



# Renewable Energy Markets 2010

Laurence Blake

Director, Campus Planning &  
Sustainability

# About Southern Oregon University

- **The** public liberal arts university of the West
- 35 majors
- More than 100 areas of study
- Headcount enrollment of 6,000 for Fall Quarter 2010



# Green Power Purchasing

In 2009, through the student-initiated Green Energy Fee, SOU purchased:

- 11,506 Green-e Energy RECs to offset 100% of electricity usage
- 3,935.01 Green-e Climate Renewable Energy Offsets to offset 100% of natural gas usage

# Green Power Purchasing

- In total, SOU supported 15,441 megawatt-hours of wind energy last year and avoided 12,594 metric tons of CO<sub>2</sub> emissions\*.
- SOU was the Cascade Conference Champion and placed #14 overall in the U. S. EPA Green Power Partnership Top 20 College & University list.

\*Source: Bonneville Environmental Foundation

# Onsite Renewable Production



- 56-kW solar PV system on the Higher Education Center in Medford, OR
- First LEED Platinum Certified building in the Oregon University System

# Green Energy Fee

- In 2007, Students for a Sustainable Future got an initiative on the student ballot to charge students up to \$15/quarter to purchase “green tags” to offset SOU’s electricity and natural gas consumption.
- Of the 500 students who voted, 85% were in favor of the measure.

# Why we decided to purchase RECs

- Students for a Sustainable Future looked at models like Western Washington University and Evergreen State College.
- Worked with BEF to calculate number of green tags needed to offset electricity and natural gas consumption.
- Green tags to be purchased through a 501(c)(3).

# Benefits of Using Renewables

- Raises the sustainability profile of SOU—First university in Oregon (and one of the first in the U.S.) to offset *100 percent* of its energy consumption.
- Reduces the University's net GHG emissions.
- Supports the development of renewable energy resources.

# SOU Climate Action Plan

- In September 2007, SOU President Mary Cullinan signed the American College and University Presidents' Climate Commitment as a Charter Signatory.
- SOU is committed to becoming a leader in sustainability among universities of its size and level of resources.

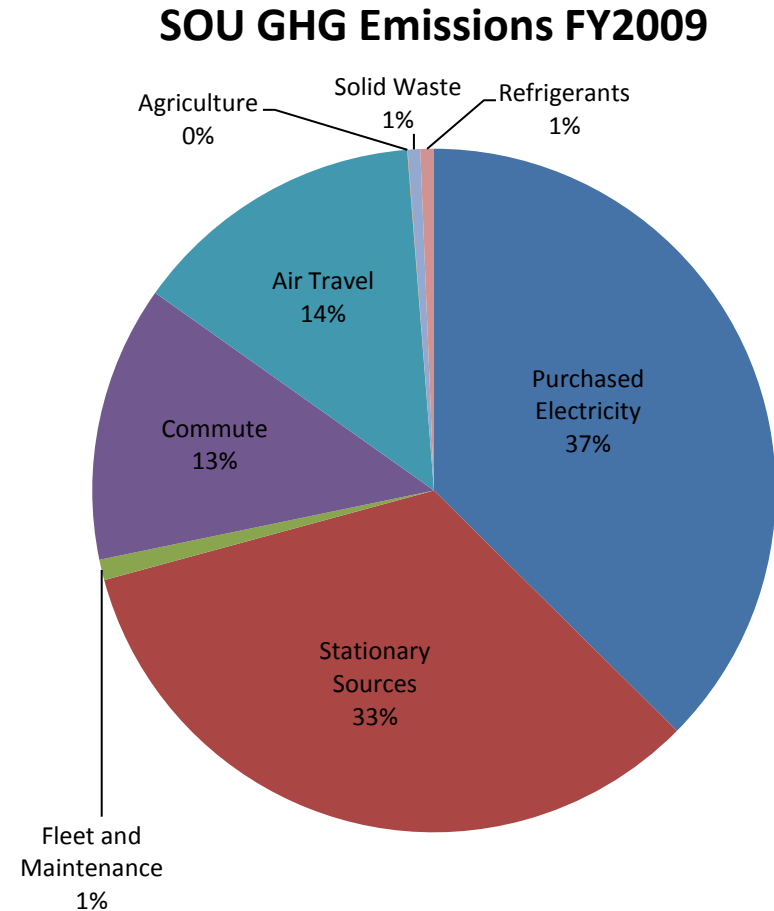
# SOU Climate Action Plan Goals

- By 2010, arrest the growth of greenhouse gas emissions and begin to reduce greenhouse gas emissions.
- By 2015, achieve greenhouse gas levels that are 5 percent below 1990 levels.
- By 2020, achieve greenhouse gas levels that are 10 percent below 1990 levels.
- By 2050, achieve **CLIMATE NEUTRALITY**.

# SOU's GHG Emissions

- Purchased electricity and stationary sources account for 70% of campus emissions.
- Transportation and commuting account for 27% of campus emissions.

Source: Sightlines LLC



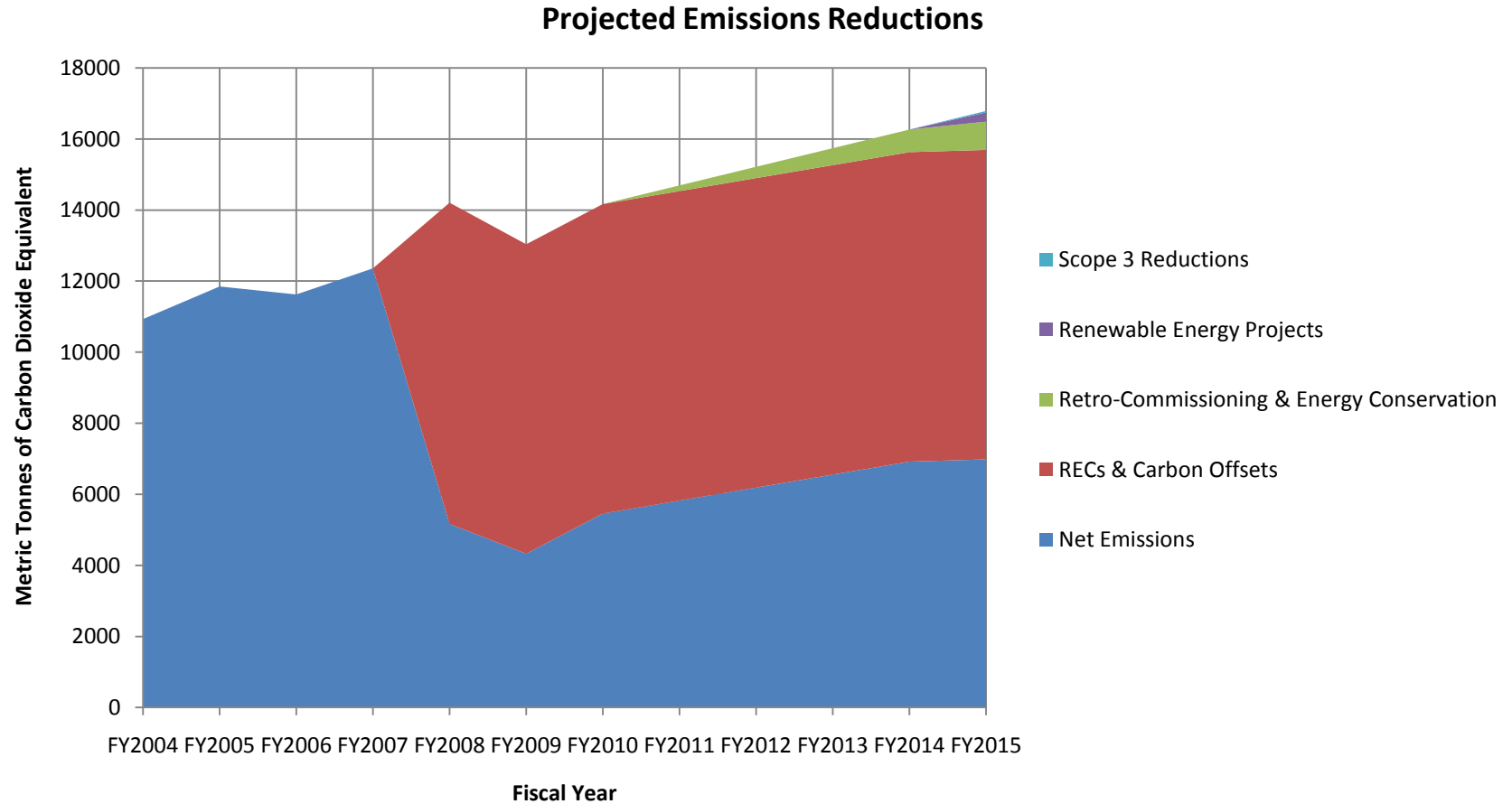
# Net GHG Emissions

- In FY2009, SOU's total gross emissions were 13,794 metric tonnes of carbon dioxide-equivalent (t CO<sub>2</sub>e).
- Net emissions were 5,084 t CO<sub>2</sub>e due to student-funded purchases of RECs and carbon offsets of 9,041 t CO<sub>2</sub>e.

# Mitigation Strategies

- Retro-commissioning
- Energy conservation measures
- On-site, renewable energy installations
- Carbon offsets, renewable energy certificate purchases, and other off-site measures

# Why: Mitigation Strategies



# Future Use of Renewable Energy

- Extend the Green Energy Fee beyond the 2011-2012 academic year.
  - Include  $\frac{1}{2}$  of energy consumed in the Higher Education Center.
- Utilize a power-purchase agreement to have solar PV systems installed on campus roofs.
- Study feasibility of developing a biomass thermal plant.