Stage 4 Project Readiness and Approval

California Department of Technology, SIMM 19 D.2 (Rev. 3.0.8, 2/28/2022)

4.1   General Information

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

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

   Click or tap here to enter text.

2. **Proposal Name:** Clean Air Reporting Log (CARL) Redesign

3. **Department of Technology Project Number (0000-000):** 3900-073

4. **S4PRA Version Number:** Version 1

5. **CDT Billing Case Number: CS0055343**

   Don't have a Case Number? Click here to get one.

4.2   Submittal Information

1. **Contact Information**

   Contact Name: Carlotta Range-Lewis

   Contact Email: carlotta.range-lewis@arb.ca.gov

   Contact Phone: 279-216-0875

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 an updated or resubmission (List all the sections that have 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 Final **Procurement Assessment Form** to your email submission.

5. **Conditions from Stage 3 Approval** (Enter any conditions from the Stage 3 Solution Analysis approval letter issued by CDT):

   Click or tap here to enter text.

4.3   Contract Management

The Contract Manager must be a State Employee and should not be the Project Manager. Please complete the questions below in reference to the **primary solicitation**.

Is the Contract Management Plan complete, approved by the designated Agency/state entity authority, and available for the Department of Technology to review? **Choose**: 'Yes,' 'No,' or 'Not Applicable.' If 'No' or 'Not Applicable,' provide the artifact status in the space provided.

1. **Contract Management Plan (Approved):** Yes

   Status: Click or tap here to enter text.

2. **Has the role of Contract Manager been assigned, and has the Contract Manager reviewed and gained an understanding of the scope, activities, tasks, and deliverables of the contract?** Yes

   If "No," briefly explain below why both have not been accomplished:

   Click or tap here to enter text.

3. **Does the assigned Contract Manager understand the processes for post-award contract activities, including contract amendments, contract work authorizations, terms and conditions, and contract escalation/resolution?** Yes

   If "No," briefly explain below why this has not been accomplished:

   Click or tap here to enter text.

4. **Has a post-award kickoff meeting between the Contract Manager and state project team members been scheduled to align state and contractor expectations related to contract, budget, invoicing, requirements review, and contractor incentives?** Yes

   If "No," briefly explain below why this has not been accomplished:

   The team has selected a vendor. A post-award kickoff meeting between the Contract Manger and state project team members has been tentatively scheduled for June 5th, 2023.

5. **Does the Contract Manager understand the Agency/state entity and federal processes, policy, and applicable procedures?** Yes

   If "No," briefly explain below why this has not been accomplished:

   Click or tap here to enter text.

6. **Does the Contract Manager have a plan to collect and assess contractor and project performance information on a regular basis (e.g., establish meetings with Project Managers, communication techniques)?** Yes

> If "No," briefly explain below why this has not been accomplished:
>
> Click or tap here to enter text.

4.4   Organizational Readiness

Is the Implementation Management Plan draft complete, approved by the designated Agency/state entity authority, and available for the Department of Technology to review? **Choose**: 'Yes,' 'No,' or 'Not Applicable.' If 'No' or 'Not Applicable,' provide the artifact status in the space provided.

1. **Implementation Management Plan (Draft):** Yes

> Status: Click or tap here to enter text.

2. **Does the Agency/state entity currently have a mature release management process with a repeatable and scalable testing methodology that supports all stages of testing (system, integration, security, performance, interfaces, regression, user acceptance, and accessibility)?** Yes

> If "No," briefly describe below the release management process that will be used to manage, plan, schedule, and control a software release through the different phases and environments, including testing and deploying software releases:
>
> Click or tap here to enter text.

3. **Does the project team have a clear understanding of the areas of business (identified in Stage 1) that will be impacted by the project?** Yes

> If "No," briefly explain below how the Agency/state entity plans to educate the project team to ensure all members have a clear understanding of the impacted business areas by the project:
>
> Click or tap here to enter text.

4. **Does the Agency/state entity have processes and methodologies in place to support Organizational Change Management (OCM) activities identified in Stage 2, Section 2.9 Organizational Change Management?** Yes

> If "No," briefly describe below how the Agency/state entity will perform OCM activities for this proposal:
>
> Click or tap here to enter text.

5. **Does the Agency/state entity have dedicated knowledge transfer resources assigned to business process improvement or business process reengineering activities resulting from the new solution?** Yes

> If "Yes," specify the areas of business process improvement:
>
> Click or tap here to enter text.

If "No," briefly explain below how the Agency/state entity will perform business process improvement or business process reengineering activities resulting from the new solution:

Click or tap here to enter text.

6. **Attach** Updated Project Organization Chart to your email submission.

4.5   Project Readiness

1. **Select the system development methodology you plan to use to design and develop the new system: Hybrid**

    Provide a brief description of your methodology and reason for selecting it below:

    The Contractor shall implement an iterative methodology (Waterfall/Agile (hybrid) is recommended) with an industry-standard configuration management and Software Development Life Cycle (SDLC) framework for project implementation. The Contractor shall implement California Project Management Framework (CA-PMF) and iterative hybrid methodology, consistent with the State of California, CA-Agile Framework. The Contractor shall be responsible for all management and productivity tool subscriptions used to support the development of the CARL system.

    Describe below the Agency/state entity's past project experience using the system development methodology selected. If this methodology has never been used before, describe the training and staff development that will be provided to prepare staff to utilize this methodology.

    The Project team has staff that are experienced in using a hybrid methodology.

2. **Has the Agency/state entity engaged the Office of Technology Services (OTech) for capacity planning and the development of the solution delivery timeline?** No

    If "No," and data center capacity planning and alignment services are needed, explain below the reason OTech has not been engaged and what is the alternative plan:

    Click or tap here to enter text.

3. **Have resource commitments been obtained for all those identified in the Resource Management Plan?** Yes

    If "No," explain below why commitments have not been obtained and the plan to mitigate this risk:

    Click or tap here to enter text.

4. **Does the Resource Management Plan ensure resources are sufficiently committed to perform project activities if they are <u>also</u> committed to other responsibilities?** Yes

    If "No," explain below how sufficient resource levels will be maintained for all project activities:

    Click or tap here to enter text.

5. **Have all identified project leads received at a minimum basic project management training?**
Yes

   If "No," explain how the Agency/state entity will educate the project team leads on project management basics:

   Click or tap here to enter text.

4.6   Business Objective Valuation

1. **Attach** the Requirements/Backlog Baseline and/or Deliverables Baseline to your email submission.

2. **Insert your Objectives (ID, Objective, Metric, Baseline, and Target Result) from Stage 1 Section 1.7, along with changes and reason for changes, and assign a percent score value to each. The total of all scores should be 100%.**

   <u>**Objective 1**</u>

   Better Services to Californians:

   The current CARL system does not support regulatory requirements that have been put in place since the system was developed in 2009. Additionally, improvements emmisssion detection technologies are significantly advanced since the system was built. Program is hampared in its ability to address regulatory changes already in place or which are slated to become active in the next years.

   Objective ID: 1.1

   Objective: *Calculate project benefits at specific locations.*
   The current CARL does not provide functionality to establish location-based emission reduction targets. This limitation hampers Program's ability to set specific targets for high priority locations including high risk regions, low income and vulnerable populations, and others.
   The CARL Moyer program calculates the benefits of the projects it funds in terms of lower emissions of particulate matter, greenhouse gases, nitrogen dioxide and nitric oxide (NOx), reactive organic gases (ROG), and others. The benefits are determined through complex calculations. Currently benefits are calculated using statewide tables. Statewide calculators do not provide precision necessary to fully fulfill the requirements of law and regulations on a location basis.

   Change and Reason for Change from Stage 1: No Change from Stage 1.

   Metric: *Reports listing benefits by location within 12 months of completion of CARL+*

   Baseline: Not supported.

   Target Result: *Application and database support for entry of project information for calculation of the benefits according to the proposed project locaton.*

   Valuation: *Report that include location benefits.*

Objective ID: 1.2

Objective: *Include application for grants that currently are not supported by CARL but must be manually processed. This objective will be achieved by addition of new Project types to the system.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Development of 10 new project types.*

Baseline: *26 project types and sub-types*

Target Result: *Entry of projects utilizing the new project types as required to meet State mandates and ARB regulations within 12 months of system implementation.*

Valuation: *Increase in project types from current 26 to 36 total.*

Objective ID: 1.3

Objective: *Ability to manage very large new investments planned for 2020 and years following in the areas of toxics and greenhouse gases (GHGs) in CARL+ for tracking and management of upwards to $100 milion+ projects to be funded by new GGRF funds.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Application support for the GHG Program receive, review, and approve/disaprove applications for GHG projects, track, report, update, and liquidate projects. The application will also provide workflow, data entry, rules processing, calculation results, and administration capacity to manage, budget, track, invoice, and award incentives to eligible applicants.*

Baseline: *Not currently supported*

Target Result: *Entry of grant requests to achieve GHG benefits utilizing the new CARL forms as required to meet State mandates and ARB regulations within 12 months of system implementation.*

Valuation: *Implementation of new system which is found to meet detailed requirements and user acceptance tests.*

Objective ID: 1.4

Objective: *Support Program staff administraion of new GGRF funding to allow for more efficient project management by reducing manual processes. . Changes in law and regulation will greatly increase the number of projects as well as their sizes. CARL+ will provide automation to reduce the effort to manage projects and grants so that the new workload will be manageable.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Ability to absorb Program changes using existing staff.*

Baseline: *Existing staff are currently fully utilized supporting current program volumes.*

Target Result: *CARL+ support of automated workflow inluding the following areas:*
• *Project initiation, application, reviews, approval and closing*

- *Tracking and notification*
- *Budgeting*
- *Invoicing*
- *Correspondence*
- *Reporting*

Valuation: *Existing staff efficiently processes the increased volume of work expected from new Program and project expansions of new project.*

Objective 2

Efficiencies to Program Operations.

The Carl Moyer Program is seeking Improvements in the ability of administrators, and application users to efficiently change/add calculation formulas, create reports, and update projects in order to improve the timeliness, relevancy, and configurability of online report requests.

Objective ID: 2.1

Objective: *Improve project reporting and transparency by providing staff the ability to produce online reports that include the data they need to more efficiently manage of projects assigned to them.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Expanded CARL+ online reporting system to include 60 query fields.*

Baseline: *Current reports access 33 query fields.*

Target Result: *Ability to query 60 fields from the CARL database.*

Valuation: *Implementation of new system which is found to meet detailed requirements and user acceptance tests for online report generation.*

Objective ID: 2.2

Objective: *Provide CARL Program administrators the ability to efficiently complete annual changes to reference (static) data used to perform calculations, determine eligibility, produce reports, and other administrative tasks. The aim is to reduce the time it takes to make updates, and the current expense of programming staff currently required to complete changes.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Development of configuration tables so that after implementation administrators are able to make updates without the need for programming changes.*

Baseline: *Programing staff need to program changes static data used in the system.*

Target Result: *Ability to update static data used by the system*

Valuation: *After system implementation administrators are able to use configurable tables and forms to change static data without the need for programming staff.*

Objective ID: 2.3

Objective: *Reduce the average length of time of modifying of CARL forms.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Average length of time to modify a form..*

Baseline: *20 hours for modification.*

Target Result: *10 hours for modification*

Valuation: *Developer timesheets*

Objective ID: 2.4

Objective: *Develop application suppported workflows that break down business processes into logical steps in the following functional areas : Project initiation, application, reviews, approval and closing Tracking and notification Budgeting Invoicing Correspondence Reporting*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Reduce the average length of time of to approve/disapprove and manage projects by 50 percent within 1 year of system implementation through support of automated workflows including project assignment, staff/unit assignment lists, approval/disapproval processes, workflow between staff, project reporting, update and closure processes.*

Baseline: *4 weeks.*

Target Result: *2 weeks*

Valuation: *Reports of the number and average time managing CARL projects. Reports will include number of projects assigned, time.*

Objective 3

Technology Refresh: *Replace outdated programming language and system software with industry standard software that will improve security, reliability, extensibility, maintainability, and least costly.*

Objective ID: 3.1

Objective: *Replace existing not-compliant CARL system with CARL+ to meet ARB, CDT, and SIMM 5300 Information Security standards and practices*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Use approved software from the ARB/OIS Enterprise Architecture (OIS).*

Baseline: *Non standard code and incomplete security implementation in the areas of Internet security, system and datga backup and recovery, disaster recovery, and recoverability.*

Target Result: *Development of CARL+ using secure coding standards, adhering to the principle of least privilege, validating input, providing for defense in depth, and use effective quality assurance techniques, as well as of standards that include, but are not limited to: In-line comments and documentation Readable and efficient code Strict limitations on hard-coded*

variables Comprehensive test cases for all logical paths Use of APIs for data interfaces/exchange Pair programming/code review

Valuation: *Technical approval of detail design; senior technical lead and peer code reviews; unit, system, and integration tests; system documentation.*

Objective ID: 3.2

Objective: *Improved Information Security: Incentives and Technology Advancement Branch maintains the CARL database to comply with ARB security standards by replacing legacy CARL with a new application meeting State and ARB secure architecture and coding practices.*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Security Scan (OIS)*

Baseline: *Security Scan (Failed) (See Attachment 1 Improved Information Security)*

Target Result: *Security Scan (Pass)*

Valuation: *Security Scan (OIS)*

Objective ID: 3.3

Objective: *Technology End of Life: Develop application meeting SIMM 5100 IT Standards in the areas of: 5160.1 Open Data Policy Requirements 5160.3 Operating Software- Utilities and Programming Aids 5190 - Website Standards*

Change and Reason for Change from Stage 1: Click or tap here to enter text.

Metric: *Use of approved software from the ARB/OIS Enterprise Architecture (OIS)*

Baseline: *Software review (Failed)*

Target Result: *Software review (Pass)*

Valuation: *Software review (OIS)*

TIP: Copy and paste or click the + in the lower right corner of the above seven fields to add multiple objectives.

4.7 Schedule Baseline

1. **Schedule Summary**

   Project Execution Start Dates

   Proposed Project Start Date (from most recently approved schedule/roadmap): 5/1/2023

   Baseline Project Start Date: 6/5/2023

   Variance: Due to Resource limitation, the team needed additional time to award the contract.

Project End Dates

>Proposed Project Finish Date (from most recently approved schedule/roadmap): 9/30/2025

>Baseline Project Finish Date: 8/29/2025

>Variance: N/A

2. **Reason(s) for Variances**

Provide reasons for any date variances: The estimated dates from Stage 2 are now aligned with the contract terms which is 27 months.

3. **Master Schedule and Key Milestones**

Attach Master Schedule with highlighted Key Milestones to your email submission.

4.8   Cost Baseline

Is the Cost Management Plan complete, approved by the designated Agency/state entity authority, and available for the Department of Technology to review? **Choose**: 'Yes,' 'No,' or 'Not Applicable.' If 'No' or 'Not Applicable,' provide the artifact status in the space provided.

1. **Cost Management Plan (Approved):** Yes

>Status: Click or tap here to enter text.

2. **Cost Summary**

Total Planning Cost (One-Time)

>Estimated Proposed Cost (from most recently approved FAW): $5,421,575

>Baseline Cost: 5,421,575

>Variance: N/A

Total Project Cost (One-Time)

>Estimated Proposed Cost (from most recently approved FAW): $13,096,959

>Baseline Cost: $10,663,132

>Variance: The baseline cost is lower than the estimated cost since the Vendor bid low on software development and implementation cost. In addition, the PY costs were baselined. The project staffing team costs were reduced following a review and update of the personnel resources. In addition, the project timelines were aligned with the contract terms which is 27 months.

Total Future Operations IT Staff and OE&E Cost (Continuing)

>Estimated Proposed Cost (from most recently approved FAW): $1,276,098

>Baseline Cost: $1,421,763

Variance: The baseline cost increased due to changes in the CARB Infrastructure Costs. I.e., Updated AWS licensing, cloud hosting, hardware, software, and storage costs. Also, the Key Milestone dates changed after vendor discussions. In addition, the project timelines were aligned with the contract terms which is 27 months.

Total Cost

Estimated Proposed Cost (from most recently approved FAW): $19,794,633

Baseline Cost: $17,506,471

Variance: The Total Project Cost is lower than the estimated cost since the Vendor bid low on software development and implementation cost. In addition, the PY costs were baselined. The project staffing team costs were reduced following a review and update of the personnel resources. In addition, the project timelines were aligned with the contract terms which is 27 months.

Annual Future Operations IT Costs (Annual M&O)

Estimated Proposed Cost (from most recently approved FAW): $729,199

Baseline Cost: $775,507

Variance: During Stage 2 the cost listed was for a partial year. Based on a Department of Finance (DOF) recommendation, the Annual M&O was changed to reflect one full year.

TIP: Baseline costs should match the submitted Financial Analysis Worksheet for Stage 4.

3. **Reason(s) for Variances**

Provide reasons for any cost variances:

The total project cost decreased due to the vendor software development and implementation cost is less than the cost allotted in the RFO. In addition, changes were made to the project team hours for the entire duration of the project.

4. **Budget Change Proposal (BCP) Summary**

Budget Request ID: 3900-018-BCP-2022-GB

Budget Request Year (0000-00): 2022-23

Requested Amount (specific to the project): 2.0 Permanent Positions

Status: Supported

Budget Bill Language (if supported): The California Air Resources Board (CARB) requests 2.0 permanent positions to support the implementation and maintenance of the Clean Air Reporting Log (CARL) application. Costs for the CARL application and associated staffing are funded through an existing Carl Moyer Local Assistance program appropriation; Health & Safety Code (HSC) section 44299.1 allows CARB to allocate up to five percent of Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) funding to program support and outreach efforts. Please the position authority was approved and the positions filled effective May 2023.

TIP: Copy and paste or click the + button in the lower right corner to add BCPs as needed (e.g., Planning and Project related).

5. **Financial Analysis Worksheets (Baseline)**

   Attach Final FAWs to your email submission.

4.9   Primary Solicitation Results

1. **Attach** the approved Evaluation and Selection Report for the primary solicitation to your email submission.

2. **Attach** the proposed contract resulting from the primary solicitation to your email submission.

3. **Was one of the viable solutions in Stage 2 selected for final contract award?** Yes

   If "No", please describe:

   Click or tap here to enter text.

4. **Selected Vendor Name:** Click or tap here to enter text.

5. **Contract Number:** Click or tap here to enter text.

   a. Contract Start Date: Click or tap to enter a date.
   b. Contract End Date: Click or tap to enter a date.

6. **Total Contract Cost (without optional years):** Click or tap here to enter text.

   a. Optional Years (Number of Months): Click or tap here to enter text.

7. **Total Cost of Optional Years:** Click or tap here to enter text.

8. **Total Contract Cost (with optional years):** Click or tap here to enter text.

Are the following Project Management Plan Drafts approved by the designated Agency/state entity authority and available for the Department of Technology to review? **Choose**: 'Yes,' 'No,' or 'Not Applicable.' If 'No' or 'Not Applicable,' provide the artifact status in the space provided. These plans may be completed with the selected primary vendor.

1. **Configuration Management Plan (Draft):** Yes

   Status: Click or tap here to enter text.

2. **Data Management Plan (Draft):** Yes

   Status: Click or tap here to enter text.

3. **Maintenance and Operations Transition Management Plan (Draft):** Yes

   Status: Click or tap here to enter text.

4.10 Risk Register

Attach Risk Register to your email submission.

End of Stage 4 Project Readiness and Approval Document.

Please ensure ADA compliance before submitting this document to CDT.

When ready, submit Stage 4 and all attachments in an email to ProjectOversight@state.ca.gov.

TIP: Use the Gate 4 Project Readiness and Approval Evaluation Scorecard (SIMM Section 19-D) as an internal tool to ensure a quality submission.

Department of Technology Use Only

Original "New Submission" Date: 5/25/2023

Form Received Date: 5/25/2023

Form Accepted Date: 5/25/2023

Form Status: In Analysis

Form Status Date: 5/25/2023

Form Disposition: Choose an item.

Form Disposition Date: Click or tap to enter a date.