# Partners in Energy Littleton

**Workshop 5 Notes**
Friday, February 19, 2015
9:00 – 11:30 am

## Participants

| Name | Organization |
|---|---|
| Tim Aston | Colorado State University Extension |
| Michelle Beaudoin | Xcel Energy |
| Mike Braaten | City of Littleton Deputy City Manager |
| Cullen Choi | Partners in Energy Facilitator (Brendle Group) |
| Chris Denike | City of Littleton Facilities Maintenance |
| Tami Gunderzik | Xcel Energy (via telephone) |
| Meredith Gipson | Bemis Library |
| Tom Henley | Xcel Energy |
| Tim Nimz | Littleton Public Library and Museum Director |
| Shelby Sommer | Partners in Energy Facilitator (Brendle Group) |
| Dave Stacey | City of Littleton Facilities Manager |
| Anastasia Urban | City of Littleton Development Services |
| Kelly Webb | e2e Sustainability, US Green Building Council Colorado Chapter |
| Keith Wynkoop | City of Littleton Museum |

## Agenda

| Time (mins) | Agenda Item |
|---|---|
| **10** | Reintroductions and Workshop 1-4 Recap |
| **15** | Draft Energy Action Plan Review and Discussion |
| **45** | Strategies and Action Planning for Littleton's Municipal Facilities |
| **10** | **Break** |
| **30** | Commercial Goals & Strategies |
| **30** | Residential Goals & Strategies |
| **10** | Wrap-up and Next Steps |

## Workshop 5 Goals

Our objectives for this workshop were to accomplish the following:

- Share comments on the draft Energy Action Plan
- Refine the implementation action plan for municipal facilities
- Revisit potential commercial and residential focus areas and goals
- Identify strategies and next steps for commercial and residential goals

## Workshop 1-4 Recap and Reintroductions

Shelby Sommer welcomed everyone to the workshop and provided an overview of the Partners in Energy progress and process status. Recent updates and news were discussed. Notes from the discussion are as follows:

- **News and Updates**
  - Shelby:
    - New Partners in Energy communities include Jefferson County, Englewood, Ramsey County
  - Mike:
    - Has taken a lot from the draft plan and discussed with City Manager He is on board and asked - "Yes!! Why don't we don't those things"
    - Also, the streetlight conversion from Cobra head to LEDs
  - Anastasia:
    - First week of March is the Code Educational Institute - a few staff going to energy code classes
  - Tom:
    - Recently filed with PUC for Energy Future - broad ranging program to modernize grid, and do new things: identify outages from substation to meter to increase visibility, as well as read meters remotely, as well as greater ability to implement programs at the premise level (solar, wind)
  - Kelley Webb:
    - Went to the XE expo last year and it was wonderful
  - Tim (Library):
    - Wasn't surprised that Library was included as a big energy user - however the facility has long operating hours and museum has specific operating parameters which drive the energy use there
  - Michelle:
    - Energy Expo is on April 5th, she will send out info - good opportunity to meet account managers, and get additional info on programs

- **Process Recap:**
  - About a six month process to develop plan, we are at the stage of "action planning" and "plan finalization"
  - Strategies have been developed for municipal facilities
    - Commercial and residential strategies have been lagging a bit behind the so those will be a focus going forward
  - Compass tool is used to do robust analysis on strategies

## Draft Energy Action Plan Review and Discussion

The discussion then moved towards discussing the draft Energy Action Plan. Brendle Group led the discussion. Notes from the discussion are below:

- Brendle Group will correct typos, but all stakeholders should review to make sure their info is correct
- Brendle Group will be adding a graphically rich executive summary
- Littleton is unique because it focuses on municipal strategies; other sections will be added to the plan over the coming months
- Keypad polling (did you read the plan?)
  - 71% a quick scan
  - 29% yes in detail
  - 0% no
- Keypad polling (do you like the plan?)
  - 14% looks good (A)
  - 71% looks ok but needs some fine tuning (B)
  - 0% needs a major overhaul
  - 14% have not reviewed it/no opinion
- General Plan Comments from Group:
  - Tim: we know what needs to be done (tune ups, behavior) so his read is that we've identified what needs to be done, now the conversation changes to resources and bandwidth
    - Would feel ok presenting to department heads - since there will be budget impacts to consider
  - Figure 11 (wedge diagram) - too difficult to understand
    - Group agrees, and it appears that there is a general preference to have a different chart
    - There are two figure 11 as well – need to be corrected for final plan
  - Who is the audience for this plan?
    - Decision makers, leaders, as well as graphical exec summary for broader dissemination
  - Are there political hurdles to get over to move forward with this plan?
    - Yes, that is why budget conversations will be had with department heads
  - Tom's role at Xcel Energy - fix for final plan document

## Strategies and Action Planning for Littleton's Municipal Facilities

The discussion then moved towards discussing the strategies concerning Littleton's Municipal Facilities. Notes from the discussion are below:

- Four general buckets of different strategies (tune ups, engagement, leadership, new construction) also highlighted street lighting project
- Initial analysis included all municipal facilities at once; revised to reflect more realistic timing of implementation

- **Tune-up program**
  - Find it as you fix it type of program
  - Impact-driven program that presents opportunities for efficiency
  - Library - newer chiller but everything else is somewhat dated
    - Opportunities to tune up newer systems
  - Museum
    - Strict operating parameters at facilities
    - Made some assumptions about potential opportunities
  - Audits and Improvements at 2 facilities by 2017
  - Audits and improvements at remaining 9 facilities over next 3 years
  - Audit cost is very affordable; PIE team is available to support these efforts
  - Timing for audits - start this spring
  - 50-75k sq. ft. buildings now - this program might change for this size of building
  - Fill out the applications now
    - Tim can help with the applications - he will lead
    - City to provide list of buildings - would like to see all of them done this spring
  - Adjust budget timing so that items are included in the 2017 budget (2016 budget is already adopted; 2017 budget to be adopted in November)
  - Audits
    - Include Dave, Tim Aston, Tim and Keith as available for library/museum
    - Everything that uses energy is on the table for review
    - Some of the buildings are automated - can help on the front end of the process
    - Is the building envelop included - not necessarily considered
  - Core team review report together - by June when budget is due
  - Audits on first two (at a minimum) - others to follow as time allows

- **Occupant Engagement**
  - Represents a good portion of calculated energy savings
  - Potential challenge against Englewood - on a percentage basis or similar facility (e.g., Library)
  - What is the metric? % energy use reduction
    - Could also include other success metrics - % who are thinking about energy use; creating behaviors that are not out of the norm
    - Library could be a really logical place for a challenge - highly visible for population
  - Challenge committee - Tim, someone from communications staff, HR staff (Mike can follow up with thoughts about potential individuals)

- **Leadership by Example**
  - Smart Thermostat pilots - sites under 100kW in demand
    - Up to 5 smart thermostats installed for free as part of demand response program
    - Information through Small Biz Lighting program
    - 50% cycling of air conditioning; series of controlled events (similar to residential savers switch program)
    - Wireless Wi-Fi access
    - BSC Building #1 would be a good start - 7-8 RTUs
    - THAC - 3 RTUs
    - New Station 19
  - Follow-up with Dave Stacey separately to identify candidate buildings for Smart Thermostats and next steps
  - Purchasing tips and training – keep on the list, work with purchasing
  - Tim would be happy to participate in any/all subcommittees
  - Public works and IS are the big purchasers at the City

- **New Construction**
  - Fire station too far underway; Xcel Energy may be able to rebate after the fact for custom measures
  - Similar people as the building tune-up; Intergroup Architect is typical architect

- **Overall Strategy Implementation Timeline**
  - Shift to address June timeline for budget requests

- **What's the best way to communicate with City employees?**
  - HR Newsletter
  - Branding and messaging is critical
  - Key piece of real estate in the Newsletter
  - Contact person with communications staff could be helpful to communicate internally/externally

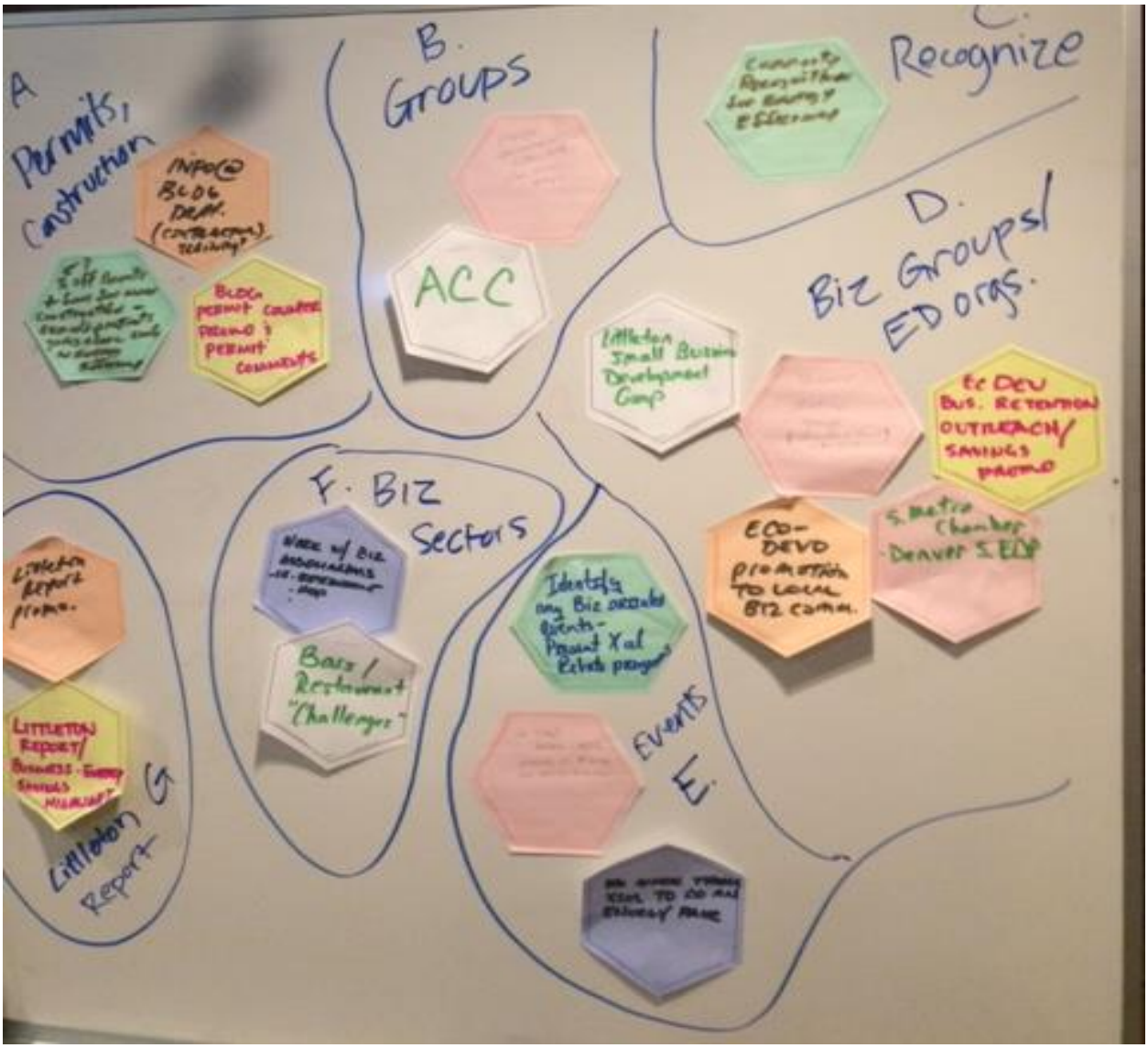
- Chris: has previously done monthly reports; but regularly synthesizes information
- Could share information on Google sheets
- Big ass pie chart :-)
- Chris can coordinate with Mike's intern who is great with Excel

## Strategies and Action Planning for Littleton's Commercial Sector

The discussion then moved towards discussing the strategies and goals concerning Littleton's Commercial Sector. Notes from the discussion are below:

- Commercial program participation have been a slightly lower than state averages (1/18 premises) with about 2,500 commercial premises
- Some new 15/16 programs, which are not included in historic participation analysis
- Goals based on % participation increase (as opposed to kWh, therm savings) is better from Mike's perspective
- What do we want to do today?
    - Create a strategy that is implementable and measurable that has:
        - Vision, focus, goals
        - Can be presented to get the word out and get community support
        - Can be cost effective
    - Mike wants to engage the business community, EDC, etc.
    - Commercial Strategies:
        - Permits, Construction, Training, Inspections (***A***)
            - *Anastasia thinks that information, training, etc. should be a focus because by the time projects come in for permitting it is too late and opportunities are lost*
        - Groups (***B***)
        - Recognition (***C***)
        - Business Association Engagement (Business Groups and Economic Development Organizations) (***D***)
            - EDC
            - SBA
            - Littleton Business Coalition
        - Business Activities/Events (***E***)
            - Energy fair
            - Rebate events
        - Targeted Business Sector Engagement (***F***)
            - Bars/restaurant challenges
        - Littleton Report and Outreach (***G***)

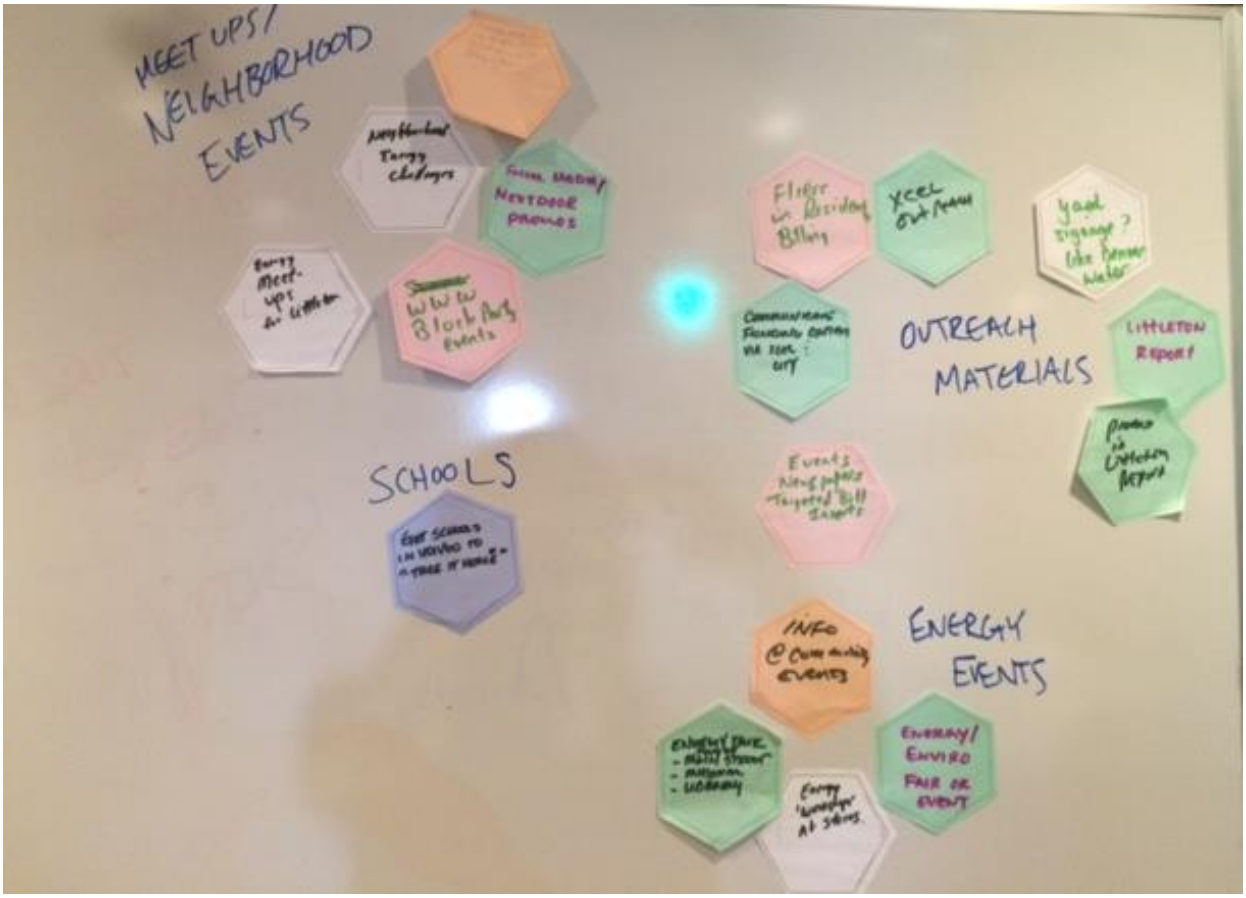
- Top Preferences for Commercial Strategies (Keypad Polling results):
  - **D 42% - Business Groups/Association Engagement**
  - **E 25%- Business Activities/Events**
  - A 17% - Permits, Construction, Training, Inspections
  - G 17% - Littleton Report and Outreach



## Strategies and Action Planning for Littleton's Residential Sector

The discussion then moved towards discussing the strategies and goals for Littleton's residential sector. Notes from the discussion are below:

- About 20,000 residential premises
- Higher residential participation than commercial overall, but lower on a normalized basis (1 out of every 22 residential premises)
- Mike requested normalization of energy savings to a $ value/home for communication benefit to homeowner
- Residential Strategies:
    - Four "big" strategies:
        - Meet-ups and neighborhood events
        - Schools
        - Outreach materials
        - Energy events



## Wrap-up and Next Steps

- Send doodle poll for next meeting
  - Likely 1st week in April (possibly last week in March)
  - Will likely be a longer workshop – action planning for Commercial and Residential Strategies
  - Be careful of April 5th XE Expo timing

## Attachments

Workshop 5 PowerPoint Presentation

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ANYTHING BUT LITTLE

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# Planning Workshop #5

City of Littleton | February 19, 2016

# Agenda

| Time (mins) | Agenda Item |
|---|---|
| 10 | Reintroductions and Workshop 1-4 Recap |
| 15 | Draft Energy Action Plan Review and Discussion |
| 45 | Strategies and Action Planning for Littleton's Municipal Facilities |
| 10 | **Break** |
| 30 | Commercial Goals & Strategies |
| 30 | Residential Goals & Strategies |
| 10 | Wrap-up and Next Steps |

# Group Roundtable

- What has happened in Littleton since our last workshop?

- Share one update:
  - New projects or initiatives
  - Energy trends or facts
  - News or announcements
  - Other topics that might be relevant

Welcome to Our Newest Partners In Energy Communities!

Jefferson County Sustainability Commission

City of Englewood

Ramsey County

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# Plan Development Pieces

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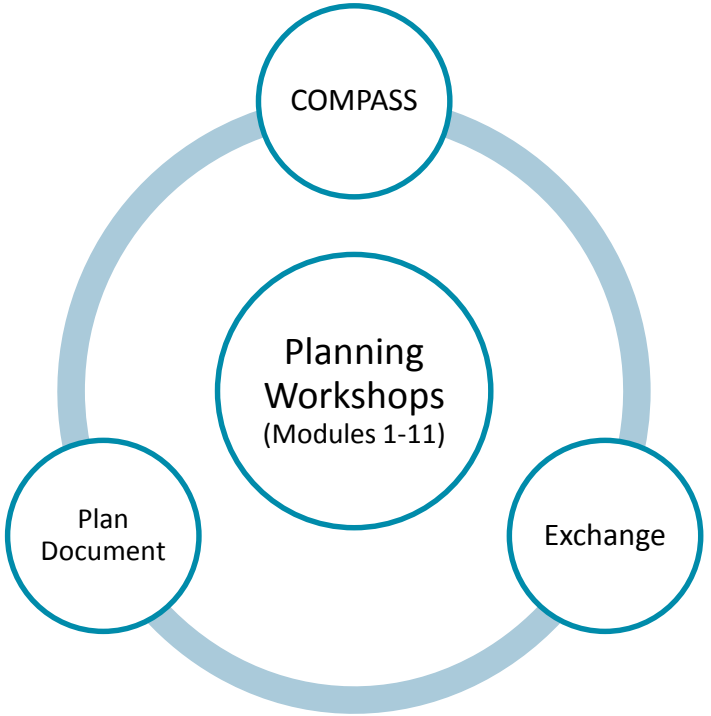
- 0. Game Plan
- 1. Anchoring
- 2. Baseline
- 3. Vision
- 4. Focus Areas
- 5. Draft Goals
- 6. Divergent Strategies
- 7. Convergent Strategies
- 8. Goal Refinement
- 9. Action Planning
- 10. Plan Finalization
- 11. Launch

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# Workshop 4 Recap

## During this workshop we…

1) Reviewed and confirm strategies

2) Refined goals for municipal operations as necessary

3) Began to build out implementation action plan for executing municipal strategies in 2016

4) Briefly reviewed Energy Action Plan progress

5) Discussed goals and explore potential strategies for the community

# Workshop 5 Objectives

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## During this workshop we will…

1) Share comments on the draft Energy Action Plan

2) Refine our implementation action plan for municipal facilities

3) Revisit potential commercial and residential focus areas and goals

4) Identify strategies and next steps for commercial and residential goals

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# Draft Energy Action Plan

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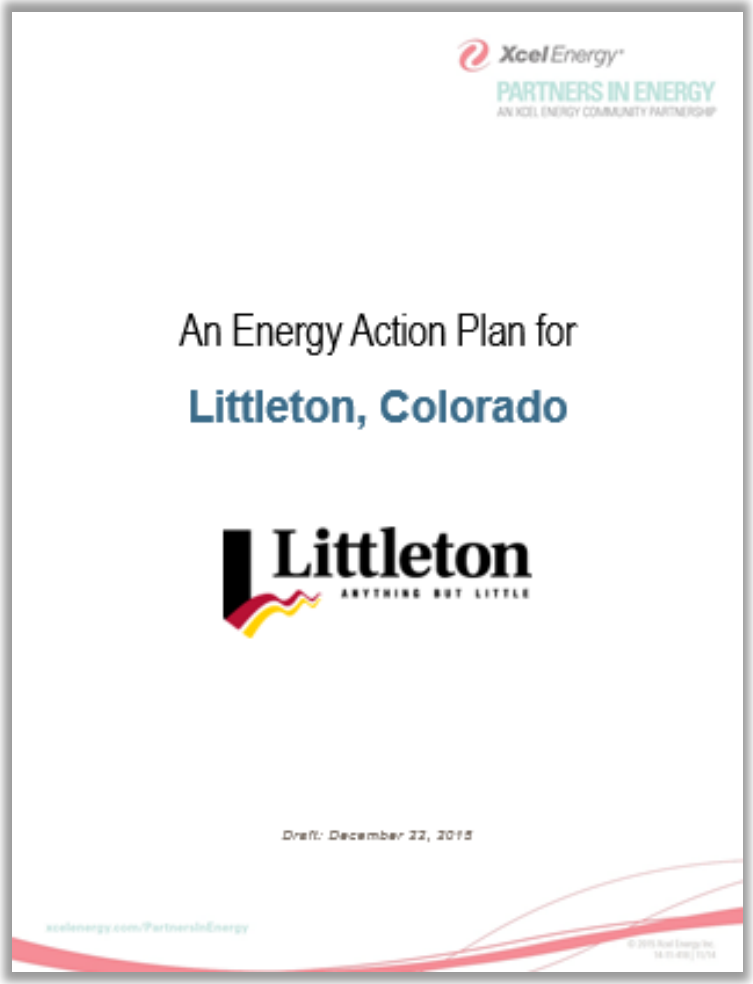
# Energy Action Plan Review

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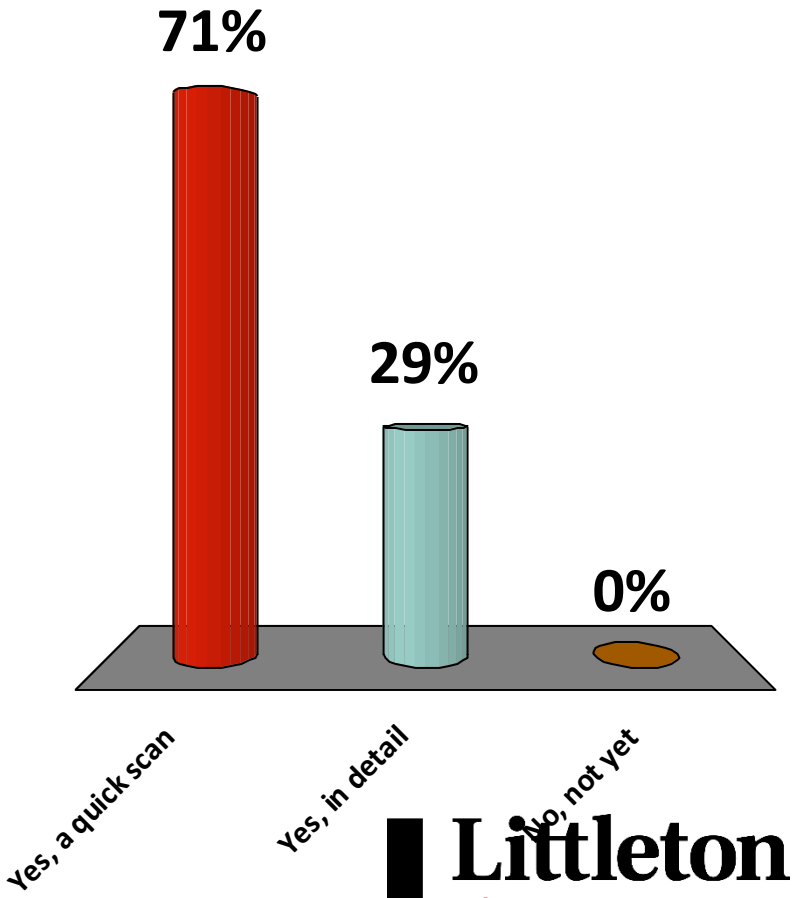
# Have you reviewed the draft Energy Action Plan?

A. Yes, a quick scan

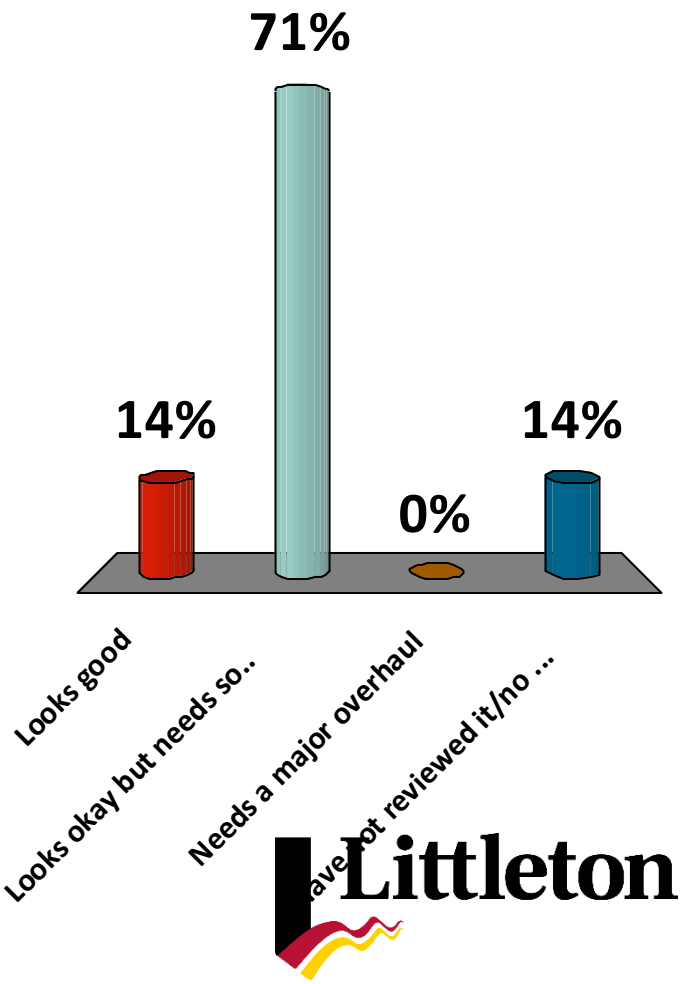
B. Yes, in detail

C. No, not yet



# Do you think the draft Energy Action Plan…

A. Looks good
B. Looks okay but needs some fine tuning
C. Needs a major overhaul
D. Have not reviewed it/no opinion



# Discussion: Comments, Concerns?

- Major Sections
  - City of Littleton Overview
  - Where Are We Now?
  - Where Do We Want to Go?
  - How Are We Going to Get There? (in progress)
  - How Are We Going to Stay on Course? (to be developed)

Please send detailed comments or technical revisions to Shelby via email

# Municipal Facility Strategies & Action Planning

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# Municipal Strategies

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- Building Tune-ups
- Occupant Engagement
- Leadership by Example
- New Construction

On a related note….

- Streetlighting Agreement
  - 1500 cobrahead streetlights to be converted to LEDs in coming years
  - Estimated $18,200 annual savings
  - Implemented by Xcel Energy

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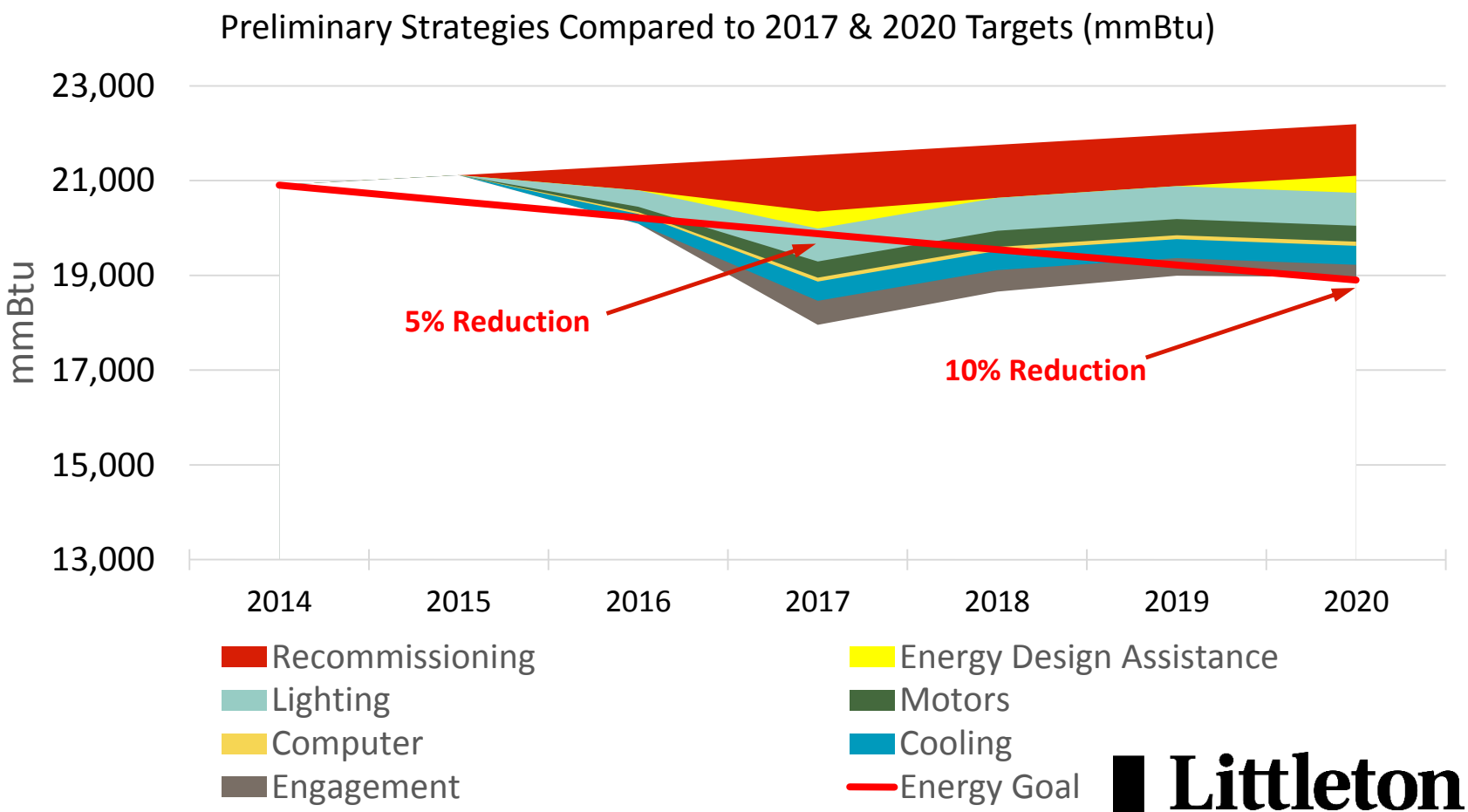
# Summary of Proposed Strategies

| Proposed Strategy | Estimated 2017 Energy Reduction (million Btu) | Contribution to Estimated 2017 Energy Reduction (%) |
|---|---|---|
| Building Tune-ups | 1,190 | 33% |
| Leadership by Example | 1,520 | 43% |
| Occupant Engagement | 510 | 14% |
| New Construction | 360 | 10% |

# Putting it All Together: Matching Strategies and Goals



# Building Tune-Ups Overview

| | |
|---|---|
| Description | Complete Building Tune-up audits on 11 City facilities by 2020 to identify functional systems that can be "tuned up" to run as efficiently as possible through low- or no-cost improvements. |
| Applicable Xcel Energy Program | Small Building Tune-up |
| Up-front Costs | • Audit cost per facility: $250 (5,000-25,000 $ft^2$); $500 (25,001-50,000 $ft^2$); $1,000 (50,001-75,000 $ft^2$)<br>• Implementation costs vary based on measures selected<br>  • Likely costs will range from <$1,000 for simple measures to ~$5,000-$7,500 for non-capital items |
| Estimated Payback | Many opportunities with simple paybacks less than 1 year some up to 10 years |

# Building Tune-Ups

- Potential Targets
  - Audits and improvements at 2 facilities by 2017
    - Library
    - Museum buildings
  - Audits and improvements at remaining 9 facilities over the next three years (2020)
    - BSC buildings
    - Station 12
    - Courthouse
    - City Center/Station 11
    - Potentially THAC (not quantified)
- Potential Impact
  - Approximately 1,190 million Btu (314,370 kWh; 1,210 therms) in 2017 (33% of projected 2017 savings)
  - Assumed 25% reduction in realized energy savings per year thereafter

# Building Tune-Up Steps

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| Step | Responsibility | Timing | Funding | Other Notes |
|---|---|---|---|---|
| Select buildings for audits | City Facilities | March 2016 (1st round)<br>Spring 2017 (2nd round) | n/a | |
| Energy audits | Xcel Energy | April 2016 (1st round)<br>Spring 2017 (2nd round) | City | |
| Review of reports and prioritization of measures | City Facilities & Administration<br>PIE Team | Summer 2016 (1st round)<br>Summer 2017 (2nd round) | PIE Team<br>City | |
| Implement improvements and obtain rebates | City Facilities<br>Xcel Energy | Fall 2016 – Spring 2017 (1st round)<br>Fall 2017 – Spring 2018 (2nd round) | City: improvements<br>Xcel Energy: rebates | |
| Monitor facility energy usage | City Facilities<br>Xcel Energy | Ongoing | n/a | |

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# Occupant Engagement

| | |
|---|---|
| Description | Engage facility users (e.g., employees, tenants, and the public) in energy conservation practices and education. Two main elements of this strategy include:<br>• Building energy information<br>• Energy challenge |
| Applicable Xcel Energy Programs | Energy Feedback, others? |
| Up-front Costs | Low (staff time and communications materials) |
| Estimated Payback | Generally between a 2% - 6% energy savings, depending on approach and implementation |

# Occupant Engagement

- Potential Targets
  - 50% of facilities with energy information/signage by 2017
  - 100% of facilities with energy information/signage by 2020
  - 25% of City employees/facilities? participating in an Energy Challenge
  - All facilities involved in Energy Feedback Program by 2020
- Potential Impact
  - Approximately 510 million Btu (106,310 kWh; 1,450 therms) in 2017 (14% of projected 2017 savings)
  - Assumed energy savings decrease by 10% in all years thereafter
  - Applies to all buildings by 2020

# Occupant Engagement: Facility Energy Information Steps

| Step | Responsibility | Timing | Funding | Other Notes |
|---|---|---|---|---|
| Employee Energy Suggestion Box & Reward | City Facilities<br>PIE Team | Spring 2016 | PIE Team | |
| Facility Information and Signage | City Facilities<br>PIE Team | Summer 2016 | PIE Team | |
| Reporting of City Energy info | City Communications<br>PIE Team | Quarterly (begin Summer 2016) | City<br>PIE Team | |

# Occupant Engagement: Facility Energy Challenge Steps

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| Step | Responsibility | Timing | Funding | Other Notes |
|---|---|---|---|---|
| Identify which facility(ies) will participate | City Facilities<br>PIE Team | Spring 2016 | PIE Team | |
| Define challenge parameters | PIE Team | Summer 2016 | PIE Team | |
| Challenge training | PIE Team | Summer 2016 | PIE Team | |
| Launch challenge | PIE Team | Fall 2016 | PIE Team | |
| Track progress and report periodically | City Facilities<br>PIE Team | Quarterly | PIE Team | |
| Recognize challenge winners | PIE Team | End of Challenge (date TBD) | PIE Team | |
| Present results and post to City website | City Communications | End of Challenge (date TBD) | n/a | |

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# Leadership by Example Overview

| | | |
|---|---|---|
| Description | Ensure that all City of Littleton actions and decisions are demonstrative of the City's commitment to energy efficiency (e.g., purchasing, communications, internal processes, etc.). | |
| Applicable Xcel Energy Programs | Rebate Programs:<br>• Computer Efficiency<br>• Cooling Efficiency<br>• Lighting Efficiency<br>• Drive Efficiency | Energy Feedback Program<br>Smart Thermostats |
| Up-front Costs | Varies depending on equipment selected. | |
| Estimated Payback | Varies from less than one year (Computer Efficiency) to approximately seven years (Lighting Efficiency) | |

# Leadership by Example

- Potential Targets
  - Every employee engaged in at least one energy conserving practice
  - At least two City employees with energy activities as part of job description
  - Semi-annual reporting of energy information to community
- Potential Impact
  - Approximately 1,520 million Btu (446,830 kWh) in 2017 (43% of projected 2017 savings)
  - Assumed energy savings persist in all years thereafter
  - Assumed lighting opportunities in all buildings except City Center, Motor opportunities in 8 buildings

# Leadership by Example Steps

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| Step | Responsibility | Timing | Funding | Other Notes |
|---|---|---|---|---|
| Purchasing survey | PIE Team | Spring 2016 | PIE Team | |
| Smart Thermostats | City Facilities/XE | Spring 2016 | Xcel Energy | |
| Equipment studies | PIE Team | Summer 2016 | PIE Team | |
| Purchasing tips & Training | City Purchasing<br>PIE Team | Summer 2016 | PIE Team | |
| Equipment upgrades | City Purchasing<br>PIE Team | Summer 2016 | City: Equipment<br>Xcel Energy: Rebates | |
| EV Charging | City Leadership<br>PIE Team | Fall 2016 | TBD | |
| Dedicated funding exploration | City Administration<br>PIE Team | Ongoing<br>Ideas for 2017 budget | n/a | |
| Position descriptions | City Human Resources | Fall 2016 | n/a | |
| City website updates with energy info | City Communications | Ongoing (quarterly) | City | |

# New Construction

- Potential Targets
  - All new facilities and major remodels participate in EEEB program
    - BSC 2 in 2017
- Potential Impact
  - Approximately 360 million Btu (22,480 kWh; 2,800 therms) savings in 2017 (6% of projected 2017 savings)
  - BSC 2 in 2017
  - City Center in 2020?

# New Construction Steps

| Step | Responsibility | Timing | Funding | Other Notes |
|---|---|---|---|---|
| Facility Design Team Formation | City Facilities & Other Departments<br>PIE Team | Spring 2016 | City<br>PIE Team | |
| Team Bootcamp | Design Team<br>PIE Team | Summer 2016 | PIE Team | |
| BSC Building 2 Design Team Meetings | Design Team<br>PIE Team | Fall 2016 | City<br>PIE Team | |
| EEB Participation | Design Team<br>Xcel Energy | Winter 2017 (if voters approve funding) | City: improvements<br>Xcel Energy: rebates | |

# The Road Ahead

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## 18 months of implementation support

### Spring 2016 (months 1-2)

- Implementation MOU
- 2 audits
- Smart Thermosats
- Suggestion box
- Energy challenge groundwork
- Purchasing survey
- Facility design team formation

### Summer 2016 (months 3-6)

- Report review and prioritization of improvements
- Facility information and signage
- Energy challenge parameters
- Purchasing tips & training
- Facility design team bootcamp

### Fall 2016 (months 7-9)

- Facility improvements
- Launch energy challenge
- Position descriptions
- Design team meetings

### Winter 2017 (months 10-12)

- Facility improvements
- New construction

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# The Road Ahead

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## 18 months of implementation support

| Spring 2017 (months 13-15) | Summer 2017 (months 16-18) | Ongoing | Beyond Summer 2017 |
|---|---|---|---|
| • Facility improvements<br>• New construction<br>• Budget items/funding sources | • Second round of facility audits | • Facility improvements<br>• Website information<br>• Tracking and reporting | • Facility improvements<br>• New construction |

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# Break Time!

# Commercial Goals and Strategies

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# Commercial Goals & Strategies

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- About 1 DSM program participant per 18 premises (2012-2014)
- Approximately 2,500 businesses/premises

| DSM Program | Average Annual Participants |
|---|---|
| Lighting Efficiency | 36 |
| Lighting - Small Business | 23 |
| Motor & Drive Efficiency | 4 |
| Custom Efficiency | 3 |
| New Construction | 2 |
| Commercial Refrigeration Efficiency | 1 |
| Compressed Air Efficiency | 1 |
| Computer Efficiency | 1 |
| Energy Management Systems | 1 |
| Recommissioning | 1 |
| Cooling Efficiency | 0 |
| Data Center Efficiency | 0 |
| Energy Feedback Business (2016) | 0 |
| Process Efficiency | 0 |

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# 2015-2016 Commercial Offerings

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- Small Business Smart Thermostat Pilot
- Heating Efficiency
- LED Street Lights
- Self-Direct
- Business Education
- Business Energy Analysis
- Consumer Education
- Energy Efficient Financing
- Building Optimization Demand Response Pilot

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# Goal Scenarios

- Commercial and Industrial
  - Scenario 1: Increase participation by 1.5 times the 3 year average
  - Results in 1.5% savings in electricity and 0.3% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| COIN: | 1.5x 3 year average | 5,589,741 | 68,535 |
| **Total** | | **5,589,741** | **68,535** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **1.5%** | **0.3%** |

# Goal Scenarios

- Commercial and Industrial
  - Scenario 2: Increase participation by 2 times the 3 year average
  - Results in 2% savings in electricity and 0.5% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| COIN: | 2x 3 year average | 7,520,356 | 98,705 |
| **Total** | | **7,520,356** | **98,705** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **2.0%** | **0.5%** |

# Goal Scenarios

- Commercial and Industrial
  - Scenario 3: Increase participation by 3 times the 3 year average
  - Results in 3% savings in electricity and 0.7% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| COIN: | 3x 3 year average | 11,179,214 | 144,040 |
| **Total** | | **11,179,214** | **144,040** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **2.9%** | **0.7%** |

# Strategies – Purpose

A strategy is an implementable and measureable action that helps you meet your targets – your recipe for success.

- Is linked to vision, focus areas, and goals
- Has a measurable outcome
- Is actionable by community (local control)
- Has wide support
- Is cost effective

Strategy Examples:

- Collaborative groups/networks
- Challenges
- Outreach campaigns
- Recognition programs

# Strategy Considerations

- Opportunity for biggest bang for buck to meet goals
- Existing resources and realistic implementation
- Who would be good champion
- Your role, your organization's role, and what you might bring to the table

# Strategies Brainstorm


Identify 3 potential strategies to reach commercial goal

Share your ideas with the group and we'll group like items together

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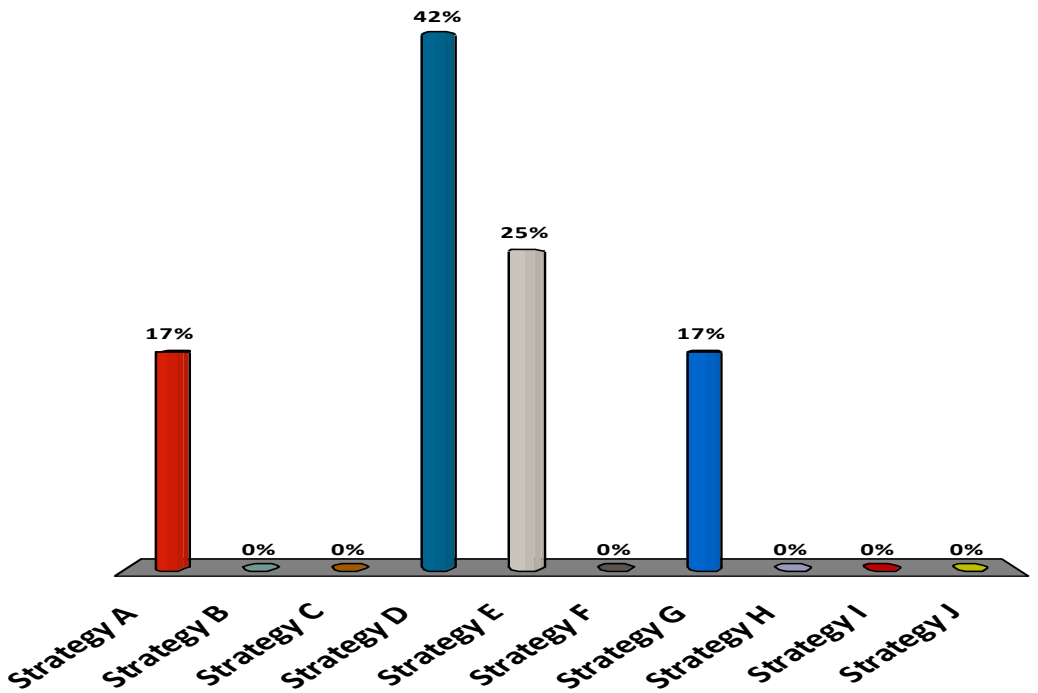
# Which commercial strategies would you most like to see move forward? (select 2)

A. Strategy A
B. Strategy B
C. Strategy C
D. Strategy D
E. Strategy E
F. Strategy F
G. Strategy G
H. Strategy H
I. Strategy I
J. Strategy J



# Residential Goals and Strategies

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# Residential Goals & Strategies

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- About 1 DSM program participant per 22 premises (2012-2014)
- About 20,000 housing units/premises

| DSM Program | Average Annual Participants |
|---|---|
| Energy Efficiency Showerhead | 305 |
| Refrigerator & Freezer Recycling | 135 |
| Saver's Switch | 133 |
| Evaporative Cooling | 65 |
| High Efficiency Air Conditioning | 65 |
| Single-Family Weatherization | 61 |
| Residential Heating | 41 |
| Home Energy Squad | 34 |
| Insulation & Air Sealing | 30 |
| Water Heating | 28 |
| ENERGY STAR New Homes | 26 |
| Multifamily Weatherization | 21 |
| Home Performance w/ ENERGY STAR | 3 |
| Energy Feedback Residential | 0 |
| Home Lighting & Recycling | 0 |
| School Education Kits | 0 |

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# 2015-2016 Residential Offerings

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- Home Energy Audit
- Energy Savings Kit
- Multifamily Buildings Pilot
- Smart Thermostat Pilot

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# Goal Scenarios

- Residential
  - Scenario 1: Increase participation by 2 times the historical 3 year average
  - Results in 0.3% savings in electricity and 0.3% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| DO: | 2x 3 year average | 1,291,530 | 62,597 |
| **Total** | | **1,291,530** | **62,597** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **0.3%** | **0.3%** |

# Goal Scenarios

- Residential
  - Scenario 2: Increase participation by 3 times the historical 3 year average
  - Results in 0.5% savings in electricity and 0.5% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| DO: | 3x 3 year average | 1,890,596 | 92,624 |
| **Total** | | **1,890,596** | **92,624** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **0.5%** | **0.5%** |

# Goal Scenarios

- Residential
  - Scenario 3: Increase participation by 4 times the historical 3 year average
  - Results in 0.7% savings in electricity and 0.6% savings in natural gas

| | Description | Electricity Savings (kWh) Savings | Gas Savings (therms) |
|---|---|---|---|
| DO: | 4x 3 year average | 2,537,998 | 121,894 |
| **Total** | | **2,537,998** | **121,894** |
| **2014 Baseline Consumption** | | **380,041,366** | **20,024,427** |
| **% of 2014 Baseline** | | **0.7%** | **0.6%** |

# Strategies – Purpose

A strategy is an implementable and measureable action that helps you meet your targets – your recipe for success.

- Is linked to vision, focus areas, and goals
- Has a measurable outcome
- Is actionable by community (local control)
- Has wide support
- Is cost effective

Strategy Examples:

- Informational campaigns for different audiences
- Events
- Trainings
- Challenges

# Strategies Brainstorm


Identify 3 potential strategies to reach residential goal

Share your ideas with the group and we'll group like items together

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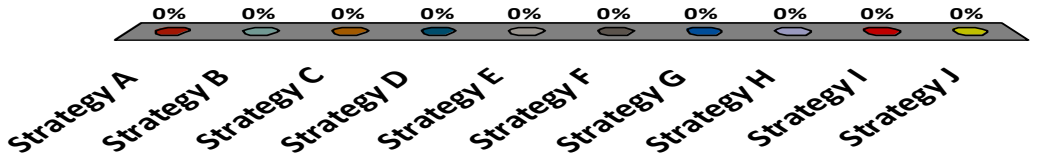
# Which residential strategies would you most like to see move forward? (select 2)

A. Strategy A
B. Strategy B
C. Strategy C
D. Strategy D
E. Strategy E
F. Strategy F
G. Strategy G
H. Strategy H
I. Strategy I
J. Strategy J



# Next Steps

- Draft Energy Action Plan

- Workshop #6
  - Municipal Plan Finalization and Launch
  - Commercial Action Planning
  - Residential Action Planning

- Implementation Stage (late Spring 2016 – Fall 2018)
  - 18 months of implementation support
  - Start with Municipal Facilities
  - Expand to Community Strategies

# Workshop 5 Recap

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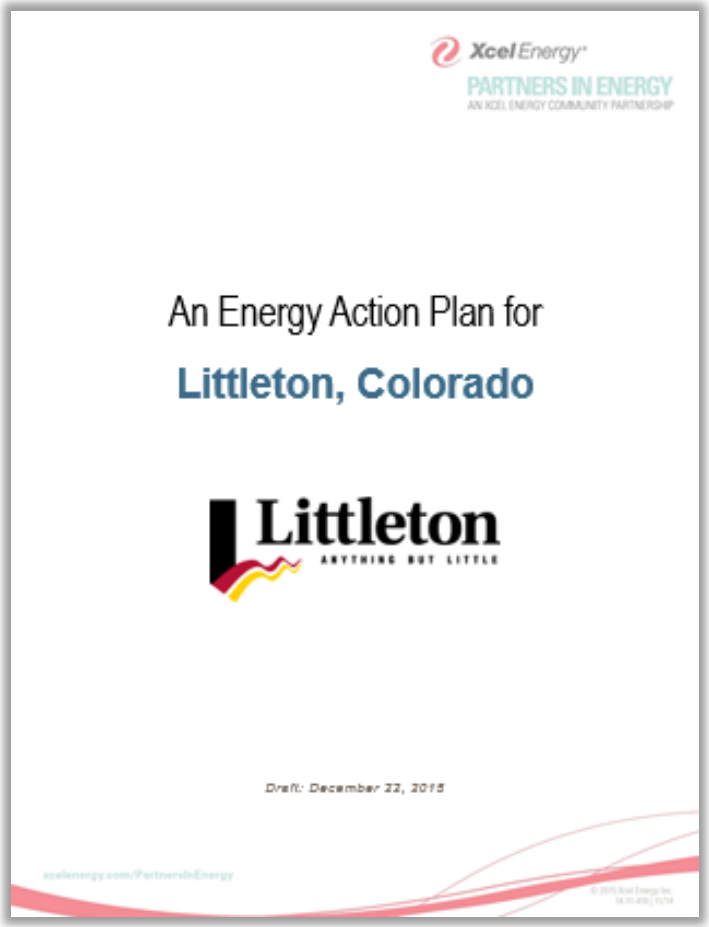
**Today we…**

1) Shared comments on the draft Energy Action Plan

2) Refined our implementation action plan for municipal facilities

3) Revisited potential commercial and residential focus areas and goals

4) Identified strategies and next steps for commercial and residential goals

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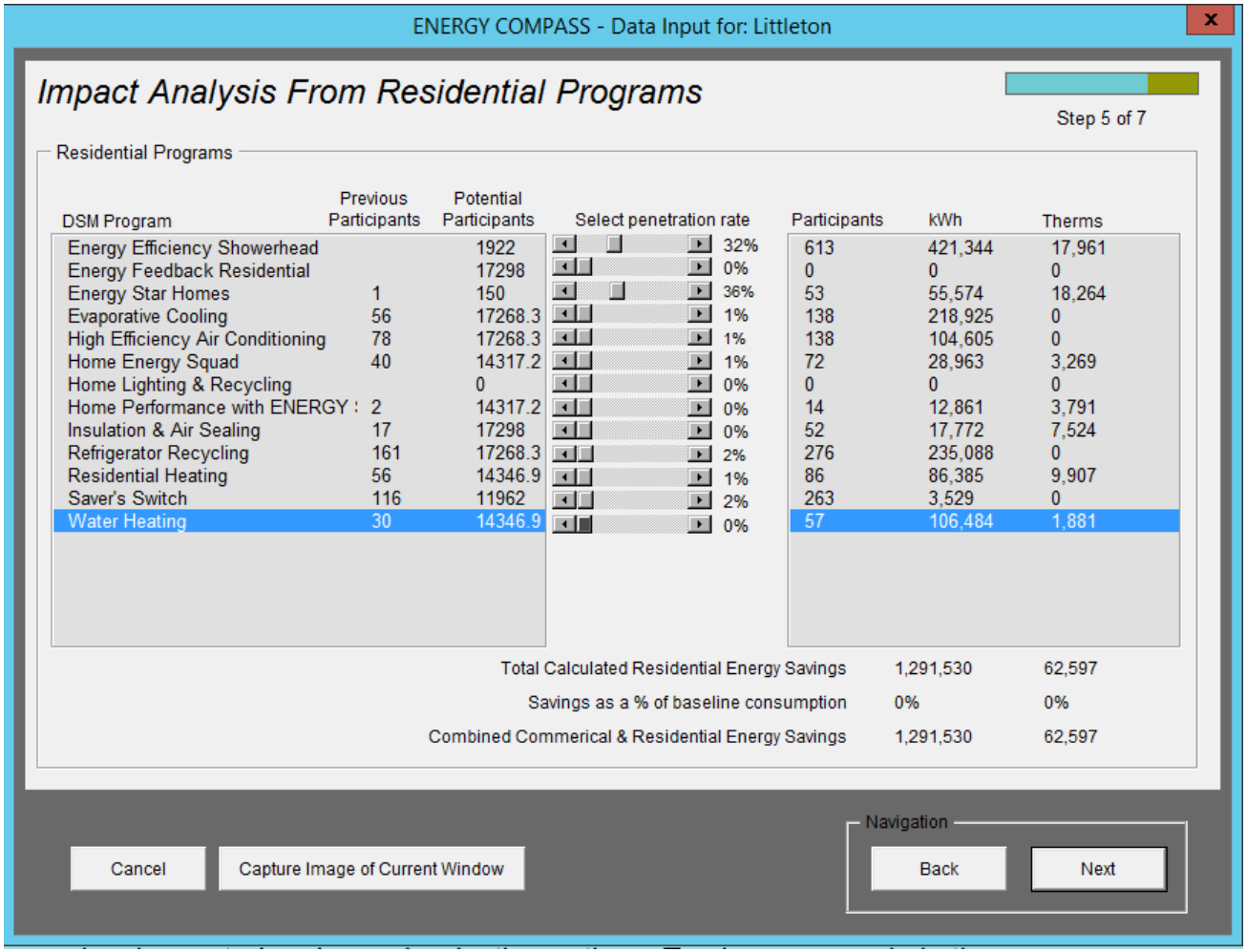
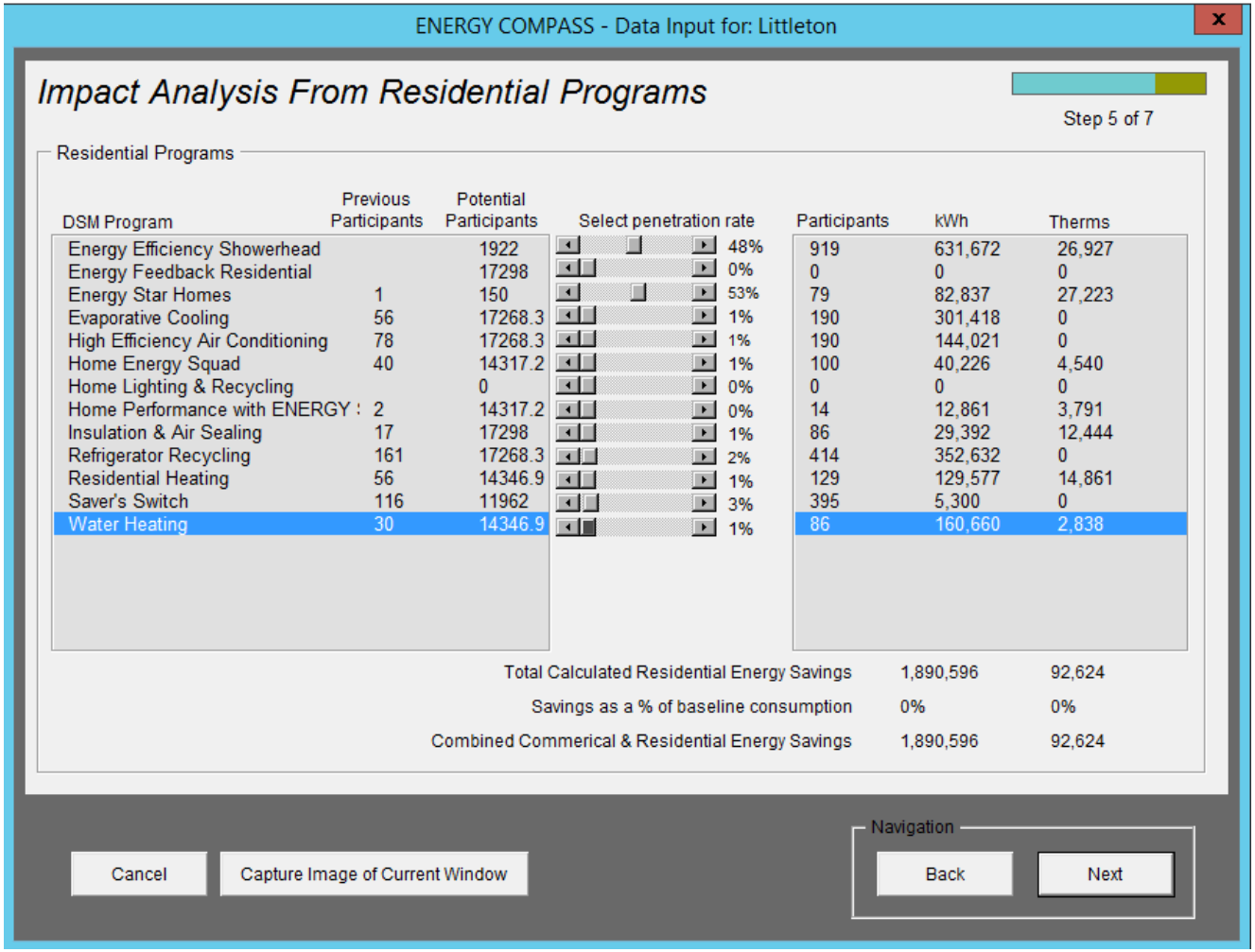
# Residential Goal Setting

- Scenario 1: 2x 3-year average



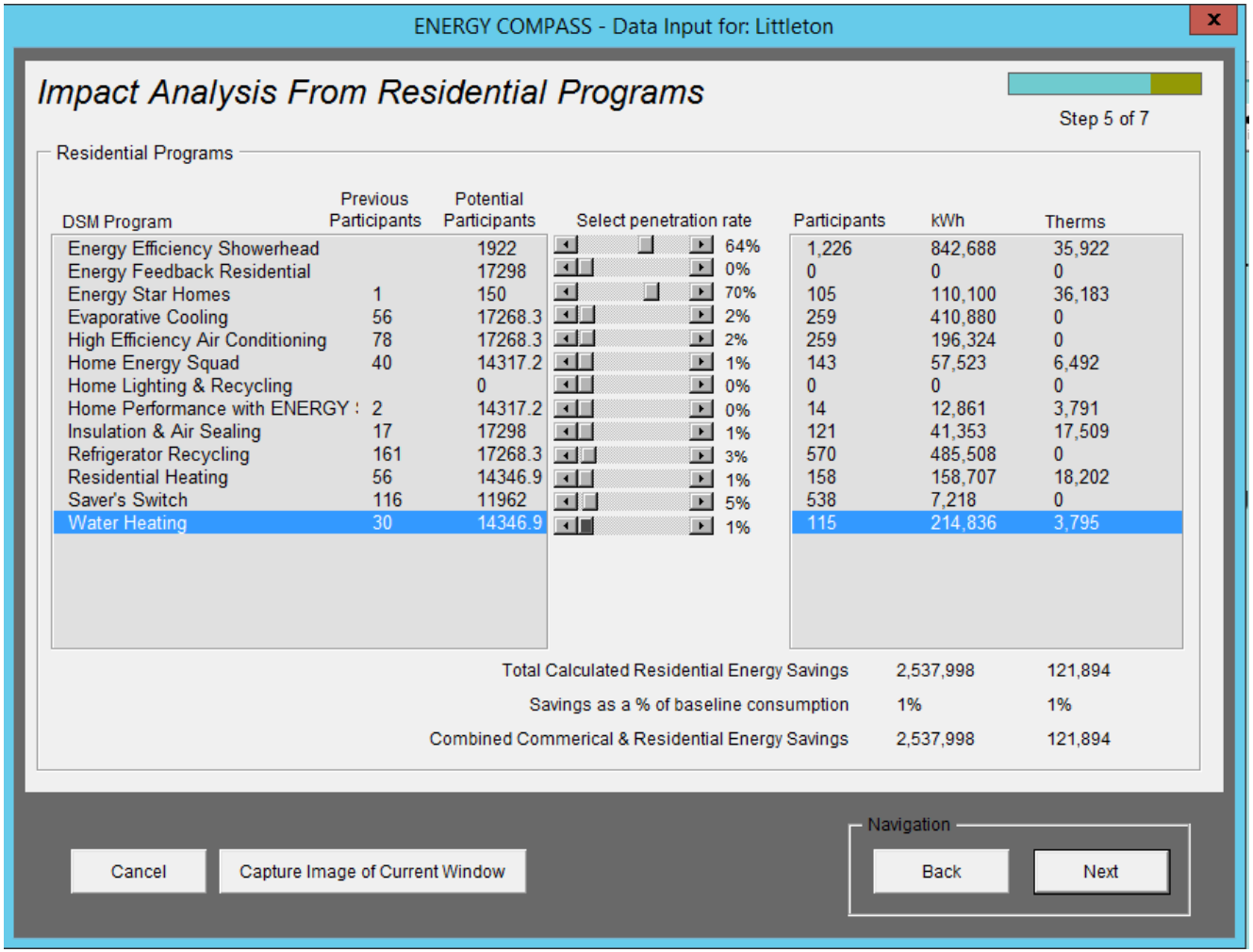
# Residential Goal Setting

- Scenario 2: 3x 3-year average



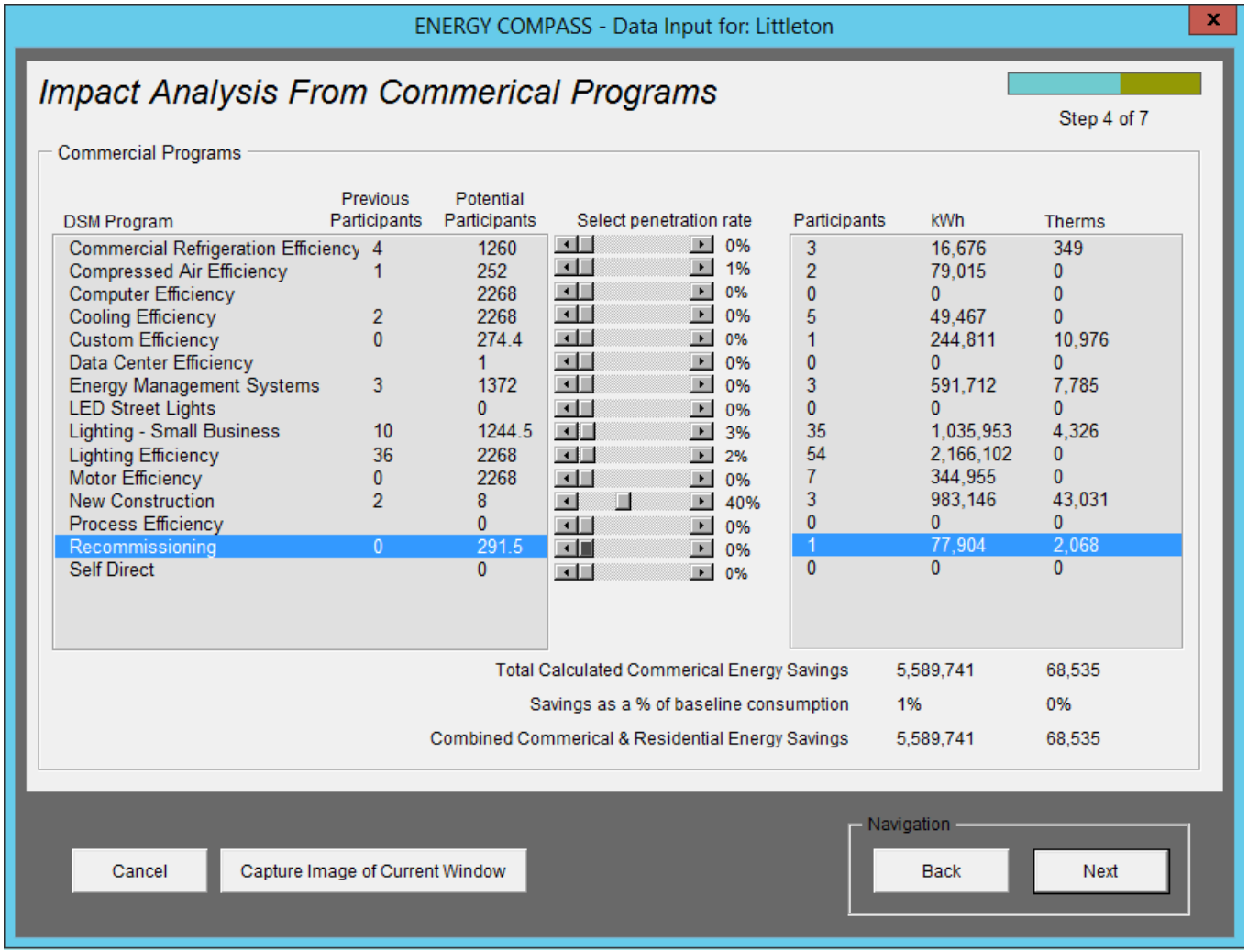
# Residential Goal Setting

- Scenario 3: 4x 3-year average



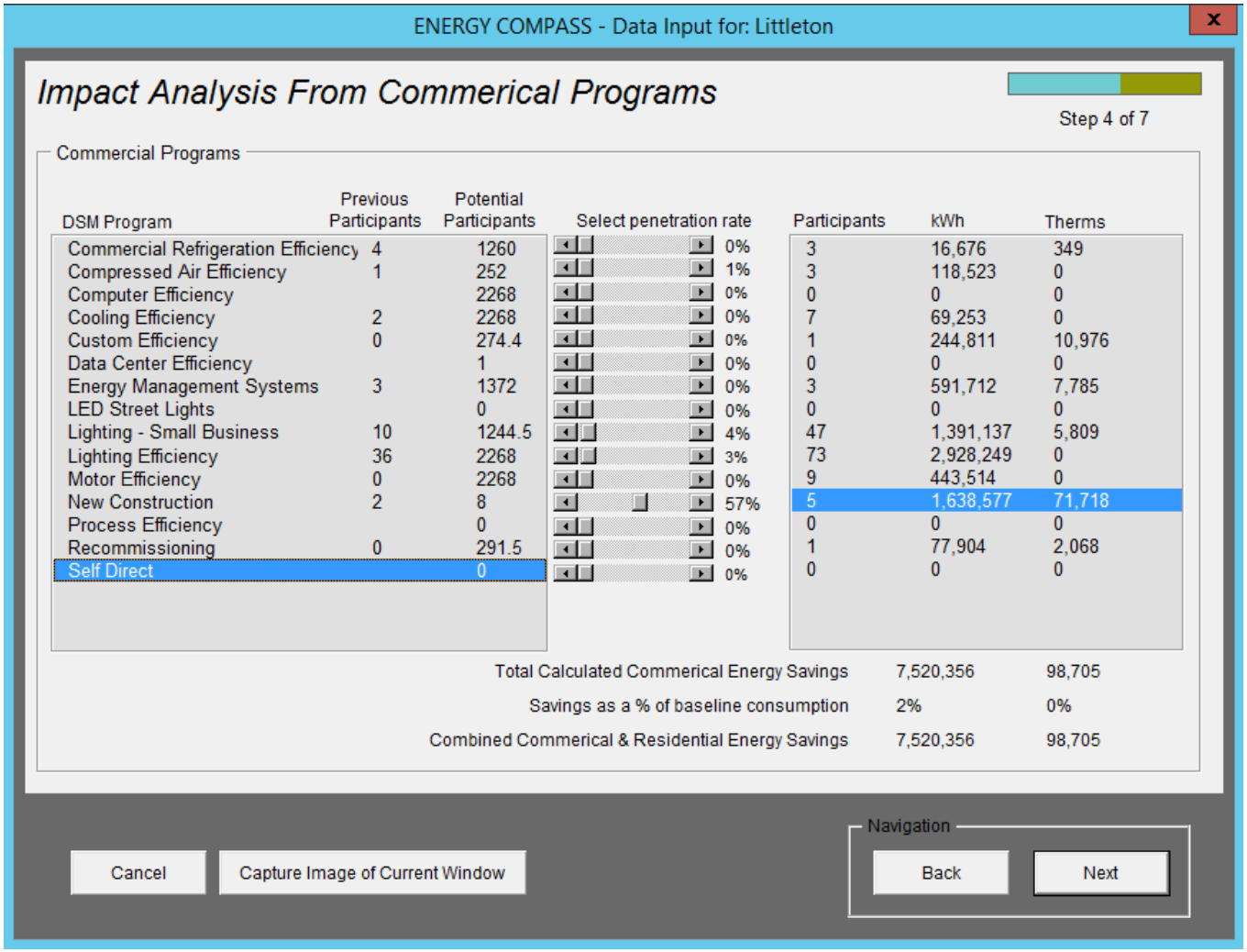
# Commercial Goal Setting

- Scenario 1: 1.5x 3-year average



# Commercial Goal Setting

- Scenario 2: 2x 3-year average



# Commercial Goal Setting

- Scenario 3: 3x 3-year average