



Colorado Workforce  
Development Council

# Building an Inclusive Energy & Infrastructure Workforce

Susan Blansett, CEcD, CWDC Energy & Industry Consultant  
EDCC Drive/Lead/Succeed Conference, 2023

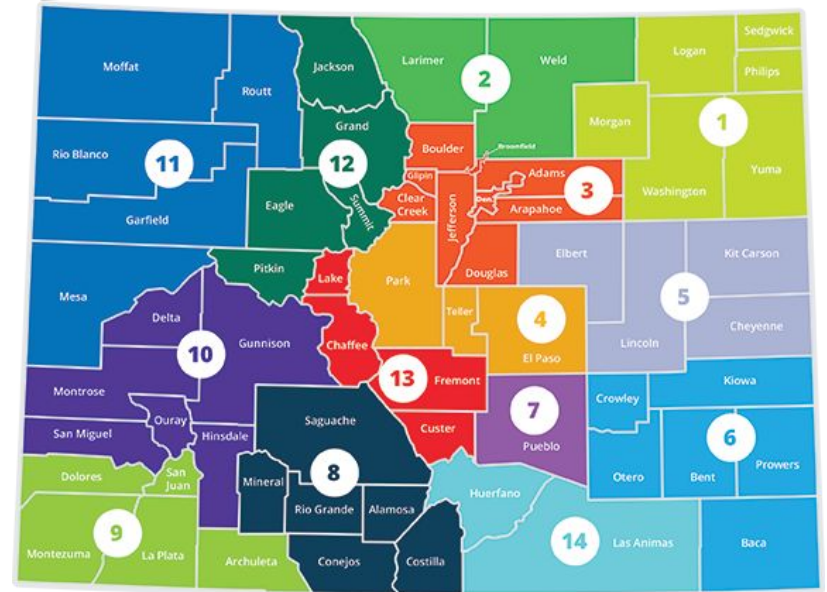
# Key CWDC Strategies



1. Sector Strategies
2. [Career Pathways](#)
3. Work-Based Learning
4. Expanding Access to the Talent Development Network
5. Talent Finance
6. Job Quality

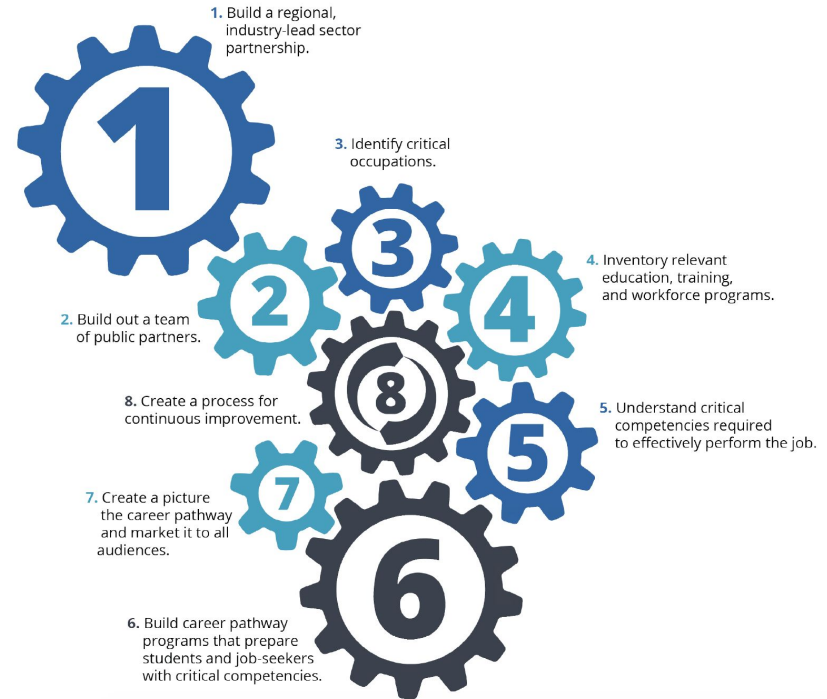
# Sector Strategies

- Sector partnerships
- Industry Intermediaries
- Workforce development boards



# Career Pathways

Industry-driven, competency-based career pathways help businesses have access to an appropriately skilled talent pipeline and help prepare students and workers with relevant skills and credentials for jobs and careers.



# My Colorado Journey



## AS OF JUNE 2023 - 13 INDUSTRY SECTORS REPRESENTED:

- Advanced Manufacturing
- Agriculture & Natural Resources
- Healthcare, incl. Behavioral Health
- Business Operations
- Construction
- Cybersecurity
- Education
- Energy
- Information Technology
- Public Health
- Retail
- Transportation

# Work-based Learning (WBL)



**Defined:** a continuum of activities that occur, in part or in whole, in the workplace, providing the learner with hands-on, real world experience.

## Resources

- [Background](#)
- [Guides and frameworks](#)
- [WBL Continuum](#)

LEARNING ABOUT WORK

LEARNING THROUGH WORK

LEARNING AT WORK

# COLORADO'S WORK-BASED LEARNING CONTINUUM

Work-based learning is a continuum of activities that occur, in part or in whole, in the workplace, providing the learner with hands-on, real world experience.

## LEARNING ABOUT WORK

Career awareness and exploration helps individuals build awareness of the variety of careers available and provides experiences that help inform career decisions.

- Career Counseling
- Career Planning
- Career Fairs
- Career Presentations
- Industry Speakers
- Informational Interviews
- Mentoring
- Worksite Tours
- Project-based Learning

## LEARNING THROUGH WORK

Career preparation supports career readiness and includes extended direct interaction with professionals from industry and the community.

- Clinical Experiences
- Credit-for-work Experiences
- Internships
- Pre-apprenticeship
- Industry-sponsored Project
- Supervised Entrepreneurship Experience

## LEARNING AT WORK

Career training occurs at a work site and prepares individuals for employment.

- Apprenticeship
- On-the-job Training
- Employee Development

Education Coordinated



Business Led

## OUTCOMES:

Skilled Talent for Business + Meaningful Careers for Students & Job Seekers

# Types of Talent Finance

## **Outcomes-based Finance**

- Outcomes-based Contracts
- Outcomes-based Loans
- Income Share Agreements

## **Lifelong Learning Accounts**

For more info:

[Talent Finance | Colorado Workforce Development Council](#)



# Job Quality Framework & Players



# Colorado Talent Pipeline Report



## 2022 Report:

- [Top Jobs](#)
- [Overview](#)
- [Full report and appendices](#)

**2023 Report will be released  
Dec. 15, 2023**

# Goal: 100% renewable energy by 2040

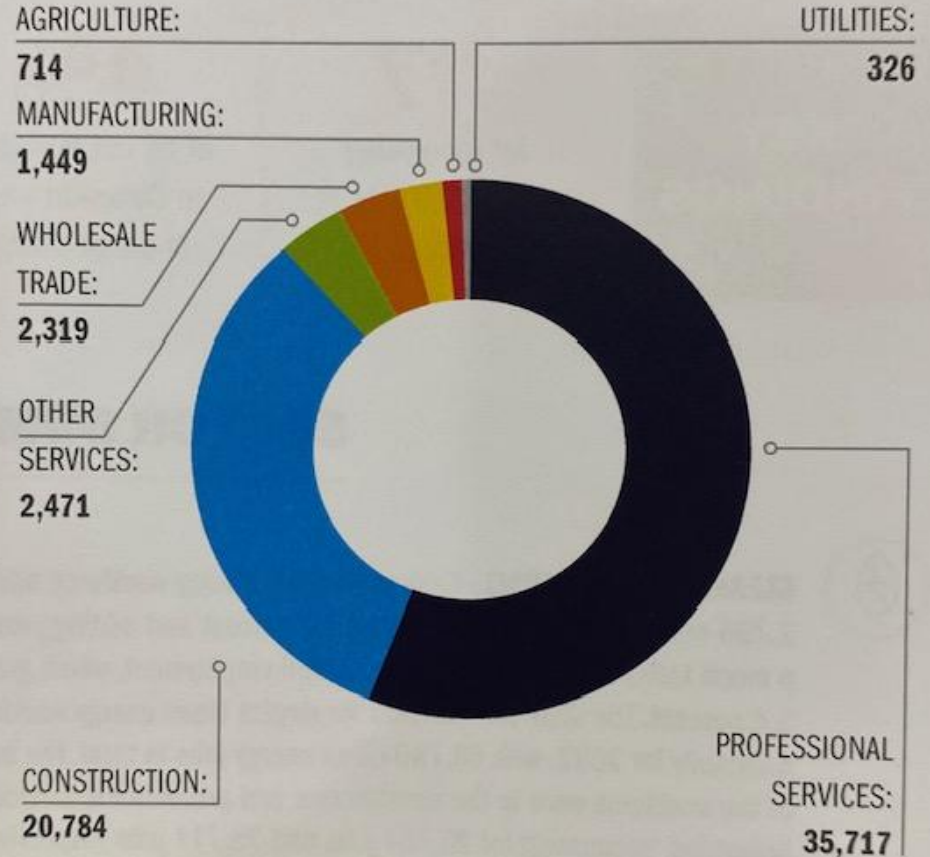


# CO's Clean Energy Economy

(Source: E2)

## Clean energy employment by value chain

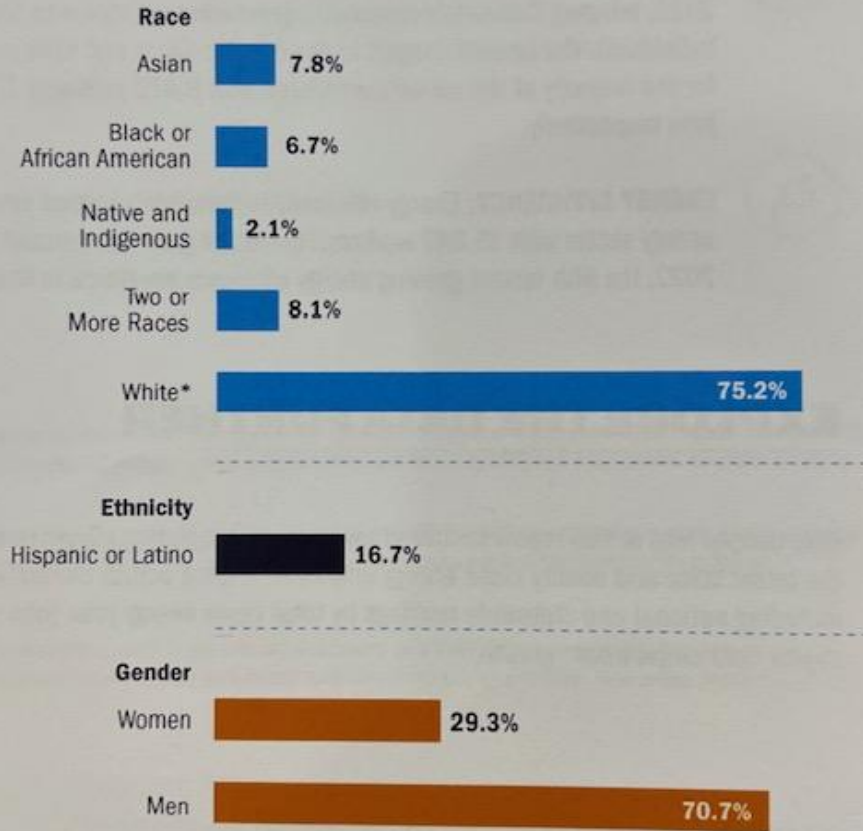
**FIG 2 // COLORADO CLEAN ENERGY EMPLOYMENT**  
by value chain



# CO's Clean Energy Economy (Source: E2)

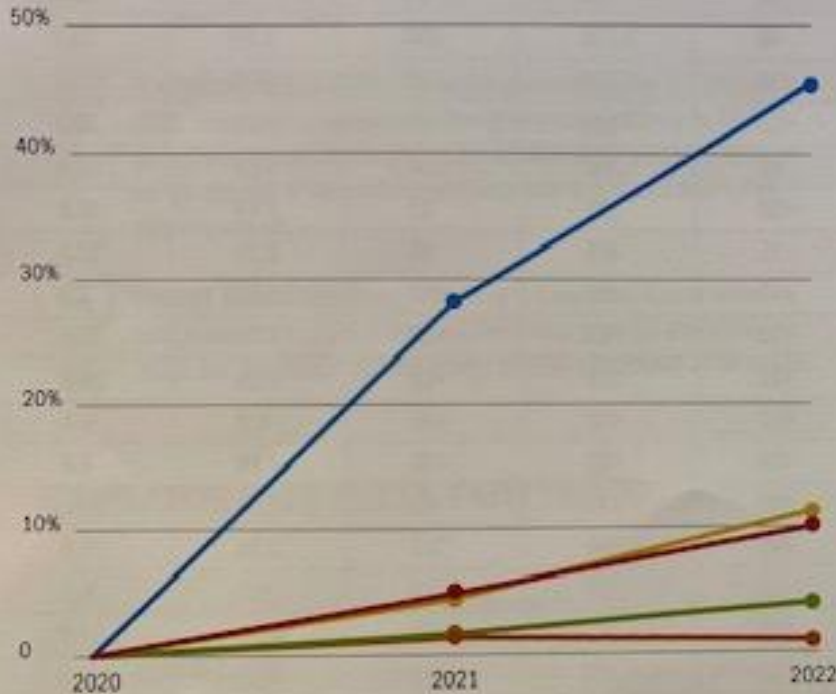
## Clean Energy Employment by Demographics

**FIG 3 // COLORADO CLEAN ENERGY EMPLOYMENT by demographics<sup>2</sup>**



\* Includes non-Hispanic and Hispanic whites

# Colorado Energy Employment by Sector Growth



2020	2021	2022
<b>Colorado Energy Efficiency</b>		
32,595	34,205	35,847
<b>Colorado Renewable Generation</b>		
17,324	17,625	18,022
<b>Colorado Storage/Grid</b>		
2,912	3,044	3,240
<b>Colorado Biofuels</b>		
1,959	1,987	1,978
<b>Colorado Clean Vehicles</b>		
3,224	4,129	4,693

Source: E2

# Our current energy workforce approach doesn't add up!

## Current workforce demographics

78% Renewable energy workers are men

86% Renewable energy workers are white



## Renewable Energy Workforce Need

375,952 Green and renewable energy jobs currently in Colorado

9% Projected growth rate by 2024

# Advancing Job Quality in Infrastructure & Energy

## Families and Workers Fund Goals 2023-2025

- 1:** Develop a **statewide scalable model** to advance job quality and build an inclusive energy and infrastructure workforce In 2 years.
- 2:** Strengthen state and local **capacity for data-driven decision making** to advance good jobs.
- 3: Activate employers** to be part of developing labor shortage solutions that contribute to an inclusive economy
- 4: Strengthen pipelines to traditionally marginalized talent** and ensure career transitions that lead to quality jobs.



# Clean Energy, Good Jobs Goals



**Goal 1:** Develop a statewide scalable model to advance job quality and build an inclusive energy and infrastructure workforce

**Goal 2:** Strengthen state and local capacity for data-driven decision-making to advance good jobs

**Goal 3:** Activate employers to be part of developing lab or shortage solutions that contribute to an inclusive economy

**Goal 4:** Strengthen pipelines to under-represented talent and ensure career transitions that lead to quality jobs

# Partners & Collaborators:

- CDLE, esp. on Job Quality & Equity
- Colorado CleanRange Consortium (<https://cleanrange.co>)
- Families and Workers Fund, RFA, and a variety of CO nonprofits working in this space
- Employers in solar and wind energy, ZEV maintenance/charging installation, utilities, infrastructure, weatherization, beneficial electrification, and smart building technologies
- State agency partners: CCCS, CDE, CRWC, CDOT, CEO

# The Colorado “Cleanrange” Consortium (CCC) is the foundation of a strategic ecosystem of diverse organizations with a common goal: A world-leading Advanced Energy Tech Hub.

Colorado boasts leaders across the entire spectrum of energy and climate innovation. We believe that increased support for and collaboration between our many diverse partners will accelerate Colorado’s energy transition while increasing the benefits and reducing the pain of that transition for the people of our state. To achieve this we will develop technological, business, regulatory, and social innovation that will position Colorado as a global leader for the 21<sup>st</sup> century. We’re here for the long haul to see that done.



Colorado is home to **33 federal research labs** and a world-class hub for R&D and innovation, the largest concentration outside of Washington, D.C.



Five of the world’s leading CET firms announced new headquarters and over **\$500M in investments** in the CCC region alone, supporting **over 2,000 new jobs** in 2023.



Colorado is **3<sup>rd</sup> in the nation** for startup early job creation. In 2022, over \$1B in venture capital was raised for CET in Colorado, up from \$200M in 2020.

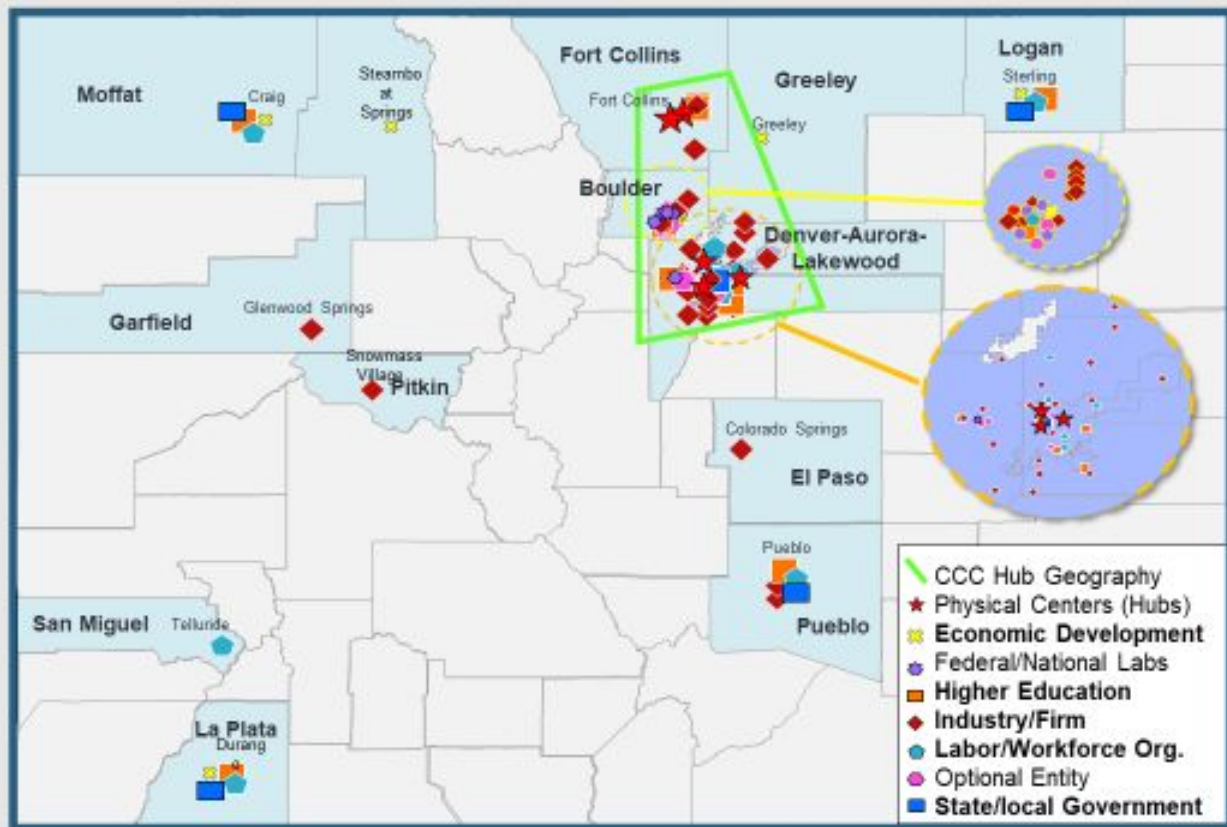


Global Energy Park, Tivoli, and the Fort Collins Innovation District will serve as **epicenters of innovation** uniting the public and private sector and scaling to develop additional hubs around the state.



Initially, the CCC will emphasize **decarbonizing** the electric grid, combining **technical innovation, cross-sector collaboration, diverse workforce development, and energy/environmental justice** across Colorado. Over time, our work and our partnerships will continue to grow and diversify, taking our lead from the Governor’s office to build an extensive **public-private consortium** focused on making Colorado a global leader in Advanced Energy.

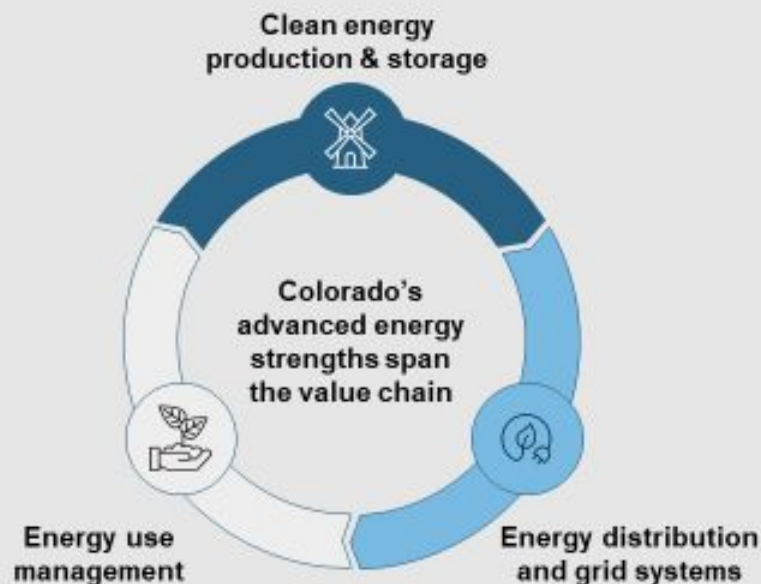
# Who are we? The Colorado Cleanrange Consortium has members across Colorado, and across entity types



Note: Additional detail on consortium members available in the appendix

DOCUMENT INTENDED TO PROVIDE INSIGHT BASED ON CURRENTLY AVAILABLE PUBLIC INFORMATION AS OF OCTOBER 5, 2023, FOR CONSIDERATION AND NOT SPECIFIC ADVICE

## Colorado's AE ecosystem excels throughout the energy value chain...



**Colorado is among the top 5 states in projected progress toward Paris 2030 goals, based on adopted policies.** With EDA Designation, CCC can make critical investments to centralize equity in this transformation and scale our CET ecosystem into a globally competitive value chain

## ... And across company types, both large and small



**Upstream energy production, including solar, wind, and geothermal**

- **Black Bear Energy**, a CO startup and world leader in technology-enabled solar services, acquired by Blackstone's Legence



**Energy distribution and storage, including grid management, integration, automation, optimization, transportation, and storage**

- **Xcel Energy**, CO's primary utility, commits to zero carbon electricity by 2050 (first major utility company to do so)
- **Solid Power**, an industry leader in all-solid-state batteries backed by BMW and Ford, is building a 75K square foot production facility in Thornton, CO



**Energy use, including advanced metering, energy management systems, electrification of industrial processes, and carbon sequestration and capture**

- **Lightnine eMotors**, a leading provider of commercial electric vehicle technology, ramped up production of its new ZEV4 platform in 2023



# Office of Innovative Mobility

*Reduce pollution in our air and congestion on our roads by expanding multimodal transportation options, utilizing traditional and emerging mobility technologies.*



## Electrification & Energy Focus Areas:

1. Charging Infrastructure
2. Transit Electrification
3. Medium- and Heavy-Duty Electrification
4. Education & Awareness
5. ZEV Workforce Development



# Colorado EV Plan

- Colorado's 2023 Electric Vehicle Plan established a state target of 940,000 registered ZEVs by 2030
- Colorado also has a goal of converting all transit vehicles in-state to ZEVs, with an interim target of 1,000 transit ZEVs by 2030
- The Colorado Clean Truck Strategy identified a new target of 35,000 medium- and heavy-duty ZEVs by 2030
- Additional goals of electrifying all 26 Scenic & Historic Byways and ensuring that 100% of the state is within 30 miles of a DC fast-charging station



## 2023 COLORADO EV PLAN

March 2023



# Equitable Workforce Development -- COLORADO ENERGY OFFICE

- Goal: Connect ALL of Colorado to Clean Energy Career Opportunities
- Weatherization Assistance Program
  - Developing Registered Apprenticeship Program to improve job quality, using online recruiter specializing in diverse job seekers, WF Dvpt Center partnerships
- Contractor Training Grant
  - Will partner with Community Orgs to create/connect new workforce development pipelines in Disproportionately Impacted Communities
  - Wraparound services to reduce barriers and increase accessibility
- Engage with community partners and connect w/ education and industry





# Connect with the CWDC



Search 

About > Strategies > **WICA** > Get Involved > Resources > News & Events >

## Colorado Workforce Development Council



Welcome to the new CWDC website! [Learn more about the site.](#)

The **vision** of the Colorado Workforce Development Council is that every Colorado employer has access to a skilled workforce and every Coloradan has the opportunity for meaningful employment, resulting in individual and statewide economic prosperity.


The CWDC's **mission** is to enhance and sustain a skills-based talent development network that meets the needs of employers, workers, job seekers, and learners for today and tomorrow.

The CWDC's **values** are equity, agility, and integration. [Learn more.](#)

### Job Seeker or Student?

 [Find a Workforce Center](#)

 [Visit TalentFOUND](#)

 [Visit My Colorado Journey](#)

# Connect with the CWDC



- Apply to become a Council member - [Learn more](#)
- Get involved with a sector partnership - [Learn more](#)
- Connect with a workforce development board - [Learn more](#)
- Attend a public event - [CWDC calendar](#)
- Subscribe to updates from the CWDC - [Subscribe](#)
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- Email us at [cwdc@state.co.us](mailto:cwdc@state.co.us)

# Questions?



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# Thank you, EDCC!

[COWorkforceCouncil.org](http://COWorkforceCouncil.org)

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