Carbon Trading Markets

Objective: Come to a comprehensive understanding of the structure, dynamics, strengths, and limitations of current carbon trading markets.

Background: Since 1995, a cap-and-trade mechanism for sulfur dioxide has been working effectively in the US. More recently the basic model has been applied to carbon, resulting in many different markets for carbon offsets and carbon emissions permits: the European Union’s Europe-wide market (since 2005); the Regional Greenhouse Gas Initiative of many northeastern US states (since 2009); the many private companies selling carbon offsets (of varying quality). If the US Congress passes a cap-and-trade bill, then these regional and private systems will be folded into a national scheme. However, such a national system is not currently on the horizon. And if and when one arrives, its characteristics will no doubt draw heavily on the structure and dynamics of the regional and private systems that now exist. Thus it is important to understand the strengths and limitations of the carbon trading systems now operating.

Suggested Approaches: Begin with a comparison/contrast of cap-and-trade and a carbon tax, often proposed as an alternative. Analyze the basic economic choice these alternatives present, and the implications of each for builders and designers. Focusing on carbon trading markets, investigate the basic mechanisms and common practices—e.g., the general agreement on a carbon equivalent price of from $30-60 per ton. Analyze some of the challenging issues associated with carbon trading, e.g., the timing and lumping of the issuance of emission permits; the adverse effects of “banking” of credits; the potential for and prevention of price manipulation when electric utilities participate; and the interaction between trading systems and tax and regulatory considerations. A particularly promising approach may be to analyze and attempt to create a typology of the certification mechanisms for carbon offset programs, as currently performed by a range of private-sector, non-profit, public-sector, and quasi-governmental organizations.