Preliminary Synthesis and Questions

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What were we aiming to do?

- Integrate and assimilate recent developments in understanding public perception of CCS technology related to demonstration and deployment for climate-change mitigation.
- Discuss and critique public-perception and communication strategies in several specific projects involving CCS technology.
- Synthesize commonalities and differences in recent & current experiences and research.

Why is understanding this important?

- Disruption of global climate by emissions of GHG from human activities is real, dangerous, and accelerating.
- Large role of fossil CO_2 in problem & dominance of fossil fuels in world energy mean rapid, large deployment of CCS is necessary (although not sufficient) for avoiding catastrophe.
- Public concerns & objections could slow CCS deployment if not adequately addressed.

Specific challenges / contexts

- GLOBAL: achieving public acceptance of the technology
- LOCAL: achieving public acceptance of a specific project
  - Achieving the former doesn't ensure success with the latter.
  - Achieving the latter in a specific instance doesn't ensure transferability of the success to other local circumstances.

Theoretical framework

Mental Models for risk communication

- Normative – What should people know?
- Descriptive – What do people know?
- Prescriptive – What do people need to know?
- Constructive – How can we help them learn it?
- Evaluative – Did we succeed?

Theoretical framework (continued)

Aspects of risk communication & response

- Technical – science, technology, economics
- Political – stakes, interests, constituencies
- Anthropological – individuals, groups, grids
- Fundamental – world views, values
- Psychological – trust issues (impressions about competence, balance, fairness, openness…)

Theoretical framework (continued)

Ingredients of successful risk communication

- Consider all aspects (technical, political, anthropological, fundamental, psychological)
- Draw on interdisciplinary risk-communication literature to learn how to deal with these
- Tailor communication to match audience & specific concerns
- Address decision-relevant knowledge gaps
- Give behaviorally realistic advice

Theoretical framework (continued)

Technical knowledge & its communication

- Facts & concepts need to be communicated in language the audience can understand
  - The trick is to achieve this without oversimplification that provokes critique by other experts
- The "facts" are something but they're not everything
  - People want a place for their values in the debate
  - When experts blur the fact-value boundary, people eventually notice & experts lose credibility

Theoretical framework (continued)

Technical assessment and "Compared to what?"

- Technical assessment of options shouldn't be in isolation from alternatives. Comparison is almost always essential.
  - Thus, costs and risks of CCS should be put in context of costs and risks of not doing enough to mitigate climate change.
  - Comparison with other approaches to mitigation (nuclear, renewables, end-use efficiency, reduced deforestation) is inevitable in debate but arguably less salient because all may be needed.

Theoretical framework (continued)

Uncertainty and expert disagreement

- Research shows there's often more disagreement among experts (e.g., about probabilities) than the experts themselves think.
- Emergence of such disagreement, sometimes amplified by media love of controversy, complicates risk communication.
- Disagreement & uncertainty need to be explained, including with exploration of how we know what we know.

Theoretical framework (continued)

Communicating re decisions under uncertainty

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Theoretical framework (continued)

More about decisions under uncertainty

- Better than trying to minimize uncertainty in public's mind is engaging them in thinking about how to deal with it – e.g., hedging, balancing over- vs under-protection.
- When uncertainty prevents knowing for sure what best course of action is, or value differences prevent agreement, sense that the process for reaching a decision was fair & proper becomes even more important.

Lessons from case studies

- In organizing public meetings about local projects, do some research on attitudes & concerns first in order to be better prepared to address these.
- Pick speakers with specific concerns in mind, as well as trust issues & local expertise.
- Be prepared for diverse sources of opposition
  - Opposition to CCS technology generically
  - Opposition to CCS because it perpetuates coal use
  - Opposition to characteristics of a particular project

Lessons from case studies (continued)

- Giving satisfactory answers to all technical questions still doesn't answer the distributional/equity question: "Why should my community bear this burden for society?"
  - One answer is to emphasize this isn't "singularization" – CCS will be happening in a great many places.
  - Specific benefits to the community are likely the best answer – jobs, contribution to tax base, etc.

Some questions going forward

- What more should be done to document & propagate best practices in communicating to the public about CCS?
- How do we think more systematically about scalability, i.e., the role of perceptions & communication in the path from a few demo projects to widespread deployment?
- How can the media's preoccupation with sensationalism and disaster be ameliorated or countered?

Questions going forward (continued)

- What are the trade-offs in the timing of public-communication campaigns about CCS in relation to the pace of development of technical knowledge?
  - Waiting too long risks public conclusion that the technocrats are going their own way (again)
  - Starting too soon complicates the communication problem because too few of the technical answers are in hand