

TULANE UNIVERSITY

Climate Action Plan Update



April 28 and 29, 2014

Climate Action Plan: Introduction

What is a Climate Action Plan (CAP)?

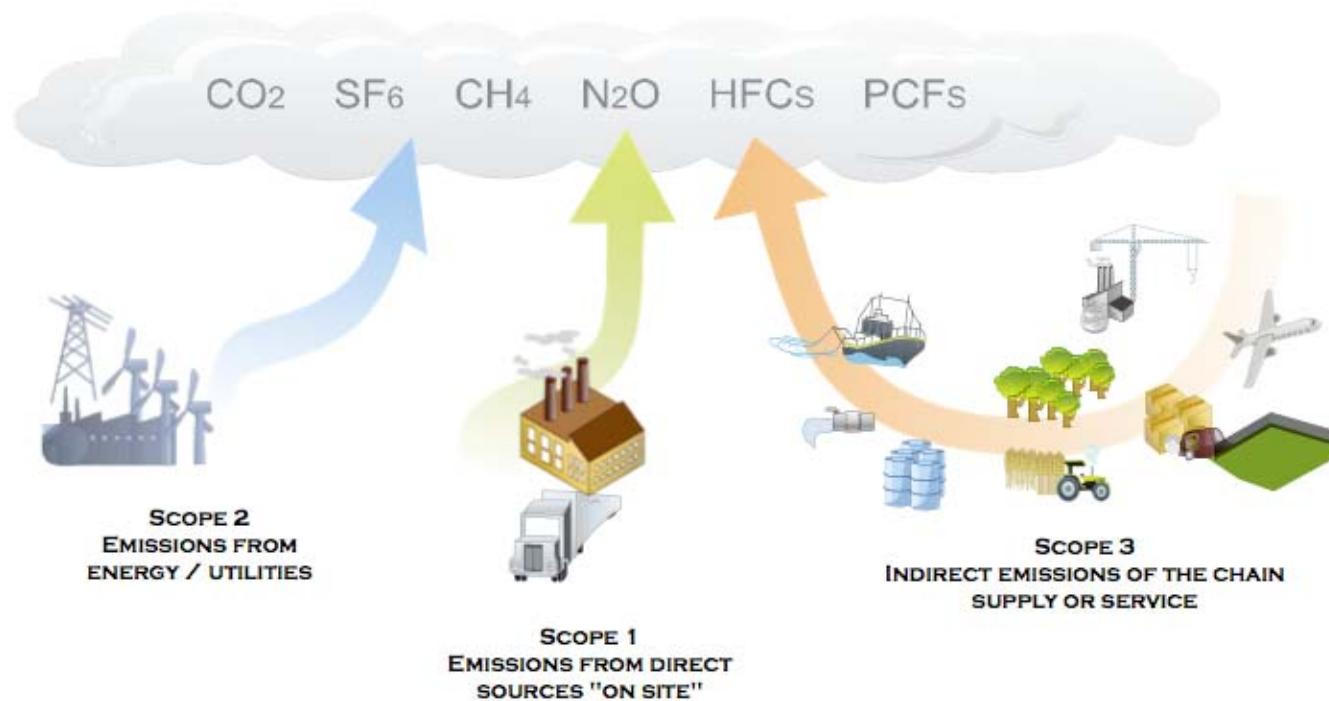
- A set of strategies to reduce an entity's greenhouse gas emissions
 - Focus on buildings and transportation – two biggest generators by category of activity

Who develops them?

- Government – federal, state and municipal
- Higher education
 - American College and University Presidents' Climate Commitment (680 entities)
 - International Sustainable Campus Network Charter (53 entities)
 - Other and similar initiatives, as with AASHE STARS
- Industry



Climate Action Plan: GHG Scope Emissions as Key Metric



Source: "A New Perspective for Labeling the Carbon Footprint Against Climate Change" (Villar, Hidalgo, Penela, Mejide)

Tulane and the Impetus to Create a CAP

In 2008, Tulane pledged to the American College and University Presidents' Climate Commitment:

- Recognizing the scientific consensus about global warming
- Recognizing the need to reduce global GHG emissions by 80% by mid-century to avert worst impacts of global warming
- Committing that university will lead by example in minimizing emissions and must provide knowledge to students of means to achieve climate neutrality
- Ascribing to the belief that this act will stabilize and reduce long-term energy costs, attract students and faculty, attract new sources of funding, increase support for the pledging institution

Soon after, Tulane started on its Climate Action Plan. Completed in 2011, it has not been formally adopted by the university.



Tulane Climate Action: A Roadmap to Reductions

Tulane University • 2011



Tulane Draft CAP Strategies for Emissions Reduction

Draft CAP Goal: 7% GHG reduction from 2007 level by 2015.

To be accomplished by:

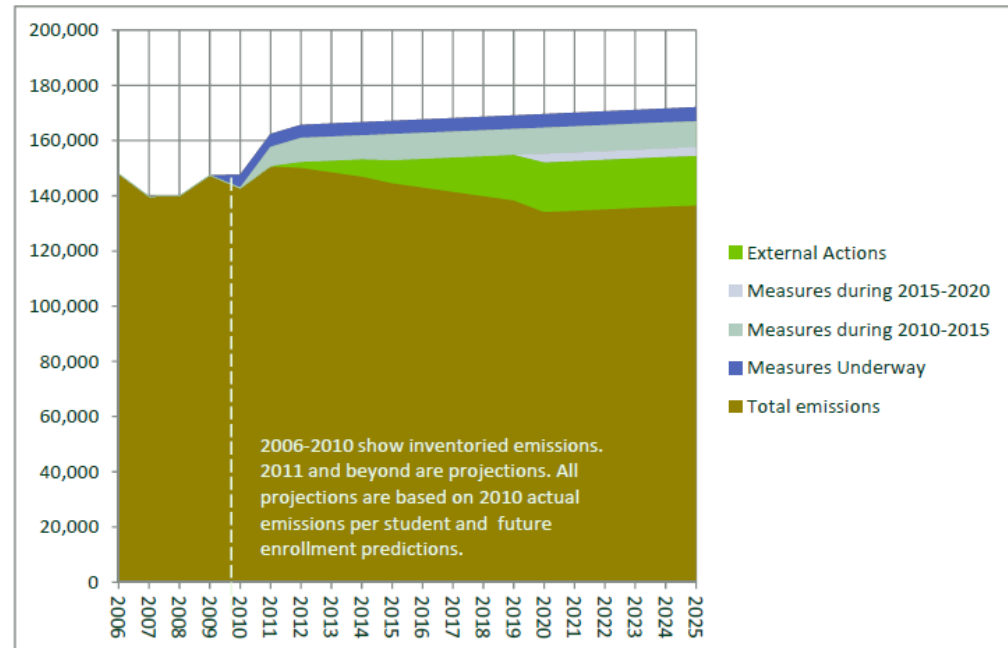
- Enhancing energy management – energy engineer, meters and meter data use, retrocommission major buildings
- Improving computer power management
- Motivating more bicycle use
- Enhancing shuttle and transportation programs
- Initiating first renewable energy project
- Establishing best options for replacing 5% of campus electricity use through renewable energy
- Integrate energy efficiency priorities into building renovation plans

Draft CAP Goal: 15% reduction from 2007 level by 2020

To be accomplished by:

- Scaling-up renewable energy use
- Building energy efficiency renovation and retrofit
- Providing the equivalent to 5% of campus electricity use

Illustration of Draft CAP Proposed GHG Reductions



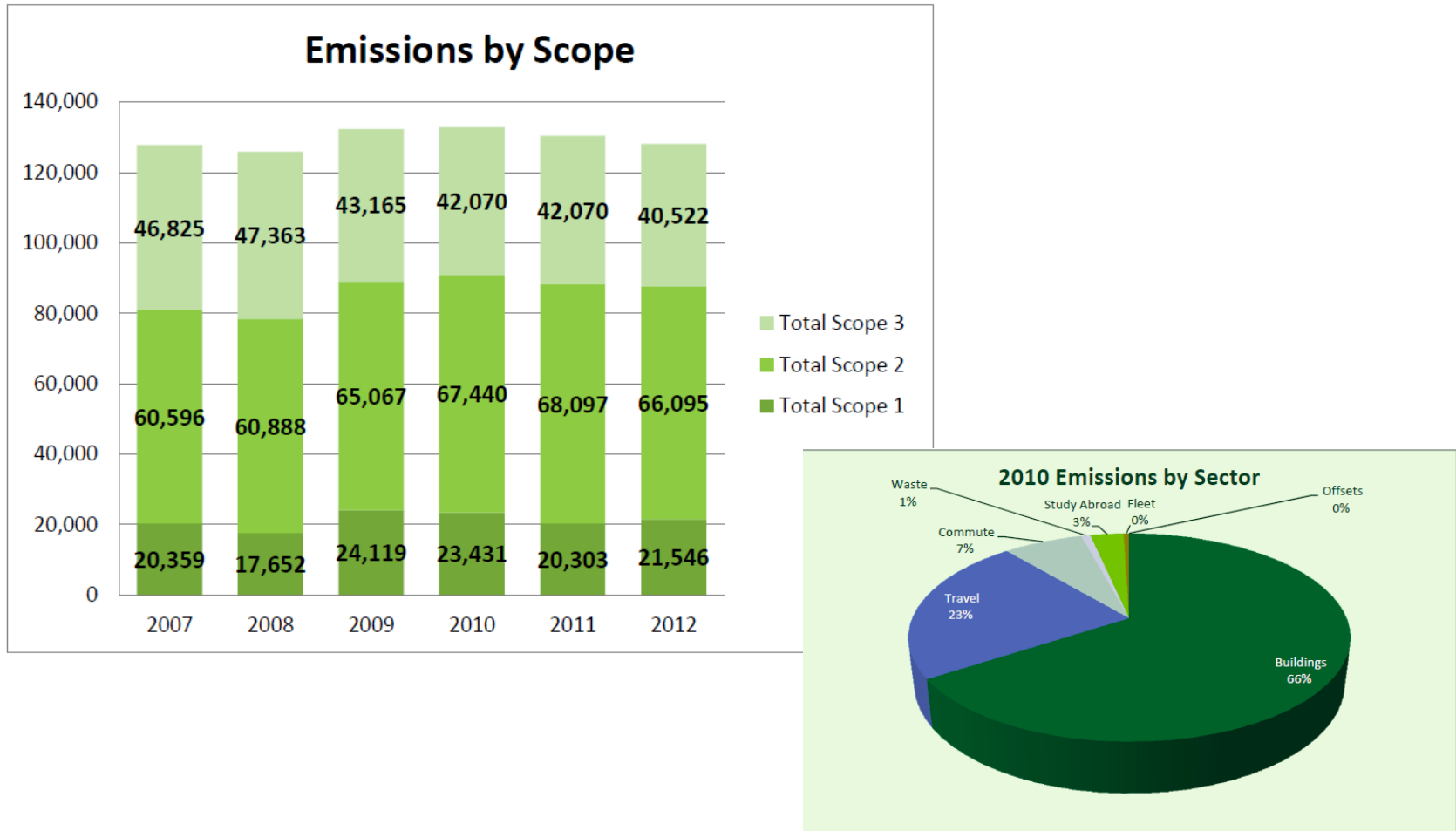
Draft CAP on the Question of Project Financing

Tulane Draft CAP recommended a portfolio of investments in reduction measures. It suggested a number of potential funding sources:

- Operating funds
- University donors
- Student fee or Reserve Fund
- Renewables through third party funding
- Energy efficiency revolving fund
- Performance contract (Johnson Controls)

Tulane GHG Emissions: 2007 to 2012

Annual GHG emission inventories show 2012 emissions to be almost identical to 2007 emissions, even with growth in campus square footage



Source: "Tulane University 2011 & 2012 Greenhouse Emissions Inventory" and Tulane 2011 CAP

What to Expect in the Tulane Climate Action Plan Update

- Engagement of Uptown and Downtown Campus communities
- A revisiting of the 2011 Draft CAP goals, including consideration of expanding on phased implementation
- Articulation and exploration of options, selecting a preferred route for reaching CAP goals
- Detail developed for preferred route, including economic, GHG emissions mitigation and other considerations
- Support to the university in updating its survey of commuting/transportation patterns
- Completion in 2014

Project Phases

Discovery	Profile the Situation <ul style="list-style-type: none">• Carbon Inventory• Calculate Risk Exposure	<ul style="list-style-type: none">• Forecast Model
Ideation	Solicit Ideas <ul style="list-style-type: none">• Working Groups• Idea Generation	<ul style="list-style-type: none">• Qualitative Screening
Analysis	Screen Ideas <ul style="list-style-type: none">• Tech Brief Development• Metric Brief Development	<ul style="list-style-type: none">• Quantitative Screening• Viability Considerations
Plan Creation	Endorse Actions <ul style="list-style-type: none">• Portfolio Analysis• Draft Plan	<ul style="list-style-type: none">• Decision Support

Steering Committee and Working Group Membership

Steering Committee

- J. Alty, A. Baños, M. Bernstein, R. Dickson, L. Hamm, Y. Jones, A. Lorino,

Energy Demand Working Group

- A. Beezley, D. Fullerton, M. Guidry, J. Nonnamaker, S. Pollack

Energy Supply Working Group

- S. Johnson, A. Grin, M. Guidry, B. Mitchell, G. Parker, A. Sheffrin

Student Global Citizenship Working Group

- S. Barksdale, M. Blum, K. Jack, J. Karubian, M. Mahoney, A. Nance, K. Schwartz, T. Tornqvist

Transportation/Planning Working Group

- J. Barnwell, A. Beezley, R. Hailey, D. Jatres, B. MacNeill, K. Venable-Carroll, S. Wright



Project Consultant Team

Willa Kuh (AEI*)

- Planner and Project Manager, support to Student Global Citizenship Working Group

Bill Talbert, PE, LEED AP BD+C (AEI*)

- CAP Energy Analyst, support to Energy Demand Working Group

Rob McKenna (Confluenc)

- CAP Energy Analyst, support to Energy Supply Working Group

Mike Walters, PE, LEED AP (Confluenc)

- CAP Energy Analyst, support to Energy Supply Working Group

Nathaniel Grier, PE (VHB)

- Transportation Planner, support to Transportation/Planning Working Group

	March	April	September	November
Observe condition of campuses	Walk campuses, meet stakeholders			
Energy Demand Working Group	Stakeholder meetings	Ideation session	Analysis session	
Energy Supply Working Group	Stakeholder meetings	Ideation session	Analysis session	
Transportation/ Planning Working Group	Stakeholder meetings	Ideation session		
Student Global Citizenship Working Group	Stakeholder meetings	Ideation session		
Project Steering Committee		Ideation session	Analysis presentation	Climate Action Plan
All-University Forum			Analysis	Climate Action Plan

* AEI is lead entity for the CAP Update