



Implementing Technologies for Carbon Management

A Founder Society
Grand Challenge Initiative



Funded by the
United Engineering Foundation

The Boundaries Have Changed

	Historic Grand Challenges	Energy Grand Challenge
Activities	Isolated 'just had to get there'	Interdependent Conflicting Goals
Implementation	Technical Community 'linear thought process'	Diverse Stakeholders Requires Collaboration
Funding	Government 'limited constraint'	Multiple Sources Competition

The Boundaries Have Changed

	Historic Grand Challenges	Energy Grand Challenge
Activities	Isolated 'just had to get there'	Interdependent Conflicting Goals
Implementation	Technical Community 'linear thought process'	Diverse Stakeholders Requires Collaboration
Funding	Government 'limited constraint'	Multiple Sources Competition

**And the Challenges are coupled:
energy, water, health, poverty, security, ...**

How will we respond?

What is the role of professional societies?

- Project concept – 2007
- Assessment
 - Societies are active (e.g. joint meetings, policy statements, congressional briefings)
 - Activities reflected society interests
 - Limited focus an integrated systems view
- Recognition of need to
 - Provide greater technical understanding to inform policy
 - Dialogue across our traditional borders
 - Enable larger voice through collaboration

Project Objectives

Enable enhanced engagement of the Founders Societies and engineering communities by answering the following questions:

- How to best manage and mitigate GHG emissions associated with the use of energy systems?
- What are the new and future technologies and the gaps and barriers to implementation?
- What are the metrics and system boundaries that should be used to monitor and manage progress towards emission targets (including technical and societal dimensions)?

Activities

- Website established to share information
- Society leadership exchange meetings
- Electric Power and Transportation selected for initial technology focus
 - Assessment of technologies
 - Scorecard
 - Gaps and barriers workshop
- GHG measurement workshop (December 6-8, 2009)
 - Early adopters experience