

VIRTUAL WORKSHOP #2:CCAP STRATEGIC WORKFORCE PLANNING

July 22, 2025

Collaborative Overview

The **Western Regional Collaboration (WRC)** is a multi-state collaborative consisting of 100+ members representing local and state governments, MSA's, territories, and tribal nations. The goal of the collaborative is to share resources and best practices to advance decarbonization, resiliency, and sustainability across the western region. The WRC is hosting this webinar to present key strategies for aligning workforce development with climate goals, identifying labor market needs, and supporting equitable job creation across the region.

MEET OUR SPEAKERS



Jakub Zielkiewicz

Senior Director, Climate Change
& Sustainability, ICF



Dominic Modicamore

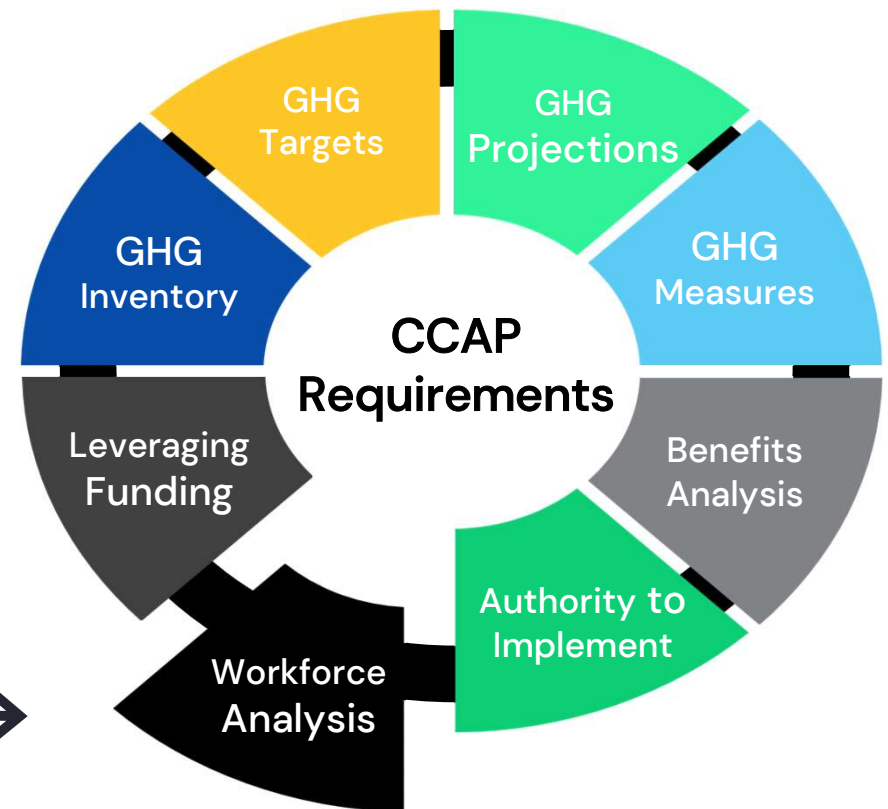
Labor Economics Expert, ICF

AGENDA

- Overview of CCAP Requirements
- GHG Measure Reduction List
- Workforce Planning Requirements and Goals
- Approach to Workforce Planning Analysis
 - Step 1. Identify Workforce Shortages – Gap Analysis Results
 - Step 2. Develop Solutions and Partnerships
- Next Steps

OVERVIEW OF CCAP REQUIREMENTS

- Due December 1, 2025
- Requires technical, outreach, engagement, and communications workstreams
- Focus of today's discussion: workforce analysis



GHG REDUCTION MEASURE LIST

Key sectors of CCAP measures:

- Industry
- Electricity generation and/or use
- Transportation
- Commercial and residential buildings
- Agriculture
- Natural and Working Lands
- Waste and materials management



CPRG WORKFORCE PLANNING ANALYSIS REQUIREMENTS

Step 1

Identify Workforce Shortages

Conduct an analysis of anticipated **workforce shortages** that could prevent them from achieving the goals described in the CCAP

- Focus for the CCAP



Step 2

Develop Solutions & Partnerships to Address Shortages

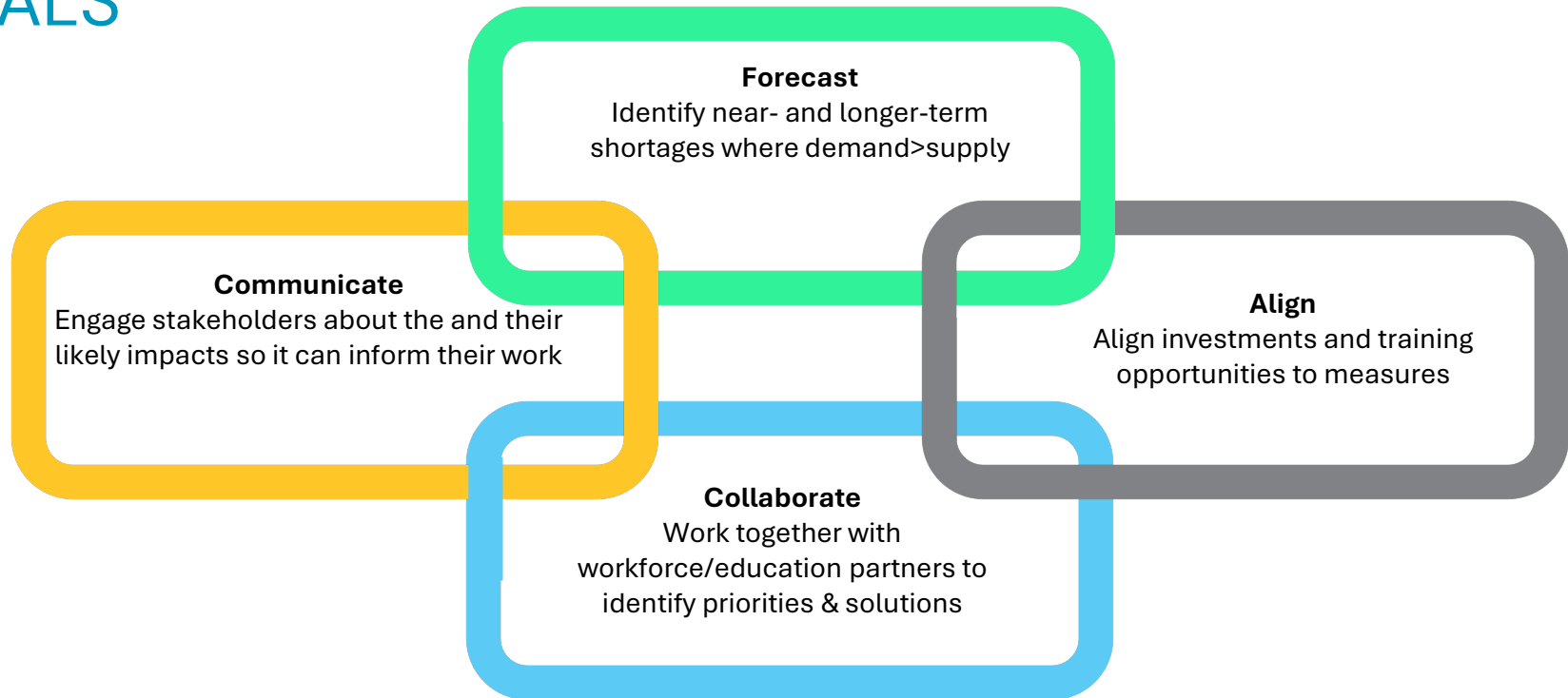
Identify **potential solutions and partners** at the state, regional, and/or local level that are equipped to help address those challenges.

- Ongoing post-CCAP



Engage with stakeholders, understand underserved community needs

CPRG WORKFORCE PLANNING ANALYSIS GOALS



CCAP MEASURE EXAMPLES

Buildings and Clean Energy

- Accelerate the deployment of energy efficiency solutions and decarbonization of residential, institutional, municipal, and commercial buildings
- Accelerate the deployment of clean and renewable energy
- Study, plan for, and deploy district energy and microgrid opportunities
- Clean and efficient data centers

Transportation

- Provide and promote new and expanded opportunities to reduce VMT through public transportation, non-motorized travel, micromobility, shared travel options, and development
- Accelerate the deployment of low-emission transportation, fuels, and vehicles
- Accelerate the deployment of off-road/non-road electric equipment

Waste

- Reduce GHG emissions from waste and wastewater treatment

Land Use

- Accelerate the expansion of the regional tree canopy and reduce tree canopy loss

Engagement

- Conduct education and public outreach to support measure implementation

STEP 1: DATA GATHERING

Regional Context

- Gather general economic and workforce data for the region, such as unemployment rate, overall employment trends by major industry sectors, and other information to provide an overview of the regional economy

Occupation Mapping

- Then focus on the occupations that will be impacted by the CCAP measures.
- As a first step, map each measure to occupations using the Standard Occupational Classification (SOC) system

Labor Market Data

- For those occupations, compile labor market data
- This includes total employment by occupation, historic and projected, as well as information on new hires and separations (employees leaving the workforce/occupation)

STEP 1: IDENTIFY WORKFORCE SHORTAGES

Mapping:

- Map CCAP measures to occupations using the Standard Occupational Classification (SOC) system.

Data Collection:

- Pull labor market data from Lightcast for each occupation for your jurisdiction

Gap Calculation:

- **Workforce Gap** = Supply (hires) - Demand (growth + separations)
 - **Supply** = Number of Hires.
 - **Demand** = Growth + separation.
 - Represents the number of workers needed to fill new positions from projected growth and from separations.
 - Separation = Number of workers estimated to leave an occupation (ex: retirement, leaving the occupation for another)
- A **negative gap** means demand is greater than supply, indicating a **shortage** of workers.
- A **positive gap** means supply is greater than demand, indicating a **surplus** of workers.

STEP 1: EXAMPLE GAP ANALYSIS RESULTS

Potential Workforce Shortage = 2025 Hires – (New Jobs 2025 + Projected Separations 2025)

- Occupations with greatest projected workforce shortages:

Occupation	Relevant Sector	Total Employment 2024	Projected Employment 2025	Supply	Demand Subtotals		Shortage or Surplus
				2025 Hires	Growth (New Jobs) 2025	Projected Separations 2025	Potential Workforce Shortage for CCAP Implementation 2025
Laborers and Freight, Stock, and Material Movers, Hand	Waste	78,997	81,514	71,253	2,518	73,531	-4,795
Heavy and Tractor-Trailer Truck Drivers	Waste	48,973	50,305	26,872	1,332	27,570	-2,030
Industrial Truck and Tractor Operators	Waste	28,179	29,147	17,753	968	18,238	-1,453
Light Truck Drivers	Waste	15,036	15,493	9,389	457	9,552	-620
Electricians	Energy, On Road Transportation	9,369	9,591	5,004	223	4,851	-70
Plumbers, Pipefitters, and Steamfitters	Energy, On Road Transportation, Water/Wastewater	4,986	5,101	2,691	116	2,606	-30
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Energy, On Road Transportation	6,756	6,914	3,896	158	3,763	-25

- Total # of occupations projected to have a shortage: **12**
- Key impacted sectors: waste, energy, on road transportation
- 2035 results on shortages is forthcoming

STEP 1: EXAMPLE GAP ANALYSIS RESULTS CONT.

- Occupations with greatest projected workforce surplus:

Occupation	Relevant Sector	Total Employment 2024	Projected Employment 2025	Supply	Demand Subtotals		Shortage or Surplus
				2025 Hires	Growth (New Jobs) 2025	Projected Separations 2025	Potential Workforce Shortage for CCAP Implementation 2025
Carpenters	Energy, On Road Transportation	20,115	20,278	13,324	163	12,609	552
Landscaping and Groundskeeping Workers	Energy, Off Road Transportation and Equipment	20,439	20,541	10,645	102	10,309	234
Bus Drivers, Transit and Intercity	On Road Transportation	2,846	2,933	938	87	650	201
Construction Laborers	Energy, On Road Transportation	17,778	18,061	11,498	284	11,024	191
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	Agriculture/NWL	6,717	6,661	11,312	(57)	11,248	121
Roofers	Energy	2,915	3,019	2,538	105	2,319	115

- Total # of occupations projected to have a surplus: **30** (4 others at equilibrium)
- Key findings to inform future partnerships and engagement:
 - Occupations with the greatest shortages (e.g., truck drivers, warehouse workers) should be prioritized in planning and coordination steps.

SKILLS ASSESSMENT: DRAFT REVIEW OF PROGRAMS

- To provide context for the Gap Analysis, conduct a review of the top skills that are in demand or required for the various occupations.
- Then, review a sample of regional training programs to provide an initial indication of whether there is a gap in training offered.

INITIAL TAKEAWAYS: SKILLS AND CREDENTIALS

Example review of skills and credentials:

- Employers in the fields of EV maintenance, energy auditing, and rooftop solar installation are looking for various certifications, but training providers in the region may not be adequately meeting this demand due to the limited programs available. The leading certifications for EV maintenance include the Electric Vehicle Fundamentals (EVF) and Certified Electric Vehicle Technician. For energy auditors, notable certifications are Certified Energy Auditor (CEA) and Home Energy Professional (HEP). For rooftop solar, top certifications are NABCEP PV Installation Professional (PVIP) and Photovoltaics Installer/Designer (PV2) certification.
- Employers of HVAC and heat pump workers are seeking similar certifications, particularly EPA 608 Certification, and HVAC Excellence Certification. Top certifications for electricians include Certified Electrical Safety Compliance Professional (CESCP) and Master Electrician Certificate. Given the large number of training providers in the region for construction and trades these certifications are likely to be sufficiently available.
- There are very few agricultural related certifications that employers are requiring but more for landscaping workers, such as the Landscape Industry Certified (LIC) Programs (NALP) certification.
- For truck and bus drivers the Commercial Driver's License (CDL) is required. Tanker Endorsement is also widely sought after for truck drivers in the region and passenger endorsement for bus drivers.

INITIAL TAKEAWAYS: EDUCATION AND TRAINING PROVIDER

Example review of education and training providers:

- There are a wide variety of training programs throughout the region for construction and trades occupations, such as laborers, electricians, and HVAC and heat pump Installation, repair, and maintenance. A variety of institutions offer training in these occupations including community colleges, career and technical education providers, at both the high school and post-secondary level, apprenticeships, and private training providers. The region's training providers likely have the capacity to fill any gaps in these occupations.
- There are significantly fewer training programs available for energy auditing, rooftop solar installation, EV maintenance, and landscaping. The scarcity of training opportunities in the region is unlikely to fulfill the anticipated future demand in these areas, especially in energy auditing, rooftop solar, and EV maintenance, which are expected to expand more quickly moving forward.
- Farming occupations have a fair number of training programs and are concentrated in the counties with the largest agricultural sectors, such as Loudoun, Fauquier, and Culpeper.
- Other occupations such as electrical engineers/technicians and truck and bus drivers appear to have sufficient training opportunities in the region, but employers may face other barriers for sufficient staffing.

STEP 2: DEVELOP SOLUTIONS AND PARTNERSHIPS



Identify Existing Stakeholders/Partners and Build New Partnerships

- Reach out to existing partners in your jurisdiction
- Brainstorm additional local and regional partners
 - Examples: employers, utilities, local businesses, educational institutions, labor orgs, training providers, youth-serving orgs



Promote Interagency and Intergovernmental Coordination

- Work with state and local agencies and tribal governments
 - Coordinate partnerships to prepare for CCAP implementation
 - Provide CCAP updates
 - Share data and information



Set and Refine Goals

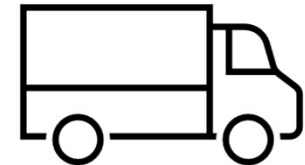
- Set quantitative and/or qualitative goals (# of jobs, partnerships, training programs developed, etc.)
- Adjust, update, and change goals as needed throughout

IDENTIFICATION OF THE JURISDICTION'S NEEDS, PARTNERSHIPS, AND PRIORITIES

Example review of workforce gaps, needs, partnerships, and priorities:

Focus on increasing job opportunities in logistics

- Address gap in truck/freight drivers
 - Leverage existing resources for the goods movement gap
- Retrain workers and make workforce education programs accessible
- Provide high paying jobs
 - Skilled professionals are likely to see highest gains



Prepare for the CCAP's impacts on workforce

- Implement early education and awareness programming
 - Develop curriculum materials for training and apprentice opportunities
- Prepare the power sector for continued renewable energy deployment
- Reach out to small businesses, entrepreneurs, and contractors for job needs and openings

QUESTIONS?

Please add questions in the chat or raise your hand

GET IN TOUCH



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THANK YOU

Next Workshop Tentatively Scheduled for September 3rd, 2025 @ 9am Pacific Time