

California Air Resources Board

User Guide

Job Co-benefit Modeling Tool

California Climate Investments



May 13, 2021

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Section A. Introduction

California Air Resources Board (CARB) staff developed the Job Co-benefit Modeling Tool and accompanying Job Co-benefit Assessment Methodology to provide guidance for estimating the job co-benefits of California Climate Investments. This user guide provides instructions (Section B) and an example project (Section C) for the Job Co-benefit Modeling Tool.

The Job Co-benefit Modeling Tool and supporting Job Co-benefit Assessment Methodology are available for download at: www.arb.ca.gov/cci-cobenefits. Methods and equations used in the Job Co-benefit Modeling Tool for estimating jobs supported by California Climate Investments are provided in the Job Co-benefit Assessment Methodology.

Updates

CARB first released the Job Co-benefit Modeling Tool and Assessment Methodology in January 2019. CARB staff periodically review each co-benefit assessment methodology to evaluate its effectiveness and update methodologies to make them more robust, user friendly, and appropriate to the projects being quantified. CARB released the Draft Updated Job Co-benefit Modeling Tool for public comment in April 2021. This Final Job Co-benefit Modeling Tool and Assessment Methodology have been updated to include:

- 2021 RIMS II employment multipliers;
- Job modeling for the Community Fire Planning and Preparedness Program and Fire Engine Procurement and Maintenance Program;
- Revised program names for the Safe and Affordable Drinking Water Fund and Climate Change Adaptation and Coastal Resilience Planning Program; and
- Updated job modeling activities for the Affordable Housing and Sustainable Communities Program, Alternative Manure Management and Dairy Digester Research and Development Programs, Climate Adaptation and Resiliency Program, Community Air Grants Program, Community Air Protection Funds, Healthy Soils Program, Fire Prevention and Fire Prevention Grants Programs, Forest Health Program, Low Carbon Transportation Program, Prescribed Fire Program, Regional Forest and Fire Capacity Program, Training and Workforce Development Program, Urban and Community Forestry Program, Urban Greening Program, and Waste Diversion Program.

Program Assistance

Questions on this document should be sent to: GGRFProgram@arb.ca.gov.

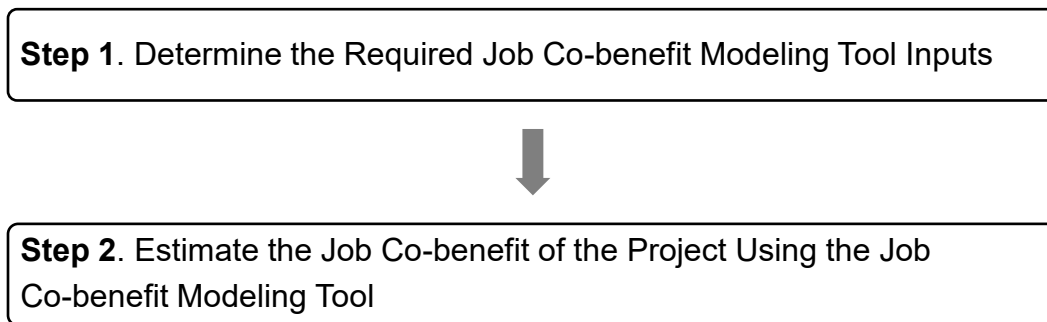
For more information on CARB's efforts to support implementation of California Climate Investments, see: www.arb.ca.gov/auctionproceeds.

Section B. Step-by-Step Guide

Overview

Applicants, funding recipients, and/or administering agencies will follow the steps outlined in Figure 1 to estimate jobs supported by California Climate Investments projects. Detailed instructions for each step are provided on subsequent pages. Section C includes an example project showing how to estimate the job co-benefits of a project.

Figure 1. Steps to Estimating Job Co-benefits



Step 1: Determine the Required Job Co-benefit Modeling Tool Inputs

All California Climate Investments can provide positive job co-benefits by supporting employment.

Users will complete the **Project Info** and **Inputs** tabs of the Job Co-benefit Modeling Tool.

Table 1 identifies the project information and data inputs required to estimate the job co-benefit of a project with the Job Co-benefit Modeling Tool. Detailed budget information must be made available upon request by CARB or administering agency staff.

Table 1. Required Job Co-benefit Modeling Tool Inputs

Project Info tab
<ul style="list-style-type: none"> • Project Name; • Project ID; • Contact Name; • Contact Phone Number; • Contact Email; and • Date Tool Completed.
Inputs tab
<ul style="list-style-type: none"> • Project Start Year; • Administering Agency; • Program; • Total Project Budget; • Greenhouse Gas Reduction Fund (GGRF) Funds Requested or Awarded from Program; • Top Three Funded Project Activities, by cost; and • Percent of Total Project Budget Associated with each of the Top Three Project Activities.¹

¹ Inputs should be within 10% of actual budget expenditures. Any portion of the project budget not associated with the top three activities is automatically accounted for using average employment values across all RIMS II industries.

Step 2: Estimate the Job Co-benefit of the Project Using the Job Co-benefit Modeling Tool

Users must complete this step with the Job Co-benefit Modeling Tool. The Job Co-benefit Modeling Tool can be downloaded from: www.arb.ca.gov/cci-cobenefits.

Users should begin with the **Read Me** tab, which provides an overview. The **Project Info** tab prompts users to enter general project information.

Input and output fields are color-coded:

- **Green** indicates a user input is required.
- **Gray** indicates output or calculation fields that are automatically populated based on user entries and the calculation methods.
- **Yellow** indicates important tips.

The **Inputs** tab identifies project-specific data required of the user. The **Definitions** tab explains key terms.

The **Results** tab displays the estimated:

- Total number of full-time equivalent (FTE) jobs supported by the entire project budget;
- Total number of FTE jobs supported by the project GGRF dollars;
- Number of FTE jobs directly supported by the project GGRF dollars;
- Number of FTE jobs indirectly supported by the project GGRF dollars; and
- Number of induced FTE jobs supported by the project GGRF dollars.

If the project requests or receives funding from more than one California Climate Investments program or from the same program in multiple solicitations, the Job Co-benefit Modeling Tool must be completed once for each application or award.

Section C. Example Project

Introduction

The following is a hypothetical project² to demonstrate how the Job Co-benefit Modeling Tool would be applied.

The proposed project, from the Strategic Growth Council's Affordable Housing and Sustainable Communities (AHSC) Program, has the following characteristics:

- Project construction starts in 2021;
- Total project budget is \$25,000,000;
- \$5,000,000 is requested from the AHSC Program;
- No other funding is requested from California Climate Investments programs;
- 90% of the project budget (\$22,500,000) is for new multi-family residential construction;
- 4% of the project budget (\$1,000,000) is for bicycle and pedestrian facility improvements; and
- 1% of the project budget (\$250,000) is for transit-related infrastructure.

Step 1: Determine the Required Job Co-benefit Modeling Tool Inputs

The user should refer to Table 1 and the **Definitions** tab to determine the project-specific inputs required for quantification. Basic project information must be entered in the **Project Info** tab.

Project Name	Example
Project ID	12345
Contact Name	Example
Contact Phone Number	123-456-7890
Contact Email	example@example.com
Date Tool Completed	5/4/2021

² The hypothetical project has not undergone verification of any California Climate Investments program requirements; all assumptions about location and project features are for demonstration purposes only.

Step 2: Estimate the Job Co-benefit of the Project Using the Job Co-benefit Modeling Tool

The user should enter project-specific data in the **Inputs** tab.

Project Start Year	2021
Administering Agency	Strategic Growth Council
Program	Affordable Housing and Sustainable Communities Program

Total Project Budget	\$	25,000,000
GGRF Funds Requested or Awarded from Affordable Housing and Sustainable Communities Program	\$	5,000,000
Primary Project Activity	Construction or rehabilitation of multi-family residences or housing-related infrastructure	
Percent of Total Project Budget Associated with Primary Activity	90%	
Secondary Project Activity	Construction of bicycle or pedestrian facilities	
Percent of Total Project Budget Associated with Secondary Activity	4%	
Tertiary Project Activity	Construction or installation of transit or rail infrastructure or station improvements	
Percent of Total Project Budget Associated with Tertiary Activity	1%	
Percent of Total Project Budget Associated with Other Activities	5%	

The **Results** tab then displays the estimated:

- Total FTE jobs supported by the entire project budget;
- Total FTE jobs supported by the project GGRF funds;
- FTE jobs directly supported by project GGRF funds;
- FTE jobs indirectly supported by project GGRF funds; and
- Induced FTE jobs supported by project GGRF funds.

Total Full-time Equivalent Jobs Supported by Project Budget	317.6
Total Full-time Equivalent Jobs Supported by Project GGRF Funds	63.5
Full-time Equivalent Jobs Directly Supported by Project GGRF Funds	32.8
Full-time Equivalent Jobs Indirectly Supported by Project GGRF Funds	9.9
Full-time Equivalent Induced Jobs Supported by Project GGRF Funds	20.8

It is not appropriate to directly compare the job estimates from this Job Co-benefit Modeling Tool to the GGRF project dollars. California Climate Investments facilitate greenhouse gas emission reductions and deliver a suite of economic, environmental, and public health co-benefits, including job co-benefits. A different mix of spending on materials, equipment, and labor is expected across various California Climate Investments project types and match funding arrangements. As such, some project types will support more jobs than others.