



Natural Resources Department
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MEMORANDUM

TO: Mayor Hutchinson and City Councilmembers

THRU: Darin Atteberry, City Manager *DA*
Diane Jones, Deputy City Manager *DJ*

FROM: Lucinda Smith, Sr. Environmental Planner *LRS*

CC: Brian Janonis, Utilities General Manager
Marty Heffernan, CPRE Director
John Stokes, NRD Director

DATE: March 31, 2008

SUBJECT: March 25, 2008 Work Session Summary – Greenhouse Gas Goals

On March 25, 2008, City Council held a work session to discuss the greenhouse gas goals for Fort Collins. All Councilmembers were present. At the start of the agenda item, Brian Janonis and Brian Moeck provided comments to Council about Renewable Energy Credits and answered questions. Council requested two follow-up items:

- A two-pager that defines "Renewable Energy Credits", what we have and are expected to purchase, why we would invest in more RECs instead of creating more of our own product, what do our policies say vs. the perception of what boards would like to see done in the future, etc. Include a list of acronyms and the associated descriptions.
- A "road map" related to the Smart Grid.

John Stokes and Lucinda Smith then made the staff presentation on greenhouse gas goals. Kevin Cross, representing the Fort Collins Sustainability Group was invited to the table.

In summary, all Council members supported consideration of a resolution adopting the state greenhouse gas goal to reduce emissions 20% below 2005 levels by 2020 and 80% below 2005 levels by 2050. Two members also wanted an interim goal established to achieve the existing 2010 goal threshold of 2,466,000 tons greenhouse gas emissions by the end of 2011. Council stressed the importance of continuing existing actions, taking additional actions soon and establishing a robust process for annual reporting, public review and course correction. There was some interest in establishing a public review board.

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Council members indicated support for the following chronological process:

- Council resolution to adopt goal
- Climate Task Force (CTF) complete recommendations to the City Manager
- Staff develop recommendations on updated climate action plan, taking into consideration CTF recommendations
- Council work session
- Public outreach
- Council action to adopt climate action plan. *(Note: Specific recommendations in the plan would require subsequent Council implementation steps.)*

Council also asked for the following information to accompany the resolution on greenhouse gas goals:

- 2007 Fort Collins greenhouse gas emissions inventory
- Side by side comparison of all the slides to provide an organized, complete graphical depiction of the goals

Requests were made that the Resolution to adopt the goal include statements about:

- Importance of climate change issue locally and globally
- Importance for Fort Collins to do its share
- List of co-benefits from climate protection strategies
- The need for the climate plan to articulate interim milestones and establish an annual reporting and review process
- A caveat for updating the goal, in light of evolving science, technology or other opportunities
- Encouragement of all organizations in Fort Collins to do their share

Some Council members raised concerns that little had been done to reduce or track emissions since the goal was set in 1999. A brief summary of progress is provided in Attachment 1.

Next Steps

Staff will prepare a resolution to adopt the state greenhouse gas goals and supporting materials for consideration at a future City Council meeting as soon as possible.

Summary of Fort Collins' Greenhouse Gas Reduction Progress (March 2008)

In 1999, Fort Collins City Council adopted the Fort Collins Local Action Plan to Reduce Greenhouse Gas Emissions and set a goal to reduce citywide greenhouse gas emissions 30 percent below predicted 2010 levels, by 2010. Resolution 99-137 also called for formation of an Energy Management Team to facilitate implementation of the plan, prepare biennial reports to evaluate the City's progress on greenhouse gas reduction efforts and recommend future climate protection actions.

The first biennial report was completed in April 2001. It showed that Fort Collins' residents, businesses and the City government together avoided an estimated 190,000 tons of carbon dioxide equivalent (CO₂e) in the year 2000 alone, or 10% of emissions. The second biennial report covered the years 2001 and 2002 and estimated that nearly 237,000 tons of CO₂e were avoided in Fort Collins in 2001, based on all measures that could be quantified in that year. Quantifiable climate protection activities reduced citywide emissions by 10% in the year 2001.

The third biennial report quantified greenhouse gas emissions and reductions for 2003 and 2004. It estimated that over 241,000 tons of CO₂e were avoided in Fort Collins in 2004. The majority of 2004 reductions (64%) came from businesses and organizations through participation in Climate Wise, recycling, purchasing wind power, energy conservation, and trip reduction. Individual citizens were responsible for 22% of the reductions by recycling, purchasing wind power, and participating in Fort Collins Utility rebate programs. The City government achieved 14% of the citywide reductions through efficiencies in the electricity distribution system, methane flaring at the wastewater treatment plant and the purchase of wind energy. Quantifiable climate protection activities reduced citywide emissions by 9% in 2004. These reports are posted at <http://fcgov.com/climateprotection/policy.php>

The Climate Status Report for 2005 and 2006 is nearly complete. Preliminary estimates indicate that over 247,000 tons of CO₂e were avoided in 2006. Table 1 on the back provides the draft quantification of 2006 emissions reductions.

Climate protection Implementation highlights from 2000 through present include:

Conversion of traffic signals to energy efficient light-emitting diodes

This action was ranked the highest priority for implementation. The conversion of red and green signals to LEDs saves over \$110,000/year in electricity and maintenance costs, with an initial capital cost of \$370,000, for a ~ 3.4 year payback.

Climate Wise Business Outreach

The Fort Collins Climate Wise voluntary business outreach program was initiated in 2000 and has been growing ever since. As of 2006, Climate Wise partners collectively avoided over 62,000 tons CO₂e in that year alone, and reported over \$2 million in cost savings since 2001. The program has now grown to over 70 partners and the greenhouse gas reduction and cost savings are increasing as well.

Wind Energy Program

Fort Collins Utilities has offered renewable energy to customers through the Wind Program since 1998. The program has grown steadily since that time and by 2006, there were over 1400 residential and over 80 commercial subscribers, avoiding over 19,000 tons CO₂e in 2006 alone.

2004 Update to Residential Building Code

The 2004 energy code update for Fort Collins residential buildings requires energy efficiency improvements (R-18 walls, low-e windows, more effective furnaces, duct work, right-sized AC systems). These upgrades will save homeowners \$90 - \$150/yr/home in utility costs and will avoid 1.2 – 1.5 tons CO₂e/home/year.

Addition of a centralized recycling drop-off site

The Rivendell site opened March 2002. By 2004, Rivendell was receiving approximately 1,400 tons material each year, and the usage is growing. In 2004, Rivendell recycling resulted in approximately 1,800 tons CO₂e avoided and provides added convenience to citizens for recycling.

Electric Energy Supply Policy

In addition to measures include in the Local Action Plan, the passage of the Electric Energy Supply Policy in 2003 has led to significant greenhouse gas reductions. The targets of the supply policy are:

- Reduce per capita electric consumption 10% from 2002 levels by 2012
- Reduce per capita demand peak 15%
- 15% renewable energy by 2017

A 1% fee on utility bills funds the energy efficiency and green power programs. Collectively, programs the demand side management programs, including refrigerator recycling, have reduced over 20,000tons CO₂e in 2006.

Table 1. Preliminary 2006 Fort Collins Greenhouse Gas Reductions (3/31/08)

Citywide Quantifiable Measures	Tons CO2 reduced in 2006
Climate Wise for businesses	62,000
General Total	62,000
1997 City Energy Code	9,900
Demand Side Mgmt Programs	20,000
Wind Renewabel Energy	19,000
Rate-based Renewable Energy	12,000
Energy Total	60,900
VAN GO in Fort Collins	300
Transportation Total	300
Business Recycling	79,000
Residential Recycling	39,500
Larimer County Wood Waste Diversion	
Solid Waste Total	118,500
CO ₂ Sequestration by trees	26,200
Vegetation Total	26,200
Citywide Water conservation	11
Water Total	0

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Municipal Quantifiable Measures	Tons CO2 reduced in 2006
FC Electricity Distribution	24,300
City Wind Energy	1,100
Replace Traffic Signals with LEDs	1,400
Lighting Upgrades – City Buildings: 90-01	100
Chillers	100
Energy Total	27,000
Alternative Fuels - City Fleet vehicles	700
Hybrid Vehicles - City Fleet vehicles	10
Transportation Total	700
Methane Flaring and Heat Recovery	4,200
City gov recycling	600
Solid Waste Total	4,900
SIRE Electronic Document Archive	18
Purchasing Total	18

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MEMORANDUM

TO: Mayor Hutchinson and Members of City Council

THROUGH: Darin Atteberry, City Manager *DA*
Diane Jones, Deputy City Manager *DJ*

FROM: Lucinda Smith, Sr. Environmental Planner

CC: Marty Heffeman, CPRE Director
John Stokes, NRD Director

DATE: April 11, 2008

SUBJECT: Response to Questions Related to Greenhouse Gas Reductions and Goals

The information below is provided in response to three Council questions that have arisen recently as Council considers progress on a local greenhouse gas goal.

I. Provide a synopsis of what has been achieved from the time the goal was established to present

In 1999, Fort Collins City Council adopted the Fort Collins Local Action Plan to Reduce Greenhouse Gas Emissions and set a goal to reduce citywide greenhouse gas emissions 30 percent below predicted 2010 levels, by 2010. Resolution 99-137 also called for formation of an Energy Management Team to facilitate implementation of the plan, prepare biennial reports to evaluate the City's progress on greenhouse gas reduction efforts and recommend future climate protection actions.

The first biennial report was completed in April 2001. It showed that Fort Collins' residents, businesses and the City government together avoided an estimated 190,000 tons of carbon dioxide equivalent (CO₂e) in the year 2000 alone, or 10% of emissions. The second biennial report covered the years 2001 and 2002 and estimated that nearly 237,000 tons of CO₂e were avoided in Fort Collins in 2001, based on all measures that could be quantified in that year. Quantifiable climate protection activities reduced citywide emissions by 10% in the year 2001.

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Individual citizens were responsible for 22% of the reductions by recycling, purchasing wind power, and participating in Fort Collins Utility rebate programs. The City government achieved 14% of the citywide reductions through efficiencies in the electricity distribution system, methane flaring at the wastewater treatment plant and the purchase of wind energy. Quantifiable climate protection activities reduced citywide emissions by 9% in 2004. These reports are posted at <http://fcgov.com/climateprotection/policy.php>

The Climate Status Report for 2005 and 2006 is nearly complete. Preliminary estimates indicate that over 247,000 tons of CO₂e were avoided in 2006. Staff anticipates completing this report by the end of April 2008.

Some of the key climate protection implementation highlights from 2000 through 2006 are listed below.

Conversion of traffic signals to energy efficient light-emitting diodes

This action was ranked the highest priority for implementation. The conversion of red and green signals to LEDs saves over \$110,000/year in electricity and maintenance costs, with an initial capital cost of \$370,000, for a ~ 3.4 year payback.

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Electric Energy Supply Policy

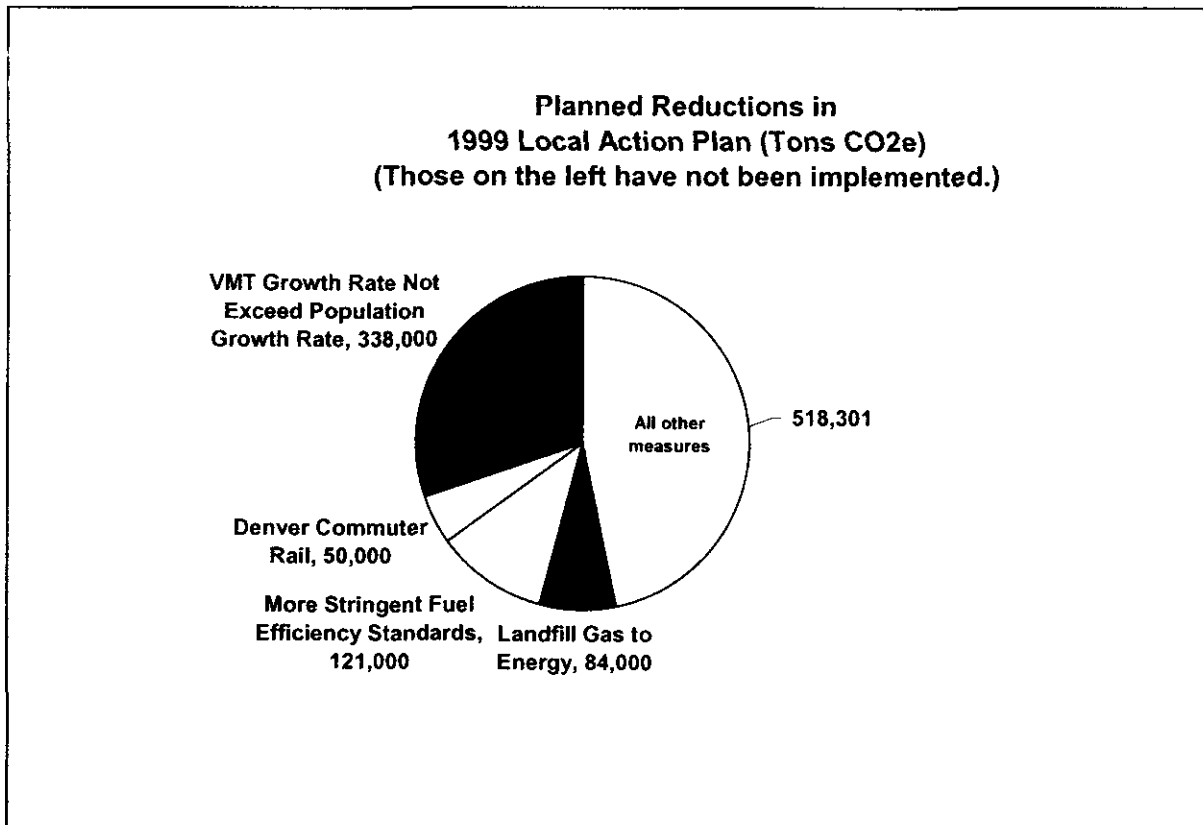
In addition to measures include in the 1999 Local Action Plan, the passage of the Electric Energy Supply Policy in 2003 has led to significant greenhouse gas reductions. The targets of the supply policy are:

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II. Reasons Why Fort Collins is Not On Tack to Meet the 2010 Goal

A primary reason Fort Collins is not on track to meet the 2010 goal is that the 1999 Local Action Plan to Reduce Greenhouse Gas Emissions included a few large strategies that were not implemented. Three large strategies were not directly within local control (Denver Commuter Rail, More Stringent Vehicle Fuel Efficiency Standards, and Landfill Methane Capture), and one strategy was not met (VMT Growth Rate Not Exceed Population Growth Rate). Together, these four strategies represented over 50% of the total reduction strategies contained in the original Local Action Plan.



The consequence of including strategies not in local control in the first climate action plan underscores the reason the current Climate Task Force is focusing on strategies that are within local control.

While each biennial climate status report identified progress on the goal and identified strategies for future implementation in the next budget cycle, no projection of the new or revised strategies out to 2010 was done and some of the identified strategies were only partially implemented or were not implemented. Consequently, Fort Collins drifted off track to meet the 2010 goal, despite successful implementation of a number of measures.

Lessons Learned

- Focus on strategies within local control
- Increase Council and public review of periodic reporting

III. Interim Reporting and Milestones Under a New Goal

At a meeting on March 31, the Climate Task Force (CTF) has recommended annual reporting on a new greenhouse gas goal and the establishment of biennial milestones that are synchronized with the biennial budget cycle. The CTF recommends that these milestone years should include a comprehensive assessment of progress and review at a City Council work session.

It is important to know that the emissions inventory and reduction quantification methodologies and data availability may continue to change with time, requiring updates to the numbers. It is also likely that future emissions reductions will not occur linearly each year. There may be some years with larger reductions and other years with smaller reductions. A schedule for milestones will be developed and proposed as the greenhouse gas planning process moves forward that attempts to reflect these points and provide for serious discussion about contingencies if the need arises.



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To: Mayor and City Council

Thru: Darin Atteberry, City Manager *DA*
Diane Jones, Deputy City Manager *DJ*
Jeff Scheick, Planning, Development & Transportation Director *JS*
Joe Frank, Advance Planning Director *JF*

From: Clark Mapes, City Planner *CM*

Date: March 26, 2008

Re: March 25, 2008 Council Work Session – Work Session Summary – March 25
Harmony Corridor Plan Amendment, I-25 Gateway

Jeff Scheick introduced the item and staff team. All Council members were present. The item considered main ideas behind a proposed amendment to the *Harmony Corridor Plan* specifically with regard to the area at the west side of the Harmony/I-25 interchange.

Council directed staff to proceed with preparation of a Plan amendment to bring forward to hearing on an appropriate schedule to allow the time to “do it right”, allow for Board input, and other review as appropriate.

- Three Council members support moving forward and also support the proposal;
- Two Council members support moving forward but have serious reservations about the proposal needing further exploration; and
- Two Council members do not support moving forward with further work on the proposal.

Council questions and concerns:

Schedule. Current schedule for May 6 Council hearing appears difficult/unrealistic.

Tendency for “bust” between vision images and reality of development. Need details, “teeth” to avoid surprises later.

Potential number of residents in the area?

Definition of key ideas – e.g., *reshaped landscape, naturalistic, riparian landscaping.*

Public infrastructure impacts? Likely requests for City partnership/participation in funding?

Effects of altering floodplain?

Diminishment of open space as top community value?

Council points of support:

Enhances city, fits goals, provides needed update, unique, ties in to transit.

Council points of opposition:

A little town at edge of city, height, air quality for residents, P&Z comments, floodplain impacts.