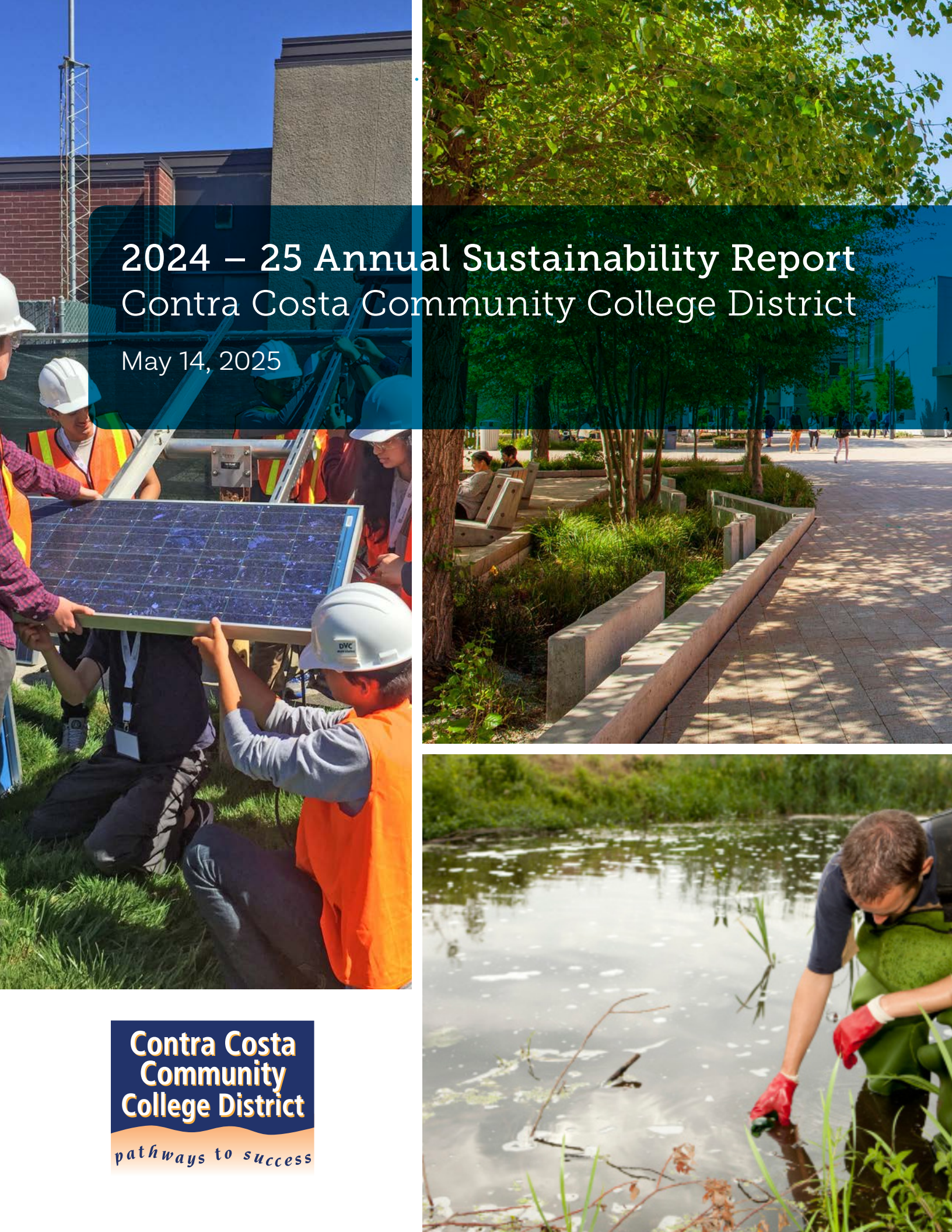




2024 – 25 Annual Sustainability Report Contra Costa Community College District

May 14, 2025

**Contra Costa
Community
College District**

pathways to success

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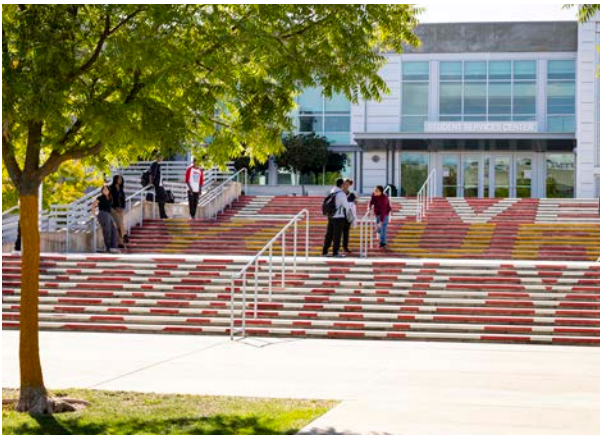
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Executive Summary

The climate crisis and increased equity gaps have multiple major and contributing common factors. In response to many environmental and equity issues, on November 9, 2022, the Contra Costa Community College District (4CD) Governing Board adopted a Board Resolution in support of Sustainability and Climate Action. This Resolution adopted nine Districtwide sustainability goals, which support the 2019 California Community Colleges Board of Governors (BOG) Climate Change and Sustainability Policy and the 2021 BOG Climate Action and Sustainability Framework. The 2021 Framework refined the 2019 Policy and extended the end target year by five years, to 2035. This framework aligns with current state policies and includes comprehensive goals for establishing benchmarks and meeting targets for reductions in greenhouse gas (GHG) emissions, energy efficiency, water usage reduction, waste, transportation, food systems, and sustainable purchasing. The 2021 Framework goals were updated and adopted by the BOG in January of 2025 to be in alignment with additional State policies and mandates.

The focus of the 2025 4CD Annual Sustainability Report is on progress toward the nine sustainability goals. It includes a description of each goal, steps taken in support of each of the goals, and the development of baselines and targets to articulate annual measurable progress. This report is also forward-looking, as we continue to engage in this vision and determine the resources required in support of the 4CD sustainability goals at each of the campuses. In addition, highlighted throughout the report are ways the Facilities Plans (FP) at each campus are being implemented by using maintenance funds for electrifying end-of-life systems, upgrading controls to allow systems to be optimized to save energy and provide comfort and changing out lighting systems to LED systems. Future funding will be necessary to fully realize the efficiency and cost savings of the FPs and accomplish our nine sustainability goals. Additionally, we studied procuring cleaner, green electricity to reduce and stabilize our utility budgets through a Request for Proposal (RFP) process for electricity services and through updated solar photovoltaics (PV) analysis at each site. Woven into the report is the collective commitment to promoting and implementing opportunities for student learning and engagement in sustainability, including collaboration with the Associated Students sustainability champions.

Finally, this report also highlights various activities, projects, initiatives, and progress by campus Sustainability Committees as a way of promoting an increased awareness about the way we can collectively foster the best possible built environment for our students and continue to provide an enriched and student-focused experience.



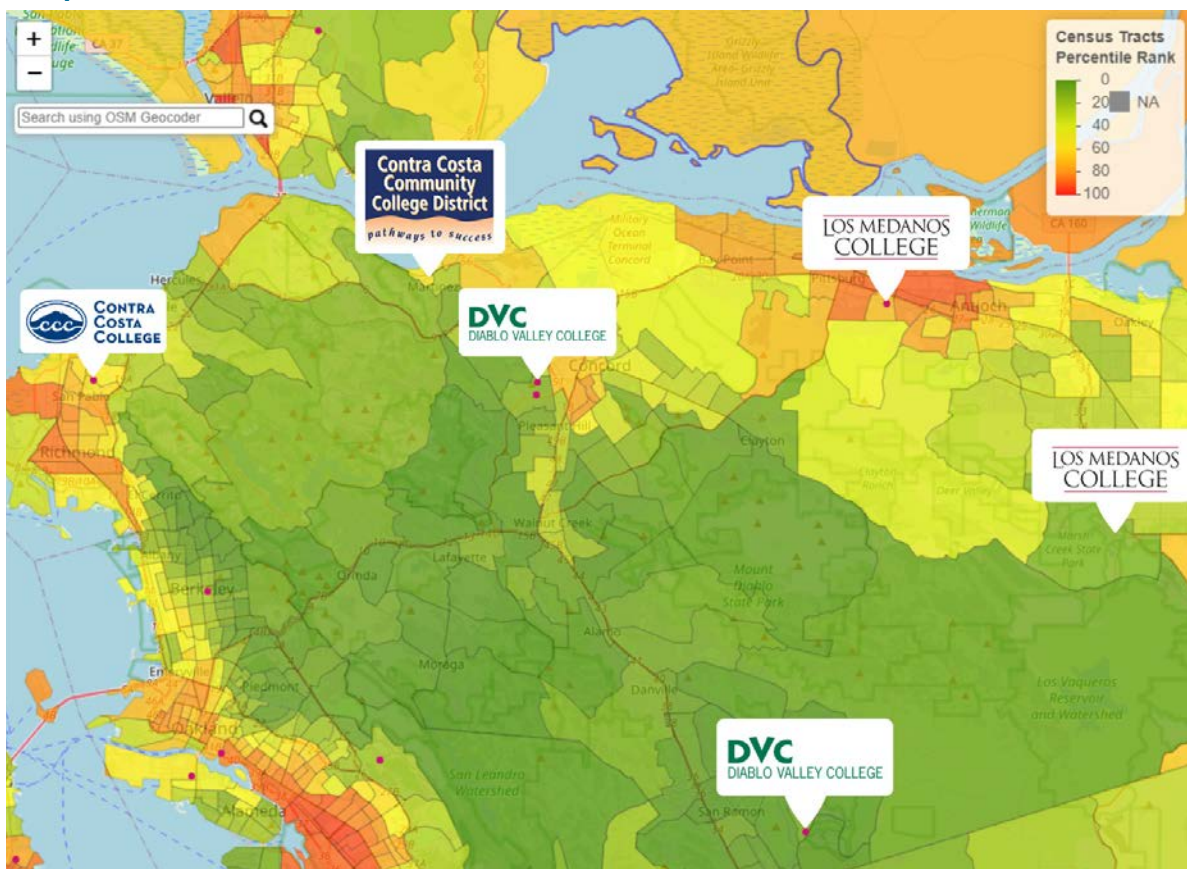
Environmental Justice

California has been rapidly developing long-range energy and sustainability goals, mandates, and plans. This work highlights actions necessary to mitigate a wide range of environmental risks, including wildfires, coastal erosion from rising sea levels, disruption of water supply, health threats from air pollution, and soil and water contamination. These issues contribute to significant existing environmental and health equity gaps, with determinantal economic consequences. The interconnected nature of the climate crisis, and socioeconomic and health inequities stem from various factors. These include, but are not limited to, energy procurement and usage, materials sourcing, waste generation and disposal, water usage, transportation, and food systems. Our decisions on how we treat these factors and processes profoundly impact environmental justice, health, and social equity outcomes for all.

Research shows that environmental hazards, such as soil contamination and air pollution, disproportionately impact historically disadvantaged communities, often situated near polluting facilities. While these environmental hazards impact people, animals, and our ecosystems, it is important to note they disproportionately impact young people and future generations and disproportionately affect communities of color and low-income individuals, thus exacerbating existing inequities and limiting opportunities. Addressing and closing these equity gaps require ongoing dialogue, strategy, and action.

While national commitments to environmental justice are currently shifting, sustaining this prioritization of environmental justice requires continued state and local support. The map below shows 4CD locations most vulnerable to climate change, including power grid outages, and socioeconomic and health disparities. Warmer colors indicate higher risks, while cooler colors denote lower risks. Achieving the nine 2035 sustainability goals align our operational practices with the 4CD Strategic Plan, yielding long-term cost savings while providing surrounding communities with cleaner air, water, soil and more equitable spaces to work and learn.

Map of 4CD locations most vulnerable to climate change, power grid outages, and socioeconomic and health disparities



Source: [PSE Healthy Energy Mapping Tool](#)

Timeline of Sustainability at 4CD

Sustainability efforts at 4CD have been shaped over the years through numerous state and local level policies, as well as collective leadership from the District Office and the Colleges, including faculty, staff and students past and present. Below is a brief history of select Districtwide sustainability milestones:

2008

The first Districtwide **energy efficiency projects** completed included Districtwide solar PV installations, lighting retrofits, mechanical equipment and controls upgrades.

2010

4CD Governing Board approves [Board Policy \(BP\) 6004: Environmental Stewardship and Sustainability](#), supporting resources and environmental conservation at 4CD.

2013

Proposition 39 funding: 4CD receives \$4.5 million in State funding, allowing for implementation of several key Districtwide energy efficiency projects, including Light-emitting Diode (LED) lighting, mechanical and some building controls upgrades completed in 2019.

2019

California Community College Chancellor's Office BOG adopts the **Climate Change and Sustainability Policy**. This sets sustainability goals for 2030 and places intermediate targets for 2025. This decision also requests community college districts (CCDs) to adopt their own local climate change and sustainability resolutions.

4CD Governing Board approves the [4CD Strategic Plan 2020 – 2025](#). This plan outlines five District Strategic Goals. Strategic Direction #2 and #5 provide the framework for the Districtwide sustainability efforts.

2020

86 Level 2 Electric Vehicle (EV) charging stations are installed Districtwide, providing access to EV charging to faculty, staff, students, and community members.

2021

California Community College Chancellor's Office BOG adopts the **Climate Action and Sustainability Framework**, which refines the 2019 BOG policy to reach further and extends the end target year by five years, to 2035. The framework also asks CCDs to establish benchmarks and track progress toward these goals.

2022

4CD Governing Board adopts **Board Resolution 20B, In Support of Sustainability and Climate Action**, adopting nine Districtwide sustainability goals and aligning 4CD with California Community College Chancellor's Office BOG 2019 and 2021 Climate Action and Sustainability Framework goals. It sets near-term goals in 2025, 2030, and 2035.

2023

The first **sustainability internships** are created in the Facilities Planning Department, in collaboration with the colleges. Funding from PG&E supported the **Campus Energy and Sustainability** intern and **Building Decarbonization** intern, both located at Diablo Valley College (DVC). Funding from the **Learning Aligned Employment Program** (LAEP) supported the creation of **Zero Waste Analysis** internships at all three colleges.

2025

California Community College Chancellor's Office BOG refines the [climate action and sustainability goals](#) to further align with state mandates, policies and State Chancellor's Office [Vision 2030](#).

4CD Districtwide Sustainability Goals



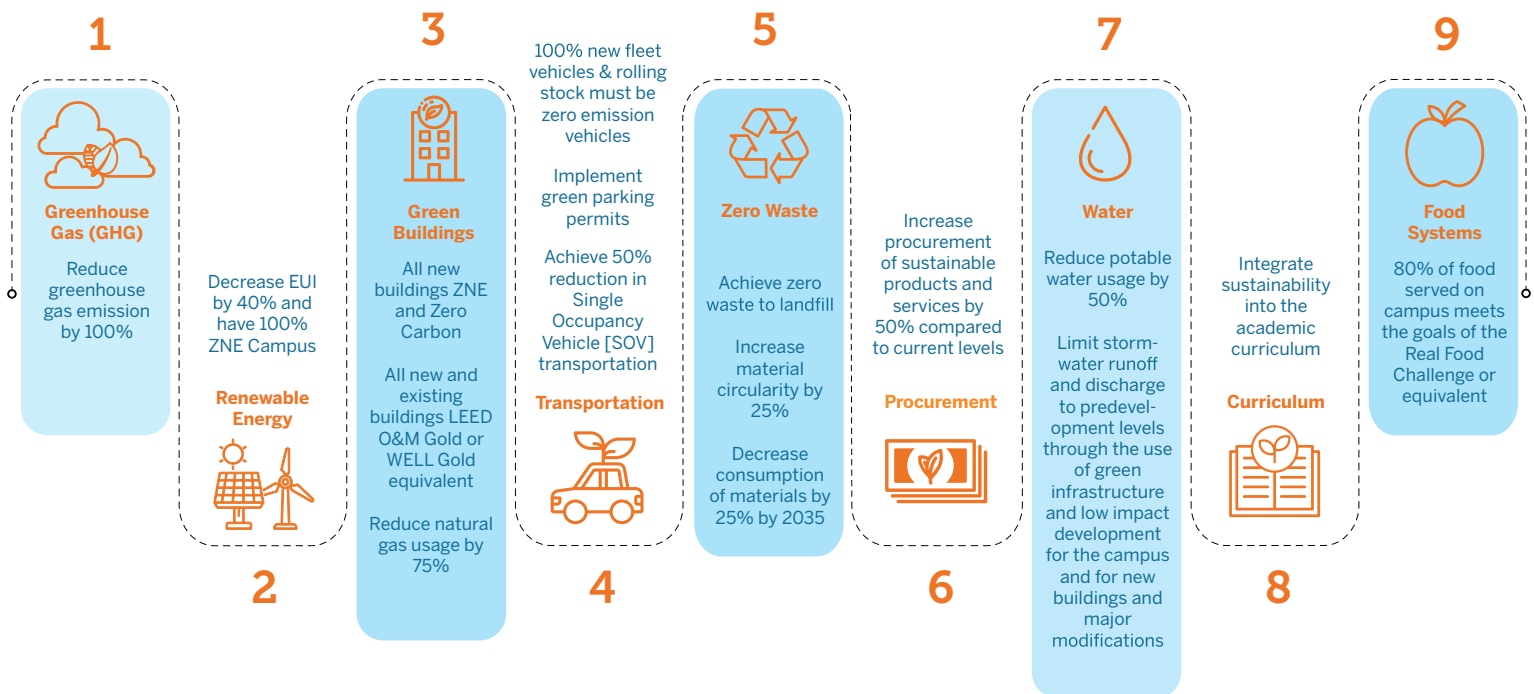
4CD Districtwide Sustainability Goals

The California Community College Chancellor's Office BOG adopted the Climate Change and Sustainability Policy in 2019, followed by the nine Climate Action and Sustainability Framework goals in 2021, including: GHG Emissions, Green Buildings, Energy, Water, Waste, Purchasing and Procurement, Transportation, and Food Systems.

The Climate Action and Sustainability Framework asks California's community colleges to establish benchmarks for each of the nine goals as a starting point. It also asks that progress be tracked toward the goals for 2025, 2030, and ultimately 2035.

In 2022, the 4CD Governing Board established the 2035 climate change and sustainability goals by passing a Governing Board Resolution in support of Sustainability and Climate Action. This action allowed 4CD to align with the California Community College Chancellor's Office BOG 2019 and 2021 policy and goals. This year, the Chancellor's Office BOG refined their Climate Action and Sustainability Goals to prioritize measurable progress across the critical areas identified in the 2021 Framework and to closely align with the Vision 2030 Strategic Plan. The 4CD sustainability team continued to focus on engagement activities to educate and share these goals with campus sustainability committees and sustainability champions from each college's respective associated student organizations. The sustainability committees and sustainability champions continued to collectively move forward the crucial dialogue and action toward these goals, focusing on Goals 4-5 and 8-9, outlining their own annual goals and events in support of those goals. We began implementing these measures in the new FP work last year, focusing on electrification, energy reduction, and water reduction, while updating controls and mechanical equipment, to support Goals 1-3 and 6-7, the District-led with campus input goals. The college sustainability committees and associated student sustainability champions will continue to make strides in engaging faculty, staff and students in change management; namely, shifting behaviors to conserve energy and resources through annual goals and events.

2035 Districtwide Sustainability Goals



Based on BOG 2021 Climate Action and Sustainability Framework
 Goals 1-3, 6-7: District-led with campus input
 Goals 4-5, 8-9: Campus-focused

Goal 1

Greenhouse Gas (GHG) Emissions



Policy Goals –

District-led with campus input

2025:

Establish baseline by creating an inventory of GHG emissions. Create a Climate Action Plan.

2030:

Reduce GHG emissions by 75% below 2013 baseline.

2035:

Reduce GHG emissions by 100% below 2013 baseline.

Progress Toward Goals

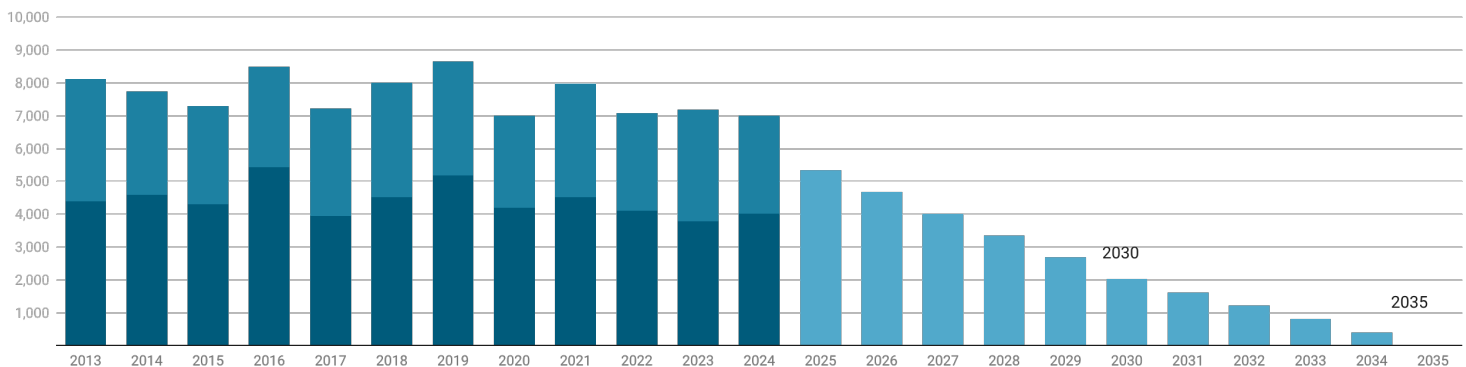
4CD's first and overarching sustainability goal is reducing its total GHG emissions, which directly contribute to climate change. To achieve progress against this goal, 4CD is implementing several decarbonization strategies, including purchasing greener electricity, adding more solar PV to campuses, electrifying fleet vehicles, increasing campus energy efficiency, and electrifying older, end-of-life, natural gas-fired equipment. Last year, many of these strategies were reviewed, studied, and incorporated into the FPs at each campus to help determine specific approaches and funding strategies for equipment and infrastructure upgrades.

There are various energy-efficiency measures, alone or combined, that effectively reduce energy usage and associated emissions from generating electricity. Measures such as installing energy-efficient lighting and electrifying gas-fired equipment and heating systems not only support 4CD in its goal to decrease its GHG emissions but also provide for operational cost savings through higher efficiency technologies. Electrifying fleet vehicles reduces transportation-related emissions, while providing fuel and maintenance-related cost savings in the long term. Finally, transitioning to renewable energy sources by adding more solar PV at the campuses and by buying cleaner renewable electricity, presents the greatest opportunity to drive down 4CD's GHG while stabilizing our electricity costs. The chart below is based on actual emissions from 4CD's purchased electricity and gas. It shows the largest emissions are from purchased electricity, with the next largest emissions coming from natural gas usage. The positive impact of current campus solar PV is also seen in the avoided emissions in the chart. In 2023 we see a drop in the GHG emissions from our purchased electricity and a slight rise in our natural gas GHG emissions, attributed to a slight rise in gas usage.

4CD Greenhouse Gas Emissions Compared to Goal

(metric tons CO2e)

Climate Goal Purchased Electricity Natural Gas

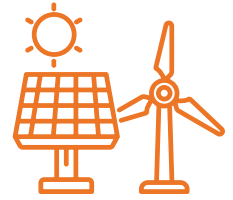


Campus fleet not yet incorporated into chart. 2024 Fleet vehicles contribute 155 metric tons to our GHG emissions. 2024 GHG Emissions from Purchased Electricity are estimated based on 2023 Power Content Labels, as 2024 data is not yet published.

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Goal 2

Renewable Energy



Policy Goals –

District-led with campus input

2025:

Establish a campus-level baseline energy use intensity (EUI) score. Conduct effective useful life (EUL) analysis of all gas appliances and systems. Plan for electrification of systems with EUL's of less than 10 years.

2030:

Decrease campus EUIs by 25% from 2013 baseline. Produce or procure 75% of 4CD's electrical consumption through renewable energy.

2035:

Decrease EUI by 40% from 2013 baseline. Achieve zero net energy (ZNE) at all campuses.

Progress Toward Goals

Goal 2 is increasing renewable energy across 4CD while reducing overall energy usage. It focuses on decreasing the EUIs, and moving toward ZNE campuses, where energy consumed matches the amount of renewable energy generated. Progress toward this goal supports Goals 1 and 3. While there are solar PV panels at the three colleges, they offset a small portion of electricity usage. Renewable energy generators on California's electricity grid continue to increase, shifting 4CD closer to achieving Goal 2 by increasing the amount of purchased renewable energy. Choosing cleaner, greener electricity providers supports this goal.

A new solar and battery storage project pictured below, is nearly complete for the new Brentwood Center as a strategy to help offset the Brentwood Center's electricity usage and to provide resiliency. The new Engineering Technology (ET) building's design at DVC also includes new rooftop solar and battery storage. Adding more onsite solar and battery storage also reduces our annual utility costs, helping to stabilize our budgets.

Long-range planning that intentionally supports our Districtwide nine sustainability goals is essential. To that end, our college FPs include an electrification study that accomplishes the 2025 baseline portion of this goal, by looking at EUIs, EULs and the electrification of 4CD buildings. This study also considers future solar PV capacity to shift 4CD toward more renewable energy at the campuses and reduce its annual utility expenses. This year a more detailed solar PV and battery storage analysis was completed to allow us to plan for the most optimal timing of the future solar PV installations. The FPs also include Districtwide energy conservation measures, such as lighting retrofits and controls retrofits, which will reduce our building EUIs and also establish project scopes as funding becomes available. Maintenance projects are underway at each campus, changing lights, electrifying end-of-life HVAC systems and updating our building automation systems, reducing our electricity and gas usage, and contributing to Goals 1, 2 and 3.

Our colleges continue to participate in the Higher Education Efficiency Performance (HEEP) Program, funded through utility incentives. HEEP combines traditional energy efficiency programs with a holistic, whole-facility approach, dispensing energy efficiency services, technical assistance, and incentives to support our energy goals. This effort led our sustainability team to recommend

custom building HVAC operating schedules for each campus to reduce energy usage and costs when classes and buildings were not in use. This analysis also helped our college leadership teams begin to consider scheduling alternatives when possible, such as combining classes into centralized buildings to be able to shut off buildings during summer periods and thereby save considerable utility costs. Consideration must be given to funding opportunities like energy efficiency programs, state scheduled maintenance funding, project grants, including the Inflation Reduction Act (IRA). These programs provide tax credits for public agencies up to 40% of the cost to install PVs and are some examples of the ways 4CD is exploring how to leverage available grants and funding opportunities to make the capital investments more palatable.



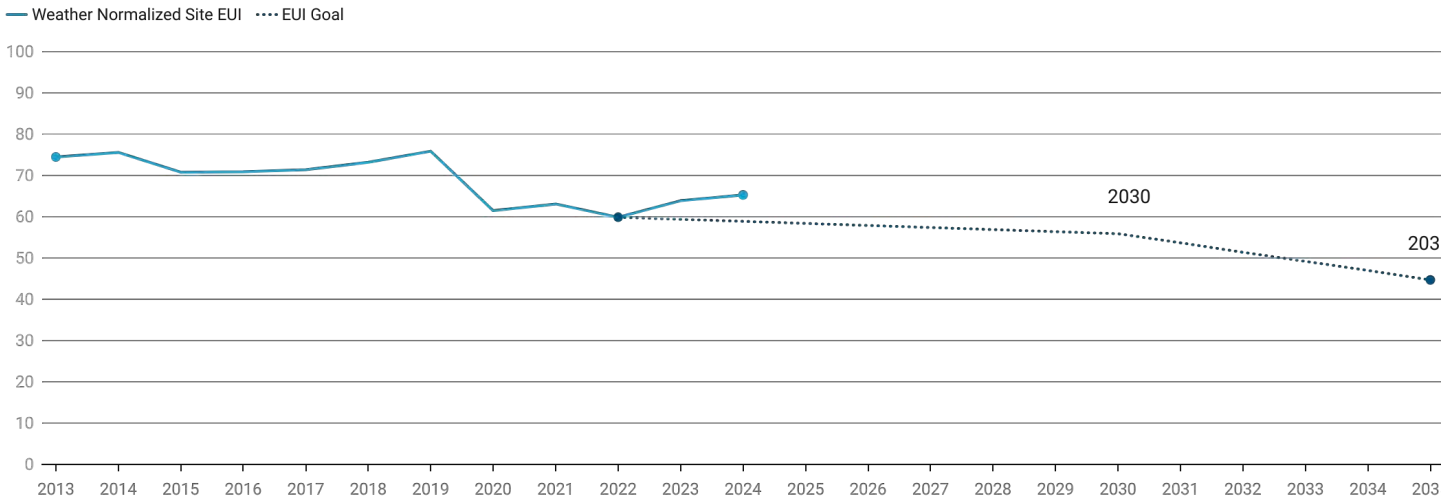


We are in the process of evaluating and submitting for IRA funds for the Brentwood Center solar PV project.

The graphs below show that 4CD's EUI has been steadily dropping over time, with the most notable drop during the pandemic, when we were able to shut many of our building energy-using systems down. We can see a slight rise in EUI post pandemic, when in-person learning resumed and required more

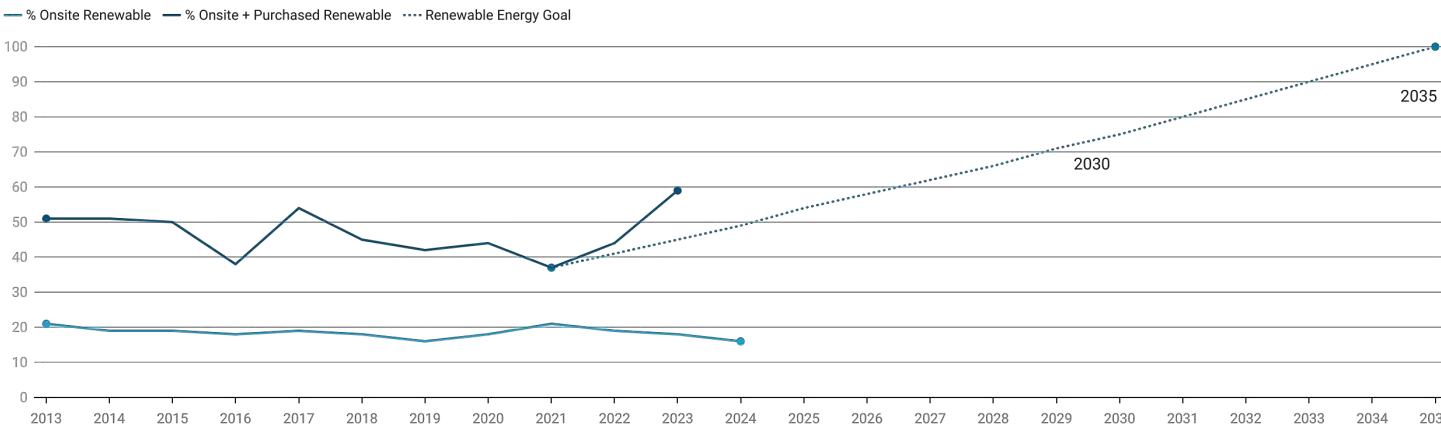
energy from more building systems operating. The second graph shows how much electricity is provided by the existing on-campus solar PV and by renewable sources in purchased electricity. Like GHG emissions, purchasing electricity from cleaner, greener providers and adding additional on-site PV can increase overall renewable energy usage. Our onsite PV provides for 20% of overall electricity usage, and provides free electricity, thus reducing annual expenses. The percentage of renewable energy we are using varies over the years because the renewable energy on our state electricity grid also varies. This variation is due to the type of power plants or renewable energy devices generating electricity on the grid and the makeup of power from our electricity service provider. As an example, in drought years, there is less electricity generated from hydroelectric facilities, because there is less water to generate that electricity.

4CD Energy Usage Index (EUI) Compared to Goal



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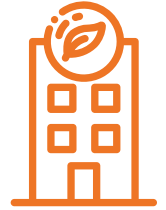
4CD Onsite and Purchased Renewable Energy



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Goal 3

Green Buildings



Policy Goals –

District-led with campus input

2025:

Establish an EUI score for all campus buildings. Develop a ZNE and campus electrification strategy. As appropriate, conduct Leadership in Energy and Environmental Design (LEED) or WELL assessments of existing 4CD buildings.

2030:

All new buildings are LEED or WELL Gold certified. Reduce natural gas usage by 30%.

2035:

All new buildings are ZNE and Zero Carbon rated. All existing buildings are certified LEED O&M Gold or WELL Gold equivalent. Reduce natural gas usage by 75%.

Progress Toward Goals

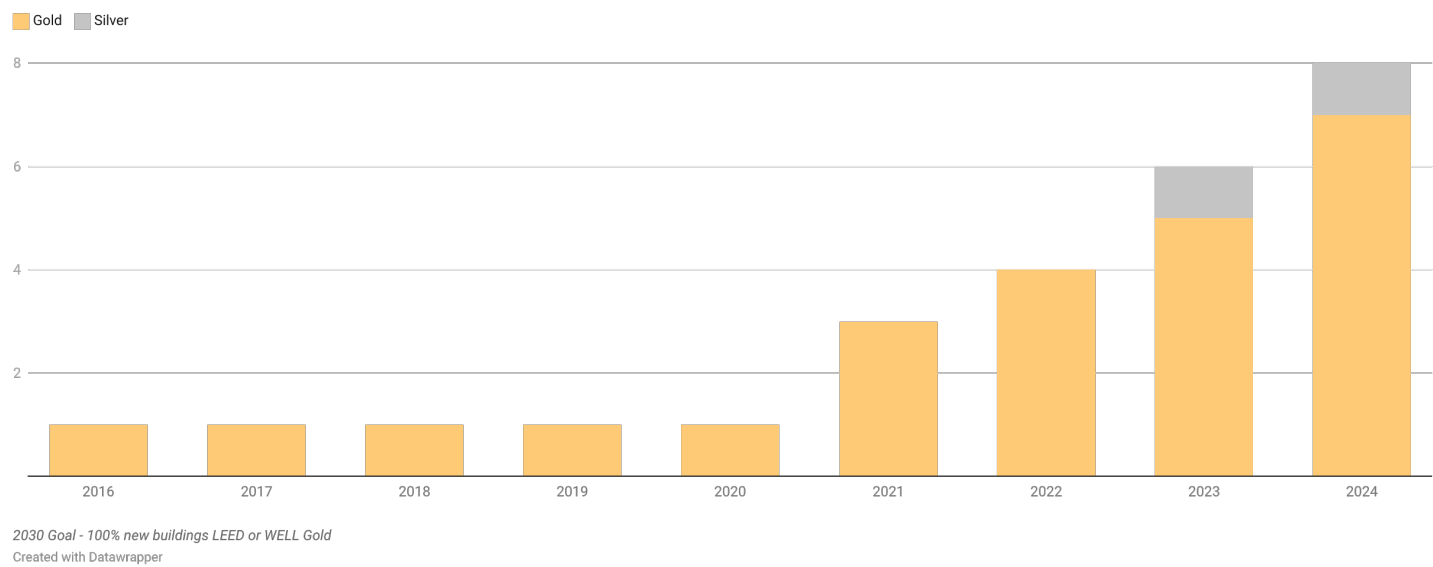
This goal requires 4CD's new and existing campus buildings to become LEED or WELL Gold certified. This goal also requires reducing our Districtwide natural gas usage to decrease onsite campus emissions. The LEED certification process evaluates a building's performance in sustainable site development, water and energy efficiency, materials selection, indoor environmental quality, and innovation in design, creating healthy spaces for students and staff. 4CD has several buildings that have achieved or are on the path for LEED Gold certification, including several major capital projects under the Measure E bond program. These projects are the Art and PE/K Complex at DVC, the new Science Building at Contra Costa College (CCC), the Student Union and Kinesiology Athletics Center at Los Medanos College (LMC), and the new Brentwood Center, all surpassing former LEED Silver targets. The DVC Art and PE/Kinesiology Complex each received their LEED Gold certification in 2024. The newest buildings at CCC and DVC have an all-electric design, which eliminates emissions from fossil fuels and puts them on target to achieve LEED ZNE certification. DVC's Engineering Technology building will also be all electric. Students, faculty, staff, and campus visitors can learn about the sustainable features of these newer LEED certified buildings by reading the LEED educational signage boards installed within each building.

The electrification study that is part of the FPs outlines a Districtwide ZNE and campus electrification strategy. This is accomplished by establishing a baseline EUI score for each campus building as well as developing EUI targets required to meet the goals. State scheduled maintenance funds are also lowering building EUIs by upgrading the lighting systems, HVAC systems and controls. This long-term planning and baseline and target establishing puts 4CD on track to help meet the established 2025 and 2030 intermediate targets for this goal.

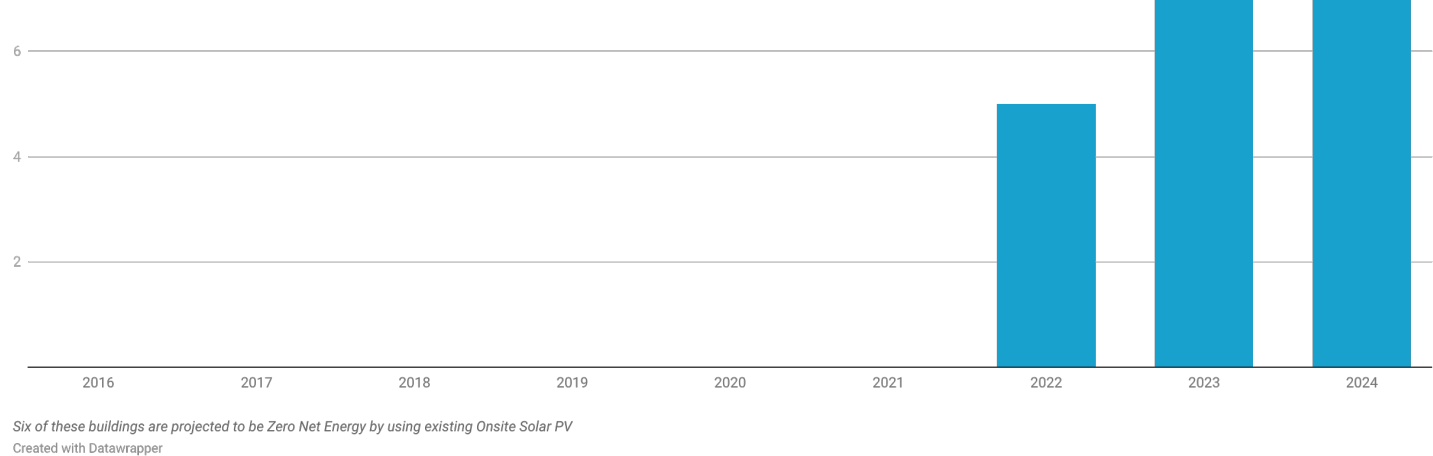
The natural gas usage graph below shows 4CD's gas usage has been steadily dropping over time, with some fluctuation over the last few years. In 2024, our usage dropped considerably, nearly to our target values for the year, compared to 2023. This results in reduced costs and reduced GHG emissions for 2024.



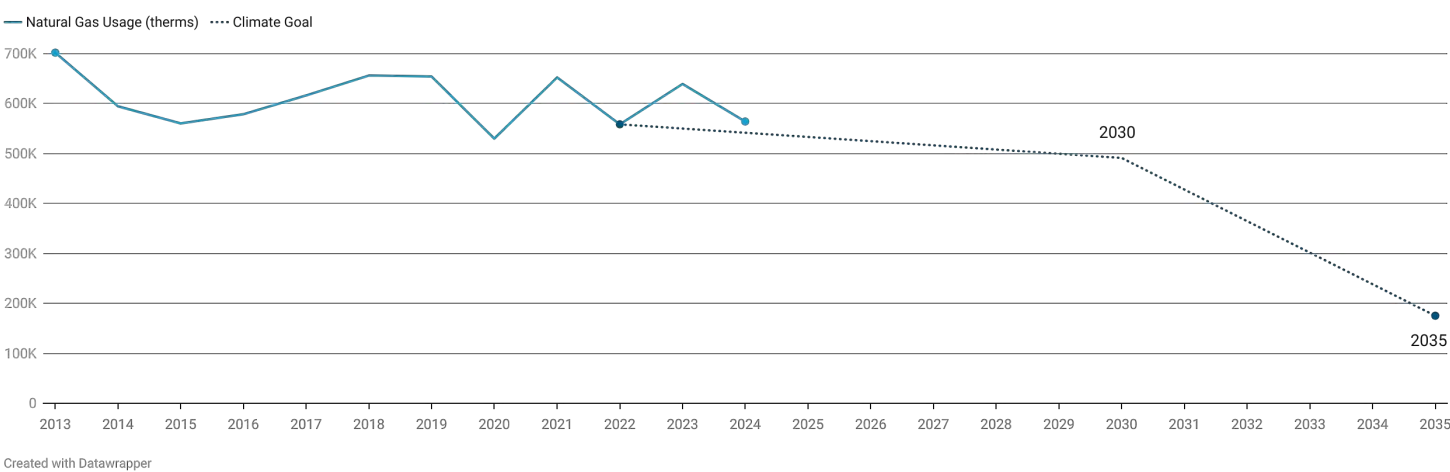
Cumulative Number of 4CD LEED Certifications by Year



Cumulative Number of 4CD All Electric New Buildings



4CD Natural Gas Usage Compared to Goal



Goal 4 Transportation



Policy Goals – Campus-focused

2025:

Conduct accounting and conditions assessment of fleet vehicles; assess remainder of rolling stock for electrification. Develop EV charging infrastructure to encourage EV use among 4CD community. Promote accessible shared transportation methods. Make pedestrian and bicycle assessment improvements by 2025.

2030:

Achieve 50% electrified rolling stock, and 50% of new fleet vehicles as electric. Implement green parking permits districtwide.

2035:

Achieve 100% electric new fleet vehicles, 100% electric rolling stock, and 50% reduction in single occupancy vehicle (SOV) transportation.

Progress Toward Goals

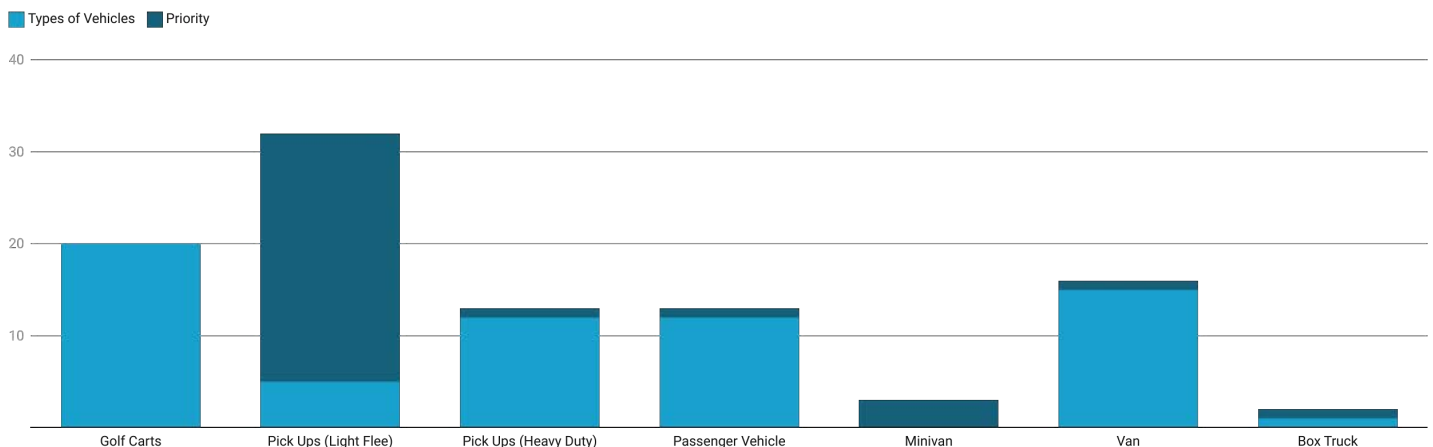
This goal focuses on several initiatives, including electrifying 4CD's fleet vehicles, expanding EV charging stations, improving pedestrian and bicycle access to campuses, and expanding access to shared transportation options. To date, 4CD has completed the installation of 86 EV chargers Districtwide ahead of its 2025 goal, by planning early and leveraging available programs and grants.

4CD collaborated with Prospect Silicon Valley (PSV) on a fleet electrification assessment to develop a strategy for electrifying 4CD's fleet vehicles. PSV assessed the existing vehicle fleet across 4CD and recommended the best models and funding strategies to move toward fleet electrification. This assessment, along with a total cost of ownership perspective, will guide 4CD's next steps in collaborating with the colleges' Maintenance and Operations (M&O) teams and other departments to support step-by-step vehicle replacements with electric equivalents. EV replacements are expected to occur as older vehicles are replaced or retired from campus fleets.

College sustainability committees continue to promote sustainable transportation practices, like carpooling, cycling, or using public transportation to reduce emissions and reliance on fossil fuels among faculty, staff, students, and community members. Some campuses and the District Office also host "Bike to Wherever" day stations, providing snacks, drinks, maps, bike lights, and other goodies, sponsored by 511 ContraCosta to the bike riders during their commutes. This work also supports 4CD's Goal 1 by reducing GHG emissions from campus commuting. DVC added new Bikelink lockers funded by 511 Contra Costa, to protect staff and student bikes and scooters that support zero-emission commuting.

The graph below shows the results of the 98-vehicle fleet inventory across 4CD. Vehicles categorized as a priority represent the oldest and most traveled of the fleet, making them the best choice to electrify upon their replacement. On average, most active fleet vehicles travel 4,704 miles annually. This ranges from 615 miles to 24,385 miles a year, with a median of 3,664 miles among all active fleet vehicles. In addition to the fleet vehicles, 4CD has 67 landscaping devices, ranging from lawnmowers to blowers and trimmers. As these gasoline and diesel-powered landscaping devices age, they will be replaced with electric-powered devices.

4CD Fleet Vehicle Inventory 2022



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Goal 5

Zero Waste



Policy Goals – Campus-focused

2025:

Conduct a waste categorization assessment. Develop total material consumption benchmark. Benchmark and comply with T14 Division 2 Chapter 5 requirements, and T14 CCR Division 7 requirements. Conduct AB341 compliance assessment. Centralize reporting for waste and resource recovery.

2030:

Achieve zero waste to landfill. Conduct circularity analysis. Reduce material consumption by 10%.

2035:

Maintain zero waste to landfill. Increase material circularity by 25% and decrease consumption of materials by 25%.

Progress Toward Goals

The colleges continued to make strides toward zero waste this year, including expansion of the waste signage and three-stream bin setups on all campuses. At the District level, benchmarking efforts resulted in the collection of historical waste data for each site across 4CD. This allows us to track overall waste generation and diversion rates moving forward. Central to this effort are the dedicated contributions by campus M&O teams, as well as students, faculty, and staff members supporting one another in this culture shift of practicing recycling and composting as much as possible. These efforts will continue in the coming year, with a focus on expanding waste sorting training and continued expansion of three-stream waste systems and signage.

4CD's Zero Waste Analysis Interns officially wrapped up their waste bin inventory work across the district in 2024. Hired through the colleges' LAEP, the interns helped record the locations of indoor and outdoor waste bins at their campuses, conduct waste audits, and provide tailored recommendations for more accessible and streamlined recycling and compost bins across campus. The waste audits they conducted helped to provide baseline data about sorting accuracy across different buildings at their campus.

Furthermore, this year, the 4CD Sustainability Team began collaborating with the colleges on assessing dumpster types and capacity across their campuses, identifying opportunities to update waste hauling services to save on costs while ensuring sufficient capacity for landfill, recycling and composting generation on campus, in light of the recommended bin updates from the Zero Waste Analysis Interns.

Several of the campuses planned and hosted clothing swaps to promote circular economies on their campuses, which reduces clothing waste and helps people find free clothes. Food establishments like the cafeterias have also worked to expand their offerings of compostable takeout containers, further increasing diverting waste from landfill to compost streams.



Goal 6

Procurement



Policy Goals –

District-led with campus input

2025: Benchmark sustainability of existing products and services. Adopt a sustainable procurement policy and administrative procedure. Purchase environmentally preferable electronics products.

2030: Increase procurement of sustainable products and services by 25%.

2035: Increase procurement of sustainable products and services by 50%.

Progress Toward Goals

Sustainable procurement and purchasing policies prioritize the use of environmentally friendly and socially responsible products and services in procurement. 4CD is implementing several strategies to achieve this goal, including setting clear sustainability goals and criteria, monitoring progress, working with suppliers who meet sustainability criteria, promoting sustainable products and services, and engaging stakeholders to support sustainability initiatives and promote a culture of sustainability within 4CD.

During the past year, the District Purchasing department and 4CD sustainability team collaborated on sustainable procurement measures, including reviewing the Foundation's Sustainable Purchasing Policy to adopt or create a similar policy. We also were able to get sustainable policies written into RFPs for the food vendors that lease spaces at CCC and LMC, requiring them to provide compostable take away containers, as well as to use our three-stream waste systems. We added sustainable requirements into the vending machine RFP, requiring them to use recyclable or compostable materials for packaging, where possible. Collaboration work continues with the colleges to consider EVs for their new fleet purchases. We provide them with total cost of ownership calculators and maintenance savings, showing quick payback and lower annual costs. Additionally, 4CD's Purchasing department moved to a fully online system for our RFPs/RFQs and bidding, reducing paper use and earning an Achieving Campus Efficiency (ACE) award.



Goal 7
Water



Policy Goals –
District-led with campus input

2025: Develop local benchmarks for potable water usage and identify non-potable water resources. Create a landscape zoning map and irrigation metering strategy. Adopt CCC Model Stormwater Management Program practices.

2030: Reduce potable water usage by 25%. Install meters on all landscape irrigation systems of 2,500 square foot or more (unless using local or municipal reclaimed water). Achieve 90% of landscape plantings as geographically native species. Irrigated turf cannot exceed 50% of landscaped areas on campus. Follow Municipal Separate Storm Sewer Systems (MS4) requirements.

2035: Reduce potable water usage by 50%. Limit stormwater runoff and discharge to predevelopment levels for temperature, rate, volume, and duration of flow through use of green infrastructure and low impact development for the campus, and for new buildings and major modifications.

Progress Toward Goals

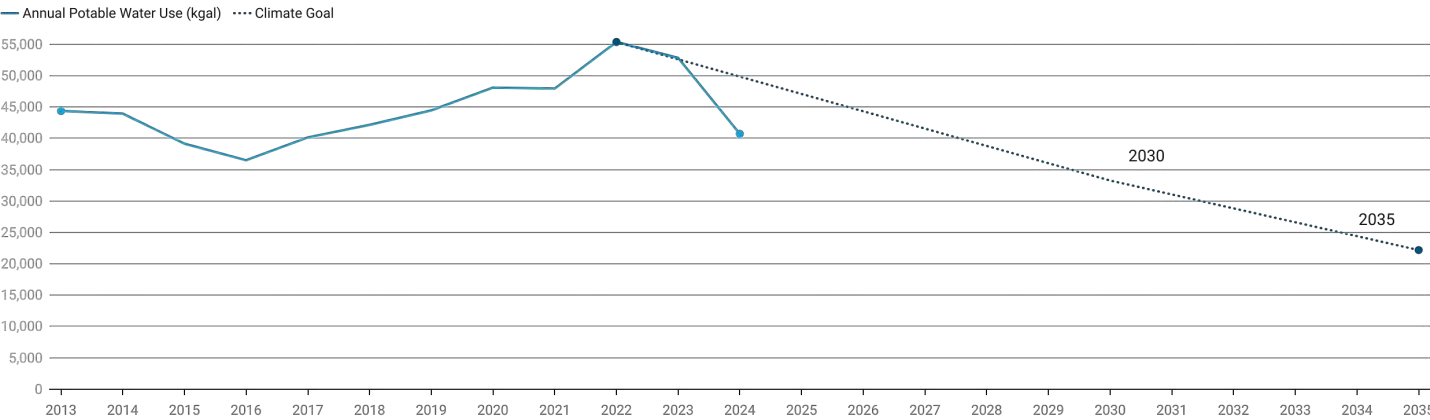
4CD’s water goal is focused on implementing, expanding, and maintaining water conservation measures at all campus locations. In a drought-prone state like California, water is a precious resource, and it is important to use water wisely, increase water use efficiency, recycle it where feasible, and protect water sources. Several strategies are being implemented to support progress in this goal. These strategies include implementing water conservation measures, such as low-flow fixtures; using native landscaping combined with landscaping suitable for reclaimed water; irrigating and flushing toilets with reclaimed water when available; installing water-efficient appliances; educating students and staff about water conservation; monitoring water usage and partnering with local water agencies for resources and expertise. These strategies are all relevant to help reduce water usage to ensure that 4CD achieves its sustainability water goals.

The graph below shows historical water usage for potable (drinking) water. While most of our colleges use reclaimed (recycled) water for irrigation, there are still some challenges in implementation. Unfortunately, LMC experienced challenges irrigating with reclaimed water a few years ago, and had to switch to irrigating with potable water, causing an increase in the potable water usage shown in the graph. This year, LMC expressed interest in shifting to more low-irrigation landscaping to help conserve water on campus. DVC was able to find and repair a very large leak in their potable water system. In 2024, CCC developed a large potable water leak that the team has been working to address.

At campuses where potable water is used for irrigation, it typically consumes 50% or more of our overall potable water usage, so shifting to landscaping that requires less water, can be a large savings in water usage and cost. District and college teams are working toward a solution for both situations, which will aid in reaching goals and reducing water utility costs. Even with an added leak, our usage still dropped in 2024, compared to 2023.



4CD Water Usage Compared to Goal



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Goal 8 Curriculum



Policy Goals – Campus-focused

Integrate Sustainability
into the Academic
Curriculum

Progress Toward Goals

This goal is focused on updating curriculum and expanding opportunities for all students to learn about sustainability concepts as it pertains to their studies and across all academic majors. Learning opportunities can also include campus events, speaker series, internships, volunteer opportunities, and similar learning opportunities outside of the classroom. To achieve its sustainability curriculum goal, 4CD's sustainability team will continue to collaborate with the colleges to promote experiential learning opportunities, engage with the community, enhance learning through technology, and encourage staff and faculty to participate in available professional development opportunities as well as provide resources that may assist with integrating sustainability into existing academic disciplines. Using the campuses as living laboratories for learning is one key strategy in this effort. "The Campus as a Living Lab" model provides students hands-on applied learning opportunities by solving real-world problems on campus and has been successfully utilized by other community colleges.

This year marked the conclusion of Zero Waste Analysis internships at all three colleges in partnership with their LAEP. These interns completed waste bin inventories and waste audits to understand what infrastructure and education-related improvements are needed on each campus to increase recycling and composting rates, and reduce the overall amount of waste generated at each campus. As the largest campus, DVC's bin inventories and waste audits were completed this year by Moises Rocha, who continued the work of DVC's Zero Waste Analysis Intern Abby Halverstadt. While these internships move us closer to the zero waste goal, they also provide valuable hands-on learning and work experiences for our students as they prepare for careers and projects on sustainability issues.

In a new collaboration this year, the 4CD Sustainability Team worked with Louie Gomez and Thine-Marie Van Blommestein, two video and digital media interns from DVC, who designed, shot, and developed an introductory video explaining the nine Districtwide sustainability goals. The image below is a preview from the video that is expected to be released in May 2025.

The 4CD Sustainability Team also continued to engage with sustainability representatives from each college this year. Student sustainability representatives are student sustainability champions and ambassadors on campuses, collaborating on the nine 4CD goals. Each representative attends Districtwide Sustainability Committee meetings and brings a unique student perspective to these initiatives. They also implement events at their respective campuses, from clothing swaps to clean-up events, to waste audits, and recruit their fellow classmates to assist them.



Goal 9

Food Systems



Policy Goals – Campus-focused

2025:

Campus food service organizations track their sustainable food purchases. Refer to Real Food Challenge guidelines – or equivalent – with consideration for campus-requested improvements.

2030:

Increase sustainable food purchases to 20% of total food budget.

2035:

Achieve 80% of food served on campus meets the goals of the Real Food Challenge or equivalent.

Progress Toward Goals

Food Systems is focused on where and how 4CD purchases food and food ingredients that are prepared and served on our campuses. Sustainable food procurement involves sourcing food distributed and produced responsibly with environmental, social, and economic factors considered. As 4CD strives toward sustainability, the focus also shifts toward reducing food waste and insecurity, by recovering edible food and providing it to under resourced individuals. California's SB 1383 law also supports sustainable food systems by requiring all of our campuses preparing and serving food to implement an edible food recovery and donation program, by contracting with at least one external food recovery organization which will donate and track that college's edible food recovery/donations.

4CD's colleges made notable advances toward this goal in the 2024-25 school year. To meet the SB 1383 edible food recovery and donation program requirements, both DVC campuses as well as LMC signed contracts with White Pony Express to begin food recovery programs on campus, with CCC in the process of doing the same. White Pony Express works to redistribute food, including prepared meals, within 24 hours of collection to local community partners. In signing these contracts, 4CD's campuses are preventing leftover food from going to waste, helping local community members who experience food insecurity, and reducing emissions created from throwing uneaten food into landfills.

By integrating these practices with ongoing efforts in local sourcing and educational programs, the aim is to foster a more sustainable food system. 4CD's work is based on collaboration across departments and with the student body, emphasizing the importance of monitoring and reporting on key sustainability metrics. Collectively, these efforts contribute to the goal of building a resilient food system that benefits the environment, supports public health, and promotes social justice.



Utility Costs



Districtwide Utility Costs Update

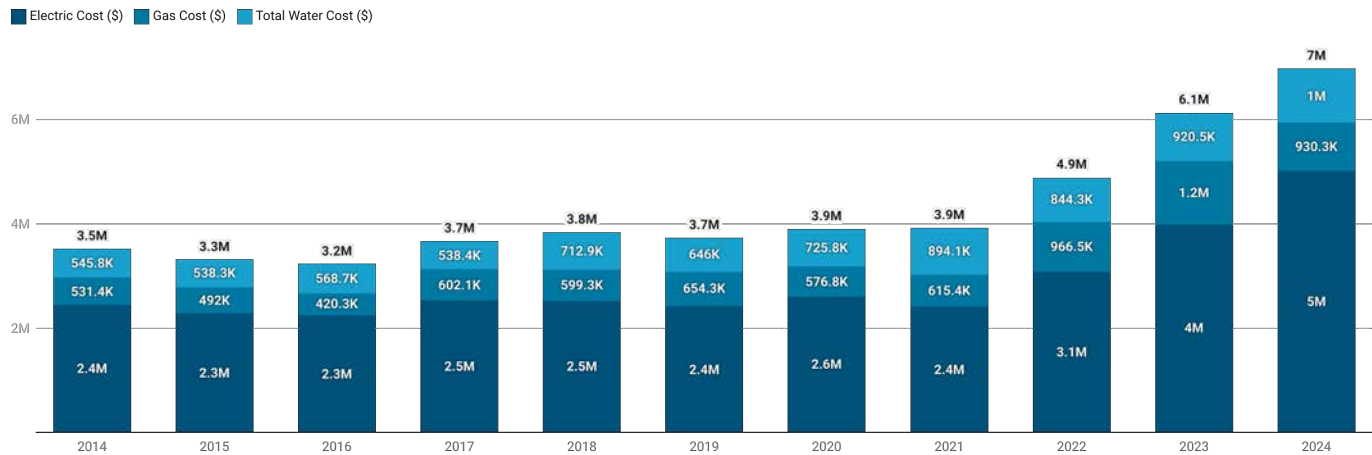
Districtwide utility costs are impacted by two primary factors: usage and unit cost. As usage increases, costs typically increase. As unit costs increase, overall costs may increase even when usage is on a decline.



4CD Utility Costs

The following graph shows the total utility cost increasing by 100% between 2014 and 2024. More specifically, electric costs increased by 66%, gas costs increased by 75% and water costs increased by 88%. Though the graph does not articulate the percentages for each cost, electricity represents 71% of 2024 costs, while gas and water come in at 13% and 16%, respectively.

4CD Utility Cost by Fiscal Year

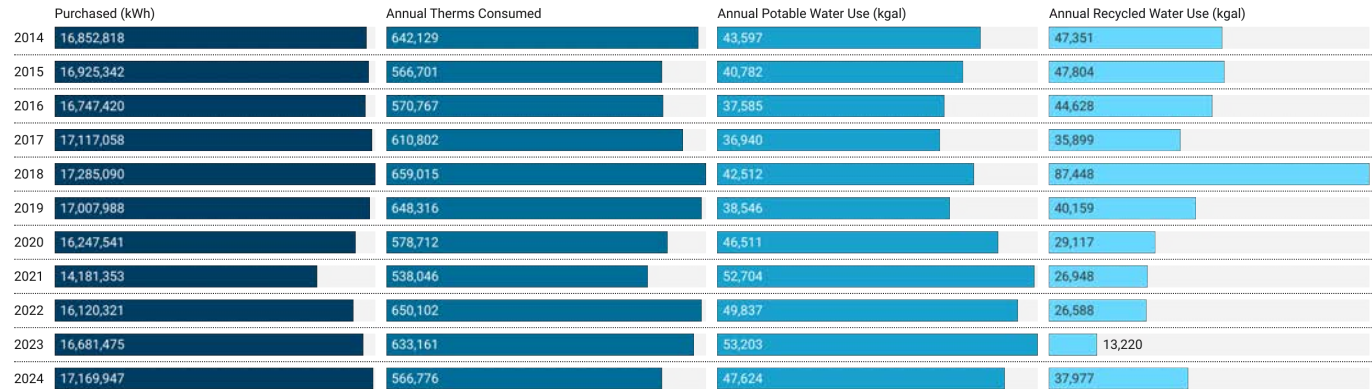


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4CD Utility Usage

4CD total usage is noted in the 4CD Utility Usage by Fiscal Year graph. What is not as easily captured in this graph is the impact of adding new buildings and more building areas. Between 2014 and 2024, 4CD grew by 206,940 square feet, representing an overall increase of 13%. The electric usage and gas usage in the graph below were nearly the same in 2014, compared to 2024, thereby noting the increase in cost shown in the graph above is due to the unit costs increasing. Without the reduced utility usage per square foot (through implementation of LEED buildings, electrification and overall energy and sustainability efforts), our annual utility costs would be approximately \$882,000 higher this year.

4CD Utility Usage by Fiscal Year



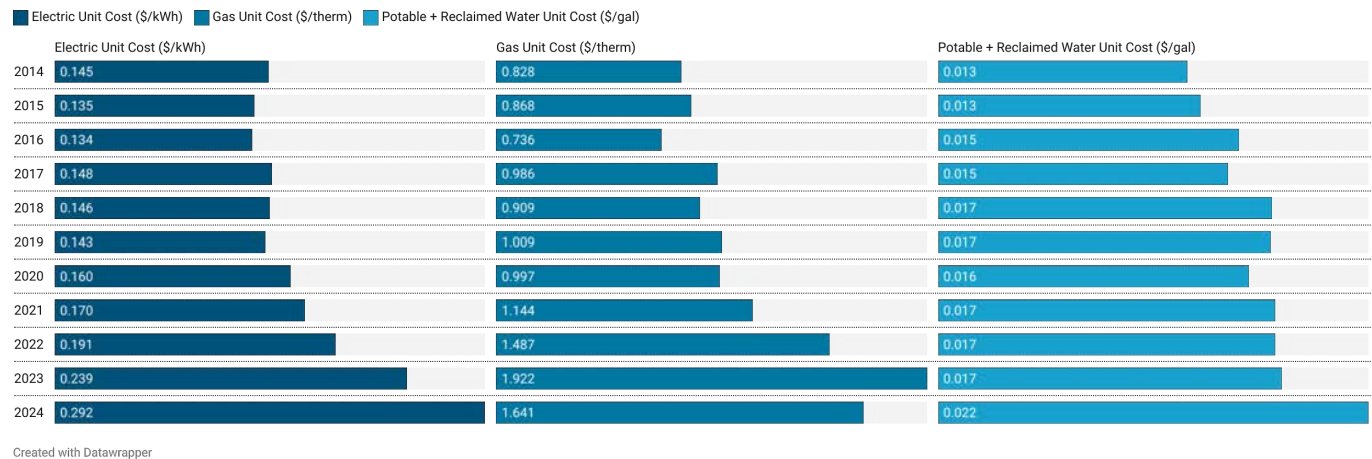
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4CD Utility Unit Costs

The utility unit costs chart shows how the unit costs for each utility have increased. Electricity has increased by 100% between 2014 and 2024, while gas and water have increased by 98% and 69%, respectively. This increase would imply that electric and gas unit costs are the most volatile, followed by water.

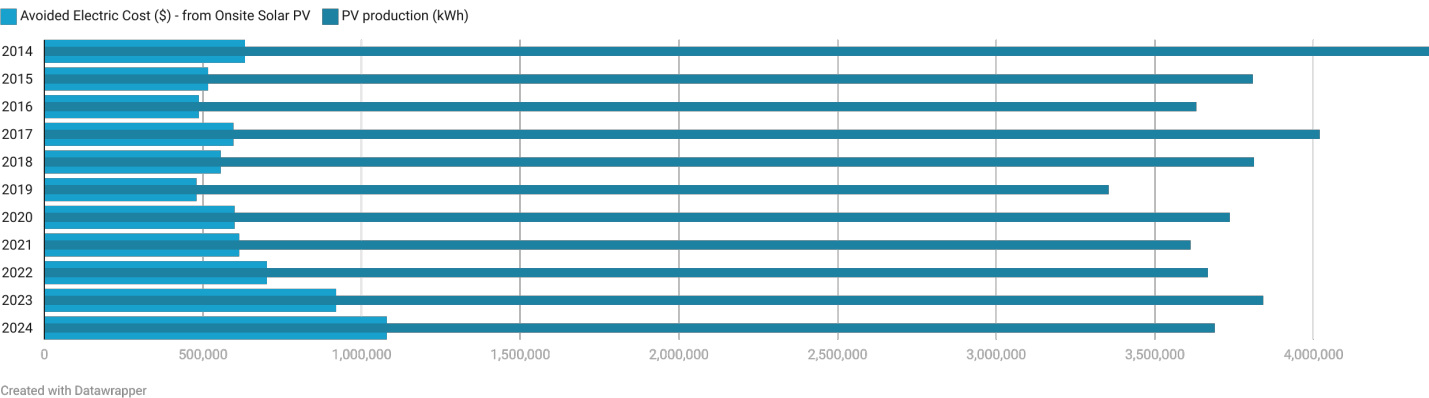
The 2024-25 budget was projected to be 15% higher than the year prior, accounting for all the known unit price increases. However, many utilities often increase their rates after our budget is set, so regular monitoring throughout the year is prudent.

4CD Utility Unit Costs by Fiscal Year



As more campuses electrify, it will be important to stabilize electricity unit costs, as they will become an even larger portion of the budget. This can be done by adding more solar PV panels to the campuses, and by engaging in long-term agreements with clean, green electricity providers. The electric heat pump technology is three to five times more efficient than gas fired equipment, so this helps minimize the increase in electricity usage and cost as well. This year we generated 19% of our electricity on campus from our existing PV, which means we are able to have 19% of our electricity without paying for it. The value of that electricity usage, this year alone, is \$1,011,000 and represents Districtwide avoided utility costs. If we were able to completely offset our electricity costs by generating all our electricity on campus, we could eliminate approximately \$5 million a year in utility costs. Our FP electrification study projects future electric usage, after we electrify our campuses, and helps us to refine and manage our future utility costs by proposing additional future solar PV on our campuses.

Existing Campus Solar PV Generation & Avoided Cost



Campus Sustainability Updates



The Commons



Contra Costa College

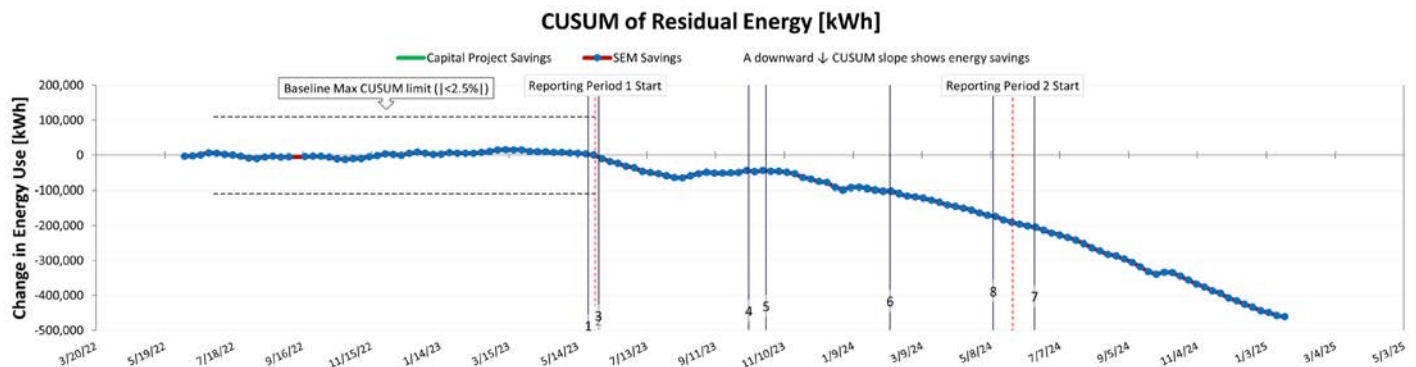


The 2024-25 academic year marked several steps forward in multiple sustainability goal areas at CCC, including energy savings, zero waste, sustainability education, and food systems. Collaborations with the CCC Sustainability Committee members and Student Life representatives have made these accomplishments possible.

A. Energy: Strategic Summer Friday Shutdowns & CCC's Participation in Higher Education Efficiency Performance (HEEP) Program

Because the daily process of keeping buildings illuminated and thermally comfortable make up a large portion of total campus energy use – and associated GHG emissions – strategically shutting down buildings during non-occupancy periods like college breaks proved to be a prudent approach in not only reducing energy usage and costs but also contributing toward reduced GHG emissions. Summer class schedules were reviewed and building HVAC schedules during these periods were adjusted. As a result of collaboration, CCC practiced strategic building shutdowns on Fridays in summer of 2024.

Furthermore, 2024-25 marked CCC's continued participation in the statewide HEEP Program, which focuses on providing campus-specific recommendations for energy efficiency and conservation opportunities. Through this program, CCC has adjusted building operating schedules, heating and cooling control sequences, and thermostat setpoints to improve comfort, resulting in electric and gas savings, and thus cost savings. In its first year, CCC implemented energy efficiency strategies through the HEEP program that cumulatively saved the campus 190,075 kWh in electricity or \$55,500. Currently in its second year, CCC has saved an additional 141,295 kWh or \$41,000 in savings. Natural gas usage also dropped, resulting in additional annual cost savings.



B. Zero Waste: Campus Waste Sorting Education, Collaboration with Student Ambassadors, Green Thread Exchange Planning, Compostable To-Go Containers in Cafeteria

Several collaborations to provide waste sorting education to students took place at CCC this year. CCC Welcome Week included an interactive waste sorting game table for students to practice sorting sample waste items into compost, recycling, and landfill bins for a prize. A similar waste sorting game table was set up and led by COPA club members for Earth Day in April 2025.

CCC's Student Ambassadors received a training in Fall 2024 on waste sorting skills, including how to teach other students. Student Ambassadors Pamela Fuentes and Yailin Sanchez Gonzalez served as CCC student representatives on the 4CD Districtwide Sustainability Committee in the 2024-25 academic year, working to support further waste sorting education efforts on campus.

Other ongoing zero waste efforts include planning for a Green Thread Exchange event, designed to give campus community members the opportunity to drop off and pick up new clothes for free. Through new leases for food vendors in the cafeteria, we were able to transition to compostable to-go containers.

C. Curriculum: Educational Welcome Week and Earth Day

Educational opportunities related to sustainability emerged throughout the year at CCC. During CCC's Welcome Week in Fall 2024 and Earth Day in Spring 2025, students had the opportunity to play a tabletop waste sorting game for a prize. These provided fun opportunities to practice sorting different types of waste items into compost, recycling, and landfill bins, as well as to learn how to safely dispose of hazardous waste materials like batteries, lightbulbs, and paint at hazardous waste collection facilities.

CCC's Earth Day Celebration in April also featured many local Contra Costa County guest vendors providing educational opportunities for the campus community to learn about sustainability topics like waste sorting, water, and energy. CCC also hosted a "Bike to Wherever" station for people biking to work/school.

D. Food Systems: New Campus Food Bank Lockers

In the 2024-25 school year, CCC signed a contract with the Food Bank of Contra Costa and Solano Counties to install refrigerated food lockers on campus. These lockers enable students to place an order and pick up fresh produce and other groceries right on campus, expanding food access on campus during times when the Food Pantry is closed.

CCC also has a culinary garden on campus, utilized by the Culinary Department to produce local fruits and vegetables on campus. This year, the department has worked to cultivate more vegetables from the campus garden.

E. Water: Leak Investigation

East Bay Municipal Utility District (EBMUD) in collaboration with CCC maintenance and irrigation staff as well as District sustainability team, identified approximately 60,000 gallon per day potable water leak on campus (\$1,200/day in costs). During spring break, the team identified a number of smaller leaks and one large leak on a valve that formerly serviced a now demolished building. EBMUD identified possible leak(s) based on an unusual consumption pattern that started in late August 2024. The methodology used to identify the source of continuous usage was visual inspection of all buildings and irrigation backflows followed by systematically turning off water valves on the campus until the meter indicated a reduced flow. The team was able to stop a large portion of the leakage temporarily while getting quotes from contractors to implement a permanent solution that will further reduce the leak. This took a great deal of planning and collaboration effort from everyone while creating substantial water and cost savings.



Diablo Valley College



DVC made strides across multiple 4CD sustainability goal areas in the 2024-25 academic year, including energy conservation, transportation, waste management, food systems, sustainability curriculum and student engagement. This was a result of leadership across multiple groups on campus, including the DVC Sustainability Committee, ASDVC Environmental Affairs Subcommittee, DVC Career and Transfer Center, DVC Food Services, DVC M&O, and many more campus sustainability leaders.

A. Energy: Updates to Building Operating Hours and DVC's Participation in HEEP Program

Keeping buildings illuminated and thermally comfortable uses most of the campus energy. Strategically shutting down buildings or portions thereof, during non-occupied periods like college breaks, can significantly reduce energy, related emissions and utility costs. This year, the sustainability team looked at summer class schedules and tailored recommendations for adjusting building HVAC schedules during these periods to take advantage of those savings. Because of the many activities spread across buildings, and older controls, we were unable to fully implement strategic building shutdowns on Fridays during Summer 2024. But leadership is looking at class schedules and event planning for Summer of 2025, planning to shut portions of building off to save energy, emissions and costs.

Furthermore, 2024-25 marked DVC's continued participation in the statewide HEEP Program, much like CCC and LMC. Through this program, DVC has adjusted building operating schedules, a heating and cooling control sequences in buildings, and thermostat setpoints to improve comfort.

B. Transportation

a. New BikeLink Lockers on Campus

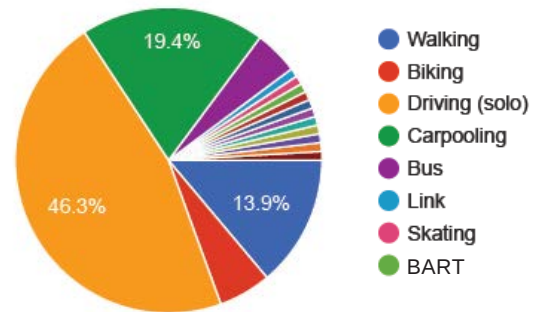
In August 2024, DVC welcomed four new secure BikeLink bike lockers on campus, courtesy of a grant received by the countywide 511 Contra Costa program. The lockers are intended to encourage more people to bike or scooter to campus by providing more secure options for storing their transportation devices. Each BikeLink locker features two storage spaces for bikes or scooters, an interior camera for security, and connectivity for riders to lock and unlock the units through the BikeLink app. Riders can download the BikeLink app or get a BikeLink card to use at any of the BikeLink lockers on campus, which are located near the BWL Building and in Lot 3 between the library and ET Building. These lockers provide eight new storage spaces total across campus, and are available for use by all bikers at a rate of five cents per hour.



b. Student Survey on Transportation

Members of the ASDVC Environmental Affairs Subcommittee conducted a brief student survey in February 2025 to learn about student preferences between compostable versus plastic take-out containers at the cafeteria, and what transportation modes students use to get to campus. A total of 108 students filled out the survey. When asked how they typically get to campus, the most common answers from respondents were driving alone, carpooling and walking. In total, nearly 54% – or most of the respondents – use alternative forms of transportation, which significantly helps reduce GHG emissions. The chart below shows the survey results.

How do you get to campus everyday?
(108 responses)



c. All-Electric DSS Vehicle

DVC's campus fleet welcomed a new zero-emissions EV in 2024, with Disability Support Services (DSS) replacing one of their old gasoline-powered shuttles. This shuttle, shown below, protects campus air quality while providing mobility services to eligible students. Swaps like this one support 4CD's Districtwide sustainability goal of gradually transitioning to a zero-emission vehicle fleet.



C. Zero Waste

a. DVC Begins Edible Food Recovery with White Pony Express

To help reduce campus food waste left over from campus dining services and events, in summer 2024 DVC signed a contract for edible food recovery with White Pony Express, a local nonprofit organization focused on rescuing surplus uneaten food and redistributing it in 24 hours to local recipients. This partnership provides support to people experiencing food insecurity, prevents leftover food from going to waste, and eliminates potential GHG emissions caused by discarded food decomposing in landfills. Edible food recovery is also part of California's SB-1383 law, which focuses on accurately sorting organic waste to compost and reducing the amount of food discarded to landfill. Besides this contract, DVC also provides free food resources to students through the Pleasant Hill Campus food pantry (in Student Union Room 101) and free produce market, and the San Ramon Campus Food Program and Basic Needs Nook (in W-125).

b. Campus Waste Bin Inventory and Centralized Bin Recommendations Complete

This year marked the completion of a campus-wide waste bin inventory project that began in the 2023-24 school year by Abby Halverstadt, DVC's first Zero Waste Analysis Intern. The project entailed mapping the location of indoor and outdoor trash, recycling, and compost bins across campus, and providing recommendations for more conveniently located, streamlined, and centralized waste bin set-ups. Sustainability Coordinator Moises Rocha continued DVC's bin inventory project this school year and brought it to completion in December 2024, providing building-specific recommendations for updating bin configurations to make recycling and compost bins more readily available across campus, while streamlining bin quantities to reduce overall custodial time spent on waste collection and disposal. These recommendations were presented to DVC Custodial Manager Lonnie Sampson, for review and implementation.

c. Waste Audits at Pleasant Hill and San Ramon Campuses

The 2024-25 school year included several waste audits at the DVC Pleasant Hill campus as part of the Zero Waste Analysis internship, as well as the first waste audit at the San Ramon Campus Learning Commons. All were intended to help everyone understand waste sorting accuracy. ASDVC supported these audits by recruiting volunteers for two Pleasant Hill campus audits, and Custodial Manager Lonnie Sampson supported the waste audit at the San Ramon Campus.



d. Fall and Spring Clothing Swaps Hosted by Career and Transfer Center

The DVC Career and Transfer Center and DVC Sustainability Committee collaborated to host two clothing swaps this year, pictured here, one in November 2024 and another in February 2025, with support from ASDVC representatives. All students, staff, and faculty were welcome to drop off clothes or pick up clothes for free during the events.



The Career and Transfer Center also featured a free professional attire section, as well as a game challenging participants to tie neckties and win free pies. This event offers the DVC community opportunities to find new clothes for free, promotes a circular economy on campus, and reduces clothing waste encouraged by fast fashion, since clothes donated to major donation chains sometimes end up disposed in landfill. In total, these two events helped participants donate 1,032 pounds of clothes and take home 749 pounds of clothes!



e. Compostable Takeout Container Pilot and Student Survey

Diners at the San Ramon Campus Learning Commons may have noticed compostable containers in the food service line during Spring 2025. This is a pilot program for compostable takeout containers, resulting from a collaboration between the DVC Food Services Manager David Craib, DVC Sustainability Committee Chair David Hagerty, and Sustainability Coordinator Moises Rocha. Members of the ASDVC Environmental Affairs Subcommittee also conducted a brief student survey in February 2025 to understand student preferences between compostable versus plastic take-out containers at the cafeteria. Survey results revealed that DVC students preferred compostable options for most takeout containers presented in the survey, and ASDVC Environmental Affairs Subcommittee members voiced their support for compostable takeout containers at DVC Sustainability Committee meetings.

D. Curriculum: Faculty Workshop & DVC Sustainability Committee Focus

The DVC Sustainability Committee chose 4CD's Sustainability Goal 4: Curriculum as a main focus for this year's committee efforts. A shared drive was created for collecting sustainable curriculum ideas, and a workshop, co-hosted by Jamie Nakama and Marci Cole Ekberg, was organized in August 2024 to showcase examples of how DVC faculty can incorporate sustainability topics and examples into their courses. Lastly, the 2025 DVC Earth Day celebration was designed with a focus on highlighting DVC educational departments that incorporate sustainability into their curriculum.

E. Food Systems: New Food Recovery Contract, San Ramon Campus Food Bank Lockers

As mentioned above, DVC contracted with White Pony Express in the summer of 2024 to begin recovering edible leftover food on campus, for delivery to local community members in need. In addition to reducing waste, this partnership promotes local food distribution between DVC and its surrounding communities. 2024 also featured the installation of new refrigerated food lockers at SRC, pictured below, outside of the Learning Center, in partnership with the Food Bank of Contra Costa and Solano. These food lockers help provide access to local groceries for students as a part of the Student Services and Basic Needs office at SRC. A similar set of food lockers are slated for installation at the Pleasant Hill campus.



Los Medanos College



The 2024-25 academic year marked several steps forward in multiple sustainability goal areas at LMC, including energy savings, zero waste, sustainability education, and food systems. Collaborations with the LMC Sustainability Community, Student Life, Hyphae Club and the Nature Preserve have made these accomplishments possible.

A. Energy: Building Automation Systems Upgrades and Updates to Building Operating Hours and LMC's Participation in the HEEP Program

Keeping buildings illuminated and thermally comfortable uses the majority of campus energy. Strategically shutting down buildings or portions thereof, during non-occupied periods like college breaks, can help 4CD significantly reduce energy, related emissions and utility costs. This year, the sustainability team looked at summer class schedules and tailored recommendations for adjusting building HVAC schedules during these periods to take advantage of those savings. Because of the many activities spread across buildings, and older controls, we were unable to practice strategic building shutdowns on Fridays during Summer 2024. But new building automation controls being implemented this year, will allow more opportunities for savings implementation in the summer of 2025 and beyond.

Furthermore, LMC also continued to actively participate in the statewide HEEP Program. Through this program, LMC has adjusted building operating schedules, heating and cooling control sequences in buildings, and thermostat setpoints to improve comfort and efficiency.

Building automation systems were upgraded in the Science building and are nearly complete in the Student Services and Central Plant providing heating/cooling to the entire College Complex. The same upgrades are being planned for the Math and Library buildings this summer. These upgrades provide for increased comfort, better indoor air quality and large energy savings by allowing systems to automatically shut down or reset based on occupancy and user requests.

Brentwood Center is welcoming a 300kW solar PV system in summer of 2025, helping to offset purchased electricity, generating clean, renewable energy and reducing GHG emissions. A battery system is also being installed to allow the servers to operate during utility power outages.

B. Zero Waste: New Compostable Dining Ware and Food Recovery

Students, staff, and faculty continue to learn how to sort their waste into landfill, recycling and compost bins. Welcome Week provided an opportunity for the sustainability team to train additional people at Brentwood and LMC. The cafeteria vendor has begun using compostable to-go containers, reducing our landfill waste and diverting more to the compost stream.

To help reduce campus food waste left over from campus dining services and events, in fall 2024, LMC signed a contract for edible food recovery with White Pony Express, a local nonprofit organization focused on rescuing surplus uneaten food and redistributing it in 24 hours to local recipients. This partnership provides support to people experiencing food insecurity, stops leftover food from going to waste, and eliminates potential GHG emissions caused by discarded food decomposing in landfills. Edible food recovery is also part of California's SB-1383 law, which focuses on accurately sorting organic waste to compost and reducing the amount of food discarded to landfill. 27 pounds of food was recovered during the first pick-up in February. Besides this contract, LMC also provides food assistance to students through the LMC [Marketplace](#), an on-campus distribution center.



C. Water: Lake Cleanup and Partnership

LMC's M&O team partnered with the Rotaract Club on two separate occasions (September 6, 2024, and October 8, 2024). Approximately 10 students participated at each event, contributing four hours to cleaning the lake and surrounding areas, removing trash and debris helping to keep our waterways clean and debris-free.



D. Food Systems: New Campus Food Bank Lockers

In the 2024-25 school year, LMC signed a contract with the Food Bank of Contra Costa and Solano Counties to install refrigerated food lockers on campus. These lockers enable students to place, order and pick up fresh produce and other groceries right on campus, expanding food access on campus during times when the Food Pantry is closed.



Glossary of Terms

BAAQMD

The Bay Area Air Quality Management District (BAAQMD) is a public agency that regulates the stationary sources of air pollution in the nine counties of California's San Francisco Bay Area: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma.

Backcasting

Backcasting is central to the Framework for Strategic Sustainable Development, which is a framework that has helped hundreds of different organizations around the world integrate sustainable development into their strategic planning and create long lasting transformative change. Backcasting begins with the end goal in mind, moves backwards from the vision to the present state, and then moves step-by-step toward the vision, using sustainability principles.

Carbon dioxide (CO₂)

Carbon dioxide enters the atmosphere through burning fossil fuels (coal, natural gas, and oil), solid waste, trees and other biological materials, and because of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle. Carbon dioxide emissions are the primary driver of global climate change. It is widely recognized that to avoid the worst impacts of climate change, the world needs to urgently reduce emissions.

Carbon Neutral

Carbon Neutral is an emerging definition that relates to measuring, reducing and offsetting carbon energy used by either a building or an organization. A carbon neutral building is one where the design, construction, and operations do not contribute to GHG emissions that cause climate change.

CCTA

The Contra Costa Transportation Authority works to plan, fund, and implement innovative transit programs that strengthen our diverse communities and improve the lives of residents. 511 Contra Costa is program of CCTA.

Compost

This is organic matter which has been decomposed in a process called composting. This process recycles various organic materials otherwise regarded as waste products and produces a soil conditioner. Compost is rich in nutrients. Sometimes it is referred to as "organics" on waste bin signs.

Decarbonization

Decarbonization has been simplified by many in our industry, by using the term electrification. This term applies to part of the definition. Yet, the second part of decarbonization will require absorbing carbon from the atmosphere by capturing emissions and enhancing carbon storage in places such as agricultural lands, forests and possibly deep in the ground in depleted oil and gas reservoirs.

Electrification

Electrification, in the context of this report, refers to changing things which use fossil fuel as their power source to instead use electricity as their power source. For example, a gas fired boiler could be electrified by changing it from gas to an electric heat pump boiler. Or a gasoline powered vehicle could be changed to an EV. It assumes the electric grid will be shifted to 100% renewable, clean, green power, that emits zero GHG emissions.

Energy Usage Index (EUI) or Energy Usage Intensity

EUI is a common performance factor that can be compared against benchmarks in the same climate and in the same type of usage (college/university, office buildings, and so on). EUI is expressed as energy per square foot per year. It is calculated by dividing the total energy consumed by the building in one year (measured in kBtu) by the total gross floor area of the building/campus.

Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

EV Charge Program

PG&E launched the EV Charge Network program to install 7,500 EV chargers at multi-unit dwellings and workplaces throughout its service territory, including sites in disadvantaged communities. This program provides an opportunity to contribute to California's clean energy goals while also investing in your property.

GHG

Any of various gaseous compounds (such as carbon dioxide or methane) that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect. In this report we are using it as a synonym for CO₂ and methane emissions.

LEED

LEED is the most widely used green building rating system in the world. Available for all building types, LEED provides a framework for healthy, highly efficient, and cost-saving green buildings.

Methane (CH₄)

Methane is emitted during the production, transport and burning of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Photovoltaic (PV)

Solar cells, also called PV cells, convert sunlight directly into electricity. PVs get their name from the process of converting light (photons) to electricity (voltage), which is called the photovoltaic effect. Solar PV has specific advantages as an energy source. Once installed, its operation generates no pollution and no GHG emissions, it shows simple scalability in respect of power needs and silicon is largely available in the Earth's crust.

Renewable Energy

Renewable energy is energy that is collected from renewable resources, which are naturally replenished on a human time scale, including carbon neutral sources like sunlight, wind, rain, tides, waves, and geothermal heat. Renewable energy does not emit GHG emissions while generating/producing energy. The term often also encompasses biomass as well, whose carbon neutral status is under debate.

Weather Normalized

This is a process that measures the impact of weather on energy consumption. Because weather patterns vary widely day-to-day and year-to-year, weather for a given season may be colder or warmer. Energy used in keeping warm is directly dependent on how cold it is. Comparing the weather or energy consumption from one year to the next would provide only the change between those years. However, when energy consumption is "Weather Normalized," energy consumption is compared over a normal weather period. Weather normalization adjusts energy usage so it can be compared to energy usage in other years over a longer period.

WELL

This is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort and mind.

ZNE

The State of California defines ZNE for state buildings as follows: ZNE Source – Energy Efficient building that produces as much clean renewable energy as it consumes over the course of a year, when accounted for at the energy generation source. Other terms used for this include: zero-energy building (ZE) and net-zero energy building (NZEB). A net zero building is a building with ZNE consumption, meaning the total amount of energy used by the building on an annual basis is equal to the amount of renewable energy created on the site.

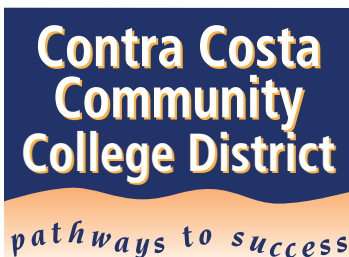
Additional Resources

- [CA Community Colleges Climate Action and Sustainability Goals](#)
- [CA Community Colleges BOG Climate Action and Sustainability Framework](#)
- [CCC Sustainability Committee](#)
- [DVC Sustainability Committee and DVC Sustainability Page \(coming soon!\)](#)
- [LMC Sustainability Committee](#)
- [4CD Facilities Planning, Sustainability Page \(coming soon!\)](#)



www.4cd.edu

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The Contra Costa Community College District is committed to equal opportunity in educational programs, employment, and campus life. 4CD does not discriminate on the basis of age, ancestry, color, disability, gender, marital status, national origin, parental status, race, religion, sexual orientation, or veteran status in any access to and treatment in college programs, activities, and application for employment.

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