



Boulder City Council  
Energy & Climate Study Session  
July 24, 2012

[www.Boulderenergyfuture.com](http://www.Boulderenergyfuture.com)

# Agenda



**Part 1-** Municipalization Update

**Part 2-** Climate Action Plan Tax Survey

**Part 3-** 2013 Energy Efficiency Initiatives

- Consultant Report
- Staff recommendations if CAP tax passes & if it does not

**Part 4-** Commercial Energy Efficiency Strategy  
Building Codes

# Questions for Council



*Questions or feedback about:*

- 1. Municipalization Update?*
- 2. CAP Tax Survey Results?*
- 3. Options and recommendations for 2013 :*
  - If the CAP tax extension passes*
  - If the CAP tax extension does not pass?*
- 4. Commercial energy efficiency pilot?*
- 5. Approach for 2012 building code updates?*



# PART 1

## Municipalization Update

# Part 1- Municipalization



## Charter Goals and Guiding Principles for Muni Exploration:

- Rates do not exceed Xcel's
- Revenue sufficient to pay operations & debt, plus amount equal 25% of debt payments
- Ensure reliability
- Reduced GHG emissions and increased renewable energy

## Guiding Principles

- Reliable Energy
- Fiscal Responsibility
- Clean Energy
- Ratepayer Equity
- Environmental Stewardship
- Enterprise

# Evaluation Process Schedule



**Phase I: Develop Strategies - Work Underway**

**Council consideration of best strategy(ies)/Potential off ramp**

**Phase II: Negotiations, legal work, strategy implementation**

**Council decision to form an Electric Utility or take another path**

**Phase III: Full implementation of strategy(ies)  
Time dependent on Phase II**

# General work plan overview



## **PHASE I: Develop strategies – Work underway**

- Will culminate with council selection of best strategy(ies) in late 2012/early 2013
  - First off-ramp milestone

## **PHASE II: Negotiations, legal work, strategy implementation – Near the end of Phase I**

- Several milestones, including possible off-ramp decision points
- Implementation of strategies
- Will culminate in final decision to form utility or pursue other localization strategies to meet Boulder's goals

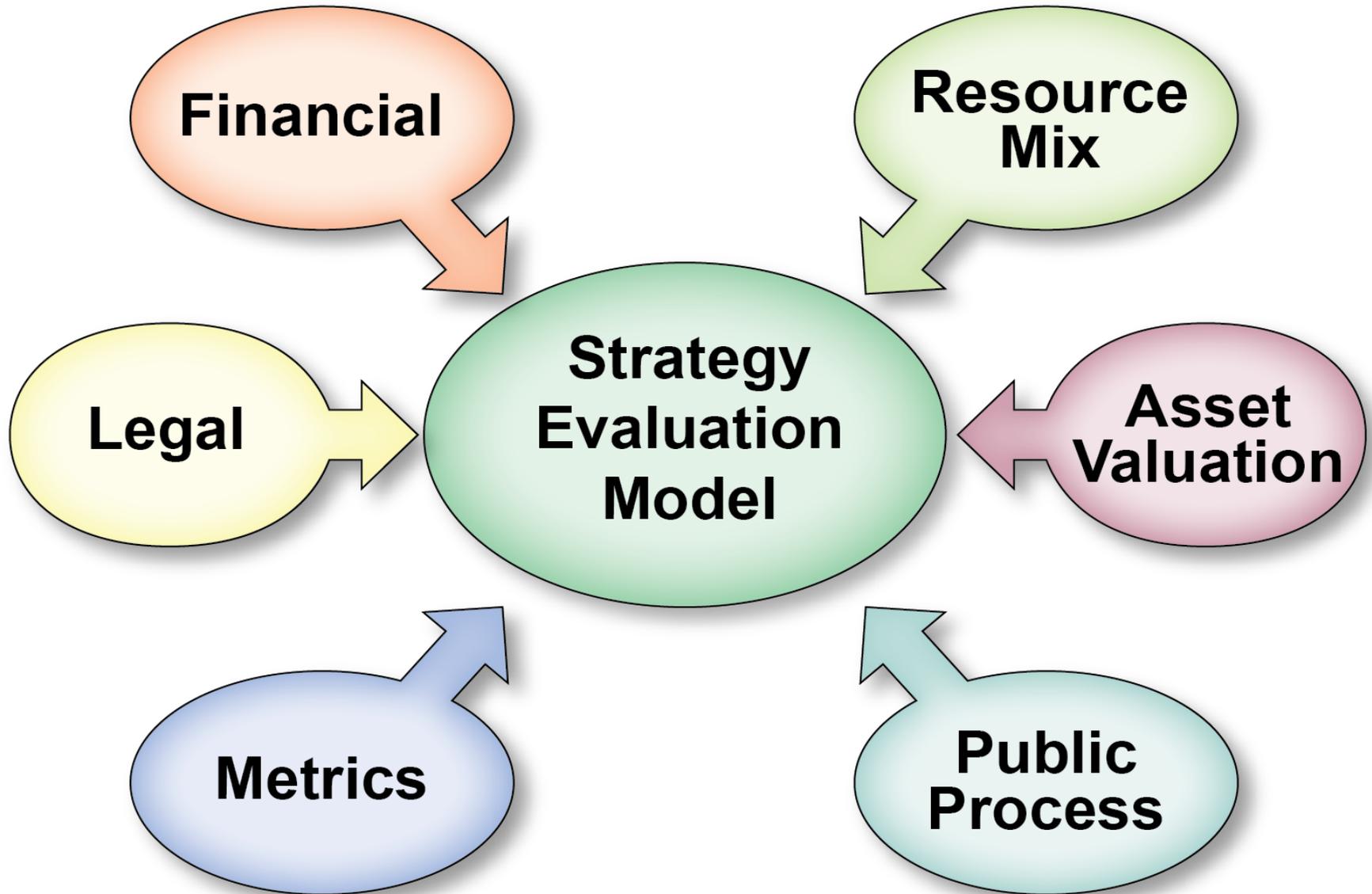
# General work plan overview



## **PHASE III: Full implementation of strategy(ies) based on legal outcomes – Time dependent on Phase II**

- Work begins to bring council selected strategy into operation
- May include establishing governance, obtaining financing and entering into power purchase agreements

# Strategy Development Inputs



# Work Areas: Phase I



Significant progress in:

- Legal
- Financial
- Resource Mix Evaluation
- Asset Valuation
- Public Outreach

# Municipalization: Next Steps



August 28 Study Session will include discussion of priorities for 2012/2013, including:

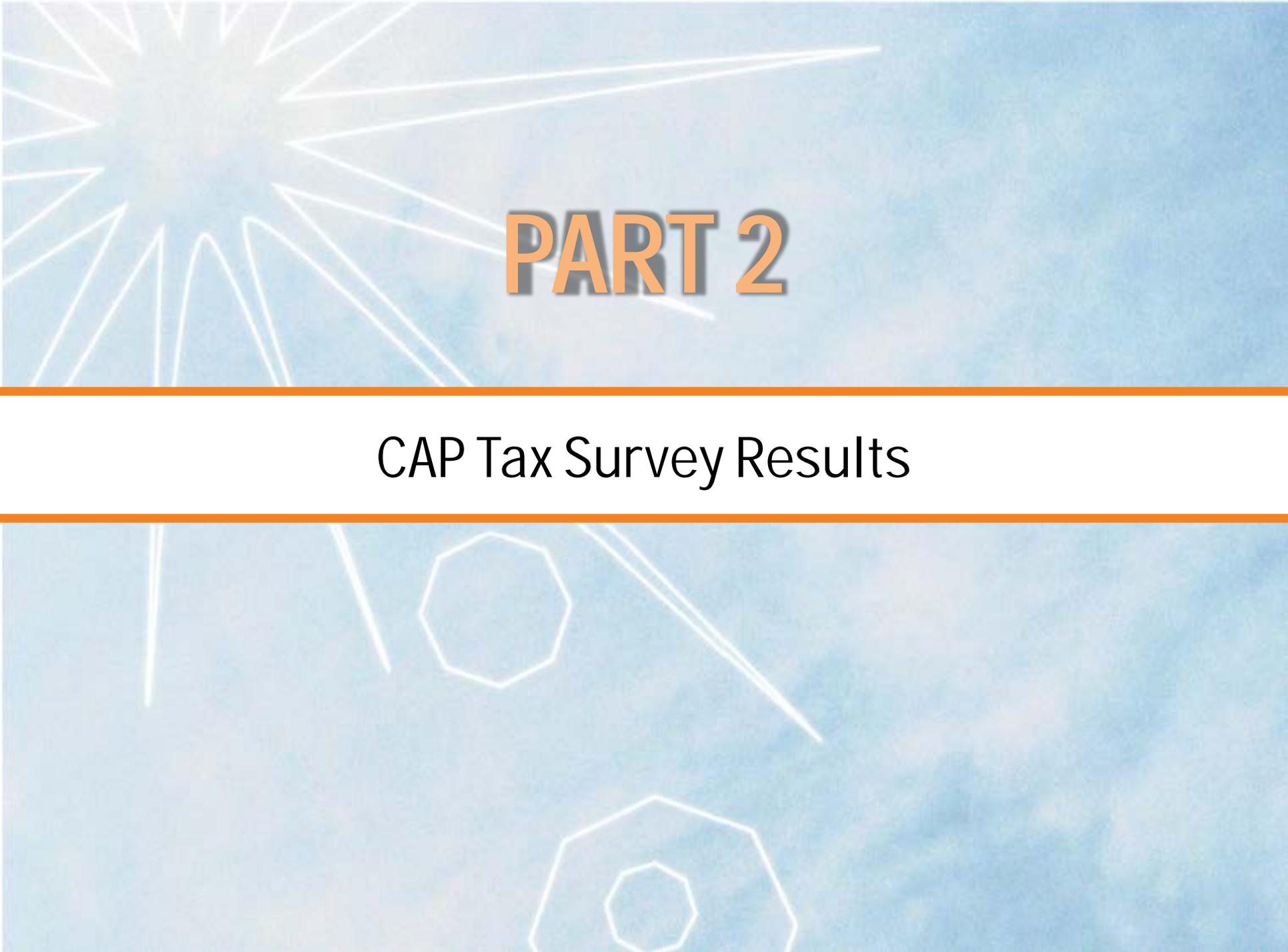
- Work plan and key milestones
- Schedule
- Resources
- Criteria and metrics for evaluating strategies
- Plan for public engagement

# Question for Council



- 1. Questions or feedback about the municipalization requirements and guidelines in the charter or the general work areas that will be included in a more detailed work plan in August?*

*Are the charter requirements and guidelines adequate to define criteria and parameters to guide the development of municipalization strategies or are there additions that council wishes to include?*



# PART 2

## CAP Tax Survey Results

# CAP Tax Survey Methods

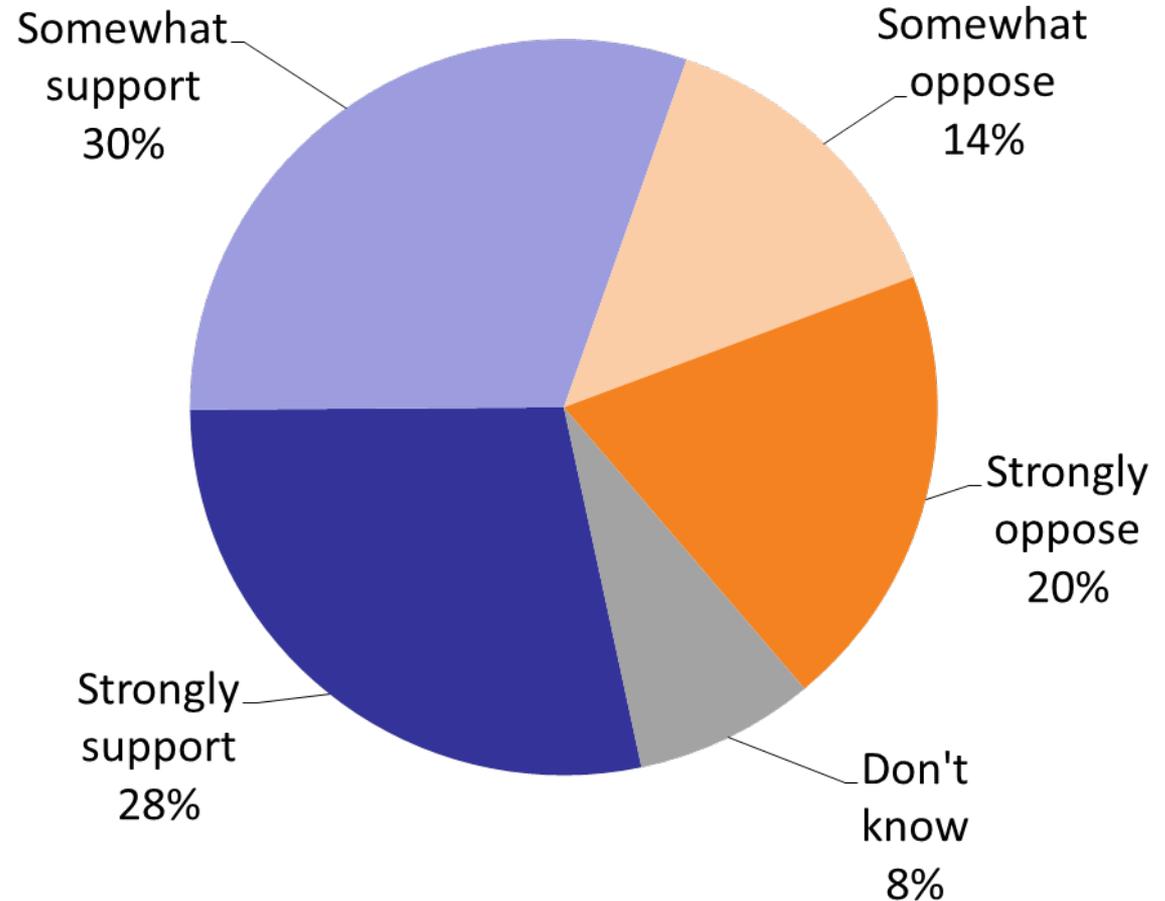


- *Telephone survey of registered voters*
  - *Voters who had voted between 2008 and 2011 or had registered to vote since 2008*
- *2100 selected in the random sample*
  - *400 completed surveys; response rate of 19%*
  - *Margin of error +/- 5%*
- *Results were weighted on age and gender based on population norms for eligible registered voters in Boulder*

# Support for or Opposition to the CAP Tax



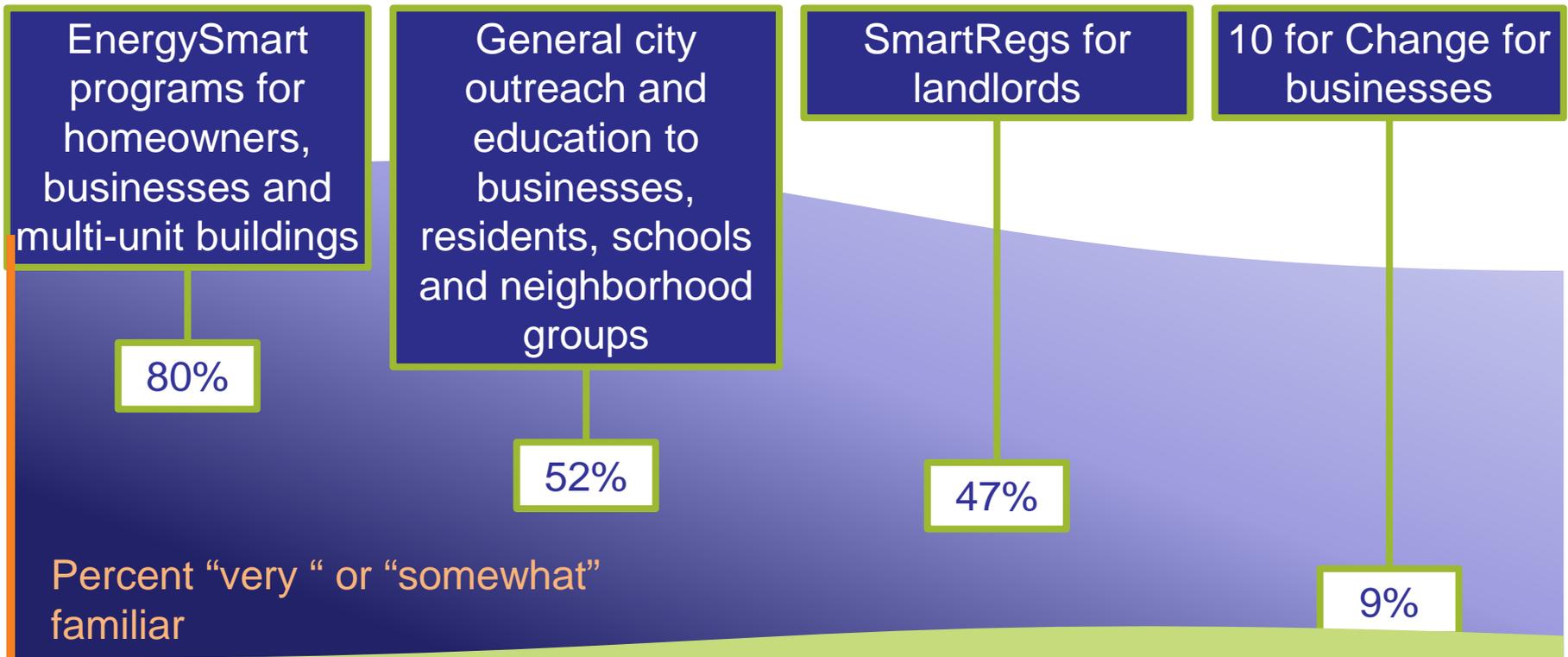
Right now, do you strongly support, somewhat support, somewhat oppose or strongly oppose extending the Climate Action Plan Tax?



# Familiarity with CAP Tax Programs



How familiar are you, if at all, with each of following programs funded by the Climate Action Plan Tax? How about...



Percent “very “ or “somewhat” familiar

33% thought programs funded by the CAP tax were “very” or “somewhat” effective

# Support/Opposition Factors



To what extent, if at all, does each of the following factor into your opinion about extending the Climate Action Plan Tax?

How much you trust the City of Boulder government

83%

How effective the energy saving programs are

80%

Your general view of taxes

73%

The amount of the tax

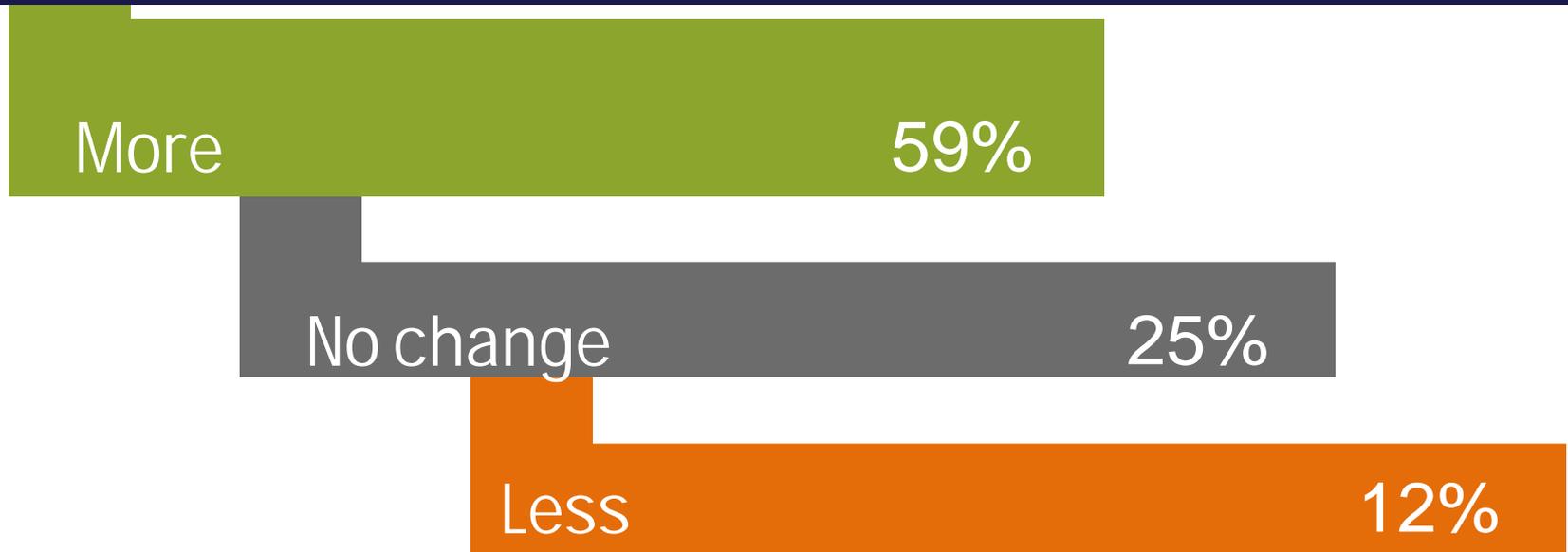
71%

Percent “strong “ or “somewhat a” factor

# Influence of Background information



If you knew that an analysis conducted by a non-city organization determined that Climate Action Plan tax money spent to date has been used in ways that are both cost-effective and likely to reduce greenhouse gas emissions in the future, would you be:



"A little" or "significantly" more likely

"Would not matter either way"

"A little" or "significantly" less likely

# Influence of Background information



If you knew that without Boulder's Climate Action Plan tax, city programs that provide energy efficiency rebates and resources for businesses and residents, like EnergySmart and 10 for Change, would be eliminated, would you be:

More

48%

No change

32%

Less

15%

"A little" or "significantly" more likely

"Would not matter either way"

"A little" or "significantly" less likely

# Influence of Background information



If you knew that 960 businesses and nearly 2,800 residential units in Boulder used Climate Action Plan-tax funded programs to save energy and money in 2011, would you be...

More

48%

No change

36%

Less

13%

"A little" or "significantly" more likely

"Would not matter either way"

"A little" or "significantly" less likely

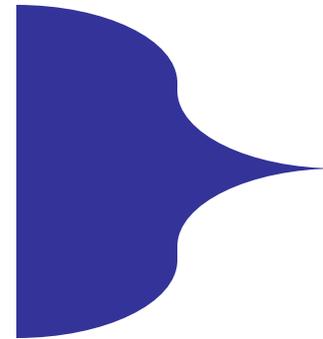
# Support/Opposition for Time Extension Factors



# Support for the .25% Tax



**.25% Sales and  
Use Tax**



**70%**

“strongly” or  
“somewhat” support

# Voting Plans



If only voting for one tax...

**22%**

reported that if only voting for two of the three taxes, they would vote for both the CAP Tax and the .25% Sales and Use Tax

**35%**

Would vote for the .25% Sales and Use tax

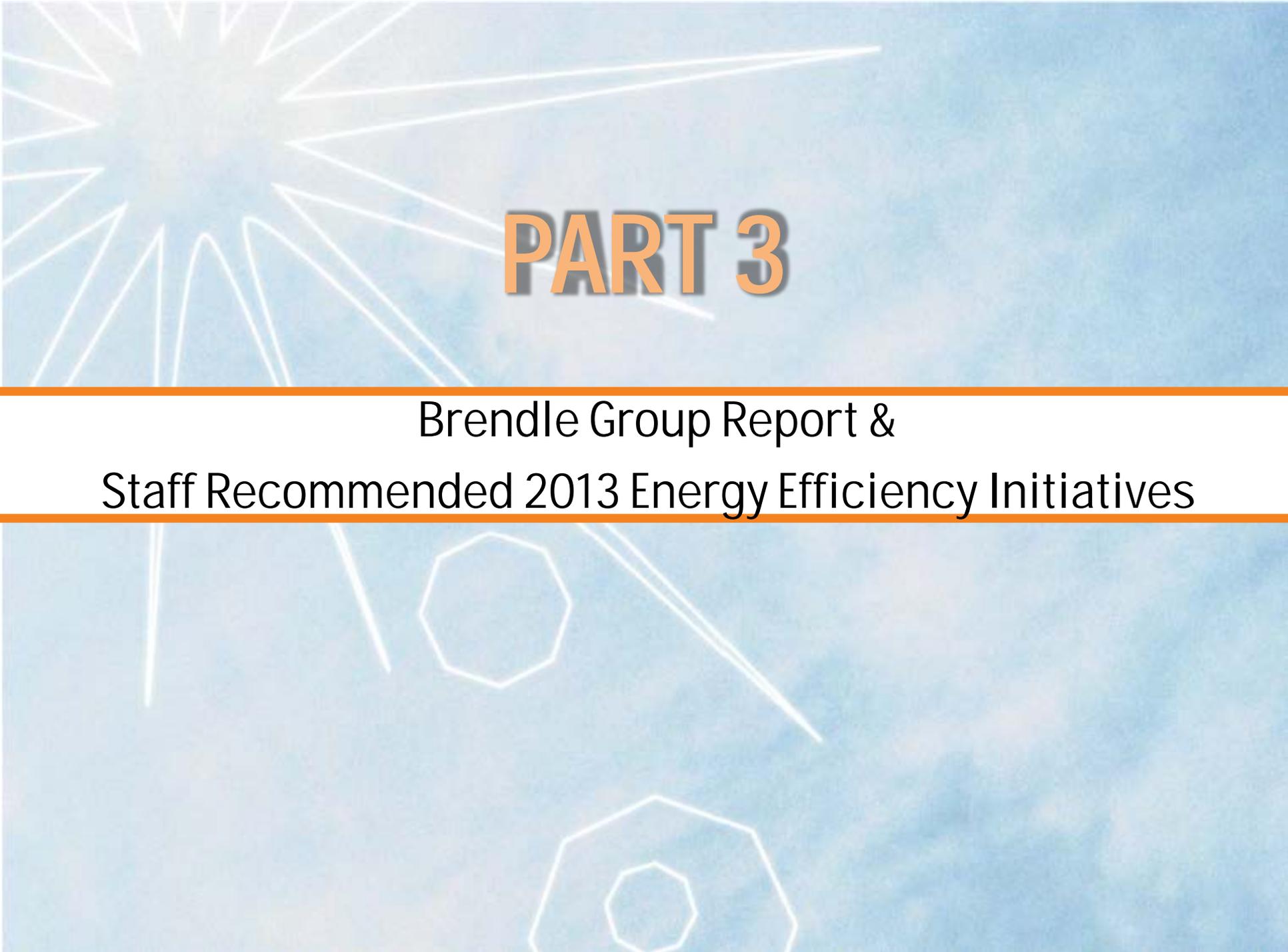
**25%**

Would vote for the CAP tax

# Question for Council



1. *Questions about the results of the CAP Tax survey?*



# PART 3

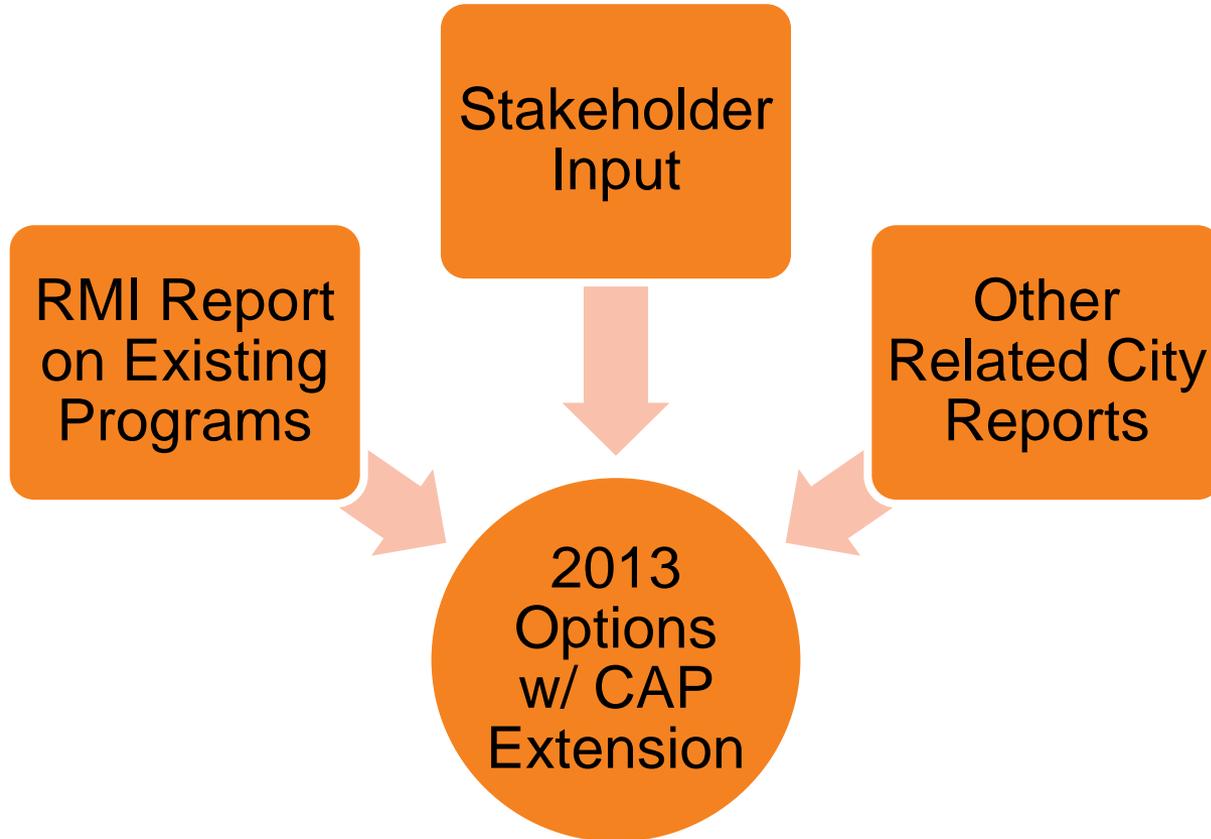
## Brendle Group Report & Staff Recommended 2013 Energy Efficiency Initiatives

# Part 3- Brendle Group Report

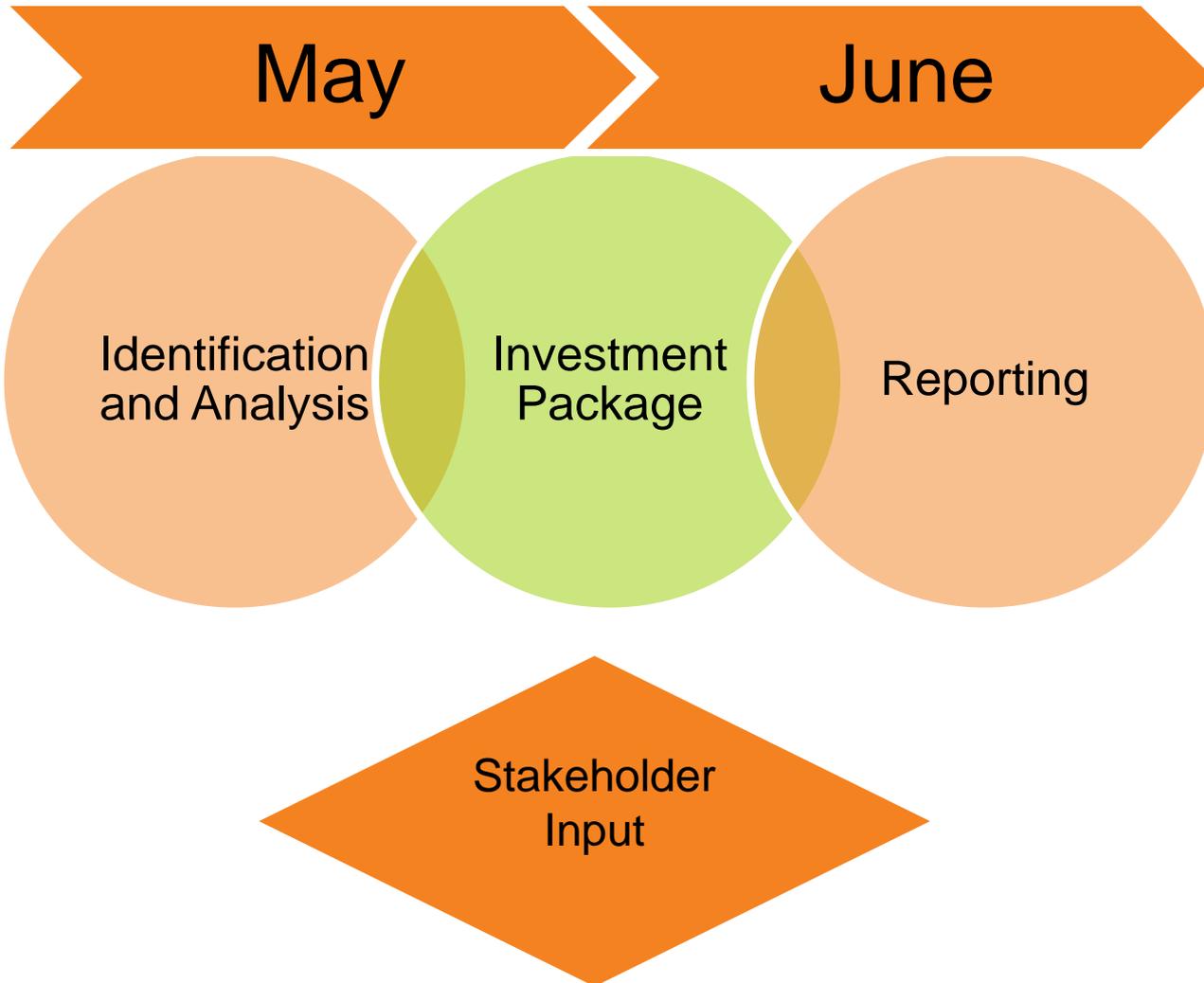


- Report objectives
- Process and ideas explored
- Key findings
- Investment package results

# Part 3- Brendle Group Report



# Part 3- Brendle Group Report



# Part 3- Brendle Group Report



**80 ideas explored**



**15 stand-alone  
programs analyzed**



**6 investment  
packages  
assembled**

# Part 3- Brendle Group Report



**80 ideas explored**

15 stand-alone programs analyzed

6 investment packages assembled

## Ideas Explored

- Modification of current CAP-funded programs
- DSM not currently provided by the City of Boulder
- Local generation options
- Other innovative approaches

# Part 3- Brendle Group Report



80 ideas explored

**15 stand-alone programs analyzed**

6 investment packages assembled

## Program Evaluation

### Criteria

#### Quantitative

- Total \$/mtCO<sub>2</sub>e
- Private sector payback
- Year 10 avoided mtCO<sub>2</sub>e
- Year 10 % of GHG goal

#### Qualitative (defined & analyzed)

- Effectiveness
- Efficiency
- Equity
- Externalities
- Certainty

# Part 3- Brendle Group Report



80 ideas explored

15 stand-alone programs analyzed

**6 investment packages assembled**

## Investment Packages Analyzed

- High GHG reductions
- Residential focus
- Commercial focus
- Multiple benefits
- Solar focus
- Renewable energy credits

Analysis for investment packages included consideration of collective outcomes and limitations.

# Part 3- Brendle Group Report



## Key Findings

- Program performance and continuous improvement
  - Leverage lessons learned
  - Allocate funds
- Consolidate existing commercial programs as CAP cornerstone
- Retain existing residential programs
- Include mandatory and voluntary
- Integrate renewables
- Allocate significant CAP funding to market innovation

# Part 3- Brendle Group Report



## Recommended \$1.8 Million Package

- Commercial Energy Efficiency Program: *Ordinance Development, EnergySmart Enhancements/ Campaigns, 10 for Change*
- Residential Energy Efficiency Program: *EnergySmart Enhancements and Campaigns*
- Residential SmartRegs
- Open RFP for GHG Emission Reductions
- Program Performance and Continuous Improvement

# Part 3- 2013 Energy efficiency Initiatives



## Summary of Key Recommendations

## Part 3- Summary of Key Recommendations



Utilize RMI and Brendle analyses to:

*Recommend a 2013 investment package that contains the most cost effective programs that maximize greenhouse gas reductions*



## Part 3- Staff recommended 2013 Initiatives

### Two potential funding scenarios:

1. Passage of the CAP tax (estimated \$1.8 M in annual revenue)
2. CAP tax does not pass



## Part 3- Staff recommended 2013 Initiatives

### **If tax passes....**

- Ramp up Commercial Energy Efficiency Programs (55%)
- Enhance Residential Programs (18%)
- Stimulate Local Market Innovation (16%)
- Tracking, Reporting, and Evaluation (11%)



## Part 3- Staff recommended 2013 Initiatives

### **If the tax does not pass....**

- SmartRegs
- Commercial Benchmarking Pilot
- Improve Tracking, Reporting, and Evaluation

# Part 3- Next Steps



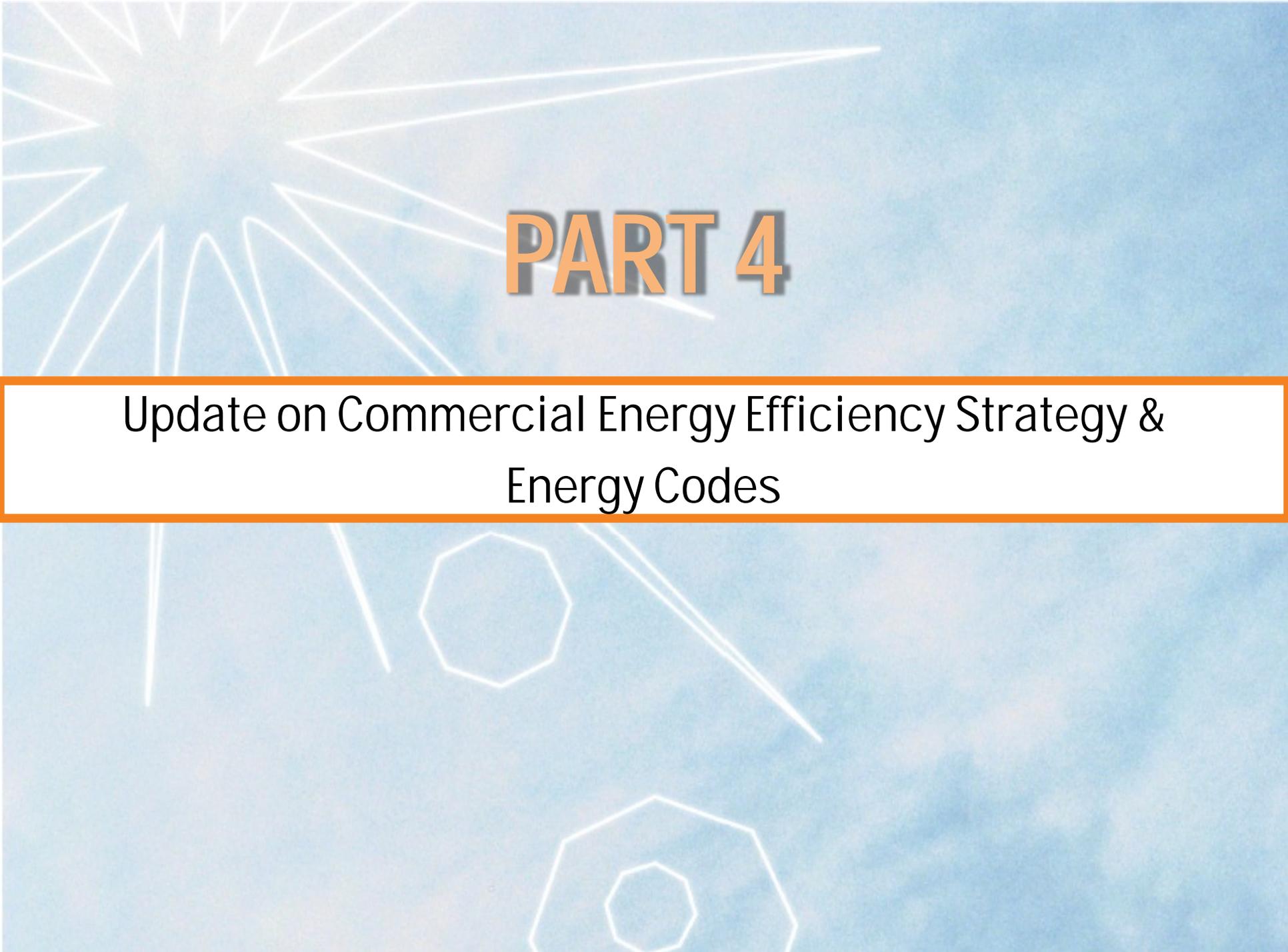
2<sup>nd</sup> reading CAP tax ordinance (August 7)

Materials and consultant reports available at:  
[www.BoulderEnergyFuture.com](http://www.BoulderEnergyFuture.com)

# Question for Council



- 1. Questions or feedback on the options and recommendations for 2013 energy efficiency initiatives if the CAP tax extensions passes and if it does not pass?*



# PART 4

## Update on Commercial Energy Efficiency Strategy & Energy Codes

# Part 4 - Commercial Energy Efficiency Strategy



## Commercial Benchmarking Pilot Purpose:

- Stakeholder input
- Design
- Implement
- Survey participants and evaluate building data
- Develop ordinance options





## Commercial Benchmarking Pilot Objectives:

- Benchmark a cross-sample of building sizes & uses
- Evaluate time/resources
- Understand energy use data access issues
- Identify most useful data outputs
- Gauge whole building energy performance





## **Main Components Required for Ordinance Development:**

- Evaluate building data; size, use and number
- Identify potential “triggers” and timeframes for compliance
- Use and confirm ENERGY STAR Portfolio Manager
- Understand the impacts to property owners
- Develop city business processes

# Part 4 - Energy Codes



## Energy Code Updates

- Residential Green Building and Green Points
- Commercial efficiency requirements





## Residential Energy Code

- Tiered requirements based on size
  - Multifamily and single family < 3,000 sf
    - = 2012 IECC
  - Single family between 3,001 and 5,000 sf
    - 20% > efficiency
  - Single family > 5,001sf
    - 45% > efficiency



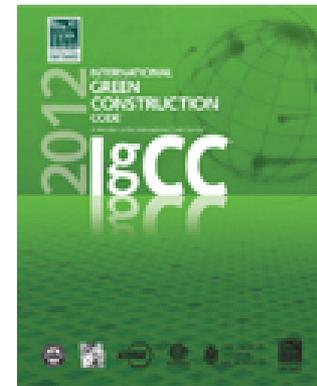
## Commercial Energy Code

### Base 2012 IECC

(30% improved efficiency is equivalent to current Boulder energy requirements)

### 2012 IgCC

- ASHRAE Standard 189.1
- 10% thermal envelope improvement



### 2012 IECC

- Amended to require 20% more energy efficiency



## Next Steps:

### Benchmarking & Disclosure Requirement

- Launch pilot in September
- Continue stakeholder process
- Develop and propose ordinance options Q1, 2013

### Residential & Commercial Energy Code Updates

- Evaluate options for consideration Q4, 2012

# Part 4- Questions for the Council



## ***Questions or feedback on:***

5. *The proposed Commercial Energy Strategy benchmarking pilot and stakeholder process to inform the development of ordinance options?*
6. *The energy efficiency recommendations and options being considered for the 2012 building code update?*

# Questions for the Council



***Other Questions or Feedback?***



## Next Steps

- Aug. 7 council meeting:
  - ✓ Study session summary
  - ✓ 2<sup>nd</sup> reading CAP tax ordinance
- Aug. 28: Municipalization work plan
- Benchmarking & disclosure pilot – Sept.
- Code updates, 4<sup>th</sup> quarter 2012