



# CARBON OFFSET OPPORTUNITIES FOR CAMPUSES AND COMMUNITIES

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Campus and Community Sustainability Conference

# The Basics

- Carbon offset projects

- A stand alone project that reduces greenhouse gas emissions in a non-covered sector that are used to “offset” emissions in a covered sector (or voluntarily from another organization)

- Carbon credit

- One metric ton of carbon dioxide equivalent (CO<sub>2</sub>e)
- The “equivalent” term is used to account for the non-CO<sub>2</sub> emissions (standardize the unit of measurement)

# Carbon Offset Guidelines

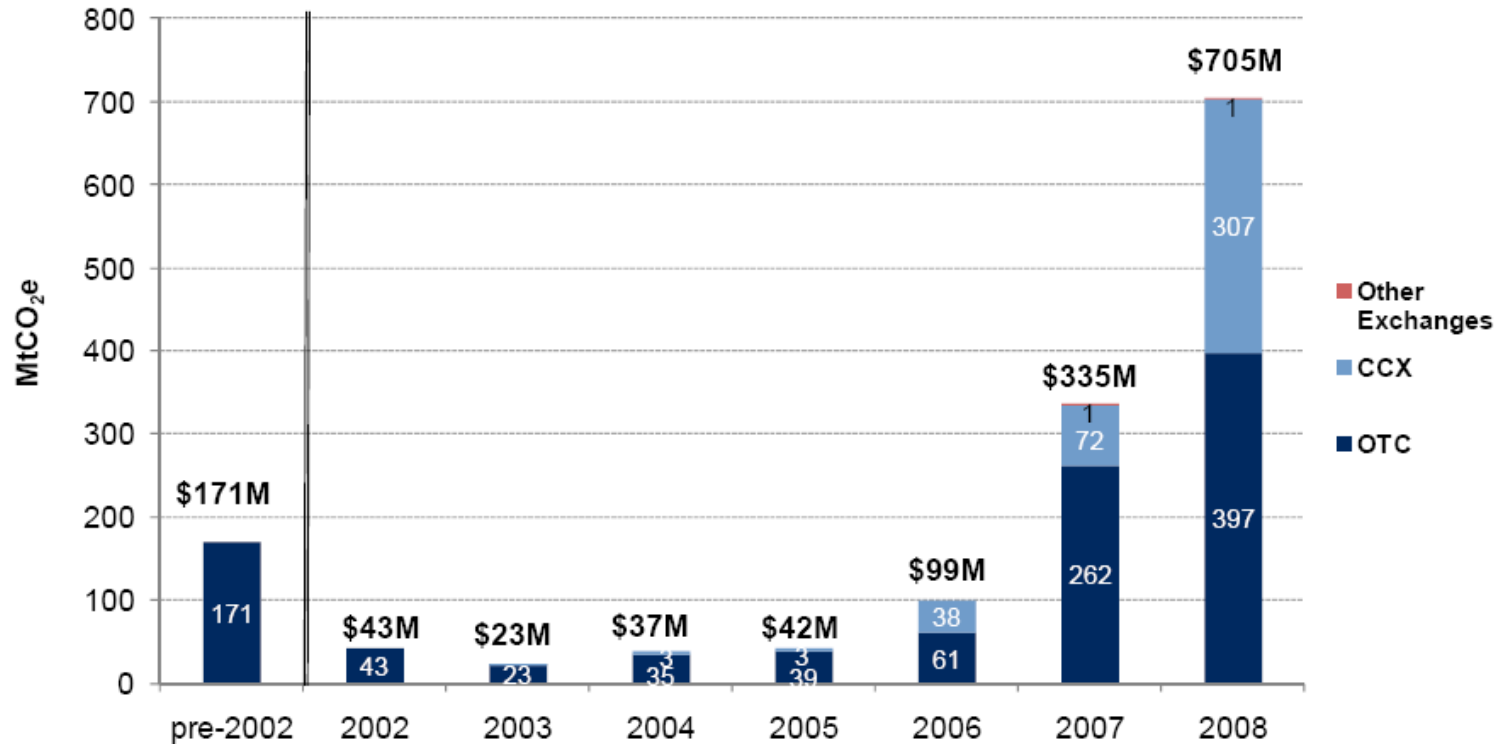
- Measurable
- Verifiable
- Additional
- Enforceable
- Permanent

# Mandatory vs. Voluntary Markets

- Mandatory markets have been established under law and treaties.
  - Ex. Kyoto Protocol and EU ETS
  - Overseen by government entity
- Voluntary markets are driven by consumer preference and corporate responsibility
  - Not regulated by government entity

# Opportunity in the Voluntary Carbon Markets

**Historic Values for the Voluntary Carbon Markets**



Source: Ecosystem Marketplace, New Carbon Finance.

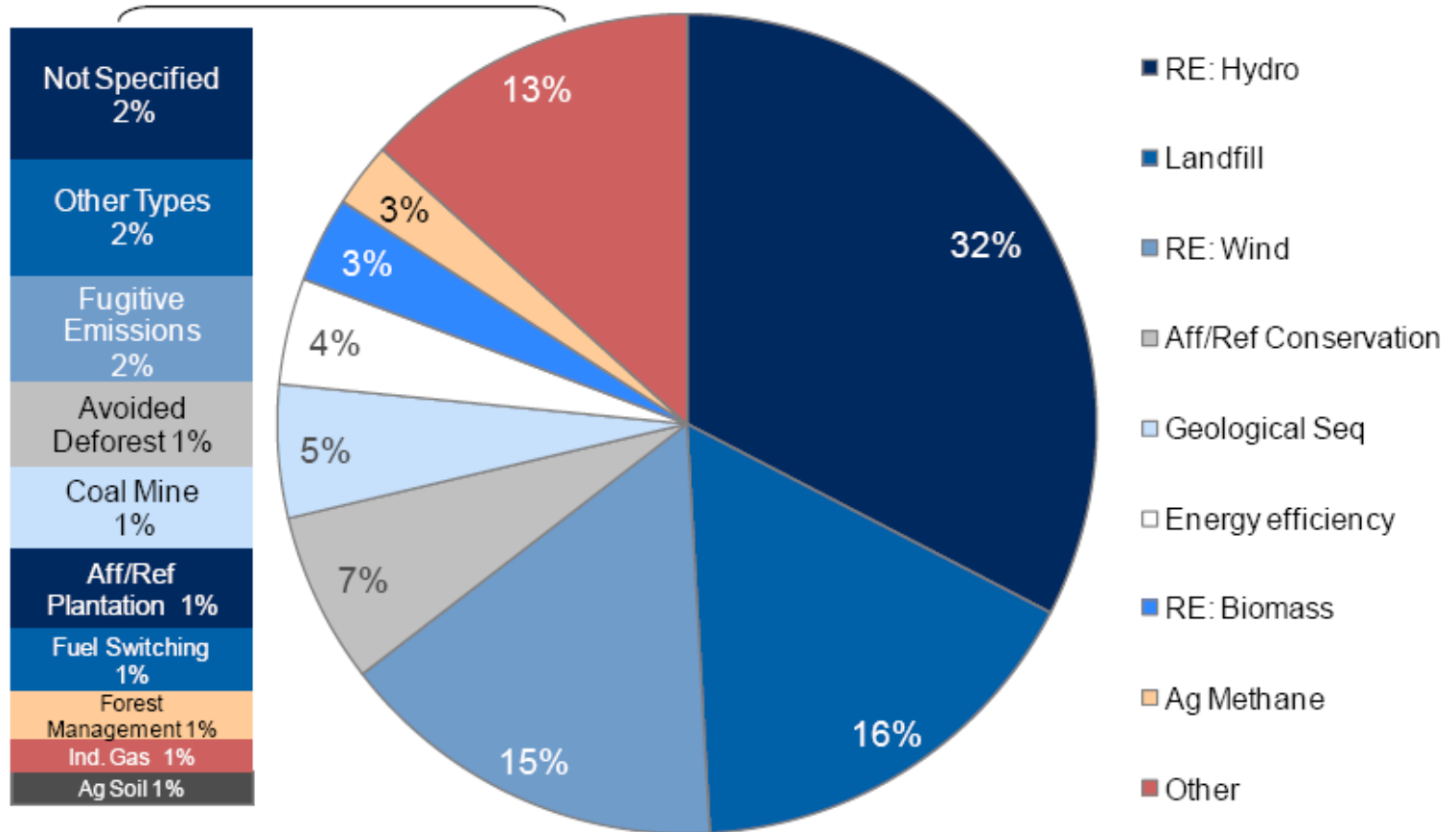
Source: State of the Voluntary Carbon Markets, May 20, 2009

[http://ecosystemmarketplace.com/documents/cms\\_documents/StateOfTheVoluntaryCarbonMarkets\\_2009.pdf](http://ecosystemmarketplace.com/documents/cms_documents/StateOfTheVoluntaryCarbonMarkets_2009.pdf)



# What project types are selling?

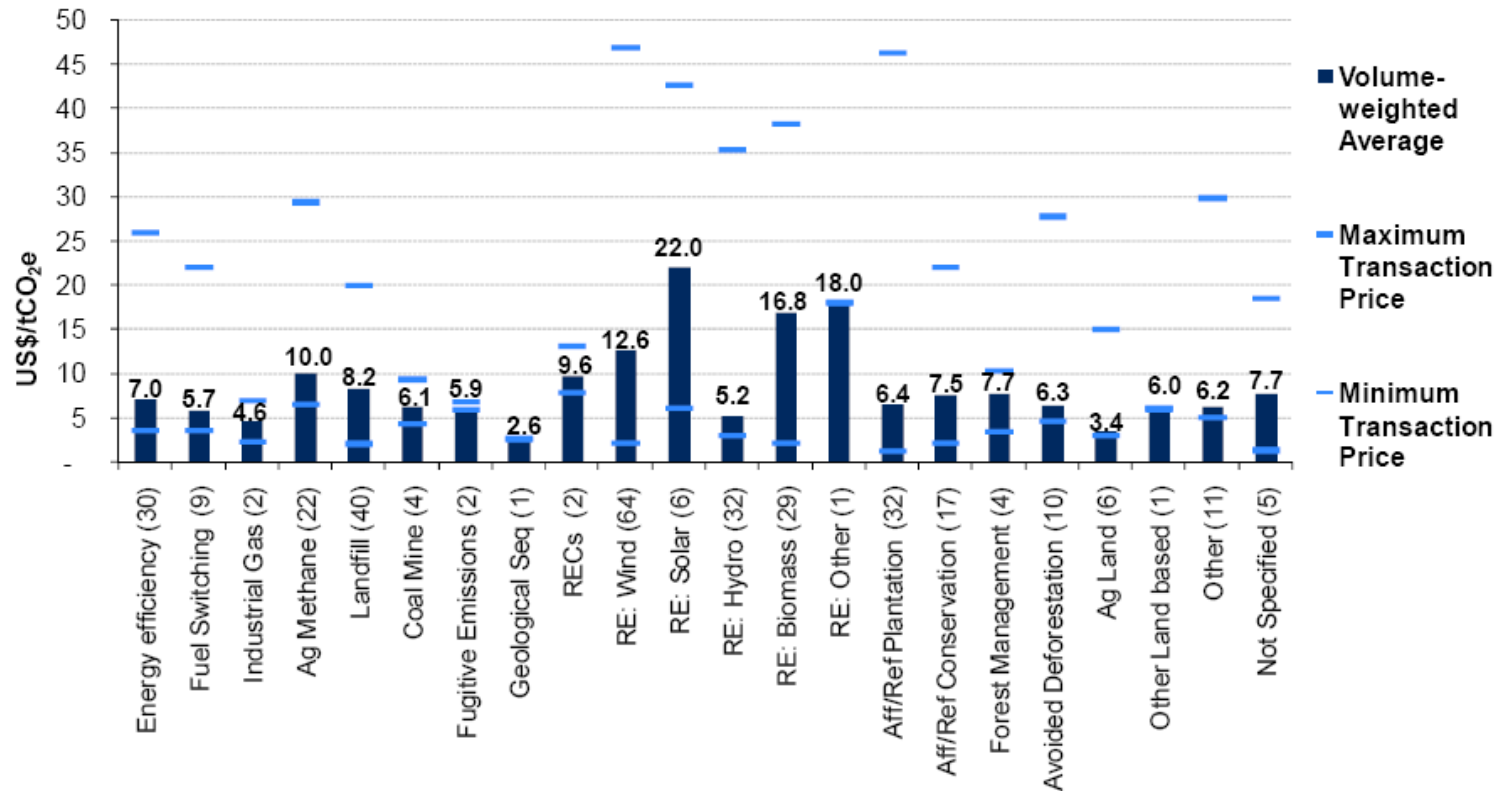
**Transaction Volume by Project Type, OTC 2008**



Source: Ecosystem Marketplace, New Carbon Finance.

# How much is a carbon credit worth?

**Credit Price Ranges and Averages by Project Type, OTC 2008**



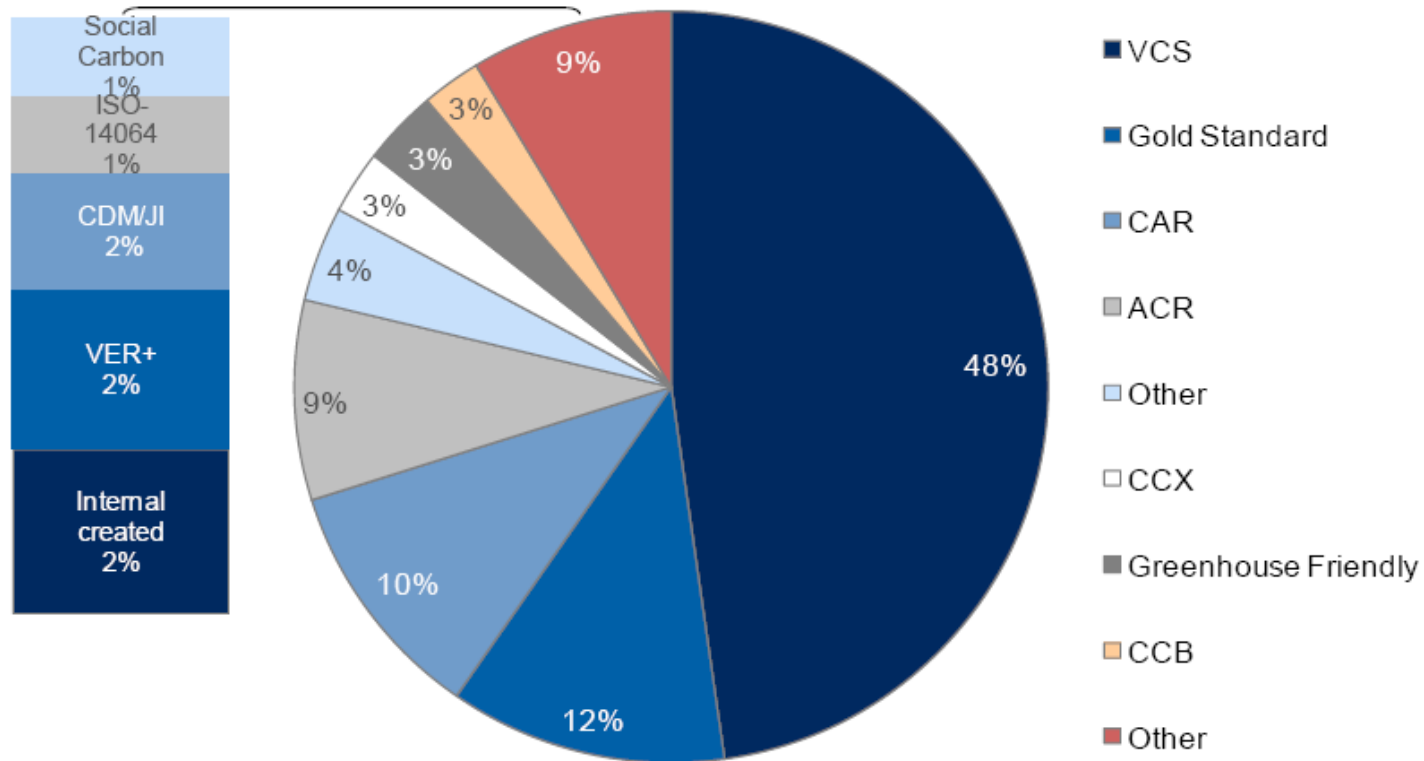
Source: Ecosystem Marketplace, New Carbon Finance.

Note: Numbers within parentheses indicate number of observations.

Range between \$1.20 to \$46.90

# What standards area available?

**Standard Utilization, OTC 2008**

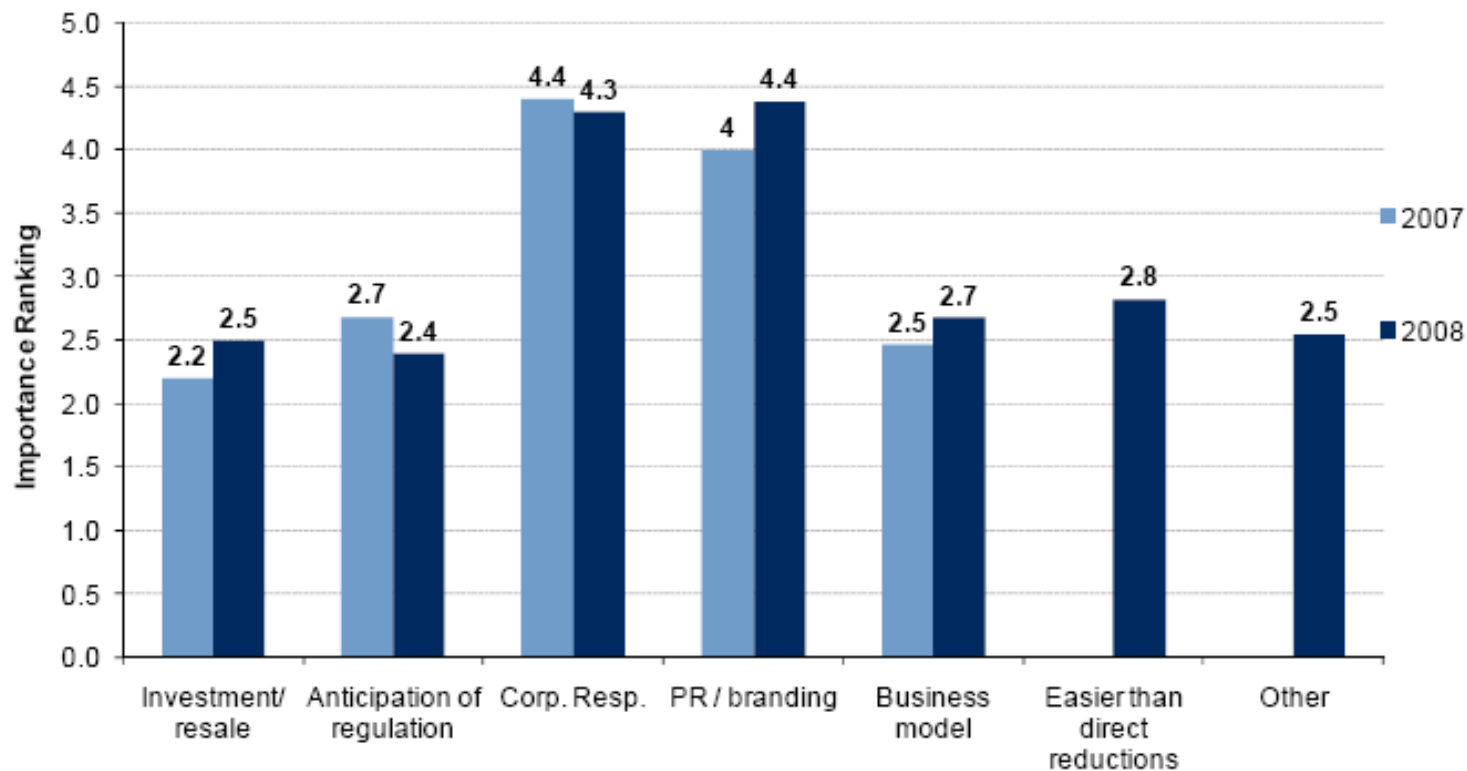


Source: Ecosystem Marketplace, New Carbon Finance.



# Why are they buying?

Figure 34: Customer Motivations<sup>1</sup>



Source: Ecosystem Marketplace, New Carbon Finance. (1)Based on 136 survey respondents

# Opportunities for Campuses and Communities

- Fuel switching Projects
- Energy Efficiency Projects
- Renewable Energy Projects
- Carbon Capture and Storage Projects

# General Steps

1

- Greenhouse Gas Inventory

2

- Carbon Offset Project Scoping

3

- Carbon Offset Project Development

4

- Third Party Verification

# Carbon Offset Scoping Process

1

Scan operation for potential projects

2

Estimate carbon reduction potential

3

Estimate economic value of projects

4

Determine feasibility of project

5

Estimate economic value of projects

6

Prioritize carbon offset projects

7

Strategic plan for participation

# Carbon Offset Project Development

- Gather Site-Specific Data
  - Field survey (statistical sampling)
  - Detailed records
- Compile Project Documents
  - Quantification method
  - Additionality tests
  - Risk assessment
  - Monitoring plan

# Third Party Verification

- Outsource to 3<sup>rd</sup> Party
- Carbon Offset Projects
  - Desk Review
    - Verify geographic location
  - Additional Field Survey
    - Verify location, smaller sample size
    - Verify methods and projections

# Tampa Superbowl Project

- Partnership: National Football League (NFL), Tampa Bay Superbowl Host Committee, US Forest Service, businesses, and local municipalities.
- Dozen different tree planting projects around Hillsborough and Pinellas County
- Between 1,000 and 2,700 trees planted (press releases reported different numbers)
- 5 years of offsetting emissions
  - First year with claim of long term monitoring
  - Periodic volunteer surveys

