

# Colorado State University

# CLIMATE ACTION PLAN

## September 2010

### leading the way...

Colorado State University has built a global reputation as a research leader in disciplines that impact the health of our planet. The university is pioneering the development of clean and alternative-engine technology, by launching a groundbreaking program in global and sustainable enterprise. With an academic focus and attention to research, our university is a place that takes seriously its responsibility to our planet and to future generations. The following summary highlights the plans CSU has to achieve a carbon neutral status.

### One of the Largest Solar Plants on a University Campus

Colorado State University has already installed more than 5,500 kW of photovoltaic panels on their campuses. These systems include five small PV systems (totaling more than 236 kW) that contribute directly to reducing Colorado State's GHG footprint. The large 5,300 kW solar plant is owned by a third party. While the environmental benefits of that plant have been sold for the first 20 years, after that the benefits can revert to CSU and are accounted for in the long term of the CAP.

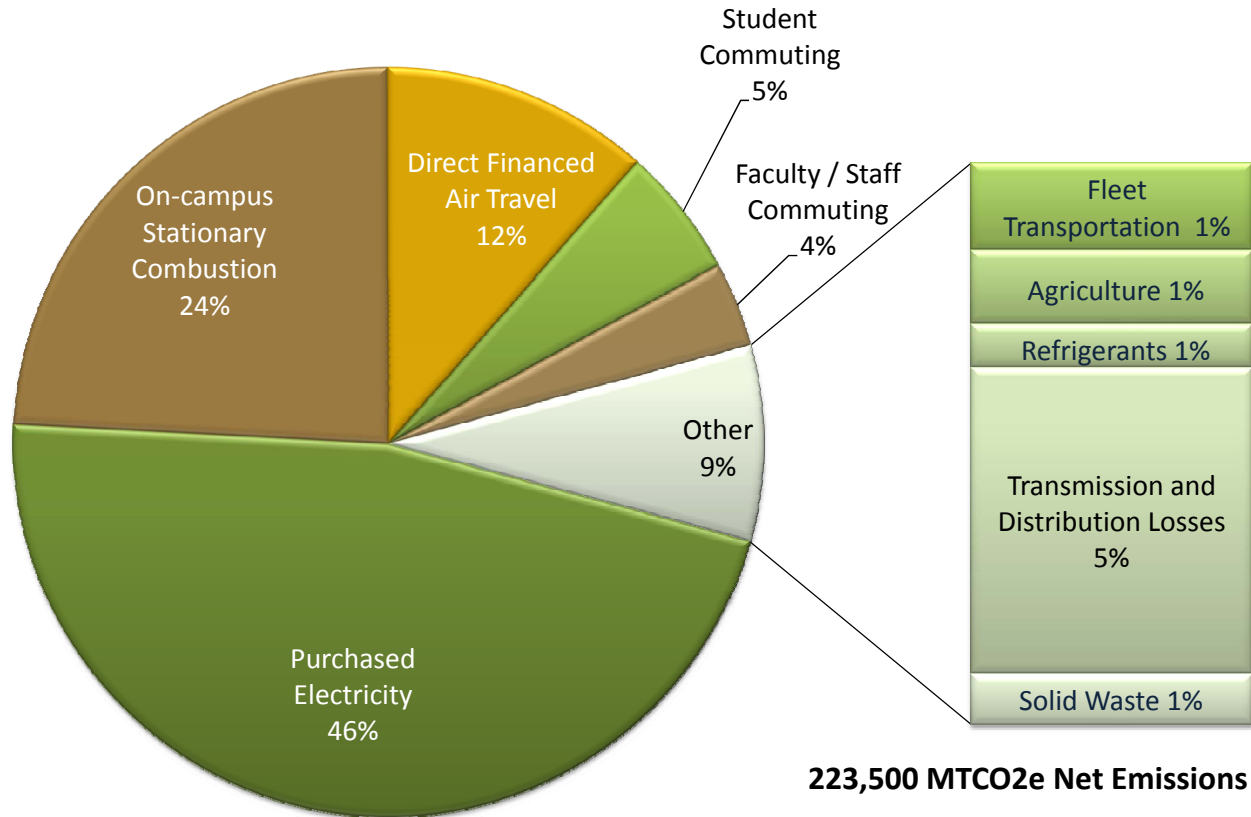


Two megawatt solar array at Chrisman Field

## CSU's Commitment

In 2008 Colorado State signed the American College and University President's Climate Commitment (ACUPCC), whereby CSU agrees to set climate neutrality as a long-term climate goal. The Climate Action Plan begins the process of defining a path for CSU to achieve this goal.

## FY2009 CSU Greenhouse Gas Emissions Sources



## CSU's Climate Action Plan

The Climate Action Plan establishes a series of short-term, medium-term and long-term strategies for reduction and mitigation of CSU's net greenhouse gas emissions. CSU and the other ACUPCC signatory schools are working to show the rest of the society how to work toward climate neutrality. Actions taken here at CSU and all across the country will move us toward climate neutrality. They will also dramatically reduce operating costs, train workers for clean energy jobs, and spur innovation in energy efficiency, transportation, and renewable power.

## Financing

The costs and savings projected in the previous strategies are based on conservative assumptions such as all-cash funding coming from CSU and no escalation in current utility rates. Other financing mechanisms, such as bonding and third-party financing, could be used to reduce the capital requirements associated with climate neutrality and to level out the cost of this plan. Furthermore, many of the strategies proposed in this plan result in positive net cash flows and can be largely self-funding. These projections are based on today's utility rates, and the positive cash flow associated with utility savings will increase with increasing utility rates.

The University can explore several opportunities to help fund implementation of the plan's measures including:

- Utility rebates
- Federal incentives
- Grants
- Performance contracting
- Capital campaigns
- Revolving loan funds



Thermal Storage Tanks & Solar Electric (PV) at the Academic Village Residence Hall

## CAP Mitigation Strategies

### Energy Use in Buildings

- 🍃 Building Energy Efficiency
- 🍃 Outreach, Smart Metering, and Behavioral Changes
- 🍃 Re-commissioning (Tuning up Buildings)
- 🍃 Computer Power Management and Server Virtualization
- 🍃 Reduction of Full-Load Operation of Equipment and Tighter Scheduling
- 🍃 High-Performance New Construction

### Renewable Energy

- 🍃 Biomass Boilers or Cogeneration
- 🍃 Solar Energy
- 🍃 Statewide Renewable Energy Standard
- 🍃 Wind Power
- 🍃 Landfill Gas



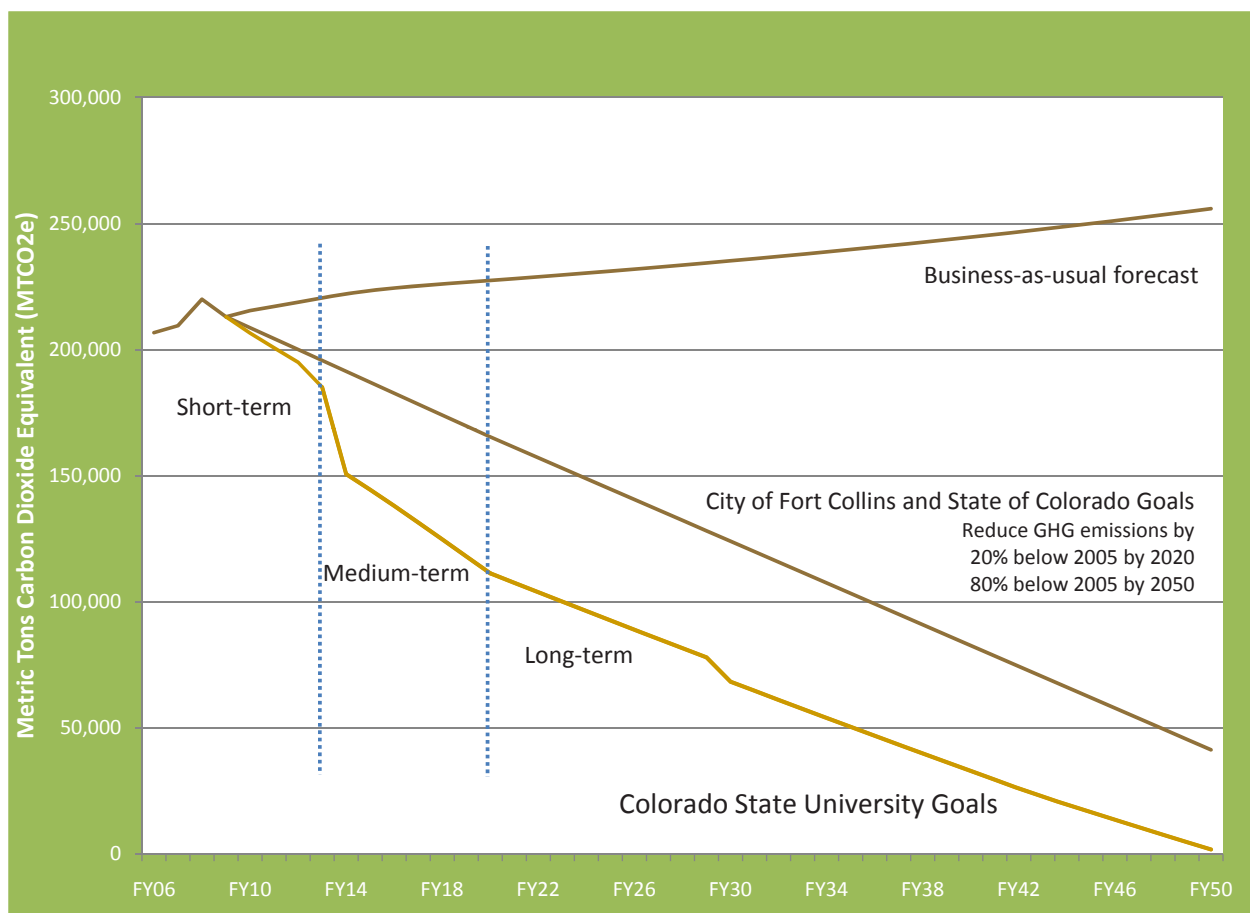
The Live Green Team coordinated volunteers to sort trash and recyclables at the Democratic National Convention.

### Other

- 🍃 Fleet Fuel Consumption
- 🍃 Increase Waste Diversion
- 🍃 Commuting Reduction
- 🍃 Carbon Sequestration in Forests

Each of these strategies is identified as short-term (0-3 years), medium-term (3-10 years), and/or long-term (greater than 10 years) depending on their particular implementation characteristics.

# CSU Business-As-Usual Emissions Trajectory & Climate Plan



The CAP mitigation strategies are projected to reduce CSU's net greenhouse gas emissions to climate neutrality by approximately 2050. As an intermediate goal along this trajectory, CSU aims to achieve reduction in emissions of 50% over business-as-usual projected emissions by 2050

With the strong commitment of students, faculty, staff and the broader Fort Collins community, CSU is eager to implement this plan and begin to realize the local and global benefits of setting a trajectory for climate neutrality.

Climate Action Plan Committee  
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The complete Climate Action Plan can be viewed at:  
<http://www.fm.colostate.edu/sustain/index.cfm?page=initiatives/acupcc>



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