



CETWAC REPORT RECOMMENDATIONS

Washington's community and technical college (CTC) system is in a unique position to help the state create, grow, and retrain the workforce necessary to support the rapidly changing clean energy sector. The 34 community and technical colleges offer a vast array of programs in communities across the state to help people of all ages and backgrounds get the education and training they need for well-paying jobs and career mobility. In 2024-25, more than 307,000 students enrolled in community and technical colleges, making it the largest, most accessible system of public postsecondary education in Washington. More than half of those students were enrolled in workforce training: 120,892 students enrolled in professional-technical education programs, 12,161 in apprenticeship related supplemental instruction, and 10,700 in the Worker Retraining program.

Currently, Washington's community and technical colleges offer more than 850 certificate, degree, and apprenticeship-related programs that support the critical sectors of the state's clean energy economy in areas like transportation, electricity, building, fuels, and similar programs. The system's commitment to equity means students from low-income households, students of color, and students from communities most impacted by climate change can access training that helps the state meet its climate goals while advancing equity as these students and their families participate and benefit fully in the transition to a net zero economy.

While each college is independent, Washington's CTCs frequently work together to meet statewide needs with localized solutions. With investment and statewide coordination, their programs, faculty expertise, wraparound student support, financial aid, and structures for employer engagement and statewide coordination can be leveraged to help meet the state's climate and workforce development goals and the needs of the state's clean energy sector.

The clean energy sector spans numerous subsectors including alternative fuels, automotive technologies, alternative power generation and transmission, construction, and manufacturing. By policy, Washington has focused on industries with the highest carbon emissions that are easiest to transform: fossil-fueled generation, transportation, and manufacturing. This sector is characterized by transforming a broad set of professional-technical occupations, and by extension, the programs that prepare individuals for these jobs.

Currently, most job growth within the sector results from innovation within existing industries and occupations, rather than creating whole new ones. The college response reflects this trend. Colleges adapt to industry changes by updating existing programs first, adding electives and short-term credentials to two-year and four-year programs until emerging technologies become commercially recognized and industry demand requires new programs be built.

Clean energy-related programs refer to programs wherein clean energy skills and content are taught. In a 2025 program inventory by the Pacific Northwest Center of Excellence for Clean Energy, most colleges (32 out of 34) offer programs related to this sector, including four applied bachelor's degrees. The 122 community and technical college programs that support this sector include:

- Apprenticeship related supplemental instruction programs: 14

- Electrical: 13
- Energy efficiency: 7
- Engineering related programs: 48
- EV/Auto: 11; 21 traditional auto/diesel (not included in total)
- Industrial: 6
- Mechatronics: 11
- Nuclear: 3
- Trades: 9 (includes HVAC)

In May 2025, SBCTC conducted a study on [Washington's Community and Technical Colleges and the Clean Energy Sector, Opportunities and Needs](#). Through a systemwide inventory, survey, and focus groups, found community and technical college programs are highly responsive to changes in these sectors. Sixty-seven percent of faculty and 64% of dean/administrators' survey respondents representing 25 colleges reported recently making changes to their clean energy-related programs. These changes included adding new courses like EV, purchasing new equipment for labs, implementing industry specific requirements into programs, building short-term certificates, responding to regulatory changes, and closing programs. Sixty-eight percent of respondents also stated that additional changes needed to be made to their clean energy-related programs.

Challenges identified in increasing college responsiveness included gauging industry and student interest, finding resources to support program development, finding and retaining skilled faculty, and obtaining usable equipment and trainers to keep pace with the latest technology and technical training.

To support robust implementation of state policy to impact Washington's climate goals, the community and technical college system will need support and investment. The report cited above outlines the current state of clean energy-related programs in Washington. It includes recommendations for how the state's community and technical colleges can be supported and leveraged to ensure a sufficiently skilled workforce for the sector's growth. Among the key themes are the need for ongoing, flexible funding to support growth in rapidly evolving clean energy programming and increased support for statewide coordination to streamline and reduce the cost of program innovation.

The community and technical college system has a century of experience in career connected-education and workforce development. It is the largest and most accessible workforce education system that serves the most diverse populations. Investing in Washington's community and technical college system leverages the expertise, infrastructure, and access it offers for equitable and sustainable workforce development for the clean energy economy in every region of the state.