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Sustainable Municipal Solutions

Presented By:

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Agenda



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- Johnson Controls Background
- List of Local Customers
- Case Studies
- Energy Performance Contracting
- Potential Value for Northglenn
- Invitation
- Discussion







Johnson Controls, Inc.

Local

- \$30M+ self-funded energy efficiency projects with more than 25 Colorado clients
- Serving Colorado for 70+ years
- More than 150 Colorado-based employees

Corporate

- Leader in energy services industry
- 120 years old
- 140,000 worldwide employees
- \$29 billion '05 revenues
- \$1+ billion in '05 federal, state and local government projects
- \$400+ million '05 energy efficiency programs









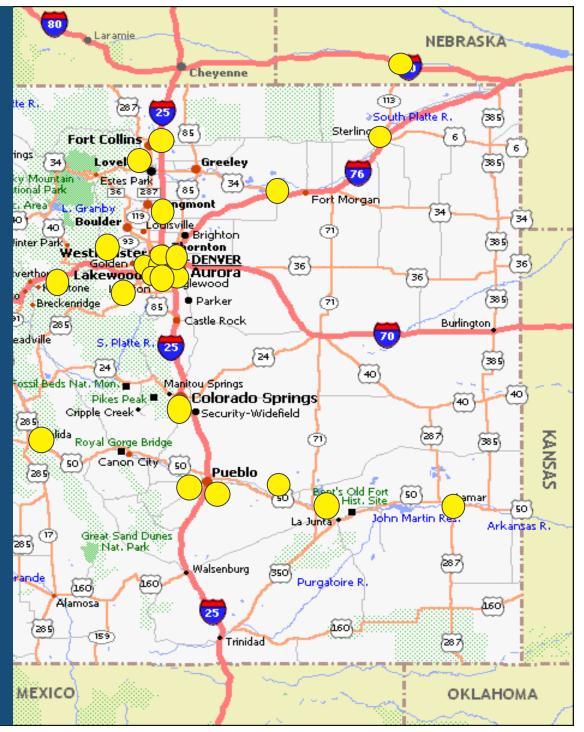






JCI Sustainable Colorado Customers

- City of Fort Collins
- City of Aurora
- City of Littleton
- Cheyenne County
- Denver Federal Center
- GSA Downtown Denver
- USDA Fort Collins
- University of Denver Auraria
- Colorado State University Pueblo
- Denver Public Schools
- Jefferson County Schools
- Clear Creek Schools
- Brush School District
- Academy 20 Schools
- Pueblo 60 Schools
- Aguilar Schools
- Rocky Ford Schools
- Lamar Schools
- Salida Schools



Case Study – Denver Federal Center



Denver Federal Center (Phases 1-3)

Project Cost: \$4,379,207 Annual Savings: \$552,065 Rebates / Grants: \$130,000



Customer Goals:

- Optimize operational efficiencies
- Modernize infrastructure



Improvement Measures:

- Replace (2) 300-ton chillers with (2) 500-ton chillers
- Install variable speed chilled water pumping
- Optimize Boiler Plant
- Optimize Chilled Water Plant
- Controls upgrades, recommissioning & optimization
- Lighting retrofit and controls
- Irrigation efficiencies and controls
- Solar domestic hot water
- Domestic hot water scheduling
- Automated building sub-meter network
- Restroom fixture replacement
- Water meter upgrades











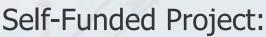
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Case Study - City of Tyler (82,000 citizens)



Customer Goals:

- Increase quality of service to citizens
- Lower operational costs
- Modernize infrastructure
- Utilize technology to generate efficiencies



- Project Cost: \$18,000,000
- Annual Benefit: \$2,937,000
- Guaranteed Benefit: \$27,602,470
- Rebates / Grants: \$180,000

Improvement Measures:

- 27 Buildings Retrofits including lighting, automation and HVAC upgrades
- 31,000 water meters replaced
- Automated meter reading system implemented
- Wastewater plant optimization
- 3,700 traffic lights upgraded











Energy Performance Contracting Model

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Colorado Revised Statute 29.12.5 allows customers to:

- 1. Select a firm to study, design and implement improvements and associated operational savings across the infrastructure
- 2. Utilize operational savings streams to pay for capital improvements up front
- 3. Use a mutually agreed upon guaranteed performance management program to ensure savings are real and are available to pay for financing over time

Infrastructure

- Facilities
- Utilities
- Public Works
- Parks & Recreation
- Streets & Traffic
- Real Estate



- Energy
- Water conservation
- Revenue
- Alternative energy
- Operations & Maintenance





Performance Contracting Money Flow



1. Assessment and development of available projects and efficiencies



2. Contracts with JCI







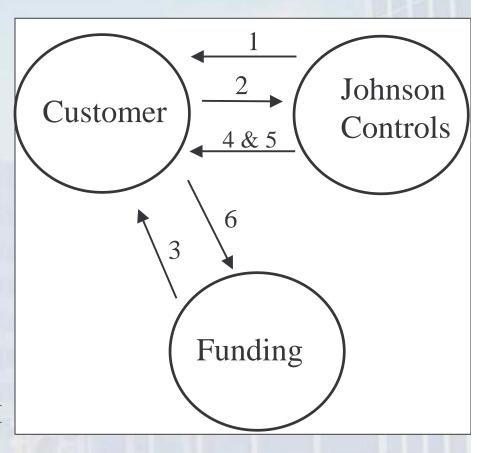
5. JCI guarantees savings stream



If savings fall through, JCI covers the difference



6. City uses savings to repay funding







Program Process



Potential Benefits to Northglenn













- Map out long-term infrastructure improvement and efficiency opportunities
- Use program to self-fund additional capital improvements
- Upgrade and modernize infrastructure systems and technologies
- Reduce utility costs 15 30%
- Reduce maintenance repair costs
- Increase operational efficiencies
- Provide staff tools to make lifecycle costing decisions
- Use program to position City as Green



Next Steps



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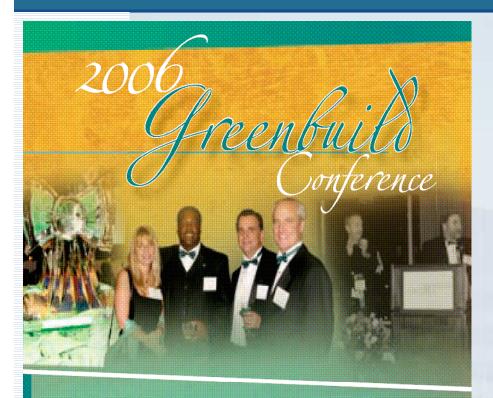




- Determine Council interest level and decision criteria
- Is the timing right for the City?
- Gain alignment with other key stakeholders
- Review / approve memorandum of understanding
- Implement feasibility assessment
- Make decision on whether or not to move forward



You're Invited!!!



The Greenbuild International **Conference & Expo** brings the latest LEED **sustainable technologies and strategies together under one** roof.

Three days of educational programming, workshops, a vast exhibition floor and ample networking events provide unrivaled opportunities. You'll learn about the latest innovations, exchange ideas and develop new business relationships.

Johnson Controls, a global leader in sustainable building strategies, is hosting several invitation-only events that bring an added value to this extraordinary conference.

Sustainability Navigator Session

Tuesday, November 14
Denver Grand Hyatt

- Private sector 9-11 a.m. Includes continental breakfast
- Public sector 2-4 p.m. Includes afternoon refreshments

Participants will use an innovative "game board" assessment tool, the Sustainability Solutions Navigator, developed to help both private and public sector organizations identify and prioritize opportunities for Improving sustainability. During this interactive session, participants will evaluate

the Leedspeed Demonstrations

pra November 14-16

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par Johnson Controls Booth 1025

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Green Tie Affair

November 15

7-9 p.m. Denver Hyatt Regency Convention Center

ROI, Centennial A-C Ballroom

It's a chance to celebrate a green marriage made in heaven – Johnson Controls and YORK International! The recent YORK acquisition turned Johnson Controls into a \$32 billion company. At the 2006 Green Tie Affair, you'll have a chance to celebrate in style as we *Tie the Knot* with York. This festive event – now in its fourth year – has become the hot ticket at the annual Greenbuild Conference. You'll have a chance to relax and enjoy top-shelf beverages and more seafood than you've seen in years. It's also a great opportunity to:

- · Mingle with green building industry stars
- Learn what's working in sustainable circles
- Talk to green building owners and operators about their experiences
- Discover how Johnson Controls now the largest global provider of integrated products, systems and services in the buildings market – can provide innovative solutions.
- See how our 500 sales and services offices in more than 125 countries can meet your global – and local – needs.

Discussion

