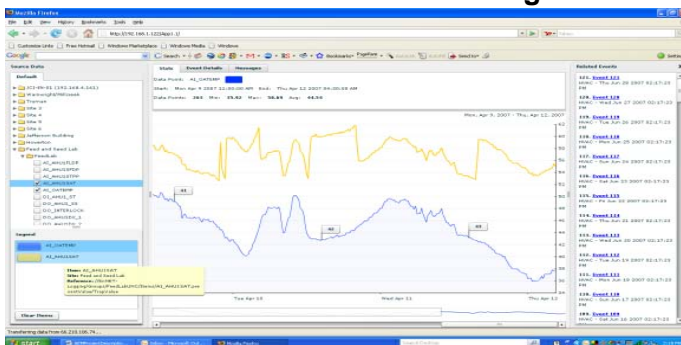
Executive Dashboard



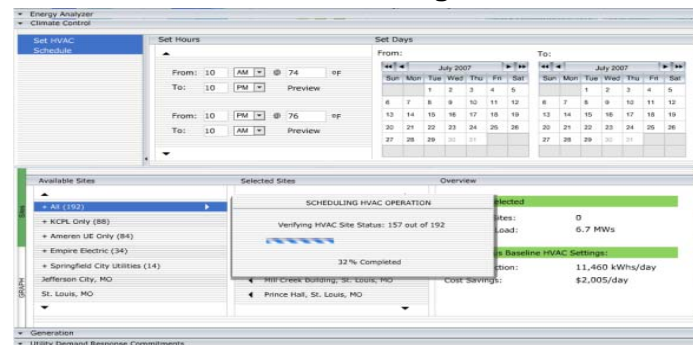
Performance Forecasting



Work Order Integration



Fault Detection and Analysis



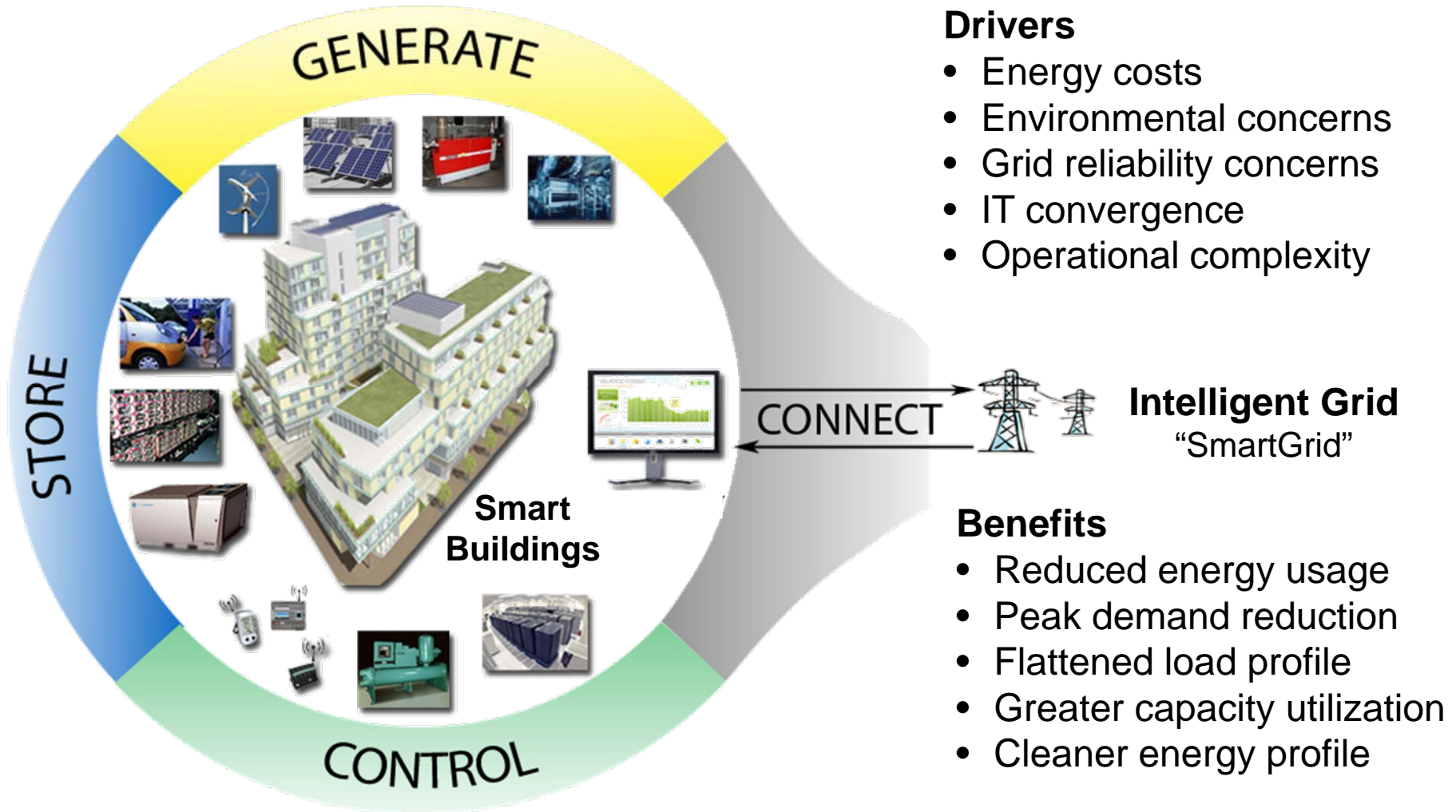
Temperature Setback and Control

Efficiency through net zero energy buildings

- Integrated Design Associates - San Jose, CA
- Commercial Office Building Retrofit Project
- Geothermal heat pump with floor-based radiant heating and cooling and dedicated high efficiency outdoor air ventilation unit
- PV-integrated membrane roofing
- High efficiency windows and lighting with dimming control
- 40% better than 2005 California Title 24 energy requirements

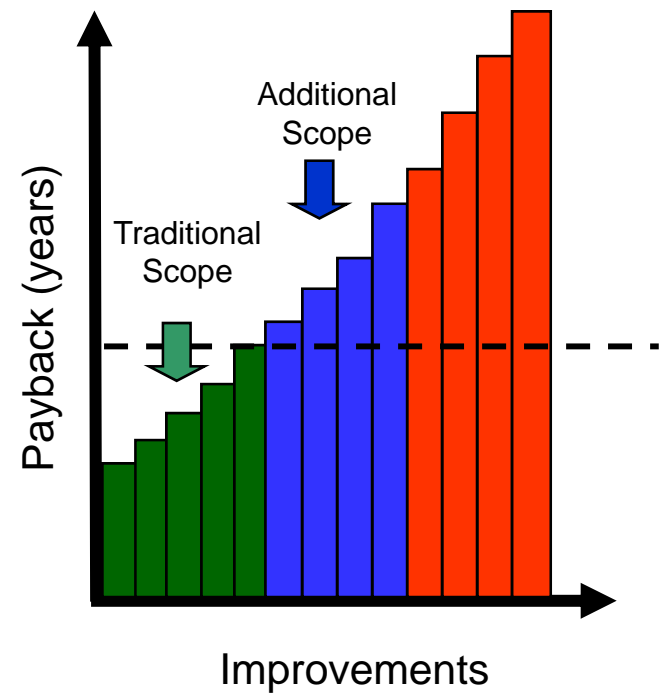
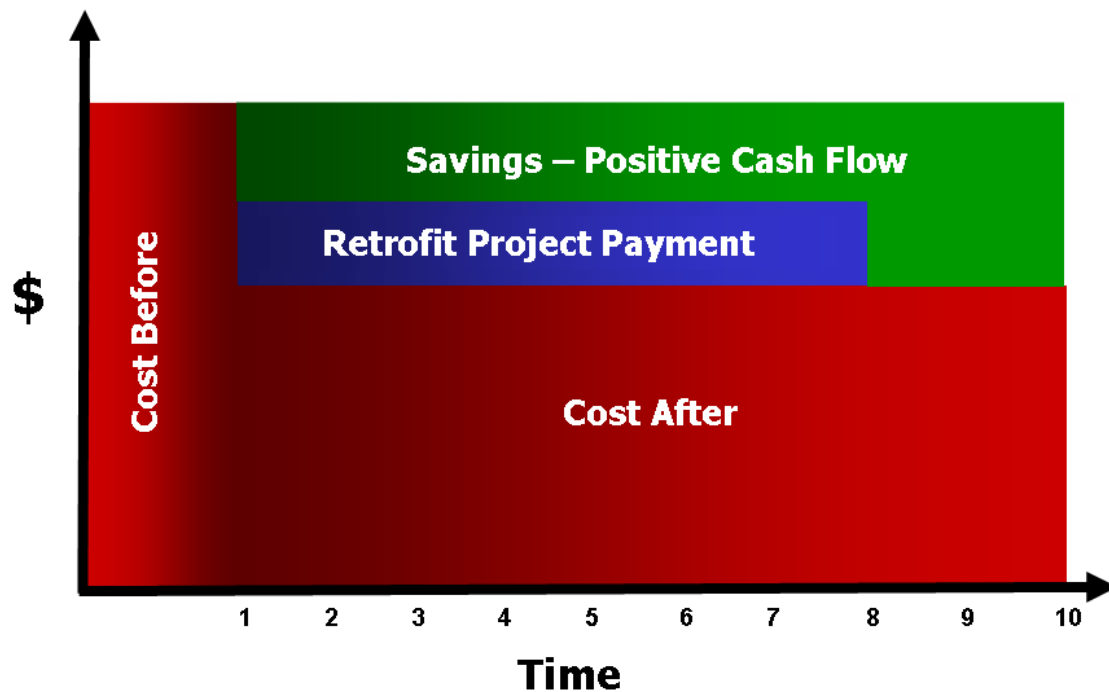


Efficiency through Smart Building integration



Efficiency through performance contracting

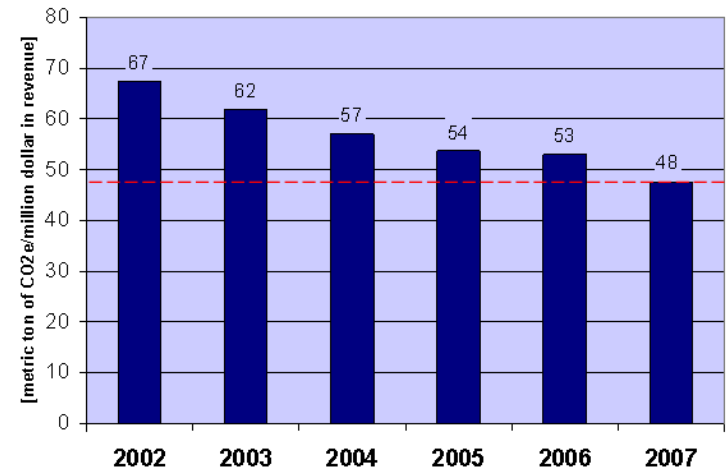
Performance contracting is a proven model for financing large-scale energy efficiency retrofit projects in the public sector based on guaranteed energy savings



Efficiency accountability through action

- 30% global GHG intensity reduction goal from 2002 to 2012
 - Energy efficiency improvements
 - On-site renewable energy
 - Process improvements in manufacturing
 - Fleet efficiency improvements
 - Footprint optimization
- We track the GHG reductions from our customer projects where we have measured, verified and guaranteed the energy savings

Johnson Controls GHG Emission Reductions



Customer GHG Emission Reductions

