



Underground Injection Control – Class VI Permit Application for Rose CCS Project Injection Wells No. 01, No. 02, and No. 03

## SECTION 9 – FINANCIAL ASSURANCE

Rose Carbon Capture and Storage Project

**Claimed as PBI**

ExxonMobil Low Carbon Solutions Onshore Storage LLC

February 2024

SECTION 9 – FINANCIAL ASSURANCE

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Appendix J – Financial Assurance

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## 9.0 Financial Assurance

Under Title 40 U.S. Code of Federal Regulations (40 CFR) 146.85, owners or operators of geologic sequestration (GS) injection wells are required to demonstrate financial responsibility for GS activities<sup>1</sup>. ExxonMobil Low Carbon Solutions Onshore Storage LLC (ExxonMobil) plans to construct three Class VI injection wells as part of the Rose Carbon Capture and Storage (CCS) Project (Project) for the purpose of sequestering approximately **Claimed as PBI**. Consistent with these regulatory requirements, ExxonMobil has prepared this document to demonstrate financial responsibility for the injection wells that comprise the Rose CCS Project (Rose Site<sup>2</sup>).

The sections that follow summarize the Project's GS activities, as well as the qualifying financial instrument that ExxonMobil proposes to use, to demonstrate financial responsibility for the following Project phases: (1) Corrective Action; (2) Injection Well Plugging; (3) Post-Injection Site Care (PISC) and Site Closure; and (4) Emergency and Remedial Response (ERR).

### 9.1 Facility Information

Facility Name: ExxonMobil Low Carbon Solutions Onshore Storage LLC  
(ExxonMobil) – Rose

Facility Contact: **Claimed as PBI**  
ExxonMobil Low Carbon Solutions Onshore Storage LLC

Project Site Name: Rose Carbon Capture and Storage Project

Project Location:

Rose CCS Project Injection  
Well No. 01

Rose CCS Project Injection  
Well No. 02

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<sup>1</sup> The use of the term “geologic sequestration activities” is unique to this section of the Application. It is used to provide additional clarity on which activities of the Project's lifecycle necessitate financial assurance from those that do not, consistent with U.S. Environmental Protection Agency guidance for financial assurance.

<sup>2</sup> Reference to the Project as the “Rose Site” is used in this section of the Application to distinguish between this Project and other future ExxonMobil project applications undergoing simultaneous financial assurance review.

Rose CCS Project Injection  
Well No. 03

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## **9.2 Financial Assurance Demonstration**

Per 40 CFR 146.85(a)(1)(v), ExxonMobil requests approval from the underground injection control program (UIC) Program Director, or their designee, to use a corporate guarantee from Exxon Equity Holding Company (EEHC) for purposes of demonstrating financial responsibility for Corrective Action, Injection Well Plugging, PISC and Site Closure, as well as ERR. EEHC is an indirectly wholly owned subsidiary of Exxon Mobil Corporation (EMC), which provides financial support to or on behalf of its affiliates. EEHC maintains significant intercompany relationships with EMC and its affiliates as shown in Figure 9-1, and as of December 31, 2022, the company had interest-bearing deposits with EMC and its affiliates totaling \$8,348,583,000. The deposit balances are current and can be called upon demand. See Appendix J-1 for a copy of the independently audited financial statements for EEHC.

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In support of the financial assurance demonstration, EEHC has provided a corporate guarantee to ExxonMobil, which is consistent in form to the corporate guarantee language included in Appendix B of the U.S. Environmental Protection Agency's (EPA's) July 2011 guidance document.<sup>3</sup> See Appendix J-2 for a copy of the executed corporate guarantee. As shown in

<sup>3</sup> U.S. Environmental Protection Agency. *Geologic Sequestration of Carbon Dioxide: Underground Injection Control (UIC) Program Class VI Financial Responsibility Guidance* (July 2011). PA 816-R-11-005. B-22 Appendix B: Recommended Financial Responsibility Instrument Language (Forms/Templates). [https://www.epa.gov/system/files/documents/2022-11/uicfinancialresponsibilityguidancefinal072011v\\_0.pdf](https://www.epa.gov/system/files/documents/2022-11/uicfinancialresponsibilityguidancefinal072011v_0.pdf)



## CONFIDENTIAL BUSINESS INFORMATION

Table 9-1, EEHC satisfies both Part 1 and Part 2 of the corporate financial test criteria in 40 CFR 146.85(a)(6)(v).

Table 9-1: Financial Coverage and Threshold Criteria for EEHC, as Guarantor to ExxonMobil for the Rose Site

Financial Coverage / Threshold Requirement per §146.85(a)(6)(v) <sup>4</sup>	EEHC Financial Measure
Part 1	
1. Tangible net worth of at least \$100 million? <sup>5</sup>	Claimed as
2. Net working capital at least six times the sum of the current corrective action, well plugging, PISC and site closure, and ERR costs?	Claimed as
3. Tangible net worth of at least six times the sum of the current corrective action, well plugging, PISC and site closure, and ERR costs?	Claimed as
4. Assets in the United States amounting to at least 90% of total assets <u>or</u> Assets in the United States amounting to at least six times the sum of the current corrective action, well plugging, PISC and site closure, and ERR cost estimate?	Claimed as
Part 2	
5. Total liabilities to net worth ratio less than 2.0?	Claimed as
6. Current assets to current liabilities ratio greater than 1.5?	Claimed as
7. Sum of net income plus depreciation, depletion, and amortization to total liabilities ratio greater than 0.1?	Claimed as
8. Current assets minus current liabilities to total assets ratio greater than <i>minus</i> 0.1?	Claimed as
9. Net profit (revenues minus expenses) greater than \$0?	Claimed as

Appendix J-3 is a completed letter from **Claimed as PBI** of EEHC, serving as the Chief Financial Officer of EEHC, that demonstrates the company's ability to meet the requisite financial coverage and threshold criteria, per 40 CFR 146.85(a)(6)(v). Appendix J-3 is consistent in form to the "Letter from Chief Financial Officer" included in Appendix B of the EPA's July 2011 guidance document.<sup>6</sup>

Consistent with the EPA's July 2011 guidance, ExxonMobil provides this demonstration of fiscal responsibility with the understanding that the financial instruments referenced herein will be updated and verified no less than annually. As each GS activity phase is initiated, ExxonMobil

<sup>4</sup> As stated in Note 3 of EEHC's independently audited financial statements, *Deposits receivable from Exxon Mobil Corporation and affiliates* are current and can be called upon demand. All other assets were considered "non-current" for the purposes of this analysis. In addition, all liabilities were considered "current" since the audited financial statements do not differentiate current from non-current liabilities.

<sup>5</sup> ExxonMobil recognizes that 40 CFR 146.85(a)(6)(v) requires that its guarantor meet a Tangible Net Worth of an amount approved by the UIC Program Director. For purposes of this financial assurance demonstration, EEHC affirms that it maintains a Tangible Net Worth of at least \$100 million, per the recommended threshold included in EPA's July 2011 Class VI financial responsibility guidance (p. 15).

<sup>6</sup> *op.cit.* See B-19 Appendix B: Recommended Financial Responsibility Instrument Language (Forms/Templates).

will confirm that the coverage limits provided by the respective financial responsibility instruments are sufficient to cover the corresponding costs prior to initiating the Project phase.

### **9.3 Estimated Coverage Amounts**

The total current cost estimate for the Project's GS activities necessitating financial assurance at the Rose Site is **Claimed as PBI** in 2024 dollars. This total cost estimate assumes the hiring of independent, third-party contractors to perform the required activities for each Project phase. The cost estimate is separated into the following phases<sup>7</sup>:

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Table 9-2 summarizes the total estimated cost of performing each GS activity, along with the timeline for which financial assurance coverage is expected to be needed. The values included in this demonstration of financial responsibility are based on cost estimates developed as part of the permit application process and assume the hiring of third-party contractors to perform the services or to procure the goods associated with the performance of each GS activity. These values are subject to change during the life of the Project to account for inflation of costs and changes to the Project that may affect the cost of covered activities. Per 40 CFR 146.85(c), during the active life of the Project, ExxonMobil will adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial assurance instrument. In addition, ExxonMobil will provide to the UIC Program Director written updates of adjustments to the cost estimate within 60 days of any amendments to the AoR and Corrective Action Plan [40 CFR 146.84], the injection well plugging plan [40 CFR 146.92], the PISC and Site Closure Plan [40 CFR 146.93], and the emergency and remedial response plan (ERRP) [40 CFR 146.94].

ExxonMobil will adjust the value of its financial assurance instruments in response to any changes in cost estimates and will resubmit its revised demonstration of financial responsibility to the UIC Program Director or their designee for review and approval. ExxonMobil will not adjust the established coverage values of any financial assurance instrument without prior approval from the UIC Program Director, or their designee.

<sup>7</sup> Assumes receipt of permit in 2026, start of injection in 2026, and 16 years of injection.

<sup>8</sup> Financial responsibility coverages for well plugging reflect the current estimated cost for plugging the three injection wells and four monitoring wells related to the Project.

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#### **9.4 Corrective Action**

The Corrective Action Plan is discussed in detail in Section 3 – Area of Review and Corrective Action Plan. Per the requirements of 40 CFR 146.84, the plan specifically outlines both a plugging plan for the artificial penetrations found within CO<sub>2</sub> plume and brine pressure front and the recompletion schedule whereby the wellbore modifications will have been completed.

For the planned activities at the Project, workovers on the legacy wells found to have sufficient deficiency as to represent a potential loss of CO<sub>2</sub> or brine containment will be re-entered and plugged prior to receiving approval to inject from the UIC Program Director. Claimed as PBI

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The estimated financial assurance coverage value for this GS activity includes costs associated with the two legacy wells as shown in Table 9-3.

Per 40 CFR 146.84(a)(5)(ii), this financial responsibility demonstration will be updated annually to account for any changes in expected financial coverage values and to confirm that the financial instrument(s) then in place remain adequate for use.

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## **9.5 Well Plugging**

### **9.5.1 Injection Well Plugging**

Plugging and abandonment (P&A) of the injection wells at the Project will meet the requirements of 40 CFR 146.92. The P&A plan for the injection wells was designed to reduce the potential for movement of CO<sub>2</sub> or brine from the injection interval through the upper composite confining zone (UCCZ) and toward underground sources of drinking water (USDWs).

A detailed P&A plan is discussed in Section 6 – Injection Well Plugging Plan. In alignment with the requirements for the P&A plan, the estimated financial assurance coverage value includes costs for logs/wireline to be run in the wellbore before cementing occurs, if necessary. CO<sub>2</sub>-compatible cement will be used to set the cement plug for the first **Claimed as PBI**, followed by additional plugs at the base of the lowermost USDW and at the well surface. The expenses relating to personnel and equipment have been accounted for in Table 9-3.

### **9.5.2 Monitoring Well Plugging**

P&A of the **Claimed as PBI** associated with the Project will also meet the requirements of 40 CFR 146.92. As detailed in Section 6 – Injection Well Plugging Plan, the P&A of the monitoring wells was designed to protect USDW from potential endangerment. The estimated financial assurance coverage value for this GS activity includes the costs for logs and wireline to be run in the in-zone monitoring well before cementing occurs to the extent necessary. The expenses relating to personnel and equipment have been accounted for in Table 9-4.

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## **9.6 Post-Injection Site Care and Site Closure Plan**

The PISC and Site Closure Plan has been designed to meet the requirements of 40 CFR 146.93. The estimated financial assurance coverage value for this GS activity includes the cost categories summarized in Table 9-5, while the plan itself is discussed in Section 7 – Post-Injection Site Care and Site Closure Plan.

### **9.6.1 Post-Injection Monitoring**

As discussed in Section 5 – Testing and Monitoring Plan, vertical seismic profile (VSP) and pressure and temperature monitoring will be conducted during operation and after the end of injection to assess the integrity of the well and to track the migration of the CO<sub>2</sub> plume and brine pressure front.

### **9.6.2 Site Closure Plan**

Site closure will occur when the UIC Program Director has released the owner from PISC duties and the demonstration of non-endangerment for USDWs has been approved. The estimated financial assurance coverage value for this GS activity is summarized in Table 9-5 and reflects the expected amount to decommission and close the site.

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### **9.7 Emergency and Remedial Response**

The ERRP is discussed in Section 8 – Emergency and Remedial Response Plan and is designed to satisfy the requirements of 40 CFR 146.94, which necessitates an ERRP that describes actions ExxonMobil will take to address movement of injection or formation fluids that may cause an endangerment to a USDW during construction, operation, and PISC periods.

The financial assurance coverage value for ERR is estimated to be **Claimed as PBI** in 2024 dollars and is summarized in Table 9-6. This estimate assumes coverage for the following event-based risk activities at the Project: mechanical integrity of injection well casing or cement seal, artificial penetrations of the UCCZ, mechanical integrity of operating equipment, and natural features affecting sealing properties of the UCCZ. Details regarding the approach used to develop the risk-based scenarios, the levels of severity considered, and the actions to be taken to avoid, monitor, respond, and notify the occurrence of risk events are summarized in detail in Section 8.

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Appendix J contains the following documents:

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