

# Chabot College Climate Commitment & Draft Greenhouse Gas Emissions Inventory Overview

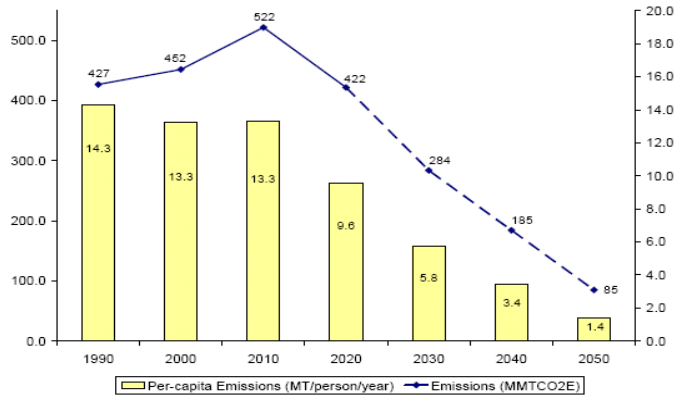
Chabot Facilities and Sustainability Committee Meeting  
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- For Discussion Purposes Only -

## Key Climate Change Legislation and Commitments

- Assembly Bill 32 (AB 32):** California's Global Warming Solutions Act of 2006. Set targets to reduce GHG emissions to year 1990 levels by the year 2020 (about a 30% reduction from business as usual), with an additional target of 80% below 1990 levels by 2050.
- Senate Bill 97 (SB 97):** Enacted in 2007, requires climate change impacts to be addressed under California Environmental Quality Act (CEQA).
- Senate Bill 375 (SB 375):** First transportation and land use legislation in the U.S., aimed to reduce greenhouse gas emissions from autos and light trucks through the reduction of vehicle miles traveled (VMT) with improved integration of efficient land use development patterns and vehicle technologies. Key pieces of SB 375 include the required development of a "Sustainable Communities Strategy" to be incorporated in the regional transportation planning (RTP) process, demonstrating how GHG targets will be met for each California region. Forms of CEQA relief (via streamlining or exemption) will also be applicable for projects consistent with the Sustainable Communities Strategy.
- American College and University President's Climate Commitment (ACUPCC):** Chabot College signed the Commitment on September 15, 2007. As a signatory, Chabot College is publicly committed to achieving campus carbon neutrality. This goal will be achieved by developing and implementing a comprehensive plan that includes: annually auditing the college's greenhouse gas emissions, taking two or more immediate, tangible actions as identified under the ACUPCC, setting specific targets and timelines for achieving climate neutrality, and making commitment plans and progress reports publicly available.

Figure 1. CA GHG Targets for 2020 and 2050

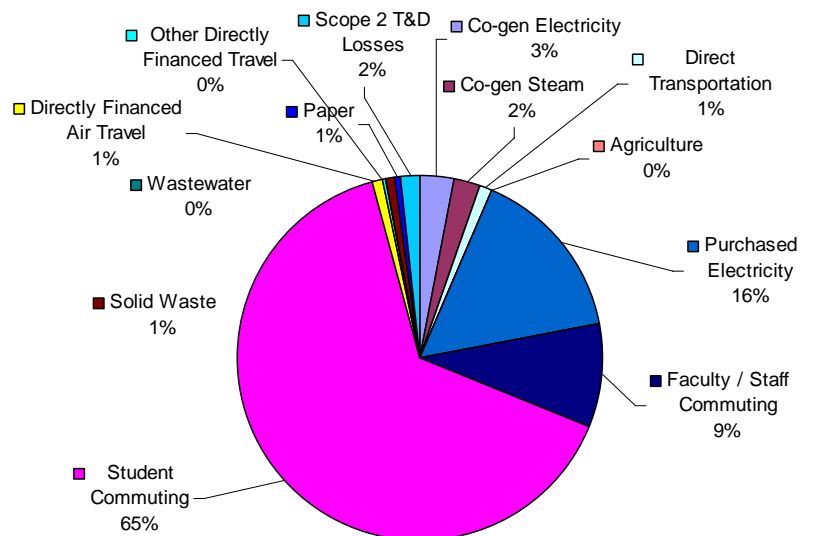


Source: CA AB32 Scoping Plan, 2008

## Overview of Preliminary Greenhouse Gas Emissions Inventory for Chabot College

Table 1 provides a detailed summary of historical (2005-2008) and reference case projection (2009-2020) GHG emissions for the college. Principle sources of emissions are transportation (including commuting and direct and directly financed travel) and purchased electricity (including transmission and distribution losses) accounting for an average of 76% and 23% of Chabot College's gross GHG emissions, respectively over the years 2005 through 2008.

Figure 2. 2008 GHG Baseline Emission Sources



**Table 1. Chabot College Historical and Reference Case GHG Emissions, by Scope**

<b>(MTCO<sub>2e</sub>)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2015</b>	<b>2020</b>
<b>Scope 1 Emissions</b>	<b>736.9</b>	<b>720.9</b>	<b>715.8</b>	<b>728.0</b>	<b>717.4</b>	<b>699.6</b>	<b>688.4</b>
Co-Gen Electricity	597.7	597.7	597.7	597.7	597.7	597.7	597.7
Direct Transportation	130.9	116.4	111.3	125.1	115.3	101.9	90.7
Agriculture	8.3	6.8	6.8	5.2	4.4	0.0	0.0
<b>Scope 2 Emissions</b>	<b>1,458.3</b>	<b>1,574.4</b>	<b>2,075.5</b>	<b>1,769.5</b>	<b>1,939.2</b>	<b>2,120.1</b>	<b>2,270.8</b>
Purchased Electricity	1458.3	1574.4	2075.5	1769.5	1,939.2	2120.1	2270.8
<b>Scope 3 Emissions</b>	<b>8,617.9</b>	<b>8,414.8</b>	<b>8,513.8</b>	<b>8,886.2</b>	<b>8,816.2</b>	<b>9,270.6</b>	<b>9,650.0</b>
Commuting	8,266.0	8,080.1	8,099.9	8,418.5	8,331.1	8,596.8	8,818.1
Directly Financed Travel	88.7	84.6	108.5	128.7	138.6	224.9	296.9
Solid Waste	76.5	63.3	62.4	70.2	63.3	51.5	41.7
Wastewater	7.7	5.1	5.4	5.9	4.8	1.7	0.0
Paper	34.8	26.0	32.3	87.9	86.6	186.0	268.7
Scope 2 T&D Losses	144.2	155.7	205.3	175.0	191.8	209.7	224.6
<b>Total Gross Emissions</b>	<b>10,813.1</b>	<b>10,710.1</b>	<b>11,305.1</b>	<b>11,383.7</b>	<b>11,472.8</b>	<b>12,090.3</b>	<b>12,609.2</b>
Additional	-13.5	-15.4	-14.8	-15.4	-16.8	-22.1	-26.4
Non-Additional				-1,048.9	-1,048.9	-1,048.9	-1,048.9
<b>Net Emissions</b>	<b>10,799.6</b>	<b>10,694.7</b>	<b>11,290.3</b>	<b>10,319.4</b>	<b>10,407.1</b>	<b>11,019.3</b>	<b>11,533.9</b>

### Next Steps: Developing the Climate Action Plan

As outlined in Table 1, under the reference case projections, Chabot College’s gross GHG emissions would continue to grow unless the college actively pursues reduction strategies. Without reduction strategies the GHG emissions are projected to increase to about 12,609 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) by 2020, about 16% higher than 2005 levels.

However, with current offsetting strategies such as on-site generation of renewable power with the installation of 1 megawatt of solar panels and on-site composting programs, net emissions are projected to be reduced by about 9% in 2020, as compared to the business as usual 2020 reference case.

Further reductions are needed to achieve carbon neutrality by 2050 and specific policies and strategies will need to be examined by the Facilities and Sustainability Committee. Potential reduction measures would include, but would not be limited to:

- Ongoing tracking and recording of GHG emitting activities;
- Providing resources for at least one dedicated sustainable campus and carbon neutral coordinator for the college;
- Building energy reduction measures;
- Providing information and access to ridesharing or car sharing programs;
- Developing additional renewable power generation systems
- Parking pricing; and
- Working with local transit agencies to develop park and ride lots and improve service that meets student and faculty schedules.

**For further details regarding the Draft Chabot College Greenhouse Gas Emissions Inventory, please visit the Facilities and Sustainability website or contact Tiffany Batac at [batac@pbworld.com](mailto:batac@pbworld.com).**