Stage 1 Business Analysis

California Department of Technology, SIMM 19A.3 (Ver. 3.0.8, 02/01/2022)

1.1 General Information

1. **Agency or State entity Name: 3900 - Air Resources Board, State**

If Agency/State entity is not in the list, enter here with the organization code.

Click or tap here to enter text.

2. **Proposal Name and Acronym: Carbon Removal Project Portal (CRPP)**

3. **Proposal Description: (Provide a brief description of your proposal in 500 characters or less.)**

Senate Bill 905 requires the California Air Resources Board (CARB) to establish a Carbon Capture, Removal, Utilization, and Storage Program (Program). Fulfilling CARB requirements of SB 905 will include development of a unified application system (CRPP) to manage and disseminate carbon capture, removal, and sequestration project information for purposes of obtaining project permit approvals in the state.

4. **S1BA Version Number: Version 1**

1.2 Submittal Information

1. **Contact Information**

Contact Name: Jeff Kessler

Contact Email: jeff.kessler@arb.ca.gov

Contact Phone: 279.208.7616

2. **Submission Type: New Submission**

If Withdraw, select Reason: Choose an item.

If Other, specify reason here: Click or tap here to enter text.

Sections Changed, if this is a Submission Update: (List all sections changed.)

Click or tap here to enter text.

Summary of Changes: (Summarize updates made.)

Click or tap here to enter text.

3. **Attach Project Approval Executive Transmittal** to your email submission.
4. **Attach Stage 1 Project Reportability Assessment** to your email submission.

1.3 Business Sponsorship

1. **Executive Champion (Sponsor)**

Title: Division Chief

Name: Matt Botill

Business Program Area: Industrial Strategies Division

2. **Business Owner**

Title: Branch Chief

Name: Carolyn Lozo

Business Program Area: Oil and Gas and Greenhouse Gas Mitigation Branch

3. **Product Owner**

Title: Air Resources Supervisor

Name: Alexander Mitchell

Business Program Area: Emerging Fuels Section

Title: Air Resources Supervisor

Name: Gavin Hoch

Business Program Area: Greenhouse Gas Measures Section

Title: Staff Air Pollution Specialist

Name: Jeff Kessler

Business Program Area: Emerging Fuels Section

TIP: Copy and paste or click the + button in the lower right corner on any section to add additional Executive Champions, Business Owners, or Product Owners with their related Business Program Areas as needed.

1.4 Stakeholder Assessment

The Stakeholder Assessment is designed to give the project team an overview of communication channels that the state entity needs to manage throughout the project. More stakeholders may result in increased complexity to a project.

1. **Indicate which of the following are interested in this proposal and/or the outcome of the project. (Select 'Yes' or 'No' for each.)**

   State Entity Only: No

   Other Departments/State Entities: Yes

   Public: Yes

   Federal Entities: Yes

   Governor's Office: Yes

   Legislature: Yes

   Media: No

   Local Entities: Yes

   Special Interest Groups: No

   Other: Yes

2. **Describe how each group marked 'Yes' will be involved in the planning process.**

CARB: CARB will administer the program and developed systems, and designate and authorize relevant users of the system, including designations for state and local entities to review submitted applications, and to mark and identify application deficiencies for remediation.

California Natural Resources Agency: The unified application CARB is developing will be developed in coordination with the California Natural Resources Agency

Geologic Carbon Sequestration Group: Development of the program shall be done in consultation with the Geologic Carbon Sequestration Group, Third-party Verifiers: CARB may use state board-approved third-party verifiers to verify relevant application and tracking data for projects

Other state agencies: Depending on projects, applications may need to be reviewed for permits to be issued by the California Energy Commission, the EPA Region 9 office, local air quality districts, the State Water Resources Control Board, regional water quality control boards, the Department of Fish and Wildlife, and other state, federal, and local agencies.

Public: There will be public workshops to receive comments from members of the public pertaining to implementation of the system. Businesses and developers working to build and operate CCUS in California will use the developed application portal to submit applications for review.

Local Entities: Other local entities may have access to the application portal as relevant for local permitting requirements/considerations.

1.5 Business Program

3. **Business Program Name:** Carbon Capture, Removal, Utilization, and Storage Program

4. **Program Background and Context:** (Provide a brief overview of the entity's business program(s) current operations.)

   CARB currently implements a program to consider Carbon Capture and Sequestration (CCS) projects for certification prior to recognition under the Low Carbon Fuel Standard (LCFS) program. CARB adopted a CCS Protocol in 2018 as part of amendments to the LCFS Regulation. The CCS Protocol sets requirements for carbon capture and geological sequestration projects to receive CARB permanence certification in order to be eligible to receive LCFS credits. Staff ensure that any LCFS CCS project applications meet the existing protocol requirements, which are focused on ensuring CCS projects provide permanent CO2 removals for LCFS crediting. The additional requirements established by SB 905 cannot be absorbed by these existing staff.

   SB 905 requires CARB to establish a Carbon Capture, Removal, Utilization and Storage Program to evaluate the efficacy, safety, and viability of various carbon capture, utilization, or storage technologies and Carbon Dioxide Removal technologies and facilitate the capture and sequestration of carbon dioxide from those technologies, where appropriate, alongside requirements for monitoring and tracking to reduce risks associated with carbon removal projects operating in the state.

   SB 905 directs CARB to develop a unified permit application to expedite the permitting for carbon capture projects in addition to ensuring specific monitoring and reporting requirements are met. SB 905 will substantially expand CARB staffing requirements, and an application and tracking portal will be necessary to meet the requirements of SB 905 to expediate permitting, and to track and monitor CCS project outcomes.

   How will this proposed project impact the product or services supported by the state entity?

   This proposed project is necessary to facilitate dissemination and use of a unified application for carbon capture, removal, utilization and storage projects in the state. This proposed project will help various state and local agencies review relevant applications and will facilitate tracking and monitoring of approved projects in California.

   TIP: Copy and paste or click the + button in the lower right corner to add Business Programs, with background and context and impact descriptions as needed.

1.6 Project Justification

1. **Strategic Business Alignment**

   Enterprise Architect

   Title: Information Technology Specialist II

Name: Dewayne Debbs

Strategic Plan Last Updated? 1/21/2021

Strategic Business Goal: 1) Reduce greenhouse gas emissions to zero in every sector by 2045 and complement with carbon sequestration. 2) Build on success in meeting the 2020 target to achieve the state's 2030 GHG Reduction Mandate of 40 percent as a steppingstone to Carbon Neutrality by 2045

Alignment: Improve business processes by allowing for electronic dissemination of data between agencies to expedite the approval of carbon capture projects that will be necessary for achieving the 2030 GHG reduction mandate, and for achieving carbon neutrality by 2045.

TIP: Copy and paste or click the + button in the lower right corner to add Strategic Business Goals and Alignments as needed.

Mandate(s): State

Bill Number/Code, if applicable: SB 905

Add the Bill language that includes system-relevant requirements:

39741.1. (a) The state board shall establish a Carbon Capture, Removal, Utilization, and Storage Program to do all of the following:

(1) Evaluate the efficacy, safety, and viability of CCUS and CDR technologies and facilitate the capture and sequestration of carbon dioxide from these technologies, where appropriate.

(2) Develop monitoring and reporting schedules to state regulatory agencies for carbon dioxide capture, removal, or sequestration projects to ensure efficacy, safety, and viability of the projects.

(3) Ensure that all carbon dioxide capture, removal, or sequestration projects include the following, as appropriate:

(A) Strategies to minimize, to the maximum extent technologically feasible, copollutant emissions from facilities where CCUS or CDR technology is deployed to ensure that the use of carbon dioxide removal technologies and carbon capture and storage technologies does not have an adverse impact on local air quality and public health, particularly in low-income and disadvantaged communities.

(B) Strategies to ensure that carbon dioxide capture, removal, or sequestration projects minimize, to the maximum extent technologically feasible, local water pollution or air pollution from construction- and transportation-related impacts from the projects in communities adjacent to carbon dioxide capture, removal, or sequestration projects, including a geologic storage complex.

(C) Strategies to minimize the risk of seismic impacts to, and from, geologic storage projects, including the risk of gas leakage due to seismic activity.

(D) Monitoring and reporting of seismic activity related to geologic sequestration of carbon dioxide, and monitoring of sequestered carbon dioxide, including movement within the geologic storage

complex, for a period of time that is sufficiently long enough to demonstrate that the risk of carbon dioxide leakage poses no material threat to public health, safety, and the environment and to achievement of net zero greenhouse gas emissions in California and that terminates no earlier than 100 years after the last date of injection of carbon dioxide into a geologic storage reservoir. In adopting regulations pursuant to subdivision (c) that pertain to this subparagraph, the state board shall consult with the State Geologist.

(E) Monitoring of criteria pollutants and potential toxic air contaminants at the one or more sites within the geologic storage complex and at mobile or fixed sites within the facility, and monitoring of ambient carbon dioxide concentrations over the geologic storage complex to facilitate leak detection. Monitoring required under this section shall continue for a period of time that is sufficiently long enough to demonstrate that the risk of carbon dioxide leakage poses no material threat to public health, safety, and the environment and to achievement of net zero greenhouse gas emissions in California and that terminates no earlier than the completion of the applicable postinjection site care and site closure plan pursuant to Section 146.93 of Title 40 of the Code of Federal Regulations.

(F) Projects meet best available control technology requirements as determined by the local air district.

(b) In carrying out the objectives of the program, the state board shall prioritize the following:

(1) Reducing the emissions of greenhouse gases.

(2) Minimizing land use and potential environmental, noise, air quality, water quality, traffic, seismic, and other related impacts, and any potential health and safety risks, to all communities where CCUS and CDR technologies are deployed, and carbon dioxide capture, removal, or sequestration projects are located to the maximum extent feasible.

(3) Maximizing workforce development and employment opportunities in each community where CCUS and CDR technologies are deployed, and carbon dioxide capture, removal, or sequestration projects are located, to the extent feasible.

(4) Leveraging private funding sources and public-private partnership structures alongside potential state funding sources.

(5) Reducing fossil fuel production in the state.

(c) The state board shall adopt regulations to implement this section.

(d) In developing the program, the state board shall consult with the Geologic Carbon Sequestration Group established pursuant to Section 2213 of the Public Resources Code.

(e) In tracking progress toward the state’s climate targets, the state board shall prevent the double counting of emissions reductions associated with utilizing carbon dioxide that is captured or removed from the atmosphere. The state board may use a state board-approved third-party verifier to satisfy this subdivision.

(f) (1) Beginning January 1, 2025, and every two years thereafter, the state board shall report to the Legislature on the progress of the program. The report shall, at a minimum, include an evaluation of potential local environmental impacts and potential long-term leakage impacts as well as recommendations on measures to reduce these impacts of completed carbon dioxide capture, removal, or sequestration projects.

(2) A report to be submitted pursuant to this subdivision shall be submitted in compliance with Section 9795 of the Government Code. 39741.2. In furtherance of the objectives in Section 39741.1, on or before January 1, 2025, the state board shall, in consultation with relevant state and local agencies, adopt regulations for a unified permit application for the construction and operation of carbon dioxide capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. The unified permit application shall solicit from applicants, and direct to all relevant state agencies, all information needed to obtain permits and other authorizations from relevant state and local agencies necessary for the construction and operation of a carbon dioxide

39741.2. (a) In furtherance of the objectives in Section 39741.1, on or before January 1, 2025, the state board shall, in consultation with relevant state and local agencies, adopt regulations for a unified permit application for the construction and operation of carbon dioxide capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. The unified permit application shall solicit from applicants, and direct to all relevant state agencies, all information needed to obtain permits and other authorizations from relevant state and local agencies necessary for the construction and operation of a carbon dioxide capture, removal, or sequestration project. An applicant's use of the unified permit application shall be optional.

39741.3. In furtherance of the objectives in Section 39741.1, by January 1, 2025, the state board shall develop a centralized public database to track the deployment of CCUS and CDR technologies and the development of carbon dioxide capture, removal, or sequestration projects throughout the state.

TIP: Copy and paste or click the + button in the lower right corner to add Bill Numbers/Codes and relevant language as needed.

2. Business Driver(s)

Financial Benefit: Yes

Increased Revenue: No

Cost Savings: Yes

Cost Avoidance: Yes

Cost Recovery: No

Will the state incur a financial penalty or sanction if this proposal is not implemented? Yes

If the answer to the above question is "Yes," please explain:

CARB is required under SB 905 to implement this system

Improvement

Better Services to the People of California: Yes

Efficiencies to Program Operations: Yes

Improved Equity, Diversity, and/or Inclusivity: No

Improved Health and/or Human Safety: No

Improved Information Security: Yes

Improved Business Continuity: Yes

Improved Technology Recovery: No

Technology Refresh: No

Technology End of Life: No

1.7 Business Outcomes Desired

Executive Summary of the Business Problem or Opportunity:

SB 905 requires CARB to evaluate, monitor, and track CCUS and CDR project technologies and to coordinate with other state agencies to develop and disseminate a unified application.

Implementation of SB 905 requires the following CARB efforts:

- Evaluate the efficacy, safety, and viability of CCUS and CDR technologies and facilitate the capture and sequestration of carbon dioxide from these technologies, where appropriate
- Develop monitoring and reporting schedules to state regulatory agencies for carbon dioxide capture, removal, or sequestration projects to ensure efficacy, safety, and viability of the projects
- Consult with the Geologic Carbon Sequestration Group
- Prevent the double counting of emissions reductions associated with utilizing carbon dioxide that is captured or removed from the atmosphere
- Report to the Legislature on the progress of the program
- Consult with other local and state agencies to adopt a unified permit application
- Develop a centralized public database to track the deployment of CCUS and CDR technologies and the development of carbon dioxide capture, removal, or sequestration projects throughout the state

Problem 1: SB 905 requires CARB to develop a unified application for permitting and to disseminate that application to relevant state and local agencies. CARB currently has no unified application, nor system in place to disseminate an application. CARB has resource challenges with reviewing current CCS applications as required under the CCS protocol incorporated into the LCSF, and SB 905 will greatly increase the number of potential CCS and CDR projects that CARB staff will need to review, exacerbating timing issues for reviewing, permitting, and tracking projects.

Objective ID: 1.1

Objective: Develop a Carbon Removal Project Portal for submitting unified applications, and for tracking the permitting and ongoing operation of CCUS projects in the state

Metric: A website where a unified application can be submitted, and where relevant data is displayed and tracked for projects that have been approved and are operating

Baseline: No current system

Target Result: Allow for project operators, developers, and other relevant users to submit a unified application, which will be disseminated to relevant agencies for approval.

TIP: Copy and paste or click the + button in the lower right corner to add Objectives as needed. Please number for reference.

TIP: Objectives should identify WHAT needs to be achieved or solved. Each objective should identify HOW the problem statement can be solved and must have a target result that is specific, measurable, attainable, realistic, and time-bound. Objective must cover the specific. Metric and Baseline must detail how the objective is measurable. Target Result needs to support the attainable, realistic, and time-bound requirements.

1.8 Project Management

1. **Project Management Risk Score: Stage 1: 2.5; Stage 2: 3.7;**

   (Attach a completed Statewide Information Management Manual (SIMM) Section 45 Appendix A Project Management Risk Assessment Template to the email submission.)

2. **Project Approval Lifecycle Completion and Project Execution Capacity Assessment**

   Does the proposal development or project execution anticipate sharing resources (state staff, vendors, consultants, or financial) with other priorities within the Agency/state entity (projects, PALs, or programmatic/technology workload)?

   Answer: Yes

   Does the Agency/state entity anticipate this proposal will result in the creation of new business processes or changes to existing business processes?

   Answer (No, New, Existing, or Both)**:** New Processes

1.9 Initial Complexity Assessment

1. **Business Complexity Score:** 3.1

   (Attach a completed SIMM Section 45 Appendix C to the email submission.)

2. **Noncompliance Issues:** (Indicate if your current operations include noncompliance issues and provide a narrative explaining how the business process is noncompliant.)

   Programmatic regulations: No

   HIPAA/CIIS/FTI/PII/PCI: No

   Security: No

ADA: No

Other: Choose Yes or No.

Not Applicable: Yes

Noncompliance Description:

This is a new programmatic need, motivated by SB 905.

3. **Additional Assessment Criteria**

If there is an existing Privacy Threshold Assessment/Privacy Information Assessment, include it as an attachment to your email submission.

How many locations and total users is the project anticipated to affect?

Number of locations: hundreds to potentially thousands

Estimated Number of Transactions/Business Events (per cycle): real time monitoring for injection/capture. Applications likely in the 10s to potentially hundreds per quarter with full implementation.

Approximate number of internal end-users: 5-10

Approximate number of external end-users: a few hundred+

1.10 Funding

Planning

1. Does the Agency/state entity anticipate requesting additional resources through a budget action to ***complete planning*** through the project approval lifecycle framework? Unknown

If Yes, when will a budget action be submitted to your Agency/DOF for planning dollars?

Click or tap to enter a date.

2. Please provide the Funding Source(s) and dates funds for planning will be made available:

Click or tap here to enter text.

Project Implementation Funding

1. Has the funding source(s) been identified for ***project implementation***? Yes

If known, please provide the Funding Source(s) and dates funds for implementation will be made available:

Greenhouse Gas Reduction Fund. Expected to be made available 7/1/2023

Will a budget action be submitted to your Agency/DOF? Yes

If “Yes” is selected, specify when this BCP will be submitted: Click or tap here to enter text.

2. Please provide a rough order of magnitude (ROM) estimate as to the total cost of the project: Less than $10 Million

End of agency/state entity document.

Please ensure ADA compliance before submitting this document to CDT.

When ready, submit Stage 1 and all attachments in an email to ProjectOversight@state.ca.gov.

Department of Technology Use Only

Original “New Submission” Date: 12/19/2022

Form Received Date: 12/19/2022

Form Accepted Date: 12/19/2022

Form Status: Completed

Form Status Date: 12/19/2022

Form Disposition: Approved

If Other, specify: Click or tap here to enter text.

Form Disposition Date: 12/19/2022

Department of Technology Project Number (0000-000): 3900-076