

Fort Collins Climate Action Plan Update: Citizen Advisory Committee Meeting



July 23, 2014

CAC Meeting Approach & Topics

Looping Approach – will introduce/preview the upcoming topic in the current meeting

Topic 1: Guiding Principles, Framework & Organization, Schedule, Baseline & Forecast, Key Assumptions

Topic 2: Metrics, Strategy Characterization, Best Practice, & List

Topic 3: Strategy Analysis, Scenario Alternatives

Topic 4: Scenario Analysis, Impact Assessment

Topic 5: Draft Plan Update

Vision/Framework

Guiding Principles: *Concepts and values underpinning the CAP Update*

Focus Area: *Categories by which the plan will be organized*

- Efficient Built Environment
- Energy Supply and Distribution
- Transportation
- Waste

Goal: *Desired emission reductions to guide plan development and measure progress*

- Resolution Goals
 - 20% by 2020
 - 80% by 2030
 - Neutral by 2050

Target: *Sub-goals that inform the pathway to the goal(s)*

- Interim targets – shaping the curve on the reduction timeline (e.g., decadal)
- Inventory-tied targets – sub goals by focus area/segment of the inventory

Vision/Framework (cont'd)

Strategy: *Impactful projects/programs designed to address a specific sector or major emissions source within a focus area or possibly across multiple focus areas; base unit for which CAP analysis will be conducted; up to 20 analyzed*

e.g. Net Zero Building Code (to address new residential and commercial construction or major modifications)

e.g., Utility as a Service Provider (to address energy efficiency and distributed solar in existing buildings across the residential and small commercial sectors)

Tactic: *Implementation steps, best practices, or activities that support the design and implementation of a strategy and it's associated emissions reduction target*

e.g. Social mobilization technique to drive adoption

e.g., Consumer-oriented technology apps to drive behavior change

Vision/Framework (cont'd)

Scenario: *Combination of strategies grouped together, representing a pathway to achieve a future goal; will analyze up to 6 scenarios; scenarios can be used to bracket the range of pathways to achieve the goal (80% by 2030) and to find optimal pathways based on guiding principles/community values*

e.g. Acceleration scenario: what's the fastest path to 80%

e.g. Least cost scenario: what's the lowest cost path to 80%

Metric: *Quantitative and qualitative evaluation criteria for analyzing and comparing strategies and scenarios*

e.g. Annual emissions reduction potential

Results: *Outputs from analysis that will be used to explain results from different points of view*

e.g. Emission reduction wedge diagram

Sources of Strategies

- Expertise of the CAP Network:
 - Best practices/strategies/programs from Climate Action Plans nationally and internationally
- Leading-edge CAPs elsewhere:
 - Expertise and areas of interest/recommendation among the participants
 - CAC, staff, consultants, national experts, etc.
- Local Traction:
 - Existing Ft. Collins CAP strategies and related city programs and projects (what's working, strategies to enhance/expand)
 - Stepping Up Report
 - Other areas of community momentum (FortZED, CCEC transportation projects)

Size/ Granularity of Strategies

- Seeking to analyze 16-20 impactful strategies rather than dilute resources analyzing tactics
- Based on 80% goal and required reductions – looking at strategies on the order of 100,000 to 300,000 CO₂e metric tons reduction (~2.25M metric tons total; for example, ClimateWise 2013 reported 171,000 tons)
- Keep all ideas coming – will be sorted/organized into the most relevant strategy and used to improve the analysis and develop future tactics/ implementation steps
- Looking for a ‘system’ of strategies that address different pieces of the puzzle for putting together a complete solution, rather than evaluating competing strategies to compare and pick
- Looking for consistency in definition and structure of strategies so they can be put together like building blocks into different configurations (scenarios) to explore different options/pathways for achieving the CAP goal(s)
- Strategies will have static assumptions that define them as well as variables to ‘dial up/down’ the size/impact of the strategy for further flexibility in putting strategies together into scenarios

Template for Describing Strategies

- **Title**
- **Description** (paragraph summary of the program/strategy, how it works, other cities where it's been implemented, etc.)
- **Focus Area** (building, energy supply, transportation, waste)
- **Sector** (residential, commercial, industrial, institutional)
- **Type** (direct mitigation, innovative business model, behavior change)
- **Defining Assumptions and Variables**
- **Level of Uncertainty**
- **Climate Adaptation Impacts** (how will this strategy impact and be impacted by climate change)

Illustrative Strategy List

Efficient Built Environment	<ul style="list-style-type: none"> • Utility as a Service Provider • Enhanced/Retooled ClimateWise • Net Zero Building Code • My 80x30 – Smart meter/apps • Industrial Energy Efficiency Program
Energy Supply and Distribution	<ul style="list-style-type: none"> • PRPA Integrated Resource Plan • Gas Fuel Switching • Advance/Enhance Rooftop Solar Adoption • Solar Gardens/Community-Scale Solar
Transportation	<ul style="list-style-type: none"> • Urban Planning/Smart Growth • Intelligent Transport Systems • Price Signals (parking, etc.) • Transportation Electrification • Efficient Vehicle Policies and Programs
Waste	<ul style="list-style-type: none"> • Road to Zero Waste
Other	<ul style="list-style-type: none"> • Local Offsets/ Sequestration

CAP Modeling Variables and Metrics

- **Quantitative Variables**

- Annual GHG emissions reduction potential
- Cumulative GHG emissions avoided by 2020, 2030, and 2050
- First cost (\$) and annual cost/savings (\$/year)
- Net present value/return on investment and/or simple payback
- Cost effectiveness (\$/ton avoided over time)

- **Qualitative Variables**

- Technical feasibility
- Funding feasibility
- Political feasibility
- Climate adaptation synergies
- Other economic outcomes (see next slide)
- Other social outcomes (see next slide)

Social and Economic Metrics

- **Social Outcomes – TOP 3 Survey Responses**
 - Supports health and wellness
 - Ensures food access and nutrition
 - Reduces hazards and/or increases safety
- **Economic Outcomes – TOP 2 Survey Responses**
 - Impact on community energy use
 - Impact on housing affordability index

Wrap-Up and Next Steps

- **July 30th** - Any additional feedback on preliminary strategy list (see handout) and metrics due
- **August 12th** – Present preliminary strategy and metrics lists at Council Work Session
- **August 23rd – Next CAC Meeting**
 - Strategy list and metrics
 - Introduce strategy analysis and scenario alternatives
- **What else do you need from us to feel comfortable finalizing the strategy list and metrics?**