

2022 4CD Districtwide Energy & Sustainability Goals

On November 9th, 2022, the Contra Costa Community College Governing Board adopted Board Resolution 20B in support of Sustainability and Climate Action. This resolution adopted nine sustainability goals, which are in support of the 2019 California Community Colleges Board of Governors (BOG) Climate Change and Sustainability Policy and in support of the 2021 California Community Colleges Board of Governors (BOG) Climate Action and Sustainability Framework. The Framework refined the 2019 policy to reach further as well as extended the end target year by five years, putting it out to 2035. This framework aligns with current state policies and includes comprehensive goals for establishing benchmarks and meeting targets for reductions in greenhouse gas emissions, energy efficiency, water usage reduction, waste, transportation, food systems, and sustainable purchasing.

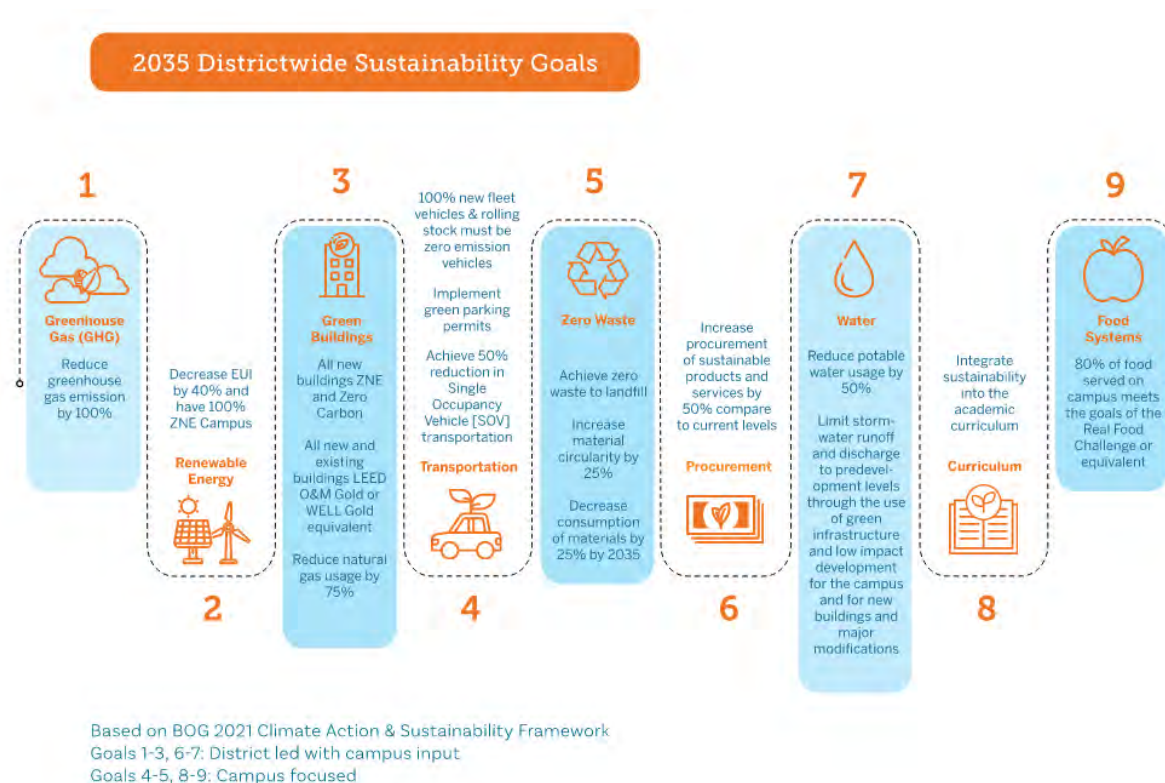
The 4CD resolution forms a basis for future planning of needed infrastructure upgrades as well as future building retrofits in our long-range master plans, and serves as a guidepost for fine tuning campus operations. Presently, and for the first time, the State Chancellor's Office Scheduled Maintenance 2022/23 funding year includes an energy efficiency projects category, signaling a movement in the State's desire to include funding for these goals.

All new major construction projects shall be designed and constructed to be Zero Net Energy, meeting the above goals and meeting building codes. 4CD has already designed several buildings to be ZNE Ready and are certifying some to be ZNE, using existing onsite PV. Combining this precedence with the shift in building codes to ZNE, we ask that all major construction projects go to electric heating/cooling and all electric heating hot water systems, combined with ZNE.

4CD has continued to improve all facilities through such sustainable projects as LED lighting upgrades, building automation/climate control systems, water conservation projects throughout all campuses and reducing utility costs and reliance on fossil fuels by investing in renewable energy sources across 4CD. Project teams should be innovative at combining projects and technology that may result in lower total cost of ownership, or balanced total costs (e.g. updating to LED lighting when replacing an HVAC system can result in smaller size/right sizing HVAC equipment)

Following is a graphical summary of the 4CD Districtwide Sustainability Goals:

4CD Districtwide Energy & Sustainability Goals



The table below shows 4CD goals in more detail, with key intermediate goals and some of the steps required to achieve the 2035 goals, as set forth in the BOG 2021 Framework.

Categories	Intermediate Goals by 2025	Intermediate Goals by 2030	Goals by 2035
#1: Greenhouse Gas (GHG)	Establish baseline/benchmark greenhouse gas emissions. Conduct emissions inventory and create a Climate Action Plan.	Reduce GHG by 75% below the baseline.	Reduce GHG by 100% below the baseline.
#2: Renewable Energy	Establish Campus wide EUI score Conduct Effective Useful Life (EUL) analysis of all gas using appliances and systems Plan for electrification of systems with EUL of less than 10 years	Decrease EUI by 25% Produce or procure 75% of electrical consumption using renewable energy	Decrease EUI by 40% ZNE Campus

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Categories	Intermediate Goals by 2025	Intermediate Goals by 2030	Goals by 2035
#3: Green Building and ZNE	<p>Benchmark EUI for each building</p> <p>Develop ZNE and campus electrification strategy</p> <p>Optionally conduct LEED or WELL assessments of existing buildings.</p>	<p>All new buildings LEED or WELL Gold</p> <p>Reduce natural gas usage by 30%.</p>	<p>All new buildings ZNE and Zero Carbon</p> <p>All existing buildings LEED O&M Gold or WELL Gold equivalent</p> <p>Reduce natural gas usage by 75%.</p>
#4: Transportation	<p>Conduct accounting and conditions assessment of fleet vehicles; assess remainder rolling stock for electrification</p> <p>Develop EV charging infrastructure to encourage faculty, staff and students to use EVs</p> <p>Promote accessible shared transport methods</p> <p>Make pedestrian and bicycle assess improvements by 2025.</p>	<p>50% of new fleet vehicles must be ZE vehicles</p> <p>50% of rolling stock must be ZE</p> <p>Implement green parking permits by 2030</p>	<p>100% of new fleet vehicles must be ZE vehicles</p> <p>100% of rolling stock must be ZE</p> <p>Achieve 50% reduction in Single Occupant Vehicle (SOV) transportation</p>
#5: Zero Waste	<p>Conduct waste categorization assessment</p> <p>Benchmark and comply with T14, Division 2, Chapter 5</p> <p>Benchmark and comply with Title 14, CCR Division 7</p> <p>Develop a total material consumption benchmark</p> <p>Conduct an AB341 compliance assessment</p> <p>Centralize reporting for waste and resource recovery</p>	<p>Achieve zero waste to landfill</p> <p>Conduct a circularity analysis</p> <p>Reduce material consumption by 10%</p>	<p>Maintain zero waste to landfill.</p> <p>Increase material circularity by 25%</p> <p>Decrease consumption of materials by 25% by 2035</p>

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Categories	Intermediate Goals by 2025	Intermediate Goals by 2030	Goals by 2035
#6: Procurement	<p>Benchmark sustainability of existing products and services</p> <p>Adopt sustainable procurement policy and administrative procedure</p> <p>Purchase environmentally preferable electronics products.</p>	<p>Increase procurement of sustainable products and services by 25%</p>	<p>Increase procurement of sustainable products and services by 50%</p>
#7: Water	<p>Develop local benchmarks for potable water usage</p> <p>Identify non-potable water resources</p> <p>Create landscape zoning map and irrigation metering strategy</p> <p>Adopt CCC Model Stormwater Management Program practices</p>	<p>Reduce potable water usage by 25%</p> <p>Install meters on all landscape irrigation systems of 2500 SF or more (unless using local or municipal reclaimed water)</p> <p>Landscape plantings are 90% native</p> <p>Irrigated turf cannot exceed 50% of landscaped areas on campus</p> <p>Follow Municipal Separate Storm Sewer Systems (MS4) requirements</p>	<p>Reduce potable water usage by 50%</p> <p>Limit stormwater runoff and discharge to predevelopment levels for temperature, rate, volume and duration of flow through the use of green infrastructure and low impact development for the campus AND for new buildings and major modifications</p>
#8: Curriculum	<p>Seek to further integrate sustainability into the academic curriculum. Will solicit and evaluate feedback from faculty, staff, students and community organizations to monitor the effects of sustainability and energy conservation efforts on instructional programs and the environment.</p>		
#9: Food Systems	<p>Campus food service organizations track their sustainable food purchases.</p> <p>See Real Food Challenge (www.realfoodchallenge.org/resources/real-food-resources/) guidelines, or equivalent, with consideration to campus-requested improvements</p>	<p>Increase sustainable food purchases to 20% of total food budget</p>	<p>80% of food served on campus meets the goals of the Real Food Challenge or equivalent</p>

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Below are references to supporting documents used to develop the 4CD Energy and Sustainability Goals:

[1122-20B-FP Resolution in Support of Sustainability & Climate Action](#) – This is the 4CD board resolution adopted in November of 2022.

[2019 Board of Governors Item Resolution on Climate Change Goals & Policy](#) – This is the California Community Colleges Board of Governor's 2019 Resolution adopting the Climate Change Goals and Policy.

[2021 BOG Climate Action and Sustainability Framework](#) – This is the California Community Colleges Board of Governor's 2021 Climate Action and Sustainability Framework which provides an update to the 2019 goals and policy as well as a framework to achieve the 2021 updated goals.