



SoCalREN Q2 2026 Regional Workforce Alliance Meeting

June 4, 2026
Cal State Dominguez Hills





Lujana Medina

Environmental Initiatives Division Manager - SoCalREN, County of Los Angeles

Lujana is responsible for managing and operating environmental initiatives programs administered by the County of Los Angeles. This includes the Southern California Regional Energy Network (a portfolio of energy efficiency programs) and the SoCal Even Access (a portfolio of EV infrastructure programs). Additionally, she leads policy and grant development regarding energy efficiency, distributed energy resources, clean energy programs, and the electrification of transportation. Over the past 15 years, she has worked in a variety of capacities within the energy industry. Before joining the County of Los Angeles, Lujana served as the Energy Policy & Regulatory Manager as a consultant for various clients, as the Energy Efficiency Policy Lead Advisor for Southern California Gas Company, as a Regulatory Case Manager in the Power Procurement Department for Southern California Edison, as a Generation Resource Planner and Utility Finance Advisor for San Diego Gas & Electric.



Agenda

11:30 AM - 12:00 PM - Networking Lunch

12:00 PM Welcome - **Lujuana Medina**, Environmental Initiatives Division Manager, County of Los Angeles, Internal Services Department

12:10 PM Moderator's Welcome - **Tessa Charnofsky**, Special Services Assistant, SoCalREN

12:15 PM Keynote & Q&A - **Stephen Cheung**, president & CEO, Los Angeles County Economic Development Corporation (LAEDC) and World Trade Center Los Angeles (WTCLA)

12:30 PM - 1:30 PM - Featured Presentation and Q&A

Featured Presentation: *Wiring the Workforce: Powering Local Talent to Local Opportunities*

- **Audrey Bragg**, Senior Program Manager, Environmental Initiatives Division, County of Los Angeles
- **Austin Thompson**, CEO, Community Dynamix

1:40 PM - 1:5 PM - Program Spotlight - Program Spotlight: Kenny “Kenergy” Seeton, Manager, Central Plant Operations, CSU Dominguez Hills

1:55 PM - 2:00 PM - Closing Remarks - USGBC California

2:00 PM - 2:30 PM- Optional Tour: CSU Dominguez Hills, Chiller Room



Stephen Cheung

President & CEO, Los Angeles County Economic Development Corporation (LAEDC) and World Trade Center Los Angeles (WTCLA)



Stephen Cheung is the President and CEO of the Los Angeles County Economic Development Corporation (LAEDC) and the World Trade Center Los Angeles (WTCLA). In this dual role, he drives the vision of a "Coalition of One – Economy for All" for all Angelenos.

Since 2023, Stephen has spearheaded a comprehensive reimagining of the organization's mission. Under his leadership, LAEDC adopted a 5-pillar approach focusing on business assistance, workforce development, international trade, strategic engagement, and actionable research. This strategy accelerates thriving industry clusters—including bioscience, space commercialization, sports & entertainment, and trade & logistics—that support good-paying jobs across the region.





2026 ECONOMIC FORECAST

*FROM DISRUPTION TO DIRECTION:
LA'S ECONOMY AFTER A TURBULENT 2025*



INSTITUTE FOR APPLIED ECONOMICS

National Conditions are Cooling

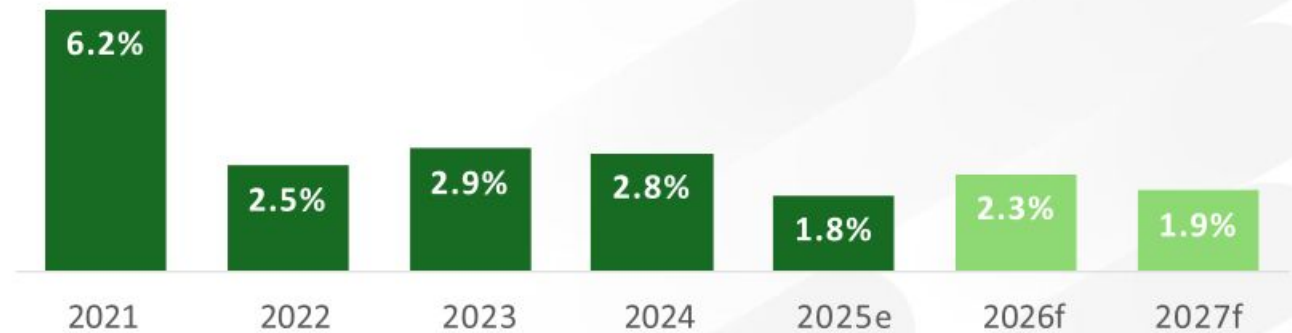
- U.S. GDP growth moderating
- Labor market cooling
- Consumer pressure elevated
- Policy uncertainty rising

Debt Balances

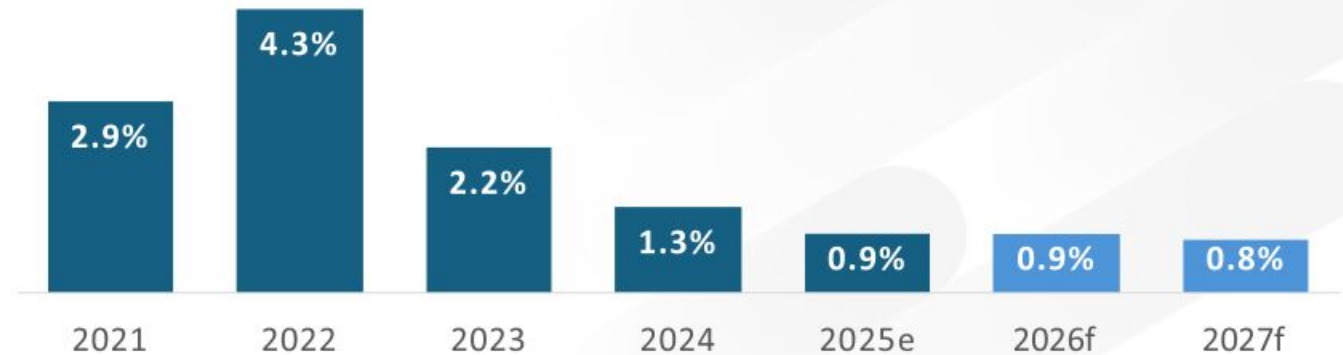
- Have increased by \$4.6 trillion—a 32% increase—since the end of 2019
- About 2.8% of total debt balance (58.3% of delinquent balances) was considered 120+ days late or severely derogatory

National Growth Trends

Year-over-year Real GDP Growth



Year-over-year Nonfarm Employment Growth



Three Shocks Shaped the Local Economy

Wildfires

- 50,000+ acres burned

Immigration enforcement

- Enforcement activity increase

Tariffs and trade policies

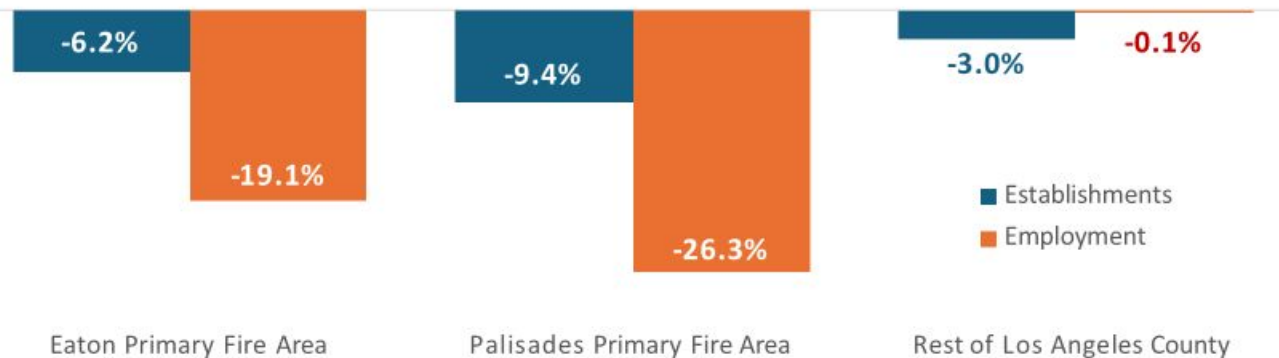
- Port volatility late 2025

Total Economic Impact of Business Disruptions

Range of Total Economic Impacts from Business Interruptions in LA County

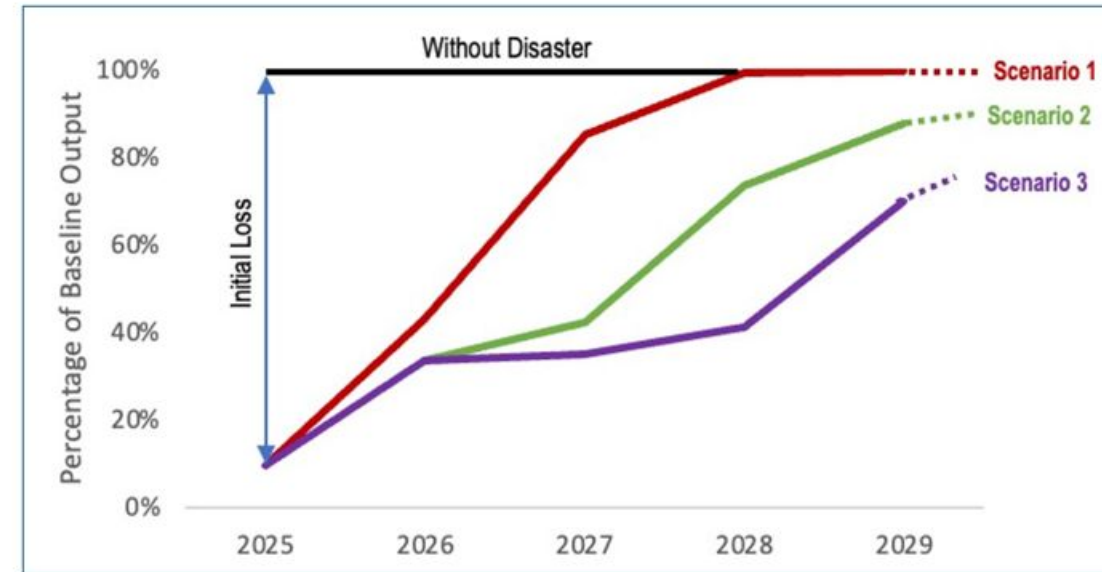
- Total economic output impacts:
 - \$5.2 billion to \$10.1 billion
- Total employment impacts:
 - 28,000+ jobs to 55,000+ jobs
- Total labor income losses:
 - \$2.2 billion to \$4.2 billion
- Loss of federal, state, and local taxes:
 - \$0.85 billion to \$1.64 billion

Year-over-year Changes in Establishments and Employment, 2025

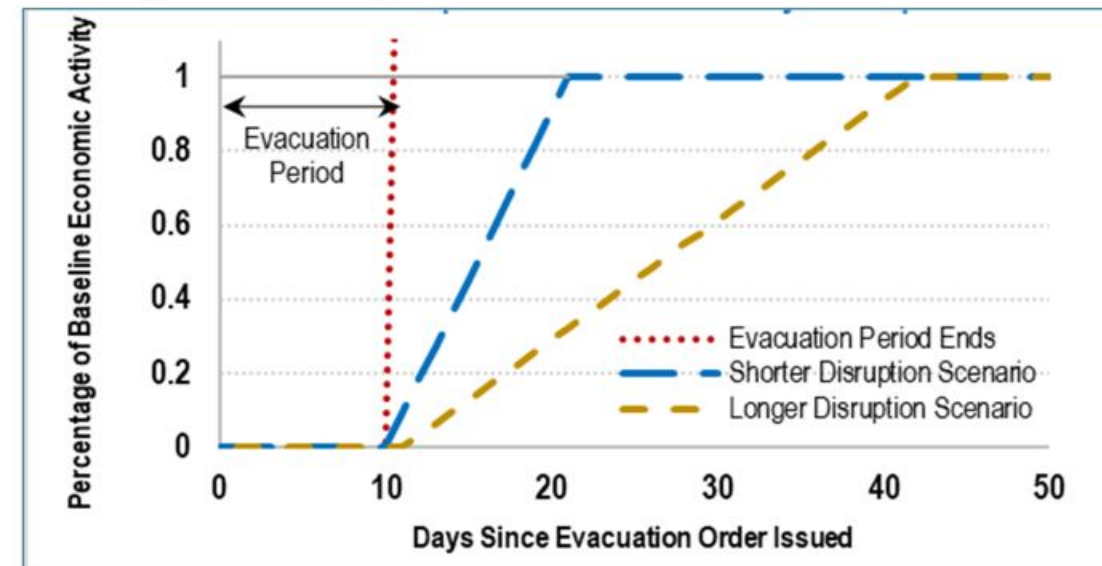


Recovery Trajectory of Economic Output

Three Alternative Burn Area Scenarios



Low/High Secondary Fire Area Scenarios



Undocumented Workers: Core to the County Economy

Nearly 950,000 undocumented workers
in key industries

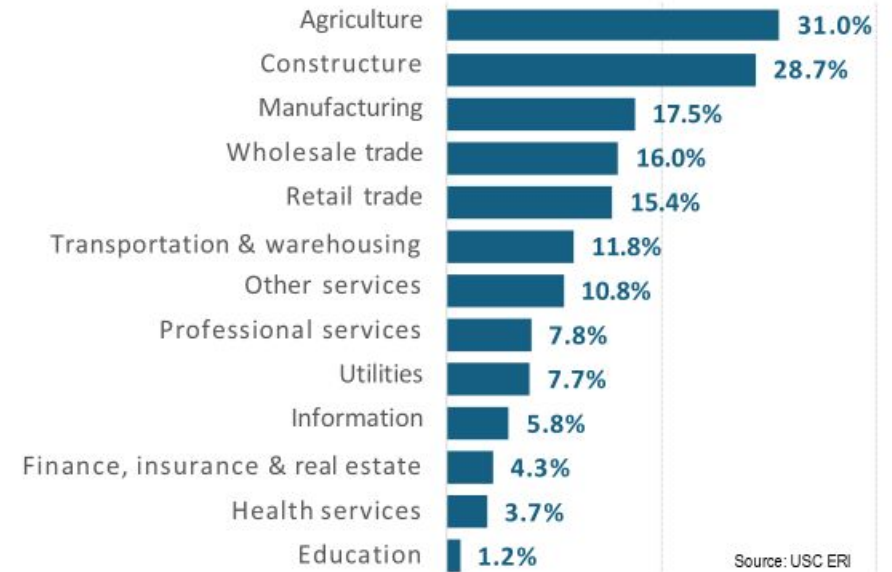
Economic Contribution: Undocumented Workers in LA:

- **\$253.9B** in annual economic output (17% countywide total)
- **1.06M** jobs supported (direct + indirect) with **\$80.4B** in labor income
- **\$147.4B** (16%) of countywide GCP

3.5M immigrants
in LA County
(35% of population)

**Undocumented workers in LA
County account for 60% of
GSP related to undocumented
labor statewide (\$278B*)**

Industry Workforce Dependence on Undocumented Labor



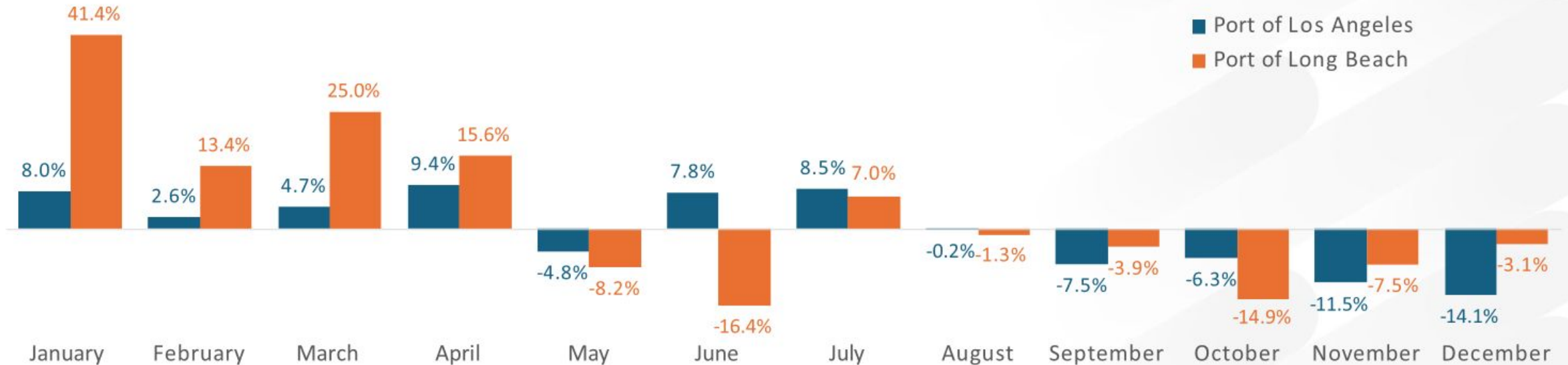
Estimated Economic Contribution of Undocumented Workers in LA County (2023)

Output (\$ millions)	\$253,879
Direct	\$158,805
Employment (jobs)	1,062,550
Direct	630,120
Labor income (\$ millions)	\$80,444
Direct	\$47,699
Value added (\$ millions)	\$147,361
Direct	\$88,389

Source: IMPLAN; estimates by LAEDC

San Pedro Bay Port Volatility in 2025

Year-over-year Percentage Change in Container Throughput in 2025



- Record-breaking activity in the first half of the year as importers rushed to bring in goods ahead of tariff deadlines
- Second half of 2025 provided ominous signs for what to expect in the year to come

The LA Economy: Growth Held, Momentum Softened

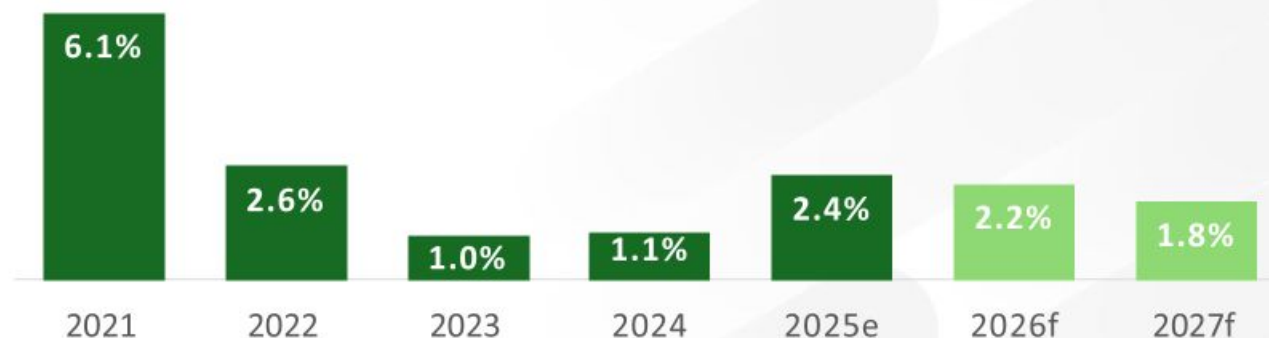
- Real GCP growth ~2.4%
- Job growth near flat
- Unemployment elevated vs pre-pandemic

The Los Angeles County economy has continued to demonstrate remarkable resilience...

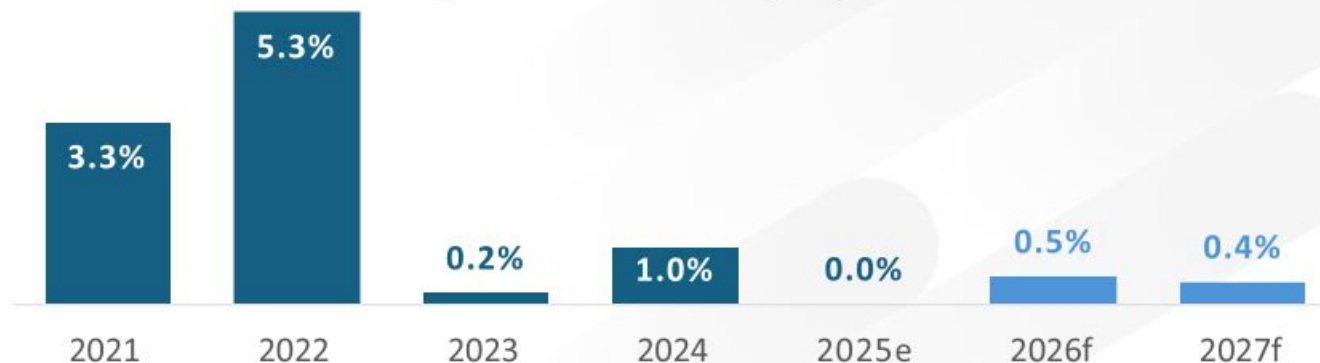
Despite devastating wildfires, aggressive federal immigration enforcement, and trade barriers

LA County Growth Trends

Year-over-year Real GDP Growth in LA County

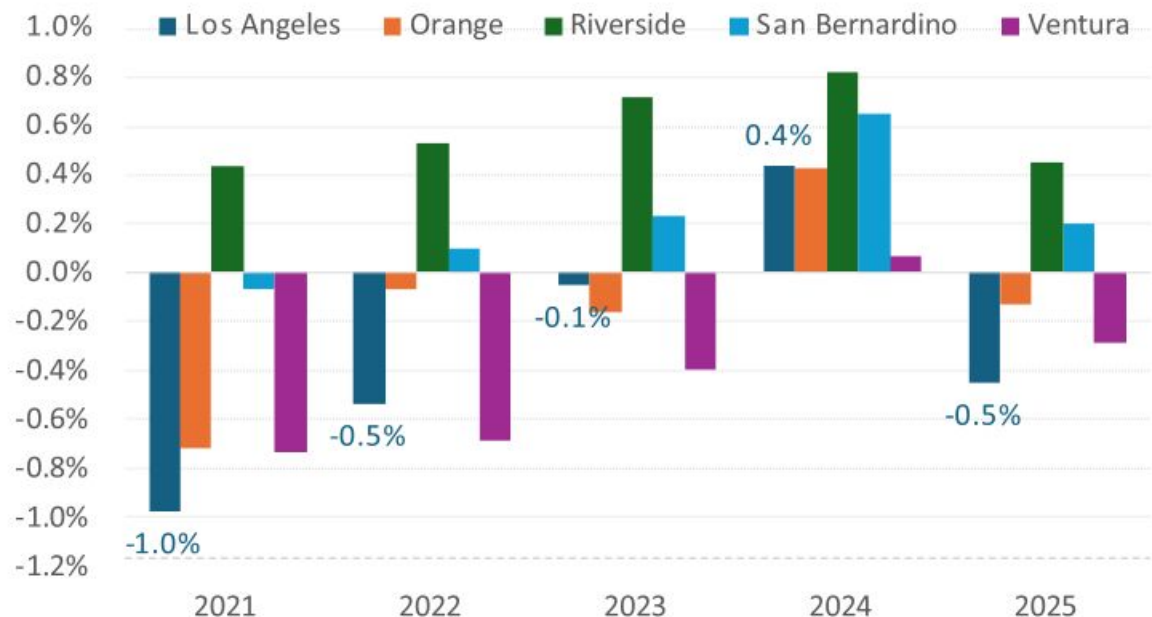


Year-over-year Nonfarm Employment Growth



Long-Standing Constraints Are Intensifying

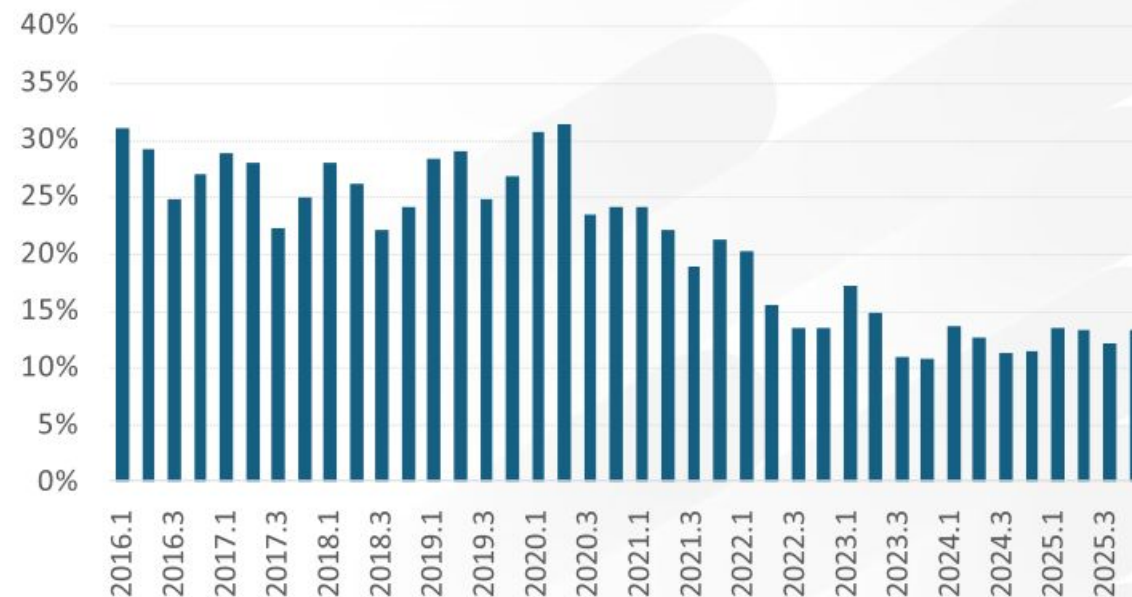
Annual Percentage Change in Population by County



Source: CA Dept. of Finance

- County lost ~45,000 residents
- Only ~13% can afford median home

Traditional Housing Affordability Index
for LA County, Q1:2016 to Q4:2025



Source: California Association of Realtors

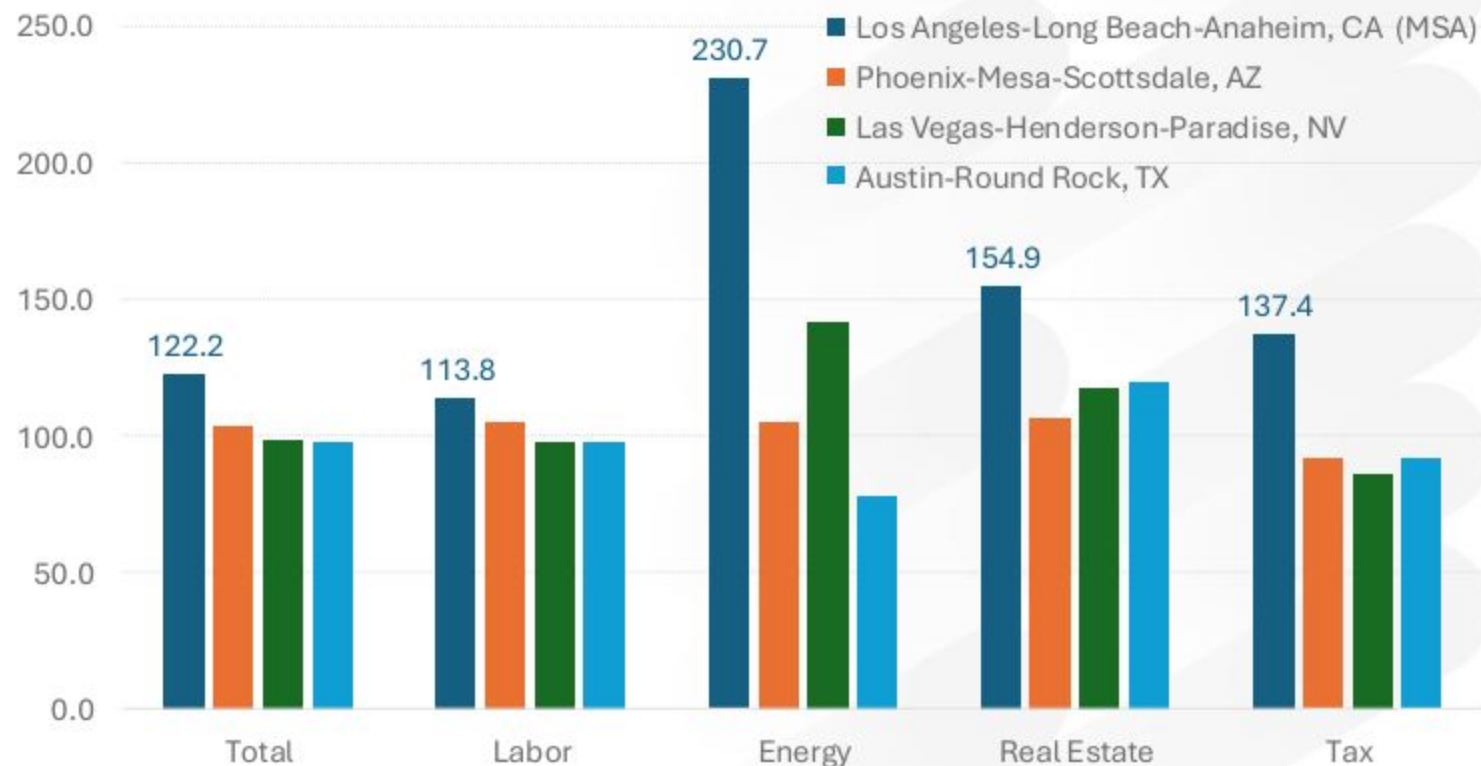
- ~57.5% renters cost-burdened
- Production gap vs RHNA need

LA Remains a High-Cost Operating Environment

- **Energy cost differential**
 - *130.7% higher (more than double)*
- **Higher real estate costs**
 - *54.9% higher*
- **Tax premium**
 - *37.4% higher*

Competing metros like Austin (98.0), Las Vegas (98.8), and Phoenix (103.5) operate at roughly the national average

Business Cost Index for Selected Regions



Source: S&P Global Market Intelligence

Growth Is Becoming More Uneven

Growth:

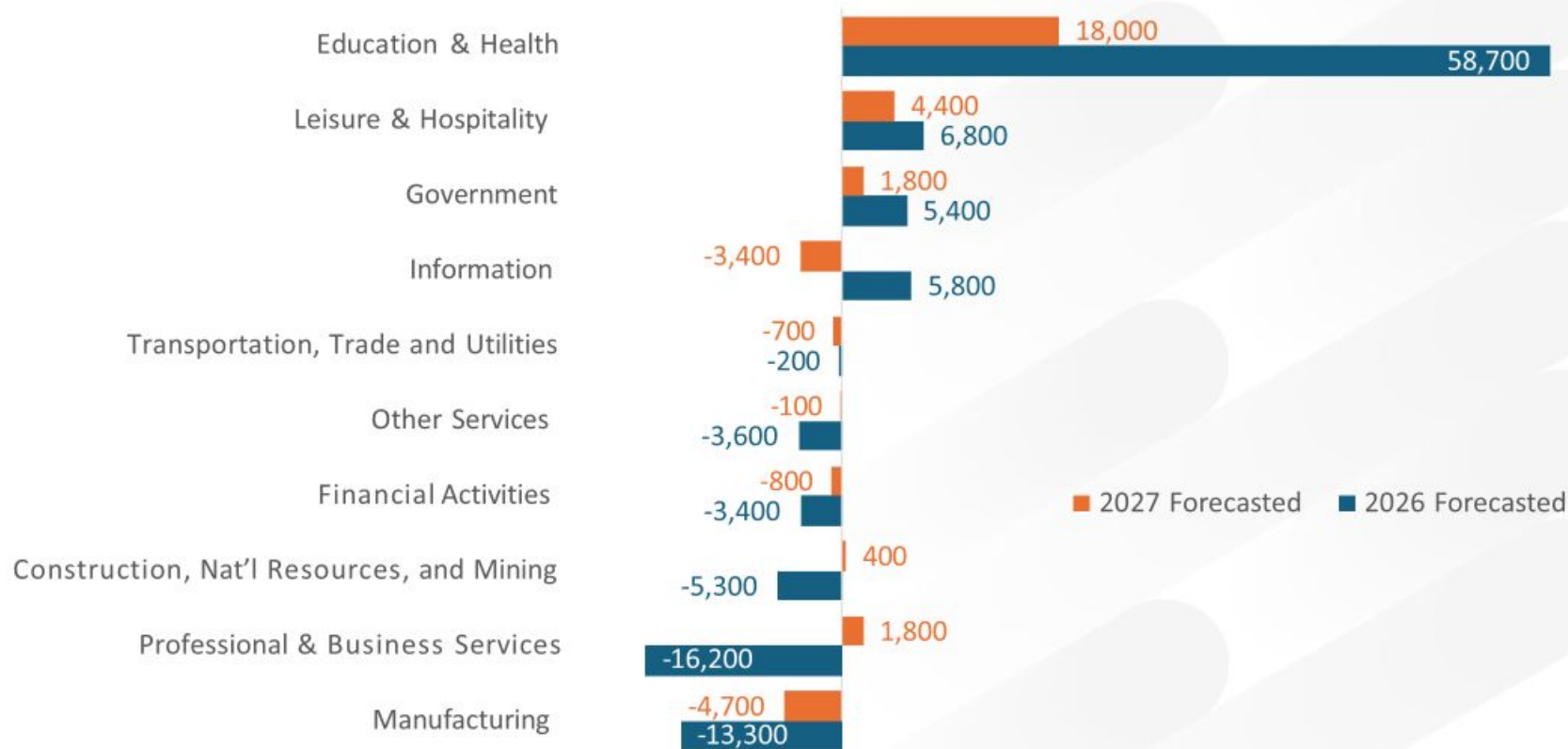
- Education & Health
- Government

Losses:

- Manufacturing
- Trade & Logistics
- Information

Expected job growth in Education & Health is primarily in Social Assistance

LA County Employment Forecast: Growth by Industry, 2025 to 2027

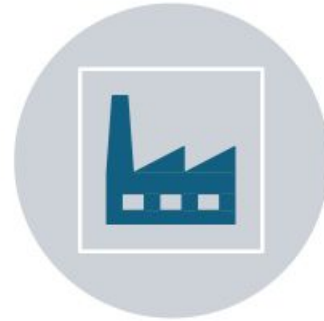


Where These Pressures Are Showing Up



Healthcare

*The Healthcare Squeeze:
Coverage Loss and Rising
Costs in LA*



Manufacturing & Distribution

*Holding Ground in a High-
Cost Environment*



Tourism

*Systems Behind the Stay:
Visitors, Mobility, and
Venues*



Construction

*Building Under Pressure:
Costs, Capacity, and
Demand*

Each sector reflects the intersection of cost pressure, workforce constraints, and policy uncertainty.

Los Angeles County



Quick Facts

Population*	9.8 million
% Prime Age (25-54)*	42.6%
Gross County Product*	\$1,003 billion
Median Household Income*	\$90,800
Median Home Price to Household Income Ratio*	9.5
Poverty Rate*	13.3%
Unemployment Rate	5.7%

*2024 Estimate Sources: US Census ACS, BEA, CA EDO

	2021	2022	2023	2024	2025e	2026F	2027F
Real GCP Growth	6.1%	2.6%	1.0%	1.1%	2.4%	2.2%	1.8%
Real Personal Income Growth	1.8%	-5.7%	0.8%	4.1%	2.7%	2.0%	2.8%
Nonfarm Employment Growth	3.3%	5.3%	0.2%	1.0%	0.0%	0.5%	0.4%
Unemployment Rate	9.0%	5.0%	5.1%	5.8%	5.7%	5.9%	5.9%
CPI Change	3.8%	7.4%	3.5%	3.3%	3.2%	2.7%	2.9%
Employment Growth By Sector							
Construction, Nat'l Resources, & Mining	150,700	153,000	152,700	152,500	150,300	145,000	145,400
Manufacturing	313,100	321,700	319,200	310,800	305,800	292,500	287,800
Transportation, Trade, & Utilities	814,000	834,500	826,400	814,000	807,200	807,000	806,300
Information	208,800	234,900	193,000	189,800	180,400	186,200	182,800
Financial Activities	213,200	215,700	211,000	208,700	205,600	202,200	201,400
Professional & Business Services	630,800	666,900	652,500	657,800	659,200	643,000	644,800
Education & Health	844,400	871,100	914,500	969,400	990,500	1,049,200	1,067,200
Leisure & Hospitality	434,200	512,400	534,100	537,400	536,000	542,800	547,200
Other Services	135,700	153,000	157,800	158,400	159,100	155,500	155,400
Government	560,200	570,000	582,300	591,100	594,900	600,300	602,100
Housing Permits	23,300	26,900	24,300	19,800	20,900		
Media Home Listing Price	\$937,700	\$913,000	\$1,044,300	\$1,070,800	\$1,023,600		

California



Quick Facts

Population*	39.4 million
% Prime Age (25-54)*	41%
Gross State Product*	\$4 trillion
Median Household Income*	\$100,100
Median Home Price to Household Income Ratio*	7.6
Poverty Rate*	11.8%
Unemployment Rate	5.5%

*2024 Estimate Sources: US Census ACS, BEA, CA EDO

	2021	2022	2023	2024	2025e	2026F	2027F
Real GSP Growth	7.5%	-0.1%	1.8%	3.2%	2.1%	2.4%	2.0%
Real Personal Income Growth	4.4%	-7.0%	1.5%	1.3%	1.9%	1.6%	2.8%
Nonfarm Employment Growth	3.5%	5.5%	0.9%	0.7%	0.2%	0.4%	0.5%
Unemployment Rate	7.3%	4.3%	4.7%	5.3%	5.5%	5.7%	5.6%
CPI Change	4.2%	7.3%	3.9%	3.1%	3.0%	2.9%	3.0%
Employment Growth By Sector							
Construction, Nat'l Resources, & Mining	903,000	932,500	933,100	931,000	917,900	916,400	927,400
Manufacturing	1,283,100	1,338,300	1,334,200	1,249,100	1,233,300	1,206,700	1,194,000
Transportation, Trade, & Utilities	3,022,600	3,128,500	3,107,100	3,082,300	3,068,800	3,069,500	3,084,300
Information	568,700	617,600	559,000	538,100	529,100	525,400	524,400
Financial Activities	827,300	838,700	814,300	802,500	796,600	782,400	781,400
Professional & Business Services	2,712,300	2,853,200	2,775,400	2,786,800	2,767,600	2,743,300	2,758,200
Education & Health	2,818,000	2,932,600	3,100,000	3,285,500	3,370,000	3,510,000	3,557,000
Leisure & Hospitality	1,641,400	1,931,200	2,010,600	2,015,800	2,013,600	2,007,500	2,008,400
Other Services	506,600	564,800	587,900	594,700	598,500	601,700	605,600
Government	2,469,500	2,533,500	2,603,700	2,662,900	2,686,200	2,713,100	2,725,000
Housing Permits	119,400	120,800	111,800	101,500	103,600		
Media Home Listing Price	\$722,500	\$732,700	\$745,400	\$756,100	\$742,300		

THANK YOU

in @ LAEDC



LOS ANGELES COUNTY
ECONOMIC DEVELOPMENT CORPORATION
Coalition of One - Economy for All



Wiring the Workforce: Powering Local Talent to Local Opportunities





Audrey Bragg

Senior Program Manager, Environmental Initiatives Division, County of Los Angeles

Audrey Bragg is a clean energy leader with experience spanning federal, state, and nonprofit sectors. She currently serves as a Senior Program Manager with Los Angeles County's Internal Services Department, where she oversees SoCalREN's portfolio of workforce, education and training programs and community-based programs. Previously, Audrey was a Technical Project Officer at the U.S. Department of Energy, leading federal-local partnerships to scale community-driven clean energy initiatives for the Energy Efficiency and Conservation Block Grant Program. She also advanced national clean energy policy as Director of Policy at E4TheFuture. With a Juris Doctorate in Energy and Environmental Law, Audrey brings expertise in program design, grant management, and stakeholder engagement - focused on expanding equitable access to clean energy solutions.



Austin Thompson

CEO, Community Dynamix



Austin Thompson is the Founder and CEO of Community Dynamix (CDX), a technology services firm building workforce and economic development platforms for community-based organizations, public agencies, and philanthropic intermediaries across California and beyond. He drives the development of MatchPoint, a contractor-opportunity matching platform designed to connect Southern California's clean energy workforce to the contracts, training, and partners that move careers forward — built for SoCalREN's regional workforce ecosystem.

Prior to founding CDX, Austin served as Deputy to the Secretary-Treasurer of SEIU International, bringing a deep labor and worker-side perspective to his technology practice. He led technical assistance initiatives for the Bloomberg Sustainable Cities Initiative on clean energy workforce development, and separately directed efforts to expand broadband access in underserved communities. He worked in hardware development and production at Starlink. Austin holds an MBA from Duke University. Austin's work intersects technology, workforce, and community power infrastructure—building systems that are both technically rigorous and rooted in the communities they serve.

MatchPoint

Where Connection Meets Opportunity

Connecting Southern California's Clean Energy Workforce



SoCalREN Mission

"To harness the collective action of public agencies to save energy and lead their communities on the pathway to a safe, secure, resilient, affordable and sustainable energy future."



Collective Action

Bringing together public agencies, regional partners, utilities, workforce organizations, contractors, and communities to advance energy efficiency and clean energy goals across Southern California.



Community Leadership

Empowering local governments and public agencies to lead energy efficiency, sustainability, decarbonization, and workforce development initiatives that strengthen their communities.



Sustainable Future

Supporting a resilient and affordable clean energy future through energy savings, workforce education and training, disadvantaged community investment, and long-term regional collaboration aligned with CPUC goals.



Why MatchPoint Matters

Southern California's clean energy workforce remains disconnected, limiting coordination, visibility, and access to opportunities.



Disconnected Systems

Stakeholders operate across disconnected platforms, workforce systems, and processes with no centralized coordination.



Barriers to Access

Workforce participants and contractors face challenges accessing training, technical assistance, subcontracting opportunities, and career pathways.



Limited Regional Coordination

Regional partners lack shared visibility, streamlined referrals, and coordinated workforce tracking.



Note: MatchPoint creates a centralized workforce and contractor engagement infrastructure that improves coordination, opportunity access, and regional collaboration.

The Opportunity

MatchPoint centralizes workforce, industry and contractor engagement through one connected regional platform, improving coordination, opportunity access, and regional collaboration across Southern California's clean energy workforce network.



Connected Workforce Network

Connects workforce participants, contractors, employers, and regional partners through one centralized platform.



Expanded Opportunity Access

Improves access to workforce pathways, technical assistance, subcontracting opportunities, training resources, and clean energy careers.



Regional Coordination at Scale

Strengthens regional collaboration, network visibility, referrals, and workforce coordination across Southern California.



Phased Approach

A scalable regional workforce coordination platform connecting contractors, workers, industry, and academia across the clean energy economy.

Phase 1



Small Business & Contractor Foundation

- Focused on small and diverse contractors seeking public procurement opportunities across SoCalREN's 13 counties
- Curated bid matching with capacity-building support: contractors create profiles, see ranked bids, save them, and request TA help
- Closes the procurement visibility gap

Phase 2

Workforce & DAWs Integration

- Focused on workers seeking quality careers, employers seeking skilled talent, and the training providers preparing them
- A matching engine for careers: workers profile and match to roles, employers source vetted talent, training providers align programs to demand
- Closes the career navigation gap

Phase 3

Industry, Academia & Regional Ecosystem Alignment

- Focused on industry partners, agencies, academia, and workforce organizations shaping the regional clean energy ecosystem
- A matching engine for the network: partners post opportunities, source talent, align curriculum, and coordinate referrals regionally
- Closes the coordination gap

Note: Phase 3 represents expanded regional ecosystem integration across additional stakeholder groups, including industry partners, academia and training institutions, unions, public agencies, and regional workforce organizations.



Phased Buildout: What Happens in Each Phase

A scalable roadmap to build a regional workforce coordination platform that grows with our network.

Phase 1

Platform Foundation

Build the core of the platform and onboard contractors

What Gets Built

- Contractor onboarding & profiles
- Opportunity marketplace
- Technical assistance tools

What Users Can Do

- Create business profiles
- Search opportunities & bids
- Request support services

Why it Matters

- Expands contractor participation
- Improves access to opportunities
- Builds foundational platform engagement

Phase 2

Workforce Integration

Connect workers to training and career opportunities

What Gets Built

- Workforce profiles
- Career pathway matching
- Training & certification visibility

What Users Can Do

- Explore careers & pathways
- Access training resources
- Connect to workforce opportunities

Why it Matters

- Improves workforce readiness
- Strengthens workforce access
- Connects users to career pathways

Phase 3

Network Expansion

Expand regional coordination and network collaboration

What Gets Built

- Partner coordination tools
- Workforce reporting & analytics
- Network collaboration features

What Users Can Do

- Share referrals & resources
- Coordinate across organizations
- Track workforce outcomes

Why it Matters

- Strengthens regional coordination
- Improves network visibility
- Supports long-term collaboration



Initial Focus Groups Feedback

80% of Stakeholders Cited Fragmented Systems as Main Barrier MatchPoint Can Help Address

Disconnected systems, misaligned requirements, and limited resources affect every sector, from contractors to education.

Phase 1



Small Business & Contractors

- Overwhelming navigation of multiple portals, registrations, & certifications
- Lack of centralized information on opportunities and requirements
- Difficulty finding and accessing affordable business software/tools
- Challenges securing financing and funding

Phase 2



Workforce & Job Seekers

- Difficulty finding quality job opportunities and career pathways
- Limited visibility into training programs and certifications
- Challenges navigating workforce systems and support resources
- Lack of real-time workforce and labor market information

Phase 3



Prime Contractor & Public Agencies

- Siloed programs and agencies
- Inconsistent RFP/RFQ processes
- Limited procurement transparency
- Duplicated reporting efforts



Labor & Training Partners

- Training misaligned with workforce needs
- Limited program coordination
- Difficulty tracking workforce outcomes
- Limited real-time workforce data



Education & Workforce Partners

- Limited staffing and training capacity
- Difficulty retaining trainers
- Curriculum misaligned with industry needs
- Limited funding and information sharing



Initial Focus Groups Feedback – included in Phase 1

While Most Stakeholders Align on Training Resources, Contractors Emphasize Growth & Access

Phase 1



Contractors & Small Business

Top Priorities

- Growth & opportunity access
- Simplified contractor navigation
- Funding & business resources

Top Features

- Opportunity marketplace
- Shared intake & referrals

Phase 2



Workforce & Job Seekers

Top Priorities

- Career pathway visibility
- Training access
- Workforce navigation support

Top Features

- Career/job matching
- Training resource hubs

Phase 3



Prime Contractor & Public Agencies

Top Priorities

- Procurement transparency
- Regional coordination
- Streamlined reporting

Top Features

- Reporting dashboards
- Shared workforce systems



Labor & Training Partners

Top Priorities

- Workforce coordination
- Training alignment
- Outcome tracking

Top Features

- Workforce tracking tools
- Shared referral systems



Education & Workforce Partners

Top Priorities

- Industry-aligned curriculum
- Student career placement
- Capacity building

Top Features

- Training resource libraries
- Partnership directories



Value Proposition

MatchPoint connects workers and contractors to the opportunities they're qualified for. Matched in real time, explained in plain language, and with access to support.



Workers and contractors are on the move. The Matchpoint platform moves with them.



Every match shows you not just what fits, but what it would take to win (contractors and workers alike).



Technology surfaces the gap. People close it.



Built to last, built to scale - a three-layer cake architecture

MatchPoint uses the same proven three-layer architecture that modern applications use, so each layer can grow or be upgraded independently as needs evolve.

PRESENTATION LAYER *Tailored to every stakeholder*

Role-based views

Contractors, agencies, partners
each see what they need

Mobile and desktop

Meets users on the device they
actually use

Accessible by design

WCAG-compliant for public-sector
deployment

Easy to extend

New audiences added without
rebuilding the platform

APPLICATION LAYER *Configurable as programs evolve*

Standards-based API

Connects with current and future
regional systems

Matching engine

Tuned to existing programs and
rules

Business rules

Configurable per agency, per
program, per phase

Automated cadence

Keeps results fresh without
manual effort

DATABASE LAYER *Durable, secure, audit-ready*

Open data standards

Portable — no proprietary lock-in

Audit trail built in

Every action logged for CPUC reporting

Backed up and secured

Encrypted, redundant, recoverable



The matching platform for Southern California's clean energy workforce.

Where connection meets opportunity

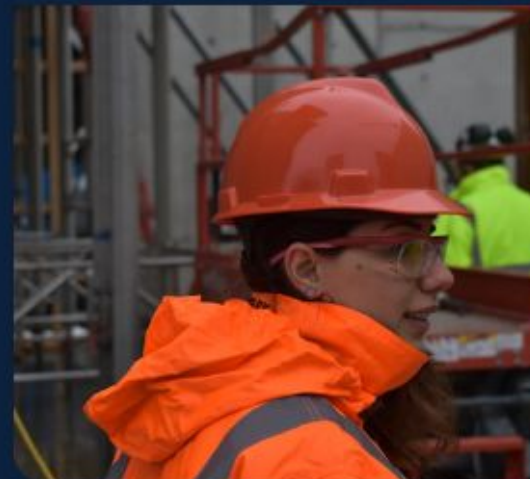
Connecting Southern California's clean energy workforce to the contracts, training, and partners that move careers forward.

[Create account](#)[Sign in](#)

Built for contractors, workers, agencies, workforce partners, and educators.



County of
Los Angeles



DEMO →

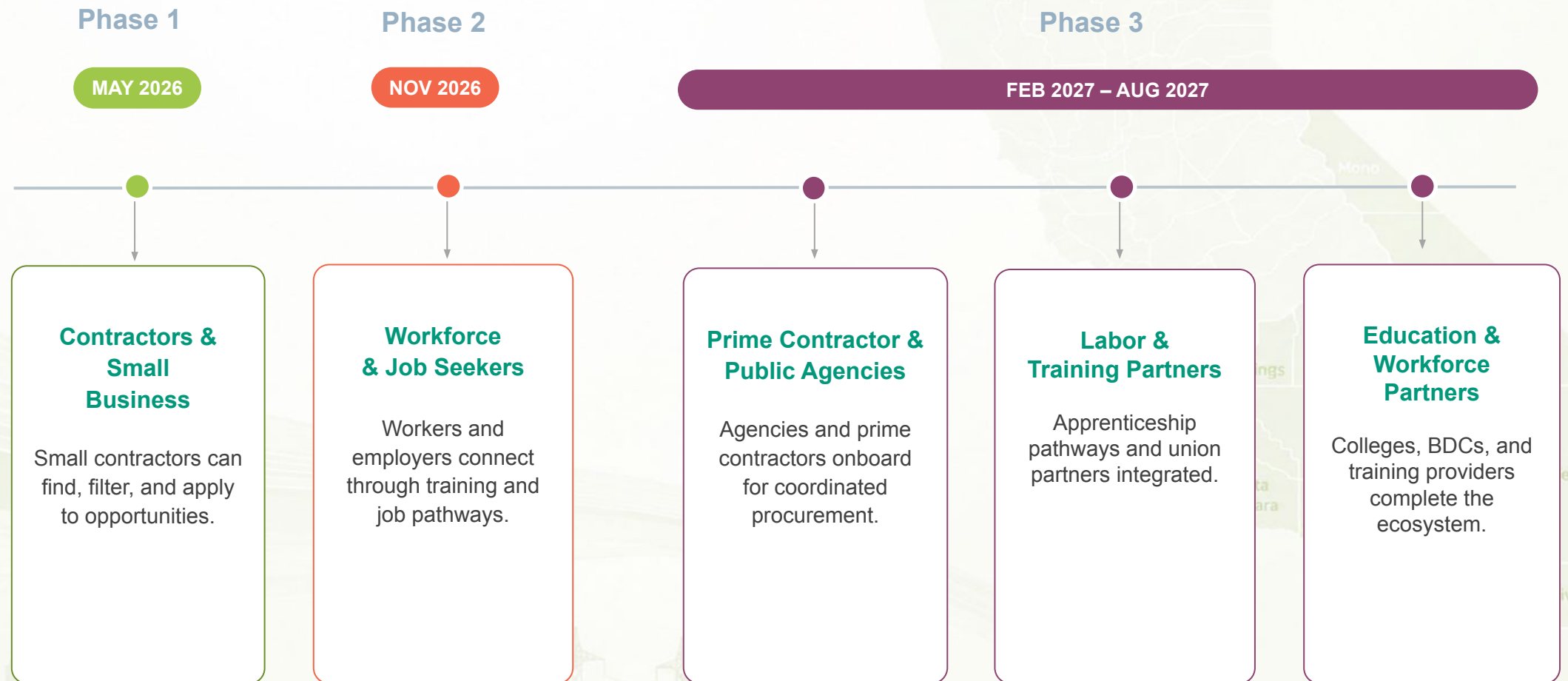
MatchPoint

Where connection meets opportunity



Timeline

Five stakeholder groups come online in sequence between May 2026 and August 2027.



Core Platform Features

Integrated tools designed to support workforce development, opportunity access, stakeholder coordination, and regional collaboration.



Opportunity Matching Engine

Matches users to relevant workforce, training, and contracting opportunities.



Workforce & Stakeholder Profiles

Centralized profiles for skills, certifications, experience, and organizational capacity.



Technical Assistance Portal

Centralized access to guidance, support services, and workforce development resources.



Jobs & Opportunity Hub

Access to workforce, training, employment, and contracting opportunities.



Training & Certification Resources

Workforce training pathways, certifications, and educational resources.



Dashboard & Reporting Tools

Real-time visibility into ecosystem activity, engagement, and outcomes.

Note: Additional platform capabilities and regional coordination tools will continue to evolve through future phases.



Reporting, Tracking & Network Insights

Centralized reporting infrastructure tracking workforce participation, engagement, opportunity access, and training activity.

User & Participation Metrics



- Total Registered Users
- Users Receiving Services
- Active Monthly Users
- Profile Completion Rate

Training & Workforce Development



- Trainings Started
- Trainings Completed
- Certificates Earned
- Certifications Earned

Opportunity & Matching Metrics



- Total Opportunities Listed
- Users Matched
- Opportunities Viewed
- Redirects / Clicks

Project & Contract Outcomes



- Bids / Contracts Submitted
- Contracts Awarded
- Completed Projects



Analytics & Engagement



Page Visits

Total traffic to regional ecosystem



Traffic Sources

Organic, referral, partner & direct



Returning Visitors

Sustained platform engagement



Avg. Session Duration

Depth of user interaction



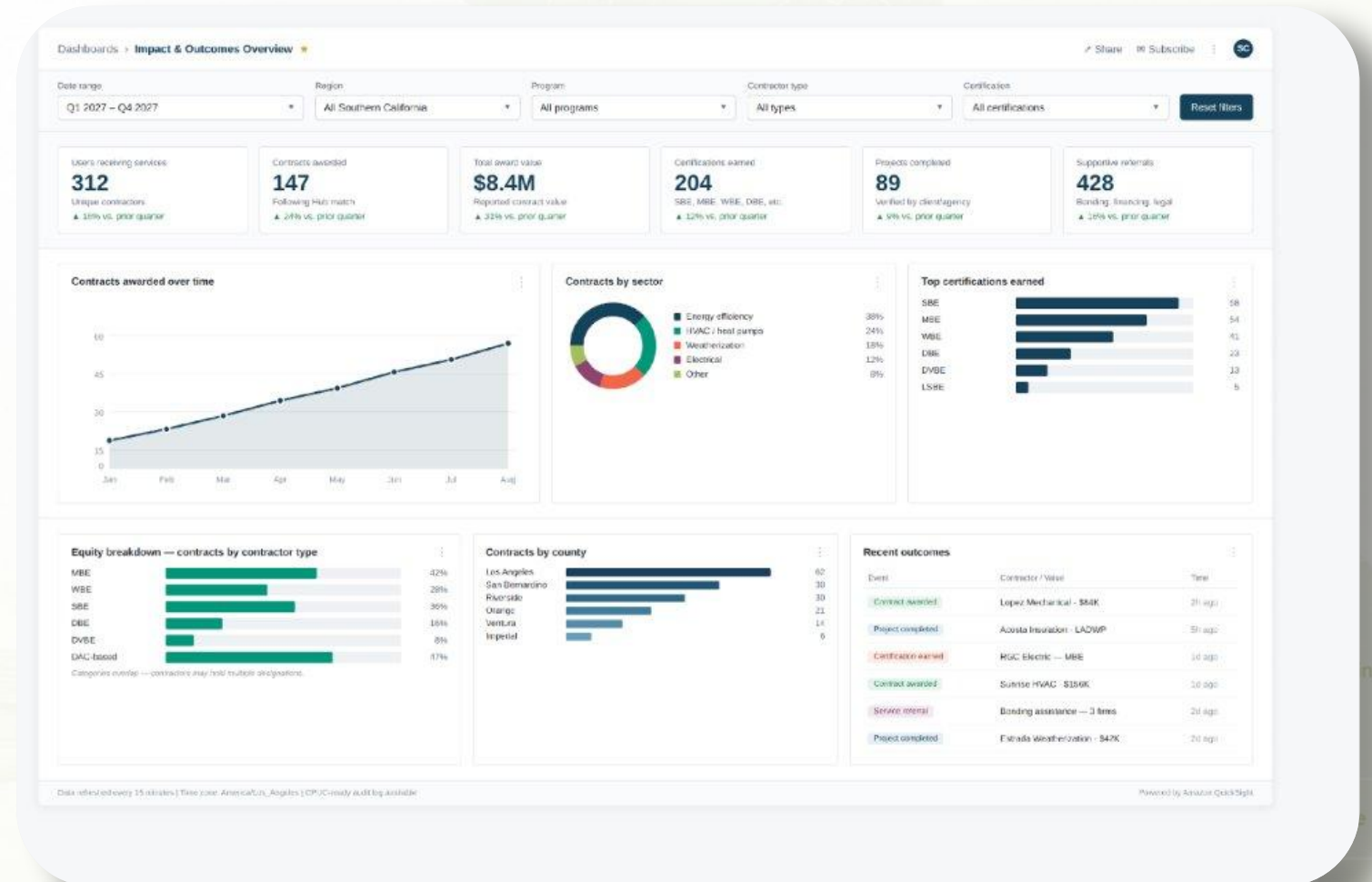
Bounce Rate

Content relevance indicator



Resource Downloads/Views

Content access and utilization



Next Steps

We've spent the last several months carefully building and refining our platform features for small contractors. That foundation is solid and now we're ready to take the next big step.

Phase 1

Small Business & Contractor Foundation



Done & Polished

- Contractor onboarding & testing
- Platform refinement & feature validation
- Bid access & opportunity workflows
- Technical assistance integration

Phase 2

Workforce & DAWs Integration

Starting Now

- Developing workforce features
- Building workforce onboarding
- Expanding opportunity matching
- Enhancing workforce resources

Phase 3

Industry, Academia & Regional Ecosystem Alignment

Coming Next

- Develop industry features
- Develop prime contractor capabilities
- Build academia collaboration tools
- Strengthen regional connectivity



Thank you!

Let's continue building connections through MatchPoint.



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Q&A



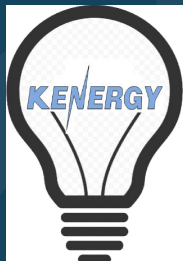
Program Spotlight: Program Spotlight: Kenny “Kenergy” Seeton, Manager, Central Plant Operations, CSU Dominguez Hills

A Practical Journey Toward Net Zero Carbon

Kenny Seeton (Kenergy)

Director of Central Plant Operations and
Strategic Energy Projects

www.csudh.edu/sustainability



Greenhouse Gas

Baseline Year

2018

Year

All

Scope

All

Source

All

Baseline CO₂e Emissions for:
2018

9,323

CO₂e Emissions for: 2025

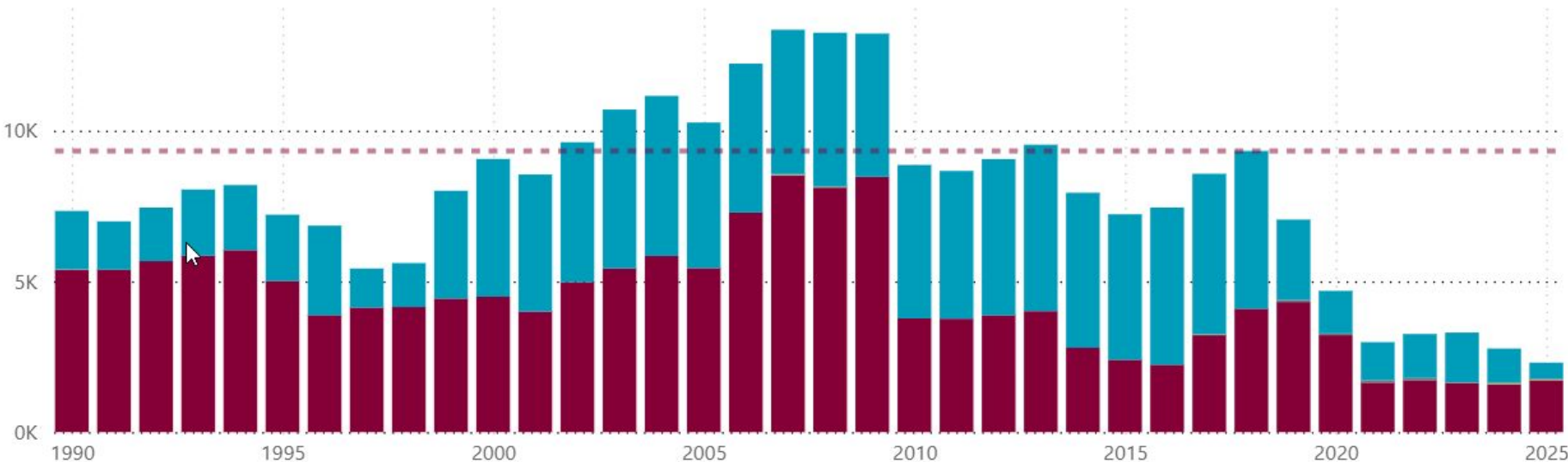
2,302

CO₂e Emissions Baseline vs Max
Year

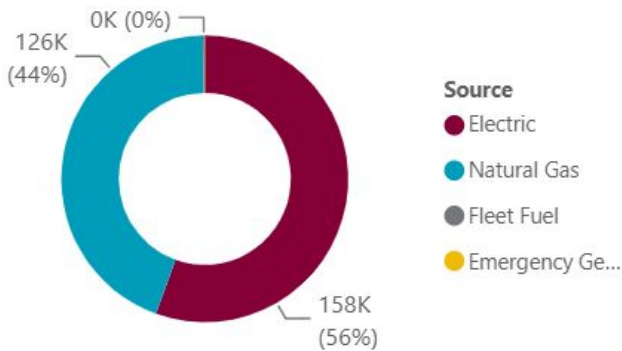
-75%

CO₂e: Total Emission (Tonnes) by Year and Source

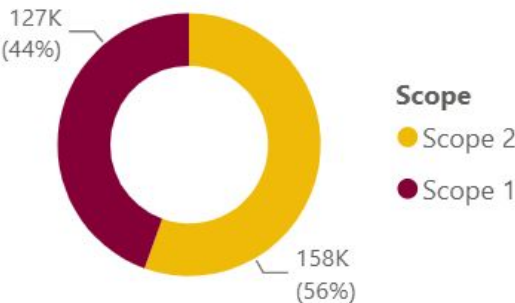
Source ● Electric ● Emergency Generator Fuel ● Fleet Fuel ● Natural Gas



CO₂e Amount (Tonnes) by Source

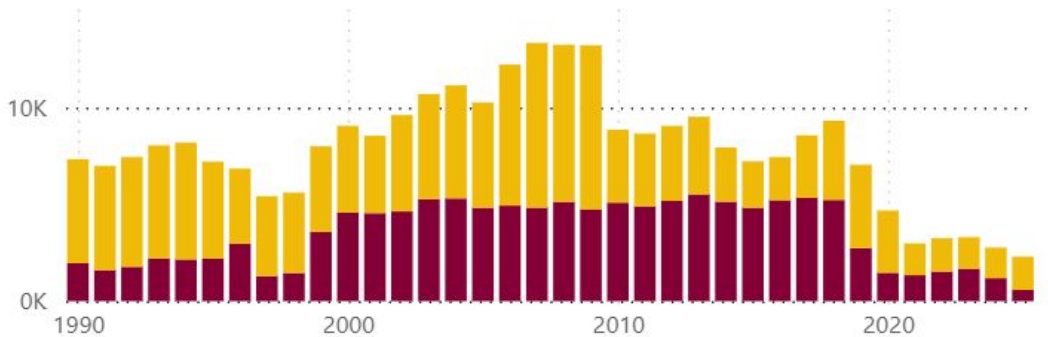


CO₂e Amount (Tonnes) by Scope



CO₂e: Total Emission (Tonnes) by Year and Scope

● Scope 1 ● Scope 2



OUR CSUDH Energy Journey- Projects

Project	Location	Date Completed	Funding
Switched from Gas Fired Absorption Chillers to Electric	Central Plant (CP)	2019 Q2	CEOP
LED w Enlighted controls integrated into the BAS (Building Automation System)	Social Behavior Sciences (SBS) Welch Hall (WH) La Corte Hall (LCH)	2020 2021 2021	CEOP EPIC EPIC
VAV dual duct Pneumatic to DDC	SBS	2020 Q2	CEOP
Finish CHW, HW Belimo Smart Energy Valve upgrade	Campus wide	2020 Q4	CEOP
964 kW roof top solar (WH,SCI, S Lib, SBS, Gym)	Campus wide	2022 Q1	PPA
800 exterior fixtures with LED & controls	Entire campus exterior	2022 Q2	PPA
Solar Thermal HW	CP Boiler roof	2022	SCE ET
70ton Trane (gas heating) to 25t & 12.5T heat pump	South Academic Complex #3 (SAC-3)	2023	CEOP
Heat pumps 21-30t MultiStack units	Cental Plant (CP)	2024 Q3	CEOP
facil.ai (Artificial Intelligence for Central Plant Optimization)	Central Plant (CP)	2023 Q4	SCE ET
LED Englighted/ BAS Integration- Pneumuatic to DDC	Student Health Center	2025 Q2 Planned	CEOP
LED Enlighted	Physical Plant	2025 Q2 Planned	CEOP
200 LV 2 EV Chargers	Lot 3	2026 Q3 Planned	SCE Charge Ready
More Solar 2 MW to 3 MW	Carport and Ground Mount	2025/2026 Planned	PPA

Easy energy savings solutions

Occupancy sensors for lights and VAV zone control

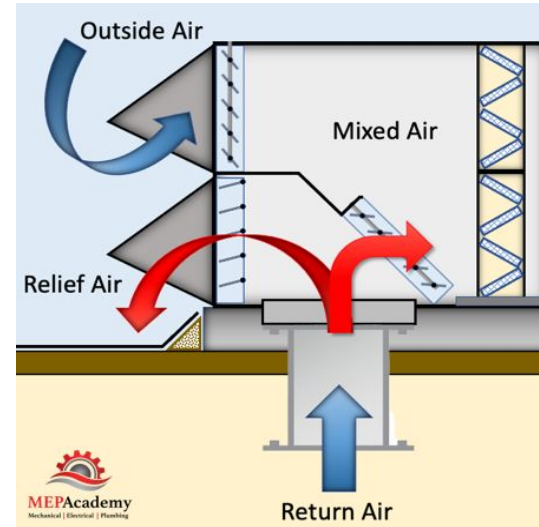
Simple Static pressure reset Sequence of Operation (SOO)

Working economizers with Belimo Smart Energy Control Valves

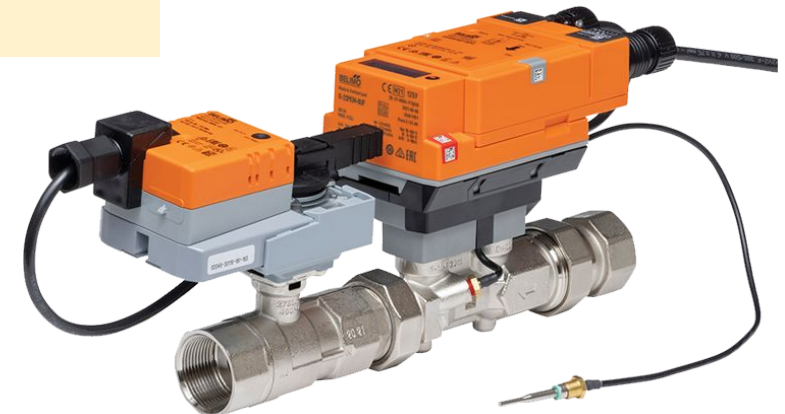
Leverage your building automation system

Create usable dashboards

Explore AI like Facil.AI



Trim and Response Parameters	
AIR-REQ	3
MAX_AIR_REQ-SP	4
MIN_AIR_REQ-SP	4
DAP_HIGH-SP	1.50 in wc
DAP_LOW-SP	0.12 in wc
DAP_ADD-SP	0.10 in wc
DAT_SUB-SP	0.30
STARTUP-SP	0.50 in wc
DAP_RESET-INT	4 minutes



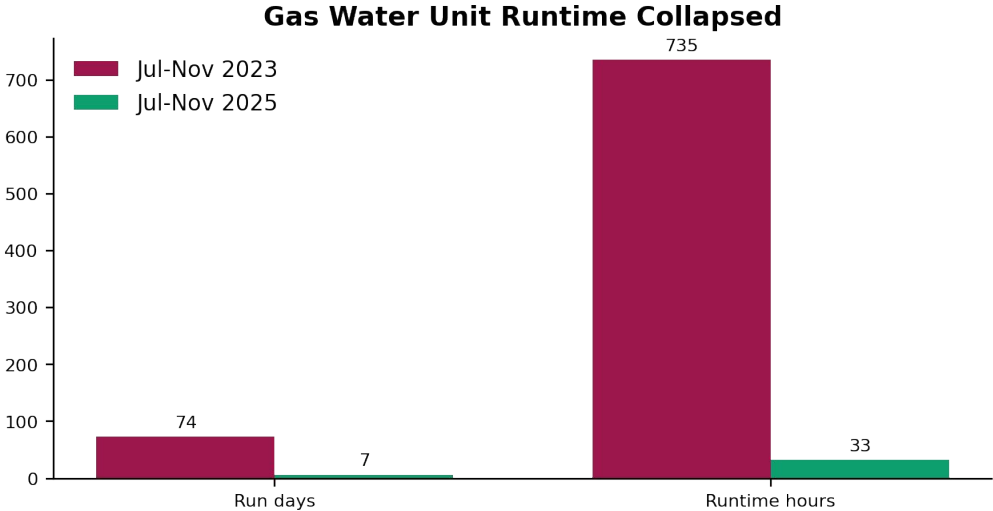
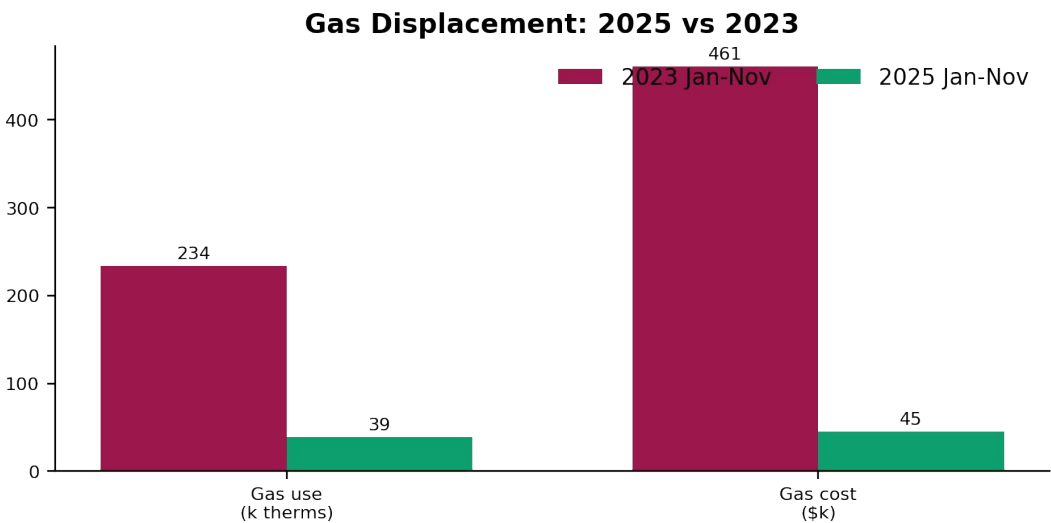
CSUDH

CALIFORNIA STATE UNIVERSITY
DOMINGUEZ HILLS



Heat pumps: gas displacement is now visible in the utility bills

21 x 30-ton AR30 Multistack units were installed in July 2024 to displace gas for hot water.



194,719

Therms avoided

2025 YTD vs 2023 Jan-Nov

\$415,386

Gas cost avoided

2025 YTD vs 2023 Jan-Nov

95.5%

Runtime hours down

Filtered Jul-Nov comparison

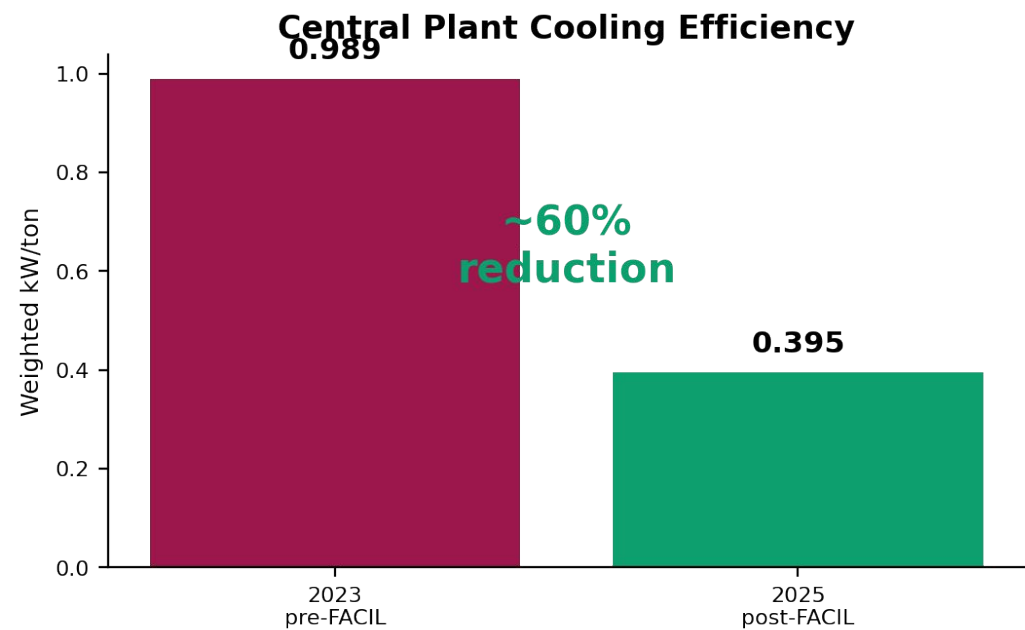
1,033 MT

Gas-side GHG avoided

Gross gas emissions avoided

FACIL.AI: lower kW/ton without reducing campus mission

Implemented to optimize chilled water supply temperature setpoint and central plant operation.



~2.98 GWh

Avoided electricity
Load-matched estimate

~\$766k

Cost avoided
At observed post-FACIL rates

~581 MT CO2e

GHG avoided
Using CAMX eGRID rate

Credible claim

~60% load-matched kW/ton reduction vs 2023 baseline

FACIL.AI is not the whole story - it is the optimization layer that improved an already modernized plant.



CSUDH Energy Reduction Benefits

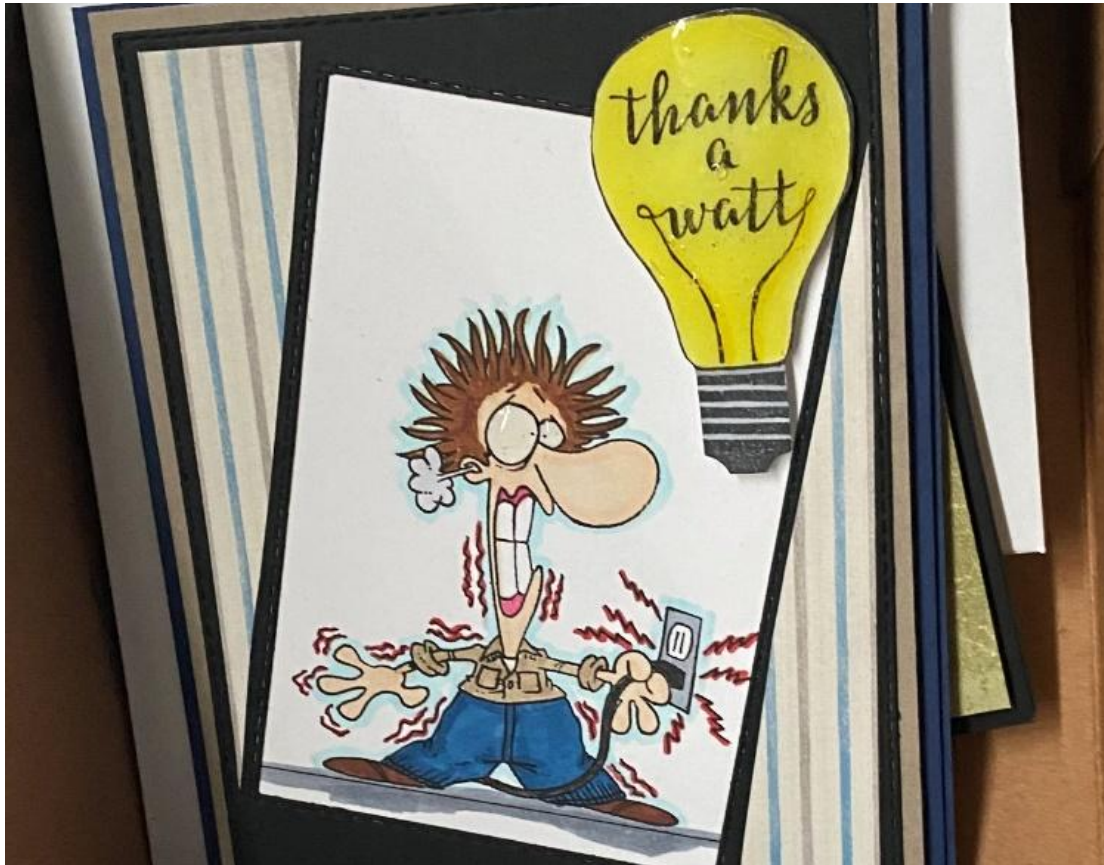
	Average Usage (kWh / month)	Average Cost (\$/ month)	Average Rate (\$/kWh)	Cost SUM (\$)	Usage SUM (kWh)
FY 21/22	1,231,906 kWh	\$83,853	\$0.14	\$2,012,468	14,782,875 kWh
FY 22/23	1,207,220 kWh	\$128,143	\$0.21	\$3,075,424	14,486,644 kWh
FY 23/24	1,116,629 kWh	\$129,890	\$0.23	\$3,117,371	13,399,546 kWh
FY 24/25 **	1,365,917 kWh	\$347,142	\$0.25	\$4,165,700	16,391,005 kWh

Year	Total kWh (Chillers + Heat Pumps)	Total Gas Therms	kWh Cost @ \$0.27	Therm Cost @ \$1.11	Annual CUP Cost
2020	2,060,032	208,693	\$ 556,209	\$ 231,650	\$ 787,858
2021	2,237,098	169,369	\$ 604,016	\$ 188,000	\$ 792,016
2022	2,849,753	178,851	\$ 769,433	\$ 198,524	\$ 967,958
2023	1,979,124	212,813	\$ 534,364	\$ 236,223	\$ 770,586
2024	2,008,706	116,022	\$ 542,351	\$ 128,784	\$ 671,135
2025	2,608,103	6,584	\$ 704,188	\$ 7,308	\$ 711,496

Take Aways

- Design to the 90% & to the 10% differently
- Don't waste energy in places that have no people
- Use all the free resources around you
- Be **Bold** and make yourself memorable
- Just because it's always been done that way doesn't mean it's always been done correctly

If Better is Possible, Good is not Enough!



**If Better is Possible,
Good is not Enough**

We're just getting started

Q&A/Discussion

CSUDH



Closing Remarks - USGBC California



Meeting Survey





SoCalREN Q2 2026 Regional Workforce Alliance Meeting

Thank You!

