



Case Study

THE FEDERAL ROLE IN STAKEHOLDER ENGAGEMENT FOR A CARBON CAPTURE AND STORAGE DEMONSTRATION PROJECT

EXECUTIVE SUMMARY

The bipartisan Infrastructure Investment and Jobs Act (IIJA) marks a significant uptick in federal investment in clean energy demonstration and deployment projects. It provides the Department of Energy (DOE) more than \$20 billion to deliver much-needed demonstration projects and accelerate clean energy adoption. DOE has committed to deploy these technologies in a manner that advances energy and environmental justice—underscoring the need to engage communities in decisions about major energy projects. To help inform successful community engagement activities from DOE going forward, the Bipartisan Policy Center is exploring past projects for insights and lessons.

This case study provides an overview of the stakeholder engagement processes for a DOE-funded energy carbon storage demonstration project in Illinois. This study provides insights into (1) the federal government’s role in stakeholder engagement for energy demonstration projects and (2) key considerations for assessing and ensuring successful stakeholder engagement. The lessons learned and key findings from this study may be used to inform future federal processes for project selection, management, and stakeholder engagement for federally sponsored energy projects.

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KEY FINDINGS

Assessment of project proposals

- **Selection criteria for initial carbon storage project site selection were varied and included aspects of stakeholder interest, not just technical feasibility.** Factors considered in project site selection included: geology, proximity of carbon dioxide (CO₂) source, local and regional government interest, benefit/cost analysis, risk profile and perceptions, public opinion, government alignment, industrial partners, infrastructure, policy, and more.

- **A key to the success of community engagement in the carbon storage project was the requirement of community buy-in as part of the selection criteria for a project site.** This resulted in building excitement for the project in various communities and caused it to be viewed as something desirable by interested communities. It is important to have clear and identifiable benefits for communities.
- **Demonstrated community interest and willingness to host the carbon storage project was a requirement for being selected as the project site.** A comparison study of different carbon capture and storage projects across the globe identified several critical factors that may contribute to successful project deployment, of which community interest is key. These factors may be useful for assessing the quality of a DOE demonstration project proposals, which include:
 - The extent to which key government and development team members are aligned in terms of support for, and coordination, of the project.
 - The deployment of communication experts as part of the project team from the beginning.
 - The consideration of social context/history in relation to site selection, project design, and implementation.
 - The degree of flexibility in framing the project and adjusting the project implementation strategy.
 - A degree of competition involving community self-selection for participation.

Adapted from: Ashworth et al. (2012). *What's in Store*. International Journal of Greenhouse Gas Control 9: 402-409.

Timelines for stakeholder engagement activities

- **Extensive stakeholder engagement took place throughout Illinois prior to a carbon storage site being chosen for the project.** The alignment of federally funded project objectives, state interest, local benefits, and local subject matter experts was a significant factor in stakeholder engagement success.
- **Stakeholder engagement activities centered on education and gaining trust around geologic carbon storage were initiated three years prior to launch-**

ing the competition. Trusted experts at the state level conducted integrated and objective stakeholder engagement representing multiple voices, disciplines, and perspectives in the state and in relevant communities.

- **The general population does not distinguish between steps in the federal funding process or fully understand their nuances.** Therefore, DOE should ensure that there is as much communication and transparency as possible in its interactions with relevant communities and project leads about funding decisions and timelines. Uncertainty in federal decision-making processes related to this project has had a lasting impact on community distrust of carbon capture and storage projects.

Considerations for successful stakeholder engagement

- **Successful stakeholder engagement results in the goals and objectives of both the project developer and the community being met.** Stakeholder engagement plans should have predefined, measurable objectives to ensure there are clear ways to assess success. Success can be determined by evaluating the degree to which local benefits have been defined and achieved, whether trust has been built, and whether two-way conversations are taking place. Criteria for assessing a stakeholder engagement plan should include:
 - Information about who, what, where, when, and how engagement activities will take place and have taken place thus far.
 - Information about the distribution of participating stakeholders and relevant groups, including considerations related to equity and inclusion (i.e., who is not at the table in addition to who is).
 - Identification of local project benefits and perceived project risks based on engagement efforts conducted prior to the submission of a proposal, as well as mitigation strategies to build trust with the local community and respond to perceived risks.
 - Strategies for ensuring that a community will gain access to information about continued project operations.
 - Extent of local representation in the project (e.g., through employment opportunities).

It should be noted that following best practices when

communicating and engaging with stakeholders about proposed projects alone will not guarantee a successful project. Experience with this project suggests that project teams need to be flexible and adapt planning and management throughout a project to be responsive to both project and stakeholder needs.

Lastly, it is also worth noting that it is impossible to predict at the outset of a project or at the project application stage what a complete stakeholder engagement strategy will be. Thus, the review and acceptance of stakeholder engagement plans needs to allow for flexibility and should be allowed to change over time to accommodate the emergent nature of stakeholder engagement. This should not be a barrier to application for federal projects.

- **Stakeholder engagement was most effective when it was conducted by trusted local partners.** DOE should enable stakeholder engagement by providing funding for such activities.
- **A robust stakeholder analysis was conducted to identify individuals or groups who might have a stake in or be impacted by the carbon storage project.** Stakeholders identified as relevant to the carbon storage project were varied and widespread, and included: state and local government officials, economic development officers, policymakers, representatives from industry (ethanol producers, oil and gas operators, coal), farmers, teachers, members of the general public, members of academia (from 2- and 4-year colleges and universities), staff of state science agencies, landowners, and other interested parties.
- **Evaluation of stakeholder engagement, which was conducted on an ongoing basis while the project was active, had a positive effect in that it helped project developers redirect efforts to address community concerns as they arose.** Open acknowledgment and communication about the risks and impacts of carbon storage during stakeholder engagement was key to building community trust in the project.

LESSONS LEARNED

Lesson 1: Stakeholder engagement readiness should be demonstrated at the application stage.

All projects, especially those that receive federal funding,

should demonstrate understanding and readiness to engage stakeholders. DOE has a significant role to play in this regard when reviewing and awarding proposals. A good stakeholder engagement plan should answer the following questions:

- Does the plan demonstrate a thorough understanding of local, regional, and state stakeholders?
- Does the plan account for changes in stakeholder engagement processes over time?
- How will stakeholder engagement be defined, tracked, implemented, measured, and refined?
- Does the plan accommodate formative (real-time) and summative (end) evaluation of stakeholder engagement activities?
- Does the plan clearly identify key stakeholder groups?
- Does the plan recognize which stakeholders are NOT at the table, are under-represented, or are missing? Is there a roadmap for seeking out these stakeholders and engaging them?
- Who is on the stakeholder engagement team? Does the team collectively represent a variety of views, expertise, and sectors?
- Does the plan demonstrate a thorough understanding of social risk associated with a project and have processes in place to monitor public sentiment through media reports or other available data?
- Does the plan have an emergent, evolving component? Does it take into account the time needed to evolve stakeholder engagement processes and imbed trusted personnel?
- How does the plan address specific stakeholder organizations with concerns such as environmental justice, climate justice, and energy justice?

Lesson 2: Effective stakeholder engagement requires sustained knowledge sharing that is not tied to political cycles.

Carbon capture and storage projects take time to complete. As such, there are significant challenges in maintaining interest and knowledge among stakeholders. In particular, the political cycles change and lawmakers in office at the beginning of a project may not remain in office when a project nears completion. There is a need for a

continual knowledge sharing component of projects. However, this can also be challenging because of information fatigue and if no new results are occurring. Navigating this balance is enhanced for projects that expect to store CO₂ long-term. Considerations for this extended timeline should be accounted for in stakeholder engagement planning. DOE may be able to provide the necessary continuity and fulfill the need for long-term institutional knowledge.

Lesson 3: Alignment of local interest with federally-funded project objectives is critical to meaningful stakeholder engagement.

The alignment of federally funded projects, state interest, local benefits, and local subject matter experts was a significant factor in the stakeholder engagement success in Illinois. State and local officials, Illinois Department of Commerce and Economic Opportunity, Illinois Department of Natural Resources, universities, farmer's bureaus, industry, power sector, teachers, landowners, all played a role in the successful bid for the project. This unique alignment of interests led to a shared understanding of the benefits and risks associated with this project.

Lesson 4: Stakeholder engagement should be rooted in best practices and conducted at the local level.

Building relationships with local stakeholders throughout the early stages of projects is essential. Ideally, these interactions are conducted in small groups or one-on-one where stakeholders can voice concerns and ask questions. Local and regional stakeholder engagement efforts build trust based on shared experience and

pre-existing relationships. Further, multiple interaction with the same stakeholders is critical. Stakeholders often need time and repeated engagement to gain conceptual understanding, ask questions, and gain familiarity with novel technologies.

Lastly, it is critical to understand and respect differences and tailor engagement approaches as needed (e.g., meet with landowners in their homes, organize meetings with stakeholders that have shared concerns, hold meetings at times that accommodate different schedules). Stakeholder engagement teams should consist of a variety of voices—from expert to local officials. It is important for stakeholders to hear multiple perspectives during their decision-making process.

Lesson 5: Stakeholder engagement and communications planning are critical on-going activities and should be funded adequately, including by federal funds.

To ensure meaningful stakeholder engagement, development of a plan is necessary and should be developed early. Moreover, a stakeholder engagement plan is a function of growing an understanding of local and regional contexts and therefore should remain a dynamic plan through the project lifecycle. Stakeholder engagement is an ever-changing landscape and project personnel (those doing engagement on behalf of government or project) need to allow and plan for emergent opportunities and understanding. Stakeholder engagement planning is best executed as an integral project management function and benefits from dedicated resources.

