

Briefing Note: US CCUS – Louisiana Carbon Storage Hub Opportunity

Purpose

This note presents an opportunity to establish a commercial CCUS hub in Louisiana in which bp would provide CO₂ storage services to emissions intensive industries. Further integration potential including gas sales, blue hydrogen offtake and partnering opportunities in the steel industry could create additional value. The opportunity strongly aligns with our ambition and in particular aims 2, 3 and 5. To better understand Louisiana stakeholders attitudes to CCUS and secure rights to pore space for storage we request approval to enter into preliminary discussions with the Louisiana Department of Wildlife and Fisheries, the State Mineral and Energy Board and St James Parish.

Context

bp's H2 & CCUS business plans to create a 5mtpa CO₂ transportation and storage business in the US by 2025. Louisiana is an attractive CCUS location due to proximity to cost effective CO₂ capture opportunities, geology suitable for storage and a favourable regulatory environment. Nucor Steel has approached bp with an opportunity to capture CO₂ emissions from its plant in Convent, Louisiana. Initial bp screening has identified a potential sequestration site on adjacent State-owned land with promising geology and no apparent technical showstoppers.

bp is in active discussions with other emitters in the immediate area including CF Industries, Linde, and Nutrien. Together, these create an opportunity to establish a hub of 2 to 4mtpa of high concentration, low capture-cost CO₂ for sequestration. Based on existing 45Q tax legislation that offers tax credits of \$50/tonne for stored CO₂, indicative project value is \$700m gross NPV₆ assuming \$550m capital investment for all partners in the chain. bp could retain 30% to 50% of the value depending on the participation model. Integration opportunities with gas supply and hydrogen offtake could increase this. The capex total includes capture equipment which the emitters would fund directly. As such, bp's share of capex would be limited to transportation and storage site development costs (ca. \$150 - \$200m).

These projects are relatively low cost and low complexity, with potential for rapid execution, making them equally attractive to competitors. Oxy Low Carbon Solutions is active in the area and has already initiated discussions with the Louisiana Department of Wildlife and Fisheries and we are aware of Shell pursuing projects elsewhere in the state.

Redacted - Privilege

15 April 2021

Redacted - Privilege

Next steps

We recommend progressing the Louisiana hub at pace by:

- 1.
2. **Redacted - First Amendment**
3. Purchasing existing 3D seismic data over the potential storage site and progress subsurface evaluation to be able to plan and drill an appraisal well by early 2022.
4. Continuing engagement with other anchor emitters to develop a wider CO₂ storage service offer.

Andy Lane VP CCUS Solutions

Attachment:

A1: Louisiana hub concept stores >2mtpa high concentration CO₂ within a compact area with storage, primarily under State-owned land.

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